COLORADO
Department of Transportation
Region 2
Traffic & Safety – Access Permits

US-24G
City of Colorado Springs

November 24, 2025

Tamara Baxter, Planner (Tamara.Baxter@coloradosprings.gov)
City of Colorado Springs Planning and Community Development
30 South Nevada Ave, Suite 701
Colorado Springs, CO 80903

RE: BLR Village C
Land Use Plan (LUPL-25-0008 formerly PDZL-24-0005)
Zone Change (ZONE-25-0020 & ZONE-25-0021)

Tamara,

I am in receipt of a referral request for comments for BLR Village C Land Use Plan and Zone Change. The proposed subdivision of land is located west of US Highway 24, south of Woodmen Road, and east of the existing Banning Lewis Ranch Subdivision. The mixed-use development is proposed to consist of a public park, shopping center, fire and rescue station, an elementary school, a high school, and approximately 1,842 single-family detached homes. The development has the tax schedule No. 5300000659, 5300000542, 5300000653, 5300000654, 5313000103, and 5313000104 in El Paso County, Colorado.

Traffic

CDOT rejects the Traffic Impact Study for Banning Lewis Ranch Village C dated October 2024, revised March 2025 as it still shows a full movement intersection between Garrett Road and Falcon Highway. This does not match the Access Control Plan for US24G, nor does it acknowledge the comments from the letter dated November 1, 2024. Those comments are as follows:

- The TIS states that US-24 is assumed to be expanded to four through lanes north of Garrett Road and six through lanes south of Garrett Road by year 2044.
  - Do not assume that US-24 will have 6 lanes south of Garrett. Attached is the recent study of the US-24 in the area.
- The TIS states internal capture up to 2% in the AM peak and 8% in the PM peak.
  - Residential land use should not get the internal trip reduction.
- Extend the study area as shown in the attached document "CDOT Traffic Review".
- Eliminate #11 access to US-24 and instead connect Dublin Boulevard to Falcon Hwy (to become a 4-legged signalized intersection).
- Show all the Measures of Effectiveness (MOEs) **with** all the proposed improvements.

Refer to the attached documents, "US 24 Garrett Woodmen Traffic Report" and "CDOT Traffic Review", for further review details.

Address the above comments and resubmit documents as necessary. Provide all Synchro files with the next submittal.

Access

- The State Highway Access Code requires an access permit if the proposed vehicle volumes increase by 20 percent or more, the development is adjacent to the state highway, and/or significant changes in the use of the property are made which will affect access operation, traffic volume and/or vehicle type.

- Two CDOT Access Permits will be required for this development prior to the subdivision being finalized. The two locations are as follows:
  - Dublin Boulevard to US-24 connection
  - Stetson Hills Boulevard to US-24 connection
- The Development shall coordinate with the City of Colorado Springs to determine Permittee/ Applicant requirements for the CDOT Access Permit Applications.

Please contact me at (719) 248-0318 or teresa.guagliardo@state.co.us with any questions.

Sincerely,

Teresa Guagliardo
Teresa Guagliardo
CDOT R2 Access Manager

Xc: Anthony Ybarra, H20 SUB BLR Village 4 (aybarra@walton.com)
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Lancaster / file

US Highway 24 – Garrett Road to Woodmen Road

Traffic and Safety Report

Prepared by:

HDR

Prepared for:

COLORADO
Department of Transportation

August 13, 2024

Introduction and Project Background

In 2018, Colorado Department of Transportation (CDOT) conducted a Planning and Environmental Linkages (PEL) study to examine conditions and anticipated problem areas along the US 24 corridor in El Paso County, between Powers Boulevard (CO 21) and the Town of Ramah. The study identified a range of transportation improvements along the corridor and concluded that the area between Garrett Road and Woodmen Road is a high priority for additional lanes.

Entering the Corridor Improvement Design Phase for the section of US 24 between Garrett Road and Woodmen Road, CDOT is developing roadway design to enhance safety, improve operational performance, and reduce congestion. With traffic volumes forecasted to almost double due to sustained population and job growth in the region, roadway improvements include adding one new lane in each direction and a widened median in this area. The roadway design will include the improvement of several existing at grade intersections to accommodate the widened highway and is planned to implement access control consistent with the 2005 access control plan (ACP).

Purpose and Need

The purpose and need remain consistent with the 2018 PEL study. The purpose of transportation improvements is to improve regional and local mobility, improve existing and future corridor and intersection operations, and enhance safety for all users. The transportation improvements are needed to address:

Regional and Local Mobility: Drivers along the US 24 corridor experience substantial delays and queues during peak periods. Congestion is expected to worsen with longer delays, slower speeds, and unreliable travel times as traffic volumes increase with local and regional population and employment growth.

Traffic Operational Issues: Traffic operations along the US 24 corridor are inadequate with frequent interruptions in traffic flow due to intersection operations and turning traffic maneuvers with limited passing opportunities.

Safety Concerns: There is a higher-than-expected number of crashes along the US 24 corridor, particularly between Colorado Springs and Peyton. Predominant crash types are related to traffic congestion, intersection conflicts, and lack of recovery area.

Study Area Definition

The project study area is defined by the following limits. Traffic analysis limits are as illustrated in Figure 1:

- South limit: US 24 approximately 3,500 feet southwest of Garrett Road
- North limit: US 24 at Blue Gill Drive, approximately 2,300 feet northeast of Woodmen Road
- Approximately 500 feet or as needed for design tie-in at the following intersection streets:
    - Garrett Road
    - Falcon Highway
    - Meridian Road
    - Old Meridian Road
    - Woodmen Road

Existing Conditions

Existing Roadway Network

The study area is located to the east of Colorado Springs within El Paso County. Current land use south of Meridian Road is rural. North of Meridian Road, land use within the unincorporated community of Falcon is a mix of commercial, retail, and residential.

US 24 is a two-lane Principal Arterial with acceleration and deceleration lanes at intersections. A 55-mph speed limit is posted through the project limits and US 24 has an E-X (Expressway, Major Bypass) access control designation providing interregional, intra-regional, and intercity travel needs between Colorado Springs and the Eastern Plains. At Old Meridian Road, public access is right-in, right-out only and an emergency signal to provide full movement access for fire vehicles. The Falcon Fire Protection District station is located on Old Meridian Road immediately north of US 24. Approximately eight driveway accesses are located between Garrett Road and Falcon Highway.

Garrett Road and Falcon Highway are 45 mph two-lane roadways east of the project area that terminate into T-intersections at US 24. Meridian Road is a four-lane roadway that crosses US 24 with a 40-mph speed limit. Woodmen Road, providing access to north Colorado Springs, is a four-lane roadway with a 45-mph speed limit that approaches US 24 from the west and terminates in a T-intersection.

No pedestrian or bicycle facilities are provided directly on US 24. The Rock Island Regional Trail and Trailhead are located in Falcon at the northern end of the project area, with the trail extending northeast from Old Meridian Road

Existing Traffic Volumes

Traffic counts, vehicle classification, and travel speeds were collected over a 7-day period in early November 2023 at the following locations:

- US 24 south of Garrett Road
- US 24 between Garrett Road and Falcon Highway
- US 24 between Falcon Highway and Meridian Road
- US 24 north of Meridian Road
- Garrett Road east of US 24
- Falcon Highway east of US 24
- Meridian Road west of US 24
- Meridian Road east of US 24

Morning, mid-day, and evening peak period turning movement counts were collected at the following project intersections:

- US 24 and Garrett Road
- US 24 and Falcon Highway
- US 24 and Meridian Road

Additional daily traffic count data for US 24 north of Woodmen Road, and Woodmen Road west of US 24, was obtained from CDOT's MS2 database. Turning movement counts collected 2021 at the US 24 and Woodmen Road intersection were provided by CDOT.

Existing daily and peak period traffic volumes are shown in
Figure 2. Weekday traffic volume on US 24 averages 20,900 to 23,300 vehicles per day between Garrett Road and Meridian Road. US 24 traffic volumes between the Meridian Road and Woodmen Road intersections drop by almost 50 percent to 12,500 vehicles per day with a high volume of trips occurring to/from Meridian Road and Woodmen Road west of US 24. Meridian Road and Woodmen Road both carry in the region of 13,000 to 15,000 vehicles per day. Traffic volumes on US 24 increase again to 23,600 vehicles north of Woodmen Road. Garrett Road and Falcon Highway carry less than 3,000 vehicles per day. Due to the travel patterns around the Meridian Road and Woodmen Road intersections, turning movement volumes are high at the northeast-bound left turn from US 24 to Meridian Road and the southwest-bound right turn moment from Meridian Road onto US 24. Left and right turn volumes at Woodmen Road are also relatively high, exceeding 300 vehicles during the peak hours.

Existing Traffic Operations

Existing intersection traffic operations have been analyzed using Synchro v11.1 capacity analysis software. The following refinements were applied to the model to calibrate to real-world conditions:

- Peak hour traffic volumes
- Peak hour factors
- Truck volumes
- Traffic signal phasing and timing plans currently in operation
- Roadway network and geometric detail (including number of lanes, lane width, channelization, acceleration, deceleration, and turn lane lengths)
- Speed limits

Four primary metrics are used to determine conditions experienced by drivers: average delay per vehicle (time delay due to intersection operations), volume-to-capacity (v/c) ratios, and 95th percentile queue lengths. Delay is also represented in terms of a level-of-service measure (LOS) represented by a scale that assigns a letter grade assessing operations ranging from free flow (LOS A) to oversaturated (LOS F). An LOS rating of A through D is generally considered to reflect good vehicular operations in urban areas. The per-vehicle delay thresholds for each category at signalized intersections are:

LOS A: ≤10 seconds
LOS B: >10-20 seconds
LOS C: >20-35 seconds
LOS D: >35-55 seconds
LOS E: >55-80 seconds
LOS F: >80 seconds

Analysis results for existing intersection operations are provided in Table 1. Overall intersection conditions are generally acceptable during peak periods, operating at overall intersection level of service D or better. All major route US 24 turning movements operate at LOS D or better while some side street movements experience up to almost 80 seconds of average vehicle delay (LOS E). Some intersection movements operate with a volume-to-capacity ratio over 0.8 and are approaching or at capacity. These close-to-capacity movements include the eastbound Woodmen Road left turn (AM and PM peaks),

northbound US 24 left turn at Meridian Road (PM peak), southbound US 24 through movement at Falcon Highway (AM peak), and southbound US 24 through movement at Garrett Road (AM peak). Some movements, such as southbound US 24 at Falcon Highway, exhibit acceptable modeled delay but function at capacity (LOS D with v/c >0.95) with extensive queueing, and actual conditions experienced by the driver are worse than the delay/LOS results indicate. This is supported by field observations of extensive queues and conditions akin to LOS E at Falcon Highway (SB AM) and at Meridian Road (NB PM). Synchro output reports for existing conditions are provided in attachment A.

Current signal timings are configured to provide wide progression bands for southbound traffic of 68 seconds (49 percent of cycle length) and 49 seconds (35 percent of cycle) during the AM and PM peaks respectively. Northbound progression bands are just 16 seconds (11 percent of cycle). Due to traffic patterns north of Meridian Road, and a reduction in US 24 through traffic volume between Meridian Road and Woodmen Road, maintaining a wide progression band is less critical in this area. Traffic queues that exceed 500 feet occur northbound on US 24 at Garrett Road, Meridian Road, and Woodmen Road during the PM peak hour, and queues exceeding 1,500 feet are evident in the analysis southbound at Falcon Highway during the AM peak.

The analysis indicates that there is extensive peak period queueing and minimal additional capacity available for many intersection movements on this segment of US 24, supporting the PEL need for long term mobility improvements.

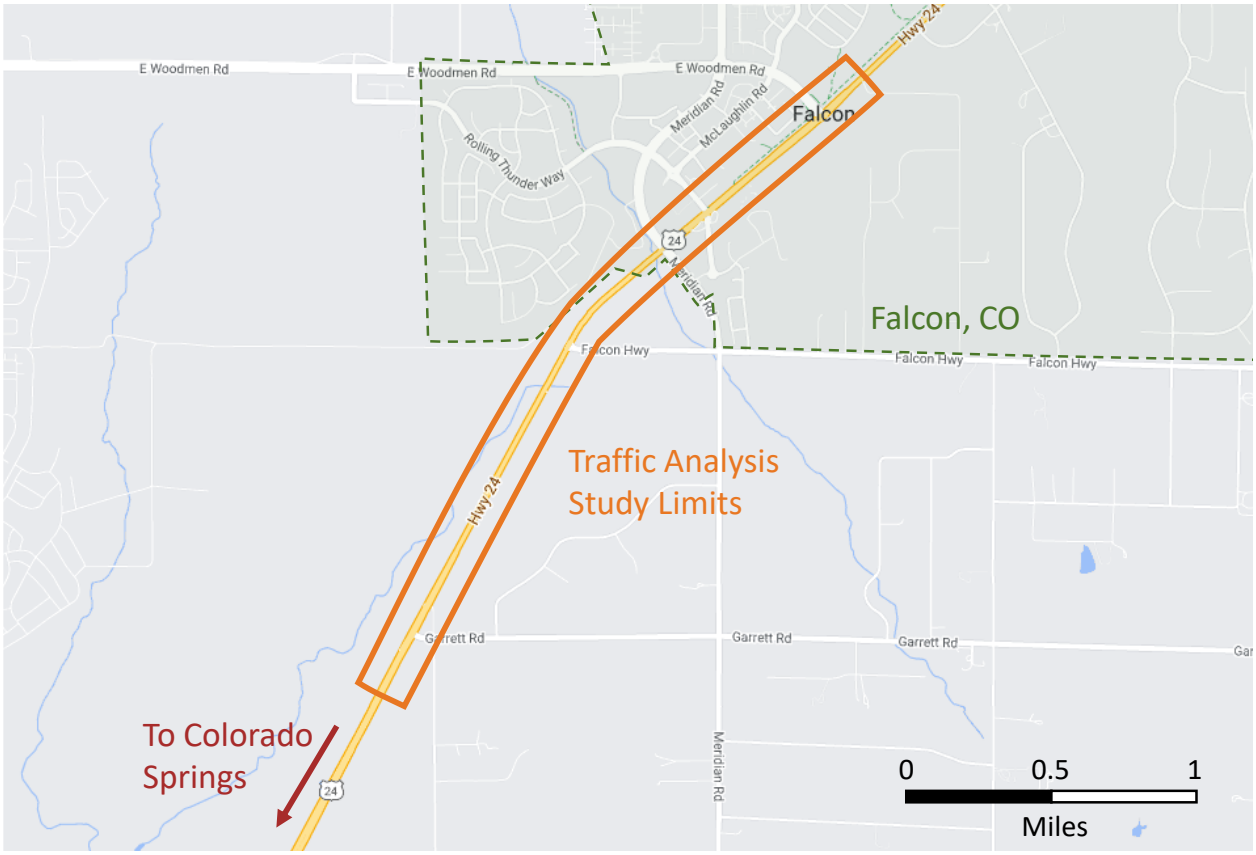


Figure 1: Traffic Analysis Study Limits

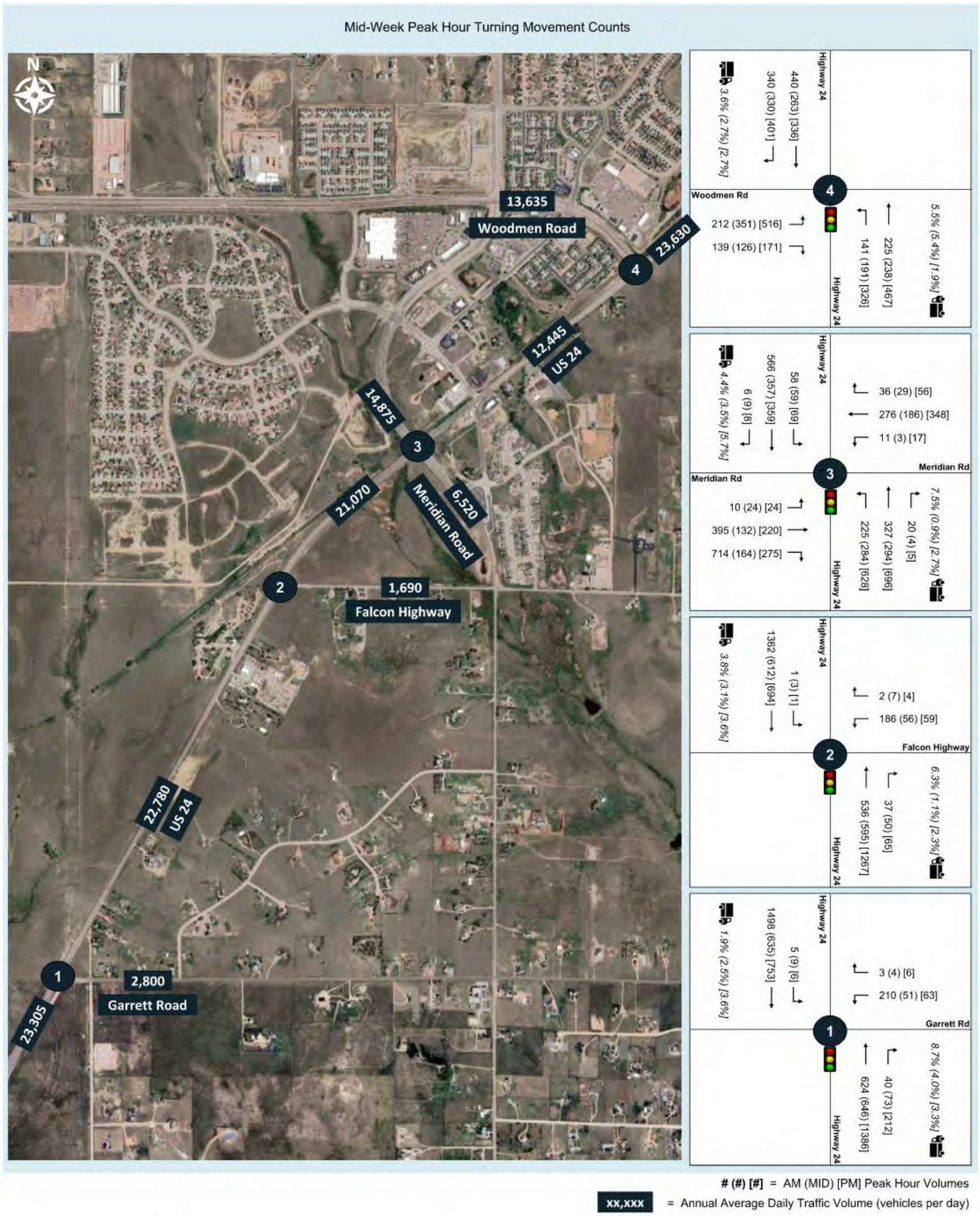


Figure 2: Existing Daily and Peak Hour Traffic

Table 1: Existing Traffic Operations Analysis Summary

Existing Conditions Synchro Analysis Summary												
Intersection	**Approach**	**Movement**	**2023 Intersection Summary - AM PEAK**					**2023 Intersection Summary - PM PEAK**				
			Volume (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue (feet)**	**Volume** (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue** (feet)
US 24 and Woodmen Road	Eastbound Woodmen Road	Left	212	72.7	E	0.79	281	516	58.5	E	**0.89**	594
		Right	139	0.1	A	0.10	0	171	0.2	A	0.12	0
		Approach	**351**	**44.0**	**D**	**-**	**-**	**687**	**44.0**	**D**	**-**	**-**
	Northeast-bound US 24	Left	141	8.9	A	0.14	43	326	20.2	C	0.38	167
		Through	225	11.6	B	0.18	227	467	31.0	C	0.51	590
		Approach	**366**	**10.6**	**B**	**-**	**-**	**793**	**26.5**	**C**	**-**	**-**
	Southwest-bound US 24	Through	440	15.3	B	0.42	344	336	35.4	D	0.48	387
		Right	340	0.4	A	0.24	0	401	0.4	A	0.27	0
		Approach	**780**	**8.8**	**A**	**-**	**-**	**737**	**16.3**	**B**	**-**	**-**
	Intersection		**1,131**	**17.8**	**B**	**-**	**-**	**1,424**	**28.7**	**C**	**-**	**-**
US 24 and Meridian Road	Southeast-bound Meridian Road	Left	10	39.2	D	0.06	23	24	48.0	D	0.22	40
		Through	395	65.2	E	0.77	252	220	58.0	E	0.46	156
		Right	714	1.1	A	0.50	0	275	0.3	A	0.20	0
		Approach	**1,119**	**24.1**	**C**	**-**	**-**	**519**	**26.9**	**C**	**-**	**-**
	Northwest-bound Meridian Road	Left Turn	11	40.6	D	0.10	23	17	44.9	D	0.11	35
		Through	276	60.4	E	0.66	172	348	76.1	E	**0.88**	242^
		Right	36	0.8	A	0.14	0	56	1.2	A	0.20	0
		Approach	**323**	**53.1**	**D**	**-**	**-**	**421**	**64.8**	**E**	**-**	**-**
	Northeast-bound US 24	Left	225	14.1	B	0.57	157	628	39.0	D	**0.96**	599^
		Through	327	13.9	B	0.34	345	696	29.7	C	0.68	865
		Right	20	0.0	A	0.02	0	5	0.0	A	0.00	0
		Approach	**572**	**13.5**	**B**	**-**	**-**	**1,329**	**34.0**	**C**	**-**	**-**
	Southwest-bound US 24	Left	58	3.9	A	0.09	14	69	7.9	A	0.22	12
		Through	566	15.0	B	0.57	584	259	19.5	B	0.52	255
		Right	6	0.0	A	0.01	0	8	0.0	A	0.01	0
		Approach	**630**	**13.9**	**B**	**-**	**-**	**336**	**17.3**	**B**	**-**	**-**
	Intersection		**2,072**	**23.7**	**C**	**-**	**-**	**1,276**	**36.0**	**D**	**-**	**-**
US 24 and Falcon Highway Road	Westbound Falcon Highway	Left	186	78.9	E	0.79	256	59	72.7	E	0.52	110
		Right	2					4				
		Approach	**188**	**78.9**	**E**	**-**	**-**	**63**	**72.7**	**E**	**-**	**-**
	Northeast-bound US 24	Through	536	8.6	A	0.45	197	1,267	11.3	B	**0.81**	686
		Right	37	1.5	A	0.04	9	65	0.2	A	0.05	1
		Approach	**573**	**8.2**	**A**	**-**	**-**	**1,332**	**10.8**	**B**	**-**	**-**
	Southwest-bound US 24	Left	1	3.0	A	0.01	1*	1	2.0	A	0.00	1
		Through	1,362	36.5	D	**0.98**	1621^	694	4.3	A	0.51	92
		Approach	**1,363**	**36.5**	**D**	**-**	**-**	**695**	**4.3**	**A**	**-**	**-**
	Intersection		**1,551**	**31.8**	**C**	**-**	**-**	**758**	**10.4**	**B**	**-**	**-**
US 24 and Garrett Road	Westbound Garrett Road	Left	210	78.7	E	**0.85**	284	63	73.2	E	0.60	106
		Right	3					6				
		Approach	**213**	**78.7**	**E**	-	-	**69**	**73.2**	**E**	**-**	**-**
	Northeast-bound US 24	Through	624	9.0	A	0.34	200	1,386	7.4	A	0.61	500
		Right	40					212				
		Approach	**664**	**9.0**	**A**	-	-	**1,598**	**7.4**	**A**	**-**	**-**
	Southwest-bound US 24	Left	5	5.0	A	0.01	1*	6	1.5	A	0.03	1
		Through	1,498	4.2	A	**0.84**	30*	753	0.7	A	0.45	0
		Approach	**1,503**	**4.2**	**A**	-	-	**759**	**0.7**	**A**	**-**	**-**
	Intersection		**1,716**	**13.5**	**B**	**-**	**-**	**828**	**7.8**	**A**	**-**	**-**

* Volume for 95th percentile queue is metered by upstream signal

^ 95th percentile volume exceeds capacity, queue may be longer due to unserved demand

Existing Safety Conditions

Crash data for the most recent five-year period (01-01-2018 to 12-31-2022) was provided by CDOT. The study extents include a 3-mile segment of US 24 (MP 318 through MP 321) and incorporate the intersections at Garrett Road, Falcon Highway, Meridian Road, Old Meridian Road, and Woodmen Road. Detailed corridor diagnostics for non-intersection coded and major intersection crashes, developed using CDOT's Vision Zero Suite crash software, are provided in Attachment B and summarized below.

Corridor-Wide:

A total of 256 crashes were reported within the corridor extents over the five-year data period. Figure 3 shows year-on-year crash occurrence has remained reasonably consistent across the five years, with a peak in 2021 and slight drop into 2022 at 44 annual crashes. 103 crashes (40 percent) resulted in minor injuries and seven crashes (3 percent) resulted in serious injuries. No fatal crashes were reported during the data period. Over 94 percent of crashes occurred during dry roadway conditions and 80 percent of crashes between dawn and dusk.

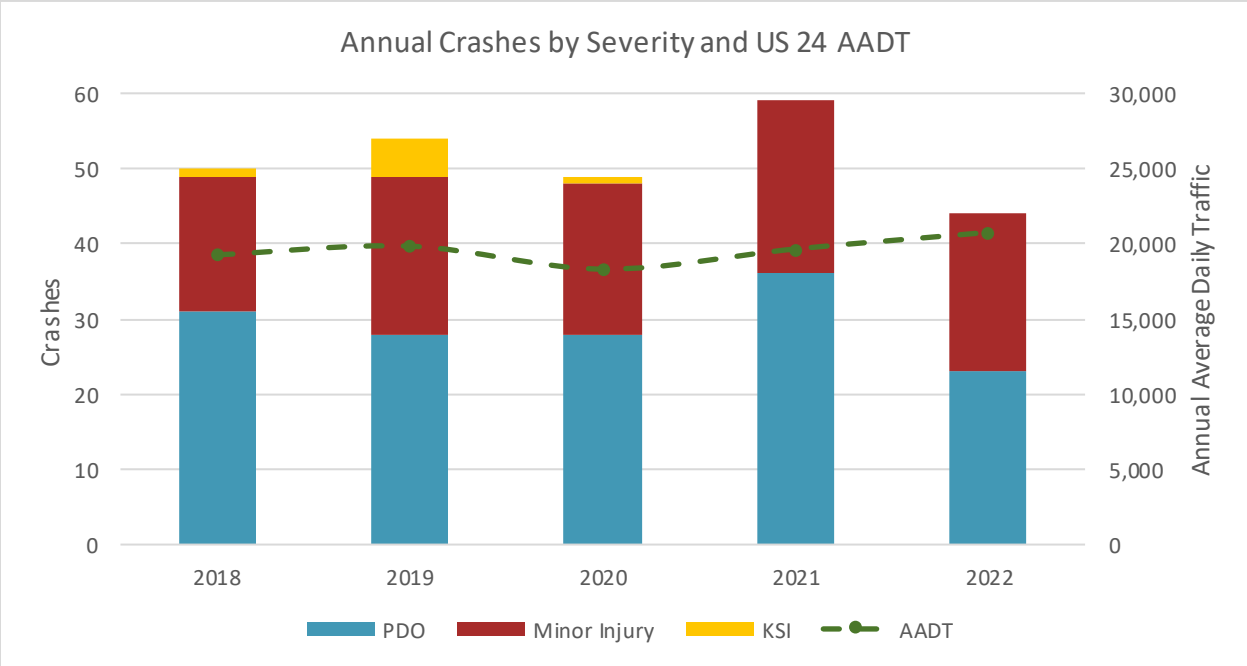


Figure 3: Total Crashes per Year and Daily US 24 Traffic

The geographic distribution of crashes on the corridor is depicted in Figure 4 and Figure 6Figure 6. 65 percent of all crashes occurred at or on approach to an intersection or driveway access, with the greatest concentration of crashes at the Woodmen Road intersection. Figure 5 illustrates that over 62 percent of crashes were classified as rear-end, indicating a corridor-wide congestion or speed differential issue, with a further 25 percent recorded as intersection-specific crash types of approach turn and broadside.

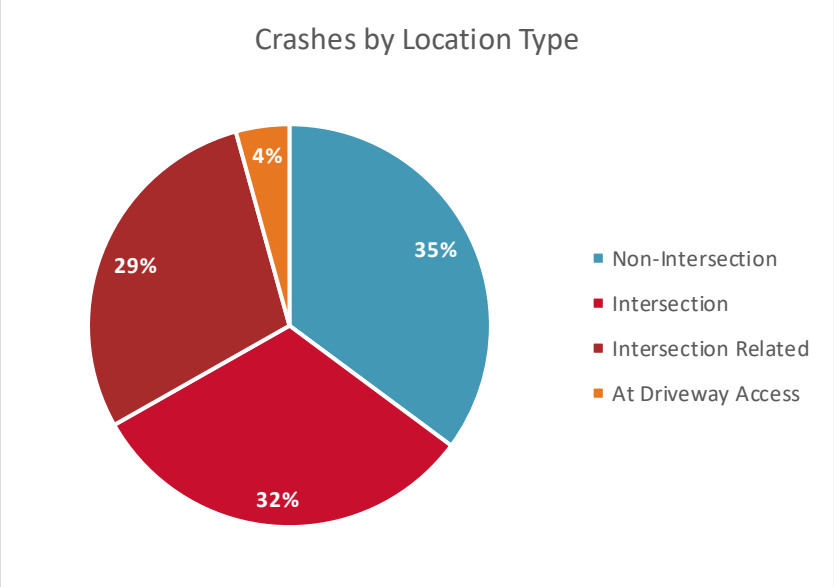


Figure 4: Crash Location Type

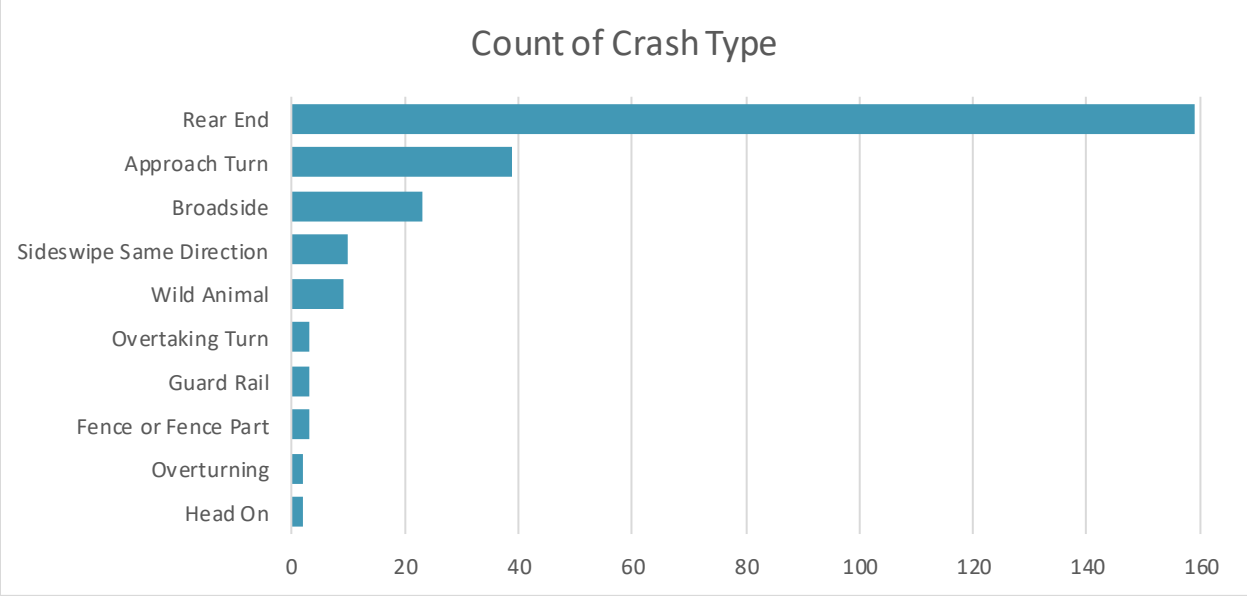


Figure 5: Most Common Crash Types, 2018 - 2022

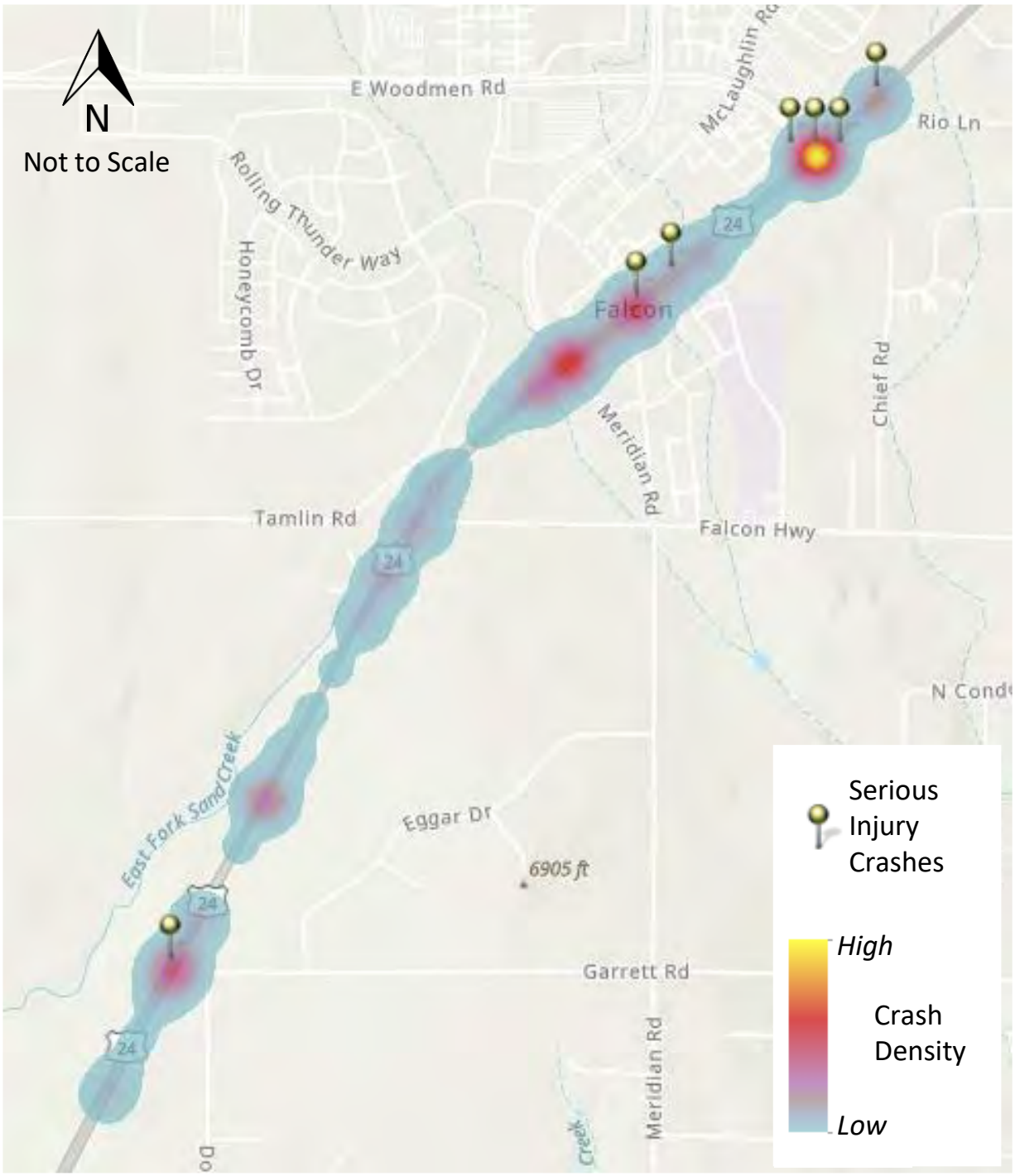


Figure 6: Crash Density and Serious Injury Crashes Mapped

Intersections:

US 24 and Woodmen Road

US 24 AADT: 17,000
Woodmen Road AADT: 12,000
2018-2023 Crash History: 49 crashes (23 injury)

A total of 49 crashes were reported at the Woodmen Road intersection, of which 23 (47 percent) resulted in injury. Three injury crashes were classified as serious. 18 crashes (37 percent) occurred during dark conditions. Rear end (21 crashes, 43 percent) and approach turn (20 crashes, 41 percent) crash types dominate.

CDOT diagnostics reveal that approach turn crashes are over-represented, possibly a reflection of safety concerns that would result from the operation of the two-lane protected-permitted left turn. Injury crashes and crashes during the hours of darkness are also over-represented. The safety performance function analysis of the intersection suggests a high potential for crash reduction. Roadway lighting improvements, congestion mitigation, and protection of left turn movements are potentially effective crash mitigation measures.

US 24 and Meridian Road

US 24 AADT: 15,000
Meridian Road AADT: 9,500
2018-2023 Crash History: 27 crashes (14 injury)

With construction of the new Meridian Road intersection completed in 2021, crash listings indicate an average of 13 crashes per year. Over 90 percent of crashes at the intersection occurred on US 24 and slightly over half of the reported crashes resulted in injuries. 15 crashes (55 percent) were classified as rear end, and the remaining 12 crashes were approach turn (nine crashes) and broadside (three crashes).

CDOT diagnostics indicate that rear end and approach turn crashes are over-represented at this intersection, and that crashes occurring during the hours of darkness (eight crashes) are over-represented. The safety performance function analysis of the intersection suggests a high potential for reduction of high severity crashes. Roadway lighting improvements, congestion mitigation, and protection of left turn movements are potential effective crash mitigation measures.

US 24 and Falcon Highway

US 24 AADT: 19,500
Falcon Highway AADT: 1,500
2018-2023 Crash History: 2 crashes (1 injury)

Two crashes were reported at the Falcon Highway intersection. Both crashes were classified as rear end and involved northeast-bound vehicles. One crash resulted in minor injuries. Both crashes occurred during daylight conditions, one crash occurred during inclement weather. The safety performance of this intersection is very good, with below-average crash conditions and CDOT diagnostics indicating a low potential for crash reduction.

US 24 and Garrett Road

US 24 AADT: 21,000
Garrett Road AADT: 2,500
2018-2023 Crash History: 17 crashes (9 injury)

A total of 17 crashes were reported at the Garrett Road intersection, of which 13 crashes (76 percent) were classified as rear end and involved northeast-bound traffic. Two crashes were classified as broadside, one sideswipe, and one fixed object. Eight crashes were classified as minor injury and one broadside crash resulted in serious injuries. All crashes occurred during dry conditions and over 80 percent occurred between dawn and dusk. Eleven crashes (65 percent) occurred during the afternoon and evening hours between 2PM and 7PM when northbound traffic volume is highest.

The crash diagnostics report provided by CDOT identifies injury crashes (minor and serious) and rear end crash type as over-represented compared to the statewide average for a similar facility and intersection type. Level of Service of Safety (LOSS) diagnostic analysis suggests that a moderate to high potential for crash reduction exists. Crash reduction efforts should be focused on reducing the prevalence of northbound rear end crashes through speed reduction, reducing the occurrence of stopped vehicles at the intersection, and/or increased warning of queued traffic.

Future Conditions

PPACG Travel Demand Model

Traffic forecasts were developed through a model adjustment process using the 2023 traffic counts detailed above. The PPACG travel demand model includes a base year of 2015 (existing year) and horizon year of 2045. The existing year model is developed to closely replicate real-world conditions, with the horizon year model used to project future year travel patterns and traffic volumes. The horizon year model is based upon expected improvement projects as specified in fiscally-constrained regional transportation plans and estimates of the future socioeconomic conditions.

The 2015 existing year and 2045 horizon year roadway networks were reviewed for accuracy in the vicinity of the project study area. No changes to the existing year network were deemed necessary. The 2045 model network INCLUDES the Build condition of four lanes between Garrett Road and Woodmen Road and no further model adjustments were necessary. Development of the No Build model involved model adjustments to the number of lanes through the project area, to scale the model back to a two-lane roadway layout between Garrett Road and Woodmen Road

Post-Processing Methods

As with all travel demand forecasting models, the PPACG Model is not expected to provide precise traffic volume forecasts throughout the roadway system due to the complexity of the real world. Per industry practice, the horizon year traffic volumes were adjusted based on actual traffic counts. The methodology of adjustment compares the existing year model volumes to existing year traffic counts. These comparisons highlight the expected variation associated with the model's representation of travel conditions along roadways in the region.

To develop representative 2015 existing year traffic counts the 2023 counts were factored back to year 2015 on a location-by-location basis. The factors were developed from annual growth rates calculated using output volumes from the 2015 and 2045 Model years and from observations of historical trends. The annual growth rates were applied to the 2015 Model volumes to get "2015 Estimated Counts."

2045 No Build and Build daily traffic forecasts were then adjusted based on percentage and absolute differences between the 2015 Model volumes and the 2015 Estimated Counts, as prescribed in the Transportation Research Board's publication NCHRP 765 post-processing adjustment methodology.

Banning Lewis Ranch, a large master-planned community under development east of the project area that includes proposed new roadway connections, is incorporated into the PPACG model. To reflect the proposed roadway configuration that is to be constructed within this project, and the uncertainty of completion of future roadway connections within the masterplan east of US 24 at Garrett Road and Falcon Highway, model volumes were rerouted from these links to existing roadways and intersections within the project limits.

Results of the travel demand forecasting effort for year 2045 are summarized in Table 2 (No Action) and Table 3 (Action). Daily traffic volumes along US 24 within the project area are expected to increase by between 50 percent and 70 percent, or about 1.8 percent to 2.5 percent annually. 2027 Opening Year traffic forecasts were estimated based on these projected growth rates.

Peak period turning movement volumes were developed for the study area intersections using NCHRP 765 iterative methods, incorporating existing travel patterns and forecast peak period link volumes as appropriate. The peak period forecasts illustrated in Figure 7 and Figure 9 are applied to the future year traffic analysis models.

Table 2: Existing and Forecasted NO ACTION 2045 Daily Traffic

US 24, Garrett Road to Woodmen Road		Existing (2023)	2045 Forecasted NO BUILD Daily Traffic				
Facility	Segment	2-Way Daily Vol.	WB/SB	EB/NB	2-Way Daily Vol.	Growth Factor	% Annual growth
US 24	North of Woodmen Rd	23,630	16,295	16,335	32,630	1.38	**1.48%**
US 24	North of Meridian Rd	12,445	9,920	9,410	19,330	1.55	**2.02%**
US 24	Btwn Falcon and Meridian	21,070	14,125	13,795	27,920	1.33	**1.29%**
US 24	Btwn Garrett and Falcon	22,780	15,370	15,130	30,500	1.34	**1.34%**
US 24	South of Garrett Rd	23,305	14,555	14,685	29,240	1.25	**1.04%**
Woodmen Rd	West of US 24	13,635	9,770	10,190	19,960	1.46	**1.75%**
Meridian Rd	West of US 24	14,875	8,820	8,570	17,390	1.17	**0.71%**
Meridian Rd	East of US 24	6,520	3,590	4,170	7,760	1.19	**0.79%**
Falcon Hwy	East of US 24	1,690	1,435	1,130	2,565	1.52	**1.91%**
Garrett Rd	East of US 24	2,800	2,260	2,620	4,880	1.74	**2.56%**

Table 3: Existing and Forecasted ACTION 2045 Daily Traffic

US 24, Garrett Road to Woodmen Road		Existing (2023)	2045 Forecasted BUILD Daily Traffic				
Facility	Segment	2-Way Daily Vol.	WB/SB	EB/NB	2-Way Daily Vol.	Growth Factor	% Annual growth
US 24	North of Woodmen Rd	23,630	14,385	14,420	28,805	1.22	**0.90%**
US 24	North of Meridian Rd	12,445	10,875	10,320	21,195	1.70	**2.45%**
US 24	Btwn Falcon and Meridian	21,070	16,135	15,820	31,955	1.52	**1.91%**
US 24	Btwn Garrett and Falcon	22,780	18,950	18,640	37,590	1.65	**2.30%**
US 24	South of Garrett Rd	23,305	17,265	17,420	34,685	1.49	**1.82%**
Woodmen Rd	West of US 24	13,635	7,735	8,070	15,805	1.16	**0.67%**
Meridian Rd	West of US 24	14,875	11,695	11,360	23,055	1.55	**2.01%**
Meridian Rd	East of US 24	6,520	4,390	5,095	9,485	1.45	**1.72%**
Falcon Hwy	East of US 24	1,690	1,225	960	2,185	1.29	**1.17%**
Garrett Rd	East of US 24	2,800	2,225	2,580	4,805	1.72	**2.49%**

While the projected growth in traffic volumes through the study area is greater under the Action condition (up to 37,500 vehicles per day), daily volumes under the No Action condition are still projected to increase by over 30 percent, exceeding 30,000 vehicles per day north of Garrett Road. This trend highlights that US 24 in this area is a critical roadway providing east-west travel with limited similar roadways serving these trips.

Proposed Design Elements

The proposed design provides an additional through lane in each direction along the US 24 corridor through the project extents (Garrett Road to Woodmen Road). Speed change and auxiliary lanes are to be provided that meet the E-X (Expressway, Major Bypass) requirements of the State Highway Access Code (SHAC). Per initial design scoping discussions, for operational analysis the intersections at Garrett Road and Falcon Highway are assumed to function as continuous green-T's, minimizing delay to southbound traffic. The intersections at Meridian Road and Woodmen Road will provide for all traffic movements and will be similar to the existing lane configuration. No change is proposed to speed limits through the project area.

A frontage road is proposed on the east side of US 24, intersecting with Garrett Road, providing access to five residential properties. A backage road is proposed on the east side of US 24, intersecting with Falcon Highway, providing access to four residential properties as well as an RV repair shop and stone wholesaler. Existing US 24 access to these properties will be removed. All other accesses are to remain as existing until modified by future development projects. In lieu of driveway count data, an assessment of frontage/backage road traffic volume has been developed using ITE trip generation estimates for the existing land uses. The data is provided in Attachment C, with the frontage (via Garrett Road) expected to carry less than 70 vehicles per day and the backage (via Falcon Highway) less than 130 vehicles per day.

Protected-Permitted Left Turn Analysis

The traffic signal control of left turn movements at project intersections has been assessed using CDOTs *Left-turn Treatment Guidelines for Signalized Intersections*. Recommendations for proposed left turn operations are based on crash history, the presence of or need for dual left turn lanes, and traffic volume cross-product, as summarized in Table 4.

Table 4: Signalized Left Turn Operations Recommendations

Location	Direction	Crash Data	Dual LT Lanes?	Volume Cross-product >100,000?	Recommendation
Woodmen Road	NBL	LOSS IV Total and KSI	Yes	Yes	Protected
Meridian Road	NBL	LOSS IV KSI. Approach turn crashes over-represented NB & SB	Yes	Yes	Protected
	SBL		No	Yes (2045)	P/P~ or Protected
Falcon Highway	SBL	LOSS III Total, IV KSI	No	No	Permitted or TOD~
Garrett Road	SBL	LOSS III Total, IV KSI*	No	No	Permitted or TOD~

* No approach-turn crashes, mostly NB rear-end
~ P/P = protected-permitted, TOD = optional protected by time-of-day

2027 Opening Year Traffic Operations

Traffic operations for Opening Year of the project have been analyzed using Synchro intersection capacity analysis software for the forecasted turning movement volumes identified in Figure 7. Opening Year traffic intersection analysis results are presented in Table 5. Overall operations at Opening Year are very good, with intersections operating at LOS C or better and most individual movements operating at LOS D or better during the AM and PM peak periods. All intersection movements in the project limits are operating below capacity and queues for all movements clear at each signal cycle.

Although modifiable to preferred conditions, initial signal timing optimization results in progression bands of between 40 and 50 seconds, or 30 percent to 50 percent of cycle. Queue lengths are minimal through the study area and significantly better than existing conditions, with 95th percentile queues below 500 feet for all intersection movements. Synchro output reports are provided in Attachment D.

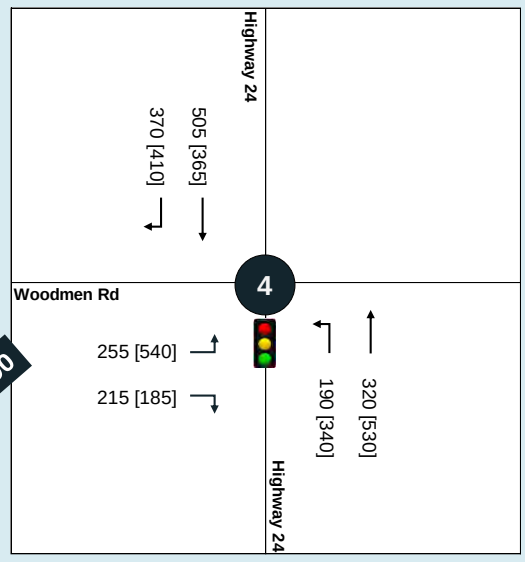
2045 Horizon Year Traffic Operations

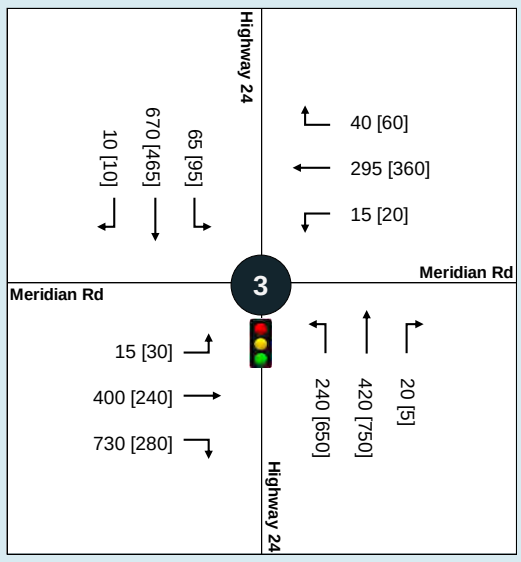
Traffic operations for 2045 Horizon Year No Action and Action conditions have been analyzed using Synchro intersection capacity analysis software for the forecasted turning movement volumes identified in Figure 8 (No Action) and Figure 9 (Action). Horizon Year traffic intersection analysis results are presented in Table 7 (No Action) and Table 7 (Action).

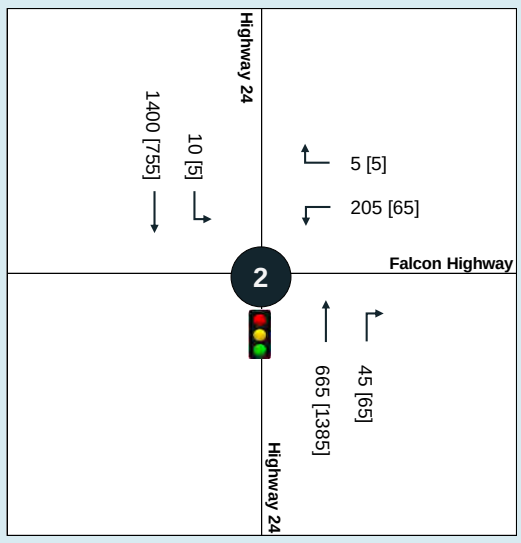
Under No Action conditions, all intersections degrade by 1 or 2 LOS grades, with the intersections at Falcon Highway and at Meridian Road operating at overall LOS E during the AM and PM peak periods respectively. Multiple intersection movements degrade to LOS E or F and volumes exceed capacity at the intersections with Meridian Road, Falcon Highway, and Garrett Road. Queued traffic on US 24 would be extensive, with queues at Falcon Highway exceeding 2,000 feet. Synchro output reports for the No Action condition are provided in Attachment E.

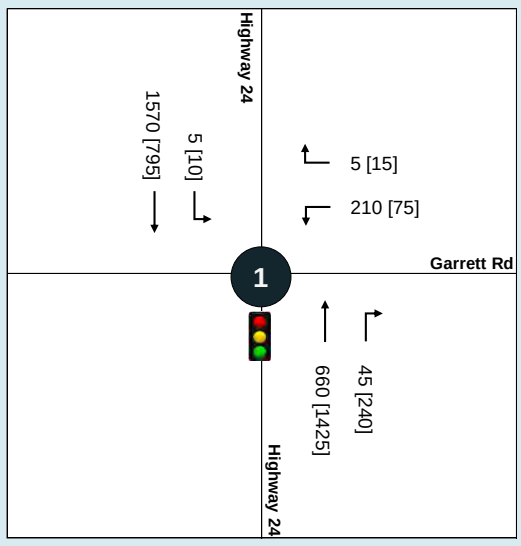
Overall intersection operations at Horizon Year are good, with all intersections and most individual movements operating at LOS D or better during the AM and PM peak periods. The Horizon Year forecast volumes result in some higher delay movements at LOS E, and volume-to-capacity ratios for conflicting traffic movements during the PM peak that exceed 0.8. This suggests that, while still operating effectively at 2045 forecasts, intersection operations at Meridian Road and Garrett Road could start to degrade if sustained growth continues beyond the Horizon Year at the projected growth rates of Table 3. Mainline progression bands between 30 percent and 40 percent are maintained and, with the exception of northbound US 24 at Garrett Road, 95th percentile queues are less than 500 feet in length. Synchro output reports for the Action condition are provided in Attachment F.

2027 Opening Day Forecasted Turning Movement Volume









 # [#] = AM [PM] Peak Hour Volumes

xx,xxx = Annual Average Daily Traffic Volume (vehicles per day)

Figure 7: 2027 Opening Year Forecast Daily and Peak Hour Traffic

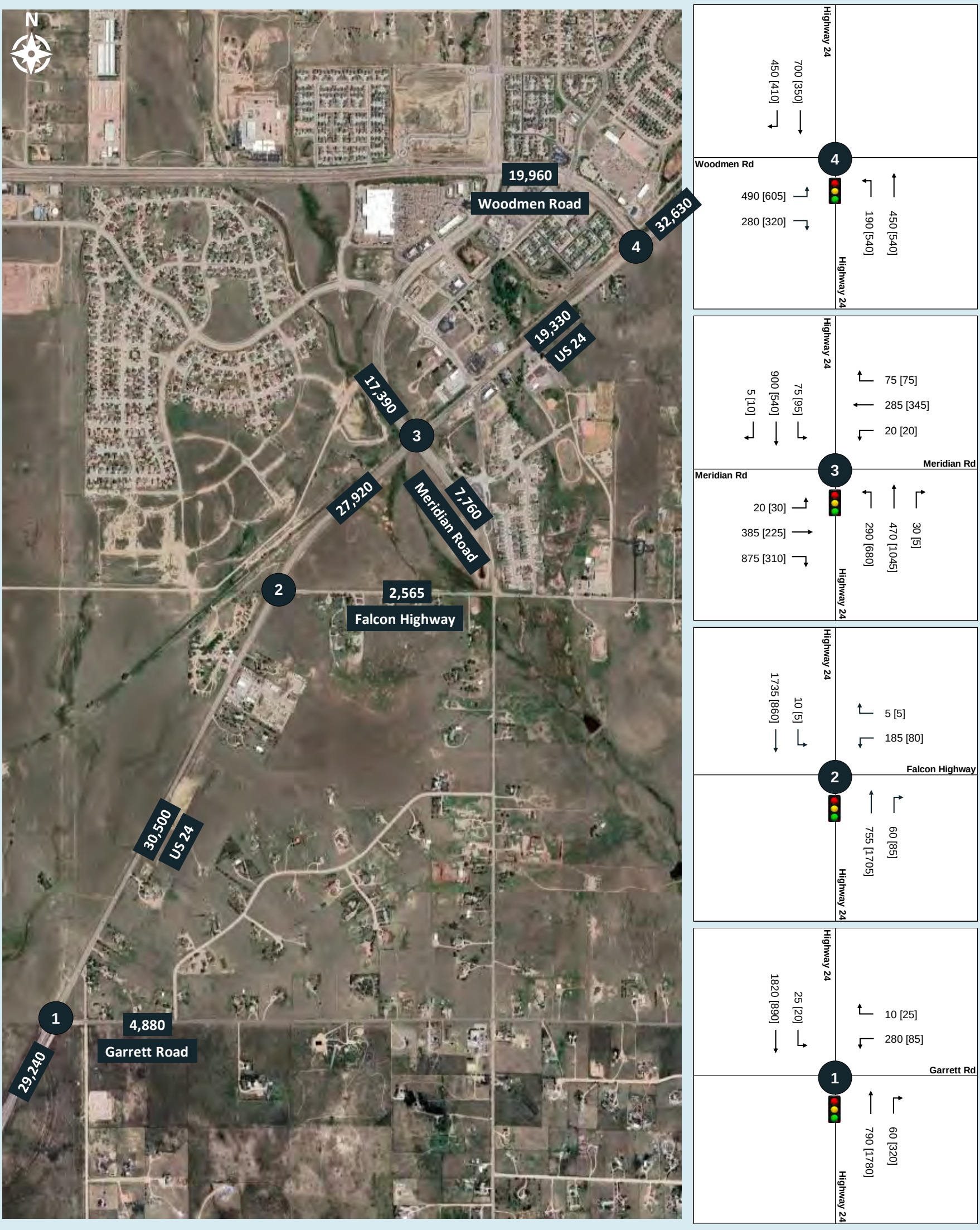
Table 5: 2027 Opening Year Traffic Operations Analysis Summary

Build Conditions Synchro Analysis Summary- 2027 Opening Day												
Intersection	**Approach**	**Movement**	**2027 Intersection Summary - AM PEAK**					**2027 Intersection Summary - PM PEAK**				
			Volume (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue (feet)**	**Volume** (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue** (feet)
US 24 and Woodmen Road	Eastbound Woodmen Road	Left	255	46.2	D	0.62	124	540	60.7	E	**0.81**	317
		Right	215	0.2	A	0.16	0	185	0.2	A	0.13	0
		Approach	**470**	**25.2**	**C**	**-**	**-**	**725**	**45.2**	**D**	**-**	**-**
	Northeast-bound US 24	Left	190	47.6	D	0.54	70	340	55.7	E	0.75	142
		Through	320	1.3	A	0.14	6	530	3.1	A	0.24	25
		Approach	**510**	**18.6**	**B**	**-**	**-**	**870**	**23.7**	**C**	**-**	**-**
	Southwest-bound US 24	Through	505	13.1	B	0.29	149	356	21.5	C	0.22	162
		Right	370	0.4	A	0.26	0	410	0.4	A	0.28	0
		Approach	**875**	**7.7**	**A**	**-**	**-**	**766**	**10.3**	**B**	**-**	**-**
	Intersection		**1,345**	**15.2**	**B**	**-**	**-**	**1,491**	**26.1**	**C**	**-**	**-**
US 24 and Meridian Road	Southeast-bound Meridian Road	Left	15	26.3	C	0.08	23	30	49.5	D	0.18	55
		Through	400	45.9	D	0.72	188	240	53.2	D	0.44	152
		Right	730	1.2	A	0.51	0	280	0.3	A	0.20	0
		Approach	**1,145**	**17.1**	**B**	**-**	**-**	**550**	**26.1**	**C**	**-**	**-**
	Northwest-bound Meridian Road	Left Turn	15	27.1	C	0.11	21	20	47.7	D	0.17	38
		Through	295	43.8	D	0.66	136	360	63.5	E	0.78	216
		Right	40	0.5	A	0.11	0	60	1.0	A	0.19	0
		Approach	**350**	**38.2**	**D**	**-**	**-**	**440**	**54.2**	**D**	**-**	**-**
	Northeast-bound US 24	Left	240	40.6	D	0.67	80	650	50.4	D	0.73	414
		Through	420	5.6	A	0.26	29	750	15.5	B	0.42	268
		Right	20	0.1	A	0.03	0	5	0.0	A	0.01	0
		Approach	**680**	**17.8**	**B**	**-**	**-**	**1,405**	**31.5**	**C**	**-**	**-**
	Southwest-bound US 24	Left	65	11.3	B	0.15	46	95	26.1	C	0.41	98
		Through	670	13.0	B	0.44	251	465	25.8	C	0.42	264
		Right	10	0.0	A	0.01	0	10	0.0	A	0.02	0
		Approach	**745**	**12.7**	**B**	**-**	**-**	**570**	**25.4**	**C**	**-**	**-**
	Intersection		**2,240**	**19.2**	**B**	**-**	**-**	**1,560**	**33.6**	**C**	**-**	**-**
US 24 and Falcon Highway Road	Westbound Falcon Highway	Left	205	49.9	D	0.70	195	65	31.6	C	0.38	65
		Right	5					5				
		Approach	**210**	**49.9**	**D**	**-**	**-**	**70**	**31.6**	**C**	**-**	**-**
	Northeast-bound US 24	Through	655	0.5	A	0.32	3	1,385	1.0	A	0.53	5
		Right	45	0.1	A	0.05	0	65	0.1	A	0.05	0
		Approach	**700**	**0.5**	**A**	**-**	**-**	**1,450**	**0.9**	**A**	**-**	**-**
	Southwest-bound US 24	Left	10	3.6	A	0.02	2	5	6.4	A	0.03	6
		Through	1,400	0.8	A	0.41	13	755	0.5	A	0.25	0
		Approach	**1,410**	**0.8**	**A**	**-**	**-**	**760**	**0.5**	**A**	**-**	**-**
	Intersection		**1,620**	**5.1**	**A**	**-**	**-**	**830**	**1.8**	**A**	**-**	**-**
US 24 and Garrett Road	Westbound Garrett Road	Left	210	48.9	D	0.75	193	75	40.3	D	0.62	73
		Right	5					15				
		Approach	**215**	**48.9**	**D**	-	-	**90**	**40.3**	**D**	**-**	**-**
	Northeast-bound US 24	Through	660	10.5	B	0.37	202	1,425	7.8	A	0.58	316
		Right	45	3.6	A	0.06	17	240	1.4	A	0.21	27
		Approach	**705**	**10.1**	**B**	-	-	**1,665**	**6.9**	**A**	**-**	**-**
	Southwest-bound US 24	Left	5	9.8	A	0.01	4	10	5.1	A	0.04	10
		Through	1,750	0.4	A	0.46	0	795	0.2	A	0.25	0
		Approach	**1,755**	**0.4**	**A**	-	-	**805**	**0.3**	**A**	**-**	**-**
	Intersection		**1,970**	**8.3**	**A**	**-**	**-**	**895**	**6.4**	**A**	**-**	**-**

* Volume for 95th percentile queue is metered by upstream signal

^ 95th percentile volume exceeds capacity, queue may be longer due to unserved demand

2045 Horizon Year Forecasted Turning Movement Volume - NO BUILD



 # [#] = AM [PM] Peak Hour Volumes

xx,xxx = Annual Average Daily Traffic Volume (vehicles per day)

Figure 8: 2045 NO ACTION Forecast Daily and Peak Hour Traffic

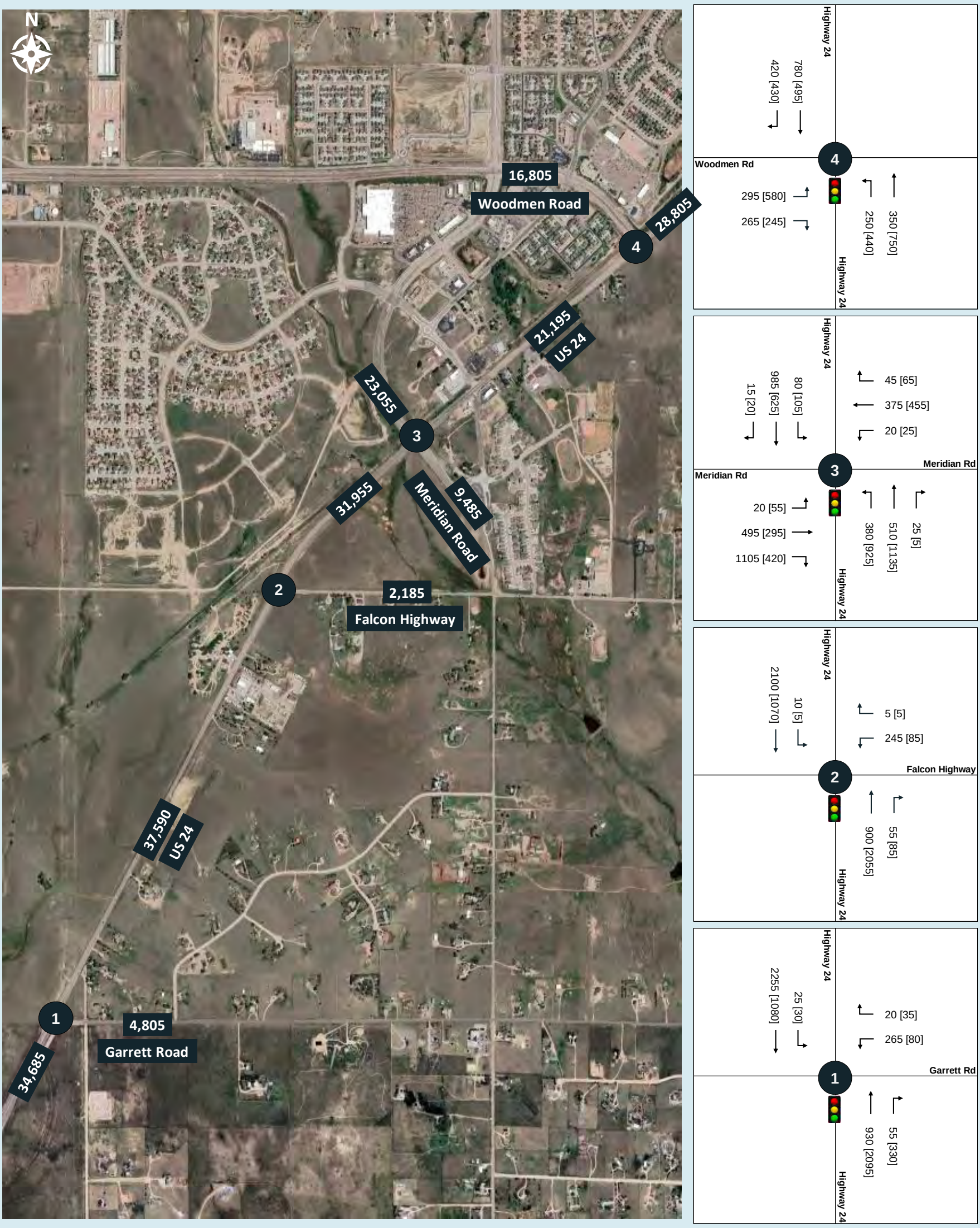
Table 6: 2045 Horizon Year NO ACTION Traffic Operations Analysis Summary

2045 No Build Conditions Synchro Analysis Summary- Corridor Optimized													
Intersection	**Approach**	**Movement**	**2023 Intersection Summary - AM PEAK**					**2023 Intersection Summary - PM PEAK**					
			Volume (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue (feet)**	**Volume** (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue** (feet)
US 24 and Woodmen Road	Eastbound Woodmen Road	Left	490	77.1	E	**0.96**	713^	605	65.5	E	**0.94**	847^
		Right	280	0.3	A	0.21	0	320	0.3	A	0.22	0
		Approach	**770**	**49.2**	**D**	-	-	**925**	**42.9**	**D**	-	-
	Northeast-bound US 24	Left	190	95.1	F	0.78	158^	540	66.5	E	**0.91**	281*
		Through	450	13.0	B	0.47	350	540	8.5	A	0.63	223*
		Approach	**640**	**37.4**	**D**	-	-	**1,080**	**37.5**	**D**	-	-
	Southwest-bound US 24	Through	700	57.8	E	**0.93**	1004^	350	59.1	E	0.72	498^
		Right	450	0.5	A	0.32	0	410	0.4	A	0.28	0
		Approach	**1,150**	**35.4**	**D**	-	-	**760**	**27.4**	**C**	-	-
	Intersection		**1,920**	**40.2**	**D**	-	-	**1,685**	**36.7**	**D**	-	-
US 24 and Meridian Road	Southeast-bound Meridian Road	Left	20	49.6	D	0.16	42	30	53.2	D	0.30	58
		Through	385	82.8	F	**0.88**	304^	225	61.0	E	0.46	168
		Right	875	1.8	A	0.61	0	310	0.3	A	0.22	0
		Approach	**1,280**	**26.9**	**C**	-	-	**565**	**27.3**	**C**	-	-
	Northwest-bound Meridian Road	Left Turn	20	52.2	D	0.24	41	20	47.9	D	0.13	40
		Through	285	76.2	E	**0.80**	205	345	92.1	F	**0.95**	244
		Right	75	2.0	A	0.28	0	75	2.0	A	0.28	0
		Approach	**380**	**60.3**	**E**	-	-	**440**	**74.7**	**E**	-	-
	Northeast-bound US 24	Left	290	112.3	F	**1.10**	486^	680	92.8	F	**1.12**	684*^
		Through	470	12.0	B	0.48	237	1,045	37.4	D	**1.01**	874*
		Right	30	0.0	A	0.02	0	5	0.0	A	0.00	0
		Approach	**790**	**48.6**	**D**	-	-	**1,730**	**59.0**	**E**	-	-
	Southwest-bound US 24	Left	75	6.3	A	0.22	14	95	76.1	E	0.78	132*^
		Through	900	28.8	C	**0.97**	1140*^	540	61.5	E	**0.99**	802^
		Right	5	0.0	A	0.01	0	10	0.1	A	0.02	0
		Approach	**980**	**26.9**	**C**	-	-	**645**	**62.7**	**E**	-	-
	Intersection		**2,640**	**36.4**	**D**	-	-	**1,650**	**56.9**	**E**	-	-
US 24 and Falcon Highway Road	Westbound Falcon Highway	Left	185	183.5	F	**1.19**	401^	80	119.8	F	**0.86**	198^
		Right	5					5				
		Approach	**190**	**183.5**	**F**	-	-	**85**	**119.8**	**F**	-	-
	Northeast-bound US 24	Through	755	11.9	B	0.60	396	1,705	57.9	E	**1.10**	2140*^
		Right	60	0.2	A	0.06	9	85	0.0	A	0.06	0
		Approach	**815**	**11.1**	**B**	-	-	**1,790**	**55.2**	**E**	-	-
	Southwest-bound US 24	Left	10	1.6	A	0.02	1*	5	6.0	A	0.12	1
		Through	1,735	96.6	F	**1.17**	2266*^	860	12.1	B	0.64	326*
		Approach	**1,745**	**96.1**	**F**	-	-	**865**	**12.1**	**B**	-	-
	Intersection		**1,935**	**74.3**	**E**	-	-	**950**	**42.5**	**D**	-	-
US 24 and Garrett Road	Westbound Garrett Road	Left	280	69.4	E	**0.84**	354	85	88.8	F	0.74	191^
		Right	10					25				
		Approach	**290**	**69.4**	**E**	-	-	**110**	**88.8**	**F**	-	-
	Northeast-bound US 24	Through	790	18.7	B	0.50	377	1,780	25.7	C	**0.96**	856
		Right	60					230				
		Approach	**850**	**18.7**	**B**	-	-	**2,010**	**25.7**	**C**	-	-
	Southwest-bound US 24	Left	25	10.6	B	0.08	7*	20	10.6	B	0.19	3
		Through	1,820	18.5	B	**1.02**	0*	890	0.9	A	0.56	0
		Approach	**1,845**	**18.4**	**B**	-	-	**910**	**1.2**	**A**	-	-
	Intersection		**2,135**	**24.3**	**C**	-	-	**1,020**	**20.8**	**C**	-	-

* Volume for 95th percentile queue is metered by upstream signal

^ 95th percentile volume exceeds capacity, queue may be longer due to unserved demand

2045 Horizon Year Forecasted Turning Movement Volume - BUILD



 # [#] = AM [PM] Peak Hour Volumes

xx,xxx = Annual Average Daily Traffic Volume (vehicles per day)

Figure 9: 2045 Horizon Year ACTION Forecast Daily and Peak Hour Traffic

Table 7: 2045 Horizon Year ACTION Traffic Operations Analysis Summary

2045 Build Conditions Synchro Analysis Summary- Corridor Optimized													
Intersection	**Approach**	**Movement**	**2045 Intersection Summary - AM PEAK**					**2045 Intersection Summary - PM PEAK**					
			Volume (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue (feet)**	**Volume** (veh)	**Delay** (sec/veh)	**LOS**	**Mvmt v/c Ratio**	**95th %ile Queue** (feet)
US 24 and Woodmen Road	Eastbound Woodmen Road	Left	295	46.1	D	0.66	139	580	60.4	E	**0.82**	337
		Right	265	0.3	A	0.20	0	245	0.2	A	0.17	0
		Approach	**560**	**24.4**	**C**	**-**	**-**	**825**	**42.5**	**D**	**-**	**-**
	Northeast-bound US 24	Left	250	31.8	C	0.61	70	440	39.4	D	0.79	216
		Through	350	2.3	A	0.15	6	750	8.9	A	0.35	300
		Approach	**600**	**14.6**	**B**	**-**	**-**	**1,190**	**20.2**	**C**	**-**	**-**
	Southwest-bound US 24	Through	780	17.1	B	0.48	267	495	26.6	C	0.33	242
		Right	420	0.5	A	0.30	0	430	0.5	A	0.29	0
		Approach	**1,200**	**11.3**	**B**	**-**	**-**	**925**	**14.5**	**B**	**-**	**-**
	Intersection		**1,760**	**15.4**	**B**	**-**	**-**	**1,750**	**24.8**	**C**	**-**	**-**
US 24 and Meridian Road	Southeast-bound Meridian Road	Left	20	26.6	C	0.10	27	55	54.6	D	0.46	86
		Through	495	52.0	D	**0.84**	252^	595	67.9	E	**0.89**	381
		Right	1,105	3.8	A	0.78	0	420	0.5	A	0.30	0
		Approach	**1,620**	**18.8**	**B**	**-**	**-**	**1,070**	**40.8**	**D**	**-**	**-**
	Northwest-bound Meridian Road	Left Turn	20	27.9	C	0.14	26	25	50.8	D	0.21	44
		Through	375	42.5	D	0.70	175	455	64.6	E	**0.85**	276
		Right	45	0.4	A	0.12	0	65	0.9	A	0.19	0
		Approach	**440**	**37.5**	**D**	**-**	**-**	**545**	**56.4**	**E**	**-**	**-**
	Northeast-bound US 24	Left	380	49.0	D	**0.86**	194^	925	42.4	D	**0.89**	479
		Through	510	7.0	A	0.34	38	1,135	19.3	B	0.70	518
		Right	380	0.1	A	0.03	0	5	0.0	A	0.01	0
		Approach	**1,270**	**24.2**	**C**	**-**	**-**	**2,065**	**29.6**	**C**	**-**	**-**
	Southwest-bound US 24	Left	80	12.8	B	0.22	26	105	52.0	D	0.53	119
		Through	985	20.6	C	0.76	443^	625	45.6	D	**0.81**	476^
		Right	15	0.1	A	0.02	0	20	0.1	A	0.04	0
		Approach	**1,080**	**19.8**	**B**	**-**	**-**	**750**	**45.3**	**D**	**-**	**-**
	Intersection		**3,140**	**22.7**	**C**	**-**	**-**	**2,365**	**38.7**	**D**	**-**	**-**
US 24 and Falcon Highway	Westbound Falcon Highway	Left	245	62.6	E	**0.84**	279^	85	76.2	E	0.63	147
		Right	5					5				
		Approach	**250**	**62.6**	**E**	**-**	**-**	**90**	**76.2**	**E**	**-**	**-**
	Northeast-bound US 24	Through	900	0.9	A	0.44	7	1,055	1.9	A	0.72	23
		Right	55	0.1	A	0.06	0	85	0.1	A	0.07	0
		Approach	**955**	**0.9**	**A**	**-**	**-**	**1,140**	**1.8**	**A**	**-**	**-**
	Southwest-bound US 24	Left	10	3.0	A	0.03	1	5	2.4	A	0.06	1
		Through	2,100	3.0	A	0.61	127	1,070	2.1	A	0.36	20
		Approach	**2,110**	**3.0**	**A**	**-**	**-**	**1,075**	**2.1**	**A**	**-**	**-**
	Intersection		**2,360**	**6.7**	**A**	**-**	**-**	**1,165**	**4.1**	**A**	**-**	**-**
US 24 and Garrett Road	Westbound Garrett Road	Left	265	49.8	D	**0.82**	246	80	79.5	E	0.78	159
		Right	20					35				
		Approach	**285**	**49.8**	**D**	-	-	**115**	**79.5**	**E**	**-**	**-**
	Northeast-bound US 24	Through	930	17.3	B	0.58	339	2,095	17.2	B	**0.84**	898
		Right	55	4.3	A	0.07	20	330	1.3	A	0.27	29
		Approach	**985**	**16.5**	**B**	-	-	**2,425**	**15.0**	**B**	**-**	**-**
	Southwest-bound US 24	Left	25	11.2	B	0.09	13	30	21.2	C	0.29	22
		Through	2,255	0.8	A	0.66	0	1,080	0.3	A	0.34	0
		Approach	**2,280**	**0.9**	**A**	-	-	**1,110**	**0.8**	**A**	**-**	**-**
	Intersection		**2,565**	**10.2**	**B**	**-**	**-**	**1,225**	**13.4**	**B**	**-**	**-**

* Volume for 95th percentile queue is metered by upstream signal

^ 95th percentile volume exceeds capacity, queue may be longer due to unserved demand

Falcon Meadow Campground Access

Through completion of a Value Engineering task a recommendation was made to provide access to the Falcon Meadow Campground via the US 24 intersection at Falcon Highway. Campground access would be made via a fourth leg on the west side of the intersection. With implementation of a fourth leg the intersection will no longer function with a continuous-green southbound US 24 movement. The revised intersection was analyzed to identify potential impacts of this proposed design amendment, with intersection analysis results provided in Table 8. A total 60 hourly trips (30 entering, 30 exiting) were assumed for analysis.

While the intersection continues to perform well overall at LOS C in the AM and LOS A in the PM peak period, with removal of the continuous-green movement southbound traffic operations are impacted significantly during the AM peak period with the movement operating at capacity (0.96 v/c per Synchro calculations and 1.05 v/c per HCM calculations) and experiencing 95th percentile queues exceeding 1,000 feet. Similarly to the Meridian Road and Garrett Road intersections, operations at Falcon Highway will become congested if sustained growth continues beyond the Horizon Year at the projected growth rates of Table 3.

Table 8: 2045 Horizon Year ACTION Traffic Operations Analysis Summary, Campground Access at Falcon Highway

2045 Build Conditions Synchro Analysis Summary- Falcon Highway 4-Leg Alternative												
Intersection	Approach	Movement	2045 Intersection Summary - AM PEAK					2045 Intersection Summary - PM PEAK				
			Volume (veh)	Delay (sec/veh)	LOS	Mvmt v/c Ratio	95th %ile Queue (feet)	Volume (veh)	Delay (sec/veh)	LOS	Mvmt v/c Ratio	95th %ile Queue (feet)
US 24 and Falcon Highway	Eastbound Falcon Highway	Left	10	48.7	D	0.12	25	10	71.3	E	0.17	32
		Through	10					10				
		Right	10	36.7	D	0.23	32	10	52.8	D	0.31	40
		Approach	**30**	**40.7**	**D**	**-**	**-**	**30**	**58.9**	**E**	**-**	**-**
	Westbound Falcon Highway	Left	235	78.9	E	**0.92**	316^	75	77.0	E	0.63	150
		Through	10					10				
		Right	5					5				
		Approach	**250**	**78.9**	**E**	**-**	**-**	**90**	**77.0**	**E**	**-**	**-**
	Northeast-bound US 24	Left	10	51.1	D	0.06	5	10	69.2	E	0.08	5
		Through	890	11.2	B	0.47	163	1,045	4.7	A	0.39	141
		Right	55	1.9	A	0.06	5	85	1.2	A	0.07	5
		Approach	**955**	**11.1**	**B**	**-**	**-**	**1,140**	**5.0**	**A**	**-**	**-**
	Southwest-bound US 24	Left	10	9.9	A	0.03	5	5	3.6	A	0.02	2
		Through	2,090	34.6	C	**0.96**	1,022^	1,060	5.2	A	0.47	109
		Right	10	0.0	A	0.01	0	10	0.0	A	0.01	0
		Approach	**2,110**	**27.3**	**C**	**-**	**-**	**1,075**	**5.1**	**A**	**-**	**-**
	Intersection		**2,390**	**30.4**	**C**	**-**	**-**	**1,195**	**8.7**	**A**	**-**	**-**

* Volume for 95th percentile queue is metered by upstream signal

^ 95th percentile volume exceeds capacity, queue may be longer due to unserved demand

Summary

A review of existing operational conditions shows that, while currently operating acceptably, there is little additional capacity available across numerous intersection movements on this segment of US 24, supporting the need for long term mobility and operational improvements. The high proportion of rear end crashes throughout the corridor, and over-representation of rear-end crashes and approach turn crashes at intersections, supports a need for improvements that bring safety benefit through reduced queueing and congestion, implementation of improved geometry, access control, and provision of protected turning movements at traffic signals.

Modeling and analysis of the No Action and Action conditions suggests that while the projected growth in travel demand through the study area is greater under the Action condition (up to 37,500 vehicles per day), daily volumes under the No Action condition are still projected to increase by over 30 percent, exceeding 30,000 vehicles per day north of Garrett Road. This No Action traffic demand exceeds capacity of the existing roadway and significantly degrades intersection operations at multiple locations during both the AM and PM peaks.

The proposed Action project effectively accommodates future traffic demand, reduces uncontrolled turning movements, and minimizes intersection conflicts through providing for protected left turn control and continuous-green through movements at T-intersections. Intersection operations under the forecast 2045 traffic volumes are expected to be very good, with all intersections and most movements operating at LOS D or better and manageable levels of traffic queuing, with left turn lanes designed to accommodate estimated Horizon Year queue lengths.

ATTACHMENT A

EXISTING CONDITION SYNCHRO ANALYSIS REPORTS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	210	3	624	40	5	1498	
Future Volume (vph)	210	3	624	40	5	1498	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	600		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00	
Frt	0.998		0.991				
Flt Protected	0.953				0.950		
Satd. Flow (prot)	1754	0	3282	0	1770	1863	
Flt Permitted	0.953				0.310		
Satd. Flow (perm)	1754	0	3282	0	577	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)			8				
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			1198	
Travel Time (s)	19.7		25.9			14.9	
Peak Hour Factor	0.77	0.77	0.84	0.84	0.96	0.96	
Heavy Vehicles (%)	3%	3%	9%	9%	2%	2%	
Adj. Flow (vph)	273	4	743	48	5	1560	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	277	0	791	0	5	1560	
Turn Type	Prot		NA		custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases					6		
Detector Phase	8		2		1		
Switch Phase							
Minimum Initial (s)	4.0		7.0		4.0		7.0
Minimum Split (s)	9.5		14.0		9.5		14.0
Total Split (s)	35.0		90.0		15.0		105.0
Total Split (%)	25.0%		64.3%		10.7%		75%
Maximum Green (s)	29.5		83.0		9.5		98.0
Yellow Time (s)	3.0		5.0		3.0		5.0
All-Red Time (s)	2.5		2.0		2.5		2.0
Lost Time Adjust (s)	0.0		0.0		0.0		
Total Lost Time (s)	5.5		7.0		5.5		
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		C-Max		None		C-Max
Act Effct Green (s)	25.9		99.3		103.1	140.0	
Actuated g/C Ratio	0.18		0.71		0.74	1.00	
v/c Ratio	0.85		0.34		0.01	0.84	
Control Delay	78.7		9.0		5.0	4.2	
Queue Delay	0.0		0.0		0.0	0.0	
Total Delay	78.7		9.0		5.0	4.2	
LOS	E		A		A	A	
Approach Delay	78.7		9.0			4.2	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Approach LOS	E		A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 25 (18%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 98.6%		ICU Level of Service F	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

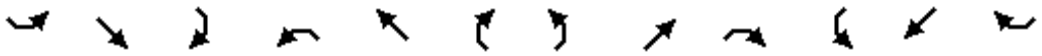
Splits and Phases: 1: US 24 & Garrett Rd

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	186	2	536	37	1	1362
Future Volume (vph)	186	2	536	37	1	1362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999			0.850		
Flt Protected	0.953				0.950	
Satd. Flow (prot)	1723	0	1792	1524	1736	1827
Flt Permitted	0.953				0.387	
Satd. Flow (perm)	1723	0	1792	1524	707	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)				43		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		4887			853
Travel Time (s)	30.3		60.6			10.6
Peak Hour Factor	0.96	0.96	0.86	0.86	0.99	0.99
Heavy Vehicles (%)	5%	5%	6%	6%	4%	4%
Adj. Flow (vph)	194	2	623	43	1	1376
Shared Lane Traffic (%)						
Lane Group Flow (vph)	196	0	623	43	1	1376
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	28.0
Minimum Split (s)	11.5		35.0	35.0	35.0	35.0
Total Split (s)	30.0		110.0	110.0	110.0	110.0
Total Split (%)	21.4%		78.6%	78.6%	78.6%	78.6%
Maximum Green (s)	24.5		103.0	103.0	103.0	103.0
Yellow Time (s)	3.0		5.0	5.0	5.0	5.0
All-Red Time (s)	2.5		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5		7.0	7.0	7.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	20.3		107.2	107.2	107.2	107.2
Actuated g/C Ratio	0.14		0.77	0.77	0.77	0.77
v/c Ratio	0.79		0.45	0.04	0.00	0.98
Control Delay	78.9		8.6	1.5	3.0	36.5
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	78.9		8.6	1.5	3.0	36.5
LOS	E		A	A	A	D
Approach Delay	78.9		8.2			36.5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	E		A			D

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 61 (44%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 31.8		Intersection LOS: C	
Intersection Capacity Utilization 92.5%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 2: US 24 & Falcon Hwy



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	10	395	714	11	276	36	225	327	20	58	566	6
Future Volume (vph)	10	395	714	11	276	36	225	327	20	58	566	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	800		0	300		300
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3574	1599	1719	3438	1538	1687	1776	1509	1736	1827	1553
Flt Permitted	0.356			0.254			0.280			0.526		
Satd. Flow (perm)	670	3574	1599	460	3438	1538	497	1776	1509	961	1827	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			551			125			175			121
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			913			640	
Travel Time (s)		31.8			37.0			11.3			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.75	0.75	0.75	0.86	0.86	0.86	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	5%	5%	5%	7%	7%	7%	4%	4%	4%
Adj. Flow (vph)	11	444	802	15	368	48	262	380	23	60	590	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	444	802	15	368	48	262	380	23	60	590	6
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		Free	6		6
Detector Phase	7	4		3	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	27.5	27.5	12.0	27.0		12.0	44.0	44.0
Total Split (s)	20.0	30.0		20.0	30.0	30.0	20.0	75.0		15.0	70.0	70.0
Total Split (%)	14.3%	21.4%		14.3%	21.4%	21.4%	14.3%	53.6%		10.7%	50.0%	50.0%
Maximum Green (s)	14.0	23.5		14.0	23.5	23.5	14.0	68.0		9.0	63.0	63.0
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0		3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0		3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0		6.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)					7.0	7.0					7.0	7.0
Flash Dont Walk (s)					14.0	14.0					30.0	30.0
Pedestrian Calls (#/hr)					0	0					0	0
Act Effct Green (s)	25.9	22.6	140.0	26.2	22.8	22.8	99.1	87.7	140.0	87.9	79.7	79.7
Actuated g/C Ratio	0.18	0.16	1.00	0.19	0.16	0.16	0.71	0.63	1.00	0.63	0.57	0.57
v/c Ratio	0.06	0.77	0.50	0.10	0.66	0.14	0.57	0.34	0.02	0.09	0.57	0.01
Control Delay	39.2	65.2	1.1	40.6	60.4	0.8	14.1	13.9	0.0	3.9	15.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	39.2	65.2	1.1	40.6	60.4	0.8	14.1	13.9	0.0	3.9	15.0	0.0
LOS	D	E	A	D	E	A	B	B	A	A	B	A
Approach Delay		24.1			53.1			13.5			13.9	
Approach LOS		C			D			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 4 (3%), Referenced to phase 2:NETL and 6:SWTL, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Meridian Rd

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	212	139	141	225	440	340
Future Volume (vph)	212	139	141	225	440	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	800			600
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1752	1568	3303	1792	1827	1553
Flt Permitted	0.950		0.392			
Satd. Flow (perm)	1752	1568	1363	1792	1827	1553
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		162				378
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.86	0.86	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	3%	3%	6%	6%	4%	4%
Adj. Flow (vph)	247	162	150	239	489	378
Shared Lane Traffic (%)						
Lane Group Flow (vph)	247	162	150	239	489	378
Turn Type	Prot	Free	pm+pt	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free	2			Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	44.0		12.0	32.0	32.0	
Total Split (s)	40.0		20.0	100.0	80.0	
Total Split (%)	28.6%		14.3%	71.4%	57.1%	
Maximum Green (s)	34.0		14.0	93.0	73.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	7.0					
Flash Dont Walk (s)	31.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	24.9	140.0	103.1	102.1	88.7	140.0
Actuated g/C Ratio	0.18	1.00	0.74	0.73	0.63	1.00
v/c Ratio	0.79	0.10	0.14	0.18	0.42	0.24
Control Delay	72.7	0.1	8.9	11.6	15.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Delay	72.7	0.1	8.9	11.6	15.3	0.4
LOS	E	A	A	B	B	A
Approach Delay	44.0			10.6	8.8	
Approach LOS	D			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 95 (68%), Referenced to phase 2:NETL and 6:SWT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 55.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: US 24 & Woodmen Rd

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	63	6	1386	212	6	753	
Future Volume (vph)	63	6	1386	212	6	753	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	600		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00	
Frt	0.988		0.980				
Flt Protected	0.956				0.950		
Satd. Flow (prot)	1777	0	3435	0	1736	1827	
Flt Permitted	0.956				0.106		
Satd. Flow (perm)	1777	0	3435	0	194	1827	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	3		26				
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			1198	
Travel Time (s)	19.7		25.9			14.9	
Peak Hour Factor	0.69	0.69	0.95	0.95	0.92	0.92	
Heavy Vehicles (%)	1%	1%	3%	3%	4%	4%	
Adj. Flow (vph)	91	9	1459	223	7	818	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	100	0	1682	0	7	818	
Turn Type	Prot		NA		custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases					6		
Detector Phase	8		2		1		
Switch Phase							
Minimum Initial (s)	4.0		7.0		4.0		7.0
Minimum Split (s)	9.5		14.0		9.5		14.0
Total Split (s)	25.0		100.0		15.0		115.0
Total Split (%)	17.9%		71.4%		10.7%		82%
Maximum Green (s)	19.5		93.0		9.5		108.0
Yellow Time (s)	3.0		5.0		3.0		5.0
All-Red Time (s)	2.5		2.0		2.5		2.0
Lost Time Adjust (s)	0.0		0.0		0.0		
Total Lost Time (s)	5.5		7.0		5.5		
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		C-Max		None		C-Max
Act Effct Green (s)	13.0		112.2		116.0	140.0	
Actuated g/C Ratio	0.09		0.80		0.83	1.00	
v/c Ratio	0.60		0.61		0.03	0.45	
Control Delay	73.2		7.4		1.5	0.7	
Queue Delay	0.0		0.0		0.0	0.0	
Total Delay	73.2		7.4		1.5	0.7	
LOS	E		A		A	A	
Approach Delay	73.2		7.4			0.7	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Approach LOS	E		A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 82 (59%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 59.3%		ICU Level of Service B	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: US 24 & Garrett Rd

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	59	4	1267	65	1	694
Future Volume (vph)	59	4	1267	65	1	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991			0.850		
Flt Protected	0.956				0.950	
Satd. Flow (prot)	1765	0	1863	1583	1736	1827
Flt Permitted	0.956				0.133	
Satd. Flow (perm)	1765	0	1863	1583	243	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	2			66		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		4887			853
Travel Time (s)	30.3		60.6			10.6
Peak Hour Factor	0.88	0.88	0.98	0.98	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	2%	4%	4%
Adj. Flow (vph)	67	5	1293	66	1	807
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	0	1293	66	1	807
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	28.0
Minimum Split (s)	11.5		35.0	35.0	35.0	35.0
Total Split (s)	25.0		115.0	115.0	115.0	115.0
Total Split (%)	17.9%		82.1%	82.1%	82.1%	82.1%
Maximum Green (s)	19.5		108.0	108.0	108.0	108.0
Yellow Time (s)	3.0		5.0	5.0	5.0	5.0
All-Red Time (s)	2.5		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5		7.0	7.0	7.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.9		120.4	120.4	120.4	120.4
Actuated g/C Ratio	0.08		0.86	0.86	0.86	0.86
v/c Ratio	0.52		0.81	0.05	0.00	0.51
Control Delay	72.7		11.3	0.2	2.0	4.3
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	72.7		11.3	0.2	2.0	4.3
LOS	E		B	A	A	A
Approach Delay	72.7		10.8			4.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	E		B			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 8 (6%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 82.1%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: US 24 & Falcon Hwy

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	24	220	275	17	348	56	628	696	5	69	359	8
Future Volume (vph)	24	220	275	17	348	56	628	696	5	69	359	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	800		0	300		300
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3505	1568	1787	3574	1599	1752	1845	1568	1703	1792	1524
Flt Permitted	0.189			0.523			0.347			0.326		
Satd. Flow (perm)	349	3505	1568	984	3574	1599	640	1845	1568	584	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			309			171			222			168
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			913			640	
Travel Time (s)		31.8			37.0			11.3			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.72	0.72	0.72	0.90	0.90	0.90	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	3%	3%	3%	6%	6%	6%
Adj. Flow (vph)	27	247	309	24	483	78	698	773	6	72	374	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	247	309	24	483	78	698	773	6	72	374	8
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		Free	6		6
Detector Phase	7	4		3	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	27.5	27.5	12.0	27.0		12.0	44.0	44.0
Total Split (s)	12.0	25.0		12.0	25.0	25.0	42.0	88.0		15.0	61.0	61.0
Total Split (%)	8.6%	17.9%		8.6%	17.9%	17.9%	30.0%	62.9%		10.7%	43.6%	43.6%
Maximum Green (s)	6.0	18.5		6.0	18.5	18.5	36.0	81.0		9.0	54.0	54.0
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0		3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0		3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0		6.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)					7.0	7.0					7.0	7.0
Flash Dont Walk (s)					14.0	14.0					30.0	30.0
Pedestrian Calls (#/hr)					0	0					0	0
Act Effct Green (s)	25.6	21.5	140.0	25.6	21.5	21.5	98.8	86.9	140.0	65.1	56.7	56.7
Actuated g/C Ratio	0.18	0.15	1.00	0.18	0.15	0.15	0.71	0.62	1.00	0.46	0.40	0.40
v/c Ratio	0.22	0.46	0.20	0.11	0.88	0.20	0.96	0.68	0.00	0.22	0.52	0.01
Control Delay	48.0	58.0	0.3	44.9	76.1	1.2	39.0	29.7	0.0	7.9	19.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	48.0	58.0	0.3	44.9	76.1	1.2	39.0	29.7	0.0	7.9	19.5	0.0
LOS	D	E	A	D	E	A	D	C	A	A	B	A
Approach Delay		26.9			64.8			34.0			17.3	
Approach LOS		C			E			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 65 (46%), Referenced to phase 2:NETL and 6:SWTL, Start of Yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 36.0		Intersection LOS: D	
Intersection Capacity Utilization 89.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Meridian Rd

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	516	171	326	467	336	401
Future Volume (vph)	516	171	326	467	336	401
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	800			600
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1787	1599	3433	1863	1845	1568
Flt Permitted	0.950		0.376			
Satd. Flow (perm)	1787	1599	1359	1863	1845	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		94				431
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.93	0.93
Heavy Vehicles (%)	1%	1%	2%	2%	3%	3%
Adj. Flow (vph)	573	190	362	519	361	431
Shared Lane Traffic (%)						
Lane Group Flow (vph)	573	190	362	519	361	431
Turn Type	Prot	Free	pm+pt	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free	2			Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	44.0		12.0	32.0	32.0	
Total Split (s)	65.0		25.0	75.0	50.0	
Total Split (%)	46.4%		17.9%	53.6%	35.7%	
Maximum Green (s)	59.0		19.0	68.0	43.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	7.0					
Flash Dont Walk (s)	31.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	50.5	140.0	77.5	76.5	57.4	140.0
Actuated g/C Ratio	0.36	1.00	0.55	0.55	0.41	1.00
v/c Ratio	0.89	0.12	0.38	0.51	0.48	0.27
Control Delay	58.5	0.2	20.2	31.0	35.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Delay	58.5	0.2	20.2	31.0	35.4	0.4
LOS	E	A	C	C	D	A
Approach Delay	44.0			26.6	16.3	
Approach LOS	D			C	B	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 6 (4%), Referenced to phase 2:NETL and 6:SWT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 74.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: US 24 & Woodmen Rd

ATTACHMENT B

CDOT CRASH DIAGNOSTICS

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Non-Intersection Detailed Summary **Type:** Segment **Search Name:** Rt: 24 Section: G MM: [318 - 321] **From:** 1/1/2018 **To:** 12/31/2022

Crash Severity

By	Crashes:	Number of	People:
FAT:	0	Killed:	0
INJ:	37	Injured:	54
PDO:	53		
TOTAL:	90		

Weather Conditions

None:	85
Rain:	2
Snow/Sleet/Hail:	2
Fog:	0
Dust:	0
Wind:	1
Unknown:	0
TOTAL:	90

Lighting Conditions

Daylight:	61
Dawn/Dusk:	10
Dark-Lighted:	5
Dark-Unlighted:	14
Unknown:	0
TOTAL:	90

Road Conditions

Dry:	85
Wet:	2
Muddy:	0
Snowy:	0
Icy:	3
Slushy:	0
Foreign Material:	0
Road Treatment:	0
Unknown:	0
Dry W/Icy Road Treatment:	0
Wet W/Icy Road Treatment:	0
Snowy W/Icy Road Treatment:	0
Icy W/Icy Road Treatment:	0
Slushy W/Icy Road Treatment:	0
TOTAL:	90

Crash Location

On Road:	84
Off Road Left:	0
Off Road Right:	6
Off Road at Tee:	0
Off in Median:	0
Off Unkown:	0
Unknown:	0
	90

Crash Type

Overturning:	2	Bridge Abutment:	0
Other Non-Collision:	1	Column/Pier:	0
Pedestrian:	0	Culvert/Headwall:	0
Broadside:	0	Embankment:	0
Head On:	1	Curb:	0
Rear End:	67	Delineator Post:	0
Sideswipe (Same):	6	Fence:	1
Sideswipe (Opposite):	0	Tree:	0
Approach Turn:	0	Lrg Bldrs or Rocks:	0
Overtaking Turn:	0	Barricade:	0
Parked Motor Veh:	0	Wall/Building:	0
Railway Veh:	0	Crash Cushion:	0
Bicycle:	0	Mailbox:	0
Motorized Bicycle:	0	Other Fixed Object:	0
Domestic Animal:	0	Total Fixed Objects:	4
Wild Animal:	9	Rocks in Roadway:	0
Light/Utility Pole:	0	Vehicle Cargo/Debris:	0
Traffic Signal Pole:	0	Road Maint Equip:	0
Sign:	0	Involving Other Object:	0
Bridge Rail:	0	Total Other Object:	0
Guard Rail:	3	**TOTAL:**	90
Cable Rail:	0		
Concrete Barrier:	0		

Number of Vehicles

One Car:	15
Two Car:	57
Three or More:	18
Unknown:	0
TOTAL:	90

Road Description Details by Vehicle

At Intersection:	0
At Driveway Access:	0
Intersection Related:	0
Non Intersection:	90
In Alley:	0
Roundabout:	0
Ramp:	0
Parking Lot:	0
Unknown:	0
TOTAL:	90

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Non-Intersection Detailed Summary **Type:** Segment **Search Name:** Rt: 24 Section: G MM: [318 - 321] **From:** 1/1/2018 **To:** 12/31/2022

Vehicle Type Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Psgr Car/Psgr Van:	42	23	4
Psgr Car/Psgr Van w/Trl:	1	0	0
Pickup Truck/Utility Van:	15	20	6
Pickup Truck/Utility Van w/Trl:	3	1	0
SUV:	22	29	7
SUV w/Trl:	0	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Busses > 15 People:	3	0	0
Motor Home:	0	0	0
School Bus 15 People or Less:	0	0	0
Non School Bus 15 People or Less:	0	0	0
Motorcycle:	1	1	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run/Unknown Vehicle:	2	0	1
Other:	1	1	0
Unknown:	0	0	0
TOTAL:	90	75	18

Mainline/Ramps/Frontage

Crossroad A:	0
B:	0
C:	0
D:	0
E:	0
F:	0
G:	0
H:	0
I:	0
J:	0
Left Frontage Road (L):	0
K:	0
M:	0
N:	0
O:	0
P:	0
Mainline/HOV:	90
Right Frontage Road (R):	0
Rest Area/Truck Ramp (T):	0
Other (Z):	0
TOTAL:	90

Crash Rates

PDO: 0.56 / MVMT
Injury: 0.39 / MVMT
Fatal: 0 / 100MVMT
Total: 0.95 / MVMT

Human Contributing Factor Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Apparent Contributing Factor:	26	73	17
Asleep at the Wheel:	0	0	0
Illness:	0	0	0
Distracted by Passenger:	2	0	0
Driver Inexperience:	10	0	0
Driver Fatigue:	0	0	0
Driver Preoccupied:	29	1	0
Driver Unfamiliar with Area:	3	0	0
Driver Emotionally Upset:	5	0	0
Evading Law Enforcement Officer:	0	0	0
Physical Disability:	0	0	0
Unknown:	15	1	1
TOTAL:	90	75	18

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Non-Intersection Detailed Summary **Type:** Segment **Search Name:** Rt: 24 Section: G MM: [318 - 321] **From:** 1/1/2018 **To:** 12/31/2022

Condition of Driver Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Impairment Suspected:	87	75	17
Alcohol Involved:	2	0	0
RX, Meds or Drugs Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Ped not Observed:	0	0	0
Unknown:	1	0	1
TOTAL:	90	75	18

Vehicle Direction Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
North:	2	2	0
Northeast:	3	3	1
East:	44	39	8
Southeast:	0	0	0
South:	1	0	0
Southwest:	2	2	1
West:	38	29	8
Northwest:	0	0	0
Unknown:	0	0	0
TOTAL:	90	75	18

Vehicle Movement Factor Detail by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Going Straight:	69	19	4
Slowing:	8	17	1
Stopped in Traffic:	0	38	13
Making Right Turn:	0	0	0
Making Left Turn:	0	0	0
Making U-Turn:	0	0	0
Passing:	1	0	0
Backing:	0	0	0
Entering/Leaving Parked Position:	0	0	0
Starting in Traffic:	0	0	0
Parked:	0	0	0
Changing Lanes:	4	1	0
Avoiding Objects in Roadway:	2	0	0
Weaving:	1	0	0
Wrong Way:	1	0	0
Other:	4	0	0
Unknown:	0	0	0
TOTAL:	90	75	18

CDOT
DiExSys™ Vision Zero Suite
Diagnostics Report

11/16/2023

Non-Intersection Diagnostics — **Cutoff:** 5 Acc's @ 95

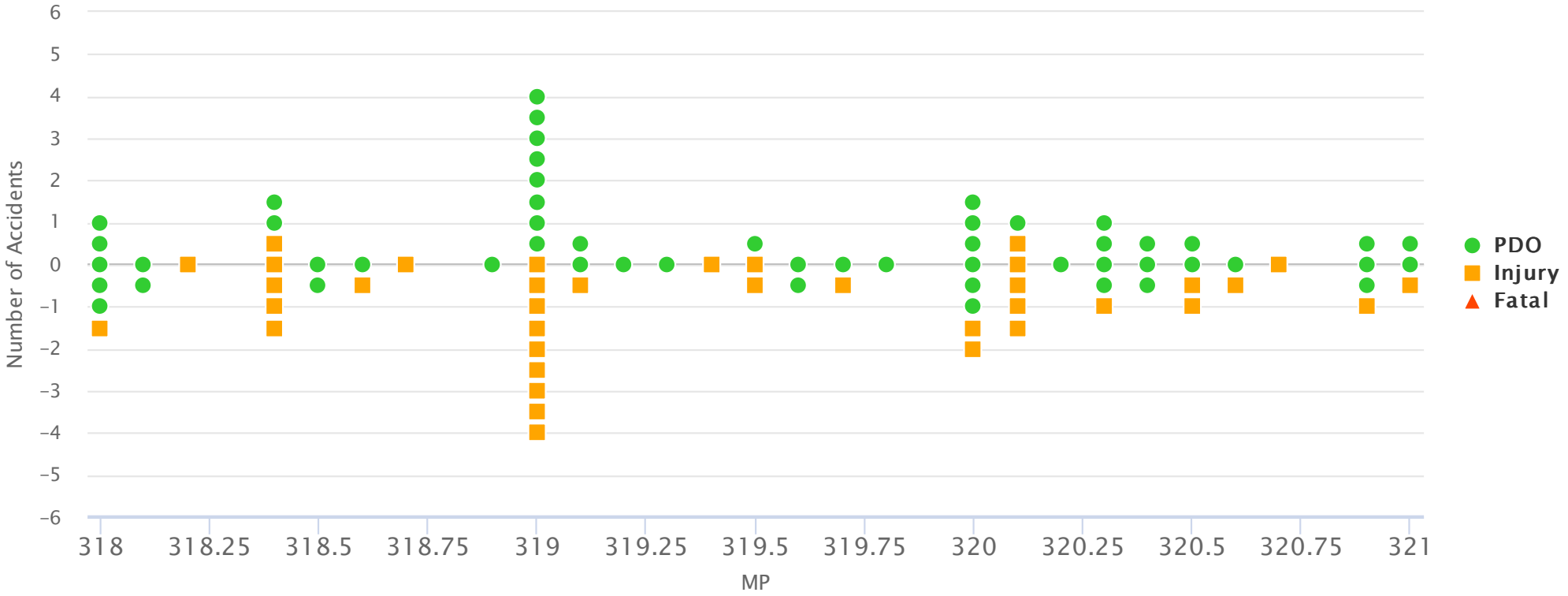
Category/Trait	Statewide Average %	This Location # Crashes	This Location %	Probability %
Crash Severity				
Injury (INJ)	28.37%	37	41.11%	99.66%
Number Of Vehicles				
Two Vehicle Accidents	22.42%	57	63.33%	100%
Three or More Vehicle Accidents	3.77%	18	20%	100%
Crash Location				
On Road	64.09%	84	93.33%	100%
Crash Type				
Rear End	10.12%	67	74.44%	100%
Sideswipe	2.58%	6	6.67%	99.12%
Lighting Conditions				
Dawn or Dusk	5.56%	10	11.11%	98.88%
Dark - Lighted	0.6%	5	5.56%	100%
Human Contributing Factor				
Preoccupied	7.94%	29	32.22%	100%

Highway Class: CO - Rural Flat and Rolling 2-Lane UnDivided Highways - AADT > 8000 ADT (2016)

CDOT
DiExSys™ Vision Zero Suite
Summary - Straight Line Diagram Report

11/16/2023

24GMP 318-321 Straight Line Diagram **Type:** Segment **Search Name:** Rt: 24 Section: GMM: [318 - 321] **From:** 1/1/2018 **To:** 12/31/2022



CDOT
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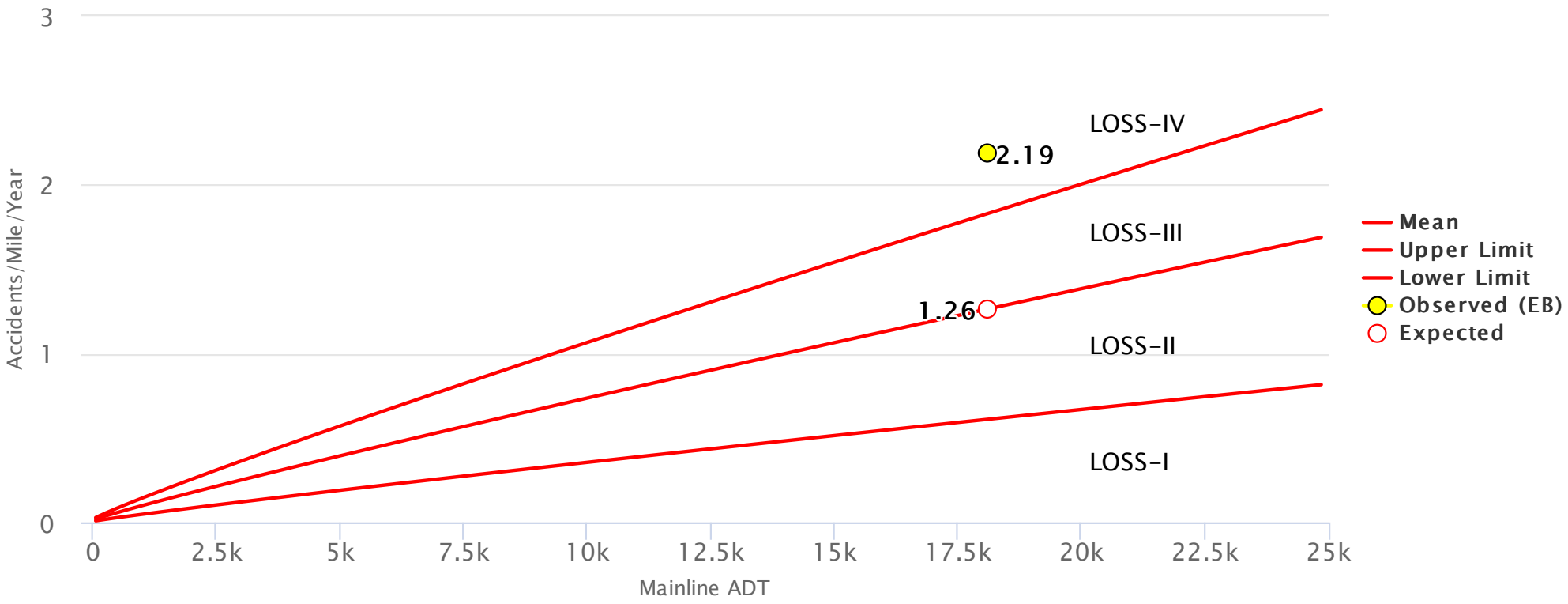
11/16/2023

Non-Intersection SPF Severity **Type:** Segment **Search Name:** Rt: 24 Section: GMM: [318 - 321] **From:** 1/1/2018 **To:** 12/31/2022



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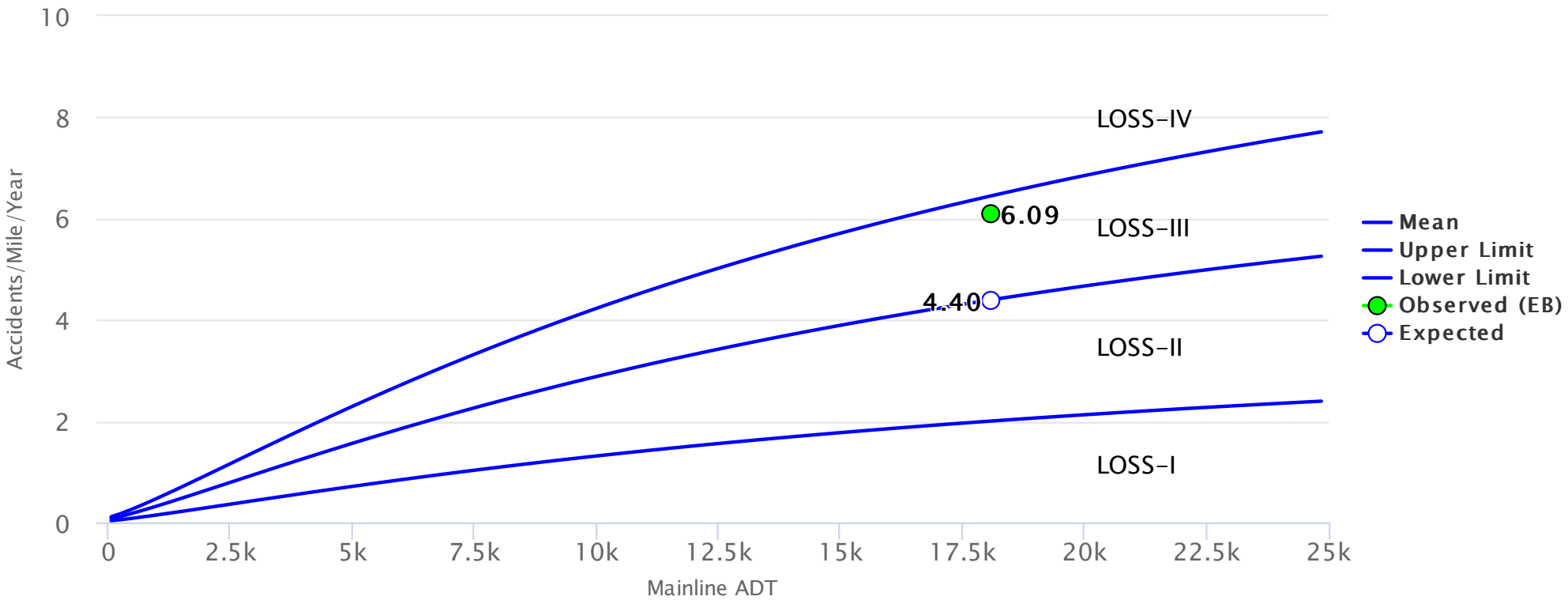
11/16/2023

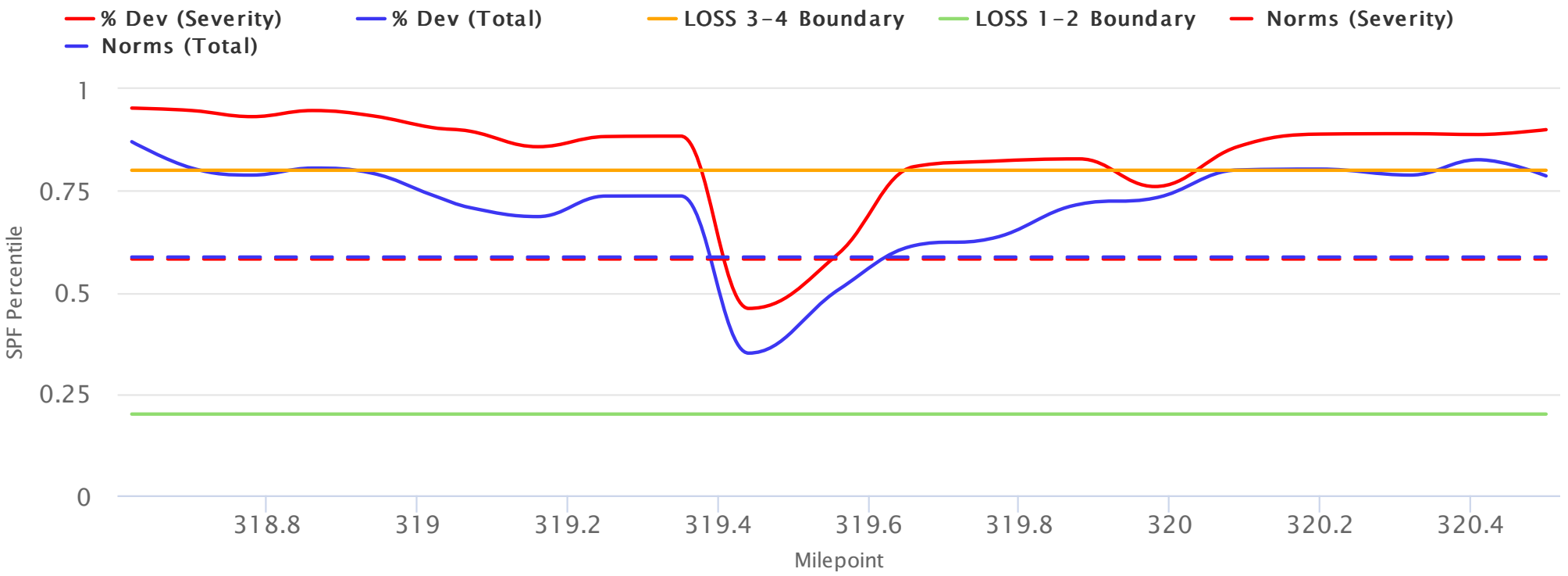
Non-Intersection SPF Total **Type:** Segment **Search Name:** Rt: 24 Section: GMM: [318 - 321] **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
SPF Corridor Analysis Report

11/16/2023

SPF Corridor Analysis **Begin:** 318 **End:** 321 **From:** 1/1/2018 **To:** 12/31/2022



Highway Class: CO - Rural Flat and Rolling 2-Lane UnDivided Highways (2016)

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Garrett Rd Intersection Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Crash Severity

By	Crashes:	Number of	People:
FAT:	0	Killed:	0
INJ:	9	Injured:	16
PDO:	8		
TOTAL:	17		

Weather Conditions

None:	17
Rain:	0
Snow/Sleet/Hail:	0
Fog:	0
Dust:	0
Wind:	0
Unknown:	0
TOTAL:	17

Lighting Conditions

Daylight:	13
Dawn/Dusk:	1
Dark-Lighted:	2
Dark-Unlighted:	1
Unknown:	0
TOTAL:	17

Road Conditions

Dry:	17
Wet:	0
Muddy:	0
Snowy:	0
Icy:	0
Slushy:	0
Foreign Material:	0
Road Treatment:	0
Unknown:	0
Dry W/Icy Road Treatment:	0
Wet W/Icy Road Treatment:	0
Snowy W/Icy Road Treatment:	0
Icy W/Icy Road Treatment:	0
Slushy W/Icy Road Treatment:	0
TOTAL:	17

Crash Location

On Road:	16
Off Road Left:	0
Off Road Right:	1
Off Road at Tee:	0
Off in Median:	0
Off Unkown:	0
Unknown:	0
	17

Crash Type

Overturning:	0	Bridge Abutment:	0
Other Non-Collision:	0	Column/Pier:	0
Pedestrian:	0	Culvert/Headwall:	0
Broadside:	2	Embankment:	0
Head On:	0	Curb:	0
Rear End:	13	Delineator Post:	0
Sideswipe (Same):	1	Fence:	0
Sideswipe (Opposite):	0	Tree:	0
Approach Turn:	0	Lrg Bldrs or Rocks:	0
Overtaking Turn:	0	Barricade:	0
Parked Motor Veh:	0	Wall/Building:	0
Railway Veh:	0	Crash Cushion:	0
Bicycle:	0	Mailbox:	0
Motorized Bicycle:	0	Other Fixed Object:	0
Domestic Animal:	0	Total Fixed Objects:	1
Wild Animal:	0	Rocks in Roadway:	0
Light/Utility Pole:	1	Vehicle Cargo/Debris:	0
Traffic Signal Pole:	0	Road Maint Equip:	0
Sign:	0	Involving Other Object:	0
Bridge Rail:	0	Total Other Object:	0
Guard Rail:	0	**TOTAL:**	17
Cable Rail:	0		
Concrete Barrier:	0		

Number of Vehicles

One Car:	1
Two Car:	14
Three or More:	2
Unknown:	0
TOTAL:	17

Road Description Details by Vehicle

At Intersection:	7
At Driveway Access:	0
Intersection Related:	10
Non Intersection:	0
In Alley:	0
Roundabout:	0
Ramp:	0
Parking Lot:	0
Unknown:	0
TOTAL:	17

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Garrett Rd Intersection Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Vehicle Type Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Psgr Car/Psgr Van:	8	6	0
Psgr Car/Psgr Van w/Trl:	0	0	0
Pickup Truck/Utility Van:	2	2	1
Pickup Truck/Utility Van w/Trl:	0	0	0
SUV:	6	8	1
SUV w/Trl:	0	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Busses > 15 People:	1	0	0
Motor Home:	0	0	0
School Bus 15 People or Less:	0	0	0
Non School Bus 15 People or Less:	0	0	0
Motorcycle:	0	0	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run/Unknown Vehicle:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
TOTAL:	17	16	2

Mainline/Ramps/Frontage

Crossroad A:	0
B:	0
C:	0
D:	0
E:	0
F:	0
G:	0
H:	0
I:	0
J:	0
Left Frontage Road (L):	0
K:	0
M:	0
N:	0
O:	0
P:	0
Mainline/HOV:	17
Right Frontage Road (R):	0
Rest Area/Truck Ramp (T):	0
Other (Z):	0
TOTAL:	17

Crash Rates

PDO:	8000000 / MVMT
Injury:	9000000 / MVMT
Fatal:	0 / 100MVMT
Total:	17000000 / MVMT

Human Contributing Factor Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Apparent Contributing Factor:	1	13	2
Asleep at the Wheel:	1	0	0
Illness:	0	0	0
Distracted by Passenger:	0	0	0
Driver Inexperience:	3	0	0
Driver Fatigue:	1	0	0
Driver Preoccupied:	5	0	0
Driver Unfamiliar with Area:	0	1	0
Driver Emotionally Upset:	0	0	0
Evading Law Enforcement Officer:	0	0	0
Physical Disability:	1	0	0
Unknown:	5	2	0
TOTAL:	17	16	2

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Garrett Rd Intersection Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Condition of Driver Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Impairment Suspected:	16	16	2
Alcohol Involved:	1	0	0
RX, Meds or Drugs Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Ped not Observed:	0	0	0
Unknown:	0	0	0
TOTAL:	17	16	2

Vehicle Direction Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
North:	1	1	0
Northeast:	2	2	0
East:	13	11	2
Southeast:	0	0	0
South:	0	0	0
Southwest:	0	0	0
West:	1	2	0
Northwest:	0	0	0
Unknown:	0	0	0
TOTAL:	17	16	2

Vehicle Movement Factor Detail by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Going Straight:	13	3	0
Slowing:	0	3	0
Stopped in Traffic:	0	8	2
Making Right Turn:	0	0	0
Making Left Turn:	0	2	0
Making U-Turn:	0	0	0
Passing:	0	0	0
Backing:	0	0	0
Entering/Leaving Parked Position:	1	0	0
Starting in Traffic:	0	0	0
Parked:	0	0	0
Changing Lanes:	0	0	0
Avoiding Objects in Roadway:	1	0	0
Weaving:	0	0	0
Wrong Way:	0	0	0
Other:	2	0	0
Unknown:	0	0	0
TOTAL:	17	16	2

CDOT
DiExSys™ Vision Zero Suite
Diagnostics Report

11/16/2023

Garrett Rd Intersection Diagnostics — **Cutoff:** 5 Acc's @ 95

Category/Trait	Statewide Average %	This Location # Crashes	This Location %	Probability %
Crash Severity				
Injury (INJ)	27.04%	9	52.94%	99.42%
Crash Type				
Rear End	44.21%	13	76.47%	99.85%

Highway Class: CO - Urban 4-Lane Undivided Signalized 3-Leg Intersections (2002)

CDOT
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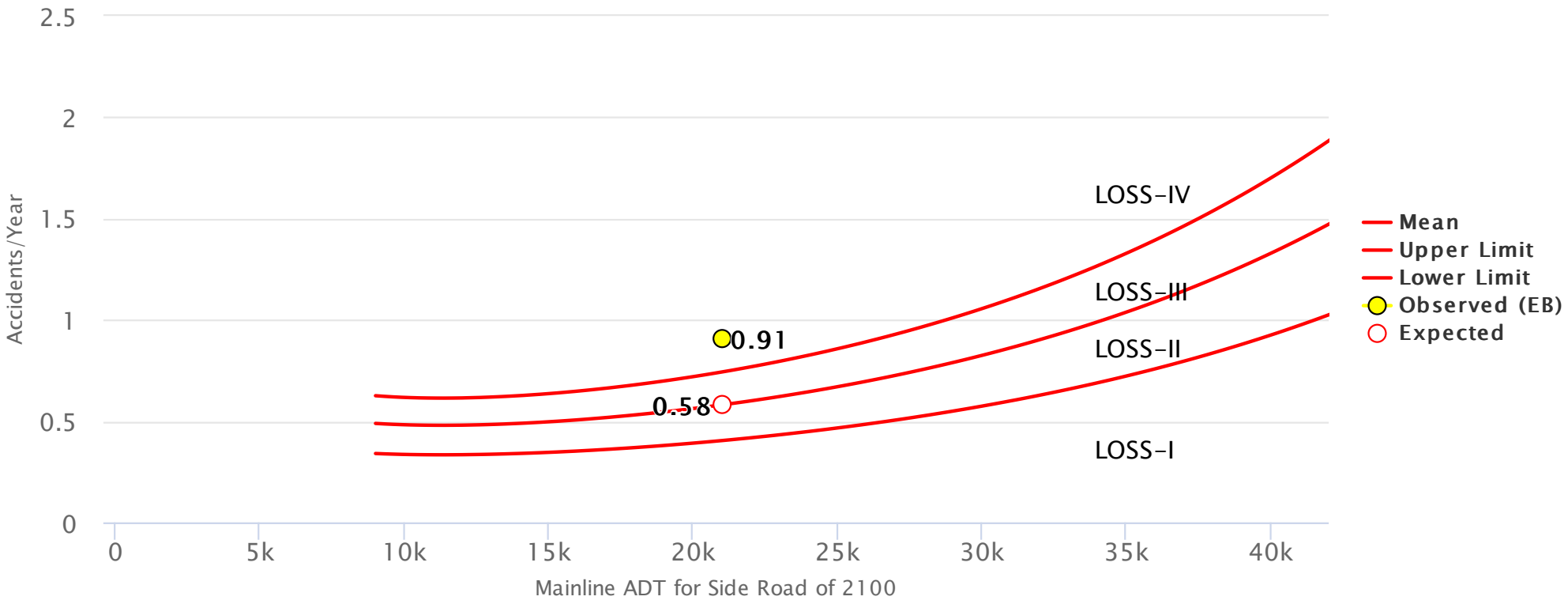
11/16/2023

Garrett Rd Intersection SPF Severity **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



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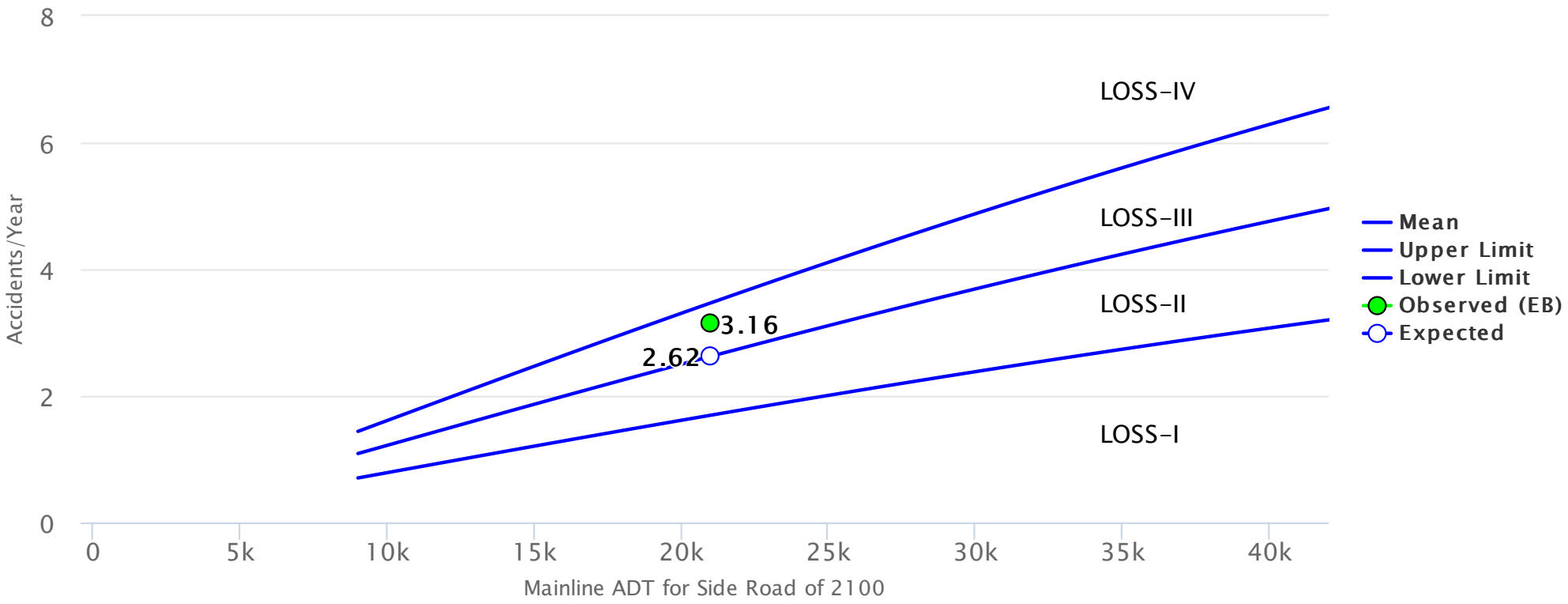
11/16/2023

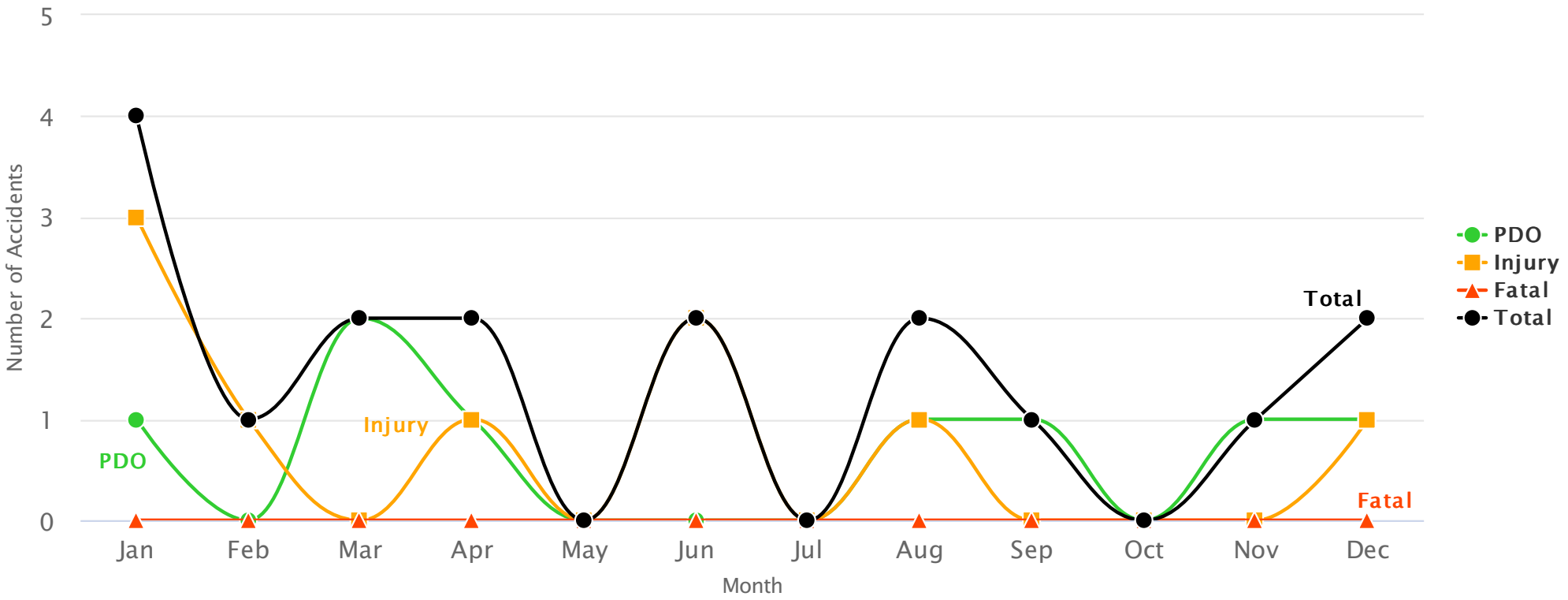
Garrett Rd Intersection SPF Total **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Month of Year Report

11/16/2023

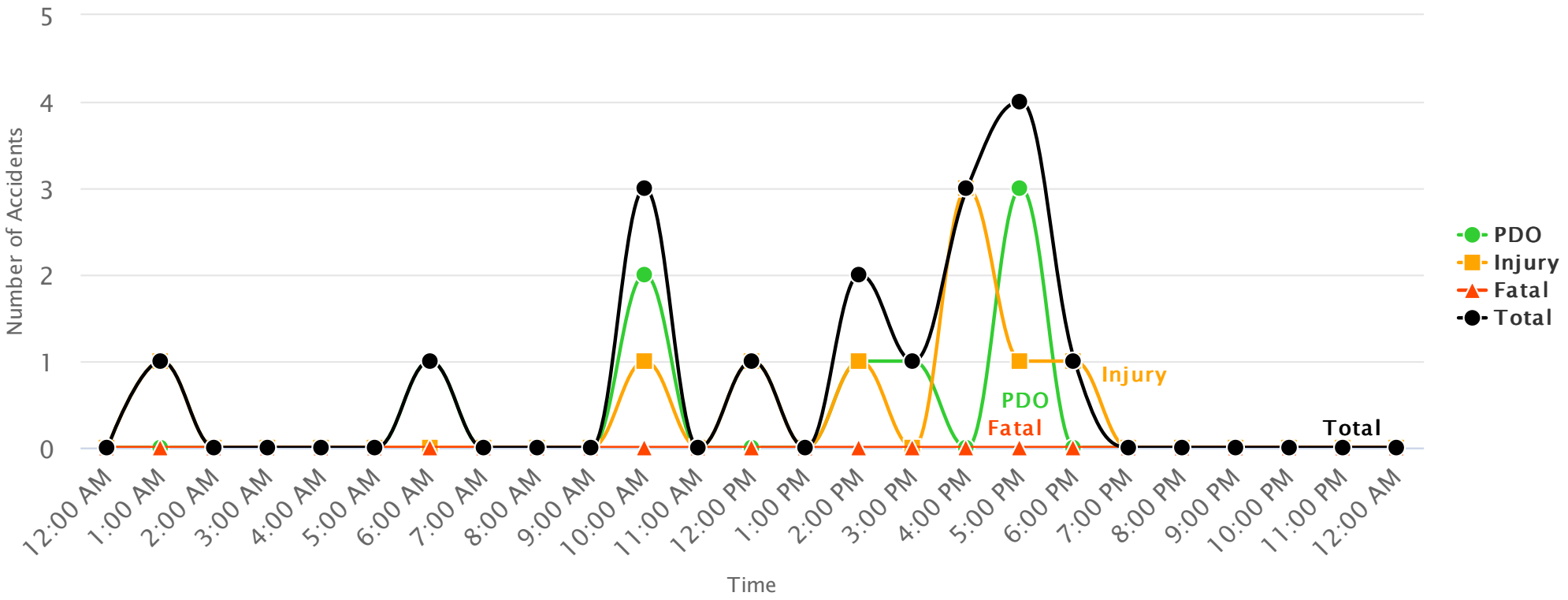
Garrett Rd Intersection Month of Year **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Time of Day Graph Report

11/16/2023

Garrett Rd Intersection Time of Day **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Falcon Hwy Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Crash Severity

By Crashes:		Number of People:	
FAT:	0	Killed:	0
INJ:	1	Injured:	1
PDO:	1		
TOTAL:	2		

Weather Conditions

None:	2
Rain:	0
Snow/Sleet/Hail:	0
Fog:	0
Dust:	0
Wind:	0
Unknown:	0
TOTAL:	2

Lighting Conditions

Daylight:	2
Dawn/Dusk:	0
Dark-Lighted:	0
Dark-Unlighted:	0
Unknown:	0
TOTAL:	2

Road Conditions

Dry:	1
Wet:	0
Muddy:	0
Snowy:	1
Icy:	0
Slushy:	0
Foreign Material:	0
Road Treatment:	0
Unknown:	0
Dry W/Icy Road Treatment:	0
Wet W/Icy Road Treatment:	0
Snowy W/Icy Road Treatment:	0
Icy W/Icy Road Treatment:	0
Slushy W/Icy Road Treatment:	0
TOTAL:	2

Crash Location

On Road:	2
Off Road Left:	0
Off Road Right:	0
Off Road at Tee:	0
Off in Median:	0
Off Unkown:	0
Unknown:	0
	2

Crash Type

Overturning:	0	Bridge Abutment:	0
Other Non-Collision:	0	Column/Pier:	0
Pedestrian:	0	Culvert/Headwall:	0
Broadside:	0	Embankment:	0
Head On:	0	Curb:	0
Rear End:	2	Delineator Post:	0
Sideswipe (Same):	0	Fence:	0
Sideswipe (Opposite):	0	Tree:	0
Approach Turn:	0	Lrg Bldrs or Rocks:	0
Overtaking Turn:	0	Barricade:	0
Parked Motor Veh:	0	Wall/Building:	0
Railway Veh:	0	Crash Cushion:	0
Bicycle:	0	Mailbox:	0
Motorized Bicycle:	0	Other Fixed Object:	0
Domestic Animal:	0	Total Fixed Objects:	0
Wild Animal:	0	Rocks in Roadway:	0
Light/Utility Pole:	0	Vehicle Cargo/Debris:	0
Traffic Signal Pole:	0	Road Maint Equip:	0
Sign:	0	Involving Other Object:	0
Bridge Rail:	0	Total Other Object:	0
Guard Rail:	0	**TOTAL:**	2
Cable Rail:	0		
Concrete Barrier:	0		

Number of Vehicles

One Car:	0
Two Car:	2
Three or More:	0
Unknown:	0
TOTAL:	2

Road Description Details by Vehicle

At Intersection:	0
At Driveway Access:	0
Intersection Related:	2
Non Intersection:	0
In Alley:	0
Roundabout:	0
Ramp:	0
Parking Lot:	0
Unknown:	0
TOTAL:	2

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Falcon Hwy Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Vehicle Type Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Psgr Car/Psgr Van:	2	0	0
Psgr Car/Psgr Van w/Trl:	0	0	0
Pickup Truck/Utility Van:	0	0	0
Pickup Truck/Utility Van w/Trl:	0	0	0
SUV:	0	2	0
SUV w/Trl:	0	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Busses > 15 People:	0	0	0
Motor Home:	0	0	0
School Bus 15 People or Less:	0	0	0
Non School Bus 15 People or Less:	0	0	0
Motorcycle:	0	0	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run/Unknown Vehicle:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
TOTAL:	2	2	0

Mainline/Ramps/Frontage

Crossroad A:	0
B:	0
C:	0
D:	0
E:	0
F:	0
G:	0
H:	0
I:	0
J:	0
Left Frontage Road (L):	0
K:	0
M:	0
N:	0
O:	0
P:	0
Mainline/HOV:	2
Right Frontage Road (R):	0
Rest Area/Truck Ramp (T):	0
Other (Z):	0
TOTAL:	2

Crash Rates

PDO:	1000000 / MVMT
Injury:	1000000 / MVMT
Fatal:	0 / 100MVMT
Total:	2000000 / MVMT

Human Contributing Factor Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Apparent Contributing Factor:	0	2	0
Asleep at the Wheel:	0	0	0
Illness:	0	0	0
Distracted by Passenger:	0	0	0
Driver Inexperience:	0	0	0
Driver Fatigue:	0	0	0
Driver Preoccupied:	2	0	0
Driver Unfamiliar with Area:	0	0	0
Driver Emotionally Upset:	0	0	0
Evading Law Enforcement Officer:	0	0	0
Physical Disability:	0	0	0
Unknown:	0	0	0
TOTAL:	2	2	0

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Falcon Hwy Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Condition of Driver Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Impairment Suspected:	2	2	0
Alcohol Involved:	0	0	0
RX, Meds or Drugs Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Ped not Observed:	0	0	0
Unknown:	0	0	0
TOTAL:	2	2	0

Vehicle Direction Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
North:	1	1	0
Northeast:	0	0	0
East:	1	1	0
Southeast:	0	0	0
South:	0	0	0
Southwest:	0	0	0
West:	0	0	0
Northwest:	0	0	0
Unknown:	0	0	0
TOTAL:	2	2	0

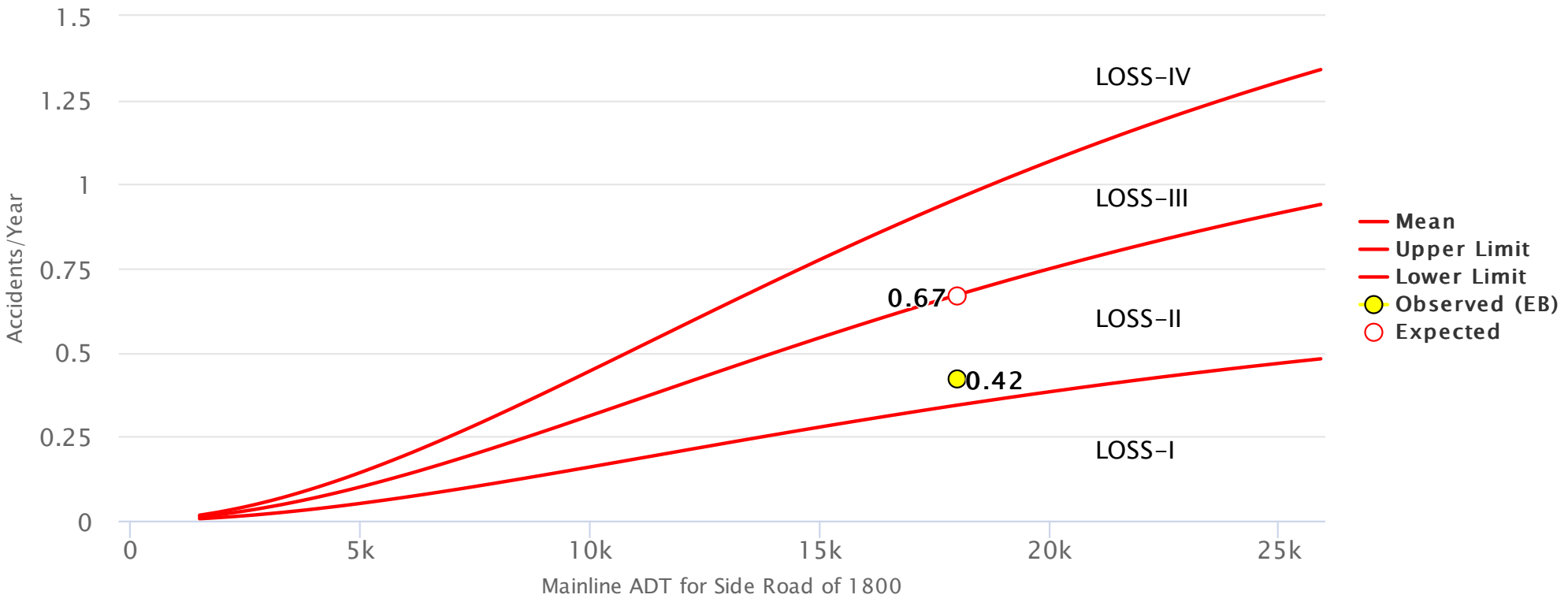
Vehicle Movement Factor Detail by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Going Straight:	1	1	0
Slowing:	0	0	0
Stopped in Traffic:	0	1	0
Making Right Turn:	0	0	0
Making Left Turn:	0	0	0
Making U-Turn:	0	0	0
Passing:	0	0	0
Backing:	0	0	0
Entering/Leaving Parked Position:	0	0	0
Starting in Traffic:	0	0	0
Parked:	0	0	0
Changing Lanes:	0	0	0
Avoiding Objects in Roadway:	0	0	0
Weaving:	0	0	0
Wrong Way:	0	0	0
Other:	1	0	0
Unknown:	0	0	0
TOTAL:	2	2	0

CDOT
DiExSys™ Vision Zero Suite

11/16/2023

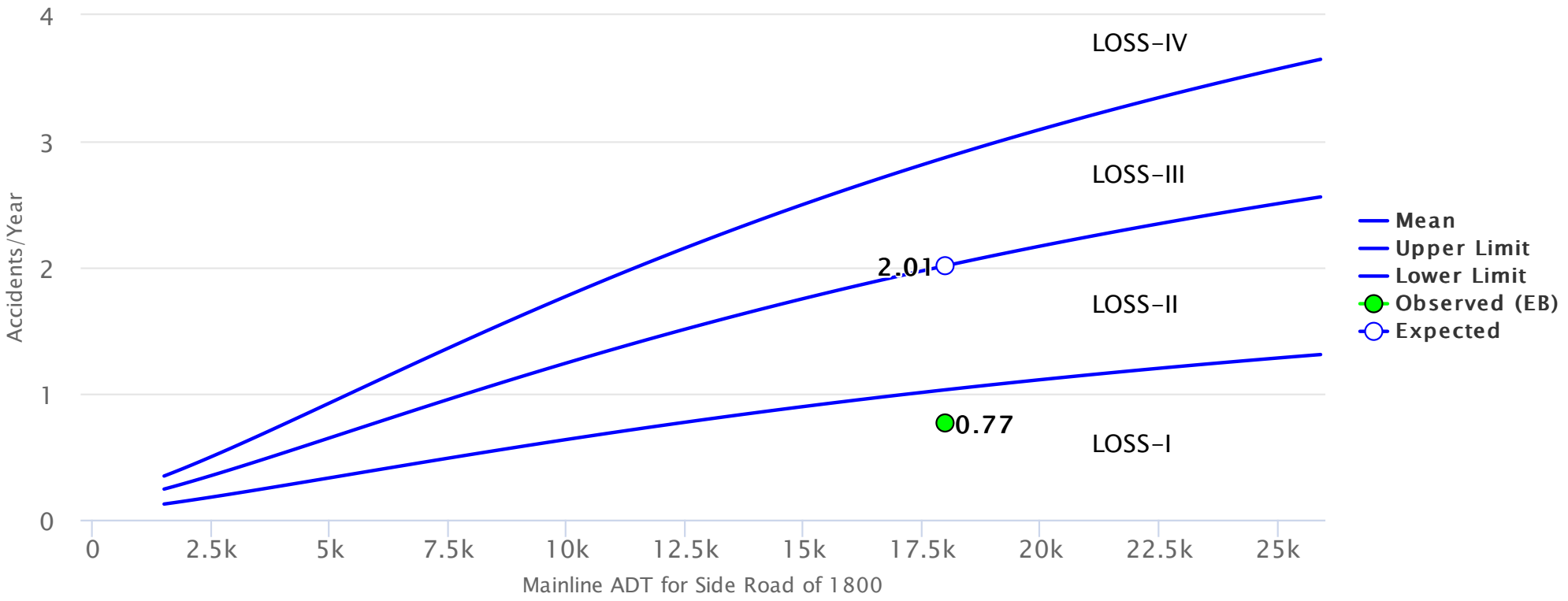
Falcon Hwy SPF Severity **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite

11/16/2023

Falcon Hwy SPF Total **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Meridian Rd Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Crash Severity

By	Crashes:	Number of	People:
FAT:	0	Killed:	0
INJ:	14	Injured:	17
PDO:	13		
TOTAL:	27		

Weather Conditions

None:	26
Rain:	1
Snow/Sleet/Hail:	0
Fog:	0
Dust:	0
Wind:	0
Unknown:	0
TOTAL:	27

Lighting Conditions

Daylight:	18
Dawn/Dusk:	1
Dark-Lighted:	8
Dark-Unlighted:	0
Unknown:	0
TOTAL:	27

Road Conditions

Dry:	25
Wet:	2
Muddy:	0
Snowy:	0
Icy:	0
Slushy:	0
Foreign Material:	0
Road Treatment:	0
Unknown:	0
Dry W/Icy Road Treatment:	0
Wet W/Icy Road Treatment:	0
Snowy W/Icy Road Treatment:	0
Icy W/Icy Road Treatment:	0
Slushy W/Icy Road Treatment:	0
TOTAL:	27

Crash Location

On Road:	27
Off Road Left:	0
Off Road Right:	0
Off Road at Tee:	0
Off in Median:	0
Off Unkown:	0
Unknown:	0
	27

Crash Type

Overturning:	0	Bridge Abutment:	0
Other Non-Collision:	0	Column/Pier:	0
Pedestrian:	0	Culvert/Headwall:	0
Broadside:	3	Embankment:	0
Head On:	0	Curb:	0
Rear End:	15	Delineator Post:	0
Sideswipe (Same):	0	Fence:	0
Sideswipe (Opposite):	0	Tree:	0
Approach Turn:	9	Lrg Bldrs or Rocks:	0
Overtaking Turn:	0	Barricade:	0
Parked Motor Veh:	0	Wall/Building:	0
Railway Veh:	0	Crash Cushion:	0
Bicycle:	0	Mailbox:	0
Motorized Bicycle:	0	Other Fixed Object:	0
Domestic Animal:	0	Total Fixed Objects:	0
Wild Animal:	0	Rocks in Roadway:	0
Light/Utility Pole:	0	Vehicle Cargo/Debris:	0
Traffic Signal Pole:	0	Road Maint Equip:	0
Sign:	0	Involving Other Object:	0
Bridge Rail:	0	Total Other Object:	0
Guard Rail:	0	**TOTAL:**	27
Cable Rail:	0		
Concrete Barrier:	0		

Number of Vehicles

One Car:	0
Two Car:	23
Three or More:	4
Unknown:	0
TOTAL:	27

Road Description Details by Vehicle

At Intersection:	14
At Driveway Access:	0
Intersection Related:	13
Non Intersection:	0
In Alley:	0
Roundabout:	0
Ramp:	0
Parking Lot:	0
Unknown:	0
TOTAL:	27

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Meridian Rd Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Vehicle Type Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Psgr Car/Psgr Van:	11	10	3
Psgr Car/Psgr Van w/Trl:	0	0	0
Pickup Truck/Utility Van:	10	3	1
Pickup Truck/Utility Van w/Trl:	0	0	0
SUV:	6	12	0
SUV w/Trl:	0	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Busses > 15 People:	0	2	0
Motor Home:	0	0	0
School Bus 15 People or Less:	0	0	0
Non School Bus 15 People or Less:	0	0	0
Motorcycle:	0	0	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run/Unknown Vehicle:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
TOTAL:	27	27	4

Mainline/Ramps/Frontage

Crossroad A:	0
B:	0
C:	0
D:	0
E:	0
F:	0
G:	0
H:	0
I:	0
J:	0
Left Frontage Road (L):	0
K:	0
M:	0
N:	0
O:	0
P:	0
Mainline/HOV:	27
Right Frontage Road (R):	0
Rest Area/Truck Ramp (T):	0
Other (Z):	0
TOTAL:	27

Crash Rates

PDO: 13000000 / MVMT
Injury: 14000000 / MVMT
Fatal: 0 / 100MVMT
Total: 27000000 / MVMT

Human Contributing Factor Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Apparent Contributing Factor:	3	27	4
Asleep at the Wheel:	2	0	0
Illness:	0	0	0
Distracted by Passenger:	2	0	0
Driver Inexperience:	1	0	0
Driver Fatigue:	0	0	0
Driver Preoccupied:	8	0	0
Driver Unfamiliar with Area:	0	0	0
Driver Emotionally Upset:	4	0	0
Evading Law Enforcement Officer:	0	0	0
Physical Disability:	0	0	0
Unknown:	7	0	0
TOTAL:	27	27	4

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Meridian Rd Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Condition of Driver Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Impairment Suspected:	23	27	4
Alcohol Involved:	4	0	0
RX, Meds or Drugs Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Ped not Observed:	0	0	0
Unknown:	0	0	0
TOTAL:	27	27	4

Vehicle Direction Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
North:	3	2	2
Northeast:	3	1	0
East:	11	13	1
Southeast:	0	0	0
South:	1	1	0
Southwest:	1	3	0
West:	8	7	1
Northwest:	0	0	0
Unknown:	0	0	0
TOTAL:	27	27	4

Vehicle Movement Factor Detail by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Going Straight:	14	12	2
Slowing:	1	1	0
Stopped in Traffic:	2	13	2
Making Right Turn:	1	0	0
Making Left Turn:	9	1	0
Making U-Turn:	0	0	0
Passing:	0	0	0
Backing:	0	0	0
Entering/Leaving Parked Position:	0	0	0
Starting in Traffic:	0	0	0
Parked:	0	0	0
Changing Lanes:	0	0	0
Avoiding Objects in Roadway:	0	0	0
Weaving:	0	0	0
Wrong Way:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
TOTAL:	27	27	4

CDOT
DiExSys™ Vision Zero Suite
Diagnostics Report

11/16/2023

Meridian Rd Diagnostics — **Cutoff:** 5 Acc's @ 95

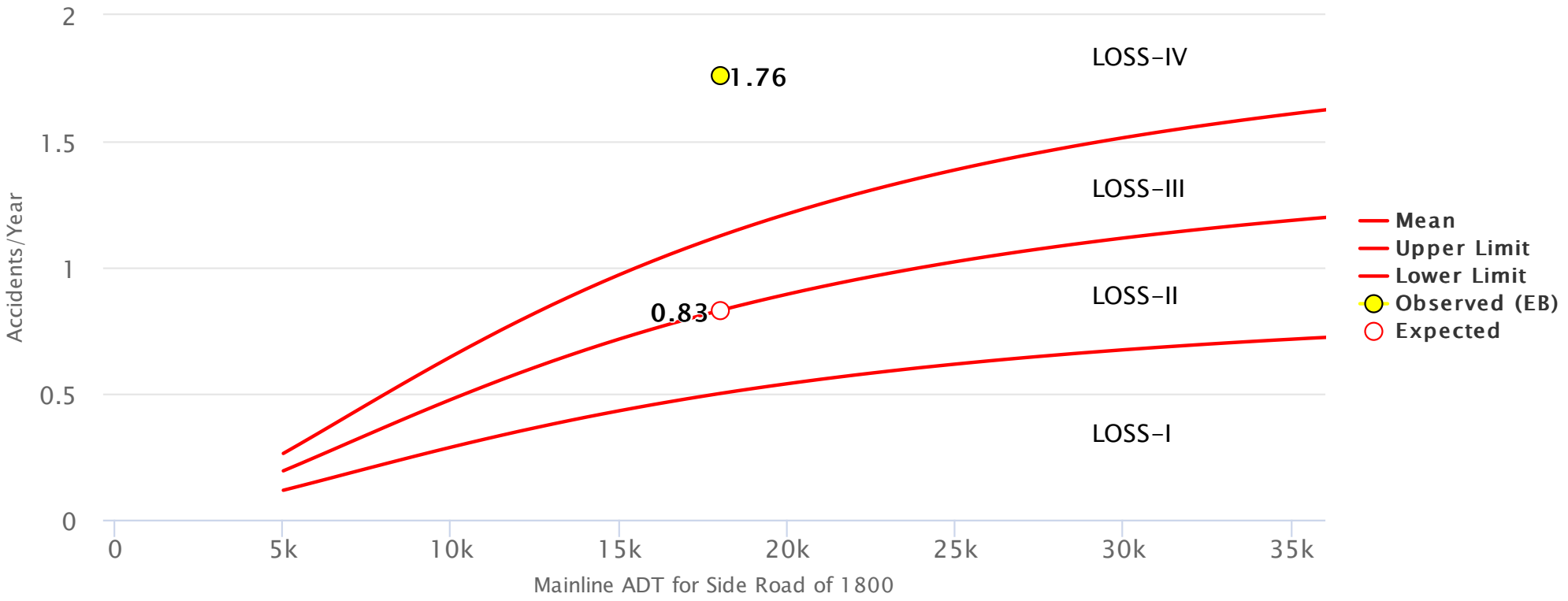
Category/Trait	Statewide Average %	This Location # Crashes	This Location %	Probability %
Crash Location				
On Road	91.32%	27	100%	100%
Crash Type				
Rear End	39.55%	15	55.56%	96.98%
Approach Turn	15.76%	9	33.33%	99.4%
Lighting Conditions				
Dark - Lighted	10.29%	8	29.63%	99.89%
Human Contributing Factor				
Preoccupied	16.08%	8	29.63%	97.88%

Highway Class: CO - Rural 2-Lane Undivided Signalized 4-Leg Intersections (2002)

CDOT
DiExSys™ Vision Zero Suite

11/16/2023

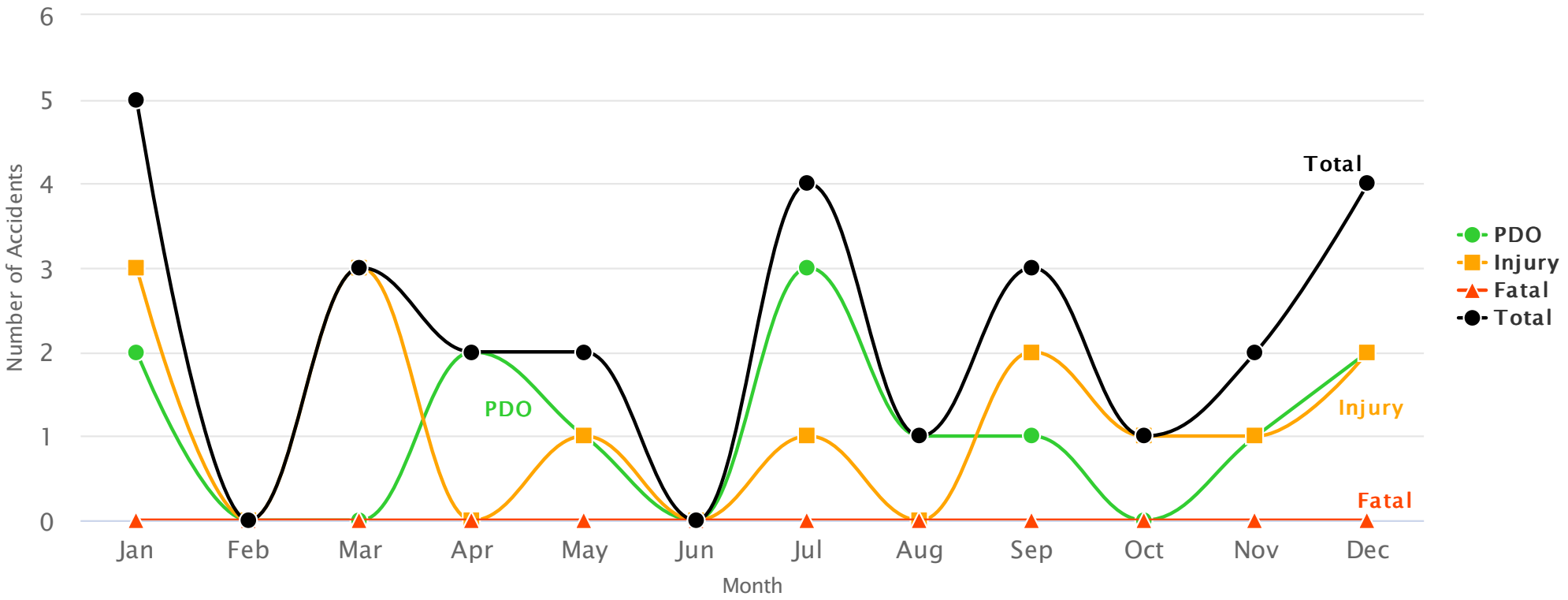
Meridian Rd SPF Severity **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Month of Year Report

11/16/2023

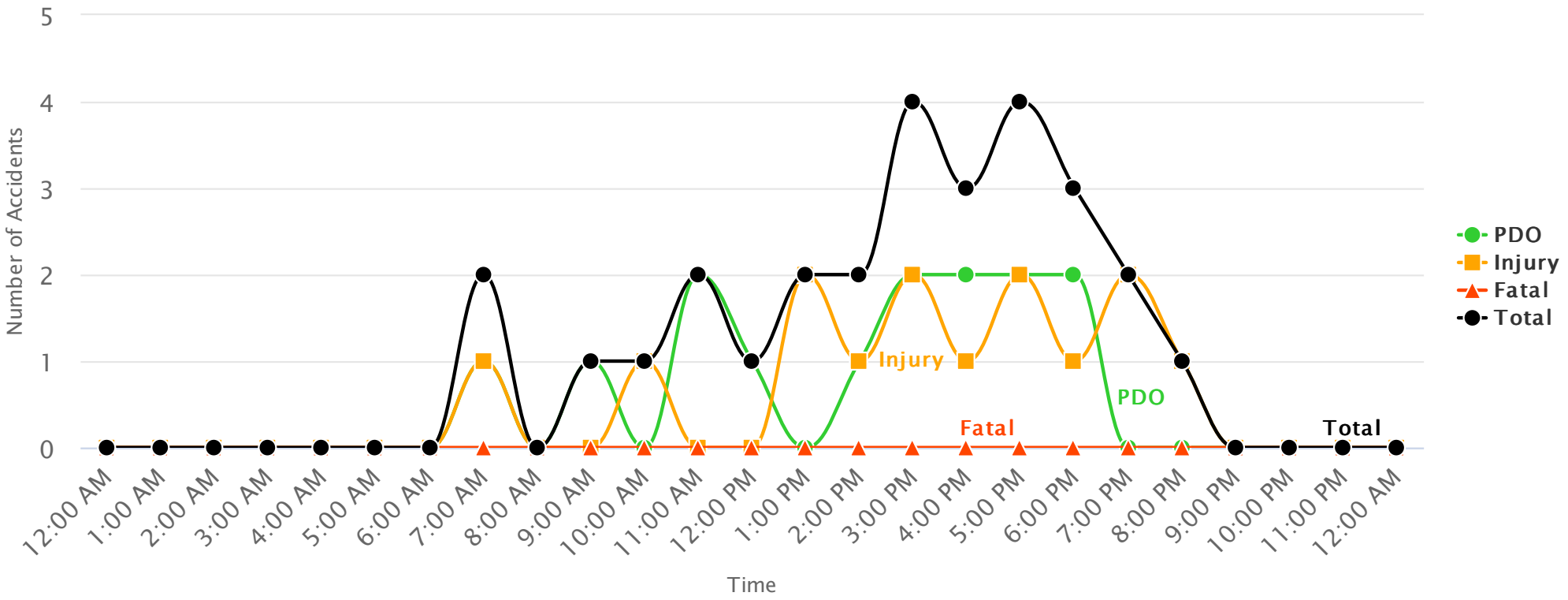
Meridian Rd Month of Year **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Time of Day Graph Report

11/16/2023

Meridian Rd Time of Day **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Old Meridian Rd Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Crash Severity

By	Crashes:	Number of	People:
FAT:	0	Killed:	0
INJ:	8	Injured:	10
PDO:	11		
TOTAL:	19		

Weather Conditions

None:	18
Rain:	0
Snow/Sleet/Hail:	1
Fog:	0
Dust:	0
Wind:	0
Unknown:	0
TOTAL:	19

Lighting Conditions

Daylight:	15
Dawn/Dusk:	1
Dark-Lighted:	2
Dark-Unlighted:	1
Unknown:	0
TOTAL:	19

Road Conditions

Dry:	18
Wet:	1
Muddy:	0
Snowy:	0
Icy:	0
Slushy:	0
Foreign Material:	0
Road Treatment:	0
Unknown:	0
Dry W/Icy Road Treatment:	0
Wet W/Icy Road Treatment:	0
Snowy W/Icy Road Treatment:	0
Icy W/Icy Road Treatment:	0
Slushy W/Icy Road Treatment:	0
TOTAL:	19

Crash Location

On Road:	19
Off Road Left:	0
Off Road Right:	0
Off Road at Tee:	0
Off in Median:	0
Off Unkown:	0
Unknown:	0
	19

Crash Type

Overturning:	0	Bridge Abutment:	0
Other Non-Collision:	0	Column/Pier:	0
Pedestrian:	0	Culvert/Headwall:	0
Broadside:	3	Embankment:	0
Head On:	0	Curb:	0
Rear End:	11	Delineator Post:	0
Sideswipe (Same):	0	Fence:	0
Sideswipe (Opposite):	0	Tree:	0
Approach Turn:	5	Lrg Bldrs or Rocks:	0
Overtaking Turn:	0	Barricade:	0
Parked Motor Veh:	0	Wall/Building:	0
Railway Veh:	0	Crash Cushion:	0
Bicycle:	0	Mailbox:	0
Motorized Bicycle:	0	Other Fixed Object:	0
Domestic Animal:	0	Total Fixed Objects:	0
Wild Animal:	0	Rocks in Roadway:	0
Light/Utility Pole:	0	Vehicle Cargo/Debris:	0
Traffic Signal Pole:	0	Road Maint Equip:	0
Sign:	0	Involving Other Object:	0
Bridge Rail:	0	Total Other Object:	0
Guard Rail:	0	**TOTAL:**	19
Cable Rail:	0		
Concrete Barrier:	0		

Number of Vehicles

One Car:	0
Two Car:	17
Three or More:	2
Unknown:	0
TOTAL:	19

Road Description Details by Vehicle

At Intersection:	12
At Driveway Access:	0
Intersection Related:	7
Non Intersection:	0
In Alley:	0
Roundabout:	0
Ramp:	0
Parking Lot:	0
Unknown:	0
TOTAL:	19

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Old Meridian Rd Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Vehicle Type Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Psgr Car/Psgr Van:	8	11	2
Psgr Car/Psgr Van w/Trl:	0	0	0
Pickup Truck/Utility Van:	6	3	0
Pickup Truck/Utility Van w/Trl:	0	0	0
SUV:	5	5	0
SUV w/Trl:	0	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Busses > 15 People:	0	0	0
Motor Home:	0	0	0
School Bus 15 People or Less:	0	0	0
Non School Bus 15 People or Less:	0	0	0
Motorcycle:	0	0	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run/Unknown Vehicle:	0	0	0
Other:	0	0	0
Unknown:	0	0	0
TOTAL:	19	19	2

Mainline/Ramps/Frontage

Crossroad A:	0
B:	0
C:	0
D:	0
E:	0
F:	0
G:	0
H:	0
I:	0
J:	0
Left Frontage Road (L):	0
K:	0
M:	0
N:	0
O:	0
P:	0
Mainline/HOV:	19
Right Frontage Road (R):	0
Rest Area/Truck Ramp (T):	0
Other (Z):	0
TOTAL:	19

Crash Rates

PDO:	11000000 / MVMT
Injury:	8000000 / MVMT
Fatal:	0 / 100MVMT
Total:	19000000 / MVMT

Human Contributing Factor Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Apparent Contributing Factor:	4	19	2
Asleep at the Wheel:	0	0	0
Illness:	0	0	0
Distracted by Passenger:	0	0	0
Driver Inexperience:	2	0	0
Driver Fatigue:	0	0	0
Driver Preoccupied:	6	0	0
Driver Unfamiliar with Area:	1	0	0
Driver Emotionally Upset:	0	0	0
Evading Law Enforcement Officer:	0	0	0
Physical Disability:	0	0	0
Unknown:	6	0	0
TOTAL:	19	19	2

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Old Meridian Rd Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Condition of Driver Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Impairment Suspected:	17	19	2
Alcohol Involved:	1	0	0
RX, Meds or Drugs Involved:	1	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Ped not Observed:	0	0	0
Unknown:	0	0	0
TOTAL:	19	19	2

Vehicle Direction Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
North:	3	1	1
Northeast:	1	1	1
East:	7	7	0
Southeast:	0	0	0
South:	1	2	0
Southwest:	0	0	0
West:	7	8	0
Northwest:	0	0	0
Unknown:	0	0	0
TOTAL:	19	19	2

Vehicle Movement Factor Detail by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Going Straight:	8	10	0
Slowing:	1	0	0
Stopped in Traffic:	0	9	2
Making Right Turn:	1	0	0
Making Left Turn:	5	0	0
Making U-Turn:	0	0	0
Passing:	0	0	0
Backing:	2	0	0
Entering/Leaving Parked Position:	0	0	0
Starting in Traffic:	0	0	0
Parked:	0	0	0
Changing Lanes:	0	0	0
Avoiding Objects in Roadway:	1	0	0
Weaving:	0	0	0
Wrong Way:	0	0	0
Other:	1	0	0
Unknown:	0	0	0
TOTAL:	19	19	2

CDOT
DiExSys™ Vision Zero Suite
Diagnostics Report

11/16/2023

Old Meridian Rd Diagnostics — **Cutoff:** 5 Acc's @ 95

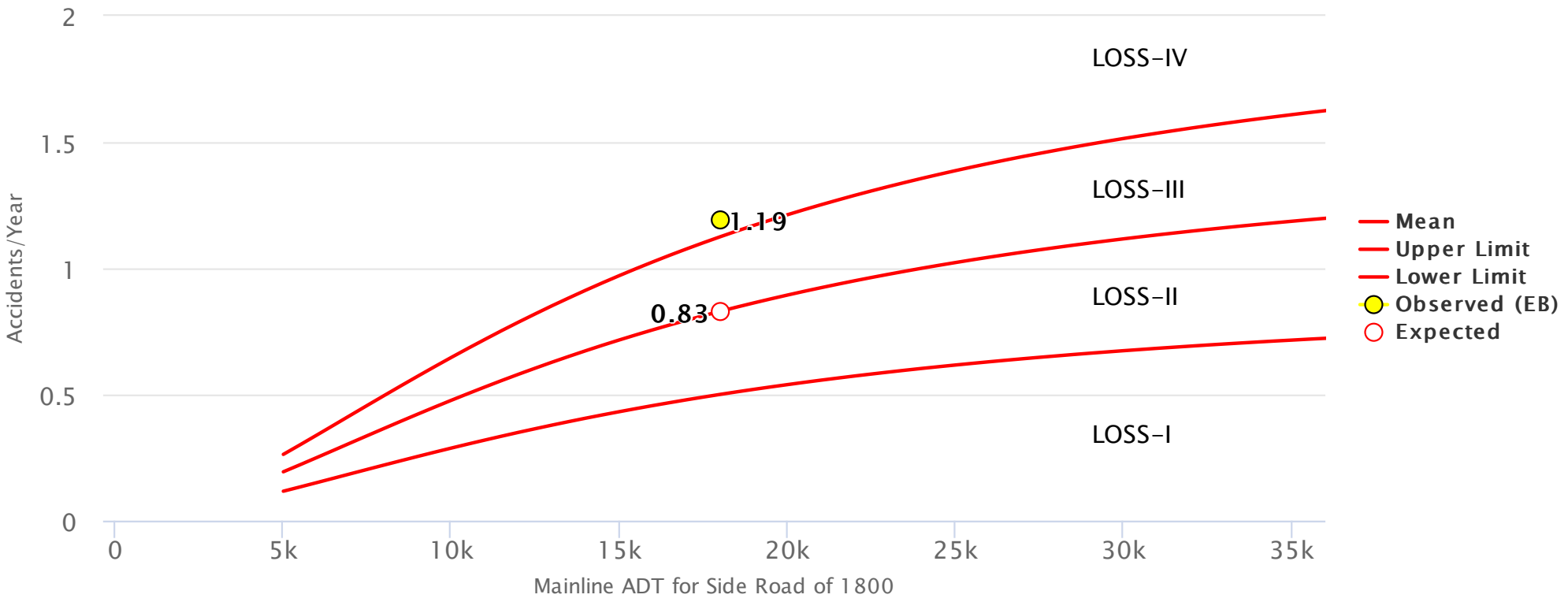
Category/Trait	Statewide Average %	This Location # Crashes	This Location %	Probability %
Crash Location				
On Road	91.32%	19	100%	100%
Crash Type				
Rear End	39.55%	11	57.89%	96.79%
Human Contributing Factor				
Preoccupied	16.08%	6	31.58%	97.66%

Highway Class: CO - Rural 2-Lane Undivided Signalized 4-Leg Intersections (2002)

CDOT
DiExSys™ Vision Zero Suite

11/16/2023

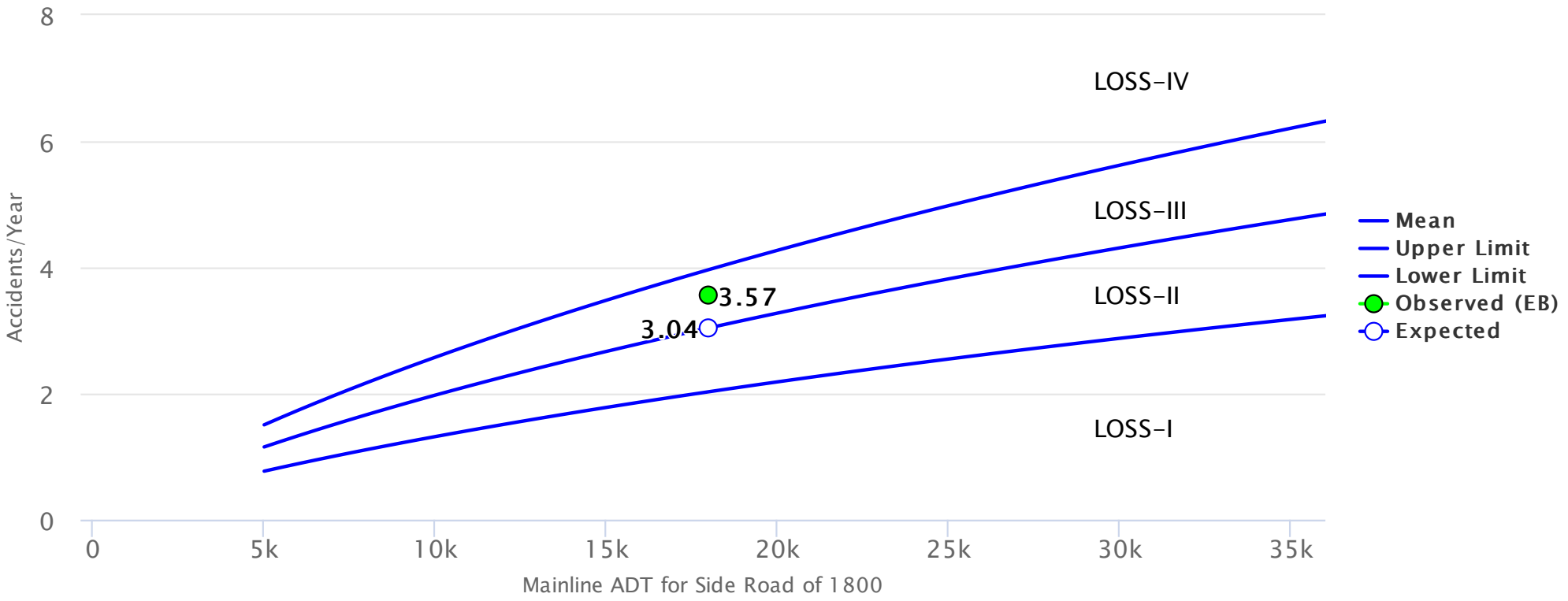
Old Meridian Rd SPF Severity **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite

11/16/2023

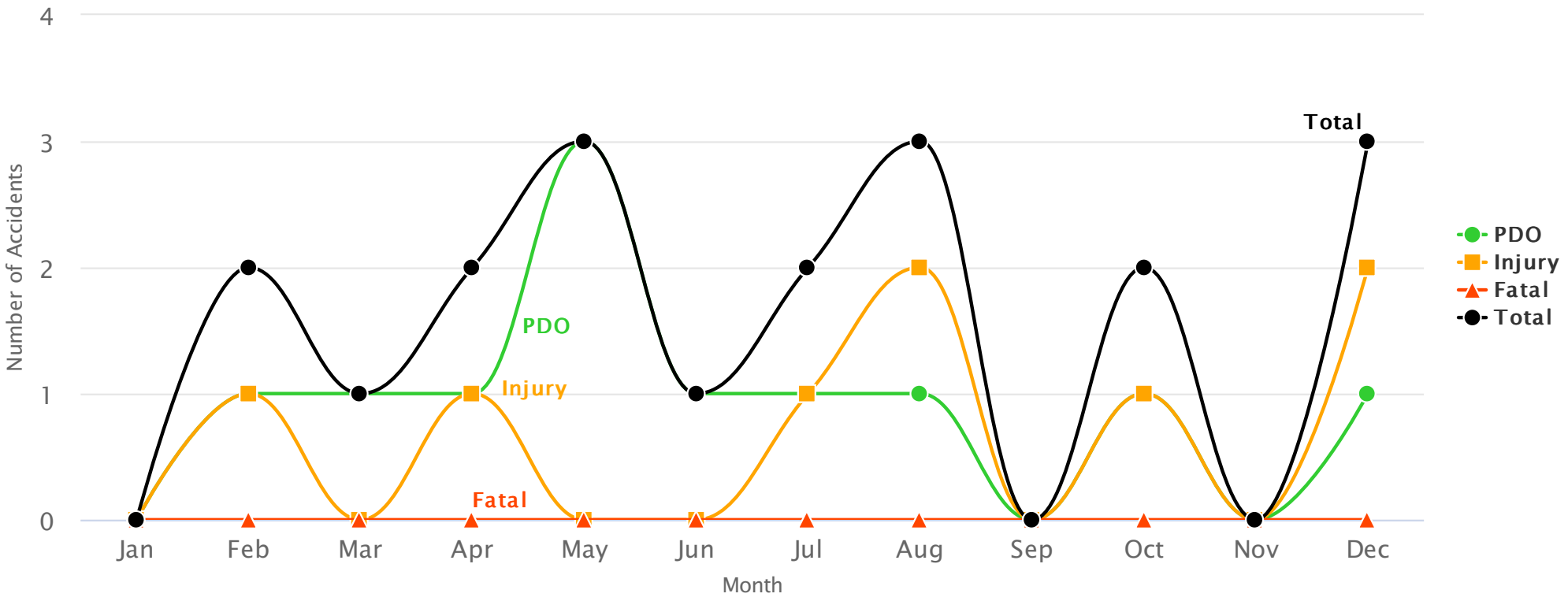
Old Meridian Rd SPF Total **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Month of Year Report

11/16/2023

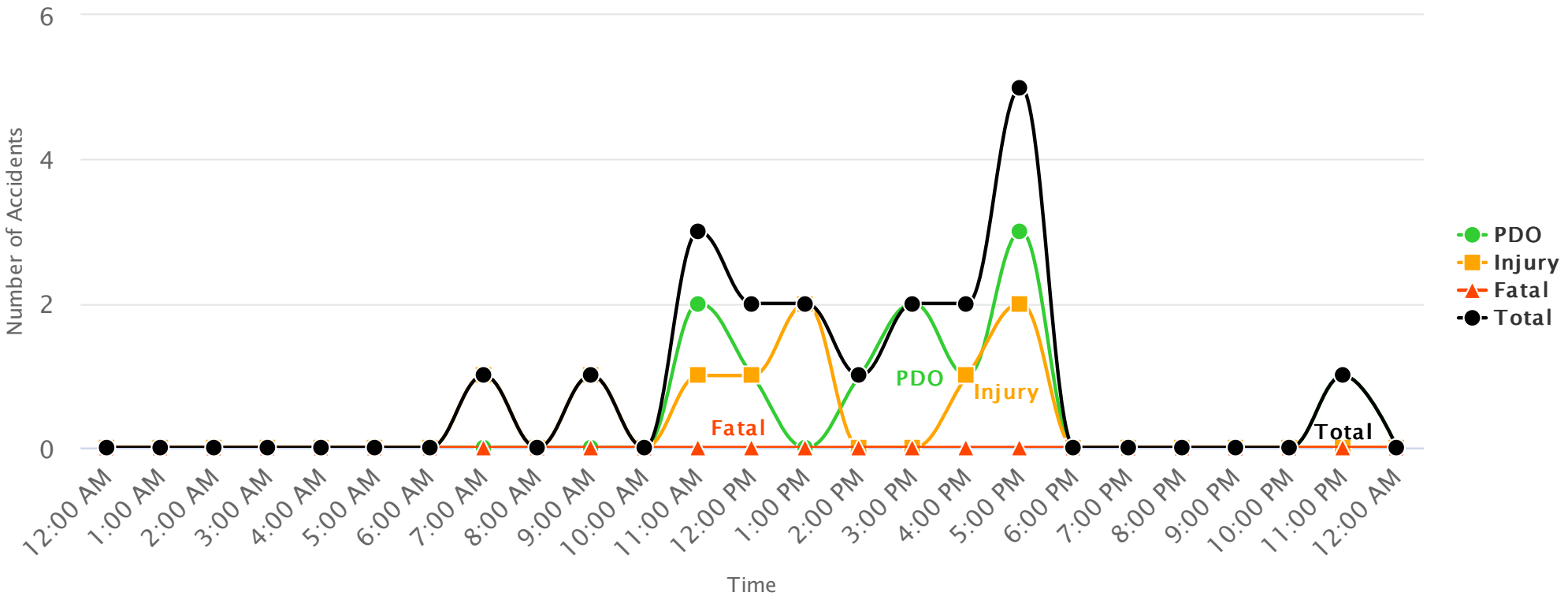
Old Meridian Rd Month of Year **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Time of Day Graph Report

11/16/2023

Old Meridian Rd Time of Day **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Woodmen Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Crash Severity

By Crashes:		Number of People:	
FAT:	0	Killed:	0
INJ:	23	Injured:	35
PDO:	26		
TOTAL:	49		

Weather Conditions

None:	45
Rain:	1
Snow/Sleet/Hail:	1
Fog:	0
Dust:	0
Wind:	1
Unknown:	1
TOTAL:	49

Lighting Conditions

Daylight:	27
Dawn/Dusk:	4
Dark-Lighted:	11
Dark-Unlighted:	7
Unknown:	0
TOTAL:	49

Road Conditions

Dry:	46
Wet:	2
Muddy:	0
Snowy:	0
Icy:	0
Slushy:	0
Foreign Material:	0
Road Treatment:	0
Unknown:	1
Dry W/Icy Road Treatment:	0
Wet W/Icy Road Treatment:	0
Snowy W/Icy Road Treatment:	0
Icy W/Icy Road Treatment:	0
Slushy W/Icy Road Treatment:	0
TOTAL:	49

Crash Location

On Road:	46
Off Road Left:	0
Off Road Right:	0
Off Road at Tee:	2
Off in Median:	1
Off Unkown:	0
Unknown:	0
	49

Crash Type

Overturning:	0	Bridge Abutment:	0
Other Non-Collision:	0	Column/Pier:	0
Pedestrian:	0	Culvert/Headwall:	0
Broadside:	1	Embankment:	0
Head On:	1	Curb:	0
Rear End:	21	Delineator Post:	0
Sideswipe (Same):	2	Fence:	2
Sideswipe (Opposite):	0	Tree:	0
Approach Turn:	20	Lrg Bldrs or Rocks:	0
Overtaking Turn:	2	Barricade:	0
Parked Motor Veh:	0	Wall/Building:	0
Railway Veh:	0	Crash Cushion:	0
Bicycle:	0	Mailbox:	0
Motorized Bicycle:	0	Other Fixed Object:	0
Domestic Animal:	0	Total Fixed Objects:	2
Wild Animal:	0	Rocks in Roadway:	0
Light/Utility Pole:	0	Vehicle Cargo/Debris:	0
Traffic Signal Pole:	0	Road Maint Equip:	0
Sign:	0	Involving Other Object:	0
Bridge Rail:	0	Total Other Object:	0
Guard Rail:	0	**TOTAL:**	49
Cable Rail:	0		
Concrete Barrier:	0		

Number of Vehicles

One Car:	2
Two Car:	44
Three or More:	3
Unknown:	0
TOTAL:	49

Road Description Details by Vehicle

At Intersection:	34
At Driveway Access:	0
Intersection Related:	15
Non Intersection:	0
In Alley:	0
Roundabout:	0
Ramp:	0
Parking Lot:	0
Unknown:	0
TOTAL:	49

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Woodmen Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Vehicle Type Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Psgr Car/Psgr Van:	15	13	2
Psgr Car/Psgr Van w/Trl:	0	0	0
Pickup Truck/Utility Van:	14	17	0
Pickup Truck/Utility Van w/Trl:	1	1	0
SUV:	16	15	1
SUV w/Trl:	0	0	0
Truck 10k lbs or Less:	0	0	0
Trucks > 10k lbs/Busses > 15 People:	1	1	0
Motor Home:	0	0	0
School Bus 15 People or Less:	0	0	0
Non School Bus 15 People or Less:	0	0	0
Motorcycle:	1	0	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run/Unknown Vehicle:	0	0	0
Other:	0	0	0
Unknown:	1	0	0
TOTAL:	49	47	3

Mainline/Ramps/Frontage

Crossroad A:	0
B:	0
C:	0
D:	0
E:	0
F:	0
G:	0
H:	0
I:	0
J:	0
Left Frontage Road (L):	0
K:	0
M:	0
N:	0
O:	0
P:	0
Mainline/HOV:	49
Right Frontage Road (R):	0
Rest Area/Truck Ramp (T):	0
Other (Z):	0
TOTAL:	49

Crash Rates

PDO: 26000000 / MVMT
Injury: 23000000 / MVMT
Fatal: 0 / 100MVMT
Total: 49000000 / MVMT

Human Contributing Factor Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Apparent Contributing Factor:	12	43	3
Asleep at the Wheel:	0	0	0
Illness:	1	0	0
Distracted by Passenger:	3	0	0
Driver Inexperience:	5	2	0
Driver Fatigue:	0	0	0
Driver Preoccupied:	11	0	0
Driver Unfamiliar with Area:	5	0	0
Driver Emotionally Upset:	0	0	0
Evading Law Enforcement Officer:	1	0	0
Physical Disability:	0	0	0
Unknown:	11	2	0
TOTAL:	49	47	3

CDOT
DiExSys™ Vision Zero Suite
General Summary Report

11/16/2023

Woodmen Summary **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022

Condition of Driver Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
No Impairment Suspected:	47	46	3
Alcohol Involved:	2	1	0
RX, Meds or Drugs Involved:	0	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	0	0	0
Driver/Ped not Observed:	0	0	0
Unknown:	0	0	0
TOTAL:	49	47	3

Vehicle Direction Details by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
North:	1	0	0
Northeast:	5	0	0
East:	25	16	2
Southeast:	1	1	0
South:	2	2	1
Southwest:	0	5	0
West:	14	23	0
Northwest:	0	0	0
Unknown:	1	0	0
TOTAL:	49	47	3

Vehicle Movement Factor Detail by Vehicle

Veh:	Vehicle 1	Vehicle 2	Vehicle 3
Going Straight:	17	20	0
Slowing:	3	2	0
Stopped in Traffic:	1	15	2
Making Right Turn:	4	4	1
Making Left Turn:	19	5	0
Making U-Turn:	0	0	0
Passing:	0	1	0
Backing:	0	0	0
Entering/Leaving Parked Position:	1	0	0
Starting in Traffic:	0	0	0
Parked:	0	0	0
Changing Lanes:	2	0	0
Avoiding Objects in Roadway:	0	0	0
Weaving:	0	0	0
Wrong Way:	0	0	0
Other:	1	0	0
Unknown:	1	0	0
TOTAL:	49	47	3

CDOT
DiExSys™ Vision Zero Suite
Diagnostics Report

11/16/2023

Woodmen Diagnostics **Cutoff:** 5 Acc's @ 95

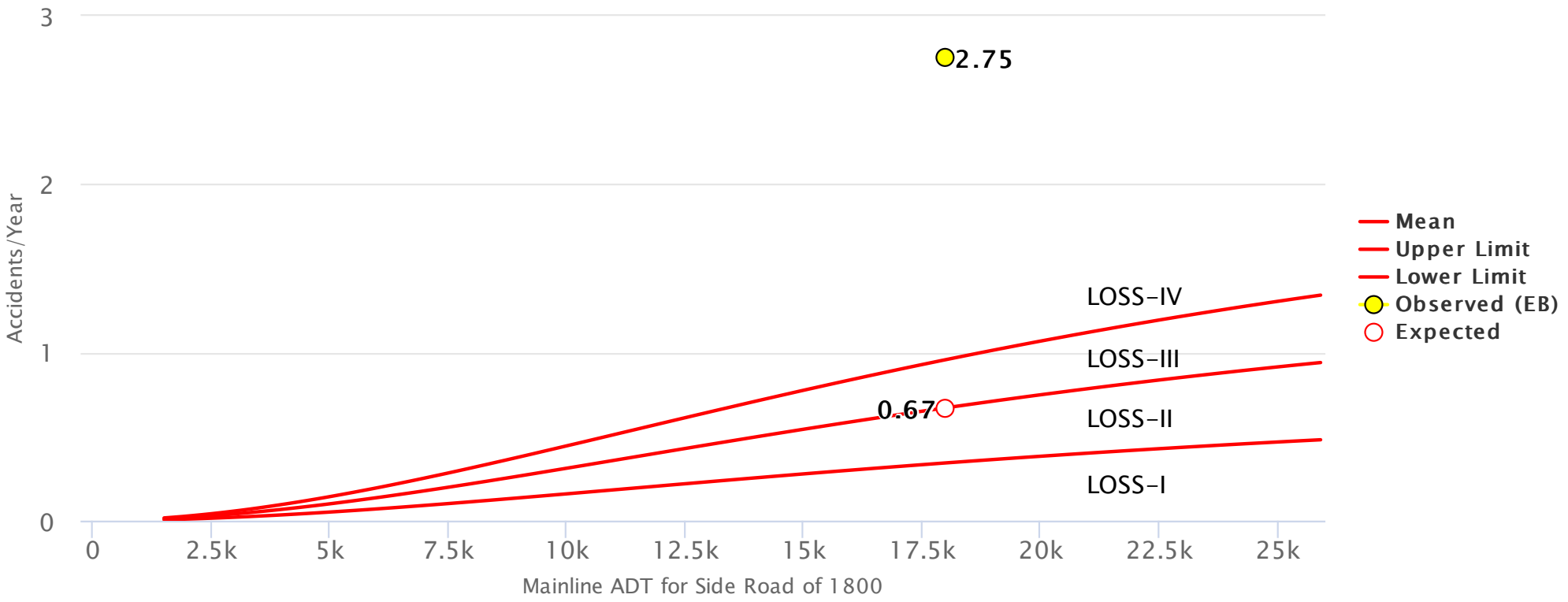
Category/Trait	Statewide Average %	This Location # Crashes	This Location %	Probability %
Crash Severity				
Injury (INJ)	29.81%	23	46.94%	99.63%
Crash Type				
Approach Turn	17.89%	20	40.82%	100%
Lighting Conditions				
Dark - Unlighted	2.56%	7	14.29%	100%
Human Contributing Factor				
Unfamiliar with Area	2.04%	5	10.2%	99.95%

Highway Class: CO - Urban 2-Lane Divided Signalized 3-Leg Intersection - AADT 12500-26000 ADT (2021)

CDOT
DiExSys™ Vision Zero Suite

11/16/2023

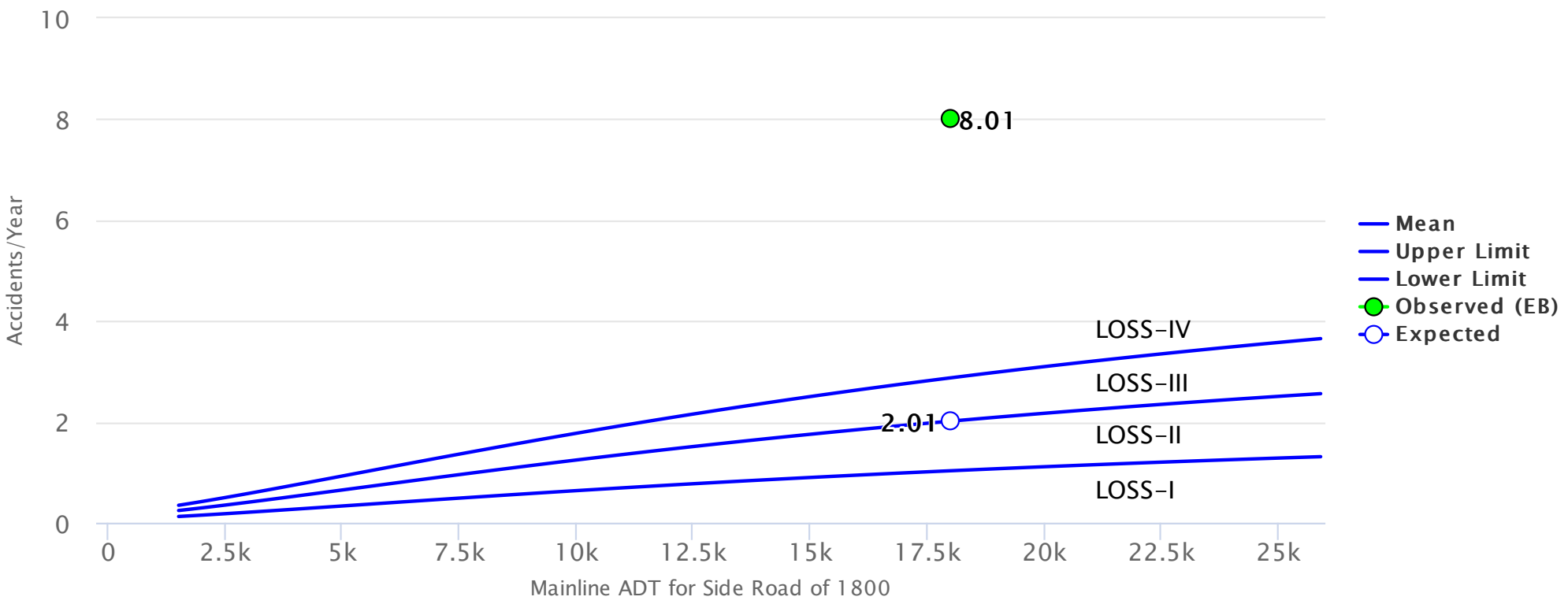
Woodmen SPF Severity **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite

11/16/2023

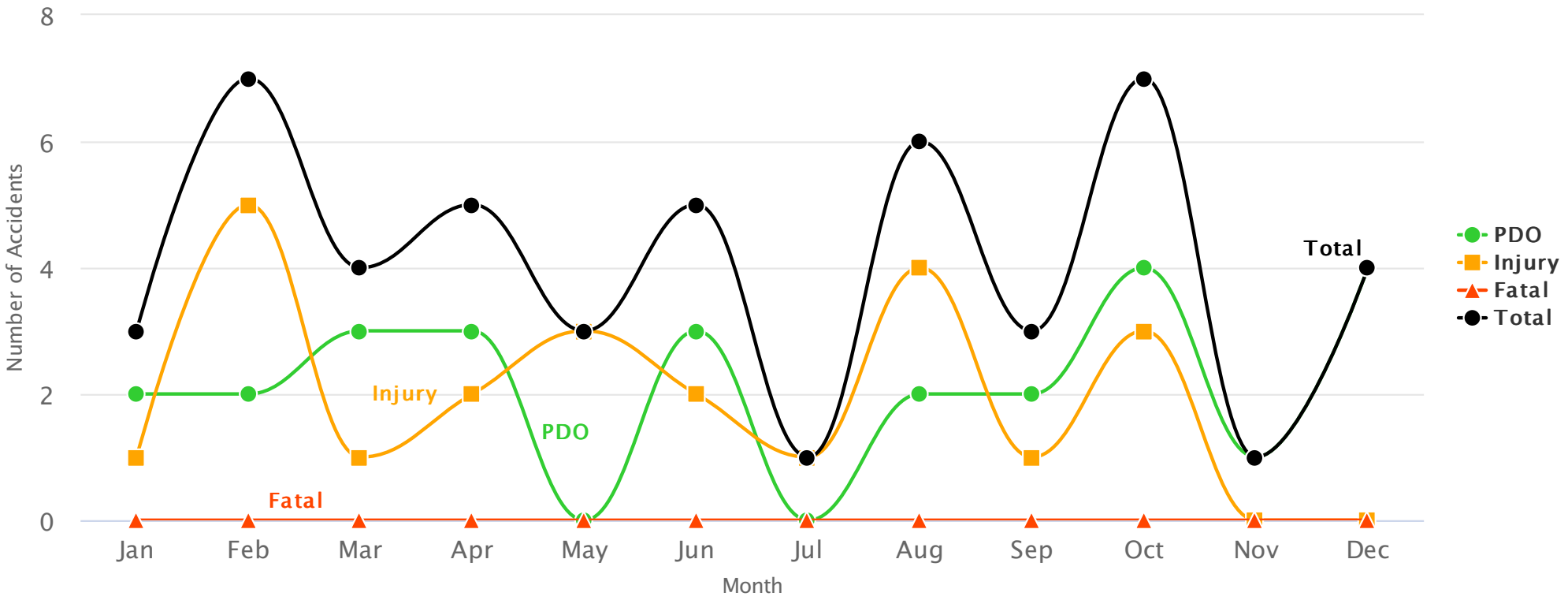
Woodmen SPF Total **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Month of Year Report

11/16/2023

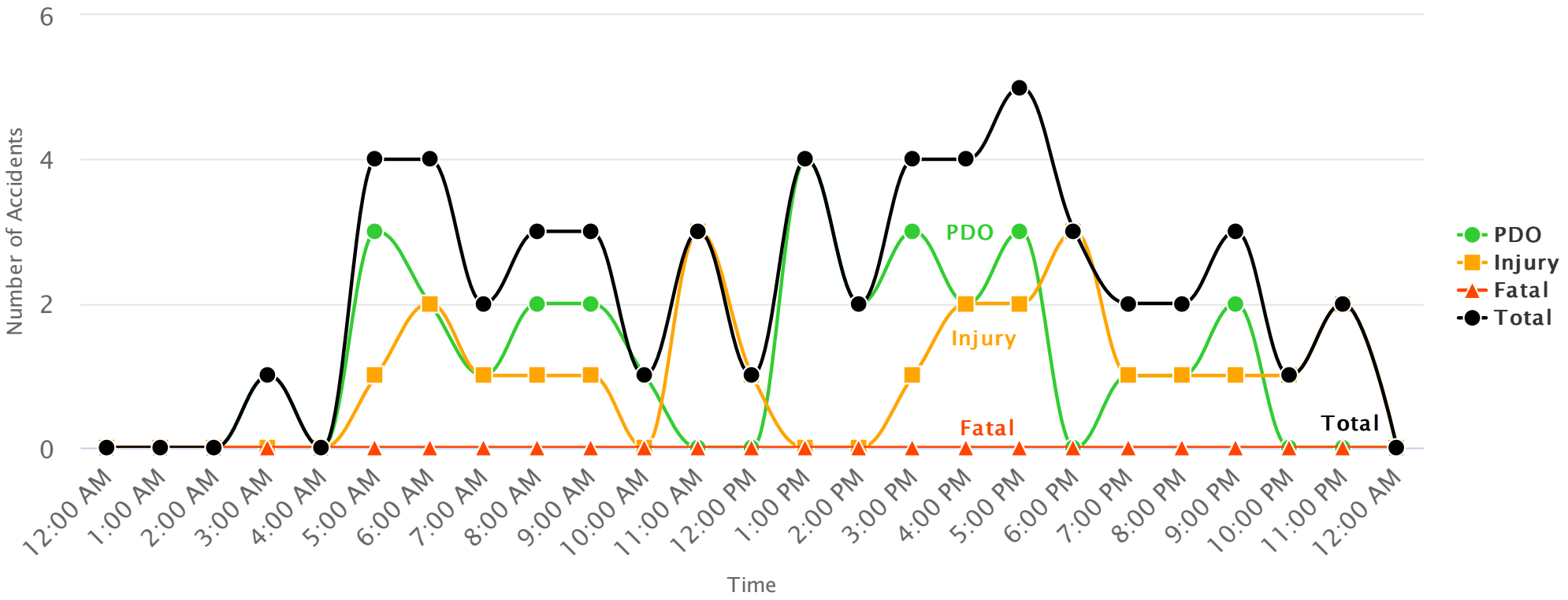
Woodmen Month of Year **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



CDOT
DiExSys™ Vision Zero Suite
Summary - Time of Day Graph Report

11/16/2023

Woodmen Time of Day **Type:** Intersection **Search Name:** Map Boundary Search **From:** 1/1/2018 **To:** 12/31/2022



ATTACHMENT C

FRONTAGE
TRIPS

Trip Generation Estimates - Frontage/Backage Roads

Trip Generation Table - Frontage Road (via Garrett Road)

Land Use	Variable Value	Time Period	Equation	% Entering	Weekday Total (2-way)	AM Total	AM in	AM out	PM Total	PM in	PM out
Single Family Detached Housing		Weekday	Ln(T) = 0.92 Ln(X)+2.68	50%	64						
ITE Land Use Code 210		AM Peak	T = 0.71(X) + 7.23	26%		11	3	8			
Variable = Dwelling Units	**5**	PM Peak	Ln(T) = 0.93 Ln(X) + 0.36	64%					6	4	2
			Total Trips		**64**	**11**	**3**	**8**	**6**	**4**	**2**

Trip Generation Table - Backage Road (via Falcon Highway)

Land Use	Variable Value	Time Period	Equation	% Entering	Weekday Total (2-way)	AM Total	AM in	AM out	PM Total	PM in	PM out
Single Family Detached Housing		Weekday	Ln(T) = 0.92 Ln(X)+2.68	50%	52						
ITE Land Use Code 210		AM Peak	T = 0.71(X) + 7.23	26%		10	3	7			
Variable = Dwelling Units	**4**	PM Peak	Ln(T) = 0.93 Ln(X) + 0.36	64%					5	3	2
Recreational Vehicle Shop (Premier RV)		Weekday	5 Trips per Variable	50%	50						
ITE Land Use Code 842		AM Peak	T = 0.85(X)	54%		9	5	4			
Variable = 1,000 sq. ft. Gross Floor Area	**10**	PM Peak	T = 0.77(X)	37%					8	3	5
Light Industrial (Denali Stone)		Weekday	T = 4.87(X)	50%	24						
ITE Land Use Code 110		AM Peak	T = 0.68(X) + 3.81	88%		7	6	1			
Variable = 1,000 sq. ft. Gross Floor Area	**5**	PM Peak	Ln(T) = 0.72 Ln(X) + 0.38	14%					5	1	4
			Total Trips		**127**	**26**	**14**	**12**	**18**	**7**	**11**

ATTACHMENT D

OPENING DAY (2027)
SYNCHRO ANALYSIS
REPORTS

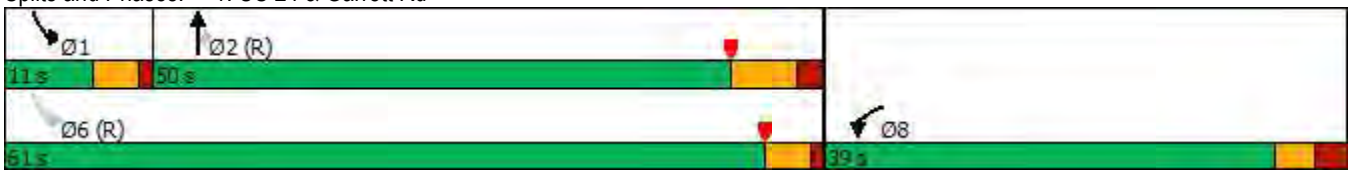
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	210	5	660	45	5	1570	
Future Volume (vph)	210	5	660	45	5	1570	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	200		300	600		
Storage Lanes	1	0		1	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	0.997			0.850			
Flt Protected	0.953				0.950		
Satd. Flow (prot)	1753	0	3312	1482	1770	3539	
Flt Permitted	0.953				0.306		
Satd. Flow (perm)	1753	0	3312	1482	570	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	1			54			
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			6085	
Travel Time (s)	19.7		25.9			75.4	
Peak Hour Factor	0.77	0.77	0.84	0.84	0.96	0.96	
Heavy Vehicles (%)	3%	3%	9%	9%	2%	2%	
Adj. Flow (vph)	273	6	786	54	5	1635	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	279	0	786	54	5	1635	
Turn Type	Prot		NA	Perm	custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases				2	6		
Detector Phase	8		2	2	1		
Switch Phase							
Minimum Initial (s)	4.0		7.0	7.0	5.0		5.0
Minimum Split (s)	9.5		14.0	14.0	9.5		22.5
Total Split (s)	39.0		50.0	50.0	11.0		61.0
Total Split (%)	39.0%		50.0%	50.0%	11.0%		61%
Maximum Green (s)	33.5		43.0	43.0	6.5		56.5
Yellow Time (s)	3.0		5.0	5.0	3.5		3.5
All-Red Time (s)	2.5		2.0	2.0	1.0		1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0		
Total Lost Time (s)	5.5		7.0	7.0	4.5		
Lead/Lag			Lag	Lag	Lead		
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0
Recall Mode	None		C-Max	C-Max	None		C-Max
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	21.2		64.2	64.2	68.8	100.0	
Actuated g/C Ratio	0.21		0.64	0.64	0.69	1.00	
v/c Ratio	0.75		0.37	0.06	0.01	0.46	
Control Delay	48.9		10.5	3.6	9.8	0.4	
Queue Delay	0.0		0.0	0.0	0.0	0.0	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Total Delay	48.9		10.5	3.6	9.8	0.4	
LOS	D		B	A	A	A	
Approach Delay	48.9		10.1			0.4	
Approach LOS	D		B			A	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 13 (13%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 8.3	Intersection LOS: A
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 1: US 24 & Garrett Rd

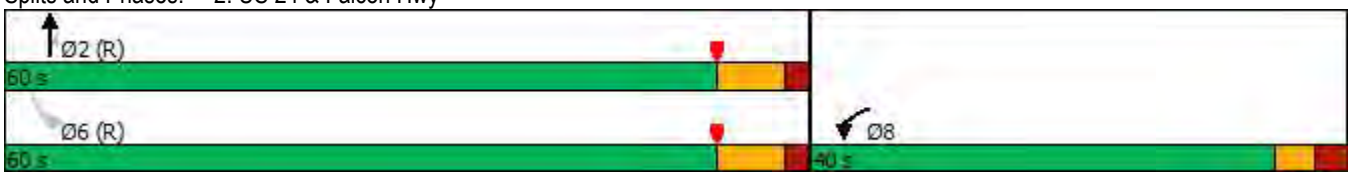


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	205	5	655	45	10	1400
Future Volume (vph)	205	5	655	45	10	1400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.997			0.850		
Flt Protected	0.953				0.950	
Satd. Flow (prot)	1719	0	3406	1524	1736	3471
Flt Permitted	0.953				0.353	
Satd. Flow (perm)	1719	0	3406	1524	645	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	1			52		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		6085			853
Travel Time (s)	30.3		75.4			10.6
Peak Hour Factor	0.96	0.96	0.86	0.86	0.99	0.99
Heavy Vehicles (%)	5%	5%	6%	6%	4%	4%
Adj. Flow (vph)	214	5	762	52	10	1414
Shared Lane Traffic (%)						
Lane Group Flow (vph)	219	0	762	52	10	1414
Turn Type	Prot		NA	Perm	custom	NA
Protected Phases	8!		2			Free!
Permitted Phases				2	6	
Detector Phase	8		2	2	6	
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	
Minimum Split (s)	11.5		35.0	35.0	35.0	
Total Split (s)	40.0		60.0	60.0	60.0	
Total Split (%)	40.0%		60.0%	60.0%	60.0%	
Maximum Green (s)	34.5		53.0	53.0	53.0	
Yellow Time (s)	3.0		5.0	5.0	5.0	
All-Red Time (s)	2.5		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.5		7.0	7.0	7.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		C-Max	C-Max	C-Max	
Act Effct Green (s)	18.1		69.4	69.4	69.4	100.0
Actuated g/C Ratio	0.18		0.69	0.69	0.69	1.00
v/c Ratio	0.70		0.32	0.05	0.02	0.41
Control Delay	49.9		0.5	0.1	3.6	0.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	49.9		0.5	0.1	3.6	0.8
LOS	D		A	A	A	A
Approach Delay	49.9		0.5			0.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	D		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 90 (90%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 2: US 24 & Falcon Hwy

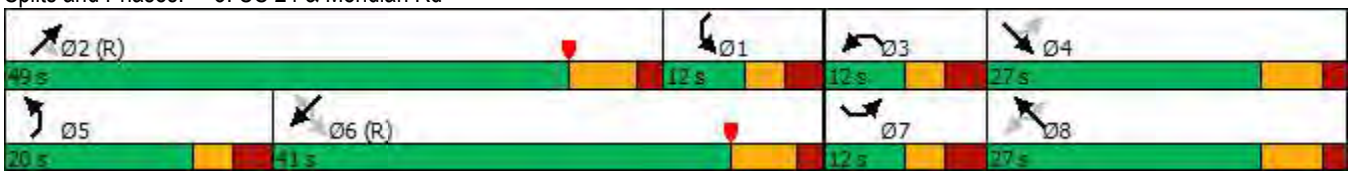


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	15	400	730	15	295	40	240	420	20	65	670	10
Future Volume (vph)	15	400	730	15	295	40	240	420	20	65	670	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	400		100	300		100
Storage Lanes	1		0	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3574	1599	1719	3438	1538	3273	3374	1509	1736	3471	1553
Flt Permitted	0.394			0.323			0.950			0.474		
Satd. Flow (perm)	741	3574	1599	584	3438	1538	3273	3374	1509	866	3471	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			645			251			180			169
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			929			640	
Travel Time (s)		31.8			37.0			11.5			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.75	0.75	0.75	0.86	0.86	0.86	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	5%	5%	5%	7%	7%	7%	4%	4%	4%
Adj. Flow (vph)	17	449	820	20	393	53	279	488	23	68	698	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	449	820	20	393	53	279	488	23	68	698	10
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8			2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0	20.0	6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	12.5	12.5	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	12.0	27.0		12.0	27.0	27.0	20.0	49.0	49.0	12.0	41.0	41.0
Total Split (%)	12.0%	27.0%		12.0%	27.0%	27.0%	20.0%	49.0%	49.0%	12.0%	41.0%	41.0%
Maximum Green (s)	6.0	20.5		6.0	20.5	20.5	14.0	42.0	42.0	6.0	34.0	34.0
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0	7.0	6.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.3	17.4	100.0	20.3	17.4	17.4	12.8	54.7	54.7	46.6	45.6	45.6
Actuated g/C Ratio	0.20	0.17	1.00	0.20	0.17	0.17	0.13	0.55	0.55	0.47	0.46	0.46
v/c Ratio	0.08	0.72	0.51	0.11	0.66	0.11	0.67	0.26	0.03	0.15	0.44	0.01
Control Delay	26.3	45.9	1.2	27.1	43.8	0.5	40.6	5.6	0.1	11.3	13.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	45.9	1.2	27.1	43.8	0.5	40.6	5.6	0.1	11.3	13.0	0.0
LOS	C	D	A	C	D	A	D	A	A	B	B	A
Approach Delay		17.1			38.2			17.8			12.7	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		B			D			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 20 (20%), Referenced to phase 2:NET and 6:SWTL, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 19.2		Intersection LOS: B	
Intersection Capacity Utilization 54.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Meridian Rd

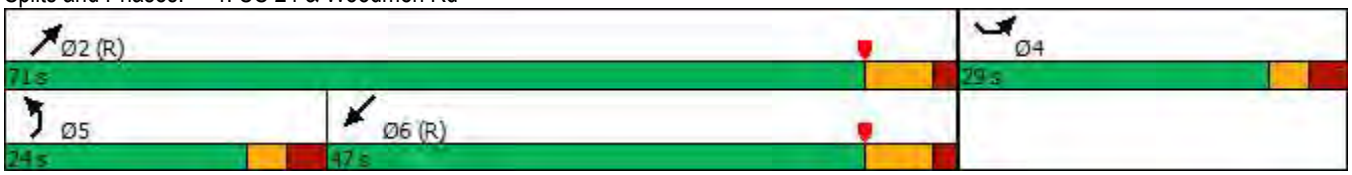


Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	255	215	190	320	505	370
Future Volume (vph)	255	215	190	320	505	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	800			600
Storage Lanes	2	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3400	1568	3303	3406	3471	1553
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3400	1568	3303	3406	3471	1553
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		250				411
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.86	0.86	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	3%	3%	6%	6%	4%	4%
Adj. Flow (vph)	297	250	202	340	561	411
Shared Lane Traffic (%)						
Lane Group Flow (vph)	297	250	202	340	561	411
Turn Type	Prot	Free	Prot	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free				Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	12.0		12.0	32.0	32.0	
Total Split (s)	29.0		24.0	71.0	47.0	
Total Split (%)	29.0%		24.0%	71.0%	47.0%	
Maximum Green (s)	23.0		18.0	64.0	40.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	14.0	100.0	11.4	73.0	55.6	100.0
Actuated g/C Ratio	0.14	1.00	0.11	0.73	0.56	1.00
v/c Ratio	0.62	0.16	0.54	0.14	0.29	0.26
Control Delay	46.2	0.2	47.6	1.3	13.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	0.2	47.6	1.3	13.1	0.4
LOS	D	A	D	A	B	A
Approach Delay	25.2			18.6	7.7	

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Approach LOS	C			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 88 (88%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: US 24 & Woodmen Rd

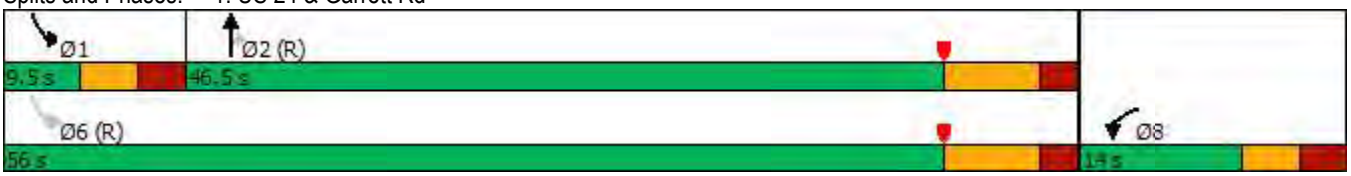


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	75	15	1425	240	10	795	
Future Volume (vph)	75	15	1425	240	10	795	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	200		300	600		
Storage Lanes	1	0		1	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	0.977			0.850			
Flt Protected	0.960				0.950		
Satd. Flow (prot)	1764	0	3505	1568	1736	3471	
Flt Permitted	0.960				0.109		
Satd. Flow (perm)	1764	0	3505	1568	199	3471	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	12			253			
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			6085	
Travel Time (s)	19.7		25.9			75.4	
Peak Hour Factor	0.69	0.69	0.95	0.95	0.92	0.92	
Heavy Vehicles (%)	1%	1%	3%	3%	4%	4%	
Adj. Flow (vph)	109	22	1500	253	11	864	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	131	0	1500	253	11	864	
Turn Type	Prot		NA	Perm	custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases				2	6		
Detector Phase	8		2	2	1		
Switch Phase							
Minimum Initial (s)	4.0		7.0	7.0	4.0		7.0
Minimum Split (s)	9.5		14.0	14.0	9.5		14.0
Total Split (s)	14.0		46.5	46.5	9.5		56.0
Total Split (%)	20.0%		66.4%	66.4%	13.6%		80%
Maximum Green (s)	8.5		39.5	39.5	4.0		49.0
Yellow Time (s)	3.0		5.0	5.0	3.0		5.0
All-Red Time (s)	2.5		2.0	2.0	2.5		2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0		
Total Lost Time (s)	5.5		7.0	7.0	5.5		
Lead/Lag			Lag	Lag	Lead		
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0
Recall Mode	None		C-Max	C-Max	None		C-Max
Act Effct Green (s)	8.0		51.3	51.3	53.3	70.0	
Actuated g/C Ratio	0.11		0.73	0.73	0.76	1.00	
v/c Ratio	0.62		0.58	0.21	0.04	0.25	
Control Delay	40.3		7.8	1.4	5.1	0.2	
Queue Delay	0.0		0.0	0.0	0.0	0.0	
Total Delay	40.3		7.8	1.4	5.1	0.2	
LOS	D		A	A	A	A	
Approach Delay	40.3		6.9			0.3	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Approach LOS	D		A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 4 (6%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 6.4		Intersection LOS: A	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: US 24 & Garrett Rd

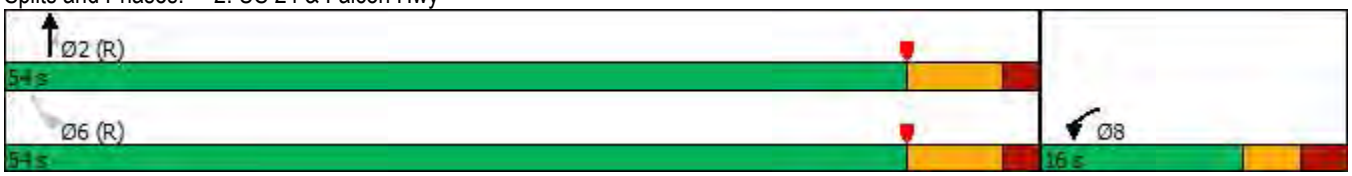


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	65	5	1385	65	5	755
Future Volume (vph)	65	5	1385	65	5	755
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.990			0.850		
Flt Protected	0.956				0.950	
Satd. Flow (prot)	1763	0	3539	1583	1736	3471
Flt Permitted	0.956				0.164	
Satd. Flow (perm)	1763	0	3539	1583	300	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	5			66		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		6085			853
Travel Time (s)	30.3		75.4			10.6
Peak Hour Factor	0.88	0.88	0.98	0.98	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	2%	4%	4%
Adj. Flow (vph)	74	6	1413	66	6	878
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	0	1413	66	6	878
Turn Type	Prot		NA	Perm	custom	NA
Protected Phases	8!		2			Free!
Permitted Phases				2	6	
Detector Phase	8		2	2	6	
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	
Minimum Split (s)	11.5		35.0	35.0	35.0	
Total Split (s)	16.0		54.0	54.0	54.0	
Total Split (%)	22.9%		77.1%	77.1%	77.1%	
Maximum Green (s)	10.5		47.0	47.0	47.0	
Yellow Time (s)	3.0		5.0	5.0	5.0	
All-Red Time (s)	2.5		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.5		7.0	7.0	7.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		C-Max	C-Max	C-Max	
Act Effct Green (s)	8.3		52.9	52.9	52.9	70.0
Actuated g/C Ratio	0.12		0.76	0.76	0.76	1.00
v/c Ratio	0.38		0.53	0.05	0.03	0.25
Control Delay	31.6		1.0	0.1	6.4	0.5
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	31.6		1.0	0.1	6.4	0.5
LOS	C		A	A	A	A
Approach Delay	31.6		0.9			0.5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 10 (14%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 1.8		Intersection LOS: A	
Intersection Capacity Utilization 53.7%		ICU Level of Service A	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 2: US 24 & Falcon Hwy

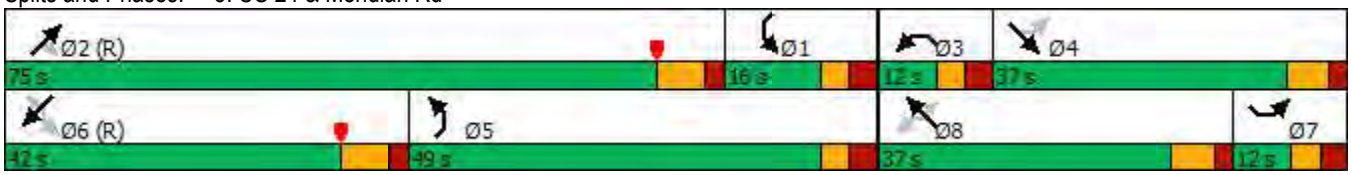


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	240	280	20	360	60	650	750	5	95	465	10
Future Volume (vph)	30	240	280	20	360	60	650	750	5	95	465	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	400		100	300		100
Storage Lanes	1		0	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3505	1568	1787	3574	1599	3400	3505	1568	1703	3406	1524
Flt Permitted	0.403			0.322			0.950			0.239		
Satd. Flow (perm)	743	3505	1568	606	3574	1599	3400	3505	1568	428	3406	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			315			183			171			226
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			929			640	
Travel Time (s)		31.8			37.0			11.5			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.72	0.72	0.72	0.90	0.90	0.90	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	3%	3%	3%	6%	6%	6%
Adj. Flow (vph)	34	270	315	28	500	83	722	833	6	99	484	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	270	315	28	500	83	722	833	6	99	484	10
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8			2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0	20.0	6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	12.5	12.5	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	12.0	37.0		12.0	37.0	37.0	49.0	75.0	75.0	16.0	42.0	42.0
Total Split (%)	8.6%	26.4%		8.6%	26.4%	26.4%	35.0%	53.6%	53.6%	11.4%	30.0%	30.0%
Maximum Green (s)	6.0	30.5		6.0	30.5	30.5	43.0	68.0	68.0	10.0	35.0	35.0
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0	7.0	6.0	7.0	7.0
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.5	24.6	140.0	25.6	25.1	25.1	41.0	80.2	80.2	56.2	47.2	47.2
Actuated g/C Ratio	0.20	0.18	1.00	0.18	0.18	0.18	0.29	0.57	0.57	0.40	0.34	0.34
v/c Ratio	0.18	0.44	0.20	0.17	0.78	0.19	0.73	0.42	0.01	0.41	0.42	0.02
Control Delay	49.5	53.2	0.3	47.7	63.5	1.0	50.4	15.5	0.0	26.1	25.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	53.2	0.3	47.7	63.5	1.0	50.4	15.5	0.0	26.1	25.8	0.0
LOS	D	D	A	D	E	A	D	B	A	C	C	A
Approach Delay		26.1			54.2			31.5			25.4	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 3 (2%), Referenced to phase 2:NET and 6:SWTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 33.6		Intersection LOS: C	
Intersection Capacity Utilization 71.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Meridian Rd



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	540	185	340	530	365	410
Future Volume (vph)	540	185	340	530	365	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	800			600
Storage Lanes	2	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3467	1599	3433	3539	3505	1568
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3467	1599	3433	3539	3505	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		189				441
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.93	0.93
Heavy Vehicles (%)	1%	1%	2%	2%	3%	3%
Adj. Flow (vph)	600	206	378	589	392	441
Shared Lane Traffic (%)						
Lane Group Flow (vph)	600	206	378	589	392	441
Turn Type	Prot	Free	Prot	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free				Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	12.0		12.0	32.0	32.0	
Total Split (s)	55.0		40.0	85.0	45.0	
Total Split (%)	39.3%		28.6%	60.7%	32.1%	
Maximum Green (s)	49.0		34.0	78.0	38.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	30.1	140.0	20.7	96.9	70.2	140.0
Actuated g/C Ratio	0.22	1.00	0.15	0.69	0.50	1.00
v/c Ratio	0.81	0.13	0.75	0.24	0.22	0.28
Control Delay	60.7	0.2	55.7	3.1	21.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	0.2	55.7	3.1	21.5	0.4
LOS	E	A	E	A	C	A
Approach Delay	45.2			23.7	10.3	

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Approach LOS	D			C	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 104 (74%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 61.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: US 24 & Woodmen Rd

ATTACHMENT E

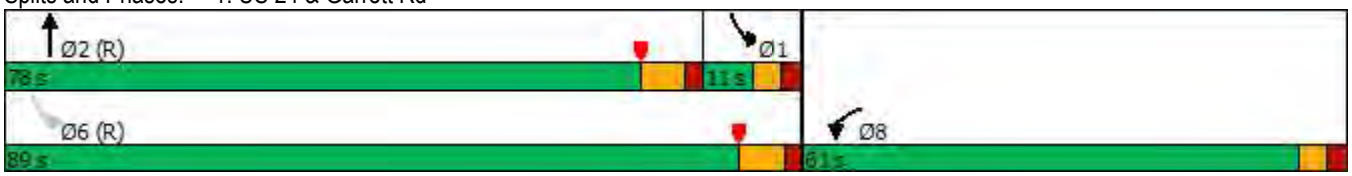
HORIZON YEAR (2045)
NO ACTION
SYNCHRO ANALYSIS
REPORTS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	280	10	790	60	25	1820	
Future Volume (vph)	280	10	790	60	25	1820	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	600		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00	
Frt	0.995		0.989				
Flt Protected	0.954				0.950		
Satd. Flow (prot)	1751	0	3275	0	1770	1863	
Flt Permitted	0.954				0.231		
Satd. Flow (perm)	1751	0	3275	0	430	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	1		7				
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			1198	
Travel Time (s)	19.7		25.9			14.9	
Peak Hour Factor	0.77	0.77	0.84	0.84	0.96	0.96	
Heavy Vehicles (%)	3%	3%	9%	9%	2%	2%	
Adj. Flow (vph)	364	13	940	71	26	1896	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	377	0	1011	0	26	1896	
Turn Type	Prot		NA		custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases					6		
Detector Phase	8		2		1		
Switch Phase							
Minimum Initial (s)	4.0		7.0		4.0		7.0
Minimum Split (s)	9.5		14.0		9.5		14.0
Total Split (s)	61.0		78.0		11.0		89.0
Total Split (%)	40.7%		52.0%		7.3%		59%
Maximum Green (s)	55.5		71.0		5.5		82.0
Yellow Time (s)	3.0		5.0		3.0		5.0
All-Red Time (s)	2.5		2.0		2.5		2.0
Lost Time Adjust (s)	0.0		0.0		0.0		
Total Lost Time (s)	5.5		7.0		5.5		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		C-Max		None		C-Max
Act Effct Green (s)	38.3		92.6		100.7	150.0	
Actuated g/C Ratio	0.26		0.62		0.67	1.00	
v/c Ratio	0.84		0.50		0.08	1.02	
Control Delay	69.4		18.7		10.6	18.5	
Queue Delay	0.0		0.0		0.0	0.0	
Total Delay	69.4		18.7		10.6	18.5	
LOS	E		B		B	B	
Approach Delay	69.4		18.7			18.4	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Approach LOS	E		B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 79 (53%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 24.3		Intersection LOS: C	
Intersection Capacity Utilization 119.8%		ICU Level of Service H	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: US 24 & Garrett Rd

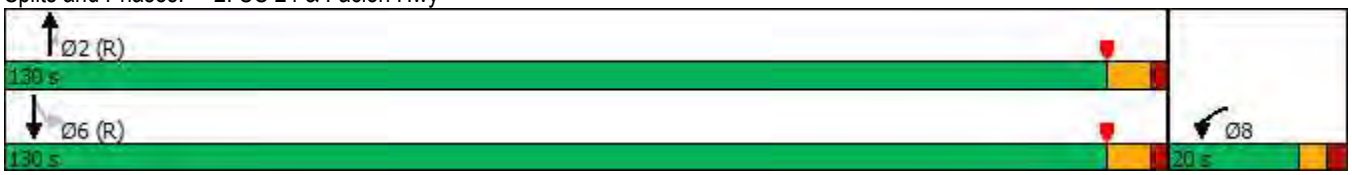


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	185	5	755	60	10	1735
Future Volume (vph)	185	5	755	60	10	1735
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997			0.850		
Flt Protected	0.954				0.950	
Satd. Flow (prot)	1721	0	1792	1524	1736	1827
Flt Permitted	0.954				0.286	
Satd. Flow (perm)	1721	0	1792	1524	522	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	1			70		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		4887			853
Travel Time (s)	30.3		60.6			10.6
Peak Hour Factor	0.96	0.96	0.86	0.86	0.99	0.99
Heavy Vehicles (%)	5%	5%	6%	6%	4%	4%
Adj. Flow (vph)	193	5	878	70	10	1753
Shared Lane Traffic (%)						
Lane Group Flow (vph)	198	0	878	70	10	1753
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	28.0
Minimum Split (s)	11.5		35.0	35.0	35.0	35.0
Total Split (s)	20.0		130.0	130.0	130.0	130.0
Total Split (%)	13.3%		86.7%	86.7%	86.7%	86.7%
Maximum Green (s)	14.5		123.0	123.0	123.0	123.0
Yellow Time (s)	3.0		5.0	5.0	5.0	5.0
All-Red Time (s)	2.5		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5		7.0	7.0	7.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	14.5		123.0	123.0	123.0	123.0
Actuated g/C Ratio	0.10		0.82	0.82	0.82	0.82
v/c Ratio	1.19		0.60	0.06	0.02	1.17
Control Delay	183.5		11.9	0.2	1.6	96.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	183.5		11.9	0.2	1.6	96.6
LOS	F		B	A	A	F
Approach Delay	183.5		11.1			96.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	F		B			F

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 44 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 74.3		Intersection LOS: E	
Intersection Capacity Utilization 112.3%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: US 24 & Faclon Hwy



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	385	875	20	285	75	290	470	30	75	900	5
Future Volume (vph)	20	385	875	20	285	75	290	470	30	75	900	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	800		0	300		300
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3574	1599	1719	3438	1538	1687	1776	1509	1736	1827	1553
Flt Permitted	0.281			0.204			0.056			0.307		
Satd. Flow (perm)	529	3574	1599	369	3438	1538	99	1776	1509	561	1827	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			466			167			215			120
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			913			640	
Travel Time (s)		31.8			37.0			11.3			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.75	0.75	0.75	0.86	0.86	0.86	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	5%	5%	5%	7%	7%	7%	4%	4%	4%
Adj. Flow (vph)	22	433	983	27	380	100	337	547	35	78	938	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	433	983	27	380	100	337	547	35	78	938	5
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		Free	6		6
Detector Phase	7	4		3	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	27.5	27.5	12.0	27.0		12.0	44.0	44.0
Total Split (s)	12.0	27.5		12.0	27.5	27.5	29.0	98.5		12.0	81.5	81.5
Total Split (%)	8.0%	18.3%		8.0%	18.3%	18.3%	19.3%	65.7%		8.0%	54.3%	54.3%
Maximum Green (s)	6.0	21.0		6.0	21.0	21.0	23.0	91.5		6.0	74.5	74.5
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0		3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0		3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0		6.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)					7.0	7.0					7.0	7.0
Flash Dont Walk (s)					14.0	14.0					30.0	30.0
Pedestrian Calls (#/hr)					0	0					0	0
Act Effct Green (s)	24.8	20.7	150.0	24.8	20.7	20.7	97.3	96.3	150.0	80.6	79.6	79.6
Actuated g/C Ratio	0.17	0.14	1.00	0.17	0.14	0.14	0.65	0.64	1.00	0.54	0.53	0.53
v/c Ratio	0.16	0.88	0.61	0.24	0.80	0.28	1.10	0.48	0.02	0.22	0.97	0.01
Control Delay	49.6	82.8	1.8	52.2	76.2	2.0	112.3	12.5	0.0	6.3	28.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	49.6	82.8	1.8	52.2	76.2	2.0	112.3	12.5	0.0	6.3	28.8	0.0
LOS	D	F	A	D	E	A	F	B	A	A	C	A
Approach Delay		26.9			60.3			48.6			26.9	
Approach LOS		C			E			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 136 (91%), Referenced to phase 2:NETL and 6:SWTL, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 36.4		Intersection LOS: D	
Intersection Capacity Utilization 96.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Meridian Rd

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	490	280	190	450	700	450
Future Volume (vph)	490	280	190	450	700	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	800			600
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1752	1568	3303	1792	1827	1553
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1752	1568	3303	1792	1827	1553
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		151				386
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.86	0.86	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	3%	3%	6%	6%	4%	4%
Adj. Flow (vph)	570	326	202	479	778	500
Shared Lane Traffic (%)						
Lane Group Flow (vph)	570	326	202	479	778	500
Turn Type	Prot	Free	Prot	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free				Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	44.0		12.0	32.0	32.0	
Total Split (s)	58.0		18.0	92.0	74.0	
Total Split (%)	38.7%		12.0%	61.3%	49.3%	
Maximum Green (s)	52.0		12.0	85.0	67.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	7.0					
Flash Dont Walk (s)	31.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	50.7	150.0	11.8	86.3	68.5	150.0
Actuated g/C Ratio	0.34	1.00	0.08	0.58	0.46	1.00
v/c Ratio	0.96	0.21	0.78	0.47	0.93	0.32
Control Delay	77.1	0.3	95.1	13.0	57.8	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Delay	77.1	0.3	95.1	13.0	57.8	0.5
LOS	E	A	F	B	E	A
Approach Delay	49.2			37.4	35.4	
Approach LOS	D			D	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 88 (59%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 40.2		Intersection LOS: D	
Intersection Capacity Utilization 85.2%		ICU Level of Service E	
Analysis Period (min) 15			

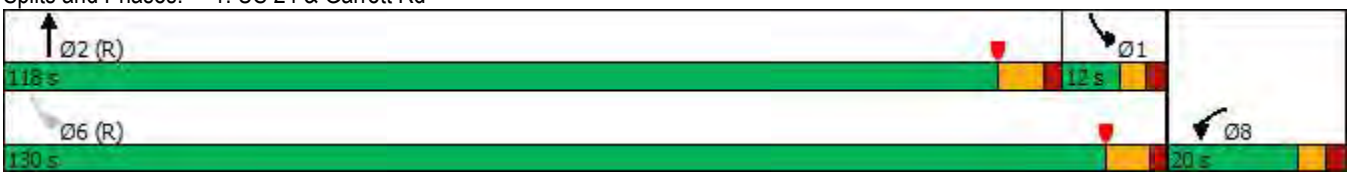
Splits and Phases: 4: US 24 & Woodmen Rd

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	85	25	1780	230	20	890	
Future Volume (vph)	85	25	1780	230	20	890	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0		0	600		
Storage Lanes	1	0		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00	
Frt	0.969		0.983				
Flt Protected	0.963				0.950		
Satd. Flow (prot)	1755	0	3445	0	1736	1827	
Flt Permitted	0.963				0.033		
Satd. Flow (perm)	1755	0	3445	0	60	1827	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	8		26				
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			1198	
Travel Time (s)	19.7		25.9			14.9	
Peak Hour Factor	0.92	0.92	0.78	0.78	0.87	0.87	
Heavy Vehicles (%)	1%	1%	3%	3%	4%	4%	
Adj. Flow (vph)	92	27	2282	295	23	1023	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	119	0	2577	0	23	1023	
Turn Type	Prot		NA		custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases					6		
Detector Phase	8		2		1		
Switch Phase							
Minimum Initial (s)	4.0		7.0		4.0		7.0
Minimum Split (s)	9.5		14.0		9.5		14.0
Total Split (s)	20.0		118.0		12.0		130.0
Total Split (%)	13.3%		78.7%		8.0%		87%
Maximum Green (s)	14.5		111.0		6.5		123.0
Yellow Time (s)	3.0		5.0		3.0		5.0
All-Red Time (s)	2.5		2.0		2.5		2.0
Lost Time Adjust (s)	0.0		0.0		0.0		
Total Lost Time (s)	5.5		7.0		5.5		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0		3.0		3.0
Recall Mode	None		C-Max		None		C-Max
Act Effct Green (s)	13.1		117.2		125.9	150.0	
Actuated g/C Ratio	0.09		0.78		0.84	1.00	
v/c Ratio	0.74		0.96		0.19	0.56	
Control Delay	88.8		25.7		10.6	0.9	
Queue Delay	0.0		0.0		0.0	0.0	
Total Delay	88.8		25.7		10.6	0.9	
LOS	F		C		B	A	
Approach Delay	88.8		25.7			1.2	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Approach LOS	F		C			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 136 (91%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 20.8		Intersection LOS: C	
Intersection Capacity Utilization 73.2%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: US 24 & Garrett Rd

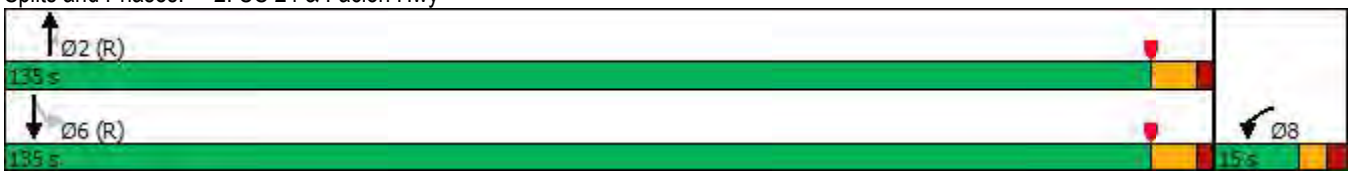


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	80	5	1705	85	5	860
Future Volume (vph)	80	5	1705	85	5	860
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992			0.850		
Flt Protected	0.955				0.950	
Satd. Flow (prot)	1765	0	1863	1583	1736	1827
Flt Permitted	0.955				0.031	
Satd. Flow (perm)	1765	0	1863	1583	57	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	2			87		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		4887			853
Travel Time (s)	30.3		60.6			10.6
Peak Hour Factor	0.88	0.88	0.98	0.98	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	2%	4%	4%
Adj. Flow (vph)	91	6	1740	87	6	1000
Shared Lane Traffic (%)						
Lane Group Flow (vph)	97	0	1740	87	6	1000
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	28.0
Minimum Split (s)	11.5		35.0	35.0	35.0	35.0
Total Split (s)	15.0		135.0	135.0	135.0	135.0
Total Split (%)	10.0%		90.0%	90.0%	90.0%	90.0%
Maximum Green (s)	9.5		128.0	128.0	128.0	128.0
Yellow Time (s)	3.0		5.0	5.0	5.0	5.0
All-Red Time (s)	2.5		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5		7.0	7.0	7.0	7.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	9.5		128.0	128.0	128.0	128.0
Actuated g/C Ratio	0.06		0.85	0.85	0.85	0.85
v/c Ratio	0.86		1.10	0.06	0.12	0.64
Control Delay	119.8		57.9	0.0	6.0	12.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	119.8		57.9	0.0	6.0	12.1
LOS	F		E	A	A	B
Approach Delay	119.8		55.2			12.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	F		E			B

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 73 (49%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 42.5		Intersection LOS: D	
Intersection Capacity Utilization 105.2%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 2: US 24 & Faclon Hwy

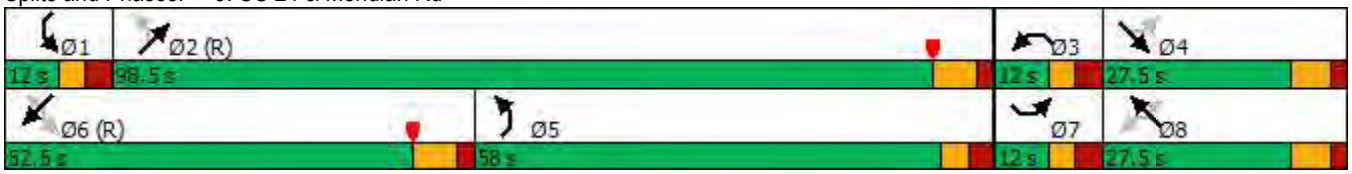


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	225	310	20	345	75	680	1045	5	95	540	10
Future Volume (vph)	30	225	310	20	345	75	680	1045	5	95	540	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	800		0	300		300
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3505	1568	1787	3574	1599	1752	1845	1568	1703	1792	1524
Flt Permitted	0.169			0.531			0.133			0.103		
Satd. Flow (perm)	312	3505	1568	999	3574	1599	245	1845	1568	185	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			348			167			215			120
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			913			640	
Travel Time (s)		31.8			37.0			11.3			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.72	0.72	0.72	0.90	0.90	0.90	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	3%	3%	3%	6%	6%	6%
Adj. Flow (vph)	34	253	348	28	479	104	756	1161	6	99	563	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	253	348	28	479	104	756	1161	6	99	563	10
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		Free	6		6
Detector Phase	7	4		3	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	27.5	27.5	12.0	27.0		12.0	44.0	44.0
Total Split (s)	12.0	27.5		12.0	27.5	27.5	58.0	98.5		12.0	52.5	52.5
Total Split (%)	8.0%	18.3%		8.0%	18.3%	18.3%	38.7%	65.7%		8.0%	35.0%	35.0%
Maximum Green (s)	6.0	21.0		6.0	21.0	21.0	52.0	91.5		6.0	45.5	45.5
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0		3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0		3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0		6.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)					7.0	7.0					7.0	7.0
Flash Dont Walk (s)					14.0	14.0					30.0	30.0
Pedestrian Calls (#/hr)					0	0					0	0
Act Effct Green (s)	27.7	23.6	150.0	26.5	21.2	21.2	94.0	93.0	150.0	48.7	47.7	47.7
Actuated g/C Ratio	0.18	0.16	1.00	0.18	0.14	0.14	0.63	0.62	1.00	0.32	0.32	0.32
v/c Ratio	0.30	0.46	0.22	0.13	0.95	0.28	1.12	1.01	0.00	0.78	0.99	0.02
Control Delay	53.2	61.0	0.3	47.9	92.1	2.0	92.8	37.4	0.0	76.1	61.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	53.2	61.0	0.3	47.9	92.1	2.0	92.8	37.4	0.0	76.1	61.5	0.1
LOS	D	E	A	D	F	A	F	D	A	E	E	A
Approach Delay		27.3			74.7			59.0			62.7	
Approach LOS		C			E			E			E	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 45 (30%), Referenced to phase 2:NETL and 6:SWTL, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 56.9	Intersection LOS: E
Intersection Capacity Utilization 101.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 3: US 24 & Meridian Rd

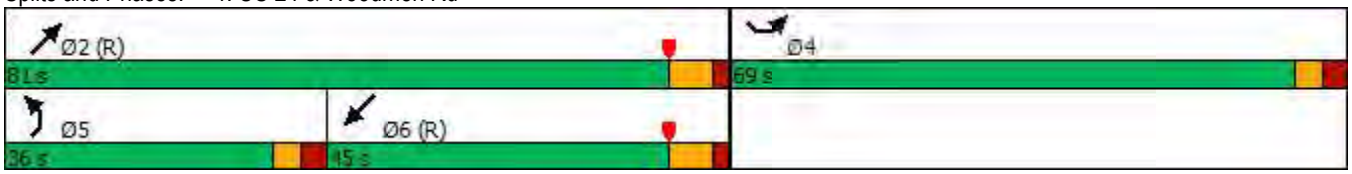


Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	605	320	540	540	350	410
Future Volume (vph)	605	320	540	540	350	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	800			600
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1787	1599	3433	1863	1845	1568
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1787	1599	3433	1863	1845	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		140				441
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.93	0.93
Heavy Vehicles (%)	1%	1%	2%	2%	3%	3%
Adj. Flow (vph)	672	356	600	600	376	441
Shared Lane Traffic (%)						
Lane Group Flow (vph)	672	356	600	600	376	441
Turn Type	Prot	Free	Prot	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free				Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	44.0		12.0	32.0	32.0	
Total Split (s)	69.0		36.0	81.0	45.0	
Total Split (%)	46.0%		24.0%	54.0%	30.0%	
Maximum Green (s)	63.0		30.0	74.0	38.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	7.0					
Flash Dont Walk (s)	31.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	59.9	150.0	28.9	77.1	42.2	150.0
Actuated g/C Ratio	0.40	1.00	0.19	0.51	0.28	1.00
v/c Ratio	0.94	0.22	0.91	0.63	0.72	0.28
Control Delay	65.5	0.3	66.5	8.5	59.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Delay	65.5	0.3	66.5	8.5	59.1	0.4
LOS	E	A	E	A	E	A
Approach Delay	42.9			37.5	27.4	
Approach LOS	D			D	C	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:NET and 6:SWT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 36.7	Intersection LOS: D
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: US 24 & Woodmen Rd



ATTACHMENT F

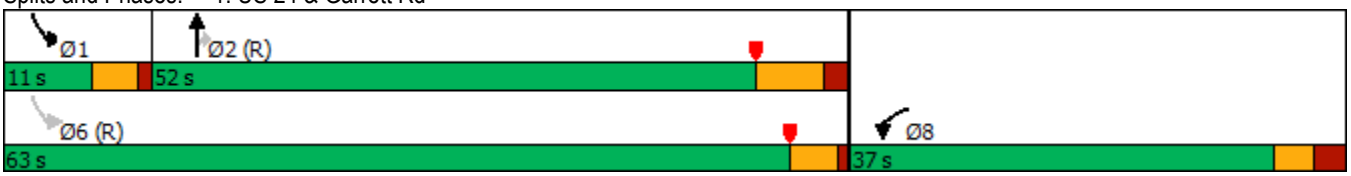
HORIZON YEAR (2045)
ACTION
SYNCHRO ANALYSIS
REPORTS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	265	20	930	55	25	2255	
Future Volume (vph)	265	20	930	55	25	2255	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	200		300	600		
Storage Lanes	1	0		1	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	0.991			0.850			
Flt Protected	0.956				0.950		
Satd. Flow (prot)	1748	0	3312	1482	1770	3539	
Flt Permitted	0.956				0.178		
Satd. Flow (perm)	1748	0	3312	1482	332	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	4			65			
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			6085	
Travel Time (s)	19.7		25.9			75.4	
Peak Hour Factor	0.77	0.77	0.84	0.84	0.96	0.96	
Heavy Vehicles (%)	3%	3%	9%	9%	2%	2%	
Adj. Flow (vph)	344	26	1107	65	26	2349	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	370	0	1107	65	26	2349	
Turn Type	Prot		NA	Perm	custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases				2	6		
Detector Phase	8		2	2	1		
Switch Phase							
Minimum Initial (s)	4.0		7.0	7.0	5.0		5.0
Minimum Split (s)	9.5		14.0	14.0	9.5		9.5
Total Split (s)	37.0		52.0	52.0	11.0		63.0
Total Split (%)	37.0%		52.0%	52.0%	11.0%		63%
Maximum Green (s)	31.5		45.0	45.0	6.5		58.5
Yellow Time (s)	3.0		5.0	5.0	3.5		3.5
All-Red Time (s)	2.5		2.0	2.0	1.0		1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0		
Total Lost Time (s)	5.5		7.0	7.0	4.5		
Lead/Lag			Lag	Lag	Lead		
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0
Recall Mode	None		C-Max	C-Max	None		C-Max
Act Effct Green (s)	25.6		57.6	57.6	64.4	100.0	
Actuated g/C Ratio	0.26		0.58	0.58	0.64	1.00	
v/c Ratio	0.82		0.58	0.07	0.09	0.66	
Control Delay	49.8		17.3	4.3	11.2	0.8	
Queue Delay	0.0		0.0	0.0	0.0	0.0	
Total Delay	49.8		17.3	4.3	11.2	0.8	
LOS	D		B	A	B	A	
Approach Delay	49.8		16.5			0.9	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Approach LOS	D		B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 86.1%		ICU Level of Service E	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: US 24 & Garrett Rd



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	245	5	900	55	10	2100
Future Volume (vph)	245	5	900	55	10	2100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.997			0.850		
Flt Protected	0.953				0.950	
Satd. Flow (prot)	1719	0	3406	1524	1736	3471
Flt Permitted	0.953				0.248	
Satd. Flow (perm)	1719	0	3406	1524	453	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	1			64		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		6085			853
Travel Time (s)	30.3		75.4			10.6
Peak Hour Factor	0.96	0.96	0.86	0.86	0.99	0.99
Heavy Vehicles (%)	5%	5%	6%	6%	4%	4%
Adj. Flow (vph)	255	5	1047	64	10	2121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	260	0	1047	64	10	2121
Turn Type	Prot		NA	Perm	custom	NA
Protected Phases	8!		2			Free!
Permitted Phases				2	6	
Detector Phase	8		2	2	6	
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	
Minimum Split (s)	11.5		35.0	35.0	35.0	
Total Split (s)	25.0		75.0	75.0	75.0	
Total Split (%)	25.0%		75.0%	75.0%	75.0%	
Maximum Green (s)	19.5		68.0	68.0	68.0	
Yellow Time (s)	3.0		5.0	5.0	5.0	
All-Red Time (s)	2.5		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.5		7.0	7.0	7.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		C-Max	C-Max	C-Max	
Act Effct Green (s)	18.0		69.5	69.5	69.5	100.0
Actuated g/C Ratio	0.18		0.70	0.70	0.70	1.00
v/c Ratio	0.84		0.44	0.06	0.03	0.61
Control Delay	62.6		0.9	0.1	3.0	3.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	62.6		0.9	0.1	3.0	3.0
LOS	E		A	A	A	A
Approach Delay	62.6		0.9			3.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	E		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 75 (75%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 6.8		Intersection LOS: A	
Intersection Capacity Utilization 79.8%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

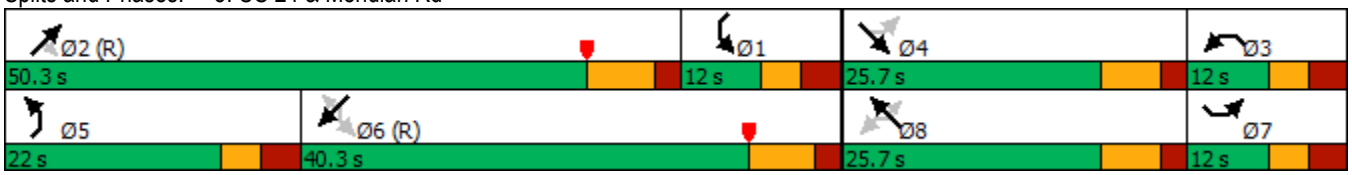
Splits and Phases: 2: US 24 & Falcon Hwy

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	495	1105	20	375	45	380	510	25	80	985	15
Future Volume (vph)	20	495	1105	20	375	45	380	510	25	80	985	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	600		100	300		100
Storage Lanes	1		0	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3574	1599	1719	3438	1538	3273	3374	1509	1736	3471	1553
Flt Permitted	0.290			0.246			0.950			0.428		
Satd. Flow (perm)	546	3574	1599	445	3438	1538	3273	3374	1509	782	3471	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			623			251			180			169
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			929			640	
Travel Time (s)		31.8			37.0			11.5			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.75	0.75	0.75	0.86	0.86	0.86	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	5%	5%	5%	7%	7%	7%	4%	4%	4%
Adj. Flow (vph)	22	556	1242	27	500	60	442	593	29	83	1026	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	556	1242	27	500	60	442	593	29	83	1026	16
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8			2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0	20.0	6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	12.5	12.5	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	12.0	25.7		12.0	25.7	25.7	22.0	50.3	50.3	12.0	40.3	40.3
Total Split (%)	12.0%	25.7%		12.0%	25.7%	25.7%	22.0%	50.3%	50.3%	12.0%	40.3%	40.3%
Maximum Green (s)	6.0	19.2		6.0	19.2	19.2	16.0	43.3	43.3	6.0	33.3	33.3
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0	7.0	6.0	7.0	7.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.0	18.5	100.0	26.2	20.9	20.9	15.7	51.2	51.2	40.1	39.1	39.1
Actuated g/C Ratio	0.25	0.18	1.00	0.26	0.21	0.21	0.16	0.51	0.51	0.40	0.39	0.39
v/c Ratio	0.10	0.84	0.78	0.14	0.70	0.12	0.86	0.34	0.03	0.22	0.76	0.02
Control Delay	26.6	52.0	3.8	27.9	42.5	0.4	49.0	7.0	0.1	12.8	20.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	52.0	3.8	27.9	42.5	0.4	49.0	7.0	0.1	12.8	20.6	0.1
LOS	C	D	A	C	D	A	D	A	A	B	C	A
Approach Delay		18.8			37.5			24.2			19.8	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		B			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 13 (13%), Referenced to phase 2:NET and 6:SWTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 70.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Meridian Rd



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	295	265	250	350	780	420
Future Volume (vph)	295	265	250	350	780	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300			600
Storage Lanes	2	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3400	1568	3303	3406	3471	1553
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3400	1568	3303	3406	3471	1553
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		308				467
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.86	0.86	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	3%	3%	6%	6%	4%	4%
Adj. Flow (vph)	343	308	266	372	867	467
Shared Lane Traffic (%)						
Lane Group Flow (vph)	343	308	266	372	867	467
Turn Type	Prot	Free	Prot	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free				Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	12.0		12.0	32.0	32.0	
Total Split (s)	26.0		23.0	74.0	51.0	
Total Split (%)	26.0%		23.0%	74.0%	51.0%	
Maximum Green (s)	20.0		17.0	67.0	44.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	15.3	100.0	13.3	71.7	52.5	100.0
Actuated g/C Ratio	0.15	1.00	0.13	0.72	0.52	1.00
v/c Ratio	0.66	0.20	0.61	0.15	0.48	0.30
Control Delay	46.1	0.3	31.8	2.3	17.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	0.3	31.8	2.3	17.1	0.5
LOS	D	A	C	A	B	A
Approach Delay	24.4			14.6	11.3	

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 89 (89%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 15.4		Intersection LOS: B	
Intersection Capacity Utilization 52.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: US 24 & Woodmen Rd

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Lane Configurations							
Traffic Volume (vph)	80	35	2095	330	30	1080	
Future Volume (vph)	80	35	2095	330	30	1080	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	200		300	600		
Storage Lanes	1	0		1	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	0.959			0.850			
Flt Protected	0.966				0.950		
Satd. Flow (prot)	1743	0	3505	1568	1736	3471	
Flt Permitted	0.966				0.037		
Satd. Flow (perm)	1743	0	3505	1568	68	3471	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	13			341			
Link Speed (mph)	55		55			55	
Link Distance (ft)	1593		2091			6085	
Travel Time (s)	19.7		25.9			75.4	
Peak Hour Factor	0.69	0.69	0.95	0.95	0.92	0.92	
Heavy Vehicles (%)	1%	1%	3%	3%	4%	4%	
Adj. Flow (vph)	116	51	2205	347	33	1174	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	167	0	2205	347	33	1174	
Turn Type	Prot		NA	Perm	custom	NA	
Protected Phases	8!		2		1	Free!	6
Permitted Phases				2	6		
Detector Phase	8		2	2	1		
Switch Phase							
Minimum Initial (s)	4.0		7.0	7.0	4.0		7.0
Minimum Split (s)	9.5		14.0	14.0	9.5		14.0
Total Split (s)	24.0		106.0	106.0	10.0		116.0
Total Split (%)	17.1%		75.7%	75.7%	7.1%		83%
Maximum Green (s)	18.5		99.0	99.0	4.5		109.0
Yellow Time (s)	3.0		5.0	5.0	3.0		5.0
All-Red Time (s)	2.5		2.0	2.0	2.5		2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0		
Total Lost Time (s)	5.5		7.0	7.0	5.5		
Lead/Lag			Lag	Lag	Lead		
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0
Recall Mode	None		C-Max	C-Max	None		C-Max
Act Effct Green (s)	16.3		105.1	105.1	112.7	140.0	
Actuated g/C Ratio	0.12		0.75	0.75	0.80	1.00	
v/c Ratio	0.78		0.84	0.27	0.29	0.34	
Control Delay	79.5		17.2	1.3	20.3	0.3	
Queue Delay	0.0		0.0	0.0	0.0	0.0	
Total Delay	79.5		17.2	1.3	20.3	0.3	
LOS	E		B	A	C	A	
Approach Delay	79.5		15.0			0.9	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø6
Approach LOS	E		B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 86 (61%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 74.9%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: US 24 & Garrett Rd

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	85	5	2055	85	5	1070
Future Volume (vph)	85	5	2055	85	5	1070
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		600	700	
Storage Lanes	1	0		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.992			0.850		
Flt Protected	0.955				0.950	
Satd. Flow (prot)	1765	0	3539	1583	1736	3471
Flt Permitted	0.955				0.067	
Satd. Flow (perm)	1765	0	3539	1583	122	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	2			87		
Link Speed (mph)	45		55			55
Link Distance (ft)	2000		6085			853
Travel Time (s)	30.3		75.4			10.6
Peak Hour Factor	0.88	0.88	0.98	0.98	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	2%	4%	4%
Adj. Flow (vph)	97	6	2097	87	6	1244
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	2097	87	6	1244
Turn Type	Prot		NA	Perm	custom	NA
Protected Phases	8!		2			Free!
Permitted Phases				2	6	
Detector Phase	8		2	2	6	
Switch Phase						
Minimum Initial (s)	6.0		28.0	28.0	28.0	
Minimum Split (s)	11.5		35.0	35.0	35.0	
Total Split (s)	22.0		118.0	118.0	118.0	
Total Split (%)	15.7%		84.3%	84.3%	84.3%	
Maximum Green (s)	16.5		111.0	111.0	111.0	
Yellow Time (s)	3.0		5.0	5.0	5.0	
All-Red Time (s)	2.5		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.5		7.0	7.0	7.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		C-Max	C-Max	C-Max	
Act Effct Green (s)	12.9		114.6	114.6	114.6	140.0
Actuated g/C Ratio	0.09		0.82	0.82	0.82	1.00
v/c Ratio	0.63		0.72	0.07	0.06	0.36
Control Delay	76.2		1.9	0.1	2.4	2.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	76.2		1.9	0.1	2.4	2.1
LOS	E		A	A	A	A
Approach Delay	76.2		1.8			2.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	E		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 29 (21%), Referenced to phase 2:NBT and 6:SBL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 4.1		Intersection LOS: A	
Intersection Capacity Utilization 72.2%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

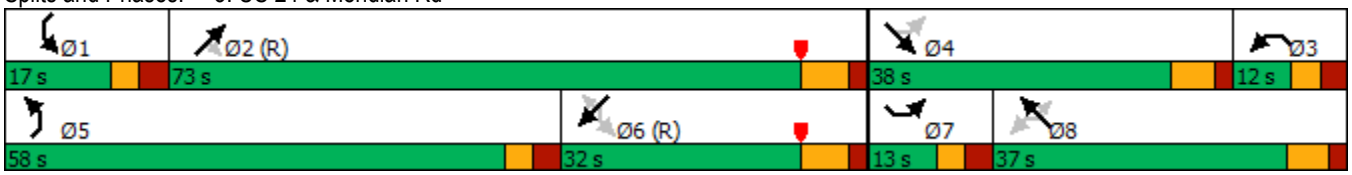
Splits and Phases: 2: US 24 & Faclon Hwy

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	55	595	420	25	455	65	925	1135	5	105	625	20
Future Volume (vph)	55	595	420	25	455	65	925	1135	5	105	625	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	500		500	600		100	300		100
Storage Lanes	1		0	1		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3505	1568	1787	3574	1599	3400	3505	1568	1703	3406	1524
Flt Permitted	0.163			0.260			0.950			0.221		
Satd. Flow (perm)	301	3505	1568	489	3574	1599	3400	3505	1568	396	3406	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			379			171			171			218
Link Speed (mph)		40			40			55			55	
Link Distance (ft)		1868			2173			929			640	
Travel Time (s)		31.8			37.0			11.5			7.9	
Peak Hour Factor	0.89	0.89	0.89	0.72	0.72	0.72	0.90	0.90	0.90	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	3%	3%	3%	6%	6%	6%
Adj. Flow (vph)	62	669	472	35	632	90	1028	1261	6	109	651	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	669	472	35	632	90	1028	1261	6	109	651	21
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8			2	6		6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	20.0	20.0	6.0	20.0	20.0
Minimum Split (s)	12.0	12.5		12.0	12.5	12.5	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	13.0	38.0		12.0	37.0	37.0	58.0	73.0	73.0	17.0	32.0	32.0
Total Split (%)	9.3%	27.1%		8.6%	26.4%	26.4%	41.4%	52.1%	52.1%	12.1%	22.9%	22.9%
Maximum Green (s)	7.0	31.5		6.0	30.5	30.5	52.0	66.0	66.0	11.0	25.0	25.0
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5		6.0	6.5	6.5	6.0	7.0	7.0	6.0	7.0	7.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	30.6	30.1	140.0	31.0	29.3	29.3	47.6	71.7	71.7	43.3	33.2	33.2
Actuated g/C Ratio	0.22	0.22	1.00	0.22	0.21	0.21	0.34	0.51	0.51	0.31	0.24	0.24
v/c Ratio	0.46	0.89	0.30	0.21	0.85	0.19	0.89	0.70	0.01	0.53	0.81	0.04
Control Delay	54.6	67.9	0.5	50.8	64.6	0.9	42.4	19.3	0.0	52.0	45.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	67.9	0.5	50.8	64.6	0.9	42.4	19.3	0.0	52.0	45.6	0.1
LOS	D	E	A	D	E	A	D	B	A	D	D	A
Approach Delay		40.8			56.4			29.6			45.3	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		D			E			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 56 (40%), Referenced to phase 2:NET and 6:SWTL, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 38.7		Intersection LOS: D	
Intersection Capacity Utilization 86.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Meridian Rd



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	580	245	440	750	495	430
Future Volume (vph)	580	245	440	750	495	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	300			600
Storage Lanes	2	1	2			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3467	1599	3433	3539	3505	1568
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3467	1599	3433	3539	3505	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		232				462
Link Speed (mph)	45			55	55	
Link Distance (ft)	555			957	2613	
Travel Time (s)	8.4			11.9	32.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.93	0.93
Heavy Vehicles (%)	1%	1%	2%	2%	3%	3%
Adj. Flow (vph)	644	272	489	833	532	462
Shared Lane Traffic (%)						
Lane Group Flow (vph)	644	272	489	833	532	462
Turn Type	Prot	Free	Prot	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		Free				Free
Detector Phase	4		5	2	6	
Switch Phase						
Minimum Initial (s)	6.0		6.0	25.0	25.0	
Minimum Split (s)	12.0		12.0	32.0	32.0	
Total Split (s)	51.0		42.0	89.0	47.0	
Total Split (%)	36.4%		30.0%	63.6%	33.6%	
Maximum Green (s)	45.0		36.0	82.0	40.0	
Yellow Time (s)	3.0		3.0	5.0	5.0	
All-Red Time (s)	3.0		3.0	2.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		6.0	7.0	7.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	None		None	C-Max	C-Max	
Act Effct Green (s)	31.7	140.0	25.2	95.3	64.0	140.0
Actuated g/C Ratio	0.23	1.00	0.18	0.68	0.46	1.00
v/c Ratio	0.82	0.17	0.79	0.35	0.33	0.29
Control Delay	60.4	0.2	39.4	8.9	26.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	0.2	39.4	8.9	26.6	0.5
LOS	E	A	D	A	C	A
Approach Delay	42.5			20.2	14.5	

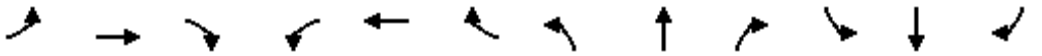
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Approach LOS	D			C	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 7 (5%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 24.8		Intersection LOS: C	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: US 24 & Woodmen Rd

ATTACHMENT G

HORIZON YEAR (2045) ACTION
FALCON HWY 4-LEG ALTERNATIVE
SYNCHRO ANALYSIS REPORTS



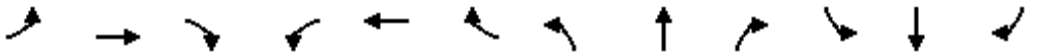
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	10	235	10	5	10	890	55	10	2090	10
Future Volume (vph)	10	10	10	235	10	5	10	890	55	10	2090	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		600	700		300
Storage Lanes	1		0	0		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt		0.925			0.997				0.850			0.850
Flt Protected	0.950				0.955		0.950			0.950		
Satd. Flow (prot)	1770	1723	0	0	1725	0	3433	3406	1524	1736	3471	1583
Flt Permitted	0.950				0.955		0.950			0.262		
Satd. Flow (perm)	1770	1723	0	0	1725	0	3433	3406	1524	479	3471	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			1				82			136
Link Speed (mph)		30			45			55			55	
Link Distance (ft)		212			1998			6085			853	
Travel Time (s)		4.8			30.3			75.4			10.6	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.86	0.86	0.99	0.99	0.92
Heavy Vehicles (%)	2%	2%	2%	5%	2%	5%	2%	6%	6%	4%	4%	2%
Adj. Flow (vph)	11	11	11	245	11	5	11	1035	64	10	2111	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	22	0	0	261	0	11	1035	64	10	2111	11
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Perm	NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases									2	6		6
Detector Phase	4	4		8	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		6.0	6.0		5.0	28.0	28.0	28.0	28.0	28.0
Minimum Split (s)	10.0	10.0		11.5	11.5		10.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	10.0	10.0		22.0	22.0		10.0	68.0	68.0	58.0	58.0	58.0
Total Split (%)	10.0%	10.0%		22.0%	22.0%		10.0%	68.0%	68.0%	58.0%	58.0%	58.0%
Maximum Green (s)	5.0	5.0		16.5	16.5		5.0	61.0	61.0	51.0	51.0	51.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.5	2.5		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0			5.5		5.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.0	5.0			16.4		5.2	65.1	65.1	63.1	63.1	63.1
Actuated g/C Ratio	0.05	0.05			0.16		0.05	0.65	0.65	0.63	0.63	0.63
v/c Ratio	0.12	0.23			0.92		0.06	0.47	0.06	0.03	0.96	0.01
Control Delay	48.7	36.7			78.9		51.1	11.2	1.9	9.9	34.6	0.0
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	36.7			78.9		51.1	11.2	1.9	9.9	34.6	0.0
LOS	D	D			E		D	B	A	A	C	A
Approach Delay		40.7			78.9			11.1			34.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			E			B			C	
Queue Length 50th (ft)	7	7			165		3	305	10	2	733	0
Queue Length 95th (ft)	25	32			#316		m5	163	m4	m5	#1022	m0
Internal Link Dist (ft)		132			1918			6005			773	
Turn Bay Length (ft)							300		600	700		300
Base Capacity (vph)	88	96			285		178	2216	1020	302	2189	1048
Starvation Cap Reductn	0	0			0		0	0	0	0	0	0
Spillback Cap Reductn	0	0			0		0	0	0	0	0	0
Storage Cap Reductn	0	0			0		0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.23			0.92		0.06	0.47	0.06	0.03	0.96	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 30.4		Intersection LOS: C	
Intersection Capacity Utilization 88.7%		ICU Level of Service E	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 24 & Falcon Hwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	10	75	10	5	10	1045	85	5	1060	10
Future Volume (vph)	10	10	10	75	10	5	10	1045	85	5	1060	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		600	700		300
Storage Lanes	1		0	0		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt		0.925			0.992				0.850			0.850
Flt Protected	0.950				0.960		0.950			0.950		
Satd. Flow (prot)	1770	1723	0	0	1774	0	3433	3539	1583	1736	3471	1583
Flt Permitted					0.960		0.950			0.266		
Satd. Flow (perm)	1863	1723	0	0	1774	0	3433	3539	1583	486	3471	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			2				87			97
Link Speed (mph)		30			45			55			55	
Link Distance (ft)		212			1998			6085			853	
Travel Time (s)		4.8			30.3			75.4			10.6	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.92	0.88	0.92	0.98	0.98	0.86	0.86	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	4%	2%
Adj. Flow (vph)	11	11	11	85	11	6	11	1066	87	6	1233	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	22	0	0	102	0	11	1066	87	6	1233	11
Turn Type	Perm	NA		Split	NA		Prot	NA	Perm	Perm	NA	Perm
Protected Phases		4		8	8		5	2			6	
Permitted Phases	4								2	6		6
Detector Phase	4	4		8	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		5.0	28.0	28.0	5.0	5.0	5.0
Minimum Split (s)	9.0	9.0		9.5	9.5		10.0	35.0	35.0	25.0	25.0	25.0
Total Split (s)	10.0	10.0		21.0	21.0		10.0	109.0	109.0	99.0	99.0	99.0
Total Split (%)	7.1%	7.1%		15.0%	15.0%		7.1%	77.9%	77.9%	70.7%	70.7%	70.7%
Maximum Green (s)	5.0	5.0		15.5	15.5		5.0	102.0	102.0	92.0	92.0	92.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.5	2.5		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0			5.5		5.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)										7.0	7.0	7.0
Flash Dont Walk (s)										11.0	11.0	11.0
Pedestrian Calls (#/hr)										0	0	0
Act Effct Green (s)	5.0	5.0			12.6		5.4	108.9	108.9	104.8	104.8	104.8
Actuated g/C Ratio	0.04	0.04			0.09		0.04	0.78	0.78	0.75	0.75	0.75
v/c Ratio	0.17	0.31			0.63		0.08	0.39	0.07	0.02	0.47	0.01
Control Delay	71.3	52.8			77.0		69.2	4.7	1.2	3.6	5.2	0.0
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	71.3	52.8			77.0		69.2	4.7	1.2	3.6	5.2	0.0
LOS	E	D			E		E	A	A	A	A	A
Approach Delay		58.9			77.0			5.0			5.1	
Approach LOS		E			E			A			A	
Queue Length 50th (ft)	10	10			89		5	89	0	0	72	0
Queue Length 95th (ft)	32	40			150		m6	141	m6	m2	109	m0
Internal Link Dist (ft)		132			1918			6005			773	
Turn Bay Length (ft)							300		600	700		300
Base Capacity (vph)	66	72			198		132	2751	1250	364	2598	1209
Starvation Cap Reductn	0	0			0		0	0	0	0	0	0
Spillback Cap Reductn	0	0			0		0	0	0	0	0	0
Storage Cap Reductn	0	0			0		0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.31			0.52		0.08	0.39	0.07	0.02	0.47	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 51.4%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 24 & Falcon Hwy

TRAFFIC REVIEW COMMENTS

- AM: 2,038 In, 2,343 Out
- PM: 1,863 In, 1,506 Out

1. US-24 South of Garett assumed to have 6 lanes. Do not make this assumption in the analysis. Attached is the latest study at US-24.

> Pursuant to available public information from CDOT's U.S. 24 Corridor Improvements Webpage, U.S. Highway 24 is understood to include the addition of one new lane in each direction and a widened median area. However, the U.S. 24 Corridor Improvements Webpage does not mention when this will occur. Therefore, for purposes of this analysis, U.S. Highway 24 Highway 24 is assumed to be expanded to four through lanes (two lanes in each direction) north of Garret Road and six through lanes (three lanes in each direction) south of Garrett Road by Year 2044.

2. Internal capture assumed to be 10%.

> It is considered likely that a mixed-use development of this type will attract trips from within area land uses. Utilizing research obtained by the National Cooperative Highway Research Program (NCHRP), ITE created an estimation tool[6] for determining internal capture for mixed-use developments. However, due to the conceptual nature of the proposed land uses, an exact percentage of internal capture cannot be determined at this time. Therefore, in order to provide for a conservative analysis a trip reduction of ten percent was applied to the proposed land uses.

- No internal capture should be applied to the ITE 210 (Single-family detached housing)
- SHAC: Max internal trips: 2% in the AM peak, 8% in the PM peak.

> analysis by a traffic engineer or actual collected data, a reasonable estimation of trip generation using the ITE Trip Generation Manual shall be considered prima facie evidence when estimating traffic volumes for existing access. If local or special generation rates are used, all documentation for rate development shall be submitted. For mixed use developments, internal trip reductions will not exceed two percent for the AM peak or eight percent for PM peaks unless clearly justified and documented by actual studies. The issuing authority may assist any applicant requesting traffic estimates for the purpose of obtaining a highway access permit.

3. Study area: the network will need to be extended to include at least (all study intersections needs to be connected):
    a. US-24 & E Woodmen Rd
    b. US-24 & Meridian Rd
    c. US-24 & Falcon Hwy
    d. US-24 & Constitution Ave
    e. US-24 & Marksheffel Rd
    f. US-21 & Stetson Hills Blvd/Garrett Rd

g. US-21 & Dublin Blvd
h. US-21 & E Woodmen Rd
i. If the development adds 5% or more traffic compared to the available capacity- include those intersections too

(b) When a traffic impact study is required, the study shall be completed and sealed by a Colorado registered professional engineer. Selected items from the following list may be excluded if not applicable to the situation and exclusion is specifically authorized by the issuing authority. The contents and extent of a traffic impact study depend on the location and size of the proposed development and the conditions prevailing in the surrounding area. Larger developments proposed in congested areas obviously require more extensive traffic analysis, whereas smaller sites may only require a minimal analysis of traffic on site and at immediately adjacent intersections. In determining how large a study area to include, a general guideline is to carry the analysis out at least as far as those areas where newly generated site traffic represents 5 percent or more of roadway's peak hour capacity. Where site generated traffic will be less than 5 percent of the roadway capacity, the intersections adjacent to the site should, at a minimum, be analyzed. The study area boundaries may also be influenced by impacts other than pure capacity relationships such as neighborhood short cuts, traffic noise and hours of operation.

4. Eliminate #11 access to US-24 and instead connect Dublin Blvd. to Falcon Hwy
5. Show all the MOEs <u>with</u> all the proposed improvements.