
Appendix H

Transportation Impact Study

Transportation Impact Study

Diamond Springs Community Park

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Prepared for:

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Executive Summary

This Transportation Impact Study (TIS) has been prepared to identify traffic impacts associated with the proposed Diamond Springs Community Park (proposed Project or Project), a recreational park development in El Dorado County. This TIS has been prepared per the requirements of the El Dorado County Transportation Impact Study Guidelines (July 2014), the El Dorado County General Plan Circulation Element (August 2019), and El Dorado adopted Resolution No 141-2020 related to Vehicle Miles Traveled (October 2020).

The project would encompass an approximately 39.6-acre site located in the Diamond Springs area of El Dorado County and include the construction and operation of an approximately 15,000 square foot (SF) recreation building, 6 baseball/soccer fields, a pasture of passive and active outdoor space, and associated parking. Access to the site is proposed via an entrance from Oak Dell Road, south of the existing Oak Dell Road/Golden Chain Highway (SR-49) intersection.

Based on trip rates contained in the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition (2021), the proposed project would generate 881 daily weekday trips, 36 AM peak hour trips (23 inbound and 13 outbound), and 140 PM peak hour trips (85 inbound and 55 outbound). On typical Saturdays, the project would generate 2,620 daily trips, with 249 trips during the midday peak hour (121 inbound and 128 outbound).

The project's VMT analysis provides a detailed qualitative analysis based on the project's location within the County, its ability to provide park amenities to the community, and to replace longer trips to other similar types of parks in and around the Diamond Springs area. Based on this analysis, the project's VMT impact was found to be less than significant.

Additionally, based on the vehicular queuing analysis at the primary access intersection of Oak Dell Road/SR-49 and its closely spaced intersection with Koki Lane/SR-49, vehicle storage lengths would be accommodated within all available storage lanes with minimal improvements needed (i.e., lane re-striping). Emergency access would be provided and maintained through project access points, along Oak Dell Road, Snoopy Lane, and from Union Mine High Schools via several emergency vehicle only easements. All existing pedestrian and bicycle facilities would not be impacted by the project. Currently, there are no proposed developments south of the project site, however as future projects develop south of the project site, the County will consider providing pedestrian and bicycle access to the proposed park from those projects. Additionally, the provision of pedestrian and bicycle access to the proposed project site from development to the south and east would potentially reduce VMT in the project area.

This TIS includes the assessment of study intersections within the vicinity of the proposed project as coordinated with the County. These facilities were analyzed under the Existing, Existing plus Project, Near-Term (2033), Near-Term (2033) plus Project, Cumulative (2040), and Cumulative (2040) plus Project conditions.

Per the County's TIS Guidelines and analysis criteria, the following roadway improvements are recommended to achieve satisfactory levels of service. Section 8 contains a detailed discussion of these improvements.

Level of Service Analysis

As discussed in Section 5, all of the study area intersections and roadway segments are currently operating at satisfactory levels of service (LOS E or better) as per City standards, with the exception of the following intersections:

- #1 Farm Road/Mother Lode Drive
 - Cumulative (2040) plus Project: remains LOS F in PM peak hour

- #3 Pleasant Valley Road/El Dorado Road
 - Near-Term (2033) plus Project: remains LOS F in AM and PM peak hour
 - Cumulative (2040) plus Project: remains LOS F in AM and PM peak hours
- #4 SR-49/Pleasant Valley Road - SR-49
 - Existing plus Project: remains LOS F in AM peak hour
 - Near-Term (2033) plus Project: remains LOS F in AM and PM peak hours, and degrades from LOS E to LOS F in the Saturday peak hour
 - Cumulative (2040) plus Project: remains LOS F in AM and PM peak hours, and Saturday peak hour
- #5 Pleasant Valley Road - SR-49/Forni Road
 - Near-Term (2033) plus Project: remains LOS F in AM and PM peak hours
 - Cumulative (2040) plus Project: remains LOS F in AM and PM peak hour
- #7 Oak Dell Road/SR-49 - Pleasant Valley Road
 - Existing plus Project: degrades from LOS E to LOS F in AM peak hour
 - Cumulative (2040) plus Project: degrades from LOS C to LOS F in AM peak hour

Improvements

A summary of recommended improvements at the intersections identified above is provided in Table 17 and summarized below:

- #1 Farm Road/Mother Lode Drive
 - Change intersection from all-way stop controlled, to two-way stop control to create free flow (i.e., no stop control) northbound/southbound movements. This would alleviate the impacts caused by northbound left-turn vehicles continuing along the Mother Lode Drive/Pleasant Valley Road corridor.
 - The project should pay its fair share towards the cost of the intersection improvements.
- #3 Pleasant Valley Road/El Dorado Road
 - Install a traffic signal (CA MUTCD Peak Hour Signal Warrant is met under AM and PM peak hours) and modify approaches as follows:
 - Widen road to add southbound right-turn lane.
 - Coordinate cycles with downstream intersections along Pleasant Valley Road and SR-49.
 - Since the project adds more than 10 trips during the peak hours at LOS F conditions, the project may be required to construct the necessary improvements (lane modifications and signalization). However, if the improvements are constructed by other projects or are added to the 20-year Capital Improvement Plan (CIP) prior to development levels on the project site that would require these improvements, the payment of traffic impact fees would satisfy the project's fair share obligation towards these improvements. If the improvements are constructed by the project, the project may be eligible for reimbursement through the County's Traffic Impact Fee Program.
- #4 SR-49/Pleasant Valley Road - SR-49
 - Install a traffic signal (CA MUTCD Peak Hour Signal Warrant is met under AM peak hour) and modify approaches as follows:

- All lanes remain same as existing, add protected left turn phasing for westbound left-turn lane.
 - Coordinate cycles with downstream intersections along Pleasant Valley Road and SR-49.
 - The project may be required to construct the necessary improvements. However, if the improvements are constructed by other projects or are added to the 20-year Capital Improvement Plan (CIP) prior to development levels on the project site that would require these improvements, the payment of traffic impact fees would satisfy the project's fair share obligation towards these improvements. If the improvements are constructed by the project, the project may be eligible for reimbursement through the County's Traffic Impact Fee Program.
- #5 Pleasant Valley Road - SR-49/Forni Road
 - Install a traffic signal (CA MUTCD Peak Hour Signal Warrant is met under AM and PM peak hours) and modify approaches as follows:
 - Widen road to add southbound right-turn lane.
 - Widen road to add eastbound left-turn lane with protected-permitted phasing. Right-of-way (ROW) constraints exist along Pleasant Valley Road – SR-49 that may prevent widening.
 - Coordinate cycles with downstream intersections along Pleasant Valley Road and SR-49.
 - Since the project adds more than 10 trips during the peak hours at LOS F conditions, the project may be required to construct the necessary improvements (lane modifications and signalization). However, if the improvements are constructed by other projects or are added to the 20-year Capital Improvement Plan (CIP) prior to development levels on the project site that would require these improvements, the payment of traffic impact fees would satisfy the project's fair share obligation towards these improvements. If the improvements are constructed by the project, the project may be eligible for reimbursement through the County's Traffic Impact Fee Program.
- #6 Koki Lane - Oro Lane/Pleasant Valley Road - SR-49
 - Westbound left-turn vehicular queues would exceed existing storage lane in AM peak hour; re-stripe left turn lane to a two-way left-turn lane (TWLTL) which would extend the required storage length (also see below).
- #7 Oak Dell Road/SR-49 – Pleasant Valley Road
 - Does not meet CA MUTCD Peak Hour Signal Warrant. Modify approaches as follows:
 - Widen the northbound approach to accommodate a new northbound right-turn lane
 - Widen the westbound approach to accommodate a new westbound left-turn lane
 - Re-stripe the existing westbound left turn lane at Koki Lane/SR-49 to a TWLTL to Oak Dell Road (see Figure 21).
 - The project would be directly responsible for the cost of the intersection improvements. The project will need to coordinate with Caltrans as this intersection is within their jurisdiction. This improvement would be required to be constructed by the time the park is opened for use.

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1 Introduction

1.1 Purpose and Scope of the TIS

The purpose of this Transportation Impact Study (TIS) is to identify traffic impacts associated with the proposed Diamond Springs Community Park (proposed Project or Project), a recreational park development in El Dorado County. This TIS has been prepared per the requirements of the El Dorado County Transportation Impact Study Guidelines (July 2014), the El Dorado County General Plan Circulation Element (August 2019), and El Dorado adopted Resolution No 141-2020 related to Vehicle Miles Traveled (October 2020).

The objectives of this TIS are to:

- Document existing roadway, pedestrian, bicycle, transit, and traffic conditions, including intersection levels of service in the study area;
- Estimate trip generation, distribution, and assignment characteristics for the proposed project;
- Provide a Vehicle Miles Traveled (VMT) analysis per Senate Bill 743, the updated California Environmental Quality Act (CEQA) Guidelines and El Dorado County adopted Resolution No 141-2020;
- Determine LOS for study area intersections under: 1) Existing; 2) Existing plus Project; 3) Near-Term (2033); 4) Near-Term (2033) plus Project; 5) Cumulative (2040); and 6) Cumulative (2040) plus Project conditions for both weekday (AM and PM peak hours) and Saturday (midday peak hour);
- Identify CEQA-required mitigation measures for significant transportation impacts and/or other improvements needed to meet level of service standards (if any); and,
- Provide findings and recommendations based on the traffic analysis of the proposed project.

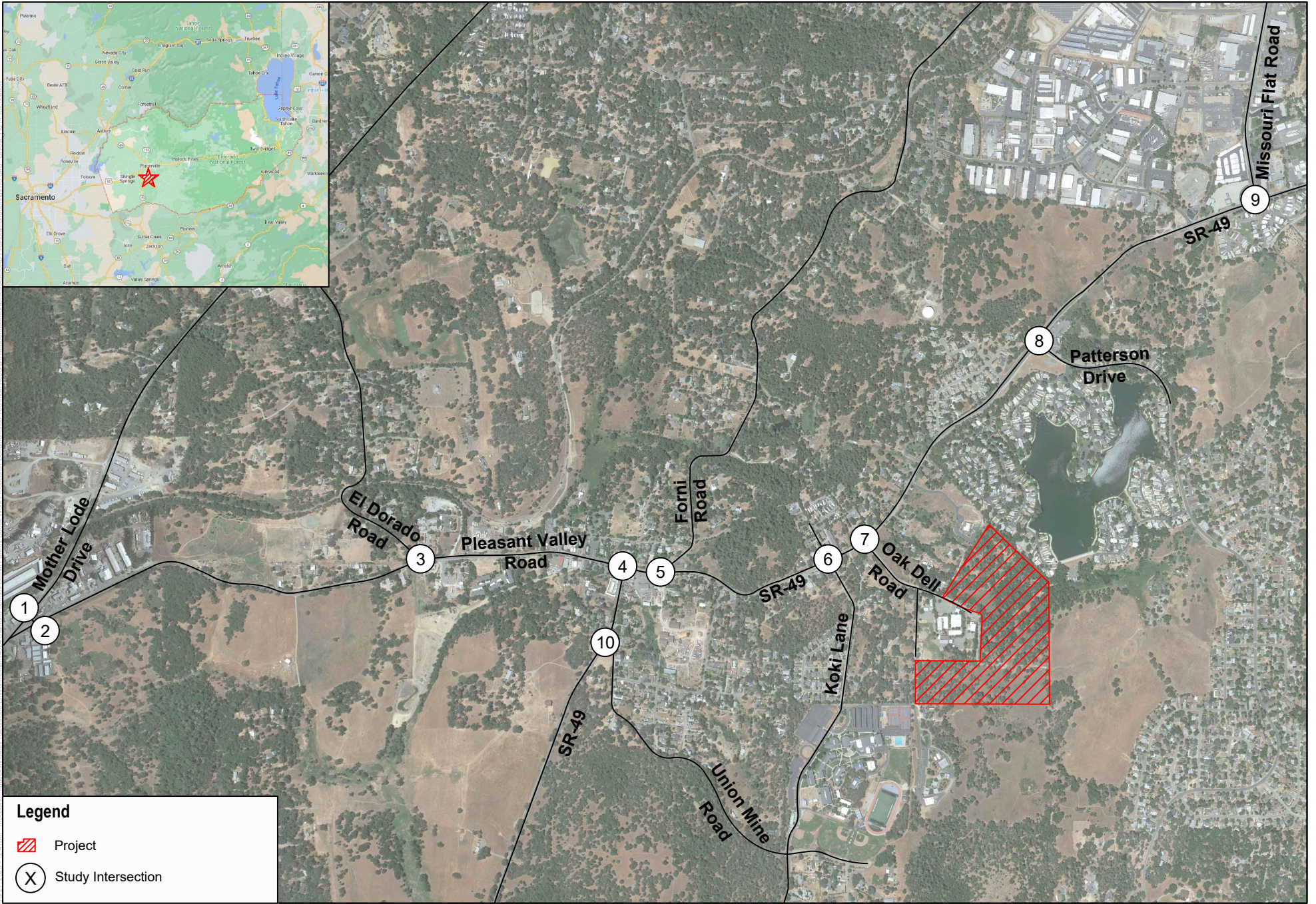
The Project Location and Study Area is shown in Figure 1.

1.2 Project Description

The approximately 39.6-acre Project site is located in the Diamond Springs area of El Dorado County. The proposed Project includes construction and operation of an approximately 15,000 SF recreation building, 6 baseball/soccer fields, a pasture of passive and active outdoor space, and associated parking. Land uses surrounding the Project site consist of vacant land and relatively small developments. Specifically, the Project site is bordered to the north by homes and vacant lands, to the west by Oak Dell Road and the Charter Career Preparatory school, and to the south and east by vacant lands. Access to the site is proposed via an entrance from Oak Dell Road, utilizing the existing Oak Dell Road/Golden Chain Highway (SR-49) intersection. Figure 2 displays the Project Site Plan. Paved passenger vehicle parking areas would be provided within areas in the middle of the buildable site area and predominantly on the western boundary of the overall site. Paved paths for pedestrians and bicyclists will be created for travel between fields, courts, and the recreational building.

The project will be operated and maintained by the County of El Dorado and will primarily serve the Diamond Springs community. It is anticipated that the facilities would be operated seasonally and in accordance to community needs. Visitors will access the site largely via passenger vehicles and would park within the park's proposed parking lots. It is not anticipated that large trucks or other non-passenger vehicles will need to operate on site during regular

operating hours. Due to the size and ability of the park to provide for multiple fields to be utilized simultaneously, the park may host larger events that require additional coordination and participation of the adjacent Union Mine High School. This coordination would be fully agreed upon prior to the operation of the site and would include the potential use of Union Mine High School's parking lots and areas where pedestrians would walk to and from the project site. This would likely occur approximately 8-10 times per year. Due to the sporadic occurrence and unknown characteristics of such events, the TIS does not provide a separate analysis for larger events. Instead, the TIS provides a detailed analysis during a typical Saturday midday peak hour (late morning to early afternoon), when the project is expected to generate the highest number of trips on a daily basis.

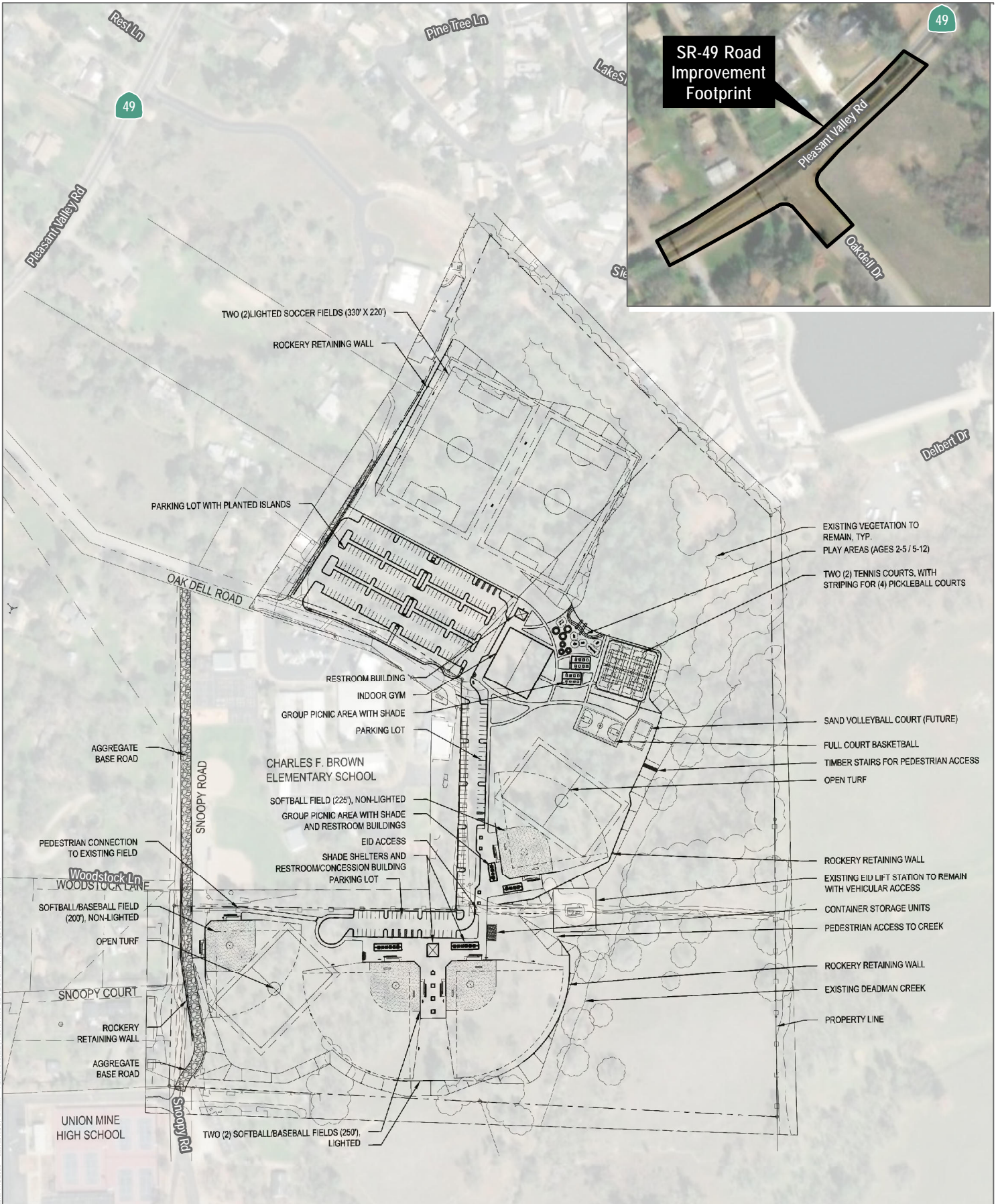


SOURCE: Google Earth 2021

FIGURE 1

Project Location and Study Area

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SOURCE: Roach and Campbell 2023

FIGURE 2

Project Site Plan

Diamond Springs Community Park Project

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2 Study Area

This section provides a summary of the existing street network, including the major roadways serving the site, the existing transit service, and bicycle and pedestrian facilities in the study area.

2.1 Existing Street Network

Community access to the site would be provided from US Highway 50 (US-50) and State Route 49 (SR-49). Characteristics of the primary roadways within the study area are described below.

- **State Route 49 (SR-49) – Golden Chain Highway** is an east-west highway located north of the Project site. According to the El Dorado County General Plan, it is classified as a Major Two-Lane Road. SR-49 provides community connections to other major roadways such as US-50, Pleasant Valley Road, Missouri Flat Road, and Mother Lode Drive. West of Missouri Flat Road, SR-49 is also co-named Pleasant Valley Road before the road diverges southward in the Diamond Springs community area. There are bicycle lanes as part of the shoulder of the road where sufficient width exists and pedestrian facilities are present for portions of the roadway length and near commercial areas. The posted speed limit is generally 45 miles per hour (MPH) with reductions near residential and commercial areas.
- **Pleasant Valley Road** is an east-west, two-lane undivided arterial roadway located to the north of the project. Pleasant Valley Road transitions to SR-49 for approximately two miles, from Union Mine Road in the west, to Fowler Lane in the east. Pleasant Valley Road is designated as a Major Two-Lane Road according to the El Dorado County General Plan. The posted speed limit is generally 45 MPH with reductions near residential and commercial areas.
- **Oak Dell Road** is a north-south, two-lane, undivided local roadway northwest of the Project site. Oak Dell Road provides direct access to the project and connects the project to SR-49. Oak Dell Road is designated as a Local Road according to the El Dorado County General Plan. There are no specific bicycle or pedestrian facilities present. The posted speed limit is 20 MPH.
- **Koki Lane** is a north-south, two-lane undivided local roadway west of the Project site. Koki Lane is designated as a Local Road according to the El Dorado County General Plan. There are no specific bicycle or pedestrian facilities present. The posted speed limit is 25 MPH.
- **El Dorado Road** is a north-south, two-lane undivided local roadway located to the northwest of the Project site. El Dorado Road is currently designated as a major collector according to the El Dorado County General Plan. There are no specific bicycle or pedestrian facilities present. The posted speed limit is 40 MPH.
- **Forni Road** is a north-south, two-lane undivided local roadway west of the Project site. Forni Road is currently designated as a major collector according to the El Dorado County General Plan. There are no specific bicycle or pedestrian facilities present. The posted speed limit is 35 MPH.
- **Patterson Drive** is a north-south, two-lane undivided local roadway, located northeast of the Project site. Patterson Drive is designated as a Local Road according to the El Dorado County General Plan. There are no specific bicycle or pedestrian facilities present. The posted speed limit is 35 MPH.
- **Missouri Flat Road** is a north-south collector roadway that provides local access to SR-49. It is a two-lane, undivided roadway located to the northeast of the project. It is currently a four-lane road north of Golden Center Drive (south) and a two-lane road from Golden Center (south) to SR-49/Pleasant Valley Road.

Missouri Flat Road is currently designated as a minor arterial according to the El Dorado County General Plan, but will be updated to be a Four-Lane, Undivided Road for its entire length in the 2035 Circulation System. There are no specific bicycle or pedestrian facilities present. The posted speed limit is 45 MPH.

2.2 Transit System

El Dorado County is served by bus services provided by El Dorado Transit Authority, which provides community and local services throughout the County. The County is served by passenger rail services offered by the National Railroad Passenger Corporation (Amtrak). The rail and transit providers are described below. Figure 3 displays the existing transit facilities.

Amtrak

Amtrak is a national rail operator, with 21,000 route miles in 46 states, the District of Columbia, and three Canadian Provinces. Amtrak operates more than 300 trains each day at speeds up to 150 MPH to more than 500 destinations. Amtrak is the chosen operator for state-supported corridor services in 17 states and four commuter rail agencies (Amtrak 2023). The closest station is the Placerville Amtrak Station, located at 2894 Mosquito Road in Placerville, located approximately 7 miles north of the project site. The Placerville Amtrak Station provides bus connections to rail stations vis Thruway Connecting Services.

El Dorado Transit Authority

El Dorado Transit Authority serves the Diamond Springs community, and the project is served by the coexisting bus lines: Route 30 and Route 35. Route 30 provides service Mondays through Friday from 7:00am to 7:00pm, and Route 35 provides service on Saturdays from 7:00 a.m. to 7:00 p.m., both provide headways of 60-minutes. The nearest bus stop to the project site is located approximately 0.25 miles away at Pleasant Valley Road and Oro Lane.

El Dorado Transit also offers three paratransit services for persons with special needs within the El Dorado and Sacramento counties. Dial-a-Ride is a curb-to-curb service available to seniors and persons with disabilities. This service can be reserved in advanced by passengers and is fulfilled on a first-come, first-serve basis. ADA Paratransit is an origin to destination service that operates during the same hours as the local fixed route services. Sac-Med is a shared-ride non-emergency medical appointment transportation service available to seniors and persons with disabilities who are registered in the El Dorado Transit system. This service operates on Tuesdays and Thursdays, between 10:00 a.m. and 2:00 p.m., and only for transportation to and from medical appointments.

2.3 Pedestrian and Bicycle Facilities

The project site is located in an area of the county with little to no-existing pedestrian or bicycle facilities in the immediate vicinity of the site. The El Dorado County Active Transportation Plan (ATP) (2020) has identified areas for improvement near the project site. Figure 4 displays the existing and proposed bicycle facilities.

As identified by the ATP, the following classes are used to identify bicycle facilities within the County:

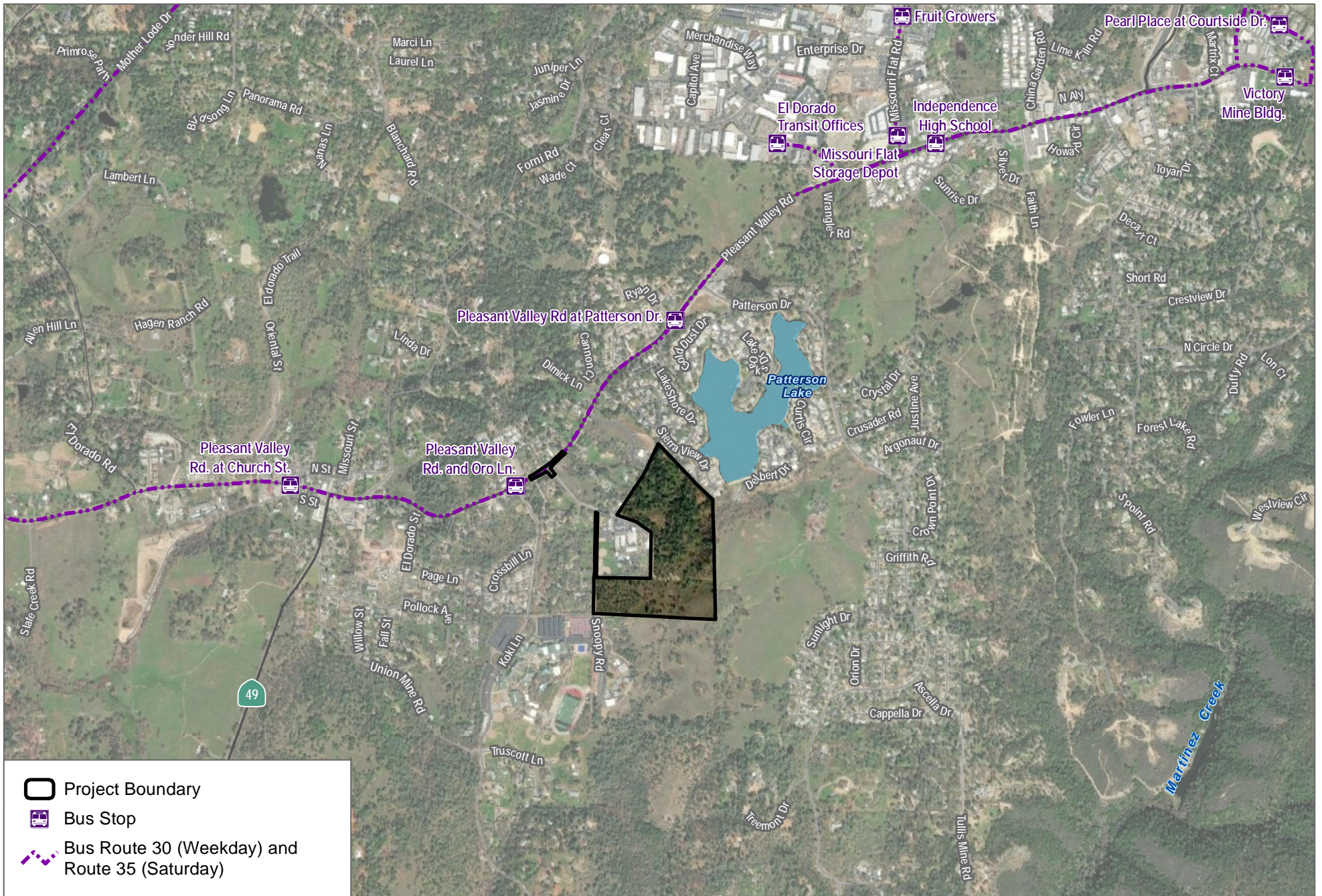
Class I Bike Paths are hard-surface routes within an exclusive right-of-way physically separated from vehicular roadways and intended specifically for non-motorized use.

Class II Bike Paths are marked bicycle lanes within roadways adjacent to the curb lane, delineated by appropriate striping and signage.

Class III Bike Paths are marked by a series of signs designating a preferred route between destinations such as residential neighborhoods and shopping areas. These routes share the right-of-way with on-road vehicles.

There are few bicycle facilities presently located near the project site, and the ATP has proposed plans to add a Class II Bicycle Lane to Pleasant Valley Road. SR-49/Pleasant Valley Road functions as a highway with designated bicycle lanes, however due to the roadway constraints the bicycle lanes along SR-49/Pleasant Valley Road are along the shoulder of the road and in some instances unprotected from traffic. There are plans provided in the ATP to provide formalized Class II bicycle lanes when construction is possible. There are few pedestrian facilities located near the project site, but the ATP has proposed plans to add and improve sidewalks along SR-49/Pleasant Valley Road and Oak Dell Road. Access for both pedestrians and bicyclists would be provided via the main entrance to the park along Oak Dell Road, as well as through pedestrian easements located along Snoopy Road, at the southwest corner of the site. Additional pedestrian and bicycle connectivity may be provided during certain times when Union Mine High School's parking gates are opened. There are also some existing, however limited areas of pedestrian facilities located along the perimeter of Charles F. Brown Elementary.

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SOURCE: ESRI Imagery 2023, Open Street Map 2019,
El Dorado Transit 2023, El Dorado County 2022

FIGURE 3

Existing Transit Facilities

Diamond Springs Community Park Project

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3 Analysis Methodology and Thresholds

The County has LOS policies to ensure that proposed developments are consistent with the County’s Circulation Element of the General Plan. Therefore, an LOS analysis has been prepared to evaluate the project’s consistency with the County’s General Plan Circulation Element and County’s TIS guidelines. In addition to a VMT analysis required under CEQA, the El Dorado County adopted Resolution No 141-2020 was also utilized. The study intersection and roadway segments, analysis scenarios, traffic volumes, VMT methodology, and LOS methodology and impact criteria are presented in the following section.

3.1 Study Intersections and Roadway Segments

After detailed discussion and scoping with the County’s Public Works Department, the following intersections and roadway segments were selected for analysis:

1. Farm Road/Mother Lode Drive
2. Farm Road/Pleasant Valley Road
3. El Dorado Road/Pleasant Valley Road
4. Golden Chain Highway (SR-49)/Pleasant Valley Road
5. Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49)
6. Koki Lane – Oro Lane/Golden Chain Highway (SR-49)
7. Oak Dell Road/Golden Chain Highway (SR-49)
8. Patterson Drive/Pleasant Valley Road (SR-49)
9. Missouri Flat Road/Pleasant Valley Road – Golden Chain Highway (SR-49)
10. Golden Chain Highway (SR-49)/Union Mine Road

Roadway Segments:

1. Oak Dell Road, south of Golden Chain Highway (SR-49)
2. Pleasant Valley Road/Golden Chain Highway (SR-49), east of Oak Dell Road

3.2 Analysis Scenarios

Consistent with the County Guidelines, intersection LOS analyses were prepared for the peak hours of the weekday AM (6:00 a.m. – 9:00 a.m.), weekday PM (4:00 p.m. – 7:00 p.m.), and Saturday midday (11:00 a.m. – 2:00 p.m.) peak periods at the study area intersections and road segments listed above for the following analysis scenarios:

Existing Conditions

The TIA includes a description of existing traffic conditions in the site vicinity, including existing intersection weekday AM and PM peak hour traffic volumes, Saturday midday peak hour traffic volumes, and traffic operations. The existing condition is representative of the year 2023. Counts for intersections 4, 6, 7, and 10) were previously collected in 2022 and have been adjusted as needed with 1% per year growth to represent 2023 conditions. All

other remaining counts were collected in 2023, and all counts were balanced to account for any discrepancies. Raw traffic counts are provided in Appendix A.

Existing plus Project Conditions

This scenario includes analysis of traffic operations under the Existing condition (described above) with project-related traffic added to the AM, PM, and Saturday midday peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining project's direct impacts.

Near Term (2033) Conditions

This scenario includes a description of traffic conditions and operations within a short-term horizon period (10 years) where the proposed project is constructed and fully occupied. As per the County's TIS guidelines, the Near-Term condition is 10-years after the existing condition. The Near-Term (2033) scenario is based on a straight-line interpolation of the traffic volumes as derived in the Cumulative (2040) baseline scenario.

Near Term (2033) plus Project Conditions

This scenario includes analysis of traffic operations under the Near Term (2033) condition (described above) with project-related traffic added to the AM, PM, and Saturday midday peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining the project's contribution to short-term impacts.

Cumulative (2040) Conditions

This scenario includes a description of traffic conditions and operations within a long-term horizon period to account for transportation network changes throughout the region, as well as population growth, developed or approved or pending development projects, and buildout of the land uses designated in the County's General Plan. The Long-Range Planning Department provided model plot data from the El Dorado County Travel Demand Model which was utilized to derive the Cumulative (2040) volumes. The data was post-processed via the NCHRP's "incremental" method and with the County's standard methodology to eliminate errors and balance volumes. Raw model plots are located in Appendix B.

Cumulative (2040) plus Project Conditions

This scenario includes analysis of traffic operations under the Cumulative (2040) condition (described above) with project-related traffic added to the AM, PM, and Saturday midday peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining the project's contribution to cumulative impacts.

This condition includes analysis of traffic operations under the Cumulative (2040) Condition (described above) with project-related traffic added to the AM and PM peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining the project's contribution to cumulative impacts.

3.3 LOS Methodology

LOS is commonly used as a qualitative description of intersection operations and roadway segments and is based on the design capacity of the intersection configuration and roadway facility, compared to the volume of traffic using the facility. The County’s intersection evaluation methodology to assess transportation impacts and traffic operating conditions for intersections is based on the latest version of the Highway Capacity Manual (HCM) methodology.

The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle based on the worst turning movement for unsignalized intersections.

Synchro version 11 software was used to determine intersection LOS (for all scenarios), consistent with HCM 6 methodologies. Detailed LOS calculation worksheets (for all scenarios) are included in Appendix C. Table 1 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

Table 1. Levels of Service for Intersections using HCM Methodology

Level of Service	Unsignalized Intersections Control Delay (in seconds per vehicle)	Signalized Intersections Control Delay (in seconds per vehicle)
A	< 10.0	< 10.0
B	> 10.0 to < 15.0	> 10.0 to < 20.0
C	> 15.0 to < 25.0	> 20.0 to < 35.0
D	> 25.0 to < 35.0	> 35.0 to < 55.0
E	> 35.0 to < 50.0	> 55.0 to < 80.0
F	> 50.0	> 80.0

Source: HCM 6 (Transportation Research Board 2016).

Additionally, roadway segments were analyzed to determine their operating conditions based on HCM standards. Table 2 identifies the daily roadway capacities for various roadway classifications as identified in the County’s TIS guidelines.

Table 2. El Dorado County Peak Hour Roadway Segment LOS Thresholds

Functional Class Codes (HCM 2010)	HCM 2010 Planning Level Volumes ¹				
	A	B	C	D	E
Two-Lane Arterial	–	–	850	1,540	1,650
Four-Lane Arterial, Undivided	–	–	1,760	3,070	3,130
Four-Lane Arterial, Divided	–	–	1,850	3,220	3,290
Six-Lane Arterial, Divided	–	–	2,760	4,680	4,710
Four-Lane Multi-Highway (Two Dir.)	–	2,240	3,230	4,250	4,970
Two Freeway Lanes (One Dir.)	–	2,070	2,880	3,590	4,150
Two Freeway Lanes + Auxiliary Lane (One Dir.)	–	2,610	3,630	4,520	5,230
Three Freeway Lanes (One Dir.)	–	3,100	4,320	5,380	6,230

Table 2. El Dorado County Peak Hour Roadway Segment LOS Thresholds

Functional Class Codes (HCM 2010)	HCM 2010 Planning Level Volumes ¹				
	A	B	C	D	E
Three Freeway Lanes + Auxiliary Lane (One Dir.)	–	3,640	5,070	6,320	7,310
Four Freeway Lanes (One Dir.)	–	4,140	5,760	7,180	8,310

Source: El Dorado County Transportation Impact Study Guidelines, 2014.

Note: LOS = Level of Service; – Level of Service is not achievable due to type of facility.

¹ Freeway LOS based on HCM 2010, Exhibit 10-8, Urban Area, Rolling Terrain, K-factor of 0.09, and D-factor of 0.60. 2-lane highway (and arterial 2-lane) LOS based on HCM 2010, Exhibit 15-30, Class II Rolling, .09 K-factor, and D-factor of 0.60. Arterial LOS based on HCM 2010, Exhibit 16-14, K-factor of 0.09, posted speed 45 mi/h. Volumes are for both directions unless noted.

3.4 VMT Methodology

On September 27, 2013, Senate Bill (SB) 743 was signed into law, which creates a process to change the way that transportation impacts are analyzed under California Environmental Quality Act (CEQA). SB 743 required the Governor’s Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, will no longer be considered an environmental impact under CEQA. OPR recommended Vehicle Miles Traveled (VMT) as the most appropriate measure of project transportation impacts for land use projects and land use plans. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018.

Under these guidelines, VMT has been adopted as the most appropriate measure of transportation impacts under CEQA. The OPR’s regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by July 1, 2020. The Updated CEQA Guidelines state that “...generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts...” and define VMT as “...the amount and distance of automobile travel attributable to a project....” It should be noted that “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). Other relevant considerations may include the effects of the project on transit and non-motorized travel.

The El Dorado County Board of Supervisors adopted Resolution No 141-2020 which adopts thresholds of significance for land use projects for the purposes of analyzing transportation impacts under CEQA on October 6, 2020. This analysis follows these guidelines for SB 743 compliance. Per the County’s guidelines, projects shall analyze VMT metrics when exemption criteria are not met. The details of applicable screening and VMT analysis methodology is provided in Section 7 of this TIS.

3.5 General Plan Consistency Requirements

The study area intersections and roadway segments are located within the jurisdiction of El Dorado County and Caltrans. The significance criteria for El Dorado County and Caltrans are described below.

3.5.1 El Dorado County General Plan Policies

The goals and policies included in the County of El Dorado General Plan's Transportation and Circulation Element are included below to evaluate the project's potential impacts to LOS and non-LOS related criteria, including impacts to pedestrians, bicyclists, and transit users.

Goal TC-1: To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.

Policy TC-1a: Road design standards for County-maintained roads shall be based on the American Association of State Highway and Transportation Officials (AASHTO) standards and supplemented by California Department of Transportation (Caltrans) design standards and by County Department of Transportation standards.

Policy TC-1w: New streets and improvements to existing rural roads necessitated by new development shall be designed to minimize visual impacts, preserve rural character, and ensure neighborhood quality to the extent possible consistent with the needs of emergency access, on street parking, and vehicular and pedestrian safety.

Goal TC-X: To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on County roads.

Policy TC-Xd: Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.

All intersections and segments analyzed fall under the "Community Regions" category and therefore LOS E was utilized as the lowest acceptable LOS threshold within this study.

Policy TC-Xe: For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:

- A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or
- B. The addition of 100 or more daily trips, or
- C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.

Policy TC-Xf: At the time of approval of a tentative map for a single family residential subdivision of five or more parcels that worsens (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to

construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element based on existing traffic plus traffic generated from the development plus forecasted traffic growth at 10-years from project submittal; or (2) ensure the commencement of construction of the necessary road improvements are included in the County's 10-year CIP.

For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element; or (2) ensure the construction of the necessary road improvements are included in the County's 20-year CIP.

Policy TC-Xg: Each development project shall dedicate right-of-way, design and construct or fund any improvements necessary to mitigate the effects of traffic from the project. The County shall require an analysis of impacts of traffic from the development project, including impacts from truck traffic, and require dedication of needed right-of-way and construction of road facilities as a condition of the development. This policy shall remain in effect indefinitely unless amended by voters.

3.5.2 Improvements for Transportation Impacts

The El Dorado County Capital Improvement Program (CIP) (updated as of June 2023) includes line items for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available. Therefore, appropriate mitigation, as determined by the CDS, would include payment of traffic impact mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others.

At locations where a project is forecast to have deficient operations or significant impacts, needed improvements are identified to offset the projects' impacts. Locations at which unsignalized intersections are operating or forecast to operate at deficient levels of service are evaluated for traffic signal warrants based on the California Manual of Traffic Control Devices (CA MUTCD) for peak hour signal warrants.

It is the project's responsibility to implement the needed improvements to the County's satisfaction either through construction of the improvement(s), fair-share payment to the improvement(s), or payment of appropriate fees. If improvements are included in a fee program, the cost of implementing the improvements could be credited against fees payable by the project. Improvements required in the TIS and subsequently listed in the conditions of approval shall be completed prior to occupancy.

El Dorado County Transportation Impact Fee (TIF) Program

The County of El Dorado adopted Resolution 196-2020 on December 8, 2020, which would accept the major revisions to the County's Traffic Impact Fee Program (formerly the Transportation Impact Mitigation Program). The

TIF program is used to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding roadways and intersections necessary to accommodate growth anticipated by the County's General Plan.

The County of El Dorado's TIF Program Administrative Manual (July 2019) identifies projects that can be exempt from the TIF schedule. A development project need only to meet one of the below exemptions to be excluded.

- **Residential Additions:** Additions to existing residential buildings with building permits issued before February 8, 2021, inclusive of detached accessory structures, additions that do not result in Additional Dwelling Units, and additions of an Accessory Dwelling Unit within the meaning of Government Code Section 65852.2, are exempt from TIF as the Development Project would not generate additional vehicle trips.
- **Local Government Facilities:** A Nonresidential Project owned by the County of El Dorado, or a school or special district within El Dorado County that provides public services within TIF Zones may be exempt from the TIF if it can be demonstrated that the need for these facilities is caused by other Development Projects.
- **Affordable Housing:** The Board may offset TIF on Affordable Housing projects upon determination of the eligibility of the project. If eligible, the Board may authorize an equal or partial contribution of funds for construction of capital improvements in the TIF Program Schedule from other non-tax sources such as State and Federal grants to backfill the Program. The Board must approve an application for the offset program for the offset to be valid.
- **Accessory Dwelling Units:** Accessory Dwelling Units are exempt from TIF. The Board has authorized an equal contribution of funds for construction of capital improvements in the TIF Program Schedule from other non-tax sources. Non-tax sources such as State and Federal grants are used to backfill the program, and to offset the traffic impacts from Accessory Dwelling Units, as defined in the EDC Zoning Code Section 130.40.300.
- **Accessory Structures:** TIF are not collected for residential and non-residential accessory structures that do not generate additional vehicle trips.

The proposed project may be exempt from the County's TIF program as it is a County owned project that provides services to residents within TIF Zone B (i.e., a public park). Furthermore, some projects within TIF Zones may be exempt from the TIF if it can be demonstrated that the need for these facilities is caused by other development projects.

As noted above, project improvements may include a combination of fee payments to established programs (e.g., TIF), construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. The project's fair share cost is calculated based on the following formula, which estimates the ratio of Project-related traffic to all new traffic between 2023 and the Cumulative 2040:

$$\text{Project Fair Share \%} = \text{Project Traffic} / (\text{Cumulative (2040) plus Project Traffic} - \text{Existing Year 2023 Traffic})$$

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4 Project Traffic

This section documents the trip generation, distribution, and assignment of project traffic in the study area.

4.1 Trip Generation

The Project would include construction and operation of an approximately 15,000 SF recreation gym building, six (6) baseball/soccer fields, a pasture of passive and active outdoor space, and associated parking. Trip generation estimates for the proposed project are based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition (2021).

Trip generation rates, vehicle splits, and the resulting trip generation estimates for the project are summarized in Table 3. As shown in the table, the project would generate 881 daily weekday trips, 36 AM peak hour trips (23 inbound and 13 outbound), and 140 PM peak hour trips (85 inbound and 55 outbound). On Saturdays, as shown in Table 4, the project would generate 2,620 daily trips, with 249 trips during the peak hour (121 inbound and 128 outbound).

Table 3. Peak Weekday Project Trip Generation

Land Use	ITE Code	Size/ Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Public Park	411	Acre	0.78	0.01	0.01	0.02	0.06	0.05	0.11
Soccer Complex	488	Field	71.33	0.60	0.39	0.99	10.84	5.59	16.43
Recreational Community Center	495	TSF	28.82	1.26	0.65	1.91	1.18	1.33	2.50
Trip Generation									
Diamond Springs Community Park									
Community Park	27.4 Acres		21	0	1	1	2	1	3
Soccer + Baseball Fields	6 Fields		428	4	2	6	65	34	99
Indoor Gym	15.0 TSF		432	19	10	29	18	20	38
Total Trip Generation			881	23	13	36	85	55	140

Notes: Rounding discrepancies may occur. TSF = Thousand Square Feet.

¹ Trip rates derived from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition (2021).

² The project site is approximately 39.6-acres, however due to the constraints of the site, approximately 36.58-acres can be developed. Approximately 75% of the remaining acreage would be programmed as an active park, with the remainder as a passive park.

Table 4. Peak Saturday Project Trip Generation

Land Use	ITE Code	Size/ Units	Daily	Saturday Peak Hour		
				In	Out	Total
Public Park	411	Acre	0.78	0.01	0.01	0.02
Soccer Complex	488	Field	71.33	0.60	0.39	0.99
Recreational Community Center	495	TSF	28.82	1.26	0.65	1.91

Table 4. Peak Saturday Project Trip Generation

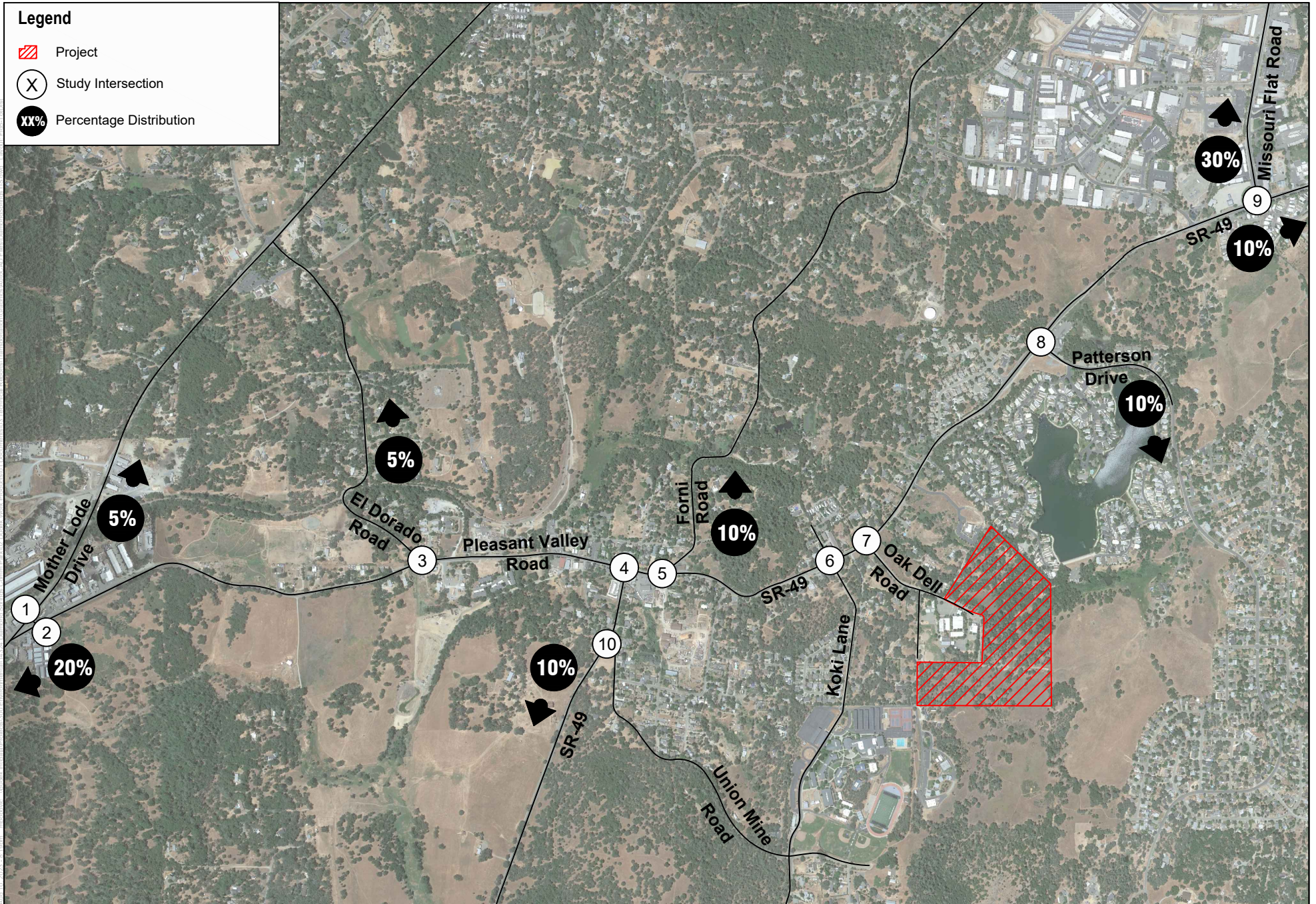
Land Use	ITE Code	Size/ Units	Daily	Saturday Peak Hour		
				In	Out	Total
Trip Generation						
Diamond Springs Community Park						
Community Park		27.4 Acres	54	4	4	8
Soccer + Baseball Fields		6 Fields	2,429	108	117	225
Indoor Gym		15.0 TSF	137	9	7	16
Total Trip Generation			2,620	121	128	249

Notes: Rounding discrepancies may occur. TSF = Thousand Square Feet.

- ¹ Trip rates derived from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 11th Edition (2021).
- ² The project site is approximately 39.6-acres, however due to the constraints of the site, approximately 36.58-acres can be developed. Approximately 75% of the remaining acreage would be programmed as an active park, with the remainder as a passive park.

4.2 Trip Distribution and Assignment

Project trip distribution percentages are based on logical travel paths to and from the project site and consideration of established traffic distribution patterns in the area. Project vehicles were distributed to and from the project site utilizing only Oak Dell Road as the access point. The project’s trip distribution percentages were approved by the County’s Public Works Department prior to the completion of the transportation analysis and the TIS. Project trip distribution percentages are shown in Figure 5 and weekday and Saturday project trip assignments are shown in Figures 6A and 6B, respectively.



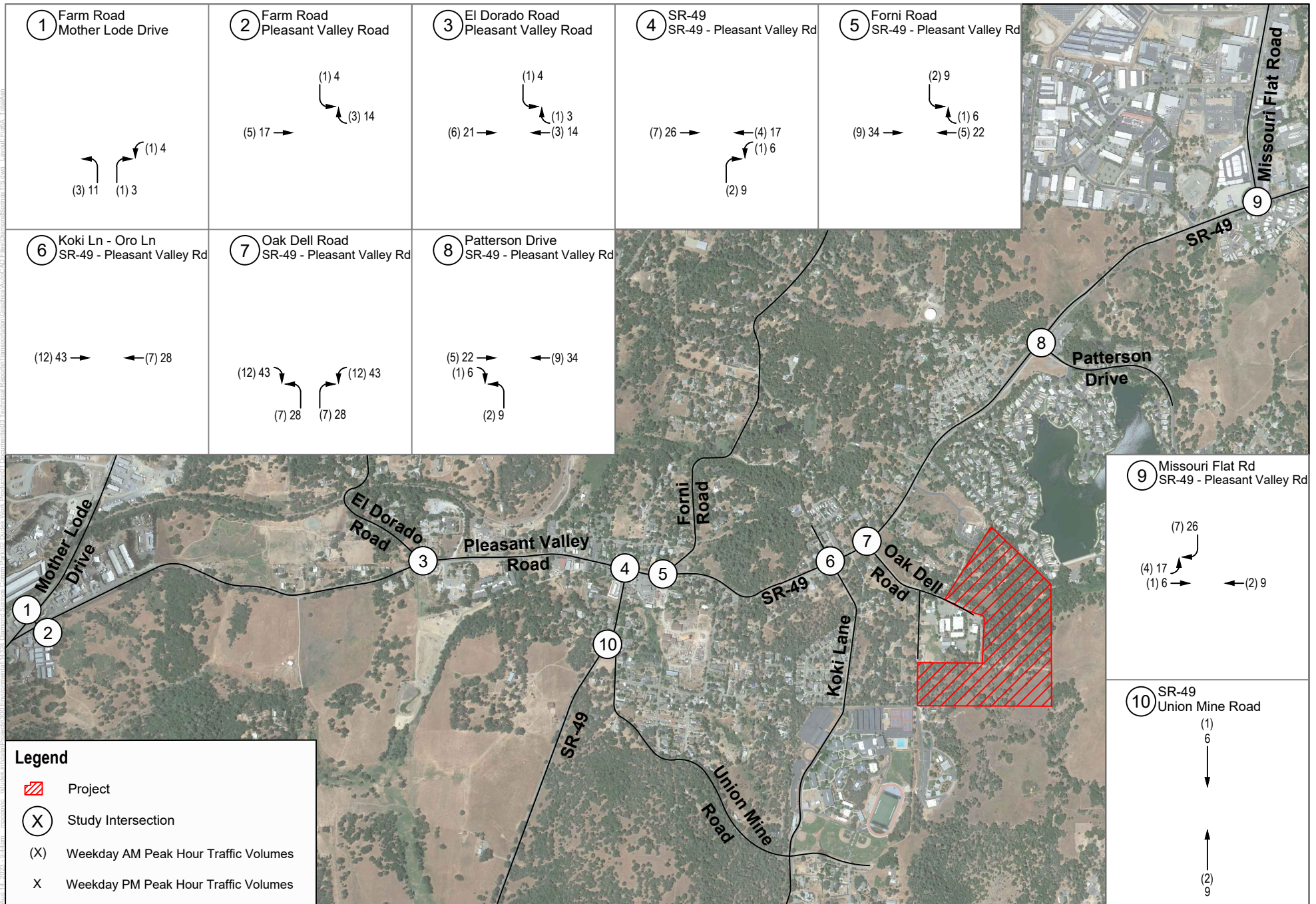
SOURCE: Google Earth 2021

FIGURE 5

Project Trip Distribution

Diamond Springs Community Park Project

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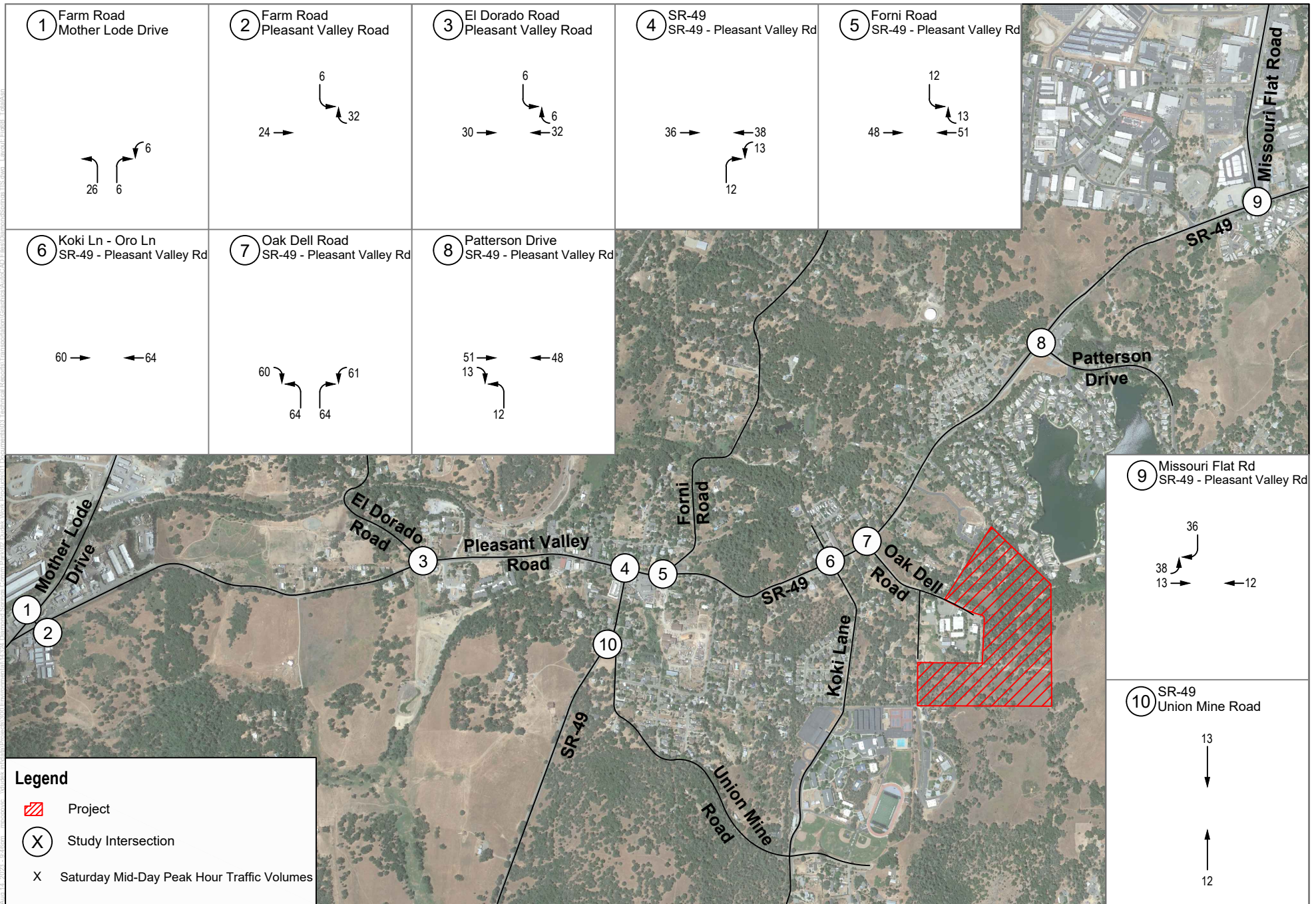
SOURCE: Google Earth 2021

FIGURE 6A

Weekday Project Trip Assignment

Diamond Springs Community Park Project

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SOURCE: Google Earth 2021

FIGURE 6B

Saturday Project Trip Assignment

Diamond Springs Community Park Project

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5 Level of Service Analysis

5.1 Existing and Existing plus Project Traffic Operations

This section details the existing intersection and roadway segment operations within the study area. Existing traffic controls and geometrics at all study intersections are shown in Figure 7 and existing weekday peak hour traffic volumes and existing Saturday peak hour traffic volumes are shown in Figures 8 and 9, respectively. Volumes depicting project-added traffic for both weekday and Saturday are shown in Figures 10 and 11, respectively. All Synchro LOS worksheets are provided in Appendix C.

Table 5 summarizes the results of the weekday intersection analysis for the AM and PM peak hours for Existing and Existing plus Project conditions. As shown in the table, all of the study intersections are currently operating at satisfactory levels of service (LOS E or better) under existing conditions and will continue to operate at satisfactory LOS with the project-added traffic except for the following intersections:

- #4 Golden Chain Highway (SR-49)/Pleasant Valley Road: Operates at LOS F under Existing conditions during the AM peak hour and continues to operate at LOS F under Existing plus Project conditions during the AM peak hour. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.
- #7 Oak Dell Road/Golden Chain Highway (SR-49): Operates at LOS F under Existing plus Project conditions during the AM peak hour (degrades from LOS E under Existing conditions).

Peak hour signal warrants were performed at these intersections under Existing (2023) and Existing (2023) plus Project conditions and are provided in Appendix D. The signal warrant was met at Intersection #4 but was not met at Intersection #7. Recommended improvements related to signalization and/or lane geometrics are identified in Section 8.

Table 6 summarizes the results of the Saturday intersection analysis for the midday peak hour for Existing and Existing plus Project conditions. As shown in the table, all of the study intersections are currently operating at satisfactory levels of service (LOS E or better) under existing conditions and will continue to operate at satisfactory LOS with the project-added traffic.

Table 7 shows the results of the roadway segment LOS analysis. As shown below, both roadway segments would operate at acceptable LOS under existing conditions and will continue to operate at satisfactory LOS with the project-added traffic.

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Table 5. Existing Weekday Peak Hour Intersection LOS (with and without Project)

No.	Intersection	LOS Method	Existing Conditions				Existing plus Project				Change in Delay		Inconsistent w/ County Standards?		Improvements Required?		Existing plus Project w/Improvements			
			AM Peak		PM Peak		AM Peak		PM Peak								AM Peak		PM Peak	
			Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	AM	PM	AM	PM	AM	PM	Delay ¹	LOS ²	Delay ¹	LOS ²
1	Farm Road/ Mother Lode Drive	AWSC	15.8	C	14.2	B	16.1	C	14.7	B	0.3	0.5	No	No	No	No	--	--	--	--
2	Farm Road/ Pleasant Valley Road	TWSC	11.4	B	12.7	B	11.5	B	12.9	B	0.1	0.2	No	No	No	No	--	--	--	--
3	El Dorado Road/ Pleasant Valley Road	TWSC	28.1	D	29.1	D	28.9	D	32.6	D	0.8	3.5	No	No	No	No	--	--	--	--
4	Golden Chain Highway (SR-49)/Pleasant Valley Road	AWSC	59.2	F	36.5	E	60.2	F	44.7	E	1.0	8.2	Yes	No	Yes	No	34.8	C	--	--
5	Forni Road/Pleasant Valley Road - Golden Chain Highway (SR-49)	TWSC	27.1	D	16.1	C	28.7	D	20.0	C	1.6	3.9	No	No	No	No	--	--	--	--
6	Koki Lane - Oro Lane/ Golden Chain Highway (SR-49)	HCM Signal	26.7	C	20.6	C	27.1	C	20.7	C	0.4	0.1	No	No	No	No	--	--	--	--
7	Oak Dell Road/Golden Chain Highway (SR-49)	TWSC	41.5	E	20.2	C	55.2	F	24.5	C	13.7	4.3	Yes	No	Yes	No	27.8	D	--	--
8	Patterson Drive/Pleasant Valley Road (SR-49)	HCM Signal	8.2	A	9.6	A	8.3	A	9.6	A	0.1	0.0	No	No	No	No	--	--	--	--
9	Missouri Flat Road/Pleasant Valley Road - Golden Chain Highway (SR-49)	HCM Signal	12.6	B	12.6	B	12.6	B	12.9	B	0.0	0.3	No	No	No	No	--	--	--	--
10	Golden Chain Highway (SR-49)/Union Mine Road	TWSC	14.3	B	10.0	B	14.4	B	10.1	B	0.1	0.1	No	No	No	No	--	--	--	--

Notes: TWSC = two-way stop-control; AWSC = all-way stop-control; N/A = not applicable; **Bold:** Exceeds County's LOS E threshold

¹ Delay in seconds per vehicle; highest movement delay is reported for TWSC intersections.

² LOS = Level of Service

Table 6. Existing Saturday Peak Hour Intersection LOS (with and without Project)

No.	Intersection	Traffic Control	Existing Conditions		Existing plus Project		Change in Delay Saturday	Inconsistent w/ County Standards? AM	Improvements Required? PM	Existing plus Project w/ Improvements	
			Saturday		Saturday					Saturday	
			Delay ¹	LOS ²	Delay ¹	LOS ²				Delay ¹	LOS ²
1	Farm Road/Mother Lode Drive	AWSC	11.7	B	12.3	B	0.6	No	No	--	--
2	Farm Road/Pleasant Valley Road	TWSC	10.5	B	10.7	B	0.2	No	No	--	--
3	El Dorado Road/Pleasant Valley Road	TWSC	16.0	C	17.7	C	1.7	No	No	--	--
4	Golden Chain Highway (SR-49)/Pleasant Valley Road	AWSC	15.4	C	18.0	C	2.6	No	No	--	--
5	Forni Road/Pleasant Valley Road - Golden Chain Highway (SR-49)	TWSC	12.2	B	14.8	B	2.6	No	No	--	--
6	Koki Lane - Oro Lane/Golden Chain Highway (SR-49)	HCM Signal	20.7	C	20.9	C	0.2	No	No	--	--
7	Oak Dell Road/Golden Chain Highway (SR-49)	TWSC	14.2	B	30.0	D	15.8	No	No	--	--
8	Patterson Drive/Pleasant Valley Road (SR-49)	HCM Signal	8.0	A	8.1	A	0.1	No	No	--	--
9	Missouri Flat Road/Pleasant Valley Road - Golden Chain Highway (SR-49)	HCM Signal	11.7	B	12.2	B	0.5	No	No	--	--
10	Golden Chain Highway (SR-49)/Union Mine Road	TWSC	10.3	B	10.4	B	0.1	No	No	--	--

Notes: TWSC = two-way stop-control; AWSC = all-way stop-control; N/A = not applicable; **Bold:** Exceeds County's LOS E threshold

¹ Delay in seconds per vehicle; highest movement delay is reported for TWSC intersections.

² LOS = Level of Service

Table 7. Existing Roadway Segment LOS (with and without Project)

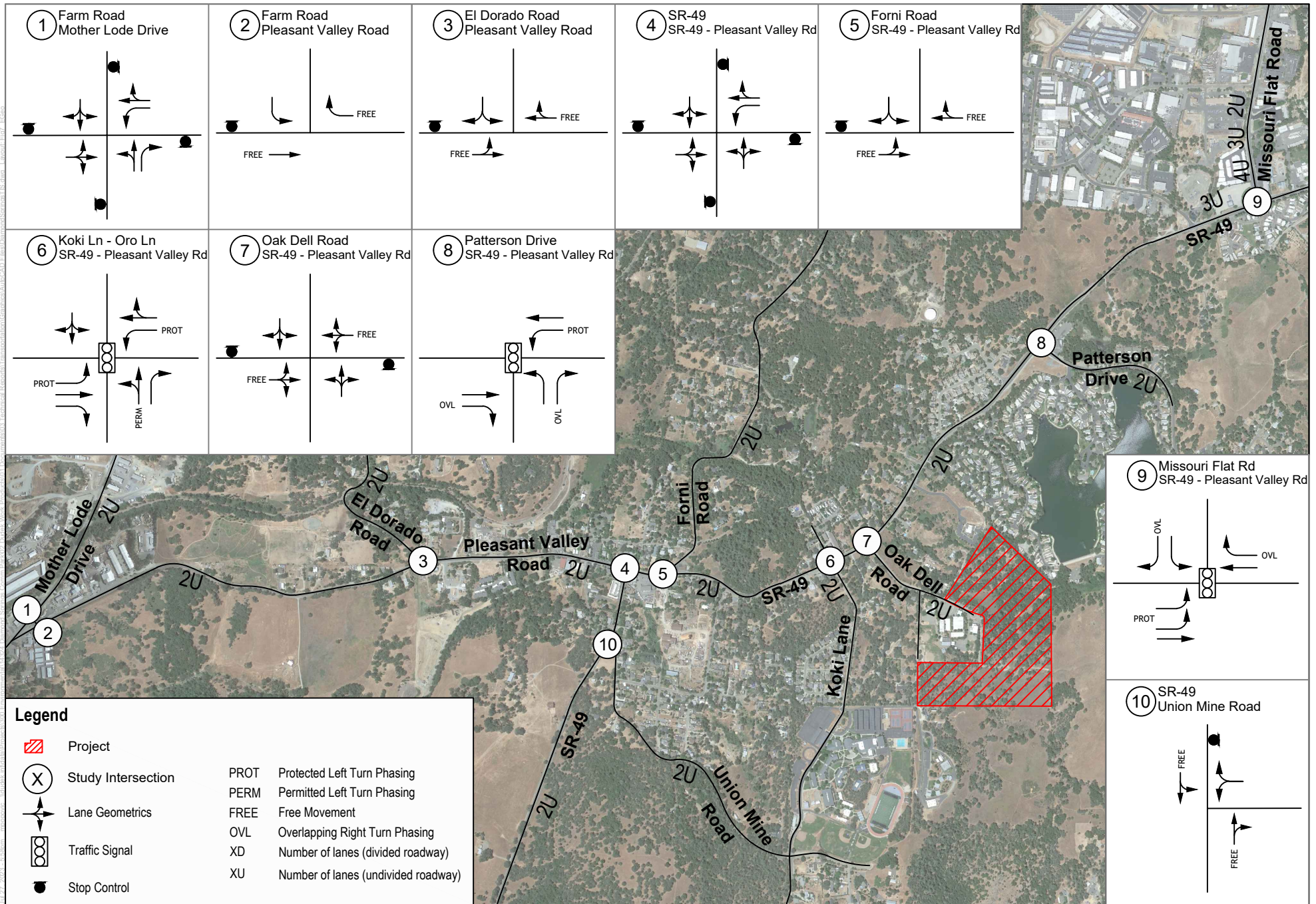
No.	Roadway Segment	Observed Classification	Functional Classification	No. of Lanes	LOS E Capacity ¹	Existing Conditions		Existing plus Project		Improvements Required?
						ADT ²	LOS ³	ADT	LOS ³	
1	Oak Dell Road, South of Golden Chain Highway	Local Road	Local Road	2U	1,650	253	C	393	C	No
2	Pleasant Valley Road - Golden Chain Highway, East of Oak Dell Road	Undivided Arterial	Two-Lane Arterial	2U	1,650	1,088	C	1,107	C	No

Notes: XU = # of lanes Undivided; XD = # of lanes Divided; **Bold:** Exceeds County's LOS E threshold

¹ Capacity determined from Table 2 in Section 3.4, Analysis Methodology. Oak Dell Road is not classified, and therefore is analyzed according to the lowest classification available in Table 2.

² Volume provided is the peak hour of segment traffic and reflects the highest total segment volume within either the AM, PM, or Saturday midday peak hours.

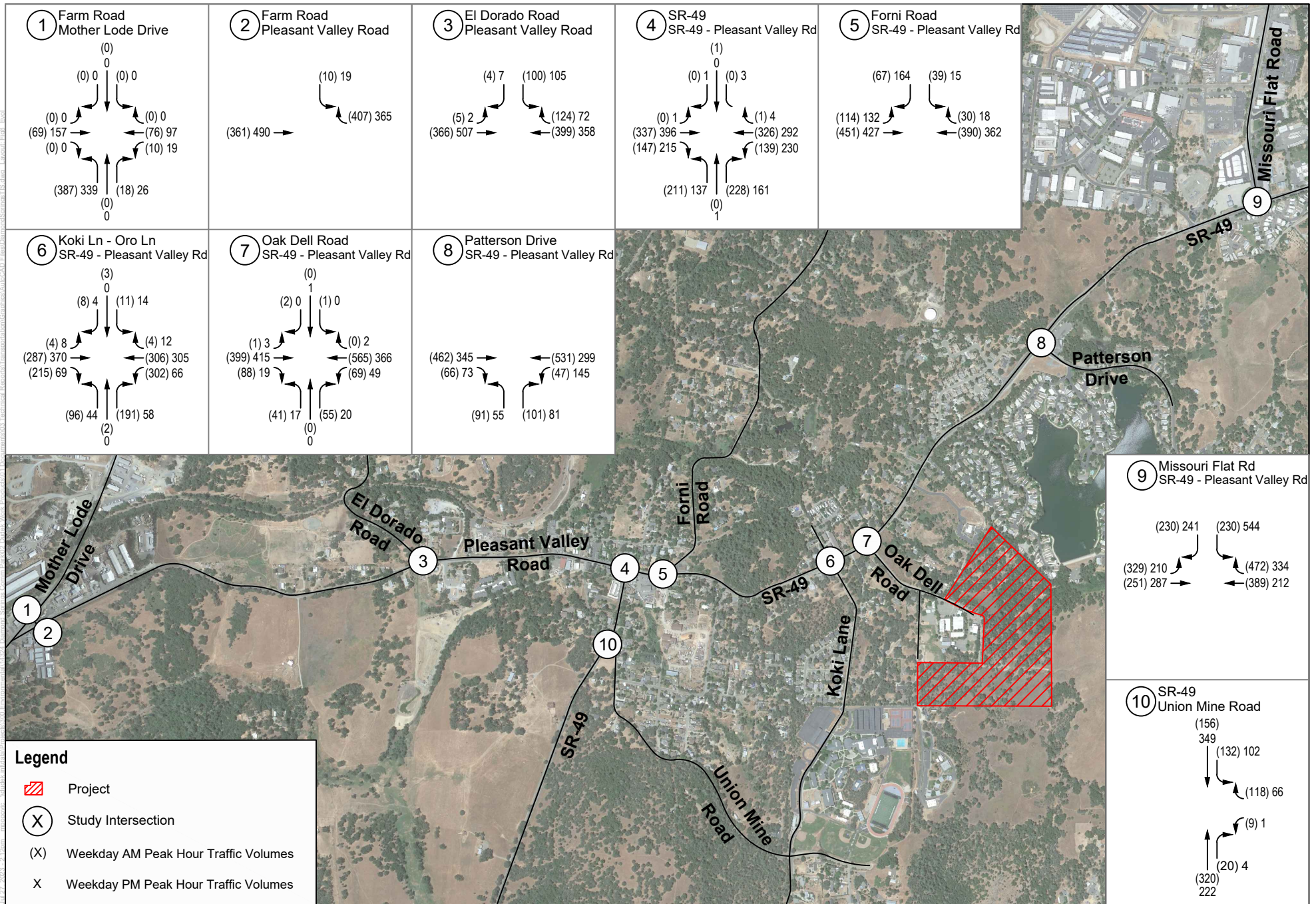
³ LOS C is the best LOS achievable as per Table 2.



SOURCE: Google Earth 2021

FIGURE 7
Intersection Controls and Geometrics

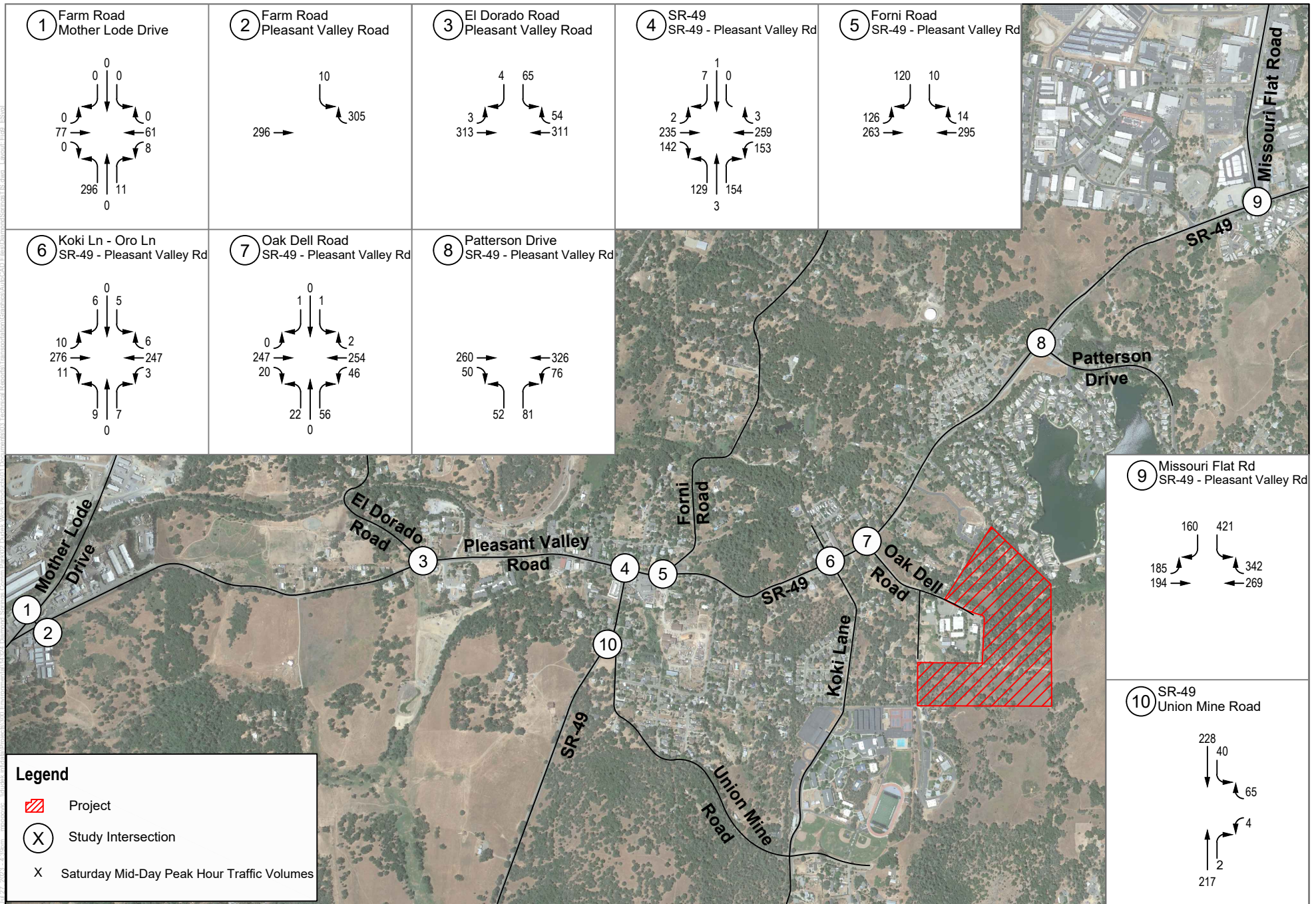
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SOURCE: Google Earth 2021

FIGURE 8
Existing Weekday Peak Hour Traffic Volumes

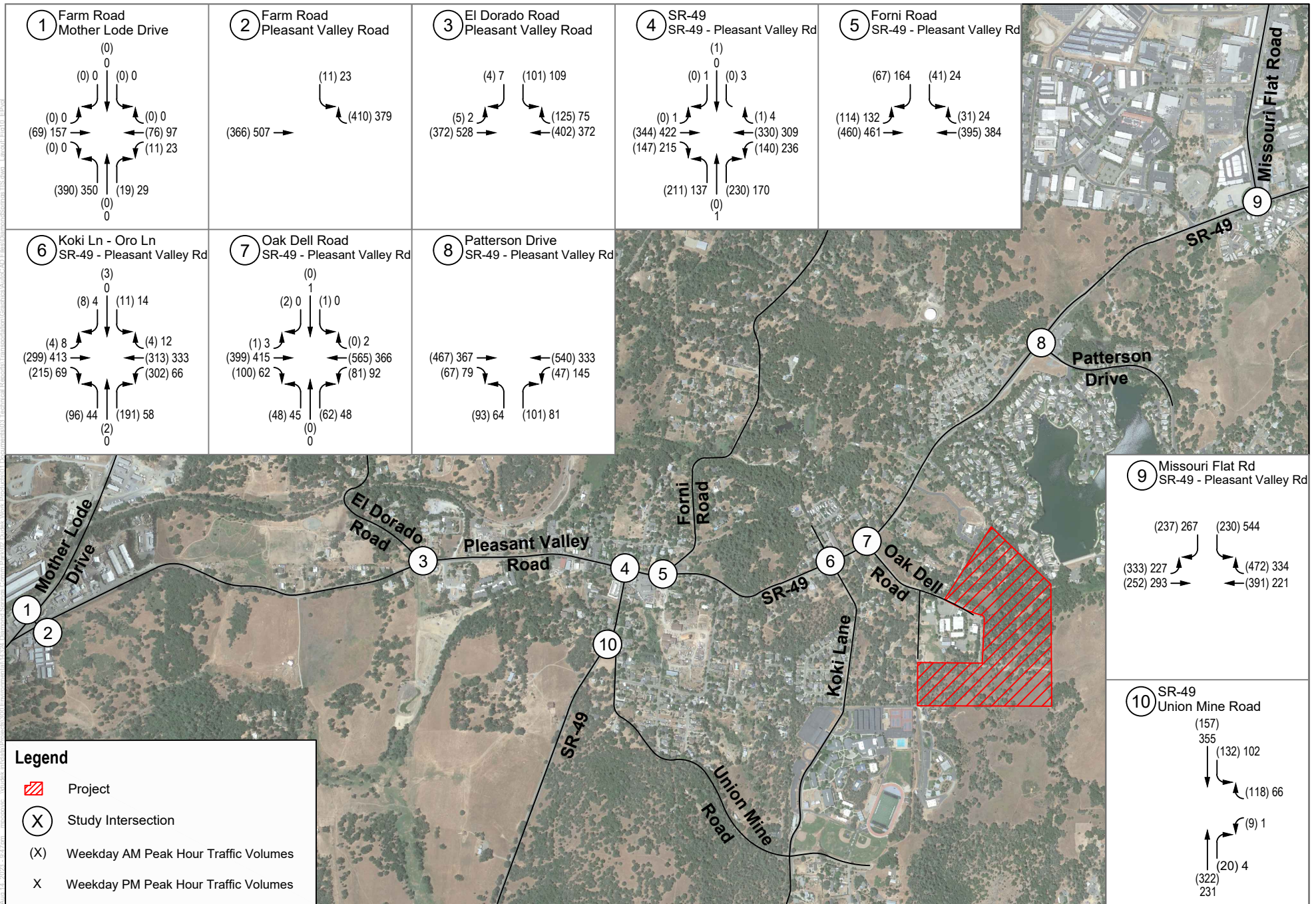
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SOURCE: Google Earth 2021

FIGURE 9
Existing Saturday Peak Hour Traffic Volumes

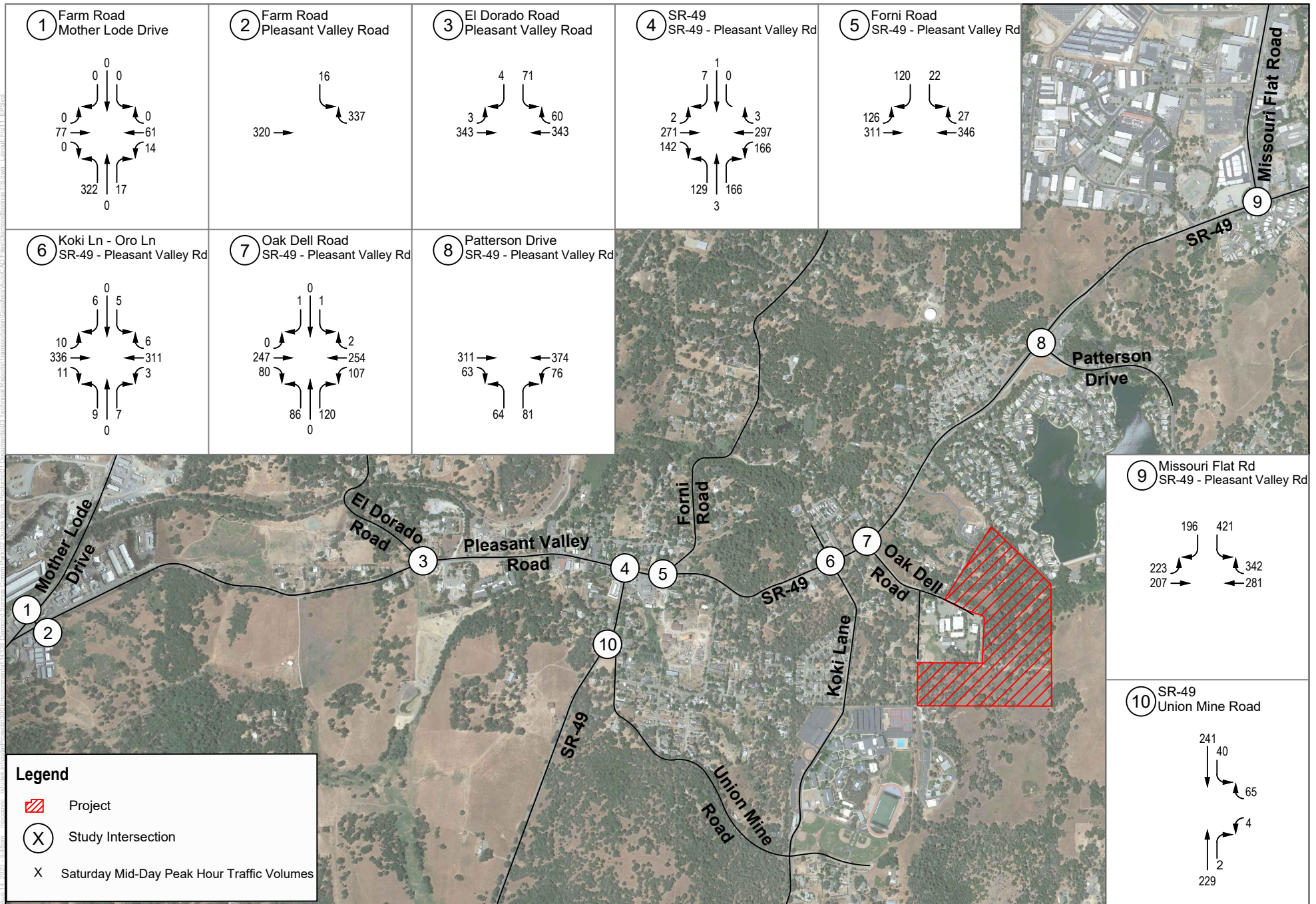
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SOURCE: Google Earth 2021

FIGURE 10
Existing plus Project Weekday Peak Hour Traffic Volumes

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SOURCE: Google Earth 2021

FIGURE 11
Existing plus Project Saturday Peak Hour Traffic Volumes

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5.2 Near-Term (2033) and Near-Term (2033) plus Project Traffic Operations

This section details the Near-Term (2033) intersection and roadway segment operations within the study area with and without the addition of project traffic. Near-Term (2033) weekday peak hour traffic volumes and Near-Term (2033) Saturday peak hour traffic volumes are shown in Figures 12 and 13, respectively. Volumes depicting project-added traffic for both weekday and Saturday are shown in Figures 14 and 15, respectively.

Near-Term (2033) conditions are representative of a cumulative conditions analysis for a short-term horizon year (2033) assuming the proposed project is constructed and fully occupied. This section follows the County's TIA Guidelines for intersection LOS analysis which specifies that a short-term horizon year be analyzed 10 years after the existing condition. All Synchro LOS worksheets are provided in Appendix C.

Table 8 summarizes the results of the weekday intersection analysis for the AM and PM peak hours for Near-Term (2033) and Near-Term (2033) plus Project conditions. As shown in the table, all of the study intersections are currently operating at satisfactory levels of service (LOS E or better), under Near-Term (2033) conditions and will continue to operate at satisfactory LOS with the project-added traffic except for the following intersections:

- #3 El Dorado Road/Pleasant Valley Road: Operates at LOS F under Near-Term (2033) conditions during both the AM and PM peak hour and continues to operate at LOS F under Near-Term (2033) plus Project conditions during both peak hours. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.
- #4 Golden Chain Highway (SR-49)/Pleasant Valley Road: Operates at LOS F under Near-Term (2033) conditions during both the AM and PM peak hour and continues to operate at LOS F under Near-Term (2033) plus Project conditions during both peak hours. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.
- #5 Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49): Operates at LOS F under Near-Term (2033) conditions during both the AM and PM peak hour and continues to operate at LOS F under Near-Term (2033) plus Project conditions during both peak hours. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.

Peak hour signal warrants were performed at these intersections under Near-Term (2033) and Near-Term (2033) plus Project conditions and are provided in Appendix D. The signal warrant was met at all three intersections. Recommended improvements related to signalization and/or lane geometrics are identified in Section 8.

The peak hour factors of all intersections were changed to 0.95 to reflect future year conditions where the intensity and peak of traffic flow is uncertain. This is substantiated by observing the overall growth along arterial roads within the study area, namely SR-49 and Pleasant Valley Road, and as shown within the traffic model growth that the Near-Term (2033) scenario is based upon. Growth rates of 10% per year or higher were observed which would alter existing traffic patterns and therefore, existing peak hour factors. Due to changes to the peak hour factor in the Near-Term (2033) and project-added scenario, intersection #7 Oak Dell Road/Golden Chain Highway (SR-49) performs at LOS E without and with project added traffic and would be consistent with County LOS standards and no improvement would be required.

Table 9 summarizes the results of the Saturday intersection analysis for the midday peak hour for Near-Term (2033) and Near-Term (2033) plus Project conditions. As shown in the table, all of the study intersections are currently operating at satisfactory levels of service (LOS E or better) under Near-Term (2033) conditions and will continue to operate at satisfactory LOS with the project-added traffic except for the following intersection:

- #4 Golden Chain Highway (SR-49)/Pleasant Valley Road: Operates at LOS F under Near-Term (2033) plus Project conditions (degrades from LOS E under Near-Term (2033) conditions). The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.

Peak hour signal warrants were performed at this intersection under Near-Term (2033) and Near-Term (2033) plus Project conditions and are provided in Appendix D. The signal warrant was met under the Near-Term (2033) plus Project condition. Recommended improvements related to signalization and/or lane geometrics are identified in Section 8.

Table 10 shows the results of the roadway segment LOS analysis. As shown below, both roadway segments would operate at acceptable LOS under Near-Term (2033) conditions and will continue to operate at satisfactory LOS with the project-added traffic.

Table 8. Near-Term (2033) Weekday Peak Hour Intersection LOS (with and without Project)

No.	Intersection	LOS Method	Near-Term (2033)				Near-Term (2033) plus Project				Change in Delay		Inconsistent w/ County Standards?		Improvements Required?		Near-Term (2033) plus Project w/Improvements			
			AM Peak		PM Peak		AM Peak		PM Peak								AM Peak		PM Peak	
			Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	AM	PM	AM	PM	AM	PM	Delay ¹	LOS ²
1	Farm Road/Mother Lode Drive	AWSC	19.8	C	26.3	D	20.1	C	28.3	D	0.3	2.0	No	No	No	No	—	—	—	—
2	Farm Road/Pleasant Valley Road	TWSC	12.2	B	13.3	B	12.3	B	13.6	B	0.1	0.3	No	No	No	No	—	—	—	—
3	El Dorado Road/Pleasant Valley Road	TWSC	213.4	F	188.9	F	220.5	F	227.5	F	7.1	38.6	Yes	Yes	Yes	Yes	7.9	A	7.9	A
4	Golden Chain Highway (SR-49)/Pleasant Valley Road	AWSC	99.7	F	104.8	F	103.6	F	118.9	F	3.9	14.1	Yes	Yes	Yes	Yes	45.0	D	49.6	D
5	Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	TWSC	60.7	F	69.5	F	67.5	F	116.3	F	6.8	46.8	Yes	Yes	Yes	Yes	8.3	A	11.7	B
6	Koki Lane – Oro Lane/Golden Chain Highway (SR-49)	HCM Signal	26.8	C	21.7	C	26.9	C	21.9	C	0.1	0.2	No	No	No	No	—	—	—	—
7	Oak Dell Road/Golden Chain Highway (SR-49)	TWSC	36.5	E	23.6	C	45.2	E	30.0	D	8.7	6.4	No	No	No	No	—	—	—	—
8	Patterson Drive/Pleasant Valley Road (SR-49)	HCM Signal	8.6	A	9.8	A	8.6	A	9.8	A	0.0	0.0	No	No	No	No	—	—	—	—
9	Missouri Flat Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	HCM Signal	13.2	B	12.8	B	13.4	B	13.2	B	0.2	0.4	No	No	No	No	—	—	—	—
10	Golden Chain Highway (SR-49)/Union Mine Road	TWSC	14.2	B	11.1	B	14.3	B	11.2	B	0.1	0.1	No	No	No	No	—	—	—	—

Notes: TWSC = two-way stop-control; AWSC = all-way stop-control; N/A = not applicable; **Bold:** Exceeds County’s LOS E threshold

¹ Delay in seconds per vehicle; highest movement delay is reported for TWSC intersections.

² LOS = Level of Service

Table 9. Near-Term (2033) Saturday Peak Hour Intersection LOS (with and without Project)

No.	Intersection	Traffic Control	Near-Term (2033)		Near-Term (2033) plus Project		Change in Delay Saturday	Inconsistent w/County Standards?	Improvements Required?	Near-Term (2033) plus Project w/ Improvements	
			Saturday		Saturday					Saturday	
			Delay ¹	LOS ²	Delay ¹	LOS ²				Delay ¹	LOS ²
1	Farm Road/Mother Lode Drive	AWSC	16.1	C	17.7	C	1.6	No	No	—	—
2	Farm Road/Pleasant Valley Road	TWSC	11.4	B	11.7	B	0.3	No	No	—	—
3	El Dorado Road/Pleasant Valley Road	TWSC	23.7	C	27.4	D	3.7	No	No	—	—
4	Golden Chain Highway (SR-49)/Pleasant Valley Road	AWSC	38.6	E	50.7	F	12.1	Yes	Yes	34.7	C
5	Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	TWSC	16.4	C	23.4	C	7.0	No	No	—	—
6	Koki Lane – Oro Lane/Golden Chain Highway (SR-49)	HCM Signal	20.8	C	21.0	C	0.2	No	No	—	—
7	Oak Dell Road/Golden Chain Highway (SR-49)	TWSC	15.3	C	30.0	D	14.7	No	No	—	—
8	Patterson Drive/Pleasant Valley Road (SR-49)	HCM Signal	8.5	A	8.6	A	0.1	No	No	—	—
9	Missouri Flat Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	HCM Signal	17.7	B	19.1	B	1.4	No	No	—	—
10	Golden Chain Highway (SR-49)/Union Mine Road	TWSC	11.3	B	11.4	B	0.1	No	No	—	—

Notes: TWSC = two-way stop-control; AWSC = all-way stop-control; N/A = not applicable; **Bold:** Exceeds County’s LOS E threshold

¹ Delay in seconds per vehicle; highest movement delay is reported for TWSC intersections.

² LOS = Level of Service

Table 10. Near-Term (2033) Roadway Segment LOS (with and without Project)

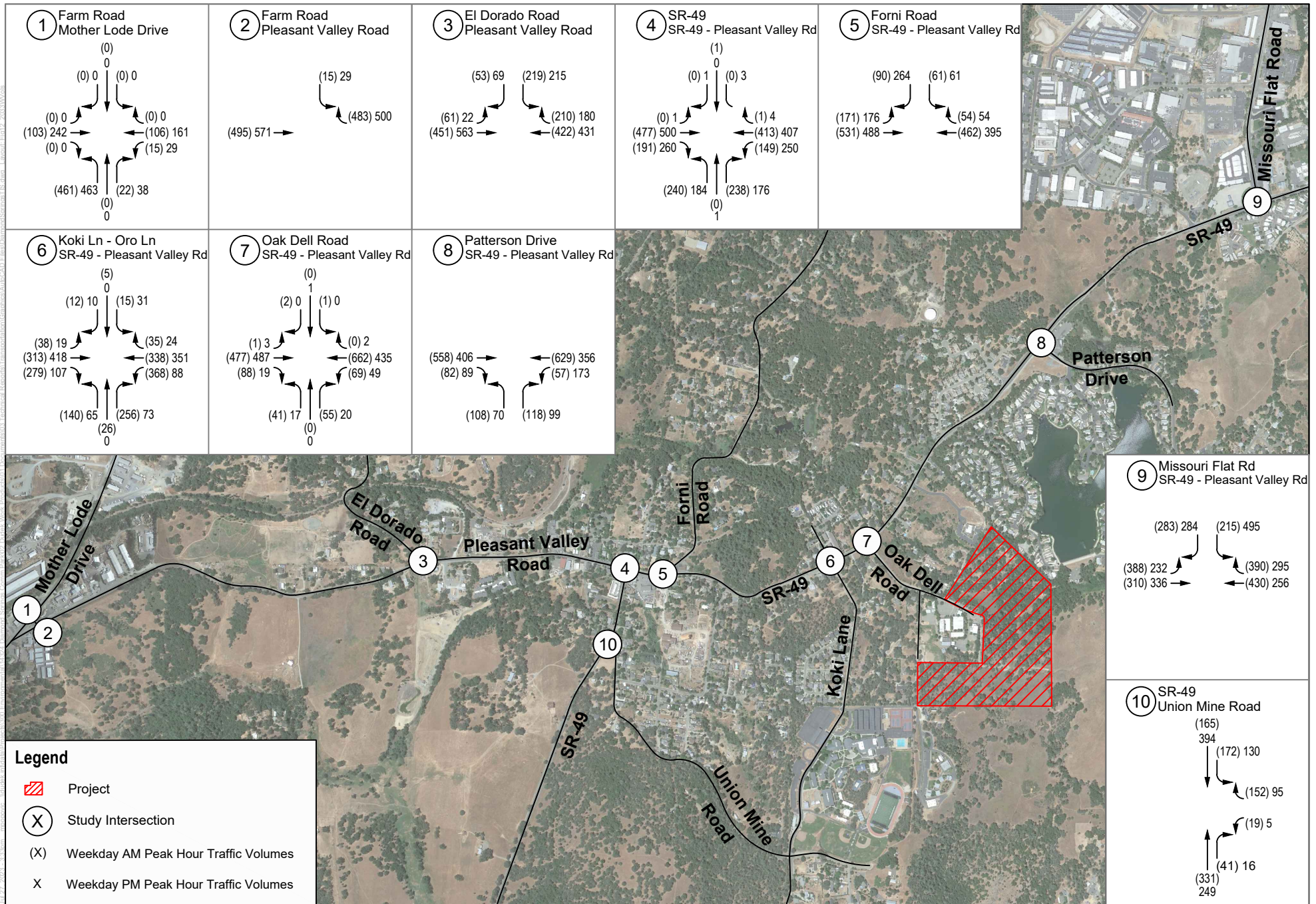
No.	Roadway Segment	Observed Classification	Functional Classification	No. of Lanes	LOS E Capacity ¹	Near-Term (2033)		Near-Term (2033) plus Project		Improvements Required?
						ADT ²	LOS ³	ADT	LOS ³	
1	Oak Dell Road, South of Golden Chain Highway	Local Road	Local Road	2U	1,650	253	C	393	C	No
2	Pleasant Valley Road – Golden Chain Highway, East of Oak Dell Road	Undivided Arterial	Two-Lane Arterial	2U	1,650	1,263	C	1,282	C	No

Notes: XU = # of lanes Undivided; XD = # of lanes Divided; **Bold:** Exceeds County’s LOS E threshold

¹ Capacity determined from Table 2 in Section 3.4, Analysis Methodology. Oak Dell Road is not classified, and therefore is analyzed according to the lowest classification available in Table

² Volume provided is the peak hour of segment traffic and reflects the highest total segment volume within either the AM, PM, or Saturday midday peak hours.

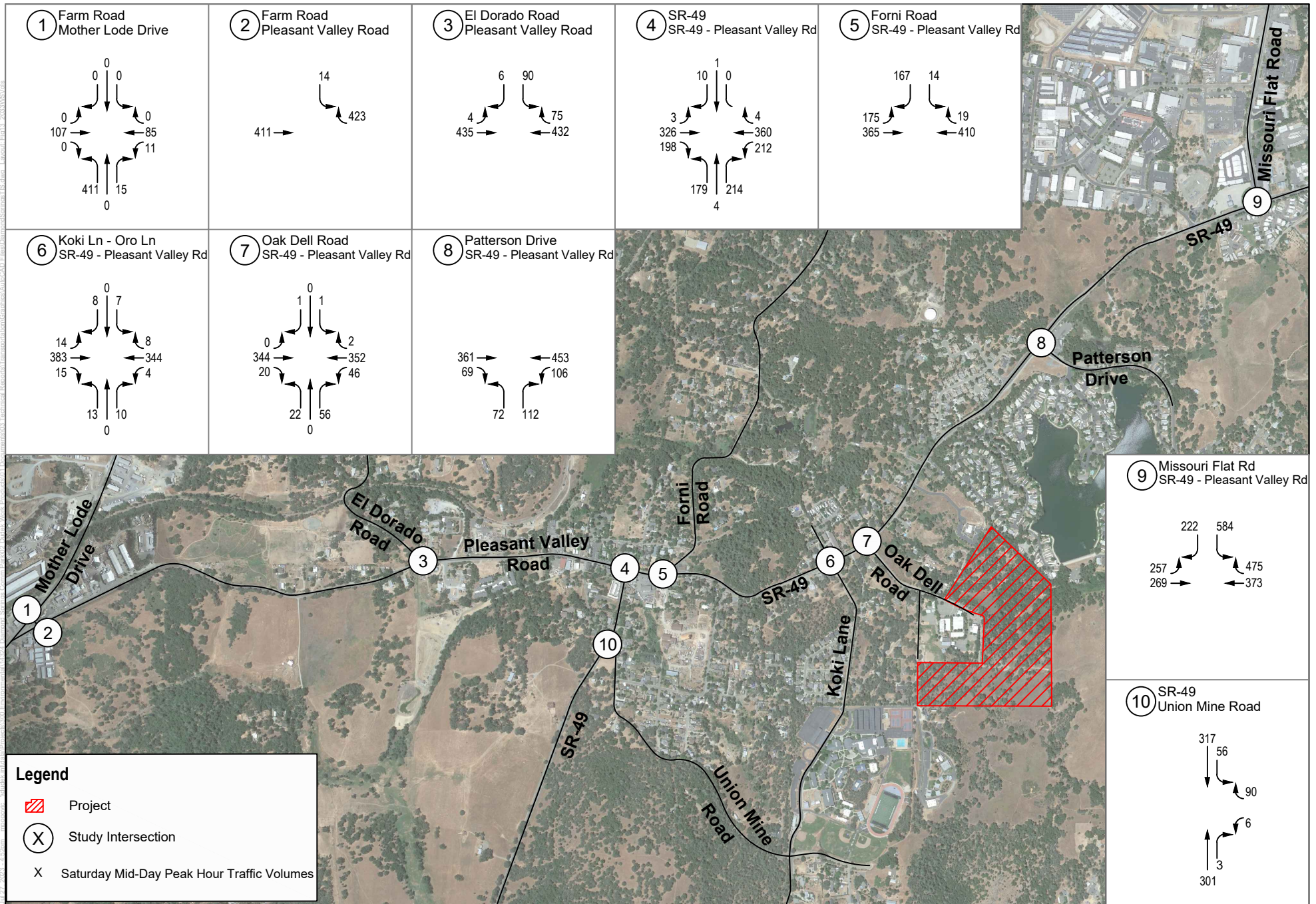
³ LOS C is the best LOS achievable as per Table 2.



SOURCE: Google Earth 2021

FIGURE 12
Near Term (2033) Weekday Peak Hour Traffic Volumes

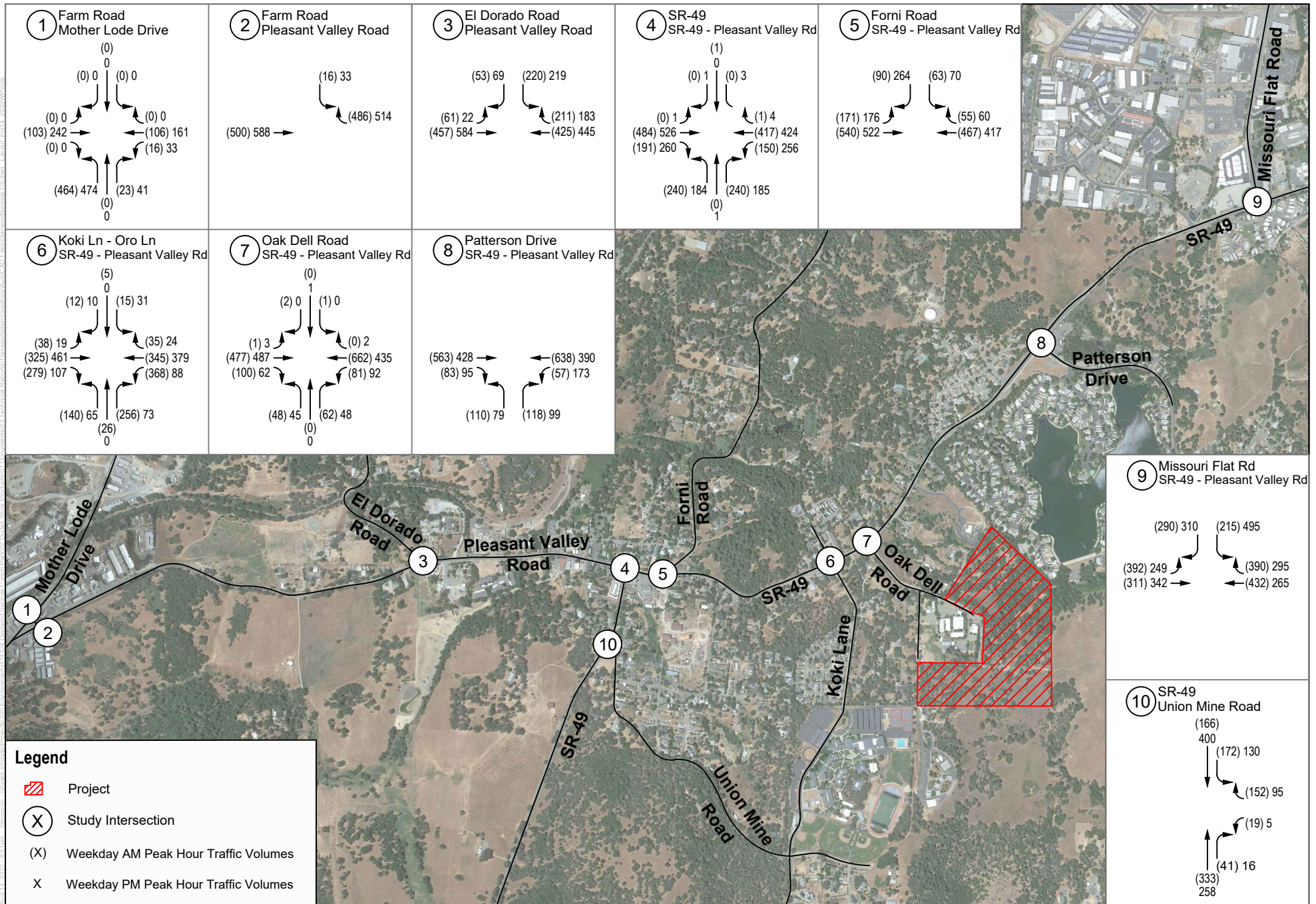
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SOURCE: Google Earth 2021

FIGURE 13
Near Term (2033) Saturday Peak Hour Traffic Volumes

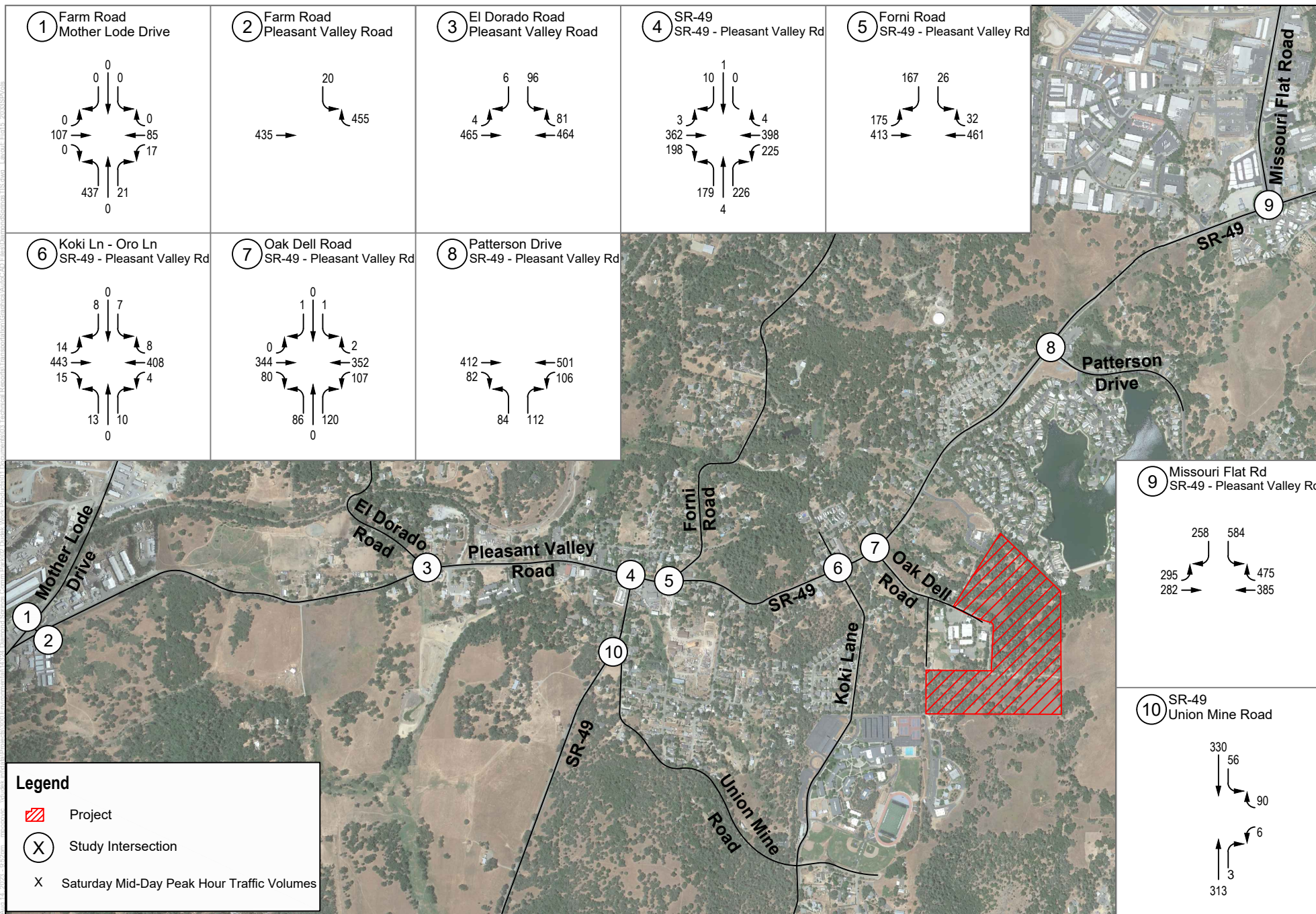
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SOURCE: Google Earth 2021

FIGURE 14
Near-Term (2033) plus Project Weekday Peak Hour Traffic Volumes

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SOURCE: Google Earth 2021

FIGURE 15
Near-Term (2033) plus Project Saturday Peak Hour Traffic Volumes

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5.3 Cumulative (2040) and Cumulative (2040) plus Project Traffic Operations

This section details the Cumulative (2040) intersection and roadway segment operations within the study area with and without the addition of project traffic. Cumulative (2040) weekday peak hour traffic volumes and Cumulative (2040) Saturday peak hour traffic volumes are shown in Figures 16 and 17, respectively. Volumes depicting project-added traffic for both weekday and Saturday are shown in Figures 18 and 19, respectively. All Synchro LOS worksheets are provided in Appendix C.

Cumulative 2040 traffic volumes were obtained from El Dorado County, which utilizes the El Dorado Travel Demand Model (TDM) to provide forecasted traffic volumes. Dudek obtained model data in the form of daily and peak hour total volume volumes for the “validation year” (2018) and “cumulative year” (2040), and then post-processed the data for daily roadway segment and intersection peak hour turning movements. Volume balancing methodology (B-turns) consistent with the National Cooperative Highway Research Program’s (NCHRP) *Report 255* was the method used for post-processing the model approach and departure volumes into turning movement data. The NCHRP method conforms to the standards described in the “El Dorado County Travel Demand Model 2014 Update” (2014) document that provides user instructions for working with the County’s TDM. Volumes were then rounded and balanced to create a consistent analysis. It should be noted that for Oak Dell Road future year growth was limited due to the lack of expected residential growth along the road, and because the existing Charles F. Brown Elementary School is now functioning as a charter preparatory school that would contain roughly the same number of students. During the collection of traffic counts, the school was fully operational.

Table 11 summarizes the results of the weekday intersection analysis for the AM and PM peak hours for Cumulative (2040) and Cumulative (2040) plus Project conditions. As shown in the table, all of the study intersections are currently operating at satisfactory levels of service (LOS E or better), under Cumulative (2040) conditions and will continue to operate at satisfactory LOS with the project-added traffic except for the following intersections:

- #1 Farm Road/Mother Lode Drive: Operates at LOS F under Cumulative (2040) conditions during the PM peak hour and continues to operate at LOS F under Cumulative (2040) plus Project conditions. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.
- #3 El Dorado Road/Pleasant Valley Road: Operates at LOS F under Cumulative (2040) conditions during both the AM and PM peak hour and continues to operate at LOS F under Cumulative (2040) plus Project conditions during both peak hours. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.
- #4 Golden Chain Highway (SR-49)/Pleasant Valley Road: Operates at LOS F under Cumulative (2040) conditions during both the AM and PM peak hour and continues to operate at LOS F under Cumulative (2040) plus Project conditions during both peak hours. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.
- #5 Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49): Operates at LOS F under Cumulative (2040) conditions during both the AM and PM peak hour and continues to operate at LOS F under Cumulative (2040) plus Project conditions during both peak hours. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.
- #7 Oak Dell Road/Golden Chain Highway (SR-49): Operates at LOS F under Cumulative (2040) plus Project conditions during the AM peak hour (degrades from LOS E under Cumulative (2040) conditions).

Peak hour signal warrants were performed at these intersections under Cumulative (2040) and Cumulative (2040) plus Project conditions and are provided in Appendix D. The signal warrant was met at Intersections #3, #4, and #5, but was not met at Intersections #1 and #7. Recommended improvements related to signalization and/or lane geometrics are identified in Section 8.

Table 12 summarizes the results of the Saturday intersection analysis for the midday peak hour for Cumulative (2040) and Cumulative (2040) plus Project conditions. As shown in the table, all of the study intersections are currently operating at satisfactory levels of service (LOS E or better) under Cumulative (2040) conditions and will continue to operate at satisfactory LOS with the project-added traffic except for the following intersections:

- #4 Golden Chain Highway (SR-49)/Pleasant Valley Road: Operates at LOS F under Cumulative (2040) conditions and continues to operate at LOS F under Cumulative (2040) plus Project conditions. The project-added traffic would be equal to or greater than 10 peak hour trips and would worsen the LOS of the intersection per General Plan Policy TC-Xe.

Peak hour signal warrants were performed at this intersection under Cumulative (2040) and Cumulative (2040) plus Project conditions and are provided in Appendix D. The signal warrant was met under the Cumulative (2040) plus Project condition. Recommended improvements related to signalization and/or lane geometrics are identified in Section 8.

Table 13 shows the results of the roadway segment LOS analysis. As shown below, both roadway segments would operate at acceptable LOS under Cumulative (2040) conditions and will continue to operate at satisfactory LOS with the project-added traffic.

Table 11. Cumulative (2040) Weekday Peak Hour Intersection LOS (with and without Project)

No.	Intersection	LOS Method	Cumulative (2040)				Cumulative (2040) plus Project				Change in Delay		Inconsistent w/ County Standards?		Improvements Required?		Cumulative (2040) plus Project w/Improvements			
			AM Peak		PM Peak		AM Peak		PM Peak								AM Peak		PM Peak	
			Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	AM	PM	AM	PM	AM	PM	Delay ¹	LOS ²	Delay ¹	LOS ²
1	Farm Road/Mother Lode Drive	AWSC	29.8	D	56.8	F	29.6	D	61.5	F	-0.2	4.7	No	Yes	No	Yes	—	—	11.6	B
2	Farm Road/Pleasant Valley Road	TWSC	13.3	B	14.2	C	13.4	B	14.6	B	0.1	0.4	No	No	No	No	—	—	—	—
3	El Dorado Road/Pleasant Valley Road	TWSC	771.8	F	621.4	F	790.0	F	684.0	F	18.2	62.6	Yes	Yes	Yes	Yes	20.6	C	27.3	C
4	Golden Chain Highway (SR-49)/Pleasant Valley Road	AWSC	169.8	F	164.4	F	174.3	F	180.2	F	4.5	15.8	Yes	Yes	Yes	Yes	47.2	D	73.6	E
5	Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	TWSC	250.3	F	327.7	F	277.5	F	447.4	F	27.2	119.7	Yes	Yes	Yes	Yes	17.1	B	25.3	C
6	Koki Lane – Oro Lane/Golden Chain Highway (SR-49)	HCM Signal	32.2	C	21.6	C	32.3	C	22.1	C	0.1	0.5	No	No	No	No	—	—	—	—
7	Oak Dell Road/Golden Chain Highway (SR-49)	TWSC	49.9	E	26.6	D	67.3	F	37.1	E	17.4	10.5	Yes	No	Yes	No	29.1	D	—	—
8	Patterson Drive/Pleasant Valley Road (SR-49)	HCM Signal	9.2	A	10.1	B	9.2	A	10.2	B	0.0	0.1	No	No	No	No	—	—	—	—
9	Missouri Flat Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	HCM Signal	14.4	B	13.0	B	14.6	B	13.4	B	0.2	0.4	No	No	No	No	—	—	—	—
10	Golden Chain Highway (SR-49)/Union Mine Road	TWSC	16.6	C	11.9	B	16.6	C	12.1	B	0.0	0.2	No	No	No	No	—	—	—	—

Notes: TWSC = two-way stop-control; AWSC = all-way stop-control; N/A = not applicable; **Bold:** Exceeds County's LOS E threshold

¹ Delay in seconds per vehicle; highest movement delay is reported for TWSC intersections.

² LOS = Level of Service

Table 12. Cumulative (2040) Saturday Peak Hour Intersection LOS (with and without Project)

No.	Intersection	Traffic Control	Cumulative (2040)		Cumulative (2040) plus Project		Change in Delay		Inconsistent w/ County Standards?		Improvements Required?		Cumulative (2040) plus Project w/Improvements	
			Saturday		Saturday								Saturday	
			Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	AM	PM	Delay ¹	LOS ²		
1	Farm Road/Mother Lode Drive	AWSC	24.6	C	28.8	D	4.2	No	No	No	No	—	—	
2	Farm Road/Pleasant Valley Road	TWSC	12.2	B	12.6	B	0.4	No	No	No	No	—	—	
3	El Dorado Road/Pleasant Valley Road	TWSC	37.9	E	47.7	E	9.8	No	No	No	No	—	—	
4	Golden Chain Highway (SR-49)/Pleasant Valley Road	AWSC	88.9	F	108.0	F	19.1	Yes	Yes	Yes	Yes	57.1	E	
5	Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	TWSC	24.1	C	46.4	E	22.3	No	No	No	No	—	—	
6	Koki Lane – Oro Lane/Golden Chain Highway (SR-49)	HCM Signal	20.3	C	20.5	C	0.2	No	No	No	No	—	—	
7	Oak Dell Road/Golden Chain Highway (SR-49)	TWSC	17.6	C	46.3	E	28.7	No	No	No	No	—	—	
8	Patterson Drive/Pleasant Valley Road (SR-49)	HCM Signal	9.1	A	9.3	A	0.2	No	No	No	No	—	—	
9	Missouri Flat Road/Pleasant Valley Road – Golden Chain Highway (SR-49)	HCM Signal	29.9	C	34.6	C	4.7	No	No	No	No	—	—	
10	Golden Chain Highway (SR-49)/Union Mine Road	TWSC	12.3	B	12.5	B	0.2	No	No	No	No	—	—	

Notes: TWSC = two-way stop-control; AWSC = all-way stop-control; N/A = not applicable; **Bold:** Exceeds County's LOS E threshold

¹ Delay in seconds per vehicle; highest movement delay is reported for TWSC intersections.

² LOS = Level of Service

Table 13. Cumulative (2040) Roadway Segment LOS (with and without Project)

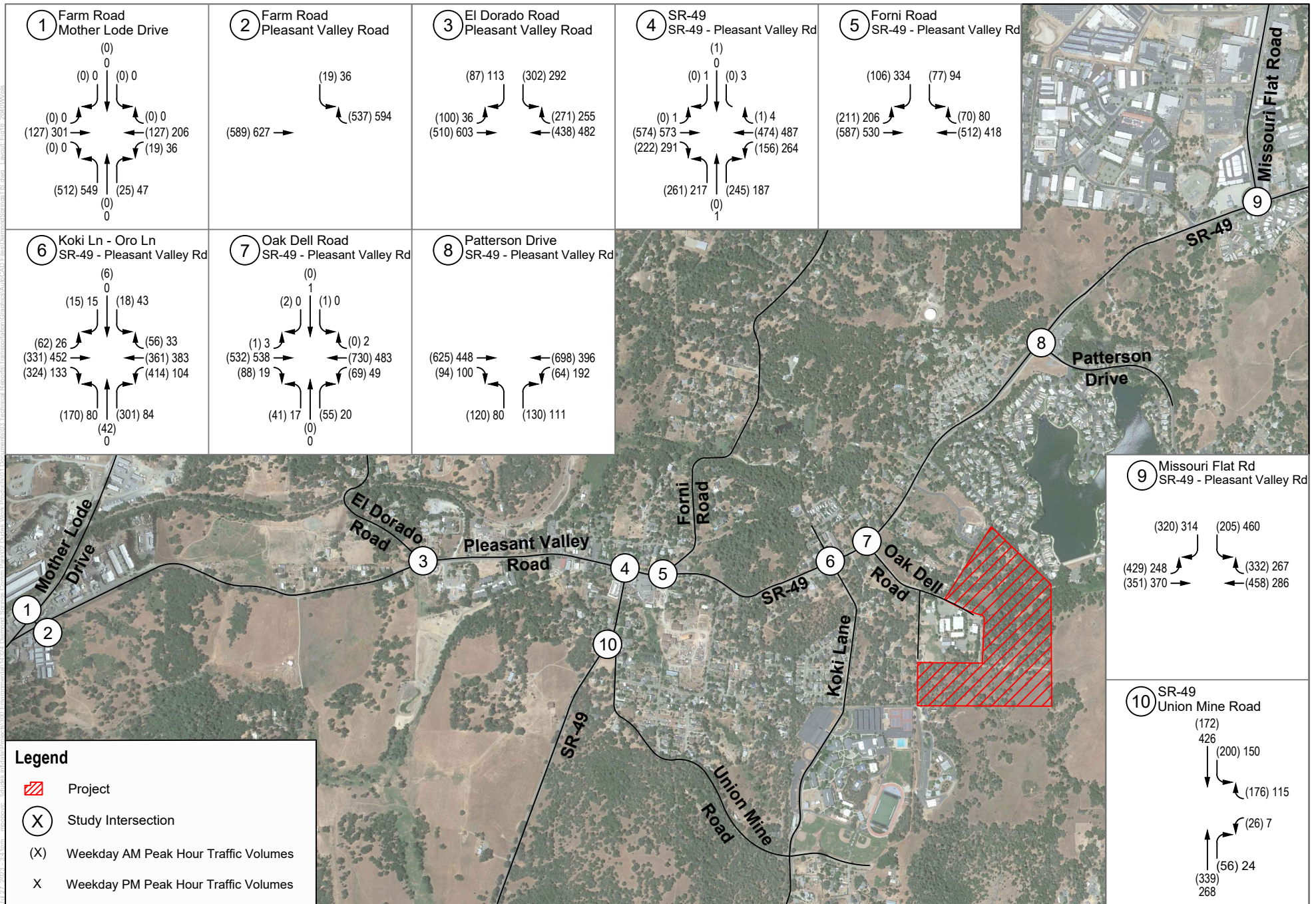
No.	Roadway Segment	Observed Classification	Functional Classification	No. of Lanes	LOS E Capacity ¹	Cumulative (2040)		Cumulative (2040) plus Project		Improvements Required?
						ADT ²	LOS ³	ADT	LOS ³	
1	Oak Dell Road, South of Golden Chain Highway	Local Road	Local Road	2U	1,650	253	C	393	C	No
2	Pleasant Valley Road – Golden Chain Highway, East of Oak Dell Road	Undivided Arterial	Two-Lane Arterial	2U	1,650	1,386	C	1,405	C	No

Notes: XU = # of lanes Undivided; XD = # of lanes Divided; **Bold:** Exceeds County's LOS E threshold

¹ Capacity determined from Table 2 in Section 3.4, Analysis Methodology. Oak Dell Road is not classified, and therefore is analyzed according to the lowest classification available in Table

² Volume provided is the peak hour of segment traffic and reflects the highest total segment volume within either the AM, PM, or Saturday midday peak hours.

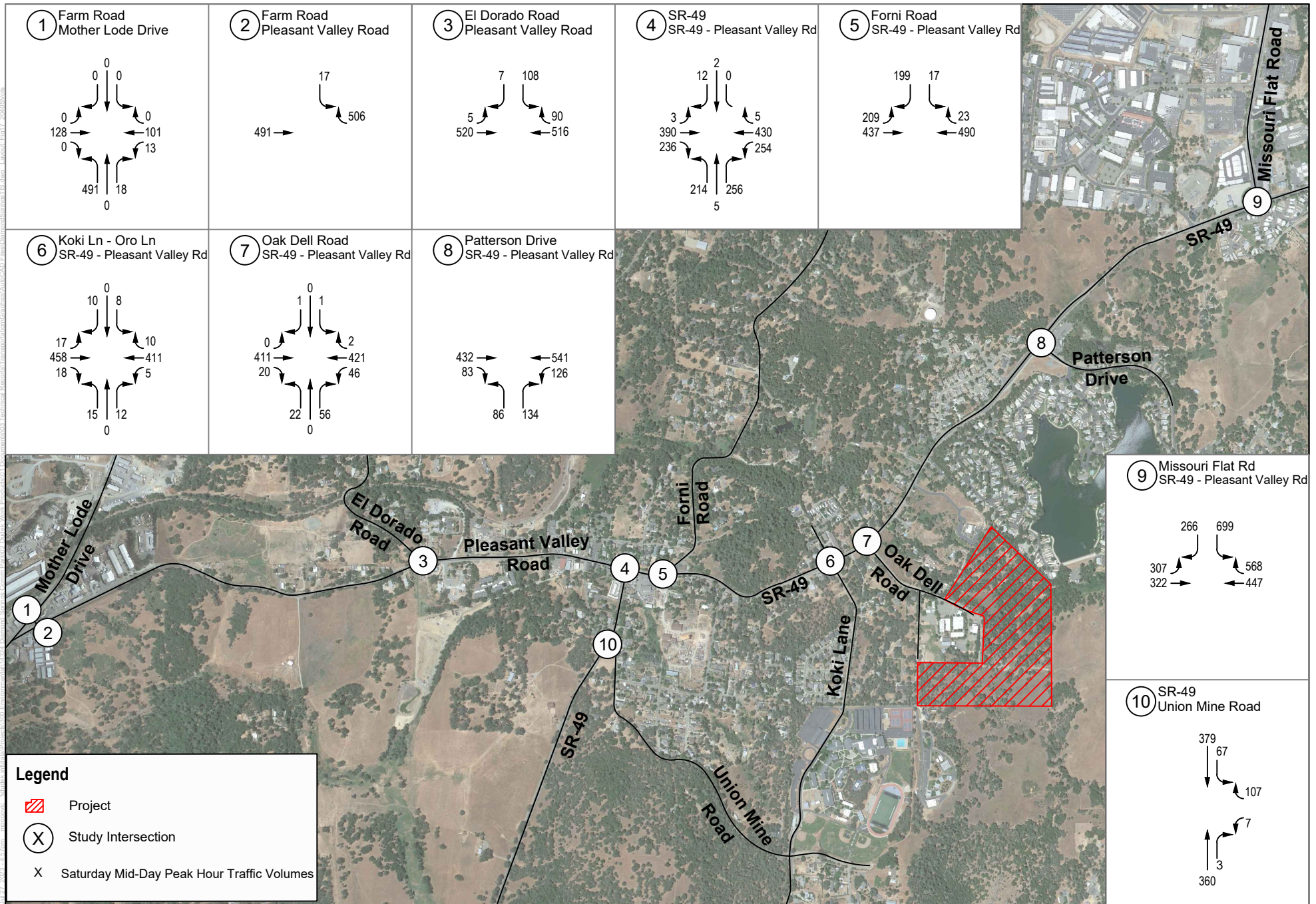
³ LOS C is the best LOS achievable as per Table 2.



SOURCE: Google Earth 2021

FIGURE 16
Cumulative (2040) Weekday Peak Hour Traffic Volumes

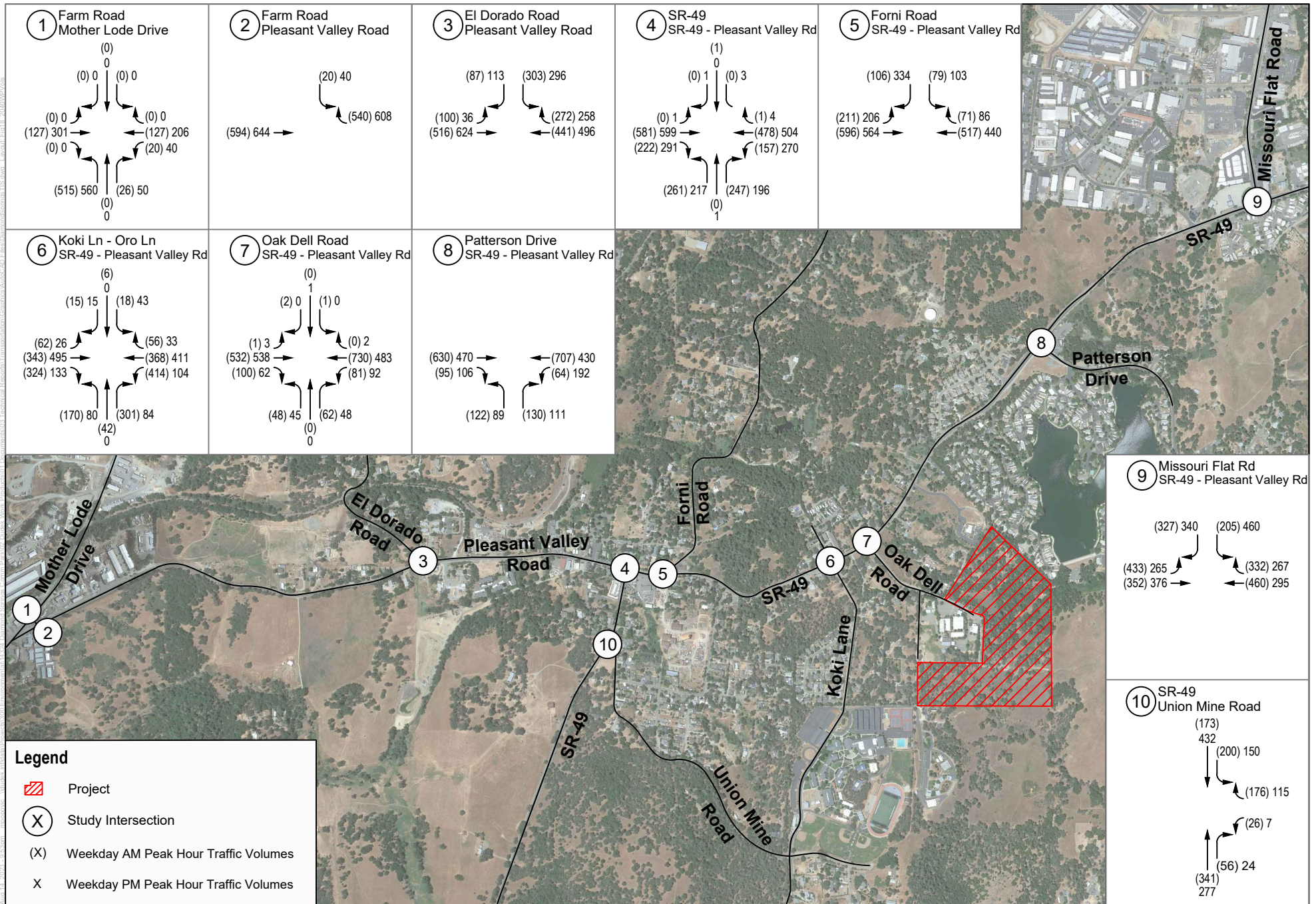
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SOURCE: Google Earth 2021

FIGURE 17
Cumulative (2040) Saturday Peak Hour Traffic Volumes

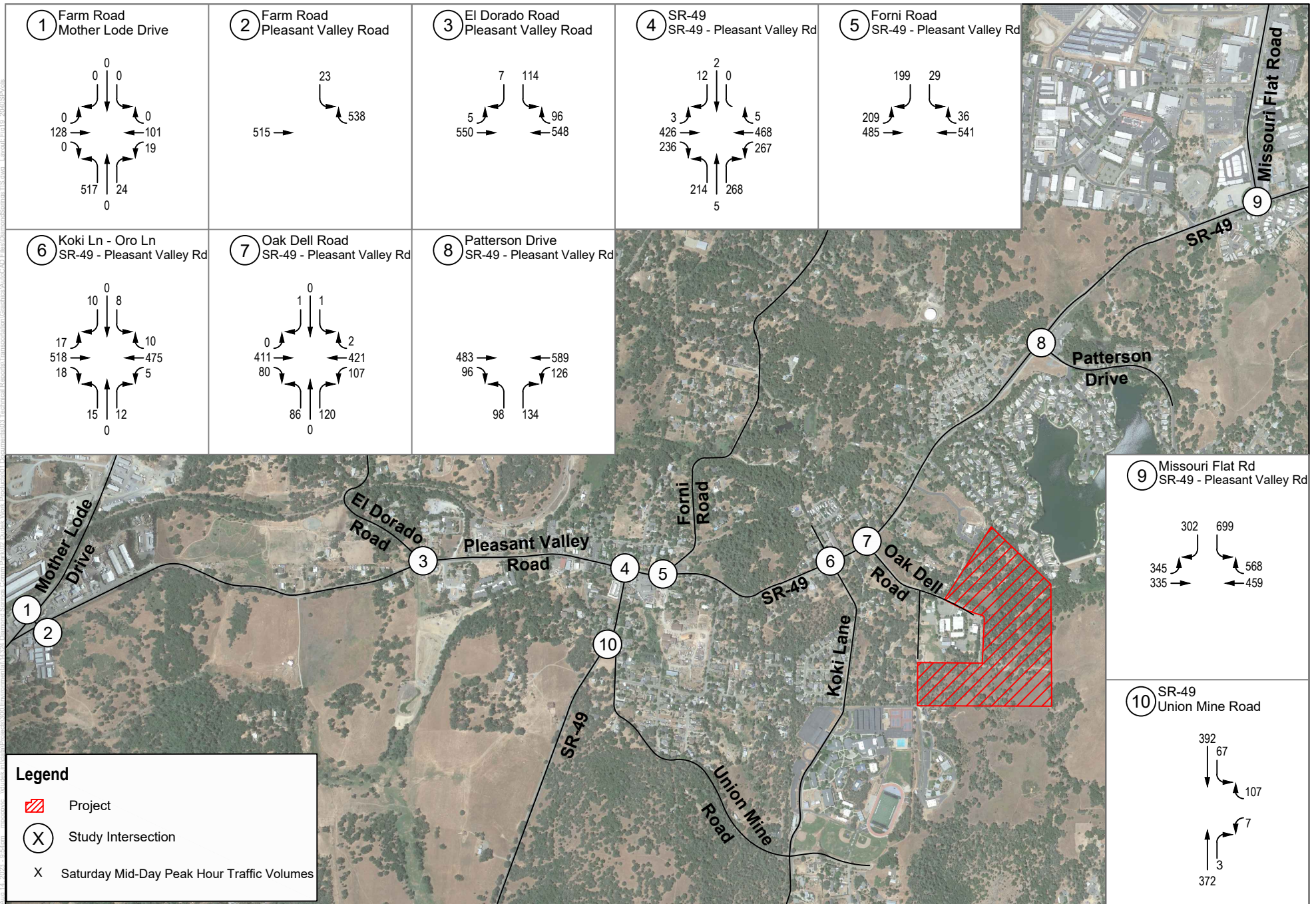
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SOURCE: Google Earth 2021

FIGURE 18
Cumulative (2040) plus Project Weekday Peak Hour Traffic Volumes

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SOURCE: Google Earth 2021

FIGURE 19
Cumulative (2040) plus Project Saturday Peak Hour Traffic Volumes

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6 Project Access and Circulation

This section describes the proposed site access and improvements, emergency access, and pedestrian and bicycle access, and presents the results of the queuing analysis conducted for the nearest intersections to the project site.

6.1 Project Site Access and Internal Circulation

Access to the Project site would be provided via an entrance from Oak Dell Road, utilizing the existing Oak Dell Road/Golden Chain Highway (SR-49) intersection. Paved passenger vehicle parking areas would be provided within areas in the middle of the buildable site area and predominantly on the western boundary of the overall site. Paved paths for pedestrians and bicyclists will be created for travel between fields, courts, and the recreational building. Turnaround areas would also be provided within the parking lot for each adjacent section of the park, and would allow for vehicles to turnaround, drop-off, load, and unload safely.

All roadway improvements required as part of the Project, whether located on or off site, would be designed and constructed in accordance with all applicable local, state, and federal roadway standards and practices. Snoopy Road, as well as Oak Dell Road will be improved to provide adequate and useable roadway for all vehicles including emergency access vehicles. All intersections would continue to operate as under existing conditions except the recommended improvements for the Oak Dell Road/Golden Chain Highway (SR-49) intersection, as well as the additional recommended improvements described in Section 8.

Sight Distance

A sight distance analysis was conducted using the methodology from the Caltrans Highway Design Manual (HDM) (2020). The Caltrans HDM provides minimum sight distance standards for intersections, however at certain locations and instances, sight distance greater than stopping sight distance is desirable to allow time for decisions without making last minute erratic maneuvers. The Caltrans HDM refers to the American Association of State Highway Transportation Officials' (AASHTO, 2018) – Geometric Design of Highways and Streets (“Green Book”) as a reference for such cases. Therefore, the AASHTO criteria are more conservative than the sight distance standards listed in the Caltrans HDM. Stopping sight distance is the distance needed for a vehicle traveling at a specified design speed to react, assess, and then stop when an object crosses its path of travel. Sight distance for vehicles entering a major road from a driveway or minor road should exceed stopping sight distance to enhance traffic operations and provide sufficient sight distance to anticipate and avoid collisions. Therefore, intersection sight distance for project access driveways was determined by using methodology provided in AASHTO under 9.5.3.2 *Case B – Intersections with Stop Control on the Minor Road*. The posted speed limit on Golden Chain Highway (SR-49) is 45 mph east of Oak Dell Road, and 40 mph west of Oak Dell Road; therefore, the design speed in the project vicinity was assumed to be 55 and 50 mph, respectively. The intersection sight distance was calculated for both left turning and right turning vehicles from the existing Oak Dell Road intersection with Golden Chain Highway (SR-49). The adequacy of sight distance and recommendations are described below. Figure 20 illustrates the intersection sight distance analysis.

Therefore, sight distance for project access driveways was determined by using the standards for sight distance as shown in Table 14.

Table 14. Sight Distance Standards

Design Speed (mph)	Intersection Sight Distance for Left-Turns (feet)	Intersection Sight Distance for Right-Turns (feet)
50	N/A	480
55	650 ¹	N/A

Source: Based on Table 9-7, pg. 9-46 and Table 9-9, pg. 9-48 of *Geometric Design of Highways and Streets* (“Green Book”) (AASHTO, 2018).

¹ Accounts for an 8.0 second time gap (default is 7.5 seconds); AASHTO indicates that 0.5 seconds be added to the time gap for each additional lane or median to be crossed per Table 9-6 of the AASHTO Green Book.

As shown on Figure 20, for vehicles turning left or right from Oak Dell Road, the sight distance analysis shows various instances where line of sight may be interrupted by overhanging trees, brush, and/or vegetation. Therefore, it is recommended that vegetation be reviewed in the field and trimmed appropriately to provide the clear 480-foot sight distance required for right-turns, and the 650-foot sight distance required for left-turns.

Emergency Access

All roadway, intersection, and project access improvements would be overseen by the applicable lead agency and their qualified traffic engineers. This approach would ensure compliance with all applicable roadway design requirements. In the event of an emergency, emergency vehicles would be able to access the site from Oak Dell Road, Snoopy Road, and from the south via a raised arm bar that separates the project site from Union Mine High School. All street improvements will be designed with adequate width, turning radius, and grade to facilitate access by County’s firefighting apparatus, and to provide alternative emergency ingress and egress. The site plan would be subject to plan review by the County’s Fire Department to ensure proper access for fire and emergency response is provided and required fire suppression features are included. Therefore, the project’s impact due to inadequate emergency access would be less than significant. As such, no hazardous design features would be part of the project’s roadway improvements or site access.



SOURCE: Bing Maps; AASHTO 2018

Legend





-  Existing Striping
-  Proposed Striping
-  Proposed Alternate Striping
-  Intersection Sight Distance / Clear Sight Triangle

FIGURE 20

Sight Distance Analysis at SR-49/Oak Dell Road with Conceptual Geometrics

Jul 26, 2023 11:52am P:\3030 Environmental\4324 Diamond Springs Comm Park\22 Dudek Work Products\01 Documents\03 Technical Reports\Transportation\Graphics\AutoCAD Files\4324_DS_Concept.dwg Layout: ImpD_SignDistance

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6.2 Queuing Analysis

A queuing analysis was prepared for the project driveway to assess the adequacy of any off-site storage lanes into the project site, and to determine space on site for vehicles to queue without effecting the internal circulation on the project site. Queuing was analyzed utilizing the SimTraffic software, which calculates the 95th percentile (design) queue. The queuing analysis takes into account the necessary improvements required as described further in Section 8.

Since the project's driveway is essentially the extension of Oak Dell Road, a queuing analysis was performed for the two intersections nearest to the project site to assess vehicle queues for the project driveway that may potentially result in deficient peak hour operations and may potentially "spill back" further either on Oak Dell Road or SR-49 – Pleasant Valley Road. The queuing analysis was performed for Cumulative (2040) plus Project conditions, using Synchro/SimTraffic software, as summarized below. All SimTraffic queueing reports are provided in Appendix E.

As shown in Table 15, Peak-Hour Queueing Summary for Cumulative (2040) Plus Project Weekday Conditions, 95th percentile queuing would be satisfactory except for the westbound left-turn lane at the Koki Lane – Oro Lane/SR-49 – Pleasant Valley Road intersection. According to the 95th percentile queue, this intersection is forecast to extend approximately 210-feet, a total of 45-feet past the existing storage length of 165-feet (approximately two vehicles in length).

The recommended improvement measures required to mitigate the project's LOS and queuing impacts would include a re-design of the Oak Dell Road/SR-49 – Pleasant Valley Road intersection, which would provide a two-way left-turn lane that would also provide an extend storage lane for westbound left-turns at Koki Lane. This improvement is further described in Section 8. Since the intersection is also within Caltrans' jurisdiction, all improvements along SR-49/Pleasant Valley Road would need to be coordinated with Caltrans.

As shown in Table 16, Peak-Hour Queuing Summary for Cumulative (2040) Plus Project Saturday Conditions, 95th percentile queuing would be satisfactory and would not spill back.

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Table 15. Weekday Peak-Hour Queuing Summary for 2040 plus Project Conditions

No.	Intersection	Movement	Pocket Length ¹	2040 plus Project			
				AM Peak Hour		PM Peak Hour	
				95th Percentile Queue ²	Exceeds Turn Pocket Length?	95th Percentile Queue ²	Exceeds Turn Pocket Length?
6	Koki Lane – Oro Lane/ SR-49 – Pleasant Valley Road	WBL ³	165	210	Yes	118	No
		NBR ³	310	132	No	58	No
7	Oak Dell Road/ SR-49 – Pleasant Valley Road	EBLT ⁴	350	0	No	11	No
		EBR ⁴	75	7	No	4	No
		WBLTR ⁴	740	472	No	130	No
		NBLTR ⁴	750	429	No	66	No

Source: Appendix E

Notes: NBLTR = northbound left thru-right; WBL = westbound left; WBLTR = westbound left thru-right; EBL = eastbound left; EBLT = eastbound left-thru; NBR = northbound right;

Bold: Exceeds available stacking distance

¹ Measured in feet.

² Based on 95th percentile (design) queue length in SimTraffic 11.

³ Length measured.

⁴ Length estimated/assumed based on nearest intersection.

Table 16. Saturday Peak-Hour Queuing Summary for 2040 plus Project Conditions

No.	Intersection	Movement	Pocket Length ¹	2040 plus Project	
				Saturday	
				95 th Percentile Queue ²	Exceeds Turn Pocket Length?
6	Koki Lane – Oro Lane/SR-49 – Pleasant Valley Road	WBL ³	165	22	No
		NBR ³	310	21	No
7	Oak Dell Road/SR-49 – Pleasant Valley Road	EBLT ⁴	350	0	No
		EBR ⁴	75	7	No
		WBLTR ⁴	750	145	No
		NBLTR ⁴	1000	153	No

Source: Appendix E

Notes: NBLTR = northbound left thru-right; WBL = westbound left; WBLTR = westbound left thru-right; EBL = eastbound left; EBLT = eastbound left-thru; NBR = northbound right;

Bold: Exceeds available stacking distance

¹ Measured in feet.

² Based on 95th percentile (design) queue length in SimTraffic 11.

³ Length measured.

⁴ Length estimated/assumed based on nearest intersection.

6.3 Pedestrian and Bicycle Access

All existing and proposed bicycle facilities are presented in Figure 4, and further discussed in detail in Chapter 2.3.

The Project site is on an undeveloped area of the County, with limited pedestrian and bicycle facilities provided. Access for both pedestrians and bicyclists would be provided via the main entrance to the park along Oak Dell Road, as well as through pedestrian easements located along Snoopy Road. There are also some existing, however limited areas of pedestrian facilities located along the perimeter of Charles F. Brown Elementary.

Pedestrian facilities, including curbs and sidewalks are present west of Oak Dell Road, along SR-49/Pleasant Valley Road, as well as highway designated bicycle lanes, however due to the roadway constraints the bicycle lanes along SR-49/Pleasant Valley Road are along the shoulder of the road and in some instances unprotected from traffic. Additionally, SR-49/Pleasant Valley Road.

Additionally, as the adjacent areas surrounding the project site continue to become developed, connectivity to other areas of the County may be realized. Currently, there are no proposed developments south of the project site, however as future projects develop in that area, the County will consider providing pedestrian and bicycle access to the proposed park from those projects. Additionally, the provision of pedestrian and bicycle access to the proposed project site from development to the south and east would potentially reduce VMT in the project area.

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7 Vehicle Miles Traveled Analysis

In accordance with SB 743 the El Dorado County Board of Supervisors adopted Resolution No 141-2020 which adopts thresholds of significance for the purposes of analyzing transportation impacts under CEQA on October 6, 2020; this analysis follows these guidelines for SB 743 compliance. Per the County's guidelines, projects shall analyze VMT metrics when exemption criteria are not met. The County's guidelines and accompanying thresholds are consistent with and rely on the assumptions made within the OPR Technical Advisory guidelines.

CEQA Guidelines Section 15064.3 (b)(1) *Criteria for Analyzing Transportation Impacts* includes presumptions that certain projects (including residential, retail, office, and mixed-use projects) proposed within one-half mile of an existing major transit stop or along a high-quality transit corridor will have a less-than-significant impact on VMT. If the specified presumption does not apply, VMT should be analyzed through a qualitative or quantitative analysis. The Updated CEQA Guidelines are accompanied by the OPR Technical Advisory, which includes specifications for how to estimate and forecast VMT. Additionally, Section 15064.3 (b)(3) *Qualitative Analysis* mentions if existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles qualitatively. Such qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. The following method, Assessing Change in Total VMT, from the Technical Advisory will be the primary method of this VMT analysis:

Assessing Change in Total VMT

A third method, estimating the change in total VMT with and without the project, can evaluate whether a project is likely to divert existing trips, and what the effect of those diversions will be on total VMT. This method answers the question, "What is the net effect of the project on area VMT?" As an illustration, assessing the total change in VMT for a grocery store built in a food desert that diverts trips from more distant stores could reveal a net VMT reduction. The analysis should address the full area over which the project affects travel behavior, even if the effect on travel behavior crosses political boundaries.

OPR recommends using more location-specific information and local jurisdictions to develop their own more specific thresholds, which may include other land use types. In developing thresholds for other project types, or thresholds different from those recommended here, lead agencies should consider the purposes described in section 21099 of the Public Resources Code and regulations in the CEQA Guidelines on the development of thresholds of significance (e.g., CEQA Guidelines, § 15064.7). Strategies and projects that decrease local VMT but increase total VMT should be avoided. Agencies should also consider whether their actions encourage development in a less travel-efficient location by limiting development in travel-efficient locations.

7.1 Project Screening

El Dorado County Board of Supervisors Resolution No 141-2020 outlines the presumption of less than significant impacts for the following screening thresholds:

- Projects that generate or attract less than 100 trips per day, consistent with OPR's determination of projects that generate or attract fewer than 110 trips per day and further reduced to 100 to remain consistent with the existing threshold in General Plan Policy TC-Xe;

- Projects that are within 1/2 mile of either a major transit stop, as defined in Public Resources Code Section 21064.3, or a high-quality transit corridor, as defined in Public Resources Section 21155. Consistent with CEQA Guidelines section 15064.3(b)(l) and OPR's conclusions in its Technical Advisory; and
- 100% affordable residential development, including moderate, low, and very low categories as defined in the Regional Housing Needs Assessment (RHNA), consistent with OPR's conclusions in its Technical Advisory.

As outlined above, the Project does not meet the screening criteria identified in the County's guidelines. However, because the proposed project is a community park, the project's potential VMT impact analyzed below includes a qualitative analysis that describes the project's impact on VMT within the surrounding community.

7.2 Impact Thresholds

El Dorado County Board of Supervisors Resolution No 141-2020 states that the County shall use the Countywide VMT average as the measure of transportation impacts for CEQA compliance. Additionally, the County shall apply the significant threshold of 15%, as recommended by OPR's Technical Advisory, below baseline for residential and office land use and no net increase for retail projects. Consistent with OPR's Technical Advisory, the Board finds that a proposed project exceeding a level of 15 percent below the existing VMT per capita may indicate a significant transportation impact.

7.3 VMT Analysis

As described above, OPR allows for the estimating of the project to change total VMT based on whether the project is likely to divert existing trips. Additionally, Section 15064.3 (b)(3) allows for a *Qualitative Analysis* if existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, and the lead agency may analyze the project's vehicle miles qualitatively.

The project would consist of a community park and will mainly be serving the immediate community of Diamond Springs, as well as other neighborhoods within the region. Many of the existing parks in the immediate vicinity of the area are either located within private or public school property and therefore are not accessible during school hours, or are located within neighborhoods to provide a small recreational area only for the immediate needs of residents nearby. The proposed project would provide six ball fields, for both baseball/softball, as well as other field sports, including an indoor recreational facility. The nearest park that would be a similar size and usefulness for the immediate Diamond Springs community is located in Folsom approximately 15-miles west of the proposed project. Therefore, the County would benefit from developing the site to serve the Diamond Springs community and provide for multiple uses to occur simultaneously between different sports and recreational opportunities.

The location of the project site would reduce the need for those in the Placerville and Diamond Springs communities to travel along US-50 (the major east-west freeway in the area) and would further reduce longer trips to potentially even further urban areas in Sacramento or Lake Tahoe. During normal weekday and Saturday operations, the park would draw local traffic and would be utilized primarily by local residents. During tournaments or larger events that may occurring 8-10 times per year, the park can utilize its location and ability to provide potential overflow parking with Union Mine High School.

Therefore, based on the project's configured uses, and its location in an area where similar uses are not provided, the project's potential to divert traffic from parks much further, the proposed project would have a less than significant impact to vehicle miles traveled.

8 Project Findings, Impacts, and Improvement Measures

Based on the results of the LOS, project access and circulation, and VMT analyses presented in this TIS, the following summarizes the key findings of the analysis:

- On Weekdays, the project would generate 881 daily weekday trips, 36 AM peak hour trips (23 inbound and 13 outbound), and 140 PM peak hour trips (85 inbound and 55 outbound). On Saturdays, the project would generate 2,620 daily trips, with 249 trips during the peak hour (121 inbound and 128 outbound).
- The study area intersections currently and are forecast to operate at LOS E or better under all analysis scenarios, with the exception of:
 - **Farm Road/Mother Lode Drive (#1):** operates at LOS F in the PM peak hour under all Cumulative (2040) conditions. With lane modifications (the CA MUTCD peak hour signal warrant is *not* met), the intersection would operate at LOS B or better. The project should pay its fair share towards the cost of the intersection improvements.
 - **Pleasant Valley Road/El Dorado Road (#3):** operates at LOS F during all peak hours under Weekday Near-Term (2033) with and without project conditions, Weekday Cumulative (2040) with and without project conditions, and Saturday Cumulative (2040) with project conditions. With lane modifications and signalization under both Near-Term (2033) and Cumulative (2040) conditions (the CA MUTCD peak hour signal warrant is met), the intersection would operate at LOS E or better. Since the project adds more than 10 trips during the peak hours at LOS F conditions, the project may be required to construct the necessary improvements (lane modifications and signalization). However, if the improvements are constructed by other projects or are added to the 20-year Capital Improvement Plan (CIP) prior to development levels on the project site that would require these improvements, the payment of traffic impact fees would satisfy the project's fair share obligation towards these improvements. If the improvements are constructed by the project, the project may be eligible for reimbursement through the County's Traffic Impact Fee Program.
 - **SR-49/Pleasant Valley Road - SR-49 (#4):** operates at LOS F during the PM peak hour under the Existing with and without project condition, Near-Term (2033) with and without Project conditions, as well as Cumulative (2040) with and without project conditions. With lane modifications and signalization under both Near-Term (2033) and Cumulative (2040) conditions (the CA MUTCD peak hour signal warrant is met), the intersection would operate at LOS E or better. Since the project adds more than 10 trips during the peak hours at LOS F conditions, the project may be required to construct the necessary improvements (lane modifications and signalization). However, if the improvements are constructed by other projects or are added to the 20-year Capital Improvement Plan (CIP) prior to development levels on the project site that would require these improvements, the payment of traffic impact fees would satisfy the project's fair share obligation towards these improvements. If the improvements are constructed by the project, the project may be eligible for reimbursement through the County's Traffic Impact Fee Program.
 - **Forni Road/Pleasant Valley Road – Golden Chain Highway (SR-49) (#5):** operates at LOS F during the PM peak hour under Near-Term (2033) plus Project conditions, as well as Cumulative (2040) with and without project conditions. With lane modifications and signalization under both Near-Term (2033) and

Cumulative (2040) conditions (the CA MUTCD peak hour signal warrant is met), the intersection would operate at LOS E or better. Since the project adds more than 10 trips during the peak hours at LOS F conditions, the project may be required to construct the necessary improvements (lane modifications and signalization). However, if the improvements are constructed by other projects or are added to the 20-year Capital Improvement Plan (CIP) prior to development levels on the project site that would require these improvements, the payment of traffic impact fees would satisfy the project's fair share obligation towards these improvements. If the improvements are constructed by the project, the project may be eligible for reimbursement through the County's Traffic Impact Fee Program.

- **Oak Dell Road/Golden Chain Highway (SR-49) (#7):** operates at LOS F during the PM peak hour under Existing plus Project conditions, Near-Term (2033) plus Project conditions, as well as Cumulative (2040) with and without project conditions. With lane modifications, the intersection would operate at LOS E or better. The project would be directly responsible for the cost of the intersection improvements. The project will need to coordinate with Caltrans as this intersection is within their jurisdiction. This improvement would be required to be constructed by the time the park is opened for use.
 - All roadway segments analyzed are operating or would continue to operate at LOS E or better in all scenarios and conditions analyzed.
 - The proposed project would not result in unacceptable queueing conditions into or out of the project site (Appendix E) except for the westbound left-turn lane at Koki Lane. The recommended improvements at Oak Dell Road would alleviate queues at Koki Lane with the construction of a two-way left-turn lane.
 - The project does not screen out of VMT analysis per the County's guidelines, however based on the OPR Technical Advisory, a qualitative analysis was deemed appropriate due to the nature of the project. The project would provide a park to serve the local community and would consist of at least 6 ball fields, recreational areas, and an indoor facility. This would reduce travel for those in the Diamond Springs and Placerville communities, who currently commute up 15-miles to find similar amenities in other parts of the County. Therefore, based on the project's configured uses, and its location in an area where similar uses are not provided, the project's potential to divert traffic from parks much further, the proposed project would have a less than significant impact to vehicle miles traveled.

8.1 Recommended Improvement Measures

Table 17 identifies intersection and roadway improvements that would be necessary to bring the intersections described above to acceptable operating conditions under all conditions and scenarios analyzed. Synchro worksheets are included in Appendix C. Figure 21 displays the detailed conceptual geometrics for recommended improvement measures at the SR-49/Oak Dell Road intersection (intersection #7).

Table 17. Proposed Improvement Measures

Existing Plus Project		Near-Term (2033) plus Project		Cumulative (2040) plus Project	
Improvement	LOS with Improvements	Improvement	LOS with Improvements	Improvement	LOS with Improvements
#1 Farm Road/Mother Lode Drive					
N/A	N/A	N/A	N/A	#1 Change intersection from all-way stop controlled, to two-way stop control to create free flow (i.e., no stop control) northbound/southbound movements. This would alleviate the impacts caused by northbound left-turn vehicles continuing along the Mother Lode Drive/Pleasant Valley Road corridor.	PM Peak Hour: 11.6/B
#3 Pleasant Valley Road/El Dorado Road					
N/A	N/A	#2 Install a traffic signal (CA MUTCD Peak Hour Signal Warrant is met under AM and PM peak hours) and modify approaches as follows: <ul style="list-style-type: none"> ▪ (1) southbound left-turn lane, (1) southbound right-turn lane ▪ Widen road Coordinate cycles with downstream intersections along Pleasant Valley Road and SR-49.	AM Peak hour: 7.9/A PM Peak Hour: 7.9/A	Same	AM Peak hour: 22.6/C PM Peak Hour: 27.4/C
#4 SR-49/Pleasant Valley Road - SR-49					
#3 Install a traffic signal (CA MUTCD Peak Hour Signal Warrant is met under AM peak hour) and modify approaches as follows: <ul style="list-style-type: none"> ▪ All lanes remain same as existing, Westbound left-turn lane w/protected phasing Coordinate cycles with downstream intersections along Pleasant Valley Road and SR-49	AM Peak hour: 34.8/C	Same; Signal warrants are met in every peak hour (AM, PM, Saturday)	AM Peak hour: 45.0/D PM Peak Hour: 49.6/D Saturday Peak Hour: 34.7/C	Same; Signal warrants are met in every peak hour (AM, PM, Saturday)	AM Peak hour: 47.2/D PM Peak Hour: 73.6/E Saturday Peak Hour: 57.1/E
#5 Pleasant Valley Road - SR-49/Forni Road					
N/A	N/A	#4 Install a traffic signal (CA MUTCD Peak Hour Signal Warrant is met under AM and PM peak hours) and modify approaches as follows: <ul style="list-style-type: none"> ▪ (1) southbound left-turn lane, (1) southbound right-turn lane ▪ Widen road ▪ (1) eastbound left-turn lane w/protected-permitted phasing, (1) eastbound through lane ▪ Widen road; ROW constraints exist along Pleasant Valley Road - SR-49 that may prevent widening. Coordinate cycles with downstream intersections along Pleasant Valley Road and SR-49.	AM Peak hour: 8.3/A PM Peak Hour: 11.7/B	Same	AM Peak hour: 17.1/B PM Peak Hour: 25.3/C

Table 17. Proposed Improvement Measures

Existing Plus Project		Near-Term (2033) plus Project		Cumulative (2040) plus Project	
Improvement	LOS with Improvements	Improvement	LOS with Improvements	Improvement	LOS with Improvements
#6 Koki Lane - Oro Lane/Pleasant Valley Road - SR-49					
#5 Two-way left-turn lane constructed to extend westbound left-turn lane storage length (see Improvement #6)	N/A	Same	N/A	Same	N/A; queuing would improve within two-way left-turn lane proposed.
#7 Oak Dell Road/SR-49 - Pleasant Valley Rd					
#6 Does not meet CA MUTCD Peak Hour Signal Warrant. Modify approaches as follows: <ul style="list-style-type: none"> ▪ (1) eastbound left-through-right turn lane (uncontrolled) ▪ (1) northbound left-turn lane; (1) northbound right-turn lane (both stop controlled) ▪ (1) westbound left-turn lane; (1) westbound through-right lane (uncontrolled) ▪ Two-way left-turn lane installed from Koki Lane to Oak Dell Road. Requires widening Pleasant Valley Road/SR-49. See Figure 21. 	AM Peak hour: 27.8/D	N/A	N/A	Same; Signal warrants are only met in the Saturday peak hour.	AM Peak hour: 29.1/D PM Peak Hour: 31.9/D Saturday Peak Hour: 23.8/C

Source: Synchro Worksheets w/Improvements (Appendix C)

8.2 Fair Share Contribution

Table 18 provides a breakdown of the Project's fair share contributions to the above recommended improvements per the methodology provided in Section 3.

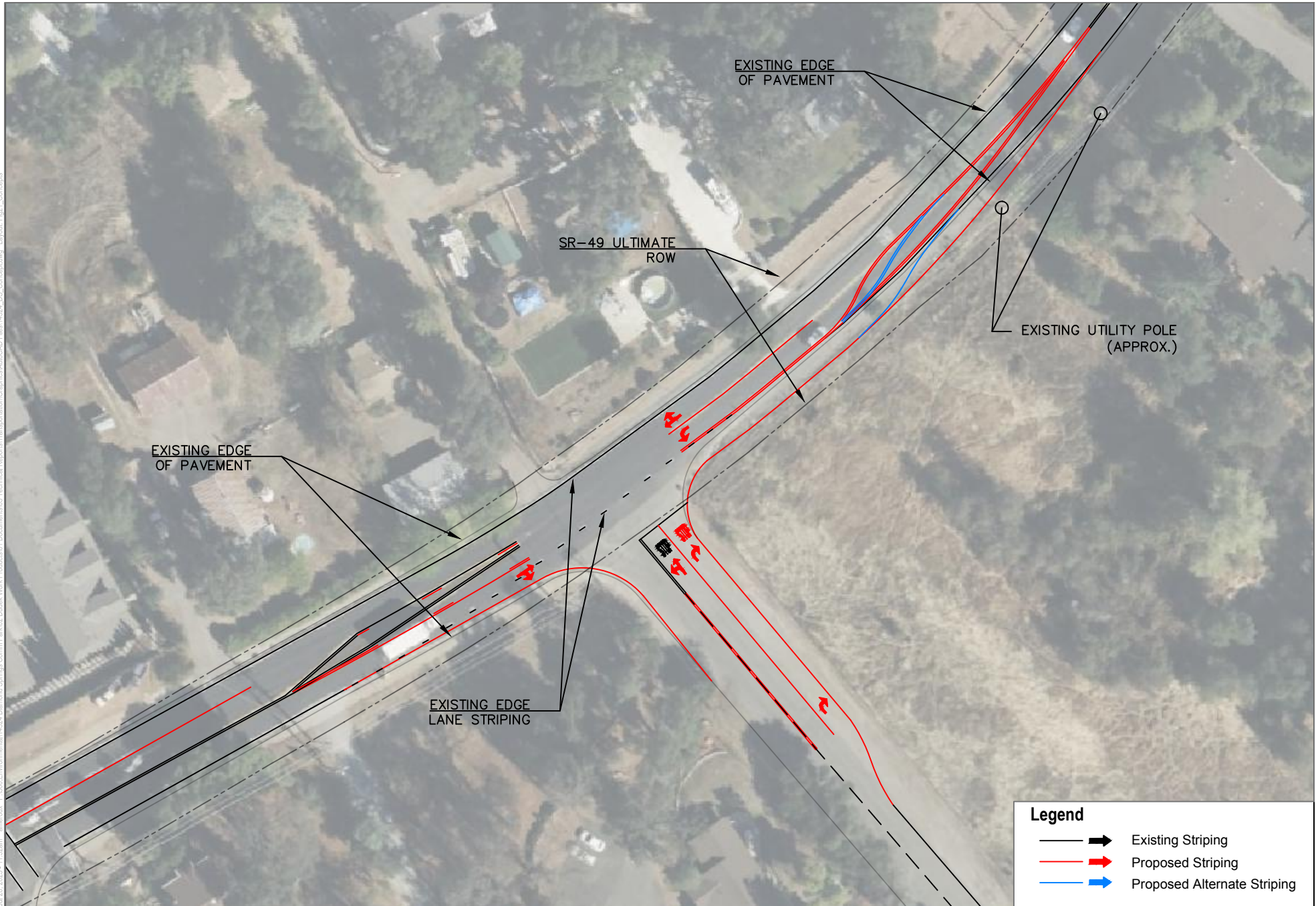
Table 18. Project Fair Share Summary

No.	Intersection	Study Time Period	Existing Traffic	Project Traffic	Cumulative (2040) plus Project	Net New Traffic	% Project Traffic of Net New Traffic
1	Farm Road/ Mother Lode Drive	PM	638	18	1,157	519	3.47%
3	Pleasant Valley Road/ El Dorado Road	AM	998	11	1,719	721	1.53%
		PM	1,051	42	1,823	772	5.44%
4	SR-49/Pleasant Valley Road - SR-49	AM	1,392	14	1,948	556	2.52%
		PM	1,441	58	2,087	646	8.98%
5	Pleasant Valley Road - SR-49/Forni Road	AM	1,091	17	1,580	489	3.48%
		PM	1,118	71	1,733	615	11.54%
7	Oak Dell Road/SR-49 - Pleasant Valley Rd	AM	1,220	38	1,557	336	11.29%

Bold: Indicates highest fair share percentage per intersection.

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SOURCE: Bing Maps

FIGURE 21

Conceptual Geometrics for Recommended Improvement Measures at SR-49/Oak Dell Road

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9 References

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Appendix A

Raw Traffic Counts

National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Mother Lode Dr
 City: El Dorado
 Control: 3-Way Stop(NB/EB/WB)

Project ID: 23-070095-001
 Date: 5/4/2023

Data - Totals

NS/EW Streets:	Farm Rd				Farm Rd				Mother Lode Dr				Mother Lode Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	45	0	2	0	0	0	0	0	0	5	0	0	2	12	0	0	66
6:15 AM	49	0	2	0	0	0	0	0	0	6	1	0	0	18	0	0	76
6:30 AM	63	0	8	0	0	0	0	0	0	12	0	0	2	20	0	0	105
6:45 AM	74	0	6	0	0	0	0	0	0	22	0	0	2	17	0	0	121
7:00 AM	80	0	2	0	0	0	0	0	0	11	0	0	5	12	0	0	110
7:15 AM	79	0	1	0	0	0	0	0	0	13	0	0	9	21	1	0	124
7:30 AM	85	0	1	0	0	0	0	0	0	18	0	0	12	19	0	0	135
7:45 AM	83	0	2	0	0	0	1	0	0	21	2	0	6	18	0	0	133
8:00 AM	80	0	5	0	0	0	0	0	0	11	0	0	3	13	0	0	112
8:15 AM	104	0	2	0	0	0	0	0	0	26	0	0	4	22	0	0	158
8:30 AM	109	0	5	0	0	0	0	0	0	20	0	0	2	21	0	0	157
8:45 AM	94	0	6	0	0	0	0	0	0	12	0	0	1	20	0	0	133
TOTAL VOLUMES :	945	0	42	0	0	0	1	0	0	177	3	0	48	213	1	0	1430
APPROACH %'s :	95.74%	0.00%	4.26%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	98.33%	1.67%	0.00%	18.32%	81.30%	0.38%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	387	0	18	0	0	0	0	0	0	69	0	0	10	76	0	0	560
PEAK HR FACTOR :	0.888	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.663	0.000	0.000	0.625	0.864	0.000	0.000	0.886
	0.888																
	0.663																
	0.827																
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	74	0	4	0	0	0	0	0	0	40	0	0	4	32	0	0	154
4:15 PM	55	0	6	0	0	0	0	0	0	37	0	0	3	24	0	0	125
4:30 PM	68	1	6	0	0	0	0	0	0	33	0	0	4	19	0	0	131
4:45 PM	67	0	3	0	1	0	0	0	0	47	0	0	4	22	0	0	144
5:00 PM	63	0	2	0	0	0	0	0	0	21	0	0	3	28	0	0	117
5:15 PM	56	0	2	0	0	0	0	0	0	19	1	0	4	16	0	0	98
5:30 PM	47	0	10	0	0	0	0	0	0	14	1	0	3	19	0	0	94
5:45 PM	44	0	2	0	0	0	0	0	0	17	0	0	3	13	0	0	79
6:00 PM	38	0	2	0	0	0	0	0	0	24	0	0	4	10	0	0	78
6:15 PM	36	0	0	0	0	0	0	0	0	11	0	0	0	11	0	0	58
6:30 PM	29	0	1	0	0	0	0	0	0	13	0	0	3	13	0	0	59
6:45 PM	18	0	1	0	0	0	0	0	0	9	0	0	0	11	0	0	39
TOTAL VOLUMES :	595	1	39	0	1	0	0	0	0	285	2	0	35	218	0	0	1176
APPROACH %'s :	93.70%	0.16%	6.14%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	99.30%	0.70%	0.00%	13.83%	86.17%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	264	1	19	0	1	0	0	0	0	157	0	0	15	97	0	0	554
PEAK HR FACTOR :	0.892	0.250	0.792	0.000	0.250	0.000	0.000	0.000	0.000	0.835	0.000	0.000	0.938	0.758	0.000	0.000	0.899
	0.910																
	0.250																
	0.835																
	0.778																

National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Mother Lode Dr
 City: El Dorado
 Control: 3-Way Stop(NB/EB/WB)

Project ID: 23-070095-001
 Date: 5/4/2023

Data - Bikes

NS/EW Streets:	Farm Rd				Farm Rd				Mother Lode Dr				Mother Lode Dr					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	0.5 NT	0.5 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	TOTAL	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%						
PEAK HR :	08:00 AM - 09:00 AM																TOTAL	0
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

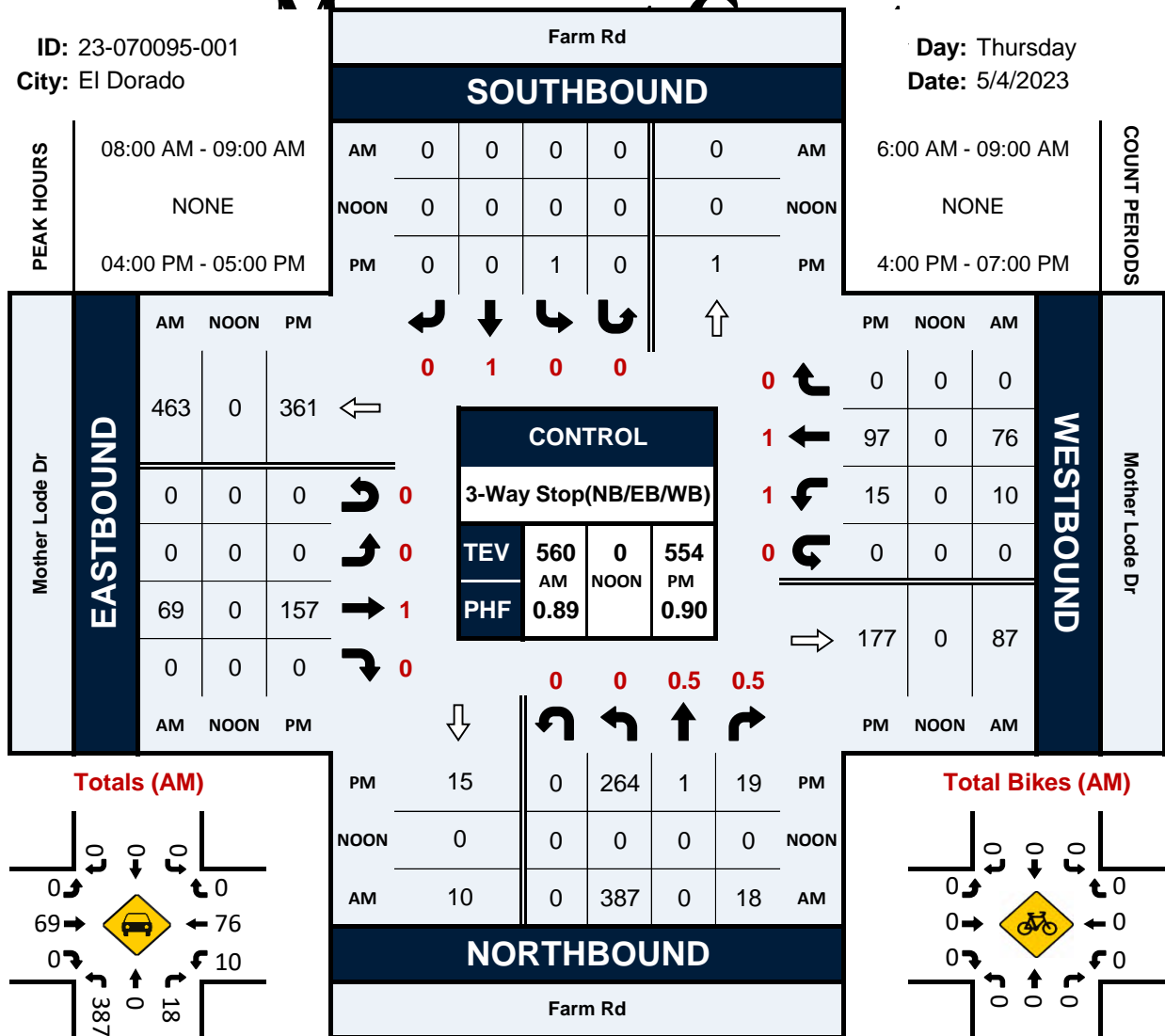
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	0.5 NT	0.5 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	TOTAL	0
APPROACH %'s :									0	100.00%	0	0	1	1	0	0		
PEAK HR :	04:00 PM - 05:00 PM																TOTAL	0
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

National Data & Surveying

Services Farm Rd & Mother Lode Dr Intersection Turning Peak Hour Turning Movement Count

ID: 23-070095-001
City: El Dorado

Day: Thursday
Date: 5/4/2023



PEAK HOURS

08:00 AM - 09:00 AM
NONE
04:00 PM - 05:00 PM

COUNT PERIODS

6:00 AM - 09:00 AM
NONE
4:00 PM - 07:00 PM

EASTBOUND

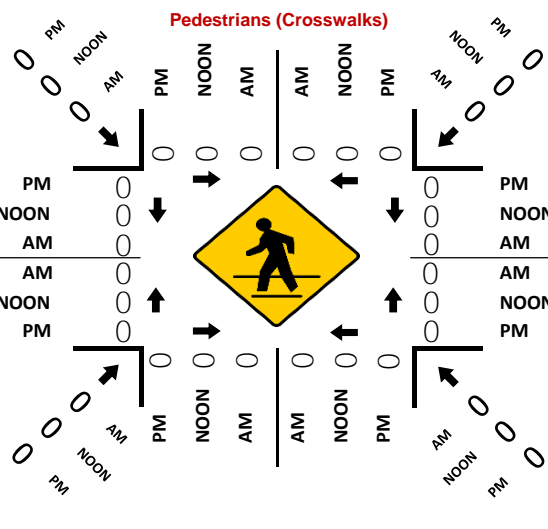
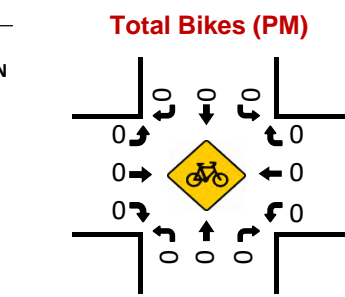
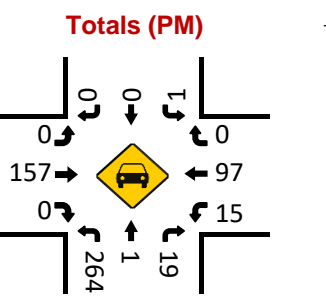
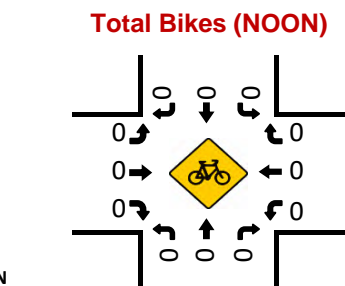
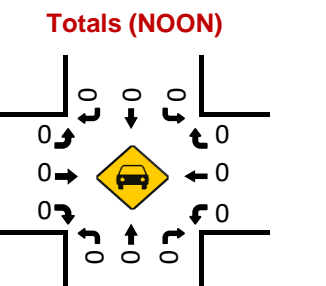
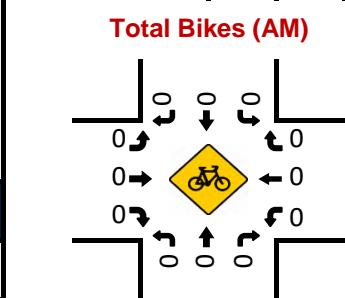
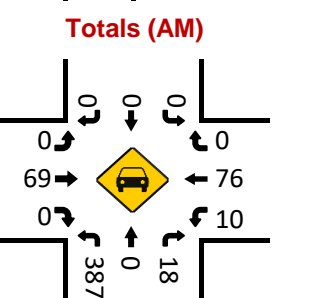
	AM	NOON	PM
Left	463	0	361
Through	0	0	0
Right	0	0	0
Left	69	0	157
Through	0	0	0
Right	0	0	0

WESTBOUND

	PM	NOON	AM
Left	0	0	0
Through	97	0	76
Right	15	0	10
Left	0	0	0
Through	177	0	87
Right	0	0	0

NORTHBOUND

	PM	NOON	AM
Left	15	0	10
Through	0	0	0
Right	264	0	387
Left	1	0	0
Through	19	0	18
Right	0	0	0



National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-002
 Date: 5/4/2023

Data - Totals

NS/EW Streets:	Farm Rd				Farm Rd				Pleasant Valley Rd				Pleasant Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	1	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	2	0	0	0	0	8	0	0	0	0	47	0	57
6:15 AM	0	0	0	0	1	0	0	0	0	15	0	0	0	0	51	0	67
6:30 AM	0	0	0	0	2	0	0	0	0	6	0	0	0	0	71	0	79
6:45 AM	0	0	0	0	2	0	0	0	0	22	0	0	0	0	81	0	105
7:00 AM	0	1	0	0	5	0	0	0	0	25	0	0	0	0	80	0	111
7:15 AM	0	0	0	0	9	0	0	0	0	41	0	0	0	0	82	0	132
7:30 AM	0	0	0	0	12	0	0	0	0	44	0	0	1	0	84	0	141
7:45 AM	0	1	0	0	8	0	0	0	0	57	1	0	0	0	84	0	151
8:00 AM	0	0	0	0	2	1	0	0	0	81	0	0	1	0	85	0	170
8:15 AM	0	1	1	0	4	0	0	0	0	126	0	0	0	0	106	0	238
8:30 AM	0	1	0	0	2	0	0	0	0	90	0	0	1	0	112	0	206
8:45 AM	0	0	1	0	1	0	0	0	0	64	0	0	1	0	101	0	168
TOTAL VOLUMES :	0	4	2	0	50	1	0	0	0	579	1	0	4	0	984	0	1625
APPROACH %'s :	0.00%	66.67%	33.33%	0.00%	98.04%	1.96%	0.00%	0.00%	0.00%	99.83%	0.17%	0.00%	0.40%	0.00%	99.60%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																
PEAK HR VOL :	0	2	2	0	9	1	0	0	0	361	0	0	3	0	404	0	782
PEAK HR FACTOR :	0.000	0.500	0.500	0.000	0.563	0.250	0.000	0.000	0.000	0.716	0.000	0.000	0.750	0.000	0.902	0.000	0.821
			0.500			0.625				0.716				0.900			
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	1	0	4	0	0	0	0	111	0	0	0	0	80	0	196
4:15 PM	0	2	0	0	3	0	0	0	0	93	3	0	1	0	58	0	160
4:30 PM	0	2	0	0	3	1	0	0	0	97	2	0	0	0	72	0	177
4:45 PM	0	1	0	0	3	1	0	0	0	84	0	0	0	0	69	0	158
5:00 PM	0	0	0	0	2	1	0	0	0	87	0	0	0	0	65	0	155
5:15 PM	0	1	1	0	4	0	0	1	0	82	2	0	0	0	59	0	150
5:30 PM	0	0	0	0	3	0	0	0	0	90	0	0	0	0	54	0	147
5:45 PM	0	1	0	0	4	0	0	0	0	92	0	0	0	0	46	0	143
6:00 PM	0	0	0	0	4	0	0	0	0	77	0	0	0	0	40	0	121
6:15 PM	0	0	0	0	0	0	0	0	0	59	0	0	0	0	35	0	94
6:30 PM	0	0	0	0	3	0	0	0	0	60	0	0	0	0	30	0	93
6:45 PM	0	0	0	0	0	0	0	0	0	42	0	0	0	0	19	0	61
TOTAL VOLUMES :	0	7	2	0	33	3	0	1	0	974	7	0	1	0	627	0	1655
APPROACH %'s :	0.00%	77.78%	22.22%	0.00%	89.19%	8.11%	0.00%	2.70%	0.00%	99.29%	0.71%	0.00%	0.16%	0.00%	99.84%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																
PEAK HR VOL :	0	5	1	0	13	2	0	0	0	385	5	0	1	0	279	0	691
PEAK HR FACTOR :	0.000	0.625	0.250	0.000	0.813	0.500	0.000	0.000	0.000	0.867	0.417	0.000	0.250	0.000	0.872	0.000	0.881
			0.750			0.938				0.878				0.875			

National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-002
 Date: 5/4/2023

Data - Bikes

NS/EW Streets:	Farm Rd				Farm Rd				Pleasant Valley Rd				Pleasant Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	08:00 AM - 09:00 AM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

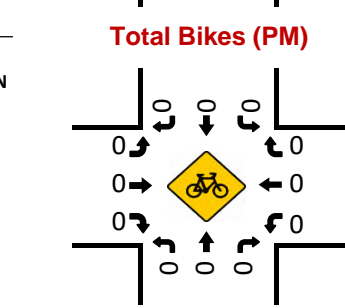
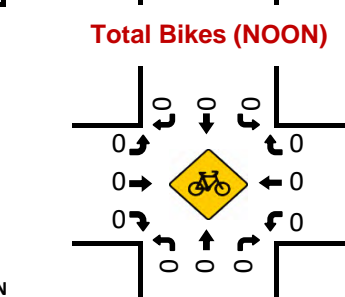
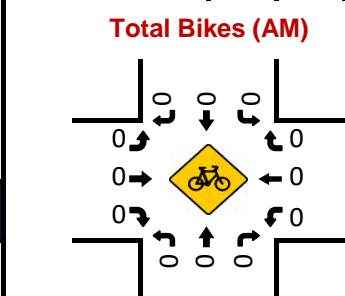
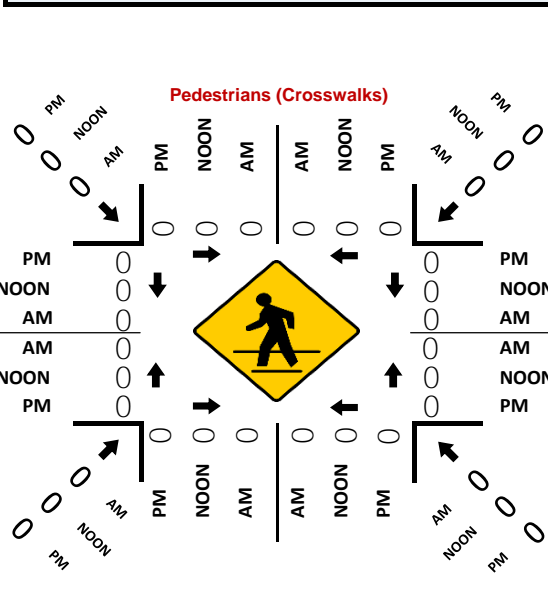
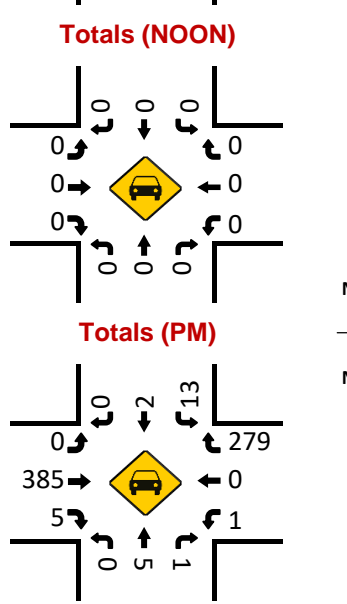
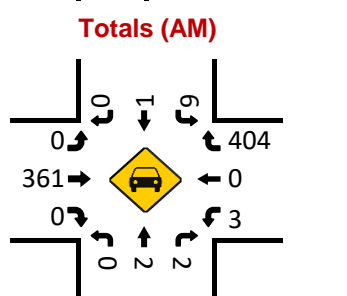
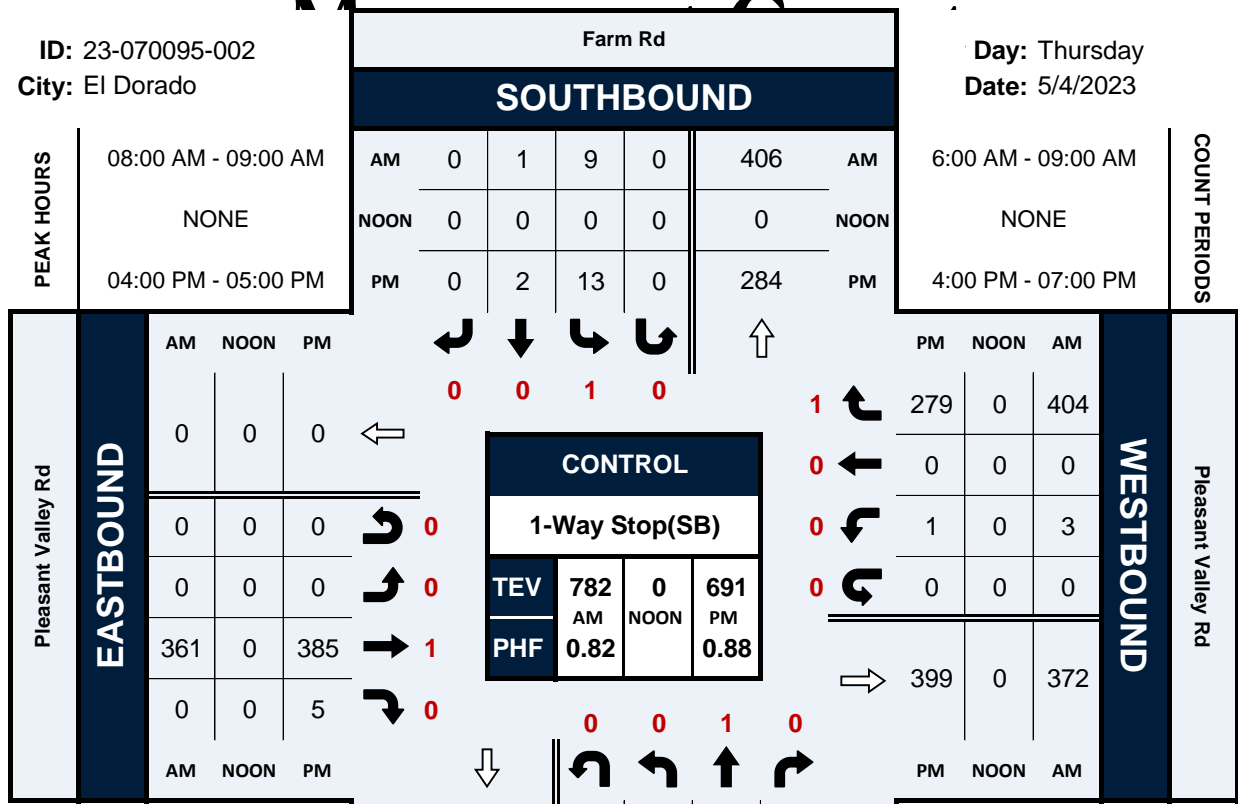
National Data & Surveying

Farm Rd & Pleasant Valley Rd Services Intersection Turning

Peak Hour Turning Movement Count

ID: 23-070095-002
City: El Dorado

Day: Thursday
Date: 5/4/2023



National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-003
 Date: 5/4/2023

Data - Totals

NS/EW Streets:	El Dorado Rd				El Dorado Rd				Pleasant Valley Rd				Pleasant Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	3	0	0	0	0	10	0	0	0	46	6	0	65
6:15 AM	0	0	0	0	3	0	0	0	0	15	0	0	0	48	4	0	70
6:30 AM	0	0	0	0	7	0	0	0	0	11	0	0	0	73	11	0	102
6:45 AM	0	0	0	0	10	0	0	0	0	21	0	0	0	78	7	0	116
7:00 AM	0	0	0	0	6	0	1	0	0	23	0	0	0	79	6	0	115
7:15 AM	0	0	0	0	6	0	0	0	0	51	0	0	0	83	14	0	154
7:30 AM	0	0	0	0	6	0	1	0	0	48	0	0	0	91	23	0	169
7:45 AM	0	0	0	0	14	0	1	0	0	69	0	0	0	83	18	0	185
8:00 AM	0	0	0	0	29	0	1	0	0	86	0	0	0	87	37	0	240
8:15 AM	0	0	0	0	26	0	1	0	2	122	0	0	0	104	35	0	290
8:30 AM	0	0	0	0	22	0	1	0	1	91	0	0	0	111	40	0	266
8:45 AM	0	0	0	0	23	0	1	0	2	67	0	0	0	97	12	0	202
TOTAL VOLUMES :	0	0	0	0	155	0	7	0	5	614	0	0	0	980	213	0	1974
APPROACH %'s :					95.68%	0.00%	4.32%	0.00%	0.81%	99.19%	0.00%	0.00%	0.00%	82.15%	17.85%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	100	0	4	0	5	366	0	0	0	399	124	0	998
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.862	0.000	1.000	0.000	0.625	0.750	0.000	0.000	0.000	0.899	0.775	0.000	0.860
					0.867				0.748				0.866				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	24	0	0	0	1	114	0	0	0	67	18	0	224
4:15 PM	0	0	0	0	17	0	5	0	1	94	0	0	0	54	16	0	187
4:30 PM	0	0	0	0	18	0	1	0	0	103	0	0	0	69	11	0	202
4:45 PM	0	0	0	0	23	0	1	0	0	83	0	0	0	67	7	0	181
5:00 PM	0	0	0	0	33	0	1	0	1	89	0	0	0	66	18	0	208
5:15 PM	0	0	0	0	20	0	0	0	0	87	0	0	0	58	14	0	179
5:30 PM	0	0	0	0	17	0	0	0	0	88	0	0	0	51	21	0	177
5:45 PM	0	0	0	0	14	0	1	0	0	100	0	0	0	38	13	0	166
6:00 PM	0	0	0	0	16	0	1	0	1	84	0	0	0	42	12	0	156
6:15 PM	0	0	0	0	13	0	0	0	0	58	0	0	0	39	11	0	121
6:30 PM	0	0	0	0	7	0	0	0	0	66	0	0	0	27	12	0	112
6:45 PM	0	0	0	0	20	0	0	0	2	43	0	0	0	20	5	0	90
TOTAL VOLUMES :	0	0	0	0	222	0	10	0	6	1009	0	0	0	598	158	0	2003
APPROACH %'s :					95.69%	0.00%	4.31%	0.00%	0.59%	99.41%	0.00%	0.00%	0.00%	79.10%	20.90%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	82	0	7	0	2	394	0	0	0	257	52	0	794
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.854	0.000	0.350	0.000	0.500	0.864	0.000	0.000	0.000	0.931	0.722	0.000	0.886
					0.927				0.861				0.909				

National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-003
 Date: 5/4/2023

Data - Bikes

NS/EW Streets:	El Dorado Rd				El Dorado Rd				Pleasant Valley Rd				Pleasant Valley Rd					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR :	08:00 AM - 09:00 AM																	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR :	04:00 PM - 05:00 PM																	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services **Intersection Turning**

Movement Count

Location: El Dorado Rd & Pleasant Valley Rd
 City: El Dorado

Project ID: 23-070095-003
 Date: 5/4/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	El Dorado Rd	El Dorado Rd	Pleasant Valley Rd	Pleasant Valley Rd	
AM	NORTH LEG		SOUTH LEG		TOTAL
	EB	WB	EB	WB	
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	4	4	0	0	8
TOTAL VOLUMES :	EB 4	WB 4	EB 0	WB 0	TOTAL 8
APPROACH %'s :	50.00%	50.00%			
PEAK HR :	08:00 AM - 09:00 AM				TOTAL
PEAK HR VOL :	4	4	0	0	8
PEAK HR FACTOR :	0.250	0.250			0.250
	0.250				

PM	NORTH LEG		SOUTH LEG		TOTAL
	EB	WB	EB	WB	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0
TOTAL VOLUMES :	EB 0	WB 0	EB 0	WB 0	TOTAL 0
APPROACH %'s :					
PEAK HR :	04:00 PM - 05:00 PM				TOTAL
PEAK HR VOL :	0	0	0	0	0
PEAK HR FACTOR :					

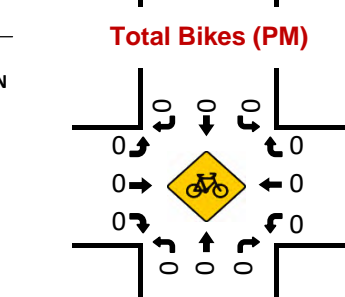
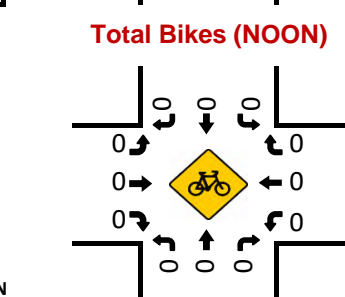
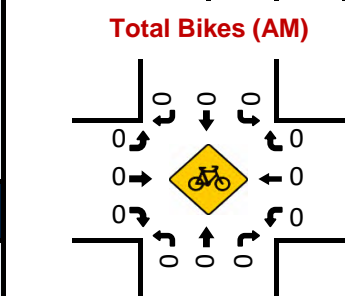
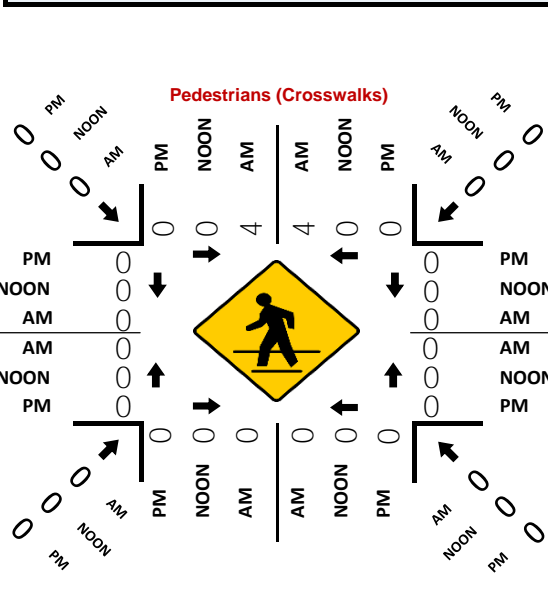
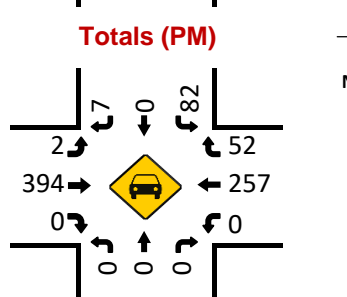
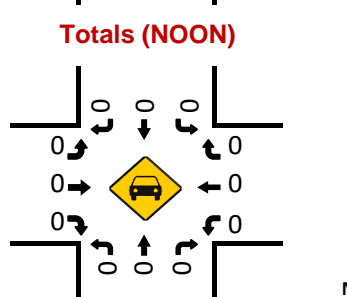
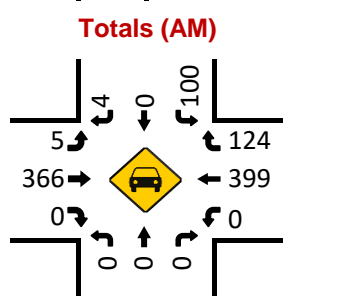
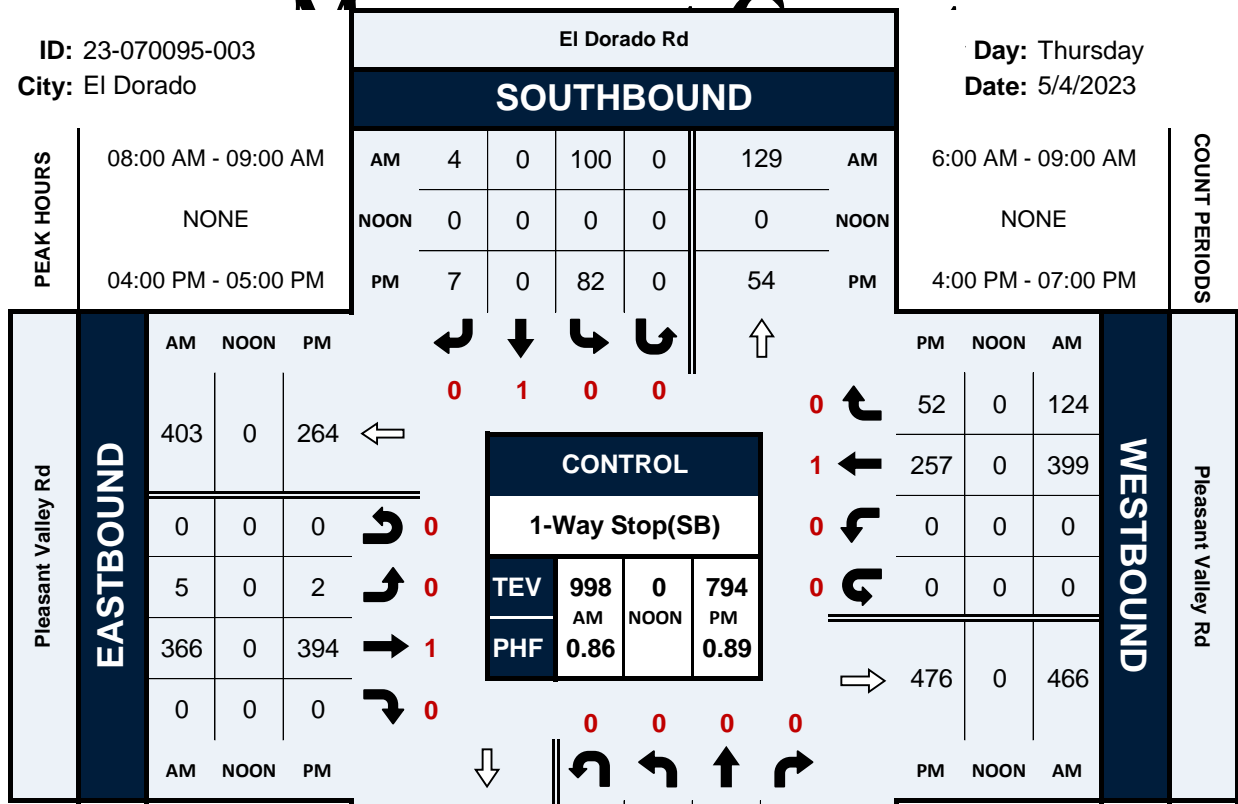
National Data & Surveying

El Dorado Rd & Pleasant Valley Rd Services Intersection Turning

Peak Hour Turning Movement Count

ID: 23-070095-003
City: El Dorado

Day: Thursday
Date: 5/4/2023



National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Pleasant Valley Rd
City: El Dorado
Control: 3-Way Stop (NB/EB/WB)

Project ID: 22-070074-002
Date: 4/20/2022

Data - Totals

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Pleasant Valley Rd				Pleasant Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
6:00 AM	23	0	21	0	0	0	0	0	0	8	1	0	15	31	0	0	99
6:15 AM	33	0	20	0	0	0	0	0	0	20	13	0	18	29	0	0	133
6:30 AM	32	0	23	0	0	0	0	0	0	20	10	0	14	44	0	0	143
6:45 AM	32	0	25	0	0	0	0	0	0	22	9	0	16	45	0	0	149
7:00 AM	39	0	40	0	0	0	0	0	0	41	13	0	16	51	0	0	200
7:15 AM	49	0	46	0	0	0	0	0	0	57	14	0	23	60	0	0	249
7:30 AM	46	0	45	0	0	0	0	0	0	70	18	0	20	66	0	0	265
7:45 AM	44	0	57	0	0	0	0	0	0	63	31	0	26	67	0	0	288
8:00 AM	56	0	47	0	0	0	0	0	0	82	37	0	28	93	0	0	343
8:15 AM	56	0	74	0	0	1	0	0	0	103	52	0	41	75	1	0	403
8:30 AM	53	0	48	0	0	0	0	0	0	86	26	0	43	88	0	0	344
8:45 AM	36	0	35	0	0	0	0	0	0	42	25	0	28	54	0	0	220
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	499	0	481	0	0	1	0	0	0	614	249	0	288	703	1	0	2836
APPROACH %'s :	50.92%	0.00%	49.08%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	71.15%	28.85%	0.00%	29.03%	70.87%	0.10%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	209	0	226	0	0	1	0	0	0	334	146	0	138	323	1	0	1378
PEAK HR FACTOR :	0.933	0.000	0.764	0.000	0.000	0.250	0.000	0.000	0.000	0.811	0.702	0.000	0.802	0.868	0.250	0.000	0.855
	0.837				0.250				0.774				0.882				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	TOTAL
	4:00 PM	37	1	47	0	1	0	0	0	0	101	33	0	68	83	0	0
4:15 PM	42	0	41	0	0	0	0	0	0	100	61	0	54	68	1	0	367
4:30 PM	41	0	33	0	2	0	0	0	1	101	51	0	57	70	2	0	358
4:45 PM	16	0	38	0	0	0	1	0	0	90	68	0	49	68	1	0	331
5:00 PM	24	0	31	0	0	0	0	0	0	94	62	0	50	80	0	0	341
5:15 PM	20	0	27	0	1	0	0	0	0	91	55	0	53	65	0	0	312
5:30 PM	37	1	56	0	0	0	0	0	0	91	35	0	51	41	1	0	313
5:45 PM	31	0	55	0	1	0	2	0	0	101	34	0	39	71	2	0	336
6:00 PM	23	0	56	0	0	0	0	0	1	67	54	0	33	66	2	0	302
6:15 PM	21	0	46	0	0	0	0	0	2	75	43	0	29	40	0	0	256
6:30 PM	21	0	39	0	1	0	0	0	0	52	37	0	25	41	0	0	216
6:45 PM	21	0	35	0	0	0	0	0	0	37	23	0	28	47	0	0	191
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	334	2	504	0	6	0	3	0	4	1000	556	0	536	740	9	0	3694
APPROACH %'s :	39.76%	0.24%	60.00%	0.00%	66.67%	0.00%	33.33%	0.00%	0.26%	64.10%	35.64%	0.00%	41.71%	57.59%	0.70%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	136	1	159	0	3	0	1	0	1	392	213	0	228	289	4	0	1427
PEAK HR FACTOR :	0.810	0.250	0.846	0.000	0.375	0.000	0.250	0.000	0.250	0.970	0.783	0.000	0.838	0.870	0.500	0.000	0.962
	0.871				0.500				0.941				0.863				

National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Pleasant Valley Rd
City: El Dorado
Control: 3-Way Stop (NB/EB/WB)

Project ID: 22-070074-002
Date: 4/20/2022

Data - Bikes

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Pleasant Valley Rd				Pleasant Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Pleasant Valley Rd				Pleasant Valley Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

National Data & Surveying Services Intersection Turning

Movement Count

Location: Golden Chain Hwy & Pleasant Valley Rd

Project ID: 22-070074-002

City: El Dorado

Date: 4/20/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Golden Chain Hwy		Golden Chain Hwy		Pleasant Valley Rd		Pleasant Valley Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	2	0	2
PEAK HR :	07:45 AM - 08:45 AM						100.00%	0.00%	
PEAK HR VOL :	0	0	0	0	0	0	1	0	1
PEAK HR FACTOR :							0.250	0.250	0.250

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	1	0	2	0	0	0	4	3	10
4:15 PM	0	0	0	1	0	0	0	1	2
4:30 PM	0	0	0	0	0	0	2	2	4
4:45 PM	0	0	0	0	0	0	2	2	4
5:00 PM	0	0	0	0	0	0	0	2	2
5:15 PM	0	0	0	0	0	0	1	2	3
5:30 PM	0	0	1	0	0	0	0	1	2
5:45 PM	0	0	0	0	0	0	13	1	14
6:00 PM	0	0	0	0	0	0	8	3	11
6:15 PM	0	0	0	1	0	0	1	3	5
6:30 PM	0	0	0	0	0	0	1	0	1
6:45 PM	0	0	0	0	0	0	6	3	9
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	1	0	3	2	0	0	38	23	67
PEAK HR :	04:00 PM - 05:00 PM						62.30%	37.70%	
PEAK HR VOL :	1	0	2	1	0	0	8	8	20
PEAK HR FACTOR :	0.250	0.250	0.250	0.250			0.500	0.667	0.500
	0.250		0.375				0.571		

National Data & Surveying Services Intersection

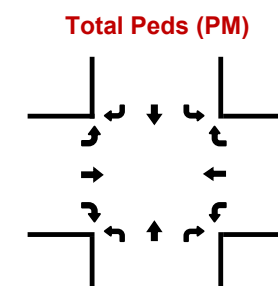
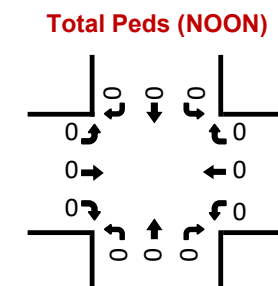
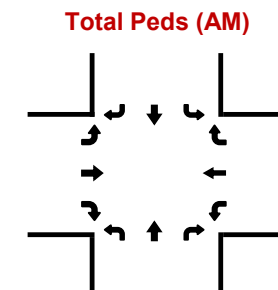
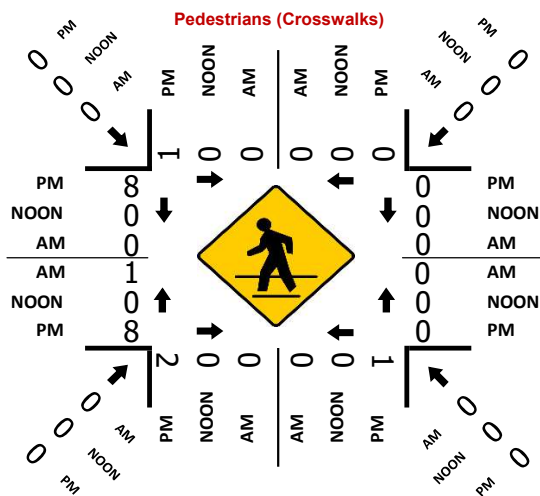
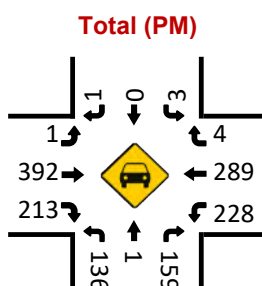
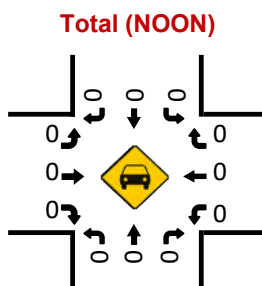
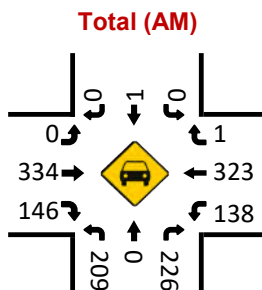
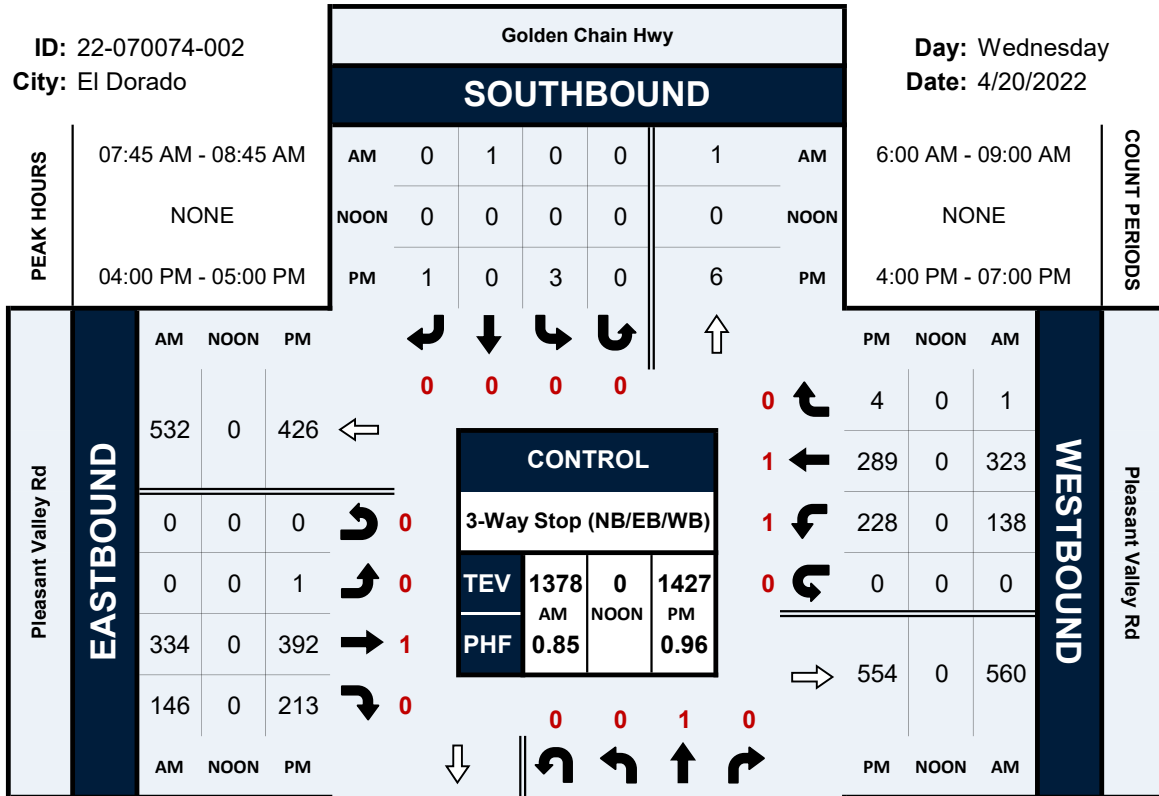
Golden Chain Hwy & Pleasant Valley Rd

Turning Movement Count

Real Hour Turning Movement Count

ID: 22-070074-002
City: El Dorado

Day: Wednesday
Date: 4/20/2022



National Data & Surveying Services Intersection Turning Movement Count

Location: Forni Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-004
 Date: 5/4/2023

Data - Totals

NS/EW Streets:	Forni Rd				Forni Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	1	0	1	0	7	0	12	8	0	0	0	25	1	0	55
6:15 AM	0	0	0	0	2	0	14	0	10	17	0	0	0	41	0	0	84
6:30 AM	0	0	0	0	1	1	10	0	11	22	0	0	0	48	1	0	94
6:45 AM	0	0	0	0	0	0	5	0	19	30	0	0	0	54	1	0	109
7:00 AM	1	0	0	0	0	0	12	0	18	34	0	0	1	56	3	0	125
7:15 AM	0	0	0	0	4	0	13	0	32	60	0	0	0	58	4	0	171
7:30 AM	0	0	0	0	4	0	14	0	38	52	0	0	0	79	4	0	191
7:45 AM	0	1	1	0	7	2	11	0	39	76	0	0	0	65	2	0	204
8:00 AM	0	0	0	0	12	0	16	0	26	99	0	0	0	97	6	0	256
8:15 AM	0	0	0	0	19	0	19	0	27	146	0	0	0	104	6	0	321
8:30 AM	0	0	0	0	6	0	16	0	33	127	2	0	0	111	11	0	306
8:45 AM	0	0	1	0	2	0	16	0	28	77	0	0	0	78	7	0	209
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	1	1	3	0	58	3	153	0	293	748	2	0	1	816	46	0	2125
	20.00%	20.00%	60.00%	0.00%	27.10%	1.40%	71.50%	0.00%	28.09%	71.72%	0.19%	0.00%	0.12%	94.55%	5.33%	0.00%	
PEAK HR:	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL:	0	0	1	0	39	0	67	0	114	449	2	0	0	390	30	0	1092
PEAK HR FACTOR:	0.000	0.000	0.250	0.000	0.513	0.000	0.882	0.000	0.864	0.769	0.250	0.000	0.000	0.878	0.682	0.000	0.850
	0.250				0.697				0.816				0.861				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	1	0	0	4	0	32	0	24	113	1	0	0	79	6	0	260
4:15 PM	1	0	0	0	4	0	25	0	31	90	0	0	0	75	4	0	230
4:30 PM	0	0	0	0	1	0	45	0	22	81	1	0	0	73	4	0	227
4:45 PM	1	0	0	0	6	0	31	0	33	73	0	1	0	67	4	0	216
5:00 PM	0	1	0	0	2	2	47	0	31	79	0	0	0	67	5	0	234
5:15 PM	0	0	0	0	6	0	44	0	23	74	0	0	0	71	4	0	222
5:30 PM	0	0	0	0	2	0	36	0	22	76	0	0	0	58	2	0	196
5:45 PM	0	0	0	0	4	0	27	0	18	75	0	0	0	51	0	0	175
6:00 PM	0	0	0	0	4	0	20	0	21	75	0	0	0	46	3	0	169
6:15 PM	0	0	0	0	4	0	23	0	17	69	0	0	0	34	5	0	152
6:30 PM	0	0	0	0	0	0	22	0	9	41	1	0	0	26	0	0	99
6:45 PM	0	0	0	0	2	0	8	0	17	40	0	0	0	23	2	0	92
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	2	2	0	0	39	2	360	0	268	886	3	1	0	670	39	0	2272
	50.00%	50.00%	0.00%	0.00%	9.73%	0.50%	89.78%	0.00%	23.14%	76.51%	0.26%	0.09%	0.00%	94.50%	5.50%	0.00%	
PEAK HR:	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL:	2	1	0	0	15	0	133	0	110	357	2	1	0	294	18	0	933
PEAK HR FACTOR:	0.500	0.250	0.000	0.000	0.625	0.000	0.739	0.000	0.833	0.790	0.500	0.250	0.000	0.930	0.750	0.000	0.897
	0.750				0.804				0.851				0.918				

National Data & Surveying Services Intersection Turning Movement Count

Location: Forni Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-004
 Date: 5/4/2023

Data - Bikes

NS/EW Streets:	Forni Rd				Forni Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

National Data & Surveying

Forni Rd & Pleasant Valley Rd / Golden Chain Hwy / SR 49 Services Intersection Turning

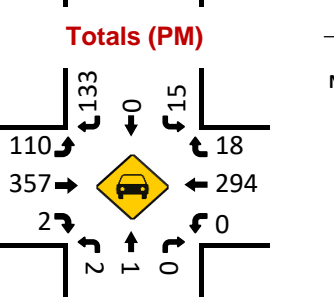
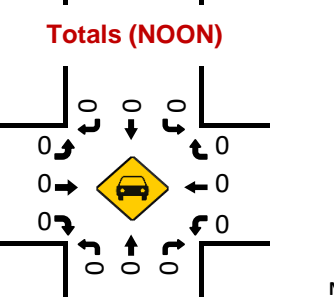
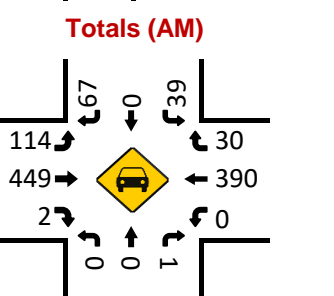
Peak Hour Turning Movement Count

ID: 23-070095-004
City: El Dorado

Day: Thursday
Date: 5/4/2023

PEAK HOURS	Forni Rd					COUNT PERIODS		
	SOUTHBOUND							
08:00 AM - 09:00 AM	AM	67	0	39	0	144	AM	6:00 AM - 09:00 AM
NONE	NOON	0	0	0	0	0	NOON	NONE
04:00 PM - 05:00 PM	PM	133	0	15	0	129	PM	4:00 PM - 07:00 PM

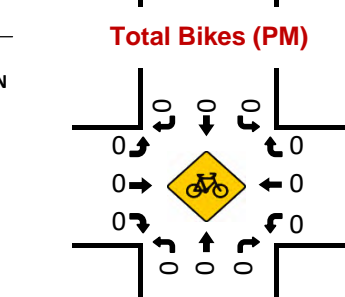
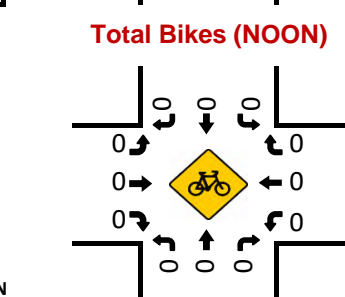
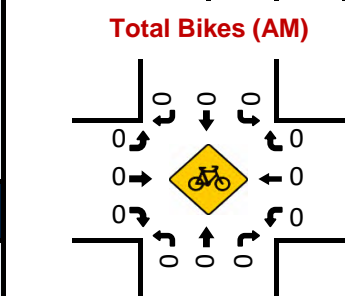
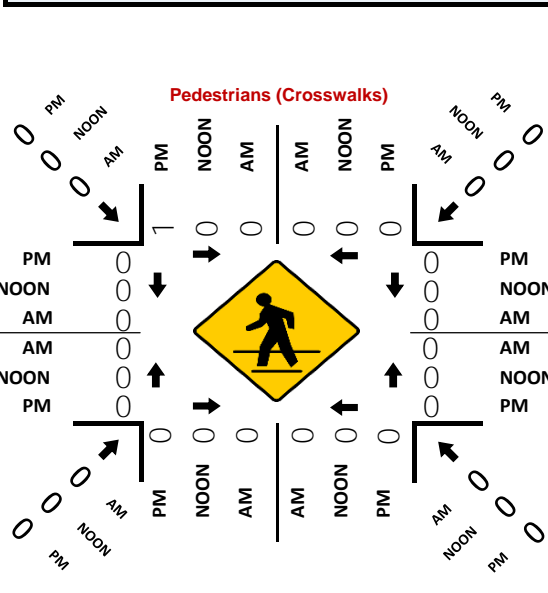
Pleasant Valley Rd/Golden Chain Hwy/SR 49	EASTBOUND			CONTROL	WESTBOUND		
	AM	NOON	PM		PM	NOON	AM
457	0	430	0	1092	0	933	
0	0	1	0	AM	NOON	PM	
114	0	110	0	0.85	0.90		
449	0	357	1				
2	0	2	0				
	AM	NOON	PM				
	372	0	489				
	PM	NOON	AM				



CONTROL

1-Way Stop(SB)

TEV	1092	0	933
PHF	0.85		0.90



National Data & Surveying Services Intersection Turning Movement Count

Location: Koki Ln/Oro Ln & Golden Chain Hwy/SR-49/Pleasant Valley Rd
City: El Dorado
Control: Signalized

Project ID: 22-070074-003
Date: 4/20/2022

Data - Totals

NS/EW Streets:	Koki Ln/Oro Ln				Koki Ln/Oro Ln				Golden Chain Hwy/SR-49/Pleasant Valley Rd				Golden Chain Hwy/SR-49/Pleasant Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	0.5 NT	1 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
6:00 AM	1	0	1	0	2	0	5	1	1	20	1	0	0	29	1	0	62
6:15 AM	1	0	2	0	3	0	0	0	0	24	0	0	1	34	2	0	67
6:30 AM	0	0	0	0	2	0	3	0	0	33	1	0	1	45	1	0	86
6:45 AM	2	0	4	0	4	0	2	0	0	33	1	0	1	45	2	0	94
7:00 AM	5	0	4	0	1	0	2	0	0	39	7	0	10	53	2	0	123
7:15 AM	2	0	16	0	1	0	8	0	0	52	28	0	21	56	3	0	187
7:30 AM	13	0	17	0	4	0	2	0	1	69	22	0	28	57	0	0	213
7:45 AM	11	0	24	0	2	0	1	0	2	53	32	0	54	64	1	0	244
8:00 AM	39	1	54	0	4	1	3	0	0	59	70	0	117	70	1	0	419
8:15 AM	33	1	72	0	4	2	3	0	0	75	94	0	102	68	1	0	455
8:30 AM	12	0	39	0	1	0	1	0	2	97	17	0	26	101	1	0	297
8:45 AM	5	0	6	0	2	1	0	0	1	47	7	0	5	52	1	0	127
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	124	2	239	0	30	4	30	1	7	601	280	0	366	674	16	0	2374
	33.97%	0.55%	65.48%	0.00%	46.15%	6.15%	46.15%	1.54%	0.79%	67.68%	31.53%	0.00%	34.66%	63.83%	1.52%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	95	2	189	0	11	3	8	0	4	284	213	0	299	303	4	0	1415
PEAK HR FACTOR :	0.609	0.500	0.656	0.000	0.688	0.375	0.667	0.000	0.500	0.732	0.566	0.000	0.639	0.750	1.000	0.000	0.777
	0.675				0.611				0.741				0.806				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0.5 NL	0.5 NT	1 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	TOTAL
	4:00 PM	16	0	14	0	2	0	1	0	0	92	16	0	23	83	2	
4:15 PM	10	0	15	0	3	0	0	0	3	93	29	0	10	79	2	0	244
4:30 PM	8	0	9	0	7	0	1	0	2	88	12	0	17	71	3	0	218
4:45 PM	10	0	19	0	2	0	2	0	3	93	11	0	15	69	5	0	229
5:00 PM	9	0	8	0	0	0	1	0	2	92	6	0	10	80	1	0	209
5:15 PM	10	0	20	0	3	0	0	0	1	88	13	0	19	66	4	0	224
5:30 PM	18	0	13	0	1	0	1	0	4	95	21	0	22	53	4	0	232
5:45 PM	17	0	22	0	0	0	2	0	4	89	34	0	13	52	6	0	239
6:00 PM	18	0	27	0	3	0	2	0	2	77	21	0	8	49	3	0	210
6:15 PM	15	0	11	0	2	0	1	0	1	67	17	0	14	40	6	0	174
6:30 PM	6	0	9	0	0	0	1	0	1	72	10	0	9	34	3	0	145
6:45 PM	18	1	24	0	0	0	5	0	4	48	6	0	7	39	3	0	155
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	155	1	191	0	23	0	17	0	27	994	196	0	167	715	42	0	2528
	44.67%	0.29%	55.04%	0.00%	57.50%	0.00%	42.50%	0.00%	2.22%	81.68%	16.11%	0.00%	18.07%	77.38%	4.55%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	44	0	57	0	14	0	4	0	8	366	68	0	65	302	12	0	940
PEAK HR FACTOR :	0.688	0.000	0.750	0.000	0.500	0.000	0.500	0.000	0.667	0.984	0.586	0.000	0.707	0.910	0.600	0.000	0.944
	0.842				0.563				0.884				0.877				

National Data & Surveying Services Intersection Turning Movement Count

Location: Koki Ln/Oro Ln & Golden Chain Hwy/SR-49/Pleasant Valley Rd
City: El Dorado
Control: Signalized

Project ID: 22-070074-003
Date: 4/20/2022

Data - Bikes

NS/EW Streets:	Koki Ln/Oro Ln				Koki Ln/Oro Ln				Golden Chain Hwy/SR-49/Pleasant Valley Rd				Golden Chain Hwy/SR-49/Pleasant Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	0.5 NT	1 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	100.00%	0.00%	0.00%	0.00%	1
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250

NS/EW Streets:	Koki Ln/Oro Ln				Koki Ln/Oro Ln				Golden Chain Hwy/SR-49/Pleasant Valley Rd				Golden Chain Hwy/SR-49/Pleasant Valley Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	0.5 NT	1 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying Services Intersection Turning

Movement Count

Location: Koki Ln/Oro Ln & Golden Chain Hwy/SR-49/Pleasant Valley Rd
 City: El Dorado

Project ID: 22-070074-003
 Date: 4/20/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Koki Ln/Oro Ln		Koki Ln/Oro Ln		Golden Chain Hwy/SR-49/Pleasant Valley Rd		Golden Chain Hwy/SR-49/Pleasant Valley Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	1
7:15 AM	0	0	0	1	0	0	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	1	0	0	0	2	4
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
	0	2	0	2	0	0	0	3	7
APPROACH %'s :	0.00%	100.00%	0.00%	100.00%			0.00%	100.00%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	1	0	1	0	0	0	2	4
PEAK HR FACTOR :		0.250		0.250				0.250	0.250
		0.250		0.250				0.250	

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	2	2
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	2	0	2
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
	0	0	0	0	0	0	2	2	4
APPROACH %'s :							50.00%	50.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	2	2	4
PEAK HR FACTOR :							0.250	0.250	0.500
							0.250	0.250	0.500

National Data & Surveying Services **Intersection**

Koki Ln/Oro Ln & Golden Chain Hwy/SR-49/Pleasant Valley Rd

Turning Movement Count

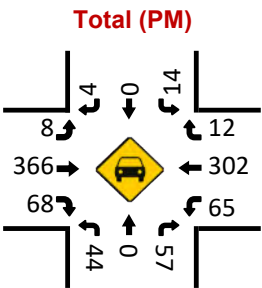
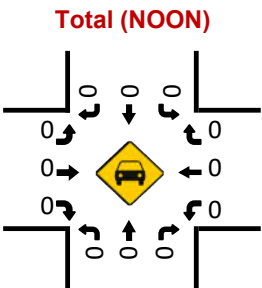
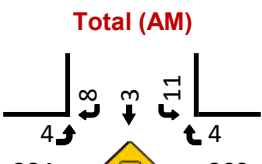
Peak Hour Turning Movement Count

ID: 22-070074-003
 City: El Dorado

Day: Wednesday
 Date: 4/20/2022

PEAK HOURS	Koki Ln/Oro Ln					COUNT PERIODS	
	SOUTHBOUND						
07:45 AM - 08:45 AM	AM	8	3	11	0	10	6:00 AM - 09:00 AM
NONE	NOON	0	0	0	0	0	NONE
04:00 PM - 05:00 PM	PM	4	0	14	0	20	4:00 PM - 07:00 PM

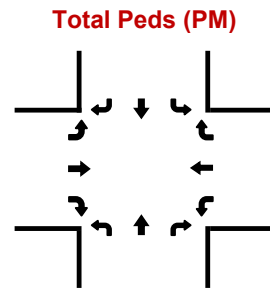
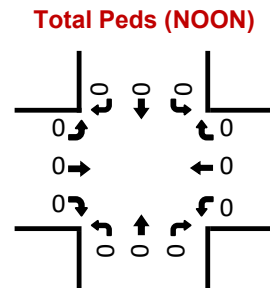
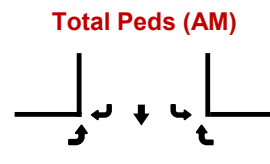
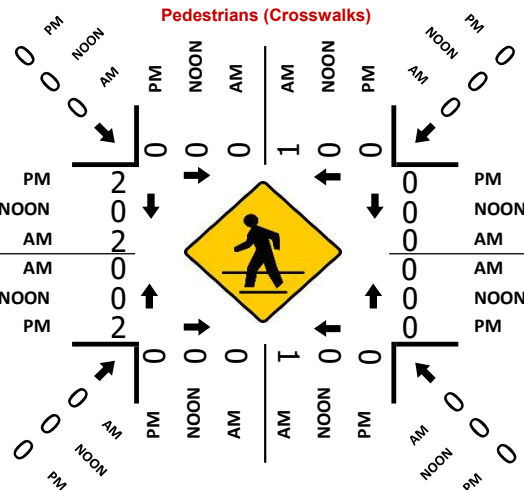
Koki Ln/Oro Ln	Golden Chain Hwy/SR-49/Pleasant Valley Rd			CONTROL	Golden Chain Hwy/SR-49/Pleasant Valley Rd		
	EASTBOUND				WESTBOUND		
	AM	NOON	PM	Signalized	PM	NOON	AM
	406	0	350	TEV 1415 0 940 AM NOON PM	12	0	4
	0	0	0		302	0	303
	4	0	8		65	0	299
	284	0	366	PHF 0.78 0 0.94 AM NOON PM	0	0	0
	213	0	68		437	0	484
	AM	NOON	PM		PM	NOON	AM



NORTHBOUND

Koki Ln/Oro Ln

	PM	NOON	AM	AM	PM
0	133	0	44	0	57
0	0	0	0	0	0
0	515	0	95	2	189



National Data & Surveying Services Intersection Turning Movement Count

Location: Oak Dell Rd & Golden Chain Hwy/SR-49
 City: El Dorado
 Control: 1-Way Stop (NB)

Project ID: 22-070074-004
 Date: 4/20/2022

Data - Totals

NS/EW Streets:	Oak Dell Rd				Oak Dell Rd				Golden Chain Hwy/SR-49				Golden Chain Hwy/SR-49				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
6:00 AM	1	0	0	0	0	0	0	0	0	25	0	0	0	29	0	0	55
6:15 AM	1	0	1	0	0	0	0	0	0	27	2	0	0	36	0	0	67
6:30 AM	1	0	0	0	1	0	0	0	0	34	0	0	0	44	0	0	80
6:45 AM	1	0	0	0	0	0	0	0	0	42	0	0	0	46	0	0	89
7:00 AM	0	0	2	0	0	0	1	0	0	43	1	0	2	65	0	0	114
7:15 AM	0	0	1	0	0	0	0	0	0	68	1	0	2	80	1	0	153
7:30 AM	1	0	0	0	0	0	1	0	0	90	1	0	1	86	0	0	180
7:45 AM	1	0	4	0	0	0	0	0	1	72	6	0	3	119	0	0	206
8:00 AM	1	0	5	0	0	0	1	0	0	100	13	0	9	184	0	0	313
8:15 AM	8	0	16	0	1	0	0	0	0	130	21	0	26	165	0	0	367
8:30 AM	31	0	29	0	0	0	1	0	0	93	47	0	30	91	0	0	322
8:45 AM	10	0	14	0	0	0	0	0	0	50	5	0	6	49	1	0	135
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	56	0	72	0	2	0	4	0	1	774	97	0	79	994	2	0	2081
	43.75%	0.00%	56.25%	0.00%	33.33%	0.00%	66.67%	0.00%	0.11%	88.76%	11.12%	0.00%	7.35%	92.47%	0.19%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	41	0	54	0	1	0	2	0	1	395	87	0	68	559	0	0	1208
PEAK HR FACTOR :	0.331	0.000	0.466	0.000	0.250	0.000	0.500	0.000	0.250	0.760	0.463	0.000	0.567	0.760	0.000	0.000	0.823
	0.396				0.750				0.800				0.812				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
	4:00 PM	4	0	6	0	0	1	0	0	0	108	4	0	6	106	0	0
4:15 PM	4	0	3	0	0	0	0	0	1	101	4	1	8	86	1	0	209
4:30 PM	8	0	10	0	0	0	0	0	0	98	4	0	10	81	0	0	211
4:45 PM	1	0	1	0	0	0	0	0	1	104	7	0	25	89	1	0	229
5:00 PM	6	0	12	0	0	0	0	0	0	95	6	0	14	86	0	0	219
5:15 PM	1	0	2	0	0	0	0	0	0	106	5	0	16	89	0	0	219
5:30 PM	1	0	3	0	1	0	0	0	0	102	6	0	5	82	1	0	201
5:45 PM	0	0	4	0	0	0	0	0	0	109	3	0	1	77	0	0	194
6:00 PM	2	0	2	0	0	0	0	0	0	102	4	0	1	58	0	0	169
6:15 PM	0	0	1	0	0	0	0	0	0	80	0	0	4	60	0	0	145
6:30 PM	7	0	23	0	0	0	0	0	0	84	1	0	0	39	0	0	154
6:45 PM	1	0	18	0	0	0	0	0	0	72	0	0	0	45	0	0	136
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	35	0	85	0	1	1	0	0	2	1161	44	1	90	898	3	0	2321
	29.17%	0.00%	70.83%	0.00%	50.00%	50.00%	0.00%	0.00%	0.17%	96.11%	3.64%	0.08%	9.08%	90.62%	0.30%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	17	0	20	0	0	1	0	0	2	411	19	1	49	362	2	0	884
PEAK HR FACTOR :	0.531	0.000	0.500	0.000	0.000	0.250	0.000	0.000	0.500	0.951	0.679	0.250	0.490	0.854	0.500	0.000	0.940
	0.514				0.250				0.967				0.898				

National Data & Surveying Services Intersection Turning Movement Count

Location: Oak Dell Rd & Golden Chain Hwy/SR-49
 City: El Dorado
 Control: 1-Way Stop (NB)

Project ID: 22-070074-004
 Date: 4/20/2022

Data - Bikes

NS/EW Streets:	Oak Dell Rd				Oak Dell Rd				Golden Chain Hwy/SR-49				Golden Chain Hwy/SR-49					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1		0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR :	07:45 AM - 08:45 AM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0		0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2
PEAK HR :	04:00 PM - 05:00 PM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250

National Data & Surveying Services Intersection Turning

Movement Count

Location: Oak Dell Rd & Golden Chain Hwy/SR-49

Project ID: 22-070074-004

City: El Dorado

Date: 4/20/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Oak Dell Rd		Oak Dell Rd		Golden Chain Hwy/SR-49		Golden Chain Hwy/SR-49		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	1	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	2	0	1	0	0	0	0	3
	0.00%	100.00%	0.00%	100.00%					
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.250								0.250

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	1
6:00 PM	0	0	0	1	0	0	0	0	1
6:15 PM	0	0	1	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	3	2	0	0	1	0	6
			60.00%	40.00%			100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	2	1	0	0	0	0	3
PEAK HR FACTOR :			0.500	0.250					0.750

National Data & Surveying Services **Intersection**

Oak Dell Rd & Golden Chain Hwy/SR-49

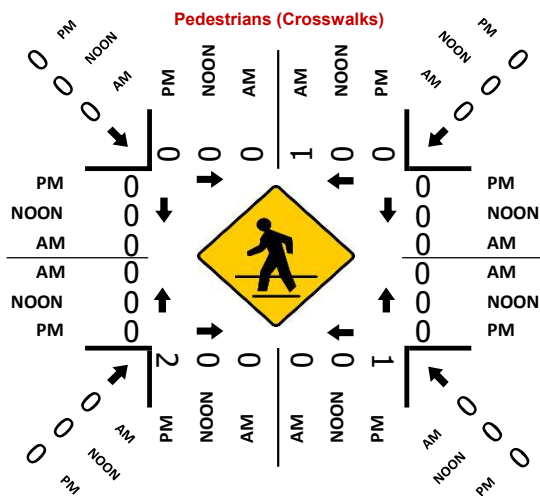
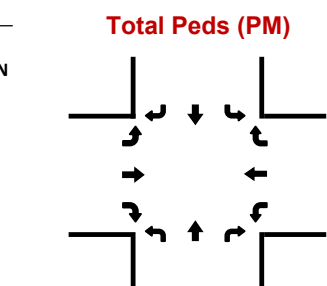
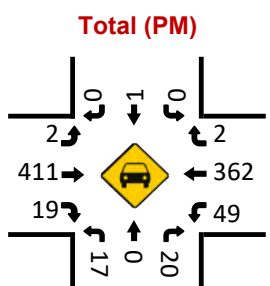
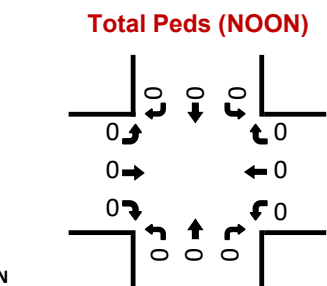
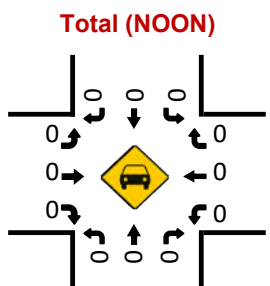
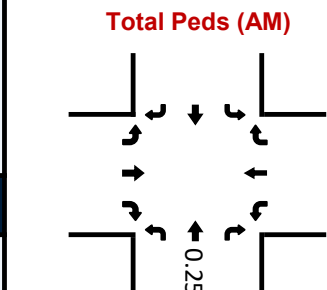
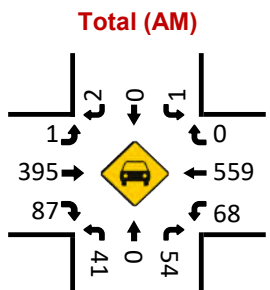
Turning Movement Count

Peak Hour Turning Movement Count

ID: 22-070074-004
City: El Dorado

Day: Wednesday
Date: 4/20/2022

PEAK HOURS		Oak Dell Rd										COUNT PERIODS			
		SOUTHBOUND													
PEAK HOURS	07:45 AM - 08:45 AM	AM	2	0	1	0	1	AM	6:00 AM - 09:00 AM	COUNT PERIODS					
	NONE	NOON	0	0	0	0	0	NOON	NONE						
	04:00 PM - 05:00 PM	PM	0	1	0	0	4	PM	4:00 PM - 07:00 PM						
Golden Chain Hwy/SR-49	EASTBOUND	AM	602	0	380	CONTROL		PM	2	0	0	Golden Chain Hwy/SR-49	WESTBOUND		
		NOON	0	0	1	1-Way Stop (NB)		NOON	362	0	559				
		PM	1	0	2	TEV	1208	0	884	PM	49			0	68
		AM	395	0	411	PHF	0.82	0.94	AM	0	0			0	
		NOON	87	0	19	Oak Dell Rd		NOON	431	0	450				
		PM	69	0	17	NORTHBOUND		PM	0	0	20				
		NOON	0	0	0	Oak Dell Rd		NOON	0	0	0				
		AM	155	0	41			AM	0	0	54				
		AM	0	0	1			AM	0	0	0				
		PM	0	0	0			PM	0	0	0				



National Data & Surveying Services Intersection Turning Movement Count

Location: Patterson Dr & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-005
 Date: 5/4/2023

Data - Totals

NS/EW Streets:	Patterson Dr				Patterson Dr				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				TOTAL	
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
AM	1	0	1	0	0	0	0	0	0	1	1	0	1	1	0	0	TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
6:00 AM	5	0	11	0	0	0	0	0	0	13	2	0	2	19	0	0	52	
6:15 AM	11	0	10	0	0	0	0	0	0	21	5	0	1	32	0	0	80	
6:30 AM	17	0	16	0	0	0	0	0	0	26	3	0	5	33	0	0	100	
6:45 AM	14	0	13	0	0	0	0	0	0	32	3	0	6	34	0	0	102	
7:00 AM	19	0	19	0	0	0	0	0	0	37	4	0	1	46	0	0	126	
7:15 AM	21	0	24	0	0	0	0	0	0	47	9	0	9	63	0	0	173	
7:30 AM	16	0	41	0	0	0	0	0	0	69	6	0	4	81	0	0	217	
7:45 AM	19	0	40	0	0	0	0	0	0	73	12	0	13	85	0	0	242	
8:00 AM	32	0	28	0	0	0	0	0	0	73	14	0	16	151	0	0	314	
8:15 AM	25	0	33	0	0	0	0	0	0	121	17	0	8	166	0	0	370	
8:30 AM	24	0	20	0	0	0	0	0	0	151	22	0	14	139	0	0	370	
8:45 AM	10	0	20	0	0	0	0	0	0	117	13	0	9	75	0	0	244	
TOTAL VOLUMES:	213	0	275	0	0	0	0	0	0	780	110	0	88	924	0	0	2390	
APPROACH %'s:	43.65%		0.00%	56.35%	0.00%					0.00%	87.64%	12.36%	0.00%	8.70%	91.30%	0.00%	0.00%	
PEAK HR:	08:00 AM - 09:00 AM																	
PEAK HR VOL:	91	0	101	0	0	0	0	0	0	462	66	0	47	531	0	0	1298	
PEAK HR FACTOR:	0.711	0.000	0.765	0.000	0.000	0.000	0.000	0.000	0.000	0.765	0.750	0.000	0.734	0.800	0.000	0.000	0.877	
	0.800								0.763				0.830					
PM	1	0	1	0	0	0	0	0	0	1	1	0	1	1	0	0	TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
4:00 PM	18	0	16	0	0	0	0	0	0	115	21	0	39	80	0	0	289	
4:15 PM	9	0	19	0	0	0	0	0	0	82	15	0	42	76	0	0	243	
4:30 PM	15	0	18	0	0	0	0	0	0	88	19	0	23	72	0	0	235	
4:45 PM	13	0	28	0	0	0	0	0	0	60	18	0	41	71	0	0	231	
5:00 PM	6	0	18	0	0	0	0	0	0	76	19	0	28	75	0	0	222	
5:15 PM	13	0	19	0	0	0	0	0	0	72	13	0	30	82	0	0	229	
5:30 PM	12	0	22	0	0	0	0	0	0	64	20	0	32	66	0	0	216	
5:45 PM	13	0	23	0	0	0	0	0	0	67	20	0	23	68	0	0	214	
6:00 PM	12	0	14	0	0	0	0	0	0	74	22	0	21	61	0	0	204	
6:15 PM	12	0	16	0	0	0	0	0	0	65	17	0	19	53	0	0	182	
6:30 PM	10	0	12	0	0	0	0	0	0	37	15	0	20	35	0	0	129	
6:45 PM	2	0	9	0	0	0	0	0	0	34	12	0	16	27	0	0	100	
TOTAL VOLUMES:	135	0	214	0	0	0	0	0	0	834	211	0	334	766	0	0	2494	
APPROACH %'s:	38.68%		0.00%	61.32%	0.00%					0.00%	79.81%	20.19%	0.00%	30.36%	69.64%	0.00%	0.00%	
PEAK HR:	04:00 PM - 05:00 PM																	
PEAK HR VOL:	55	0	81	0	0	0	0	0	0	345	73	0	145	299	0	0	998	
PEAK HR FACTOR:	0.764	0.000	0.723	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.869	0.000	0.863	0.934	0.000	0.000	0.863	
	0.829								0.768				0.933					

National Data & Surveying Services Intersection Turning Movement Count

Location: Patterson Dr & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-005
 Date: 5/4/2023

Data - Bikes

NS/EW Streets:	Patterson Dr				Patterson Dr				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	0	1	0	0	0	0	0	0	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	0	1	0	0	0	0	0	0	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0.00%	100.00%	0.00%	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

National Data & Surveying Services **Intersection Turning**

Movement Count

Location: Patterson Dr & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs

Project ID: 23-070095-005
 Date: 5/4/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Patterson Dr		Patterson Dr		Pleasant Valley Rd/Golden Chain Hwy/SR 49		Pleasant Valley Rd/Golden Chain Hwy/SR 49		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	1	0	0	0	0	1
			0.00%	100.00%					
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	1
5:30 PM	0	0	1	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	1	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	2	2	0	0	0	0	4
			50.00%	50.00%					
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	1	0	0	0	0	1
PEAK HR FACTOR :			0.250						0.250

National Data & Surveying

Patterson Dr & Pleasant Valley Rd / Golden Chain Hwy / SR 49 Services Intersection Turning

Peak Hour Turning Movement Count

ID: 23-070095-005
City: Diamond Springs

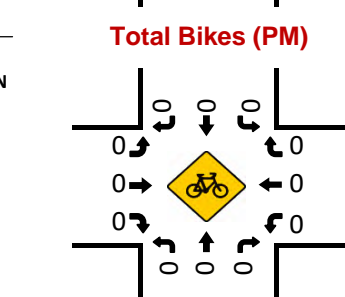
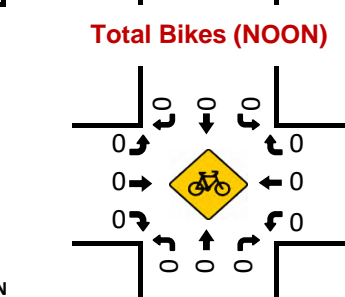
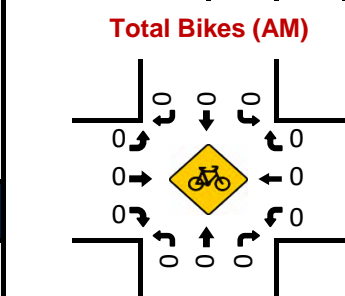
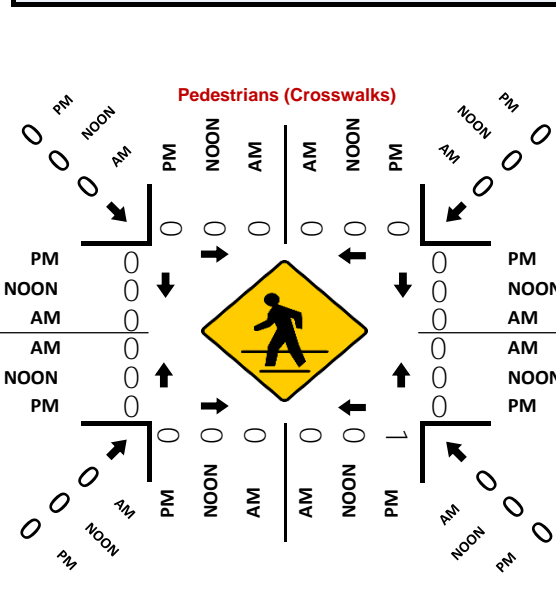
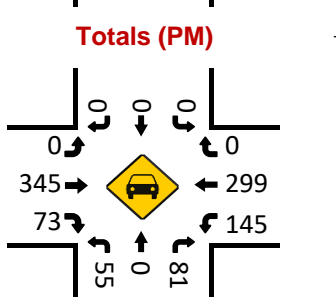
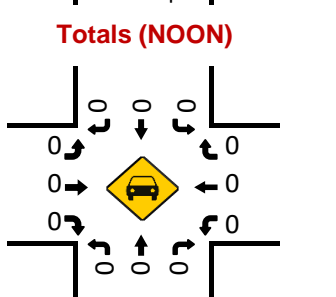
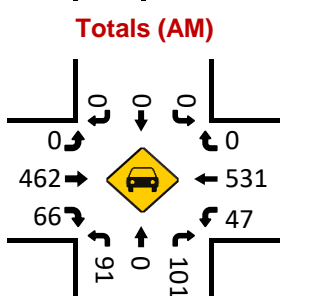
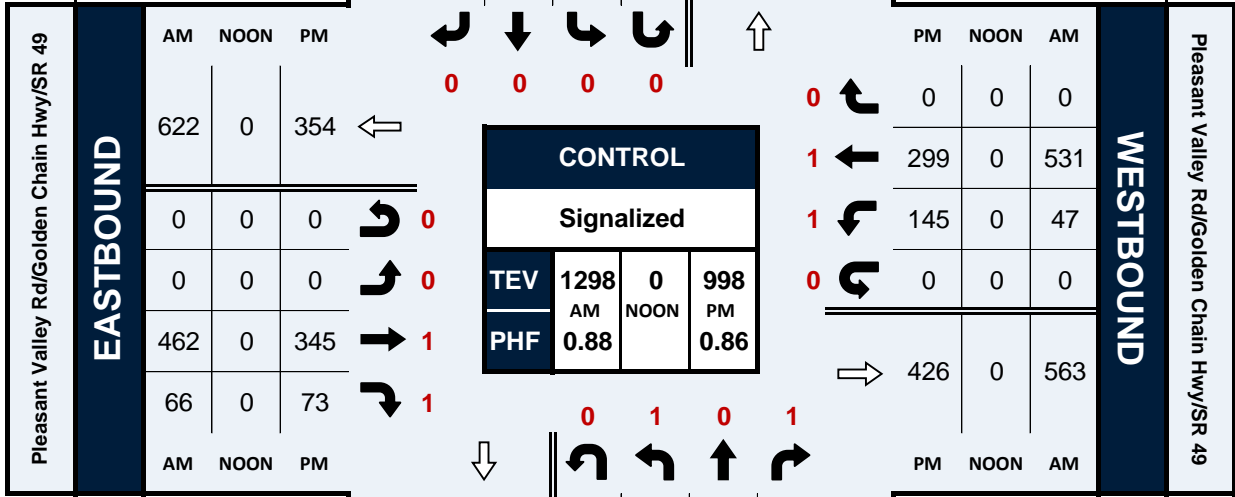
Day: Thursday
Date: 5/4/2023

PEAK HOURS

08:00 AM - 09:00 AM
NONE
04:00 PM - 05:00 PM

COUNT PERIODS

6:00 AM - 09:00 AM
NONE
4:00 PM - 07:00 PM



National Data & Surveying Services Intersection Turning Movement Count

Location: Missouri Flat Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-006
 Date: 5/4/2023

Data - Totals

NS/EW Streets:	Missouri Flat Rd				Missouri Flat Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	1	0	1	0	2	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	15	0	11	0	25	10	0	0	0	17	76	0	154
6:15 AM	0	0	0	0	19	0	12	0	23	18	0	0	0	29	80	0	181
6:30 AM	0	0	0	0	31	0	9	0	31	19	0	0	0	40	93	0	223
6:45 AM	0	0	0	0	33	0	11	0	31	28	0	0	0	46	97	0	246
7:00 AM	0	0	0	0	30	0	25	0	28	31	0	0	0	38	96	0	248
7:15 AM	0	0	0	0	34	0	19	0	46	30	0	0	0	62	122	0	313
7:30 AM	0	0	0	0	34	0	19	0	68	47	0	0	0	83	124	0	375
7:45 AM	0	0	0	0	64	0	41	0	70	55	0	0	0	90	122	0	442
8:00 AM	0	0	0	0	64	0	81	0	65	37	0	0	0	116	92	0	455
8:15 AM	0	0	0	0	54	0	53	0	78	66	0	0	0	119	106	0	476
8:30 AM	0	0	0	0	50	0	61	0	109	84	0	0	0	89	121	0	514
8:45 AM	0	0	0	0	62	0	35	0	77	64	0	0	0	65	153	0	456
TOTAL VOLUMES :	0	0	0	0	490	0	377	0	651	489	0	0	0	794	1282	0	4083
APPROACH %'s :					56.52%	0.00%	43.48%	0.00%	57.11%	42.89%	0.00%	0.00%	0.00%	38.25%	61.75%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	230	0	230	0	329	251	0	0	0	389	472	0	1901
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.898	0.000	0.710	0.000	0.755	0.747	0.000	0.000	0.000	0.817	0.771	0.000	0.925
					0.793				0.751				0.957				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	1	0	1	0	2	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	124	0	65	0	57	88	0	0	0	56	80	0	470
4:15 PM	0	0	0	0	151	0	65	0	44	76	0	0	0	56	88	0	480
4:30 PM	0	0	0	0	127	0	51	0	62	61	0	0	0	45	76	0	422
4:45 PM	0	0	0	0	142	0	60	0	47	62	0	0	0	55	90	0	456
5:00 PM	0	0	0	0	159	0	56	0	46	77	0	0	0	52	76	0	466
5:15 PM	0	0	0	0	150	0	61	0	37	61	0	0	0	68	71	0	448
5:30 PM	0	0	0	0	136	0	50	0	42	61	0	0	0	45	84	0	418
5:45 PM	0	0	0	0	138	0	49	0	49	56	0	0	0	45	74	0	411
6:00 PM	0	0	0	0	114	0	49	0	36	60	0	0	0	36	52	0	347
6:15 PM	0	0	0	0	105	0	36	0	44	52	0	0	0	39	52	0	328
6:30 PM	0	0	0	0	92	0	30	0	27	33	0	0	0	28	46	0	256
6:45 PM	0	0	0	0	72	0	22	0	25	30	0	0	0	19	52	0	220
TOTAL VOLUMES :	0	0	0	0	1510	0	594	0	516	717	0	0	0	544	841	0	4722
APPROACH %'s :					71.77%	0.00%	28.23%	0.00%	41.85%	58.15%	0.00%	0.00%	0.00%	39.28%	60.72%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	544	0	241	0	210	287	0	0	0	212	334	0	1828
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.901	0.000	0.927	0.000	0.847	0.815	0.000	0.000	0.000	0.946	0.928	0.000	0.952
					0.909				0.857				0.941				

National Data & Surveying Services Intersection Turning Movement Count

Location: Missouri Flat Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-006
 Date: 5/4/2023

Data - Bikes

NS/EW Streets:	Missouri Flat Rd				Missouri Flat Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	1	0	1	0	2	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	TOTAL
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%									
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	1	0	1	0	2	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	1	0	0	2	0	0	0	0	TOTAL
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	33.33%	0.00%	0.00%	66.67%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

National Data & Surveying Services **Intersection Turning**

Movement Count

Location: Missouri Flat Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs

Project ID: 23-070095-006
 Date: 5/4/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Missouri Flat Rd		Missouri Flat Rd		Pleasant Valley Rd/Golden Chain Hwy/SR 49		Pleasant Valley Rd/Golden Chain Hwy/SR 49		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	2	0	0	0	0	0	0	0	2
	100.00%	0.00%							
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	2	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.500								0.500
		0.500							

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	2	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	2	0	0	0	0	0	1	3
	0.00%	100.00%					0.00%	100.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	2	0	0	0	0	0	0	2
PEAK HR FACTOR :		0.250							0.250
		0.250							

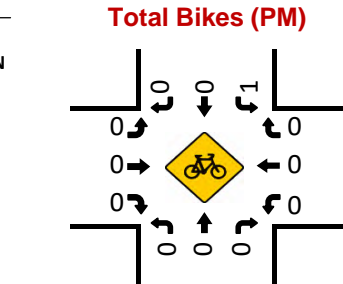
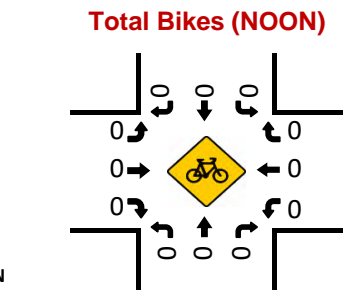
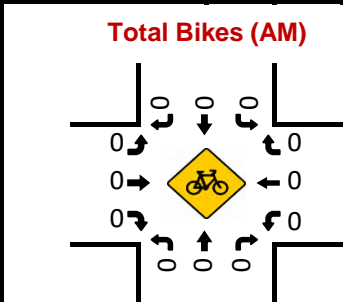
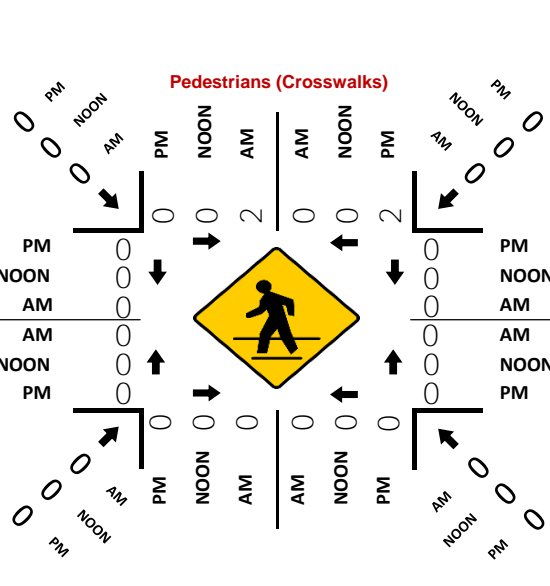
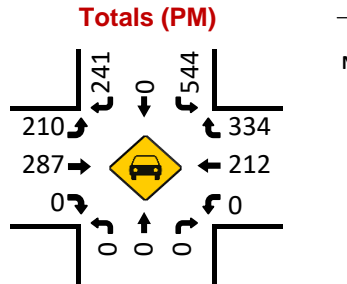
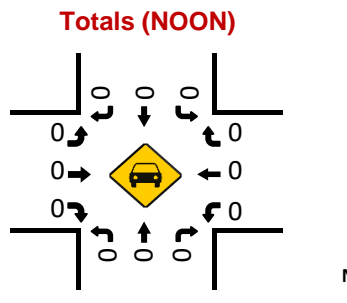
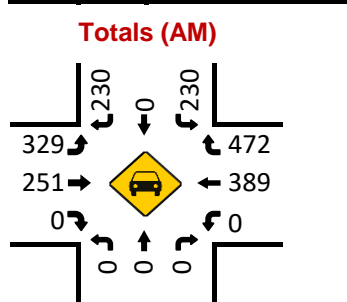
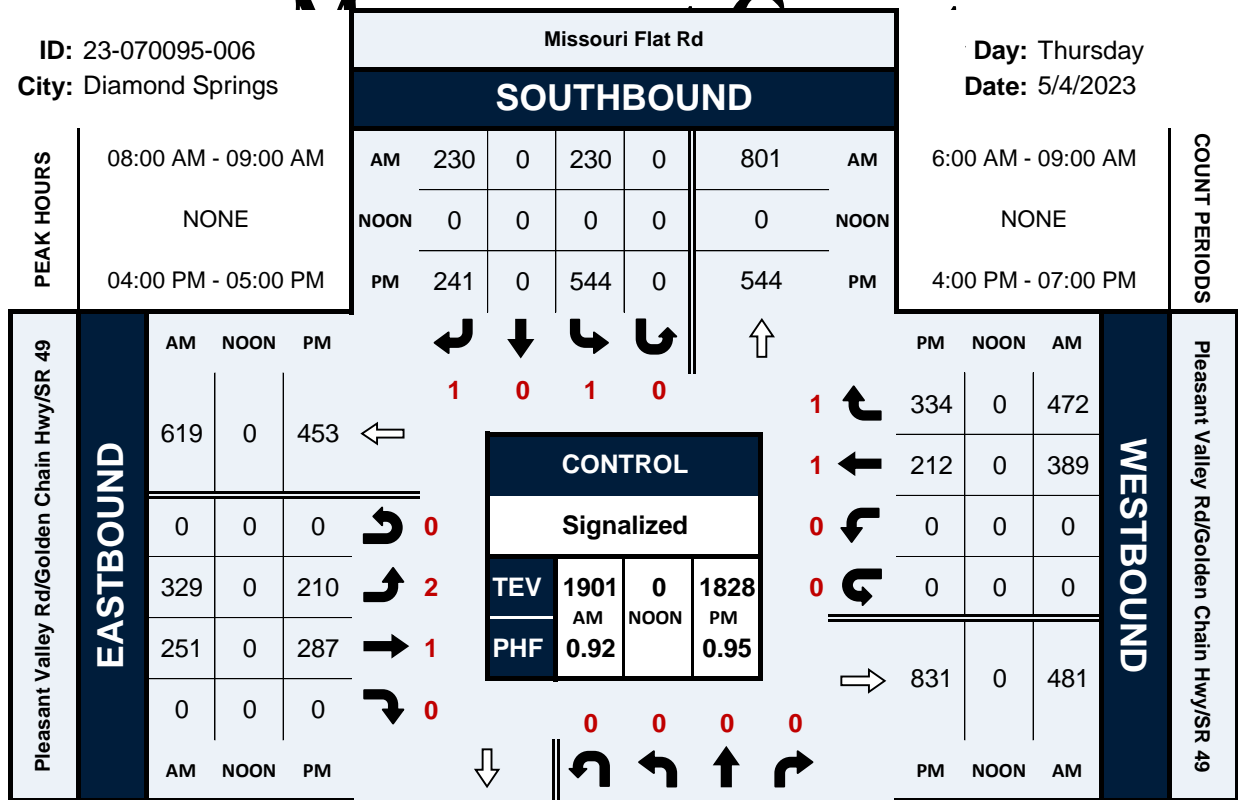
National Data & Surveying

Missouri Flat Rd & Pleasant Valley Rd / Golden Chain Hwy / SR 49 Services Intersection Turning

Peak Hour Turning Movement Count

ID: 23-070095-006
City: Diamond Springs

Day: Thursday
Date: 5/4/2023



National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Union Mine Rd
City: El Dorado
Control: 1-Way Stop (WB)

Project ID: 22-070074-001
Date: 4/20/2022

Data - Totals

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Union Mine Rd				Union Mine Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	38	0	0	1	16	0	0	0	0	0	0	0	6	0	61	
6:15 AM	0	47	0	0	3	27	0	0	0	0	0	1	0	4	0	82	
6:30 AM	0	49	0	0	3	23	0	0	0	0	0	1	0	6	0	82	
6:45 AM	0	51	0	0	4	21	0	0	0	0	0	0	0	8	0	84	
7:00 AM	0	57	1	0	6	21	0	0	0	0	0	0	0	21	0	106	
7:15 AM	0	76	0	0	12	27	0	0	0	0	0	0	0	20	0	135	
7:30 AM	0	71	0	0	9	30	0	0	0	0	0	1	0	21	0	132	
7:45 AM	0	89	1	0	21	31	0	0	0	0	0	0	0	15	0	157	
8:00 AM	0	75	7	0	30	34	0	0	0	0	0	2	0	29	0	177	
8:15 AM	0	89	11	0	53	42	0	0	0	0	0	6	0	46	0	247	
8:30 AM	0	64	1	0	27	47	0	0	0	0	0	1	0	27	0	167	
8:45 AM	0	57	0	0	7	46	0	0	0	0	0	0	0	16	0	126	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	763	21	0	176	365	0	0	0	0	0	0	12	0	219	0	1556
	0.00%	97.32%	2.68%	0.00%	32.53%	67.47%	0.00%	0.00%					5.19%	0.00%	94.81%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	317	20	0	131	154	0	0	0	0	0	0	9	0	117	0	748
PEAK HR FACTOR :	0.000	0.890	0.455	0.000	0.618	0.819	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.636	0.000	0.757
	0.843				0.750								0.606				
PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	62	1	0	30	77	0	0	0	0	0	1	0	22	0	193	
4:15 PM	0	62	2	0	22	91	0	0	0	0	0	0	0	15	0	192	
4:30 PM	0	53	0	0	25	86	0	0	0	0	0	0	0	18	0	182	
4:45 PM	0	43	1	0	24	92	0	0	0	0	0	0	0	10	0	170	
5:00 PM	0	41	2	0	23	92	0	0	0	0	0	1	0	13	0	172	
5:15 PM	0	41	0	0	24	88	0	0	0	0	0	0	0	10	0	163	
5:30 PM	0	77	3	0	15	70	0	0	0	0	0	2	0	17	0	184	
5:45 PM	0	52	0	0	15	61	0	0	0	0	0	1	0	31	0	160	
6:00 PM	0	44	1	0	15	67	0	0	0	0	0	2	0	37	0	166	
6:15 PM	0	30	0	0	8	68	0	0	0	0	0	2	0	34	0	142	
6:30 PM	0	26	0	0	13	47	0	0	0	0	0	1	0	28	0	115	
6:45 PM	0	37	0	0	10	40	0	0	0	0	0	0	0	16	0	103	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	568	10	0	224	879	0	0	0	0	0	0	10	0	251	0	1942
	0.00%	98.27%	1.73%	0.00%	20.31%	79.69%	0.00%	0.00%					3.83%	0.00%	96.17%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	220	4	0	101	346	0	0	0	0	0	0	1	0	65	0	737
PEAK HR FACTOR :	0.000	0.887	0.500	0.000	0.842	0.940	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.739	0.000	0.955
	0.875				0.963								0.717				

National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Union Mine Rd
City: El Dorado
Control: 1-Way Stop (WB)

Project ID: 22-070074-001
Date: 4/20/2022

Data - Bikes

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Union Mine Rd				Union Mine Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Union Mine Rd				Union Mine Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

National Data & Surveying Services Intersection

Golden Chain Hwy & Union Mine Rd

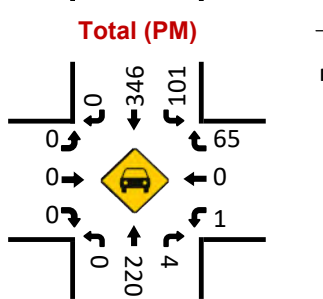
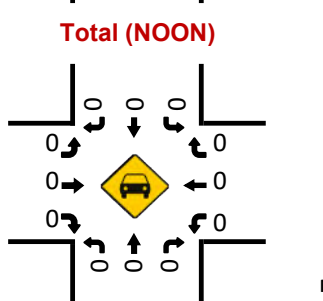
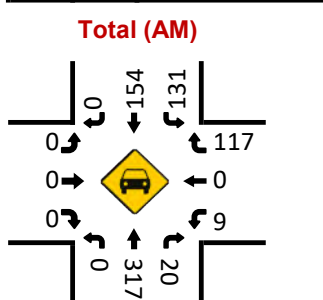
Turning Movement Count

Real Hour Turning Movement Count

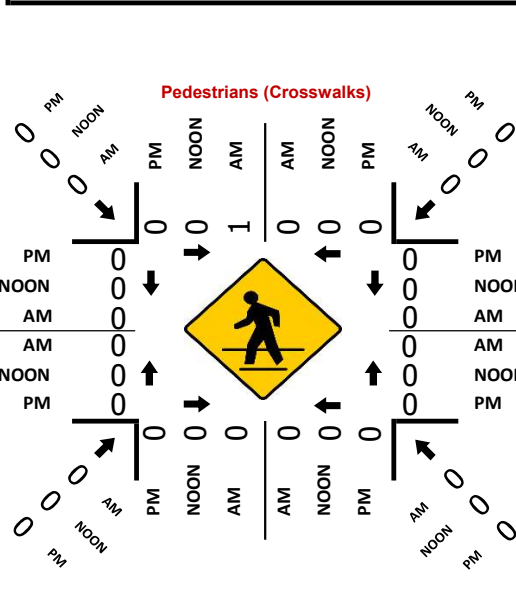
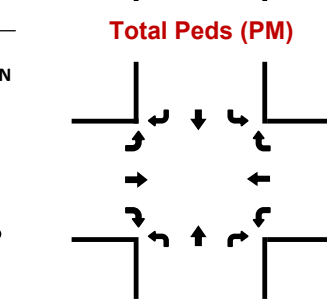
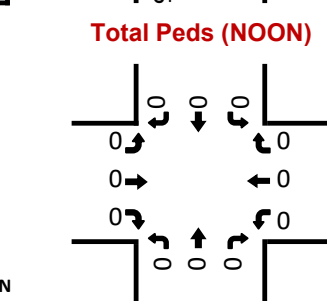
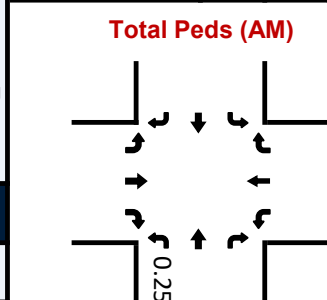
ID: 22-070074-001
City: El Dorado

Day: Wednesday
Date: 4/20/2022

PEAK HOURS		Golden Chain Hwy						COUNT PERIODS																																																																																	
		SOUTHBOUND																																																																																							
07:45 AM - 08:45 AM NONE 04:00 PM - 05:00 PM	AM	0	154	131	0	434	AM	6:00 AM - 09:00 AM NONE 4:00 PM - 07:00 PM																																																																																	
	NOON	0	0	0	0	0	NOON																																																																																		
	PM	0	346	101	0	285	PM																																																																																		
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		NORTHBOUND					
PM	347	0	0	220	4	PM	
NOON	0	0	0	0	0	NOON	
AM	163	0	0	317	20	AM	



National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Mother Lode Dr
 City: El Dorado
 Control: 3-Way Stop(NB/EB/WB)

Project ID: 23-070095-001
 Date: 4/29/2023

Data - Totals

NS/EW Streets:	Farm Rd				Farm Rd				Mother Lode Dr				Mother Lode Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	60	0	3	0	0	0	0	0	0	19	1	0	1	23	0	0	107
11:15 AM	62	0	4	0	0	0	0	0	0	26	0	0	1	10	0	0	103
11:30 AM	61	0	2	0	0	0	0	0	0	16	0	0	2	21	0	0	102
11:45 AM	67	0	2	0	0	0	0	0	0	20	1	0	4	22	0	0	116
12:00 PM	51	0	1	0	0	0	0	0	0	24	0	0	1	19	0	0	96
12:15 PM	58	0	5	0	0	0	0	0	0	15	2	0	3	19	0	0	102
12:30 PM	48	0	8	0	0	0	0	0	0	18	0	0	2	8	0	0	84
12:45 PM	52	0	4	0	0	0	0	0	0	22	0	0	1	9	0	0	88
1:00 PM	83	0	1	0	0	0	0	0	0	16	0	0	4	15	0	0	119
1:15 PM	79	0	4	0	0	0	0	0	0	21	0	0	2	14	0	0	120
1:30 PM	59	0	4	0	0	0	0	0	0	18	0	0	2	15	0	0	98
1:45 PM	75	0	2	0	0	0	0	0	0	22	0	0	0	17	0	0	116
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	755	0	40	0	0	0	0	0	0	237	4	0	23	192	0	0	1251
	94.97%	0.00%	5.03%	0.00%					0.00%	98.34%	1.66%	0.00%	10.70%	89.30%	0.00%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	296	0	11	0	0	0	0	0	0	77	0	0	8	61	0	0	453
PEAK HR FACTOR :	0.892	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.875	0.000	0.000	0.500	0.897	0.000	0.000	0.944
	0.914								0.875				0.908				

National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Mother Lode Dr
 City: El Dorado
 Control: 3-Way Stop(NB/EB/WB)

Project ID: 23-070095-001
 Date: 4/29/2023

Data - Bikes

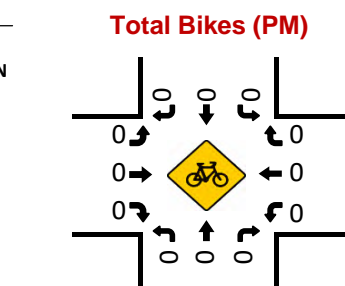
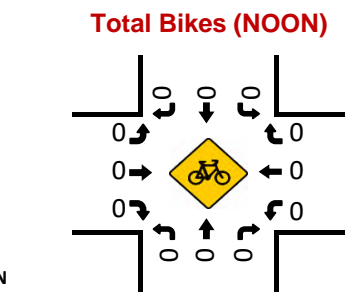
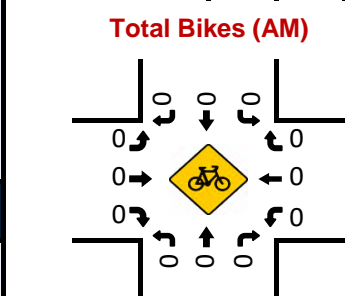
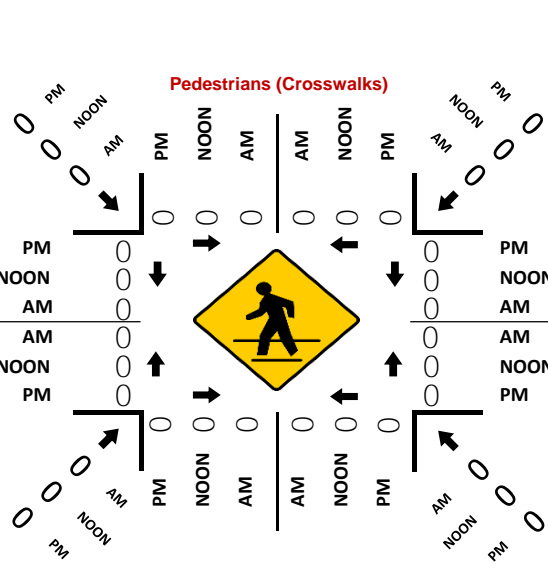
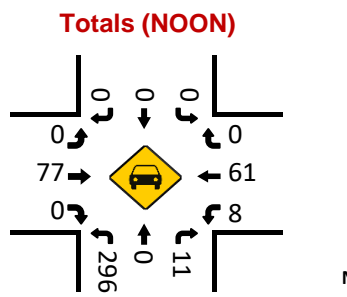
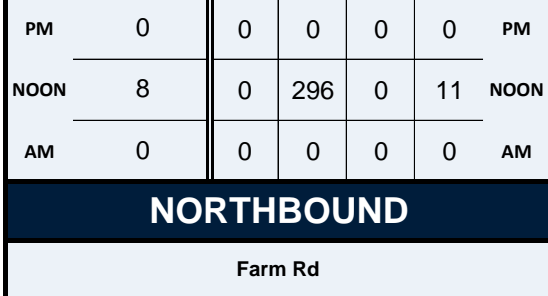
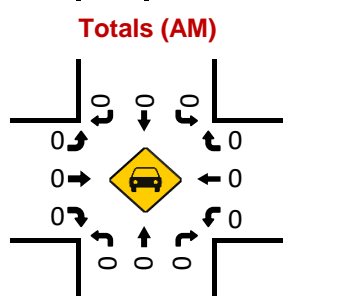
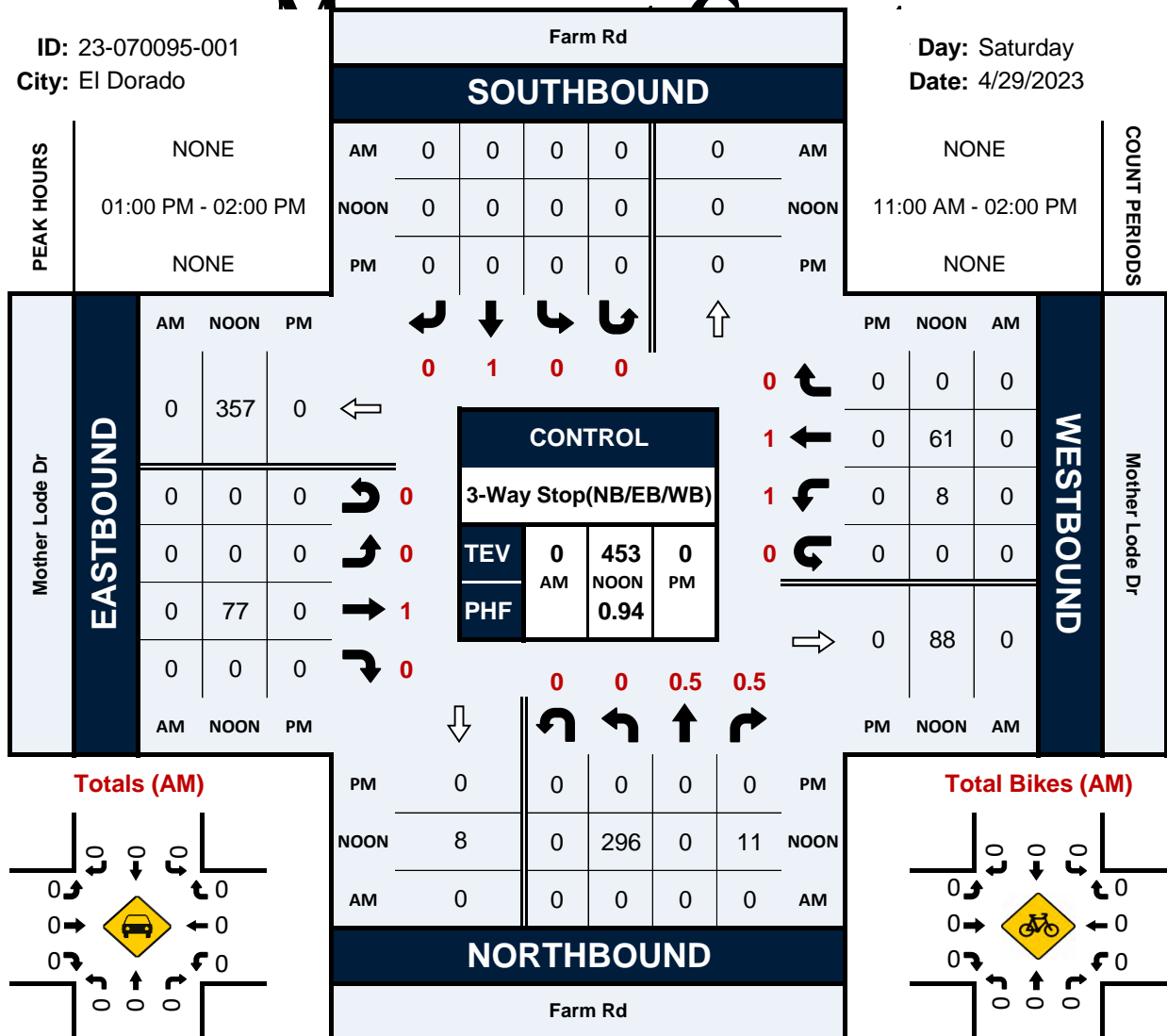
NS/EW Streets:	Farm Rd				Farm Rd				Mother Lode Dr				Mother Lode Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0.5	0.5	0	0	1	0	0	0	1	0	0	1	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	10
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	10
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying

Services Farm Rd & Mother Lode Dr Intersection Turning Peak Hour Turning Movement Count

ID: 23-070095-001
City: El Dorado

Day: Saturday
Date: 4/29/2023



National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-002
 Date: 4/29/2023

Data - Totals

NS/EW Streets:	Farm Rd				Farm Rd				Pleasant Valley Rd				Pleasant Valley Rd					
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
11:00 AM	0	1	0	0	2	0	0	0	0	56	0	0	0	0	0	64	0	123
11:15 AM	0	0	0	0	1	0	0	0	0	58	0	0	0	0	0	64	0	123
11:30 AM	0	1	0	0	2	0	0	0	0	43	0	0	0	0	0	63	0	109
11:45 AM	0	1	0	0	5	0	0	0	0	54	0	0	0	0	0	66	0	127
12:00 PM	0	0	1	0	1	0	0	0	0	67	0	0	0	1	0	53	0	123
12:15 PM	0	0	0	0	5	0	0	0	0	58	0	0	0	0	0	62	0	125
12:30 PM	0	0	0	0	2	0	0	0	0	56	0	0	0	0	0	56	0	114
12:45 PM	0	0	1	0	1	0	0	0	0	40	1	0	0	0	0	59	0	102
1:00 PM	0	0	0	0	4	0	0	0	0	61	0	0	0	0	0	81	0	147
1:15 PM	0	0	0	0	2	0	0	0	0	67	1	0	0	0	0	82	0	152
1:30 PM	0	0	0	0	2	0	0	0	0	57	0	0	0	0	0	62	0	122
1:45 PM	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	79	0	129
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	3	2	0	27	0	0	0	3	667	2	0	1	0	791	0	1496	
	0.00%	60.00%	40.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.45%	99.26%	0.30%	0.00%	0.13%	0.00%	99.87%	0.00%		
PEAK HR :	01:00 PM - 02:00 PM																TOTAL	
PEAK HR VOL :	0	0	0	0	8	0	0	0	2	235	1	0	0	0	304	0	550	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.877	0.250	0.000	0.000	0.000	0.927	0.000	0.905	
					0.500				0.875				0.927					

National Data & Surveying Services Intersection Turning Movement Count

Location: Farm Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-002
 Date: 4/29/2023

Data - Bikes

NS/EW Streets:	Farm Rd				Farm Rd				Pleasant Valley Rd				Pleasant Valley Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%	100.00%	0.00%	9
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

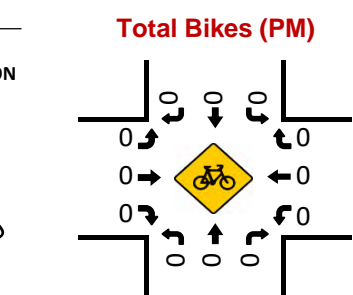
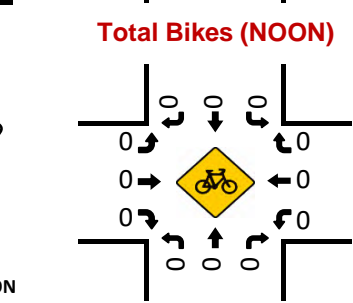
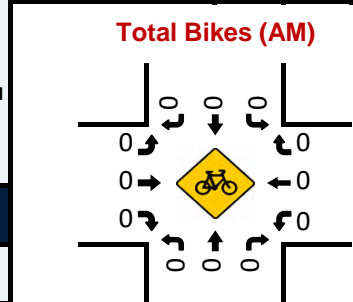
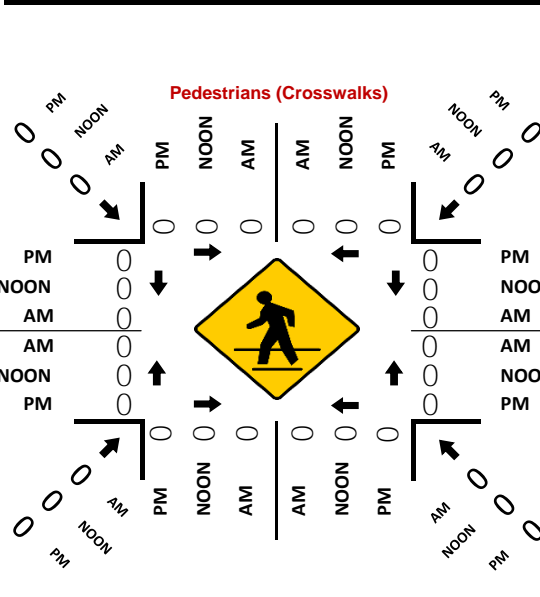
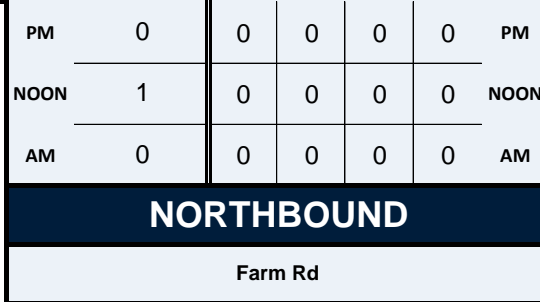
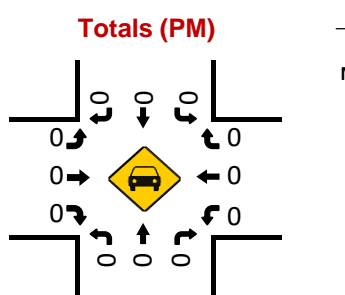
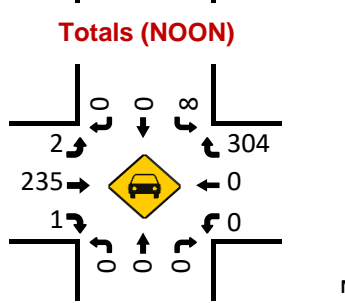
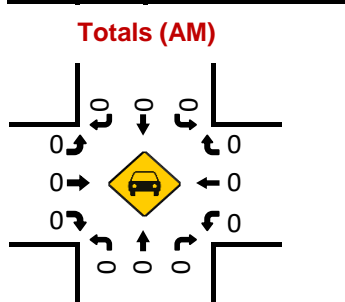
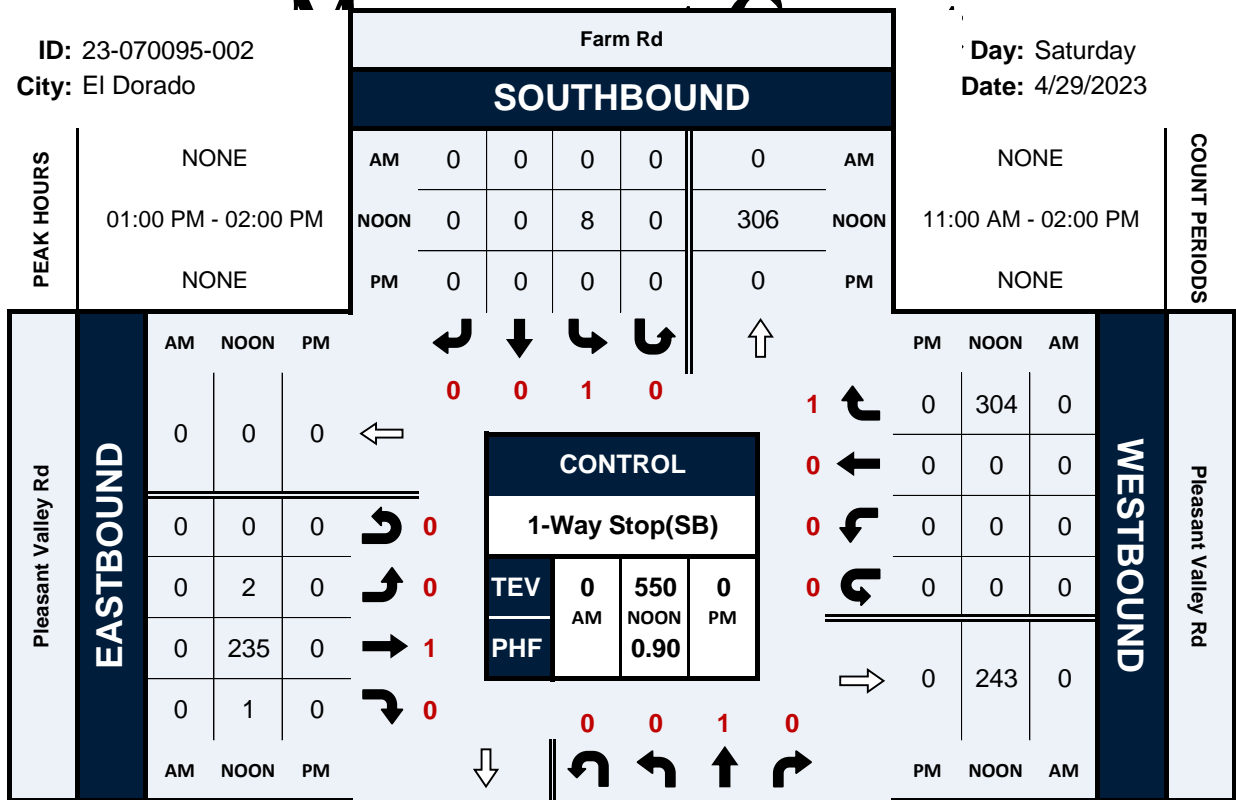
National Data & Surveying

Farm Rd & Pleasant Valley Rd Services Intersection Turning

Peak Hour Turning Movement Count

ID: 23-070095-002
City: El Dorado

Day: Saturday
Date: 4/29/2023



National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-003
 Date: 4/29/2023

Data - Totals

NS/EW Streets:	El Dorado Rd				El Dorado Rd				Pleasant Valley Rd				Pleasant Valley Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	13	0	6	0	3	54	0	0	0	55	11	0	142
11:15 AM	0	0	0	0	11	0	2	0	3	53	0	0	0	70	11	0	150
11:30 AM	0	0	0	0	22	0	0	0	1	55	0	0	0	60	20	0	158
11:45 AM	0	0	0	0	14	0	2	0	0	59	0	0	0	63	9	0	147
12:00 PM	0	0	0	0	20	0	0	0	3	67	0	0	0	60	11	0	161
12:15 PM	0	0	0	0	12	0	3	0	0	63	0	0	0	58	7	0	143
12:30 PM	0	0	0	0	15	0	1	0	0	60	0	0	0	58	14	0	148
12:45 PM	0	0	0	0	19	0	1	0	1	40	0	0	0	48	7	0	116
1:00 PM	0	0	0	0	15	0	2	0	0	68	0	0	0	90	12	0	187
1:15 PM	0	0	0	0	14	0	1	0	2	71	0	1	0	78	16	0	183
1:30 PM	0	0	0	0	11	0	1	0	0	56	0	0	0	63	13	0	144
1:45 PM	0	0	0	0	14	0	0	0	0	57	0	0	0	80	13	0	164
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	180	0	19	0	13	703	0	1	0	783	144	0	1843
PEAK HR :	01:00 PM - 02:00 PM				90.45%	0.00%	9.55%	0.00%	1.81%	98.05%	0.00%	0.14%	0.00%	84.47%	15.53%	0.00%	TOTAL
PEAK HR VOL :	0	0	0	0	54	0	4	0	2	252	0	1	0	311	54	0	678
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.900	0.000	0.500	0.000	0.250	0.887	0.000	0.250	0.000	0.864	0.844	0.000	0.906
					0.853				0.861				0.895				

National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Rd & Pleasant Valley Rd
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-003
 Date: 4/29/2023

Data - Bikes

NS/EW Streets:	El Dorado Rd				El Dorado Rd				Pleasant Valley Rd				Pleasant Valley Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	100.00%	0.00%	0.00%	9
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

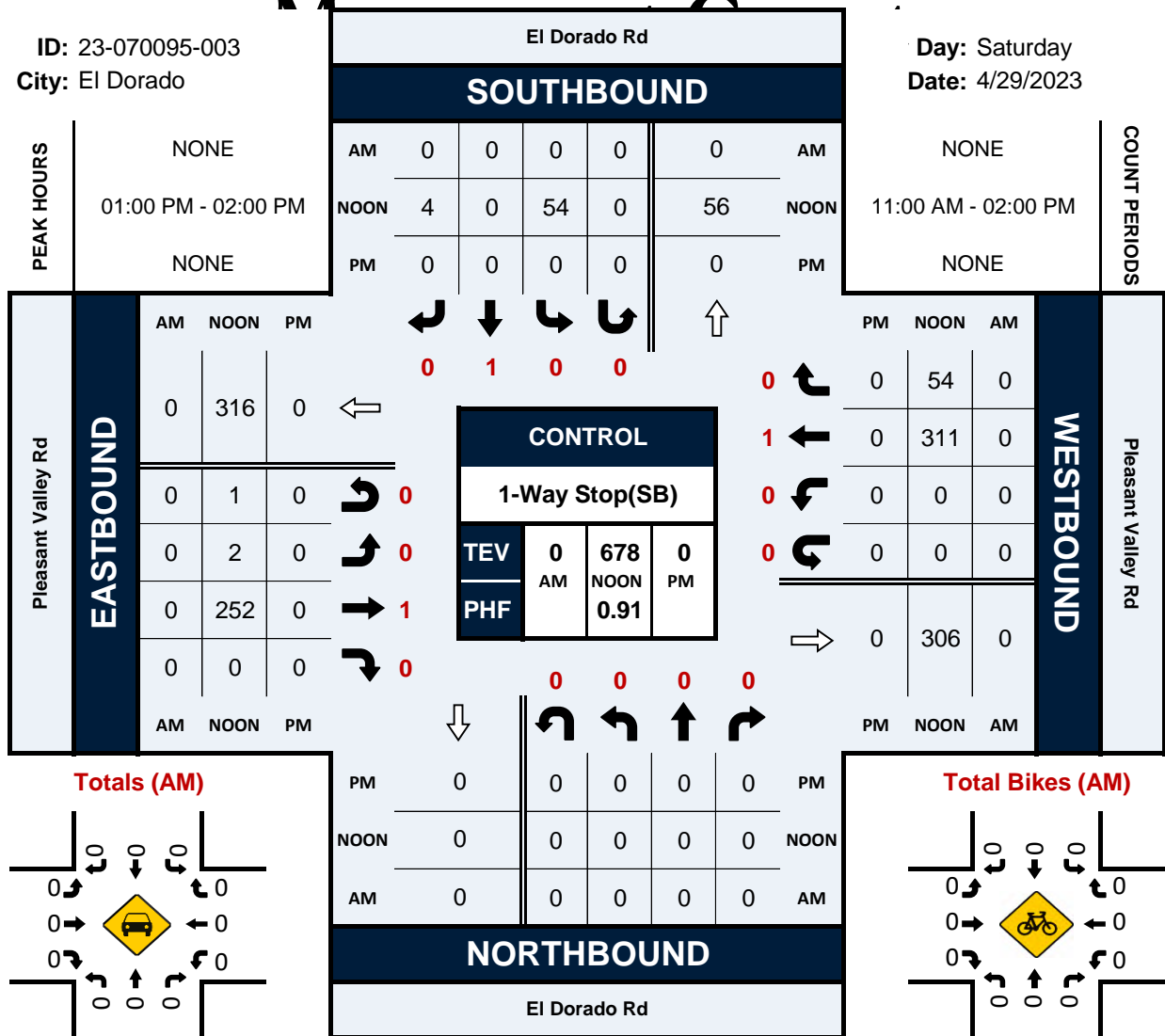
National Data & Surveying

El Dorado Rd & Pleasant Valley Rd Services Intersection Turning

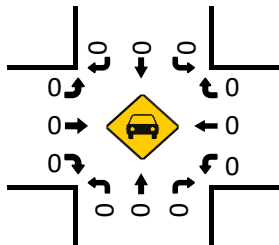
Peak Hour Turning Movement Count

ID: 23-070095-003
City: El Dorado

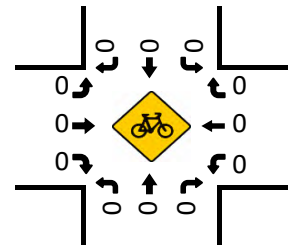
Day: Saturday
Date: 4/29/2023



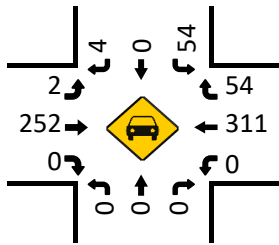
Totals (AM)



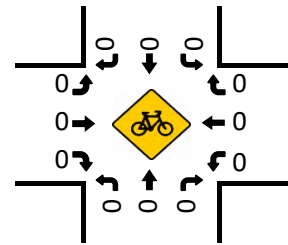
Total Bikes (AM)



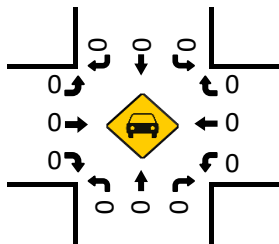
Totals (NOON)



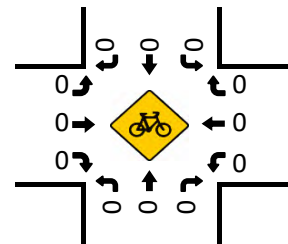
Total Bikes (NOON)



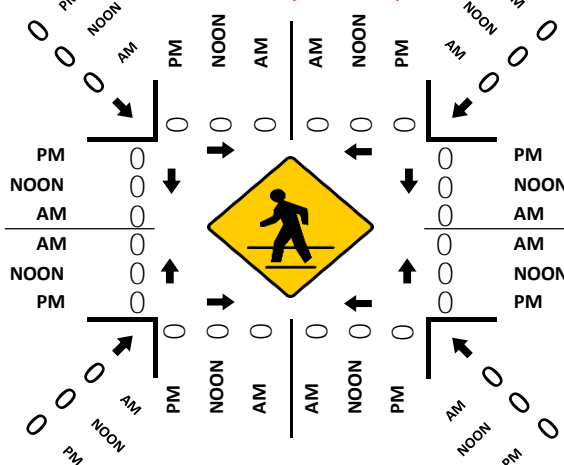
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Pleasant Valley Rd
City: El Dorado
Control: 3-Way Stop (NB/EB/WB)

Project ID: 22-070074-002
Date: 4/23/2022

Data - Totals

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Pleasant Valley Rd				Pleasant Valley Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	31	0	48	0	2	0	0	0	0	46	28	0	35	53	2	0	245
11:15 AM	22	0	26	0	0	0	3	0	2	41	23	2	39	39	1	0	198
11:30 AM	26	0	34	0	1	0	0	0	1	43	26	0	36	44	1	0	212
11:45 AM	29	2	39	1	1	0	3	0	1	55	30	0	49	47	1	0	258
12:00 PM	28	1	35	0	0	0	1	0	1	48	22	0	30	53	1	0	220
12:15 PM	46	1	34	0	0	1	2	0	1	48	20	1	44	40	1	0	239
12:30 PM	29	0	33	0	0	0	0	0	1	44	33	0	40	33	0	0	213
12:45 PM	21	0	27	0	0	0	1	0	0	47	29	0	41	47	1	0	214
1:00 PM	22	1	19	0	0	0	1	0	2	50	32	0	33	47	3	0	210
1:15 PM	27	0	45	0	0	1	1	0	0	55	33	0	42	54	0	0	258
1:30 PM	33	1	46	0	0	0	3	0	0	54	41	0	32	57	0	0	267
1:45 PM	32	1	35	0	0	0	1	0	0	62	35	0	27	43	0	0	236
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	346	7	421	1	4	2	16	0	9	593	352	3	448	557	11	0	2770
	44.65%	0.90%	54.32%	0.13%	18.18%	9.09%	72.73%	0.00%	0.94%	61.96%	36.78%	0.31%	44.09%	54.82%	1.08%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	114	3	145	0	0	1	6	0	2	221	141	0	134	201	3	0	971
PEAK HR FACTOR :	0.864	0.750	0.788	0.000	0.000	0.250	0.500	0.000	0.250	0.891	0.860	0.000	0.798	0.882	0.250	0.000	0.909
	0.819				0.583				0.938				0.880				

National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Pleasant Valley Rd
City: El Dorado
Control: 3-Way Stop (NB/EB/WB)

Project ID: 22-070074-002
Date: 4/23/2022

Data - Bikes

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Pleasant Valley Rd				Pleasant Valley Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	4
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	4
					0.00%	0.00%	100.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying Services Intersection Turning

Movement Count

Location: Golden Chain Hwy & Pleasant Valley Rd Project ID: 22-070074-002

City: El Dorado

Date: 4/23/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Golden Chain Hwy		Golden Chain Hwy		Pleasant Valley Rd		Pleasant Valley Rd		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
11:00 AM	1	3	0	0	0	0	3	0	7
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	2	3	6
11:45 AM	2	0	0	0	0	1	13	2	18
12:00 PM	0	0	0	0	0	0	5	1	6
12:15 PM	0	0	0	0	0	0	13	3	16
12:30 PM	0	0	2	0	0	0	1	6	9
12:45 PM	0	0	0	0	0	0	4	3	7
1:00 PM	0	1	0	3	0	0	6	5	15
1:15 PM	0	6	0	0	0	2	4	13	25
1:30 PM	3	3	3	0	0	0	4	14	27
1:45 PM	1	1	0	0	0	0	9	4	15
TOTAL VOLUMES :	EB 7	WB 14	EB 5	WB 4	NB 0	SB 3	NB 64	SB 54	TOTAL 151
APPROACH %'s :	33.33%	66.67%	55.56%	44.44%	0.00%	100.00%	54.24%	45.76%	
PEAK HR :	01:00 PM - 02:00 PM								TOTAL
PEAK HR VOL :	4	11	3	3	0	2	23	36	82
PEAK HR FACTOR :	0.333	0.458	0.250	0.250		0.250	0.639	0.643	0.759
	0.625		0.500		0.250		0.819		

National Data & Surveying Services Intersection

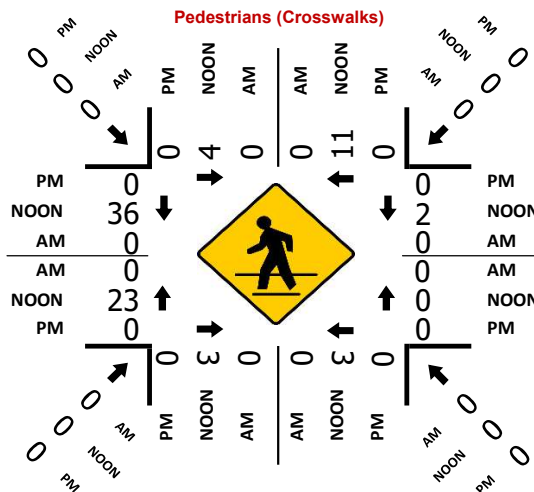
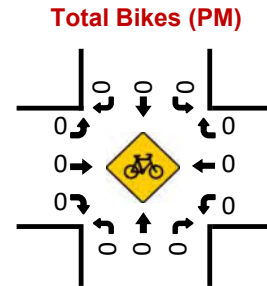
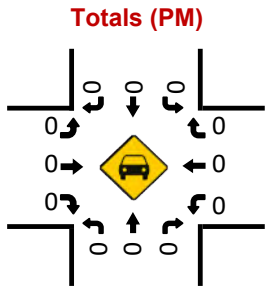
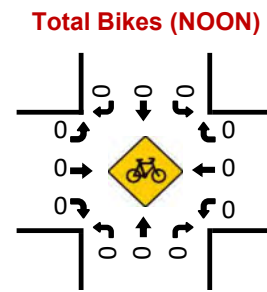
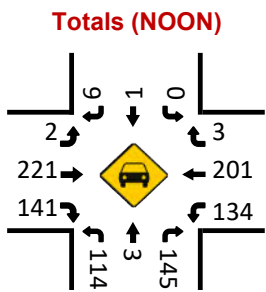
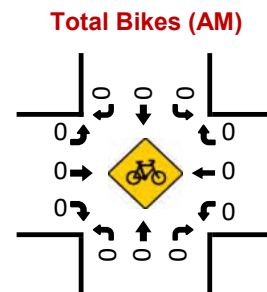
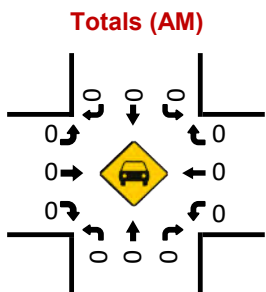
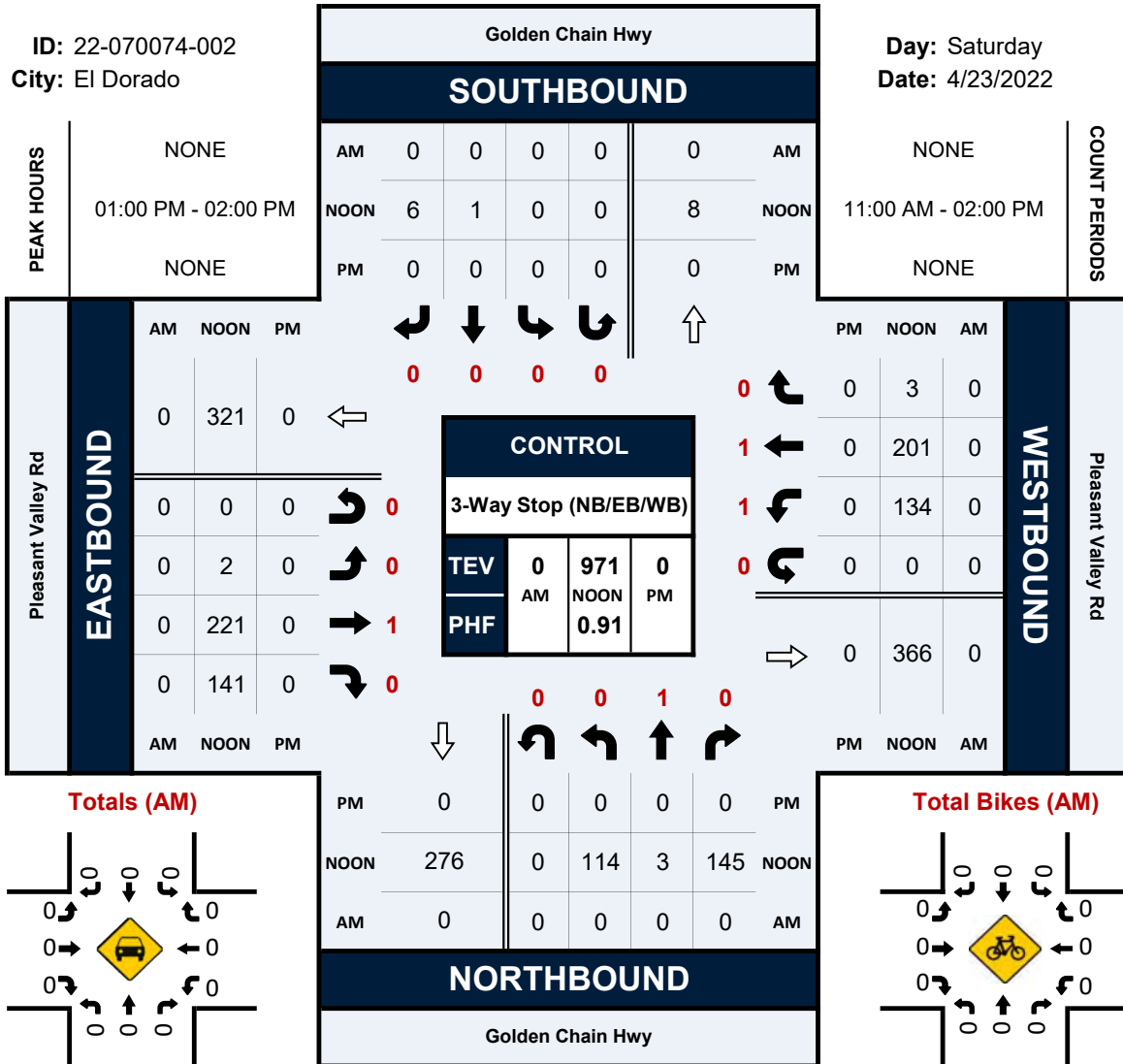
Golden Chain Hwy & Pleasant Valley Rd

Turning Movement Count

Real Hour Turning Movement Count

ID: 22-070074-002
City: El Dorado

Day: Saturday
Date: 4/23/2022



National Data & Surveying Services Intersection Turning Movement Count

Location: Forni Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-004
 Date: 4/29/2023

Data - Totals

NS/EW Streets:	Forni Rd				Forni Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	1	0	0	0	3	0	16	0	24	42	1	0	0	65	5	0	157
11:15 AM	3	0	0	0	2	0	27	0	25	63	1	0	1	61	1	0	184
11:30 AM	0	1	0	0	1	3	24	0	35	52	2	0	0	54	6	0	178
11:45 AM	4	0	1	0	3	0	17	0	22	65	4	1	0	75	1	0	193
12:00 PM	2	1	0	0	2	0	36	0	38	72	0	0	1	50	8	0	210
12:15 PM	1	0	0	0	3	0	23	0	25	61	2	1	1	42	3	0	162
12:30 PM	0	0	3	0	2	1	38	0	42	68	3	0	0	62	2	0	221
12:45 PM	0	0	0	0	1	0	30	0	33	65	1	0	0	54	5	0	189
1:00 PM	0	1	0	0	2	0	25	0	20	58	1	0	0	94	4	0	205
1:15 PM	1	1	0	0	4	0	27	0	31	66	1	0	1	84	3	0	219
1:30 PM	2	0	0	0	5	0	18	0	20	68	1	1	0	84	3	0	202
1:45 PM	1	0	2	0	2	0	23	0	26	64	1	0	1	60	2	1	183
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	15	4	6	0	30	4	304	0	341	744	18	3	5	785	43	1	2303
	60.00%	16.00%	24.00%	0.00%	8.88%	1.18%	89.94%	0.00%	30.83%	67.27%	1.63%	0.27%	0.60%	94.12%	5.16%	0.12%	
PEAK HR :	12:30 PM - 01:30 PM																TOTAL
PEAK HR VOL :	1	2	3	0	9	1	120	0	126	257	6	0	1	294	14	0	834
PEAK HR FACTOR :	0.250	0.500	0.250	0.000	0.563	0.250	0.789	0.000	0.750	0.945	0.500	0.000	0.250	0.782	0.700	0.000	0.943
	0.500				0.793				0.861				0.788				

National Data & Surveying Services Intersection Turning Movement Count

Location: Forni Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: El Dorado
 Control: 1-Way Stop(SB)

Project ID: 23-070095-004
 Date: 4/29/2023

Data - Bikes

NS/EW Streets:	Forni Rd				Forni Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	12:30 PM - 01:30 PM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying Services Intersection Turning Movement Count

Location: Forni Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: El Dorado

Project ID: 23-070095-004
 Date: 4/29/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Forni Rd		Forni Rd		Pleasant Valley Rd/Golden Chain Hwy/SR 49		Pleasant Valley Rd/Golden Chain Hwy/SR 49		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	1	1	0	0	0	0	0	0	2
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	1	1	0	0	0	0	0	0	2
	50.00%	50.00%							
PEAK HR :	12:30 PM - 01:30 PM								TOTAL
PEAK HR VOL :	1	1	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.250	0.250							0.250
	0.250								

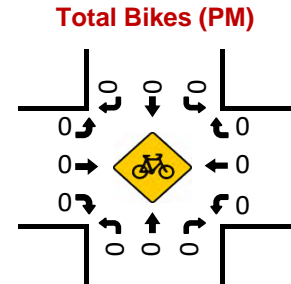
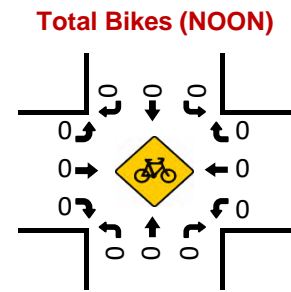
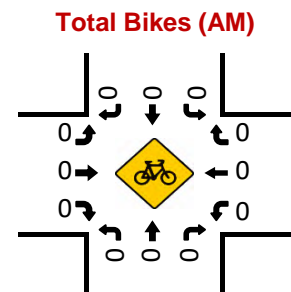
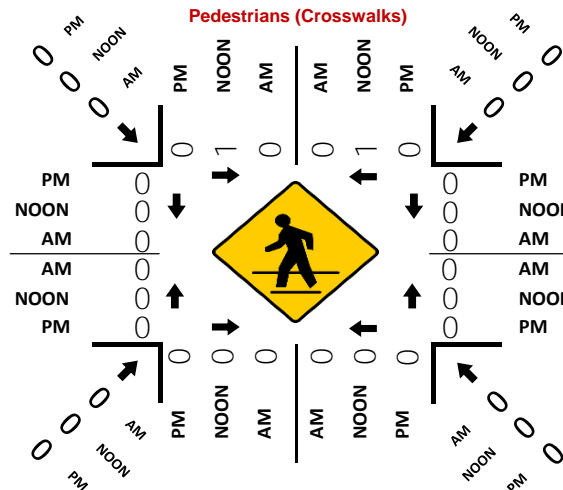
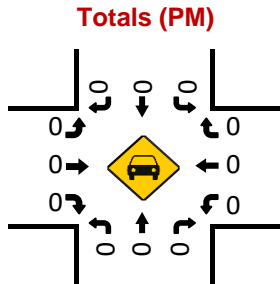
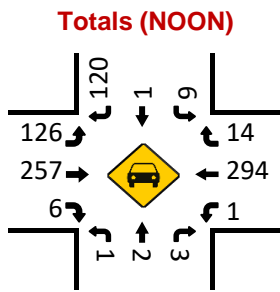
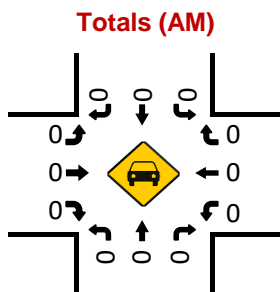
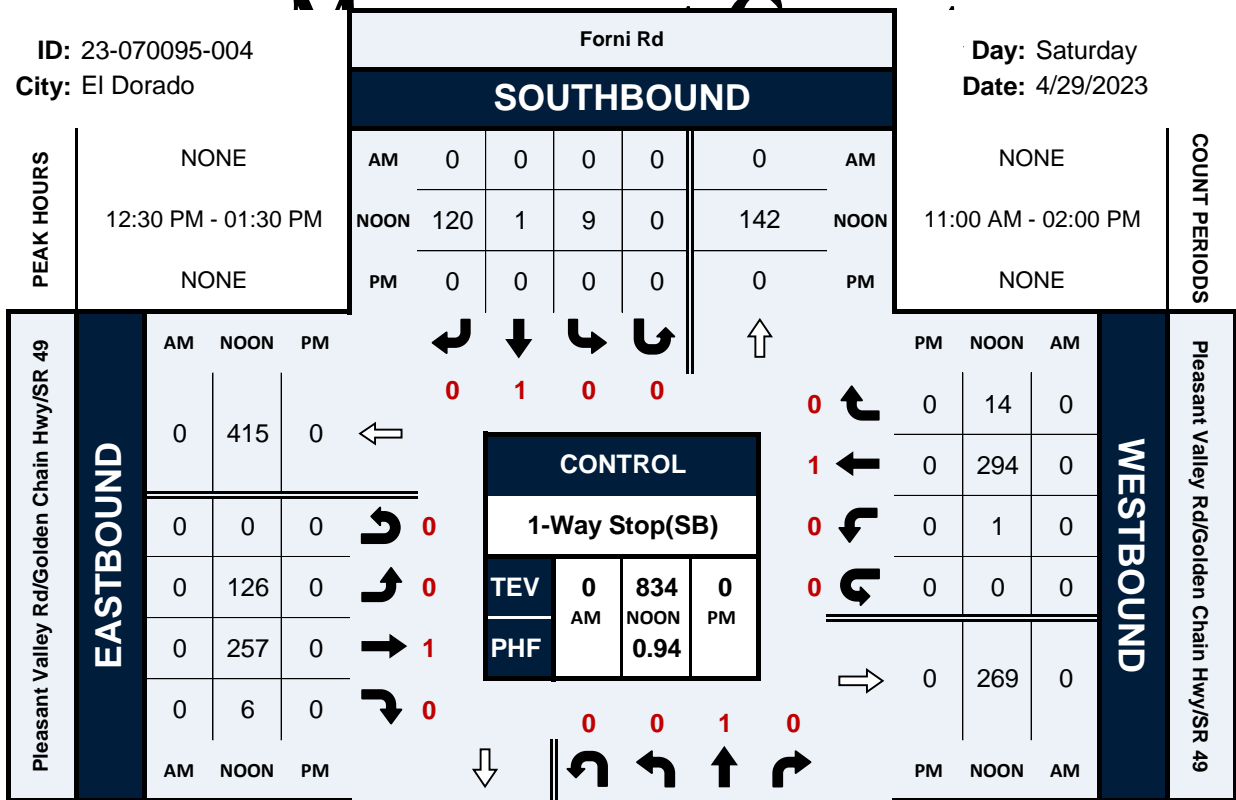
National Data & Surveying

Forni Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49 Services Intersection Turning

Peak Hour Turning Movement Count

ID: 23-070095-004
City: El Dorado

Day: Saturday
Date: 4/29/2023



National Data & Surveying Services Intersection Turning Movement Count

Location: Koki Ln/Oro Ln & Golden Chain Hwy/SR-49/Pleasant Valley Rd
City: El Dorado
Control: Signalized

Project ID: 22-070074-003
Date: 4/23/2022

Data - Totals

NS/EW Streets:	Koki Ln/Oro Ln				Koki Ln/Oro Ln				Golden Chain Hwy/SR-49/Pleasant Valley Rd				Golden Chain Hwy/SR-49/Pleasant Valley Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	0.5 NT	1 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
11:00 AM	3	0	3	0	2	0	1	0	1	70	6	0	2	69	0	0	157
11:15 AM	2	0	6	0	2	0	2	0	0	54	1	0	2	54	3	0	126
11:30 AM	0	0	0	0	1	0	4	0	3	57	0	0	2	65	3	0	135
11:45 AM	1	0	2	0	5	0	1	0	1	67	2	0	1	65	1	0	146
12:00 PM	5	0	2	0	1	0	1	0	0	55	0	0	3	59	1	0	127
12:15 PM	4	0	0	0	2	1	1	0	2	65	1	0	0	48	2	0	126
12:30 PM	2	0	0	0	2	0	2	0	0	57	0	0	2	43	2	0	110
12:45 PM	2	0	1	0	0	0	1	0	2	56	1	0	3	66	1	0	133
1:00 PM	2	0	1	0	3	0	0	0	4	48	1	0	0	63	2	0	124
1:15 PM	1	0	2	0	0	0	2	0	3	79	2	0	1	64	2	0	156
1:30 PM	3	0	2	0	0	0	3	0	0	72	5	0	1	68	1	0	155
1:45 PM	3	0	2	0	2	0	1	0	3	74	3	0	1	50	1	0	140
TOTAL VOLUMES :	NL 28	NT 0	NR 21	NU 0	SL 20	ST 1	SR 19	SU 0	EL 19	ET 754	ER 22	EU 0	WL 18	WT 714	WR 19	WU 0	TOTAL 1635
APPROACH %'s :	57.14%	0.00%	42.86%	0.00%	50.00%	2.50%	47.50%	0.00%	2.39%	94.84%	2.77%	0.00%	2.40%	95.07%	2.53%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	9	0	7	0	5	0	6	0	10	273	11	0	3	245	6	0	575
PEAK HR FACTOR :	0.750	0.000	0.875	0.000	0.417	0.000	0.500	0.000	0.625	0.864	0.550	0.000	0.750	0.901	0.750	0.000	0.921
	0.800				0.917				0.875				0.907				

National Data & Surveying Services Intersection Turning Movement Count

Location: Koki Ln/Oro Ln & Golden Chain Hwy/SR-49/Pleasant Valley Rd
City: El Dorado
Control: Signalized

Project ID: 22-070074-003
Date: 4/23/2022

Data - Bikes

NS/EW Streets:	Koki Ln/Oro Ln				Koki Ln/Oro Ln				Golden Chain Hwy/SR-49/Pleasant Valley Rd				Golden Chain Hwy/SR-49/Pleasant Valley Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	0.5 NT	1 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	3
					100.00%	0.00%	0.00%	0.00%					0.00%	100.00%	0.00%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250

National Data & Surveying Services Intersection

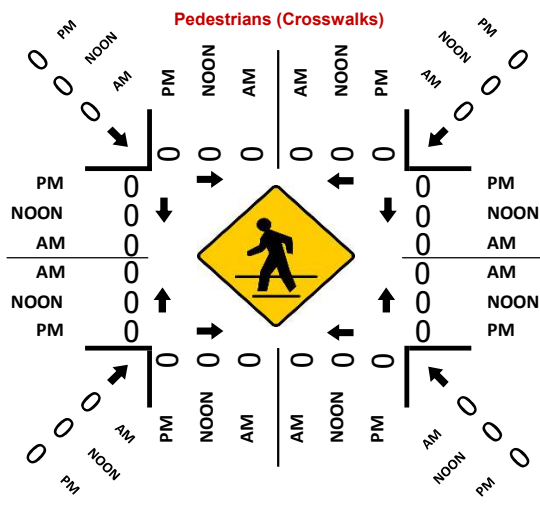
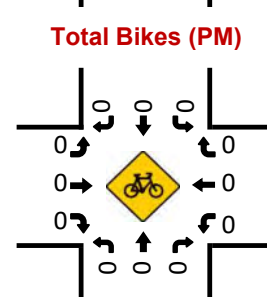
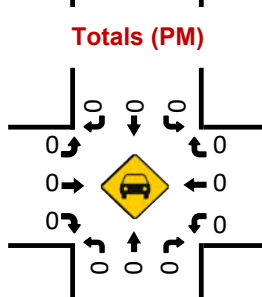
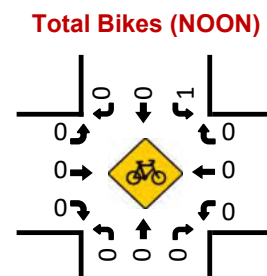
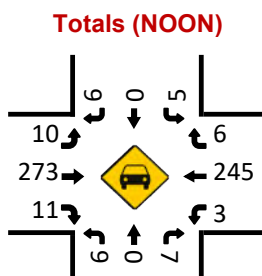
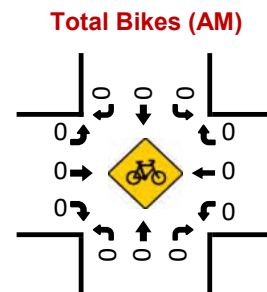
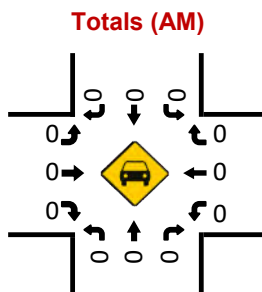
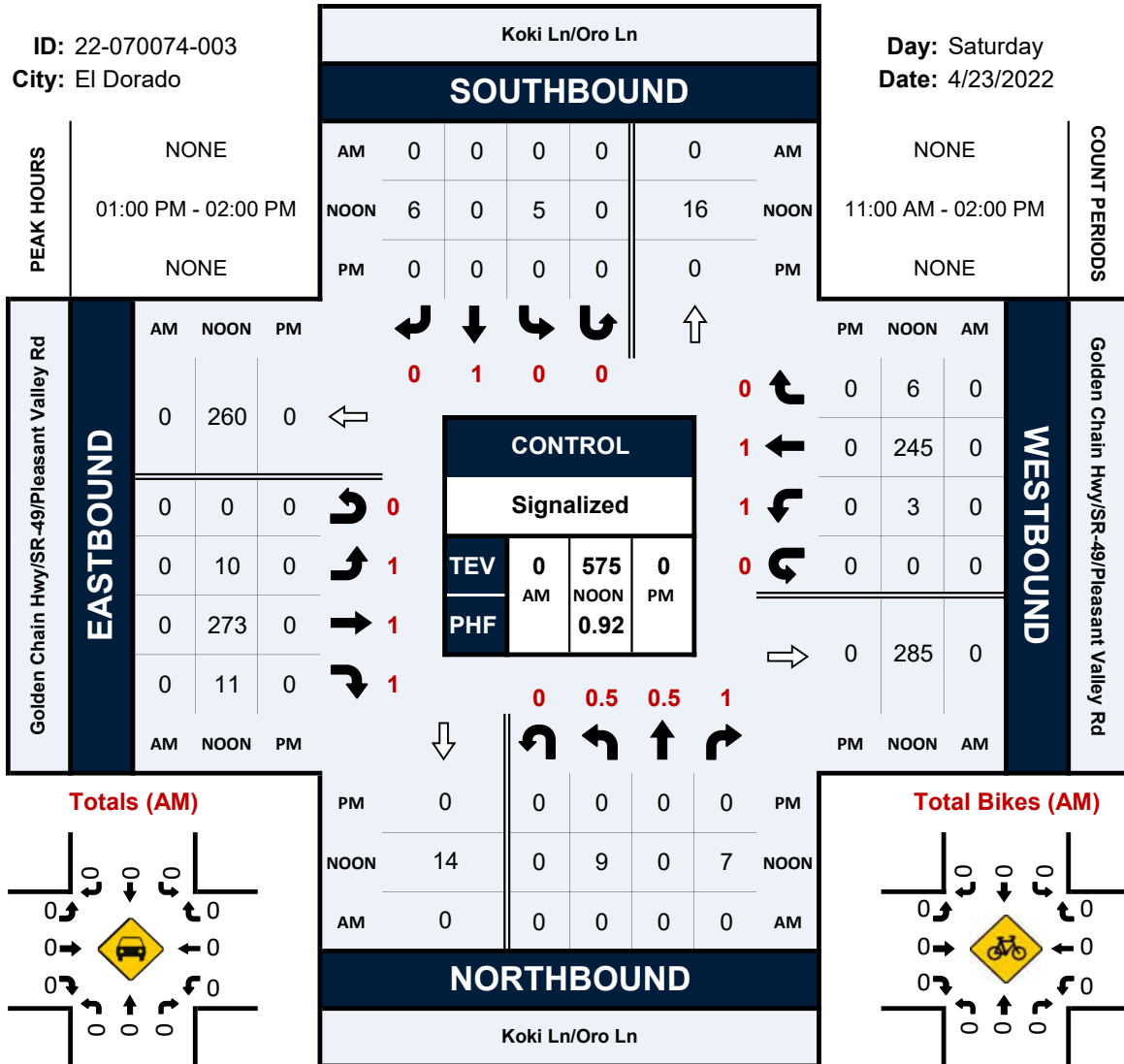
Koki Ln/Oro Ln & Golden Chain Hwy/SR-49/Pleasant Valley Rd

Turning Movement Count

Peak Hour Turning Movement Count

ID: 22-070074-003
City: El Dorado

Day: Saturday
Date: 4/23/2022



National Data & Surveying Services Intersection Turning Movement Count

Location: Oak Dell Rd & Golden Chain Hwy/SR-49

City: El Dorado

Control: 1-Way Stop (NB)

Project ID: 22-070074-004

Date: 4/23/2022

Data - Totals

NS/EW Streets:	Oak Dell Rd				Oak Dell Rd				Golden Chain Hwy/SR-49				Golden Chain Hwy/SR-49				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	8	0	0	0	0	0	0	66	9	0	9	71	0	0	163
11:15 AM	2	0	3	0	1	0	0	0	0	56	6	0	8	57	1	0	134
11:30 AM	5	0	12	0	0	0	0	0	0	52	5	0	17	66	2	0	159
11:45 AM	7	0	12	0	0	0	0	0	1	69	4	0	16	58	0	1	168
12:00 PM	1	0	3	0	0	0	0	0	0	55	2	0	4	61	0	0	126
12:15 PM	0	0	0	0	2	0	0	0	0	67	0	0	3	50	1	0	123
12:30 PM	0	0	1	0	0	0	0	0	0	59	0	0	5	46	0	0	111
12:45 PM	3	0	1	0	0	0	0	0	0	58	0	0	8	69	0	0	139
1:00 PM	7	0	14	0	0	0	0	0	0	50	2	0	12	59	0	0	144
1:15 PM	12	0	34	0	0	0	1	0	0	69	12	0	15	54	2	0	199
1:30 PM	0	0	6	0	1	0	0	0	0	68	6	0	11	69	0	0	161
1:45 PM	1	1	1	0	0	0	0	0	0	75	3	0	4	52	0	0	137
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	38	1	95	0	4	0	1	0	1	744	49	0	112	712	6	1	1764
	28.36%	0.75%	70.90%	0.00%	80.00%	0.00%	20.00%	0.00%	0.13%	93.70%	6.17%	0.00%	13.48%	85.68%	0.72%	0.12%	
PEAK HR :	12:45 PM - 01:45 PM																
PEAK HR VOL :	22	0	55	0	1	0	1	0	0	245	20	0	46	251	2	0	643
PEAK HR FACTOR :	0.458	0.000	0.404	0.000	0.250	0.000	0.250	0.000	0.000	0.888	0.417	0.000	0.767	0.909	0.250	0.000	0.808
	0.418				0.500				0.818				0.934				

National Data & Surveying Services Intersection Turning Movement Count

Location: Oak Dell Rd & Golden Chain Hwy/SR-49
City: El Dorado
Control: 1-Way Stop (NB)

Project ID: 22-070074-004
Date: 4/23/2022

Data - Bikes

NS/EW Streets:	Oak Dell Rd				Oak Dell Rd				Golden Chain Hwy/SR-49				Golden Chain Hwy/SR-49				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
NOON	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	12:45 PM - 01:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying Services Intersection Turning

Movement Count

Location: Oak Dell Rd & Golden Chain Hwy/SR-49 Project ID: 22-070074-004

City: El Dorado

Date: 4/23/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Oak Dell Rd	Oak Dell Rd	Golden Chain Hwy/SR-49	Golden Chain Hwy/SR-49					
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	1	0	1
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	1
APPROACH %'s :							100.00%	0.00%	
PEAK HR :	12:45 PM - 01:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	1
PEAK HR FACTOR :							0.250	0.250	0.250

National Data & Surveying Services Intersection

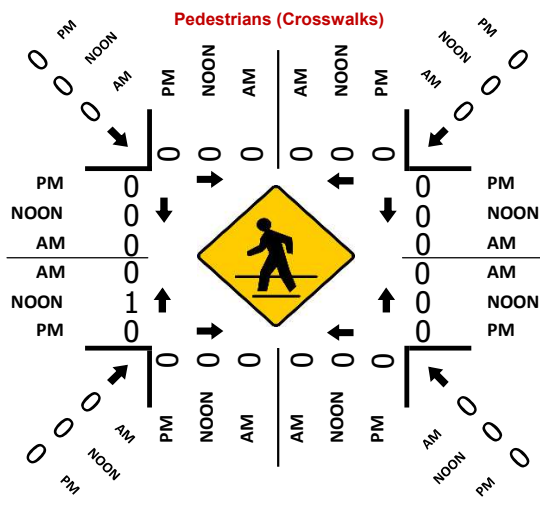
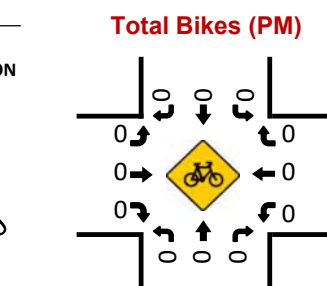
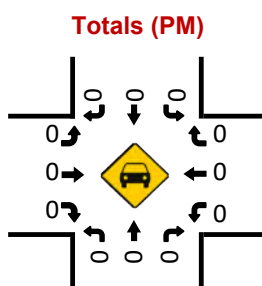
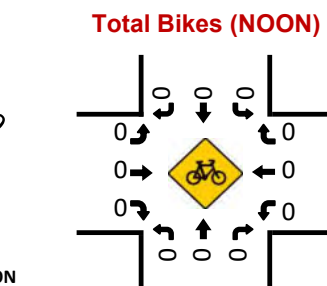
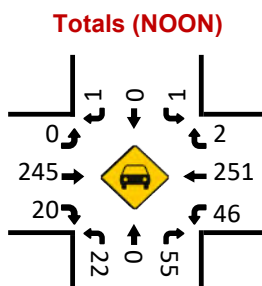
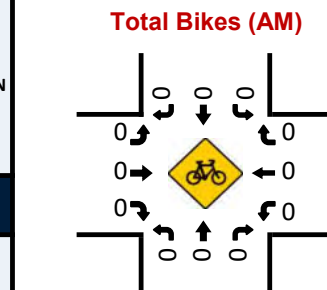
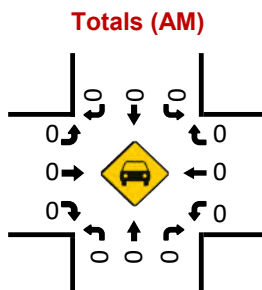
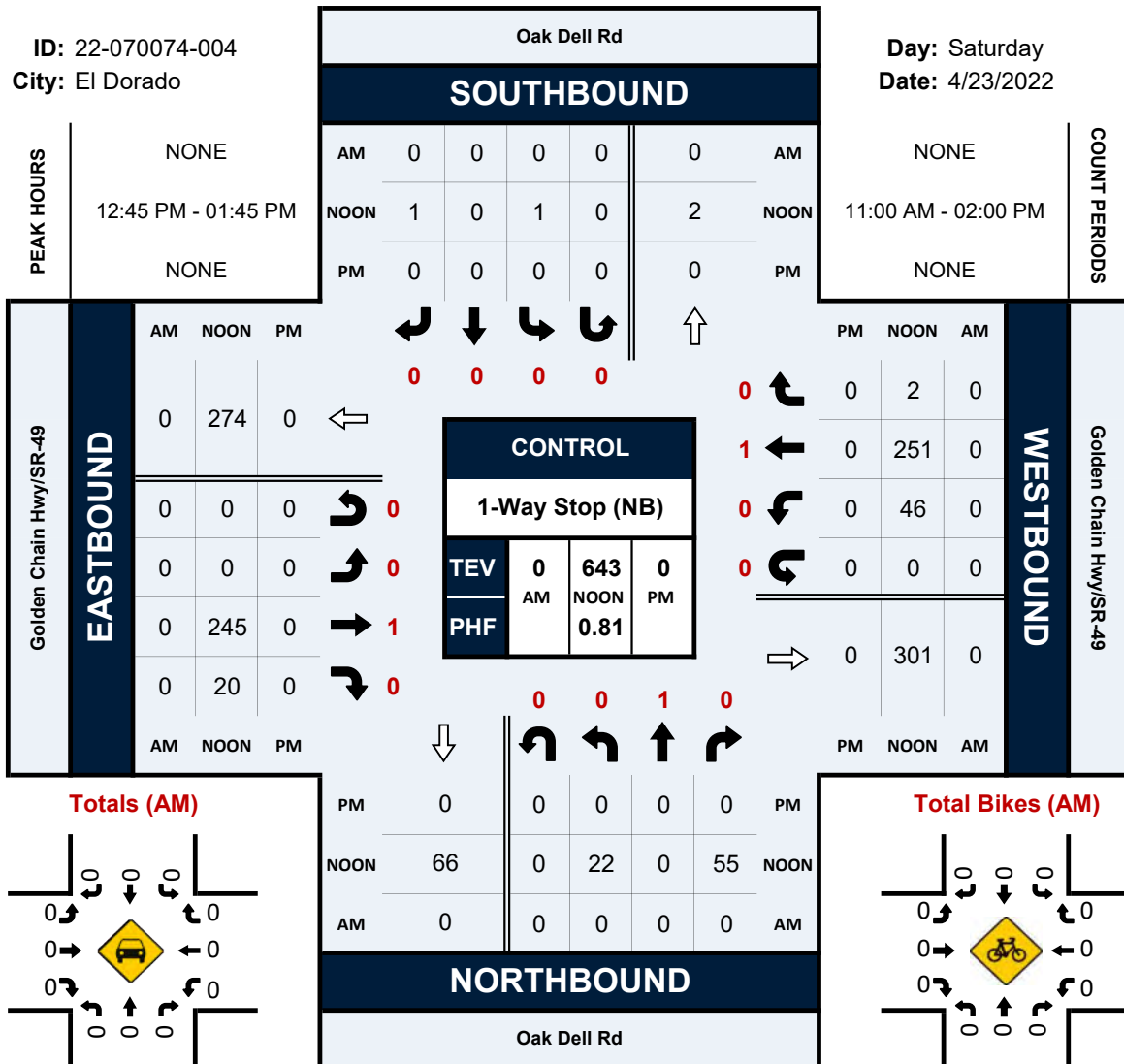
Oak Dell Rd & Golden Chain Hwy/SR-49

Turning Movement Count

Peak Hour Turning Movement Count

ID: 22-070074-004
City: El Dorado

Day: Saturday
Date: 4/23/2022



National Data & Surveying Services Intersection Turning Movement Count

Location: Patterson Dr & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-005
 Date: 4/29/2023

Data - Totals

NS/EW Streets:	Patterson Dr				Patterson Dr				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	0 NT	1 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
11:00 AM	13	0	20	0	0	0	0	0	0	53	7	0	27	64	0	0	184
11:15 AM	9	0	24	0	0	0	0	0	0	59	9	0	22	58	0	0	181
11:30 AM	14	0	14	0	0	0	0	0	0	56	3	0	18	52	0	0	157
11:45 AM	10	0	27	0	0	0	0	0	0	63	13	0	17	66	0	0	196
12:00 PM	15	0	21	0	0	0	0	0	0	95	7	0	8	43	0	0	189
12:15 PM	9	0	22	0	0	0	0	0	0	57	11	0	20	47	0	0	166
12:30 PM	7	0	18	0	0	0	0	0	0	74	8	0	29	63	0	0	199
12:45 PM	8	0	15	0	0	0	0	0	0	52	15	0	22	50	0	0	162
1:00 PM	10	0	21	0	0	0	0	0	0	59	9	0	22	97	0	0	218
1:15 PM	15	0	20	0	0	0	0	0	0	64	13	0	24	93	0	0	229
1:30 PM	15	0	19	0	0	0	0	0	0	72	16	0	10	81	0	0	213
1:45 PM	12	0	21	0	0	0	0	0	0	65	12	0	20	55	0	0	185
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	137	0	242	0	0	0	0	0	0	769	123	0	239	769	0	0	2279
	36.15%	0.00%	63.85%	0.00%					0.00%	86.21%	13.79%	0.00%	23.71%	76.29%	0.00%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	52	0	81	0	0	0	0	0	0	260	50	0	76	326	0	0	845
PEAK HR FACTOR :	0.867	0.000	0.964	0.000	0.000	0.000	0.000	0.000	0.000	0.903	0.781	0.000	0.792	0.840	0.000	0.000	0.922
	0.950								0.881				0.845				

National Data & Surveying Services Intersection Turning Movement Count

Location: Patterson Dr & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-005
 Date: 4/29/2023

Data - Bikes

NS/EW Streets:	Patterson Dr				Patterson Dr				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	0 NT	1 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	1 ET	1 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	01:00 PM - 02:00 PM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

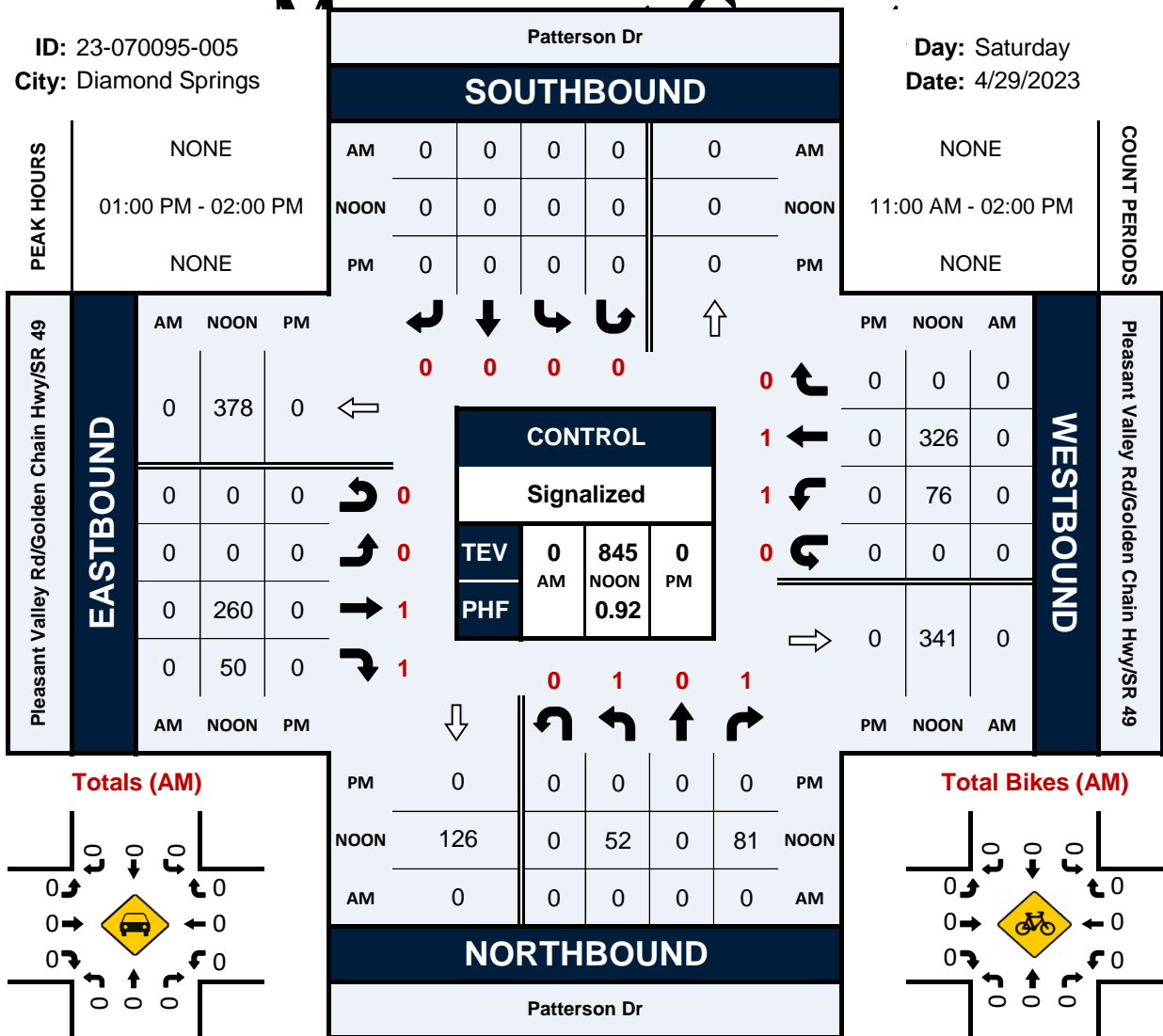
National Data & Surveying

Patterson Dr & Pleasant Valley Rd / Golden Chain Hwy / SR 49 Services Intersection Turning

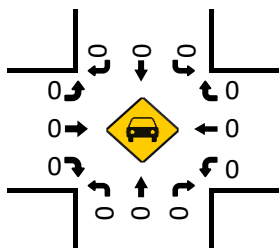
Peak Hour Turning Movement Count

ID: 23-070095-005
City: Diamond Springs

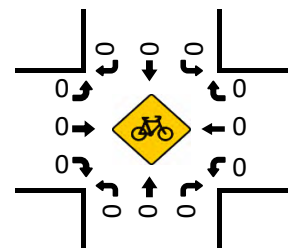
Day: Saturday
Date: 4/29/2023



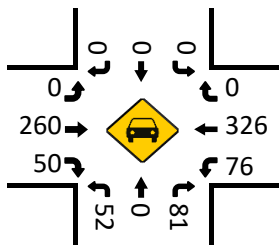
Totals (AM)



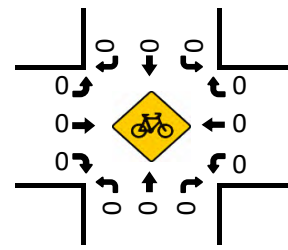
Total Bikes (AM)



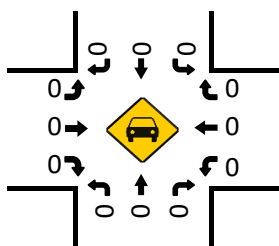
Totals (NOON)



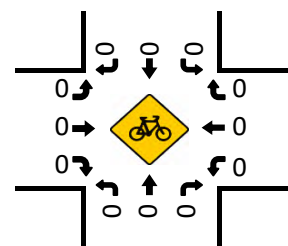
Total Bikes (NOON)



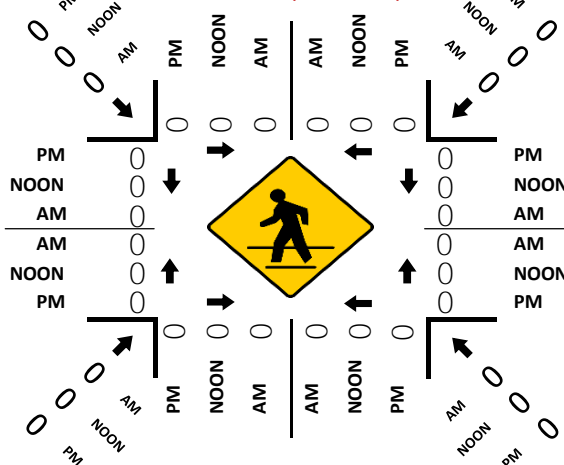
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Missouri Flat Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-006
 Date: 4/29/2023

Data - Totals

NS/EW Streets:	Missouri Flat Rd				Missouri Flat Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	1	0	1	0	2	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	81	0	44	0	48	47	0	0	0	54	105	0	379
11:15 AM	0	0	0	0	104	0	34	0	46	38	0	0	0	49	113	0	384
11:30 AM	0	0	0	0	92	0	33	0	35	42	0	0	0	48	107	0	357
11:45 AM	0	0	0	0	95	0	35	0	47	44	0	0	0	61	107	0	389
12:00 PM	0	0	0	0	106	0	27	0	68	53	0	0	0	29	89	0	372
12:15 PM	0	0	0	0	90	0	31	0	43	48	0	0	0	47	100	0	359
12:30 PM	0	0	0	0	104	0	38	0	49	47	0	0	0	52	91	0	381
12:45 PM	0	0	0	0	104	0	40	0	25	54	0	0	0	43	81	0	347
1:00 PM	0	0	0	0	98	0	49	0	35	48	0	0	0	72	92	0	394
1:15 PM	0	0	0	0	110	0	40	0	50	49	0	0	0	84	80	0	413
1:30 PM	0	0	0	0	98	0	35	0	54	47	0	0	0	65	76	0	375
1:45 PM	0	0	0	0	115	0	36	0	46	50	0	0	0	48	94	0	389
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	1197	0	442	0	546	567	0	0	0	652	1135	0	4539
PEAK HR :	01:00 PM - 02:00 PM				73.03%	0.00%	26.97%	0.00%	49.06%	50.94%	0.00%	0.00%	0.00%	36.49%	63.51%	0.00%	TOTAL
PEAK HR VOL :	0	0	0	0	421	0	160	0	185	194	0	0	0	269	342	0	1571
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.915	0.000	0.816	0.000	0.856	0.970	0.000	0.000	0.000	0.801	0.910	0.000	0.951
					0.962				0.938				0.931				

National Data & Surveying Services Intersection Turning Movement Count

Location: Missouri Flat Rd & Pleasant Valley Rd/Golden Chain Hwy/SR 49
 City: Diamond Springs
 Control: Signalized

Project ID: 23-070095-006
 Date: 4/29/2023

Data - Bikes

NS/EW Streets:	Missouri Flat Rd				Missouri Flat Rd				Pleasant Valley Rd/Golden Chain Hwy/SR 49				Pleasant Valley Rd/Golden Chain Hwy/SR 49				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	0	0	0	1	0	1	0	2	1	0	0	0	1	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR :	01:00 PM - 02:00 PM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

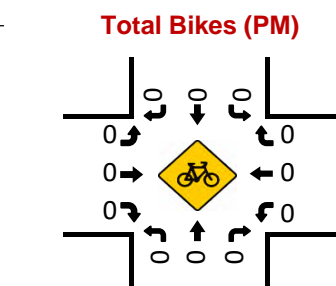
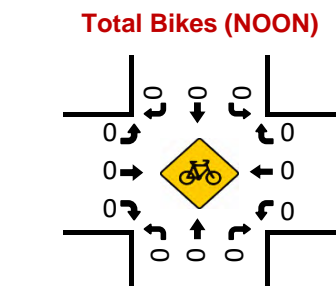
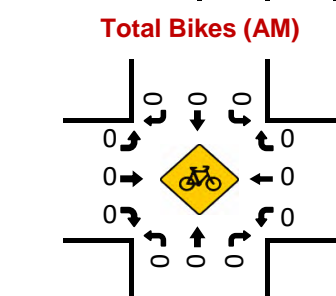
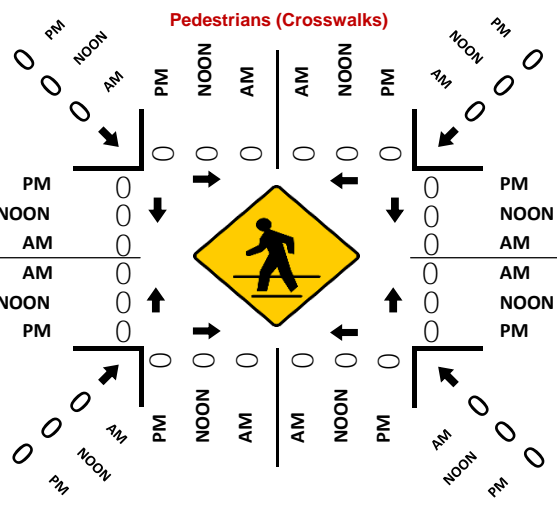
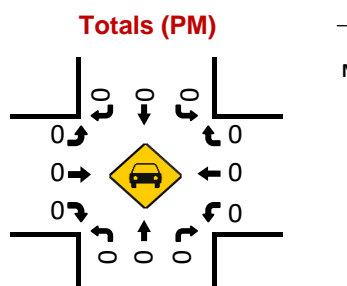
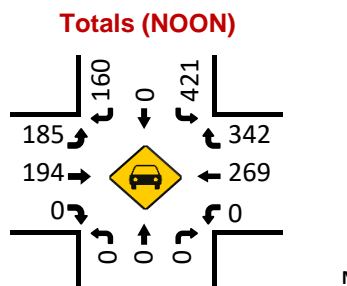
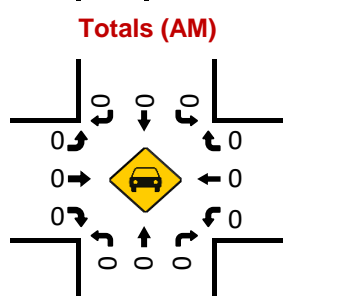
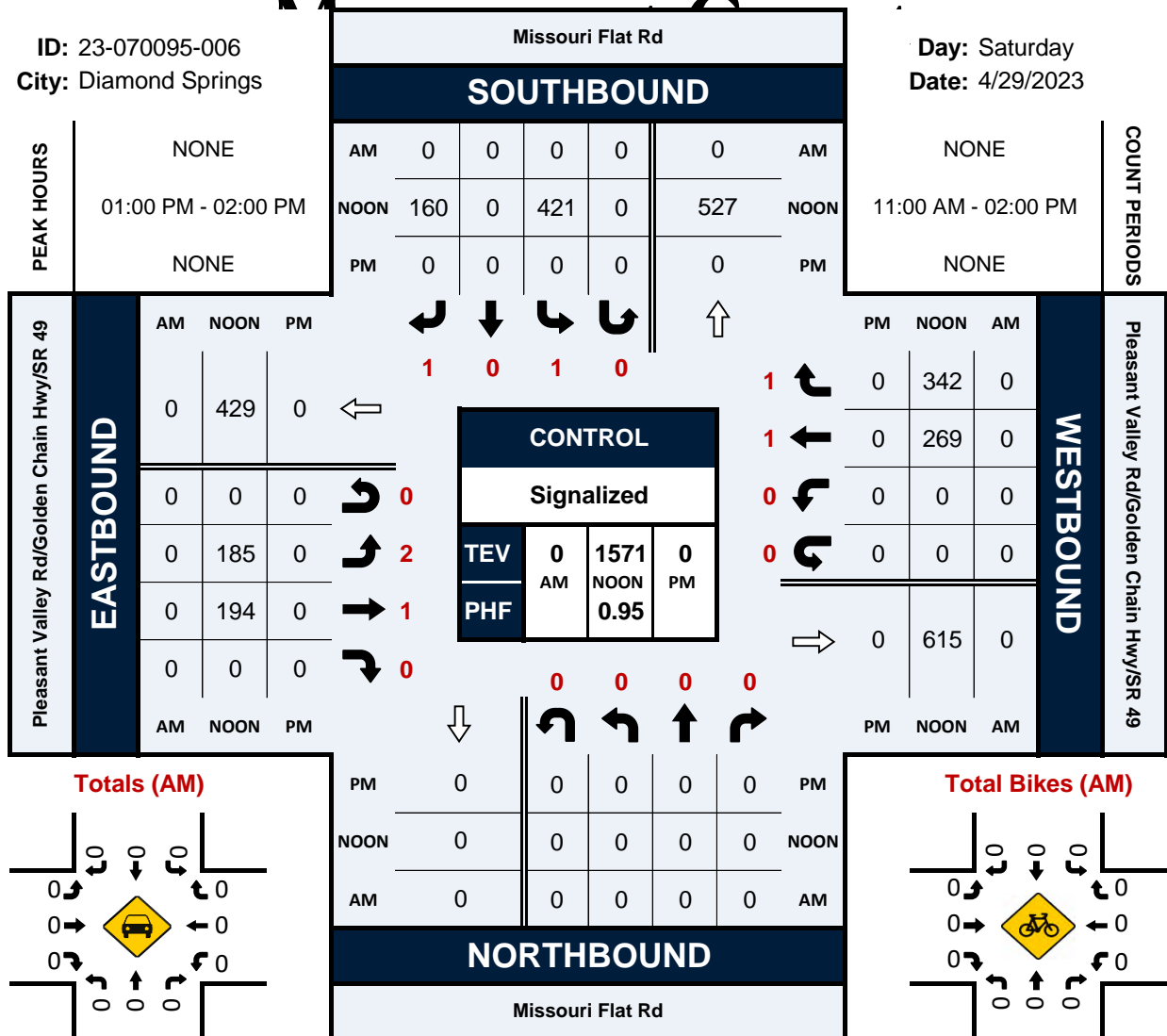
National Data & Surveying

Missouri Flat Rd & Pleasant Valley Rd / Golden Chain Hwy / SR 49
Services Intersection Turning

Peak Hour Turning Movement Count

ID: 23-070095-006
 City: Diamond Springs

Day: Saturday
 Date: 4/29/2023



National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Union Mine Rd
City: El Dorado
Control: 1-Way Stop (WB)

Project ID: 22-070074-001
Date: 4/23/2022

Data - Totals

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Union Mine Rd				Union Mine Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
11:00 AM	0	67	1	0	7	58	0	0	0	0	0	0	1	0	8	0	142
11:15 AM	0	39	2	0	13	58	0	0	0	0	0	0	1	0	8	0	121
11:30 AM	0	51	0	0	8	52	0	0	0	0	0	0	0	0	10	0	121
11:45 AM	0	59	0	0	16	65	0	0	0	0	0	0	2	0	13	0	155
12:00 PM	0	46	1	0	5	43	0	0	0	0	0	0	1	0	19	0	115
12:15 PM	0	61	0	0	11	55	0	0	0	0	0	0	0	0	22	0	149
12:30 PM	0	49	1	0	8	63	0	0	0	0	0	0	1	0	10	0	132
12:45 PM	0	37	0	0	11	58	0	0	0	0	0	0	0	0	8	0	114
1:00 PM	0	38	0	0	9	56	0	0	0	0	0	0	2	0	6	0	111
1:15 PM	0	60	1	0	14	62	0	0	0	0	0	0	0	0	9	0	146
1:30 PM	0	64	0	0	16	59	0	0	0	0	0	0	1	0	13	0	153
1:45 PM	0	57	0	0	12	51	0	0	0	0	0	0	0	0	13	0	133
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	0	628	6	0	130	680	0	0	0	0	0	0	9	0	139	0	1592
APPROACH %'s :	0.00%	99.05%	0.95%	0.00%	16.05%	83.95%	0.00%	0.00%					6.08%	0.00%	93.92%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	0	215	2	0	40	226	0	0	0	0	0	0	4	0	64	0	551
PEAK HR FACTOR :	0.000	0.881	0.500	0.000	0.625	0.869	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.727	0.000	0.889
	0.889				0.821								0.773				

National Data & Surveying Services Intersection Turning Movement Count

Location: Golden Chain Hwy & Union Mine Rd
City: El Dorado
Control: 1-Way Stop (WB)

Project ID: 22-070074-001
Date: 4/23/2022

Data - Bikes

NS/EW Streets:	Golden Chain Hwy				Golden Chain Hwy				Union Mine Rd				Union Mine Rd				TOTAL	
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
NOON	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL	0
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL	0
PEAK HR :	11:45 AM - 12:45 PM												TOTAL	0				
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0

National Data & Surveying Services Intersection

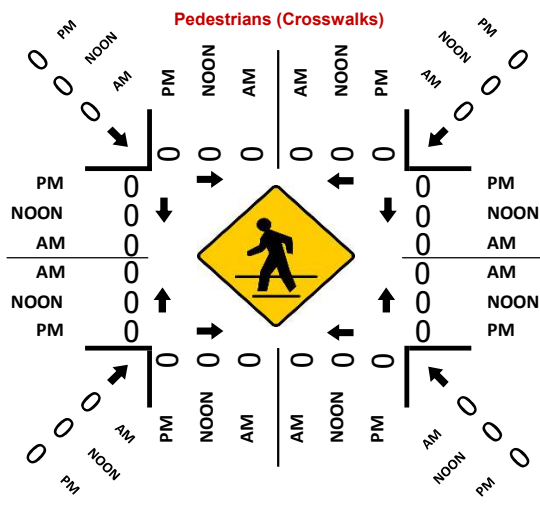
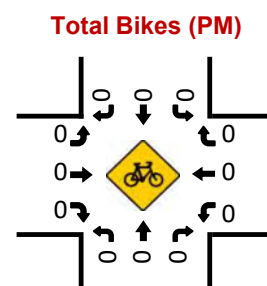
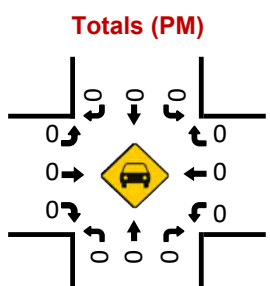
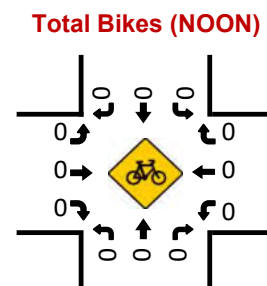
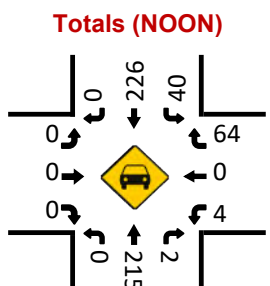
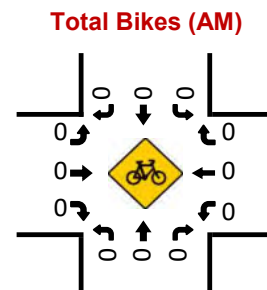
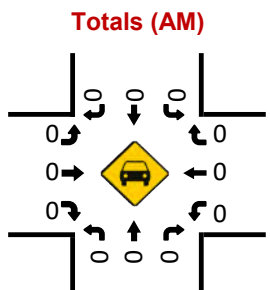
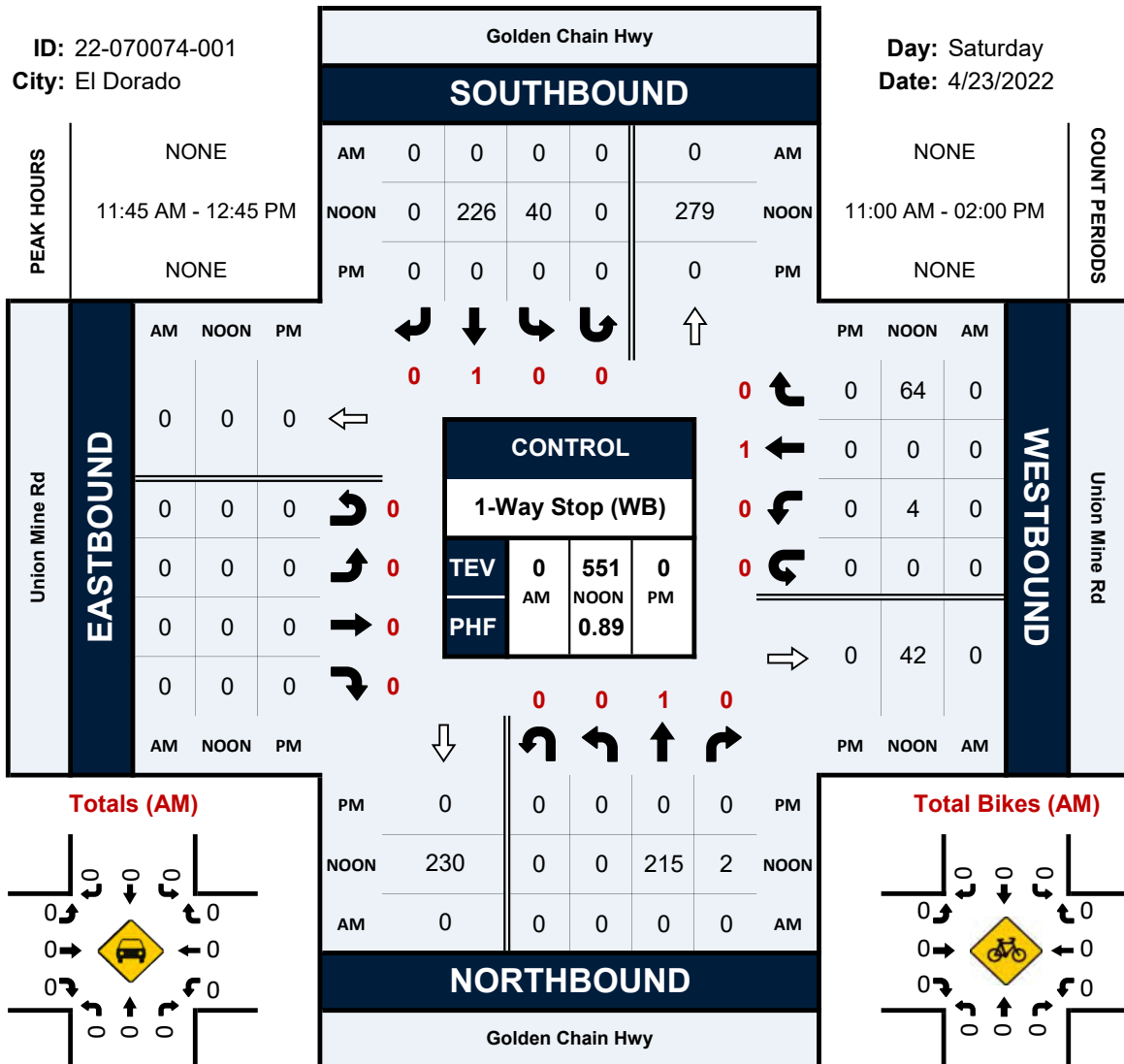
Golden Chain Hwy & Union Mine Rd

Turning Movement Count

Peak Hour Turning Movement Count

ID: 22-070074-001
 City: El Dorado

Day: Saturday
 Date: 4/23/2022



VOLUME

Oak Dell Rd S/O Peasant Valley Rd/Golden Highway/SR 49

Day: Thursday
Date: 5/4/2023

City: Diamond Springs
Project #: CA23_070096_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					563	563	0	0	1,126		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
0:00	0	0			0	12:00	3	6			9
0:15	0	1			1	12:15	2	3			5
0:30	0	0			0	12:30	6	7			13
0:45	0	0	1		0 1	12:45	5	16	30	46	35 62
1:00	0	0			0	13:00	33	14			47
1:15	0	0			0	13:15	7	4			11
1:30	0	0			0	13:30	12	10			22
1:45	0	0			0	13:45	11	63	24	52	35 115
2:00	0	0			0	14:00	47	22			69
2:15	0	0			0	14:15	15	9			24
2:30	1	0			1	14:30	13	22			35
2:45	0	1	0		0 1	14:45	12	87	24	77	36 164
3:00	0	0			0	15:00	45	29			74
3:15	0	0			0	15:15	25	8			33
3:30	0	0			0	15:30	14	8			22
3:45	0	0			0	15:45	14	98	9	54	23 152
4:00	0	0			0	16:00	11	3			14
4:15	0	0			0	16:15	3	8			11
4:30	0	0			0	16:30	2	0			2
4:45	0	0			0	16:45	4	20	5	16	9 36
5:00	0	0			0	17:00	6	4			10
5:15	3	1			4	17:15	8	2			10
5:30	1	0			1	17:30	1	1			2
5:45	0	4	1	2	1 6	17:45	1	16	2	9	3 25
6:00	1	1			2	18:00	1	0			1
6:15	0	0			0	18:15	2	3			5
6:30	1	0			1	18:30	3	4			7
6:45	0	2	1	2	1 4	18:45	0	6	0	7	0 13
7:00	1	0			1	19:00	2	3			5
7:15	2	5			7	19:15	1	1			2
7:30	4	3			7	19:30	0	0			0
7:45	6	13	12	20	18 33	19:45	1	4	0	4	1 8
8:00	6	23			29	20:00	0	0			0
8:15	37	55			92	20:15	1	1			2
8:30	77	109			186	20:30	1	1			2
8:45	53	173	23	210	76 383	20:45	0	2	0	2	0 4
9:00	12	4			16	21:00	0	0			0
9:15	4	5			9	21:15	0	2			2
9:30	5	9			14	21:30	0	1			1
9:45	6	27	5	23	11 50	21:45	1	1	0	3	1 4
10:00	6	6			12	22:00	0	0			0
10:15	3	7			10	22:15	0	0			0
10:30	4	2			6	22:30	0	1			1
10:45	3	16	3	18	6 34	22:45	1	1	1	2	2 3
11:00	2	1			3	23:00	0	0			0
11:15	2	5			7	23:15	0	0			0
11:30	4	3			7	23:30	1	0			1
11:45	4	12	6	15	10 27	23:45	0	1	0		0 1
TOTALS	248	291			539	TOTALS	315	272			587
SPLIT %	46.0%	54.0%			47.9%	SPLIT %	53.7%	46.3%			52.1%

DAILY TOTALS					NB	SB	EB	WB	Total
					563	563	0	0	1,126
AM Peak Hour	8:15	8:00			8:00	PM Peak Hour	15:00	14:15	14:30
AM Pk Volume	179	210			383	PM Pk Volume	98	84	178
Pk Hr Factor	0.581	0.482			0.515	Pk Hr Factor	0.544	0.724	0.601
7 - 9 Volume	186	230	0	0	416	4 - 6 Volume	36	25	0 61
7 - 9 Peak Hour	8:00	8:00			8:00	4 - 6 Peak Hour	16:00	16:15	16:00
7 - 9 Pk Volume	173	210	0	0	383	4 - 6 Pk Volume	20	17	0 36
Pk Hr Factor	0.562	0.482	0.000	0.000	0.515	Pk Hr Factor	0.455	0.531	0.000 0.000 0.643

VOLUME

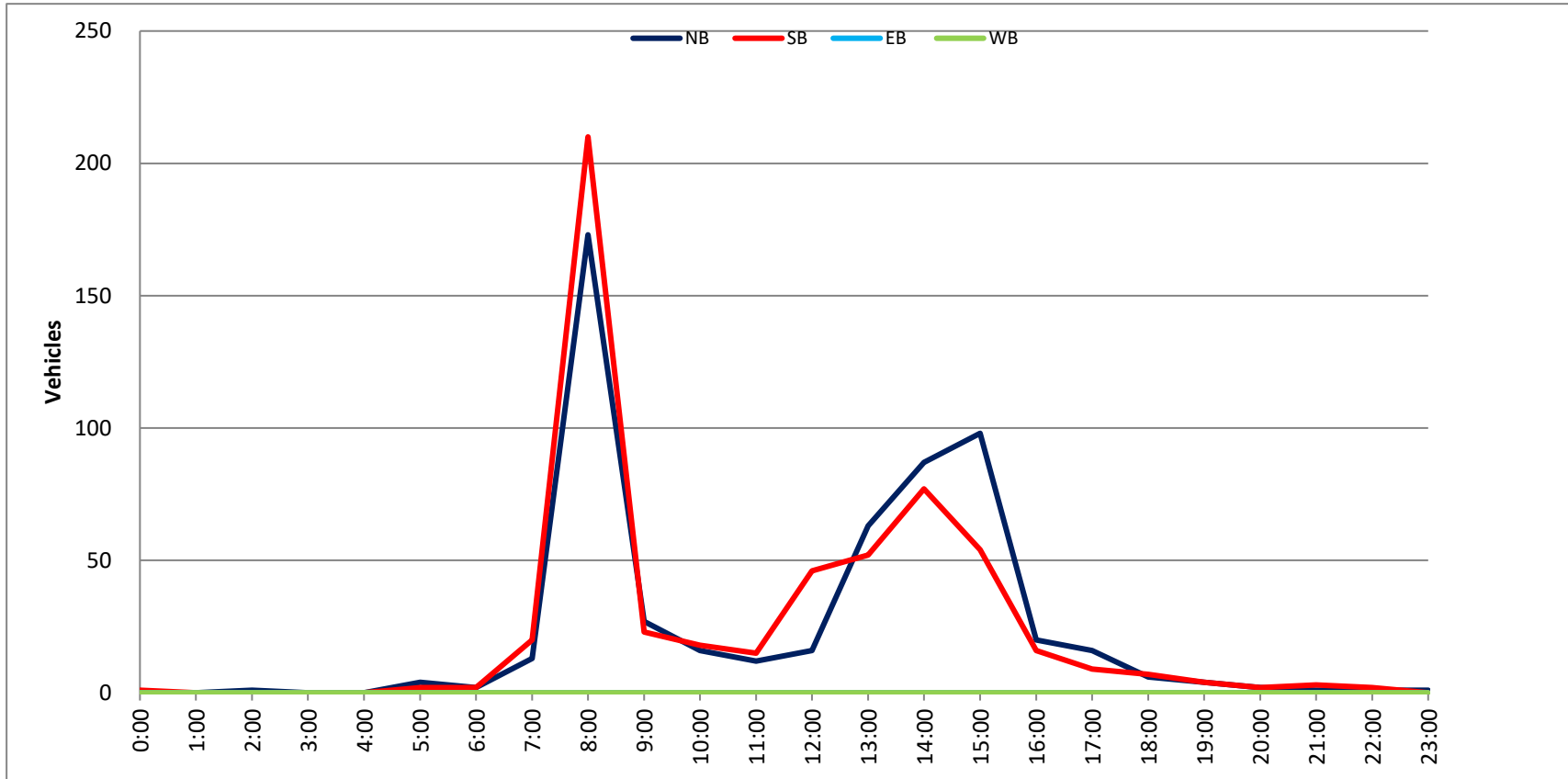
Oak Dell Rd S/O Peasant Valley Rd/Golden Highway/SR 49

Day: Saturday
Date: 5/6/2023

City: Diamond Springs
Project #: CA23_070096_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					97	97	0	0	194		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
0:00	0	0			0	12:00	2	3			5
0:15	0	1			1	12:15	0	1			1
0:30	0	0			0	12:30	4	5			9
0:45	0	0	1		0	12:45	1	7	4	13	20
1:00	0	0			0	13:00	3	9			12
1:15	0	0			0	13:15	2	6			8
1:30	0	0			0	13:30	4	5			9
1:45	0	0			0	13:45	1	10	3	23	33
2:00	0	0			0	14:00	1	1			2
2:15	0	0			0	14:15	2	1			3
2:30	0	0			0	14:30	4	1			5
2:45	0	0			0	14:45	2	9	2	5	14
3:00	0	0			0	15:00	3	5			8
3:15	0	0			0	15:15	4	1			5
3:30	0	0			0	15:30	7	2			9
3:45	0	0			0	15:45	6	20	1	9	29
4:00	0	0			0	16:00	2	2			4
4:15	0	0			0	16:15	2	0			2
4:30	1	0			1	16:30	1	2			3
4:45	3	4	0		3	16:45	2	7	0	4	11
5:00	0	0			0	17:00	2	2			4
5:15	0	0			0	17:15	1	1			2
5:30	0	0			0	17:30	0	0			0
5:45	0	0			0	17:45	1	4	0	3	7
6:00	0	0			0	18:00	1	0			1
6:15	0	0			0	18:15	0	1			1
6:30	1	0			1	18:30	0	1			1
6:45	1	2	1	1	2	18:45	2	3	1	3	6
7:00	0	1			1	19:00	1	1			2
7:15	1	0			1	19:15	2	4			6
7:30	0	1			1	19:30	1	0			1
7:45	2	3	0	2	2	19:45	0	4	1	6	10
8:00	3	0			3	20:00	1	1			2
8:15	2	0			2	20:15	1	2			3
8:30	1	0			1	20:30	0	0			0
8:45	1	7	0		1	20:45	0	2	1	4	6
9:00	0	2			2	21:00	0	1			1
9:15	1	1			2	21:15	0	0			0
9:30	1	1			2	21:30	0	0			0
9:45	1	3	0	4	1	21:45	0	2	3		3
10:00	1	1			2	22:00	1	1			2
10:15	2	2			4	22:15	1	0			1
10:30	0	0			0	22:30	0	0			0
10:45	1	4	1	4	2	22:45	0	2	0	1	3
11:00	0	2			2	23:00	0	0			0
11:15	4	2			6	23:15	0	1			1
11:30	0	3			3	23:30	0	1			1
11:45	2	6	2	9	4	23:45	0	0	2		2
TOTALS	29	21			50	TOTALS	68	76			144
SPLIT %	58.0%	42.0%			25.8%	SPLIT %	47.2%	52.8%			74.2%

DAILY TOTALS					NB	SB	EB	WB	Total
					97	97	0	0	194
AM Peak Hour	7:45	11:45			11:45	PM Peak Hour	15:00	12:30	12:30
AM Pk Volume	8	11			19	PM Pk Volume	20	24	34
Pk Hr Factor	0.667	0.550			0.528	Pk Hr Factor	0.714	0.667	0.708
7 - 9 Volume	10	2	0	0	12	4 - 6 Volume	11	7	0
7 - 9 Peak Hour	7:45	7:00			7:30	4 - 6 Peak Hour	16:00	16:30	16:00
7 - 9 Pk Volume	8	2	0	0	8	4 - 6 Pk Volume	7	5	0
Pk Hr Factor	0.667	0.500	0.000	0.000	0.667	Pk Hr Factor	0.875	0.625	0.000

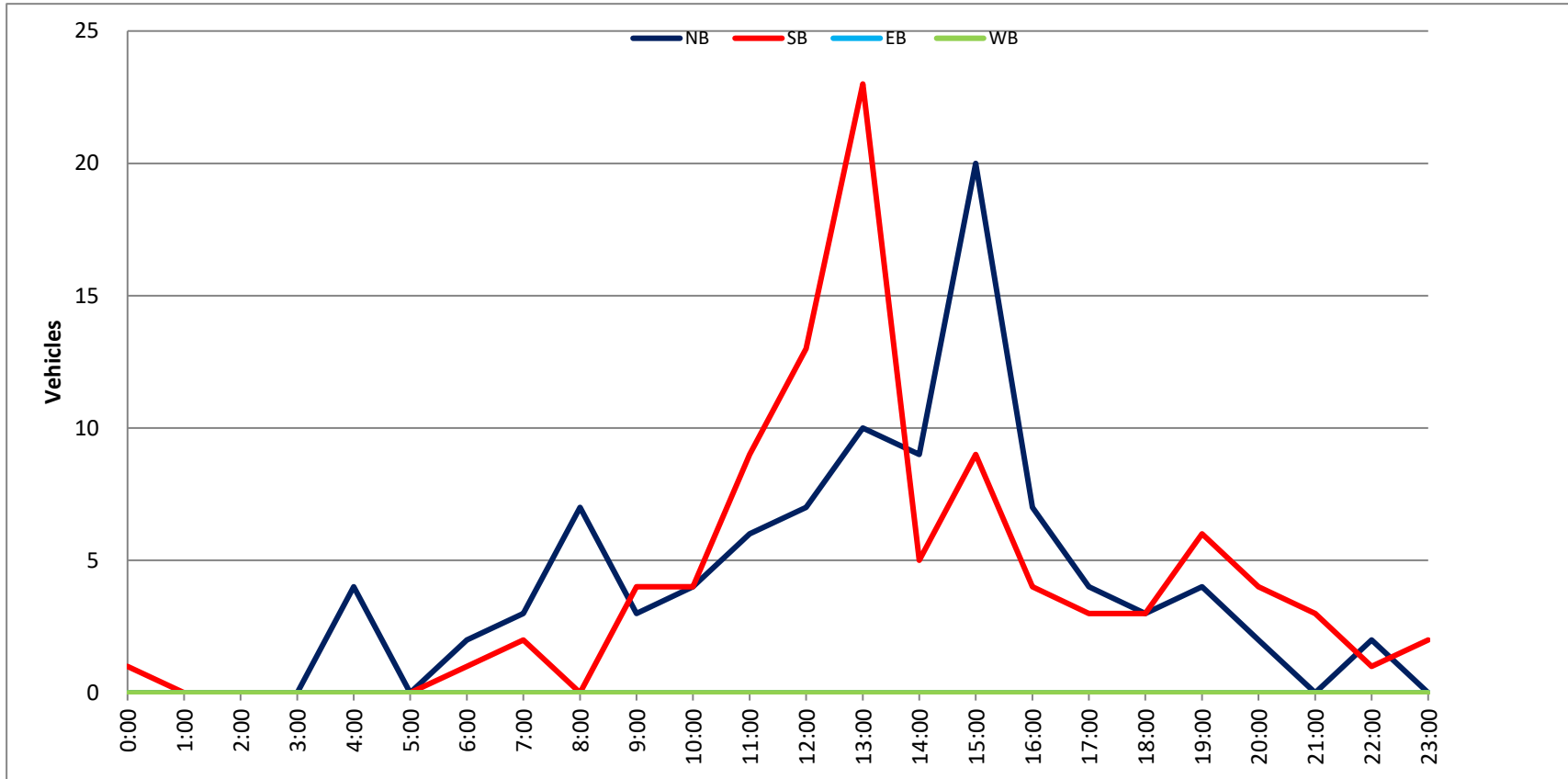


Project #: CA23_070096_001

City: Diamond Springs

Location: Oak Dell Rd S/O Peasant Valley Rd/Golden

Date: 5/6/2023



VOLUME

Peasant Valley Rd/ Golden Highway/ SR 49 E/O Oak Dell

Day: Thursday
Date: 5/4/2023

City: Diamond Springs
Project #: CA23_070096_002

DAILY TOTALS						NB	SB	EB	WB	Total				
						0	0	4,852	4,557	9,409				
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
0:00			0	4	4	12:00			83	64	147			
0:15			3	5	8	12:15			58	56	114			
0:30			5	0	5	12:30			69	80	149			
0:45			1	9	2	11	3	20	68	278	85	285	153	563
1:00			3	1	4	13:00			83	67	150			
1:15			2	1	3	13:15			70	82	152			
1:30			1	1	2	13:30			113	74	187			
1:45			1	7	2	5	3	12	114	380	82	305	196	685
2:00			2	1	3	14:00			125	74	199			
2:15			1	0	1	14:15			88	68	156			
2:30			2	1	3	14:30			86	90	176			
2:45			1	6	1	3	2	9	84	383	104	336	188	719
3:00			1	1	2	15:00			101	112	213			
3:15			0	2	2	15:15			123	118	241			
3:30			6	3	9	15:30			205	109	314			
3:45			6	13	1	7	20	7	171	600	95	434	266	1034
4:00			6	4	10	16:00			129	93	222			
4:15			2	7	9	16:15			95	82	177			
4:30			6	6	12	16:30			103	78	181			
4:45			13	27	7	24	20	51	75	402	77	330	152	732
5:00			13	7	20	17:00			92	78	170			
5:15			12	14	26	17:15			79	96	175			
5:30			11	17	28	17:30			78	75	153			
5:45			17	53	29	67	46	120	88	337	78	327	166	664
6:00			15	24	39	18:00			93	63	156			
6:15			22	44	66	18:15			81	63	144			
6:30			32	50	82	18:30			51	43	94			
6:45			34	103	45	163	79	266	47	272	27	196	74	468
7:00			38	71	109	19:00			52	38	90			
7:15			61	86	147	19:15			33	41	74			
7:30			67	97	164	19:30			50	33	83			
7:45			77	243	97	351	174	594	41	176	26	138	67	314
8:00			101	179	280	20:00			44	34	78			
8:15			127	205	332	20:15			30	43	73			
8:30			172	164	336	20:30			60	24	84			
8:45			118	518	86	634	204	1152	56	190	16	117	72	307
9:00			58	58	116	21:00			41	12	53			
9:15			52	48	100	21:15			20	15	35			
9:30			48	71	119	21:30			14	9	23			
9:45			65	223	73	250	138	473	16	91	9	45	25	136
10:00			59	63	122	22:00			15	11	26			
10:15			57	60	117	22:15			13	11	24			
10:30			51	55	106	22:30			11	6	17			
10:45			61	228	73	251	134	479	9	48	3	31	12	79
11:00			65	47	112	23:00			2	6	8			
11:15			48	68	116	23:15			6	6	12			
11:30			59	56	115	23:30			9	2	11			
11:45			72	244	61	232	133	476	4	21	1	15	5	36
TOTALS				1674	1998		3672	TOTALS		3178	2559	5737		
SPLIT %				45.6%	54.4%		39.0%	SPLIT %		55.4%	44.6%	61.0%		

DAILY TOTALS						NB	SB	EB	WB	Total
						0	0	4,852	4,557	9,409

AM Peak Hour			8:00	7:45	8:00	PM Peak Hour			15:15	14:45	15:15
AM Pk Volume			518	645	1152	PM Pk Volume			628	443	1043
Pk Hr Factor			0.753	0.787	0.857	Pk Hr Factor			0.766	0.939	0.830
7 - 9 Volume	0	0	761	985	1746	4 - 6 Volume	0	0	739	657	1396
7 - 9 Peak Hour			8:00	7:45	8:00	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	518	645	1152	4 - 6 Pk Volume	0	0	402	330	732
Pk Hr Factor	0.000	0.000	0.753	0.787	0.857	Pk Hr Factor	0.000	0.000	0.779	0.887	0.824

VOLUME

Peasant Valley Rd/ Golden Highway/ SR 49 E/O Oak Dell

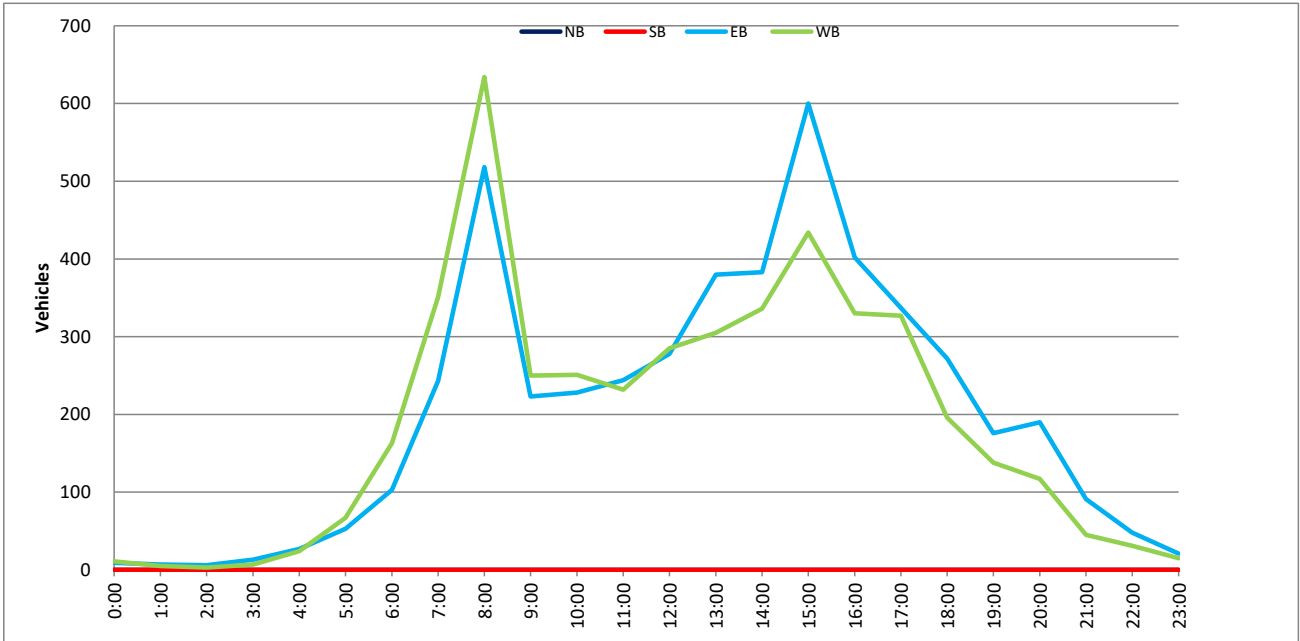
Day: Saturday
Date: 5/6/2023

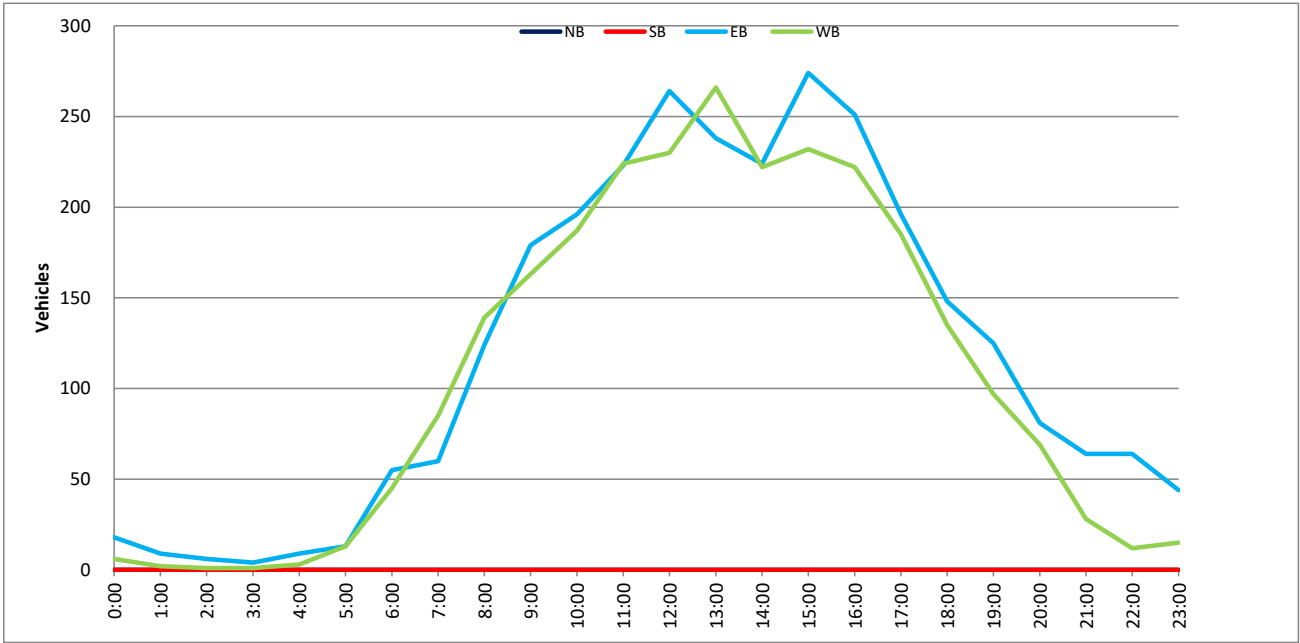
City: Diamond Springs
Project #: CA23_070096_002

DAILY TOTALS						NB	SB	EB	WB	Total		
						0	0	2,869	2,582	5,451		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
0:00			9	0	9	12:00			64	54	118	
0:15			2	2	4	12:15			61	64	125	
0:30			4	2	6	12:30			72	57	129	
0:45			3	18	2	6	12:45		67	264	55	230
1:00			2	2	4	13:00			68	63	131	
1:15			3	0	3	13:15			59	69	128	
1:30			1	0	1	13:30			53	75	128	
1:45			3	9	0	2	3	11	58	238	59	266
2:00			1	0	1	14:00			51	60	111	
2:15			2	1	3	14:15			64	53	117	
2:30			0	0	0	14:30			54	60	114	
2:45			3	6	0	1	3	7	55	224	49	222
3:00			1	0	1	15:00			64	51	115	
3:15			1	0	1	15:15			63	58	121	
3:30			2	1	3	15:30			67	59	126	
3:45			0	4	0	1	0	5	80	274	64	232
4:00			3	0	3	16:00			67	66	133	
4:15			1	0	1	16:15			66	58	124	
4:30			3	0	3	16:30			66	53	119	
4:45			2	9	0	3	2	12	52	251	45	222
5:00			1	0	1	17:00			60	52	112	
5:15			3	2	5	17:15			46	50	96	
5:30			4	8	12	17:30			41	39	80	
5:45			5	13	3	13	8	26	49	196	44	185
6:00			11	12	23	18:00			43	29	72	
6:15			12	7	19	18:15			46	42	88	
6:30			18	14	32	18:30			25	28	53	
6:45			14	55	12	45	26	100	34	148	36	135
7:00			14	17	31	19:00			20	20	40	
7:15			9	16	25	19:15			34	32	66	
7:30			22	22	44	19:30			33	22	55	
7:45			15	60	30	85	45	145	38	125	23	97
8:00			20	26	46	20:00			20	25	45	
8:15			27	36	63	20:15			18	23	41	
8:30			36	33	69	20:30			25	12	37	
8:45			41	124	44	139	85	263	18	81	9	69
9:00			36	35	71	21:00			17	9	26	
9:15			32	31	63	21:15			19	12	31	
9:30			60	49	109	21:30			13	3	16	
9:45			51	179	48	163	99	342	15	64	4	28
10:00			42	43	85	22:00			17	1	18	
10:15			42	48	90	22:15			12	7	19	
10:30			60	41	101	22:30			19	1	20	
10:45			52	196	55	187	107	383	16	64	3	12
11:00			56	58	114	23:00			16	3	19	
11:15			65	53	118	23:15			11	3	14	
11:30			48	51	99	23:30			9	3	12	
11:45			54	223	62	224	116	447	8	44	6	15
TOTALS			896	869	1765	TOTALS			1973	1713	3686	
SPLIT %			50.8%	49.2%	32.4%	SPLIT %			53.5%	46.5%	67.6%	

DAILY TOTALS						NB	SB	EB	WB	Total
						0	0	2,869	2,582	5,451

AM Peak Hour			11:45	11:45	11:45	PM Peak Hour			15:30	13:00	15:30
AM Pk Volume			251	237	488	PM Pk Volume			280	266	527
Pk Hr Factor			0.872	0.926	0.946	Pk Hr Factor			0.875	0.887	0.915
7 - 9 Volume	0	0	184	224	408	4 - 6 Volume	0	0	447	407	854
7 - 9 Peak Hour			8:00	8:00	8:00	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	124	139	263	4 - 6 Pk Volume	0	0	251	222	473
Pk Hr Factor	0.000	0.000	0.756	0.790	0.774	Pk Hr Factor	0.000	0.000	0.937	0.841	0.889

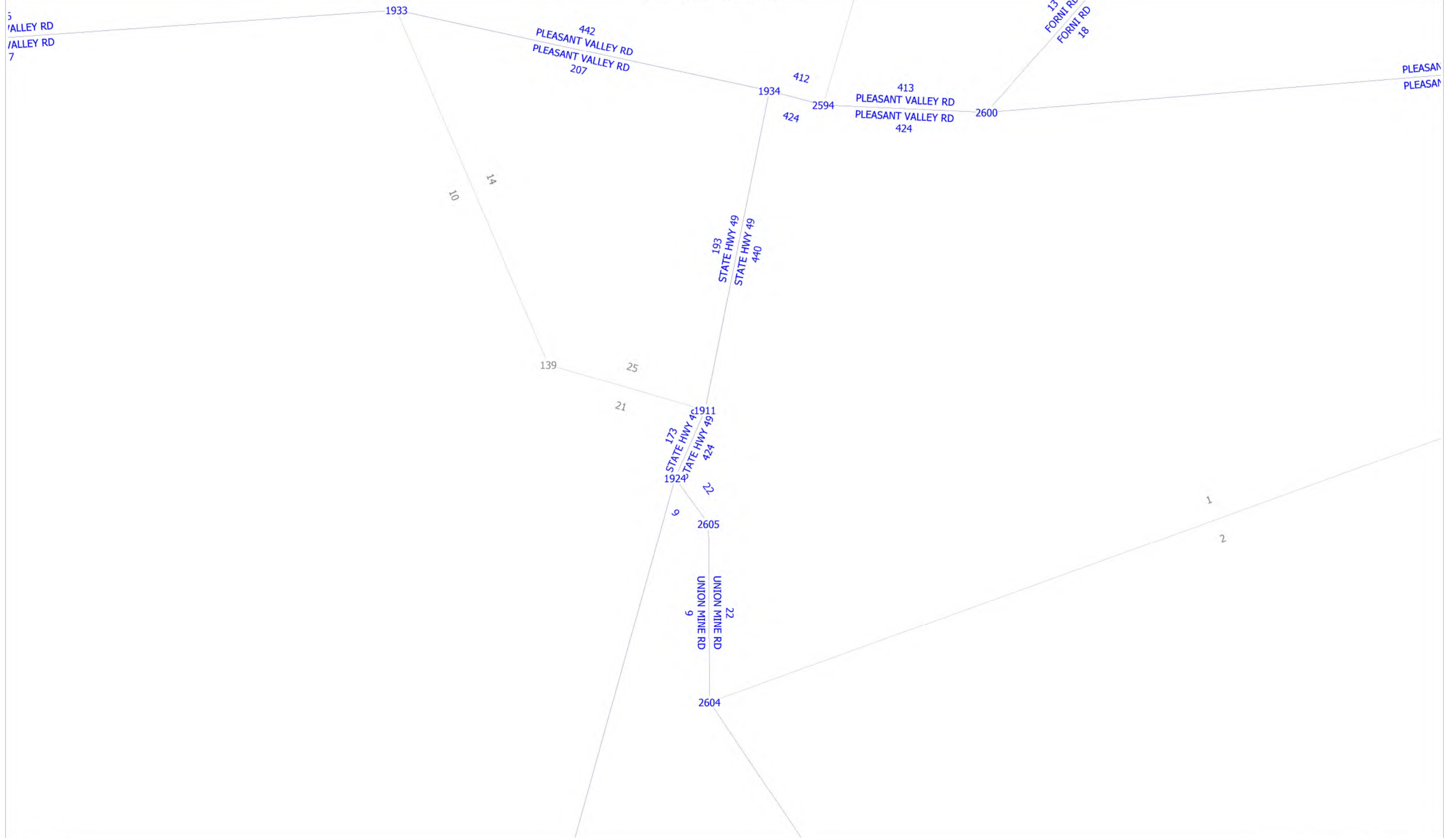




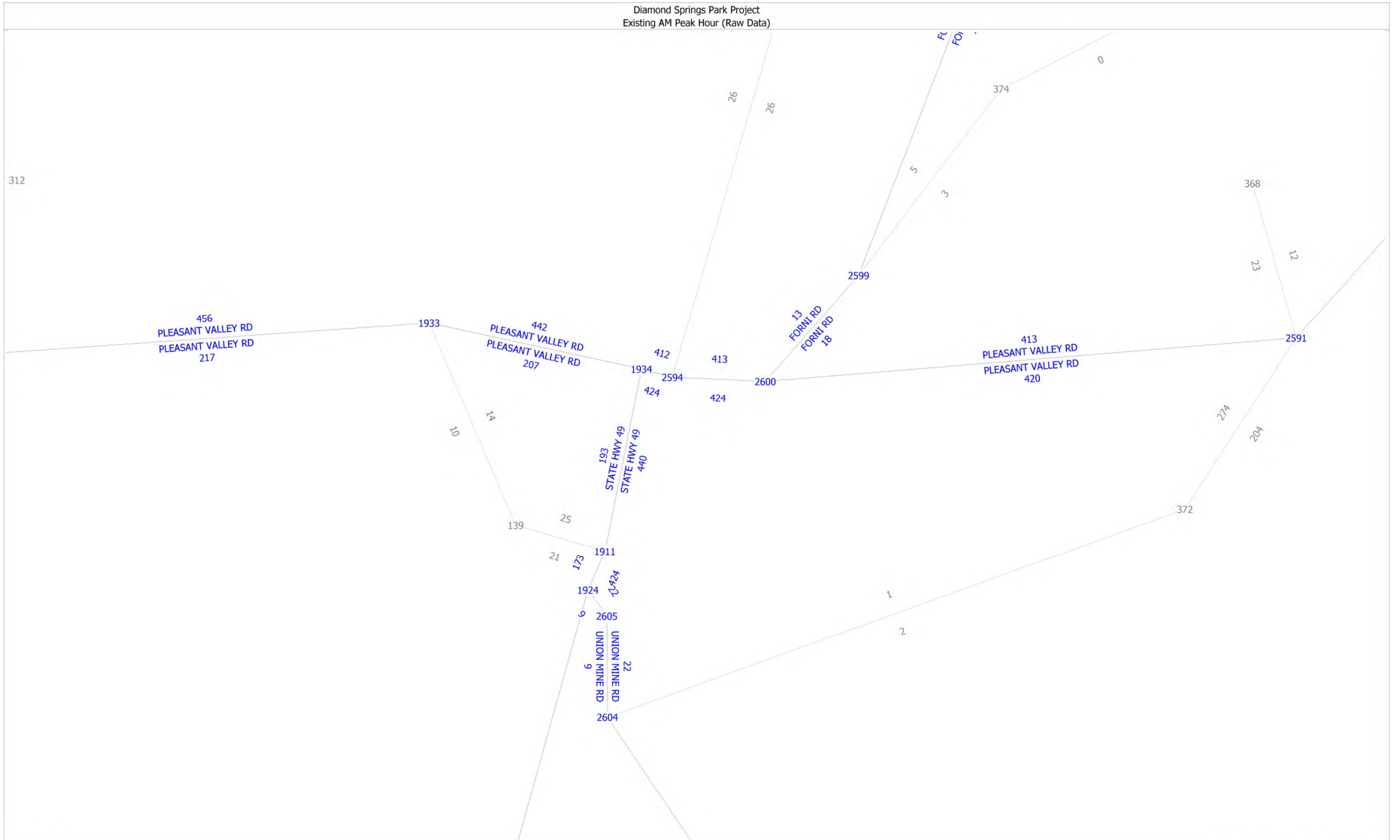
Appendix B

Raw Model Plots

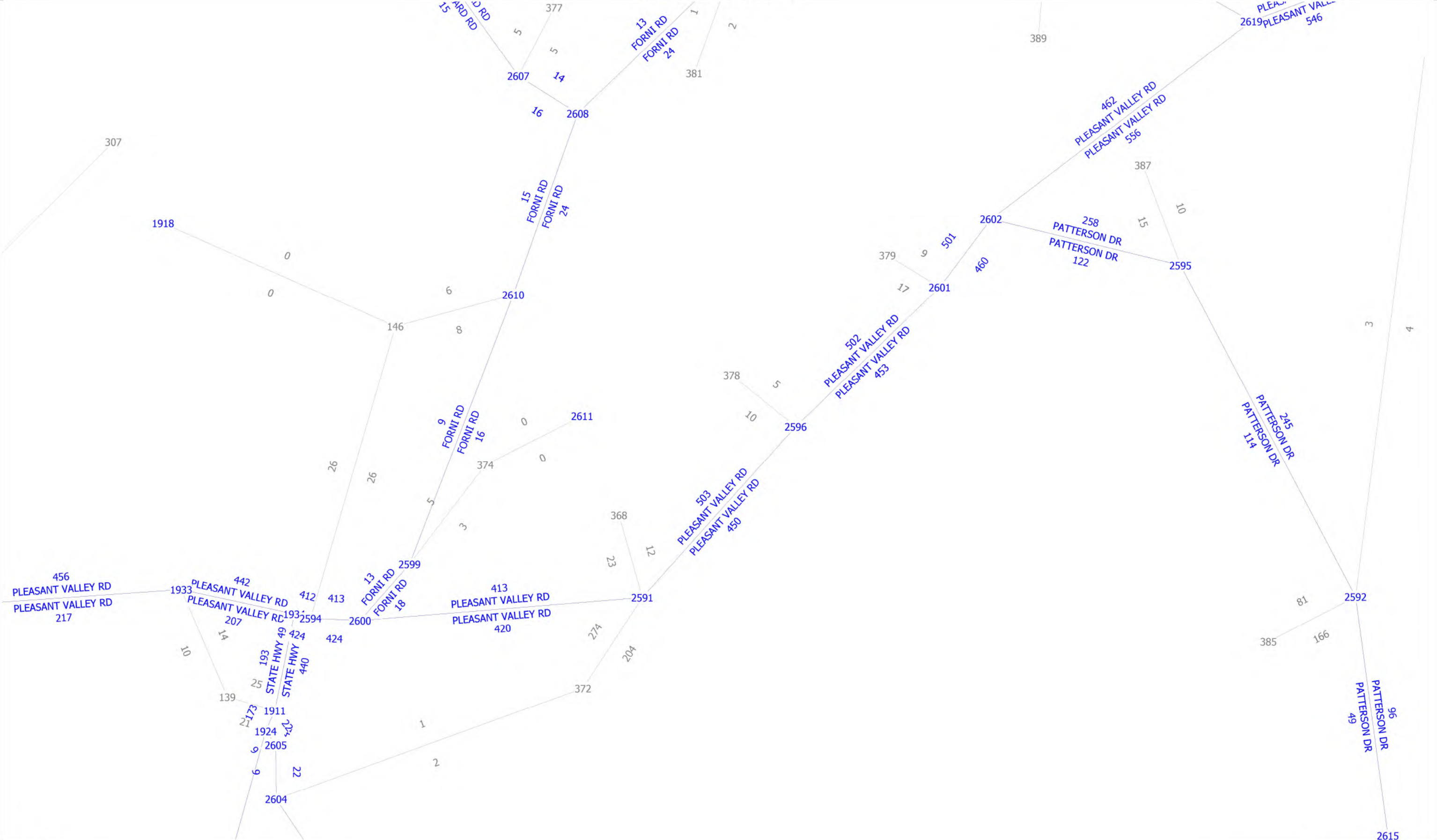
Diamond Springs Park Project
Existing AM Peak Hour (Raw Data)



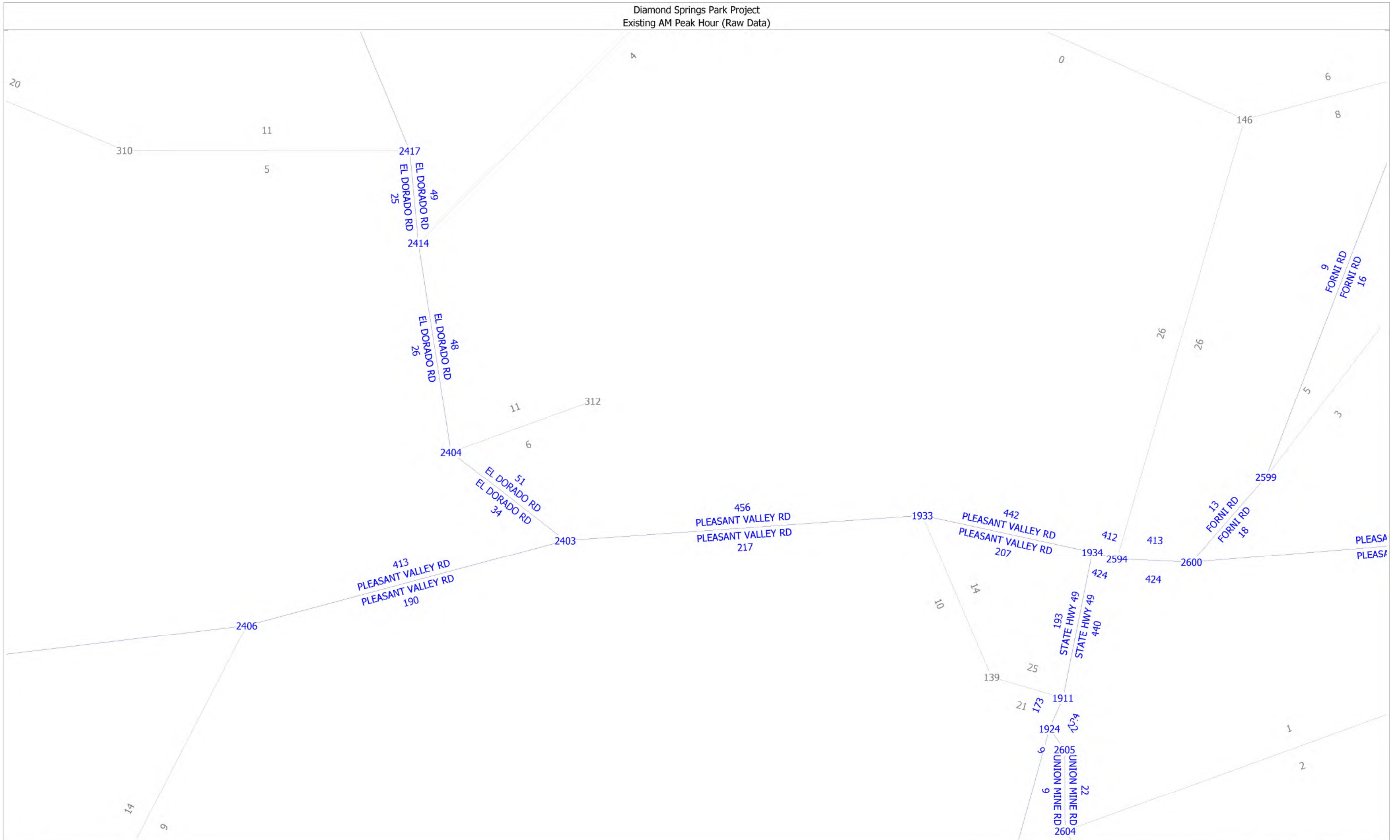
Diamond Springs Park Project
Existing AM Peak Hour (Raw Data)

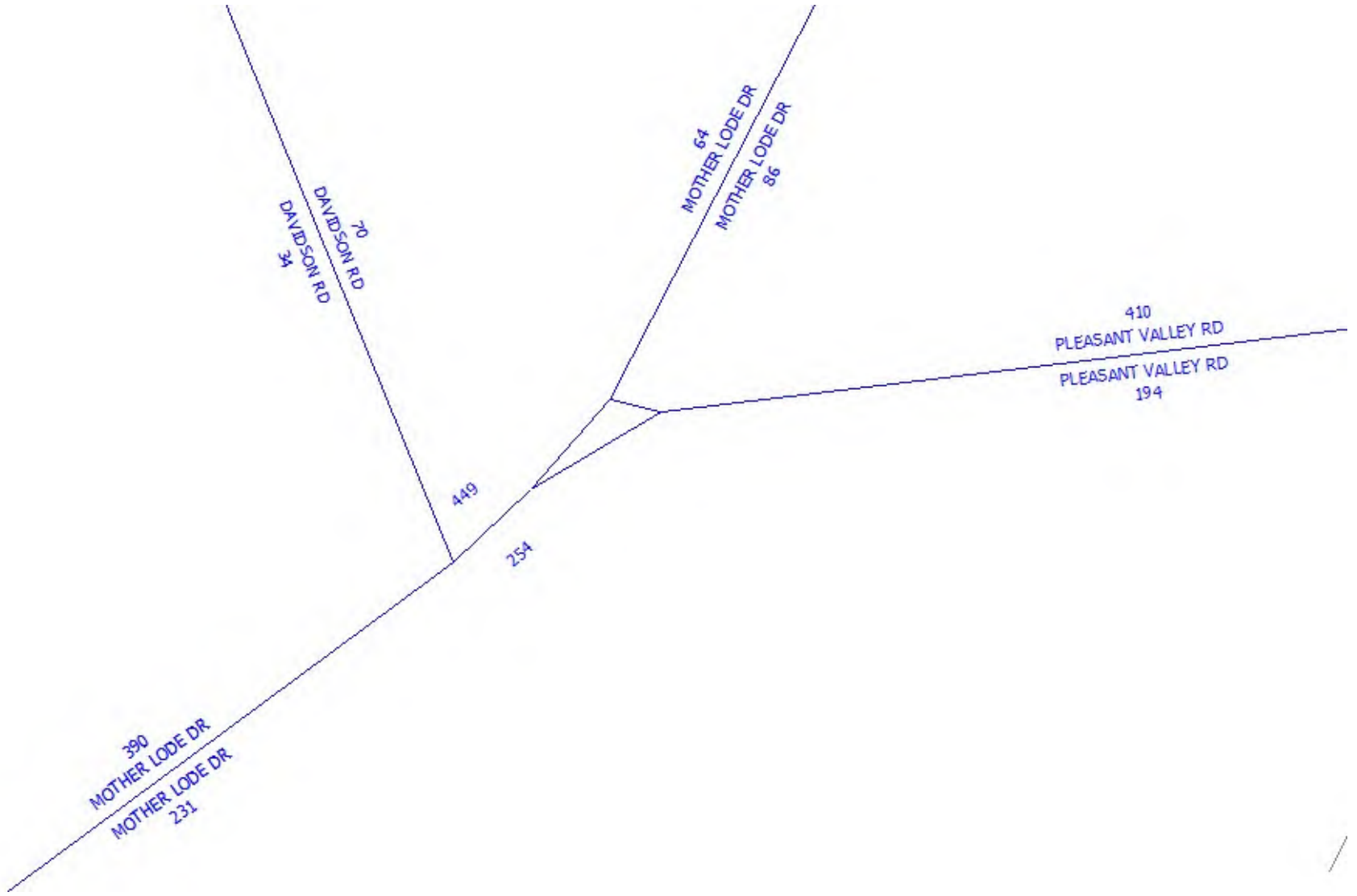


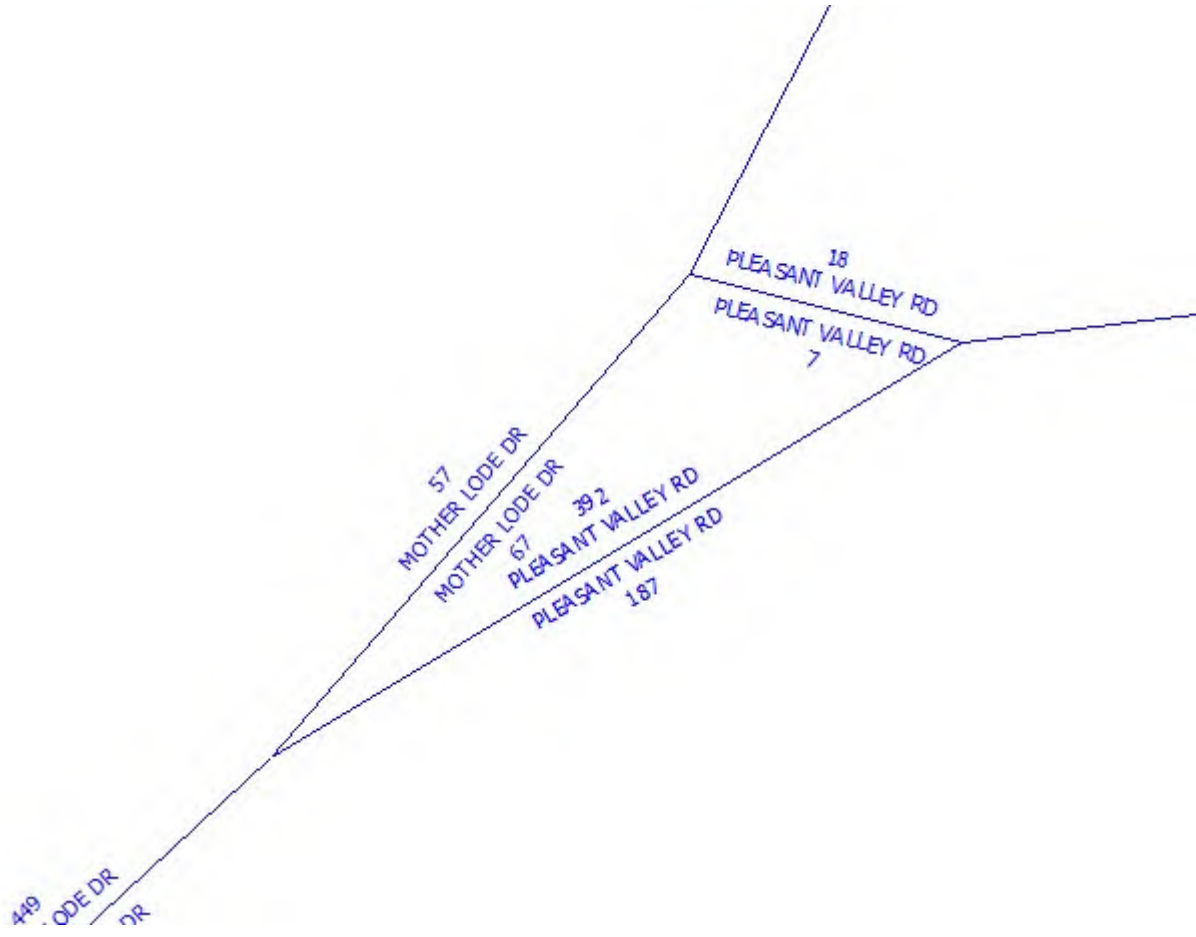
Diamond Springs Park Project
Existing AM Peak Hour (Raw Data)



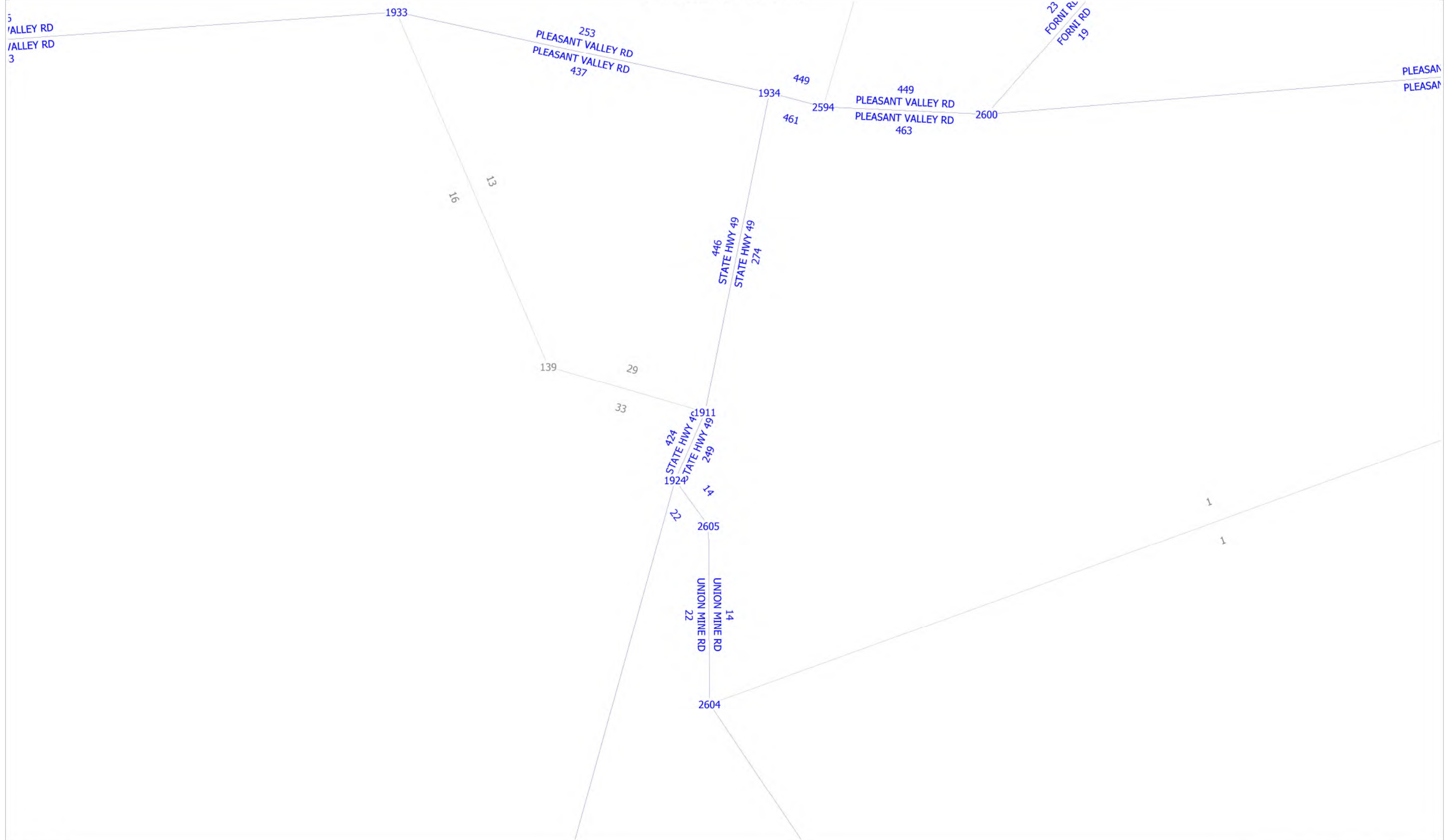
Diamond Springs Park Project
Existing AM Peak Hour (Raw Data)



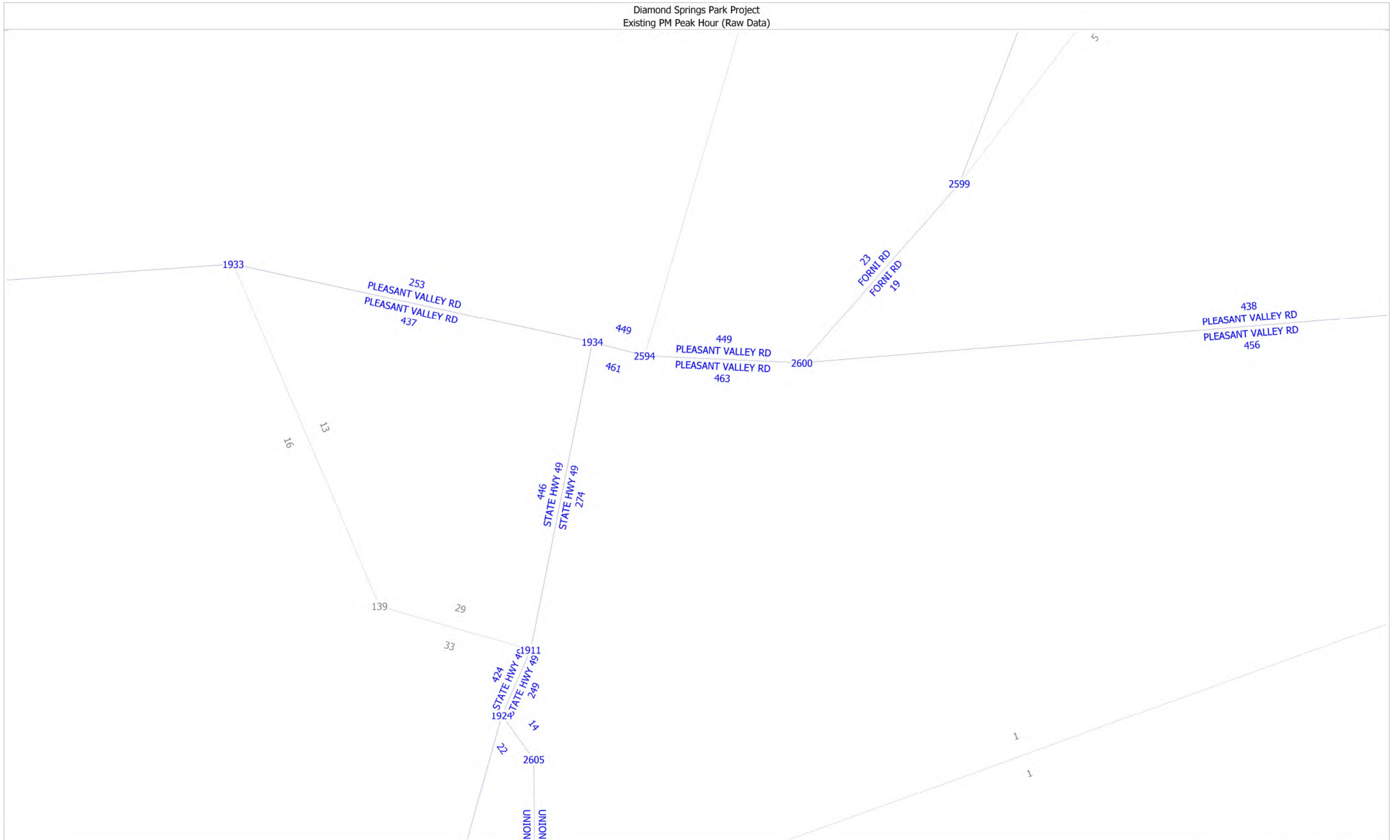




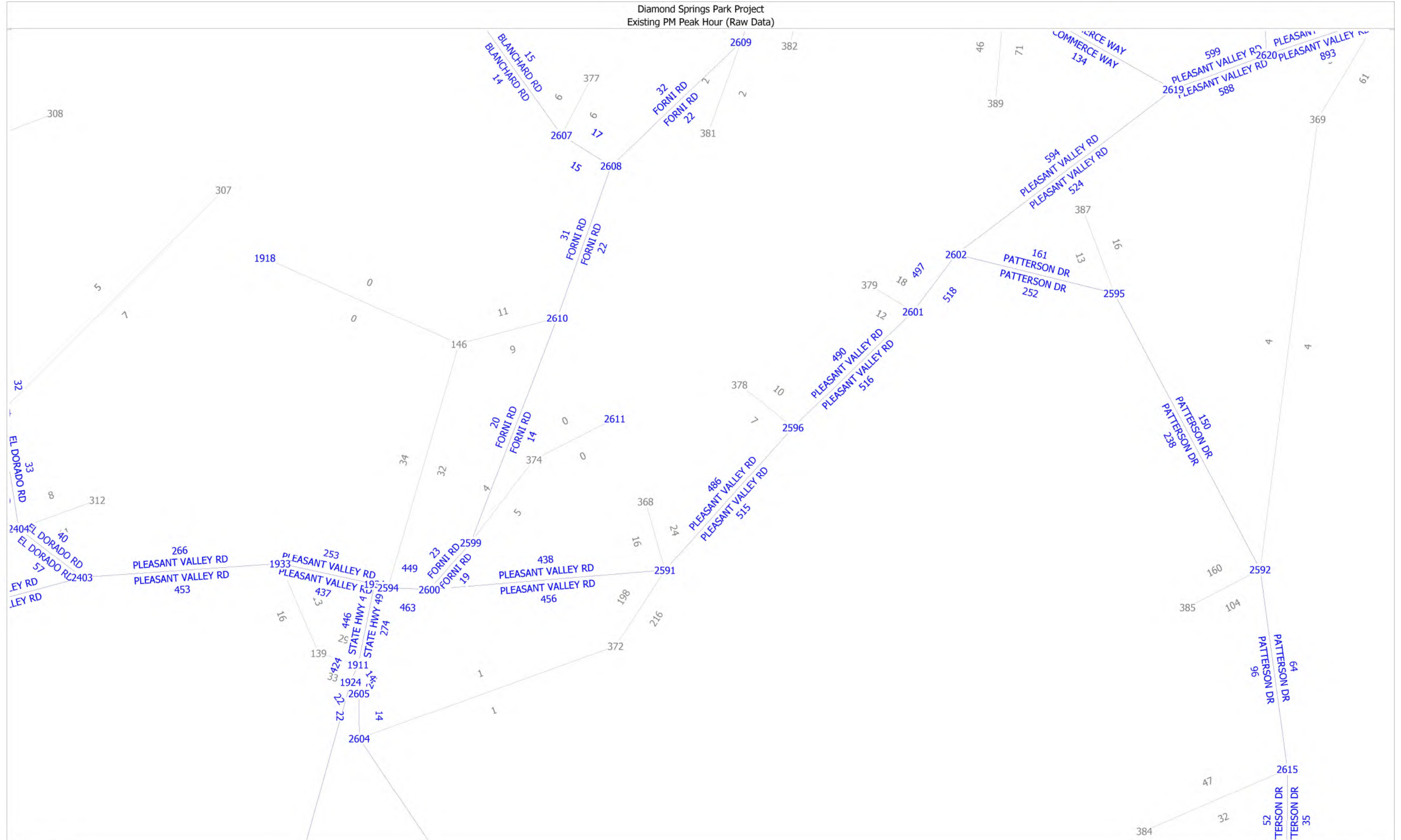
Diamond Springs Park Project
Existing PM Peak Hour (Raw Data)



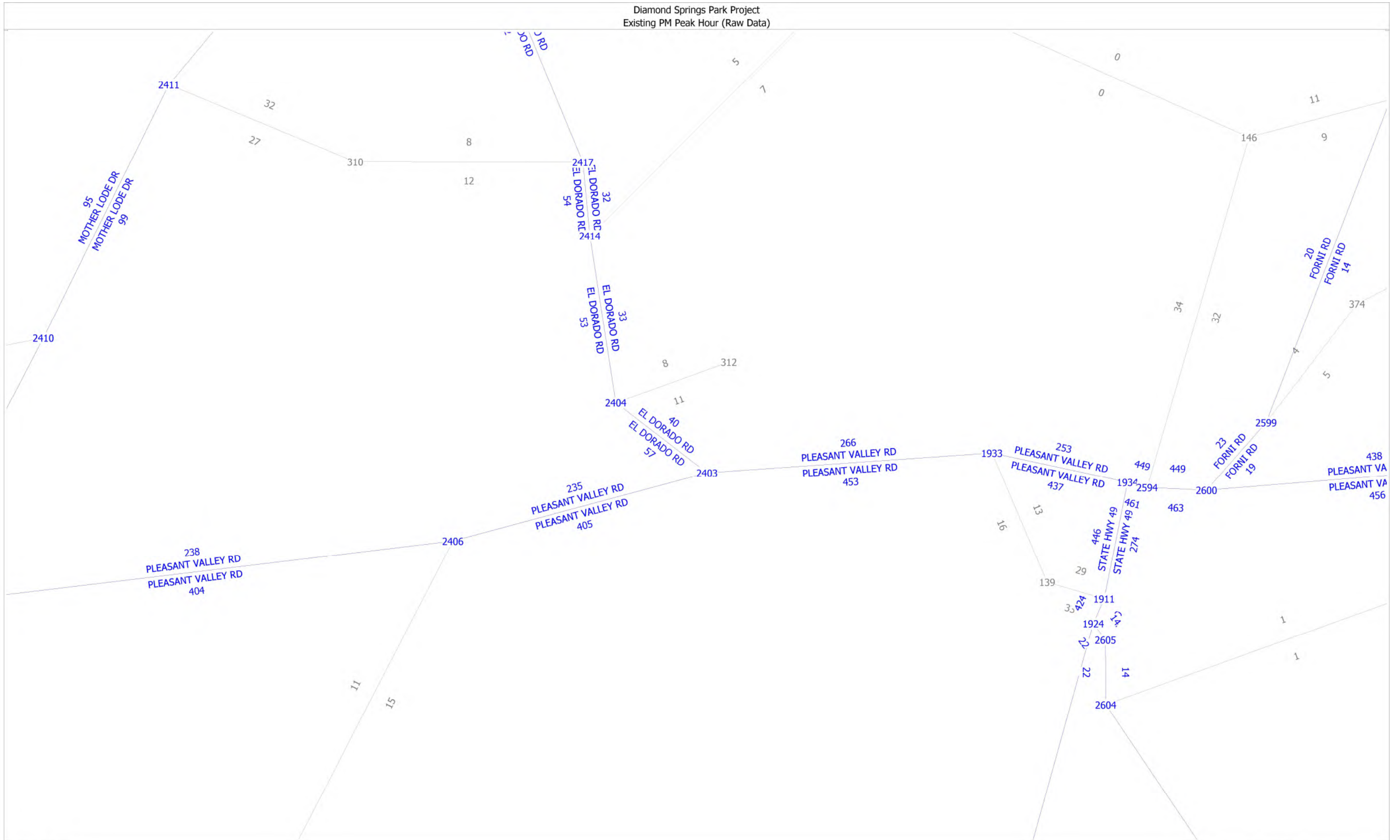
Diamond Springs Park Project
Existing PM Peak Hour (Raw Data)

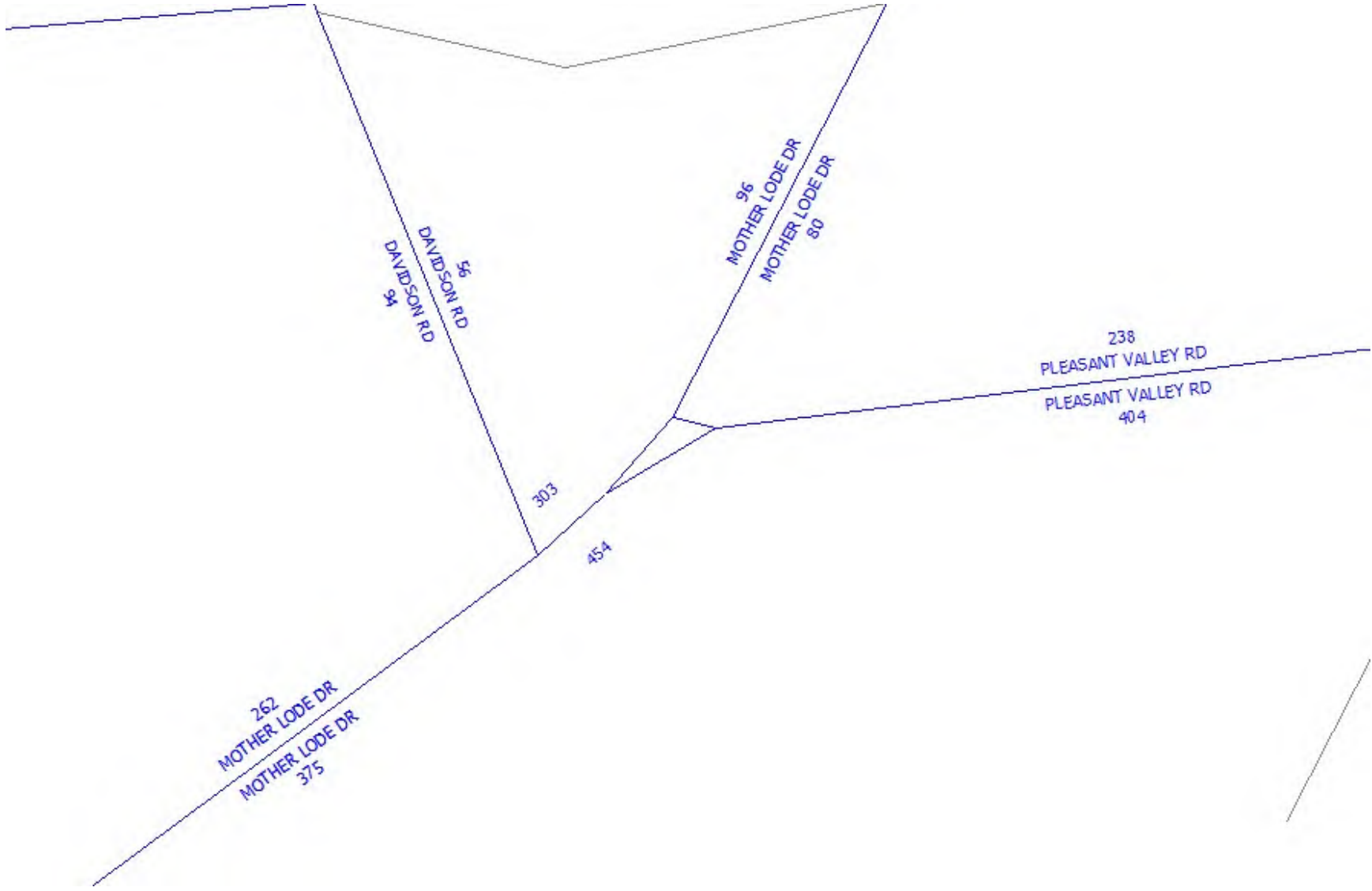


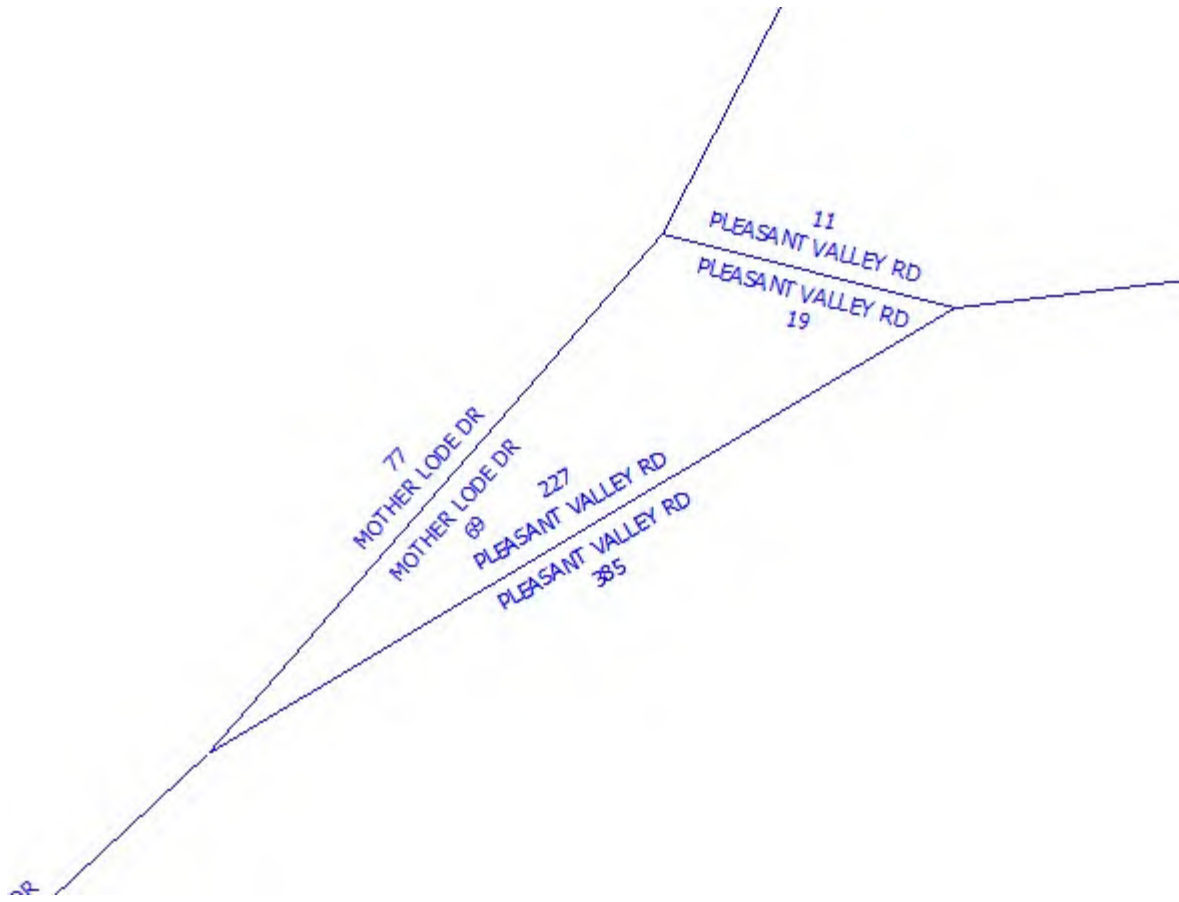
Diamond Springs Park Project
Existing PM Peak Hour (Raw Data)

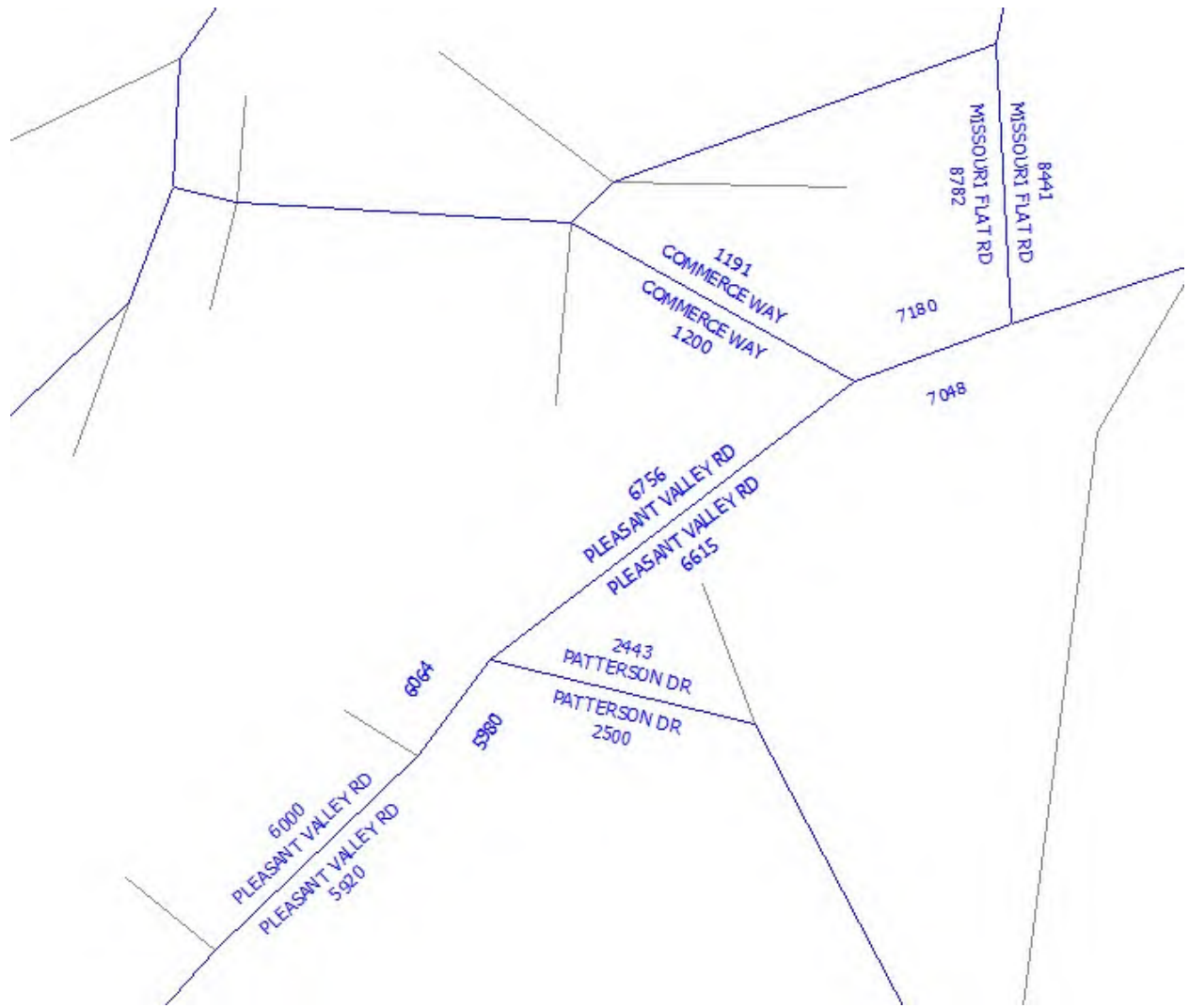


Diamond Springs Park Project
Existing PM Peak Hour (Raw Data)

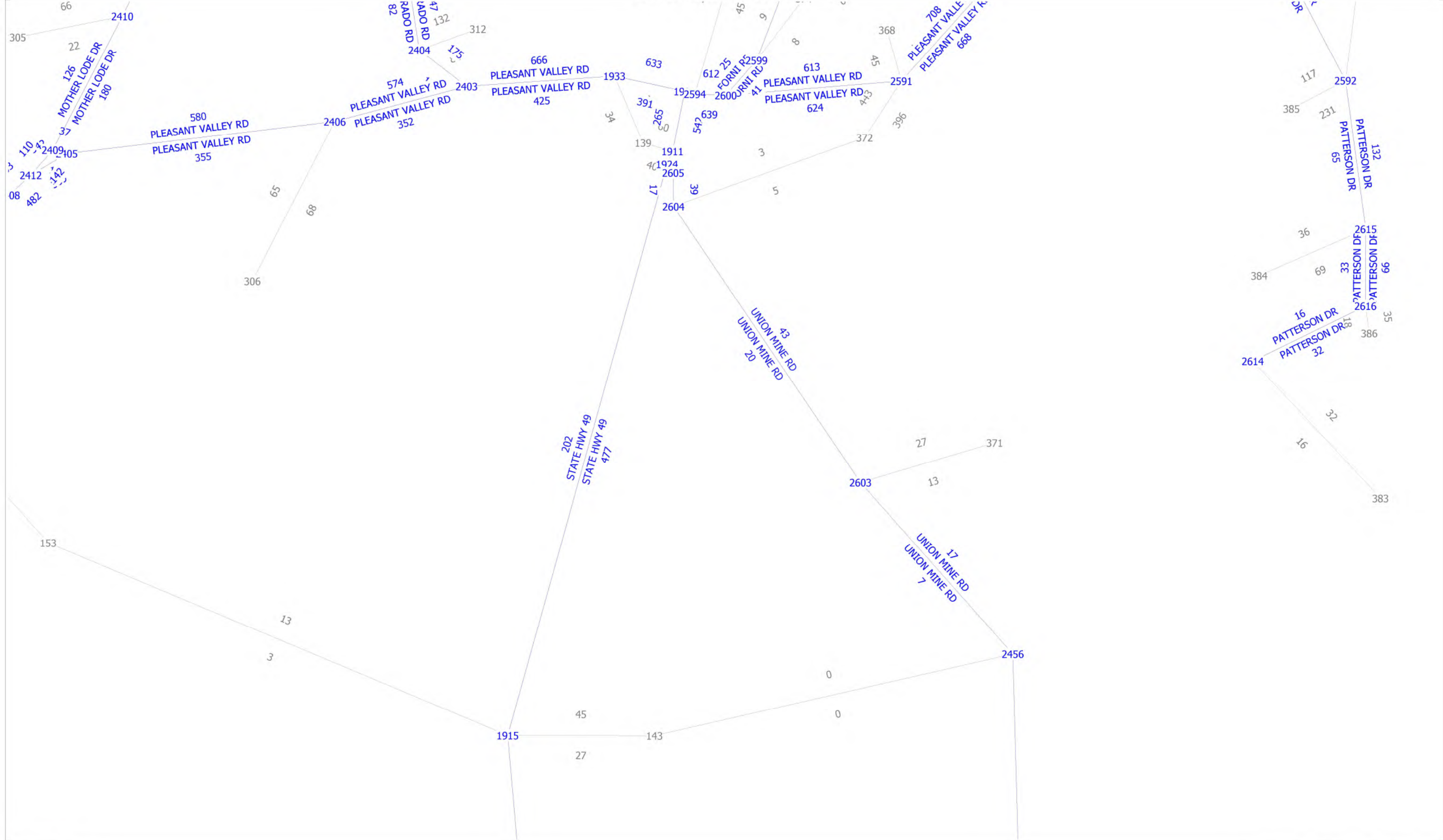




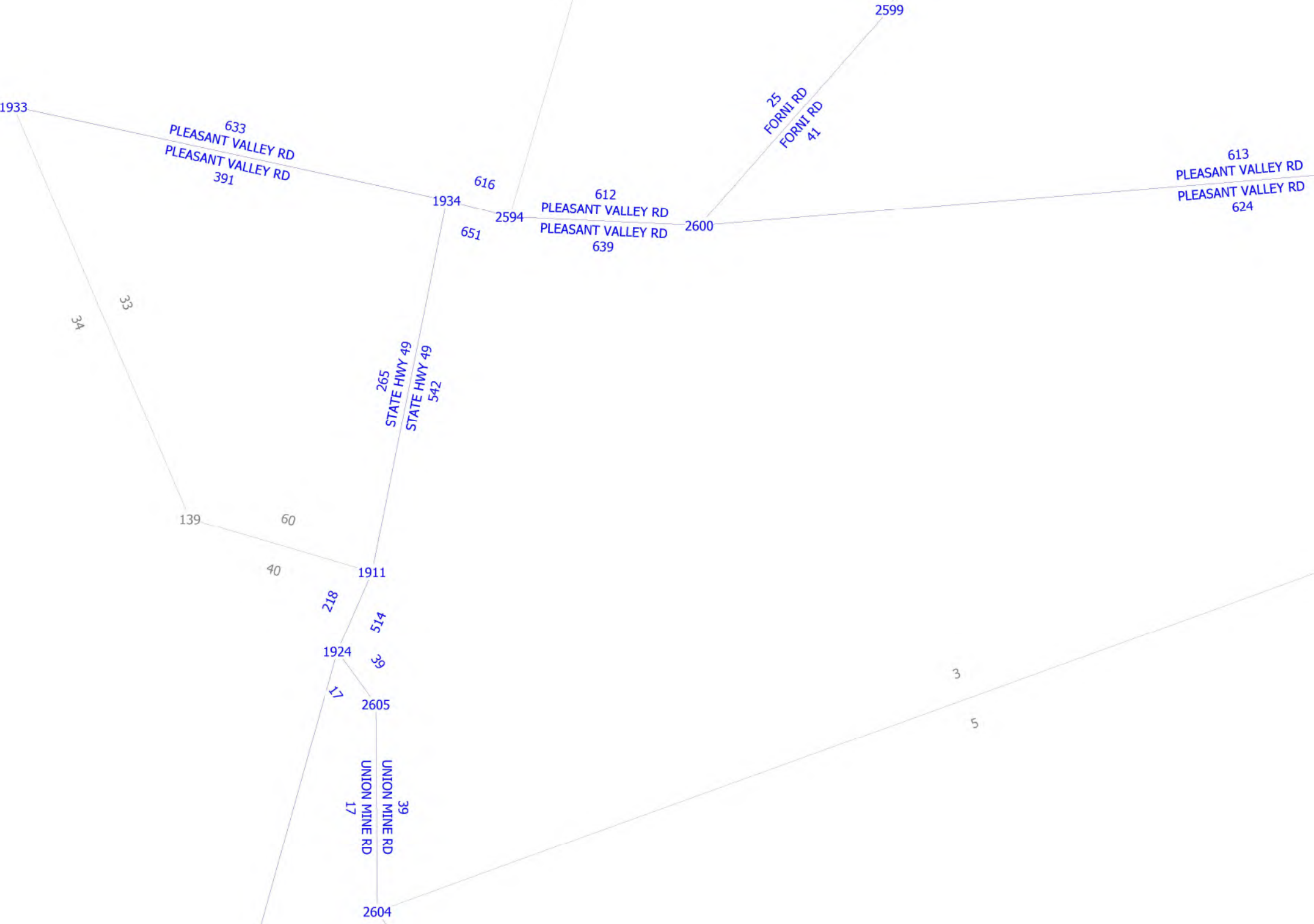




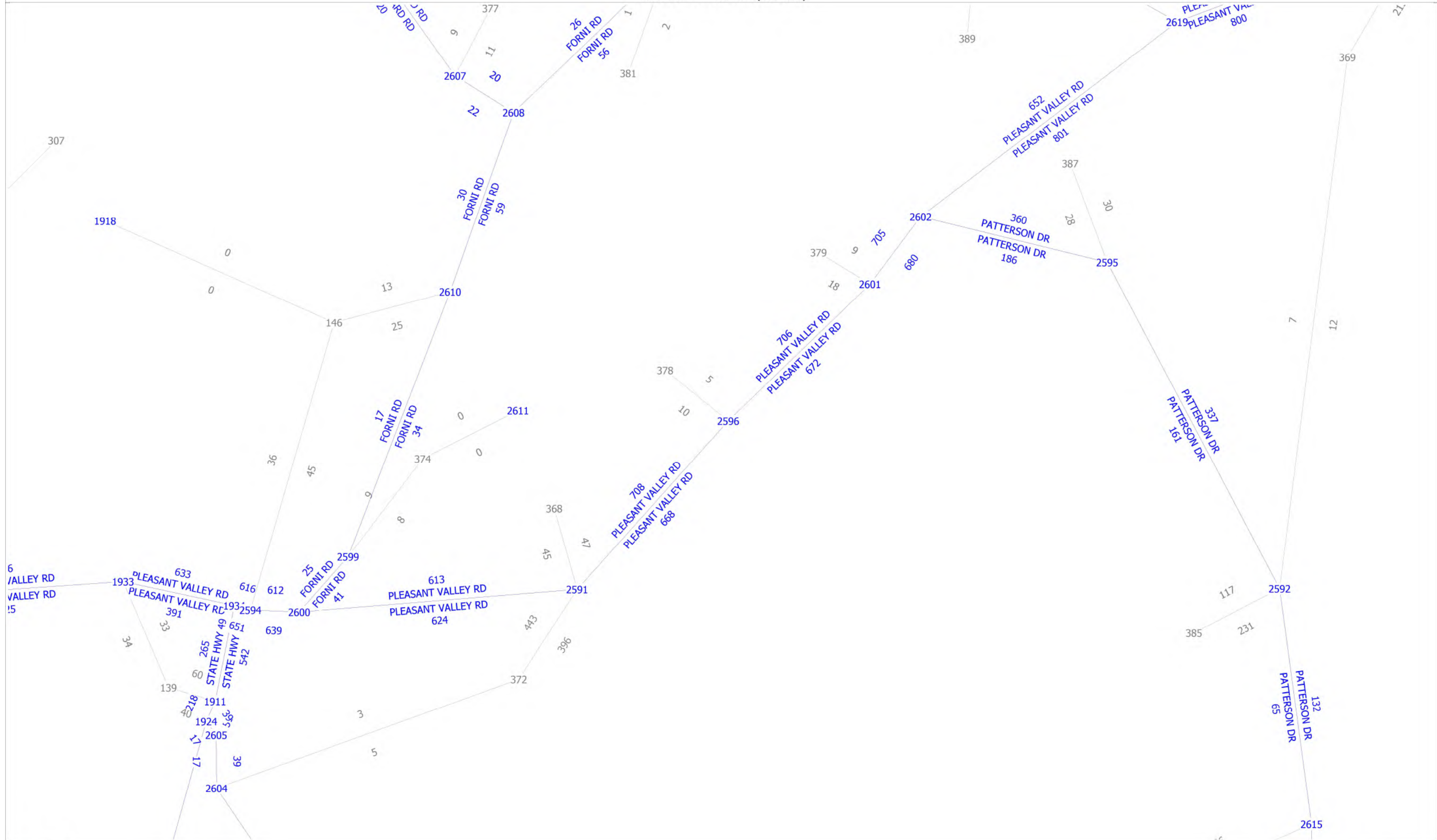
Diamond Springs Park Project
Future Year AM Peak Hour (Raw Data)



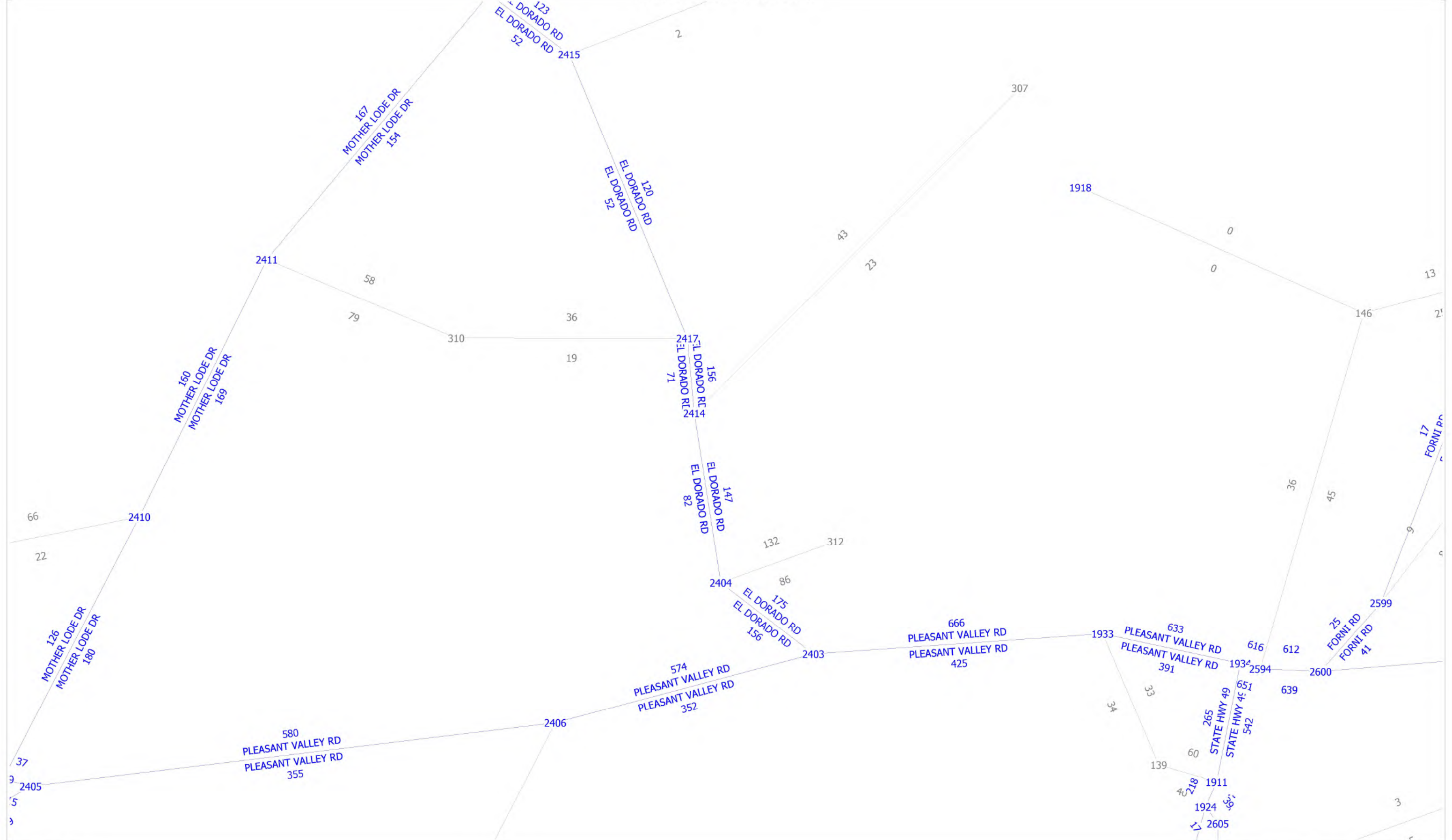
Diamond Springs Park Project
Future Year AM Peak Hour (Raw Data)

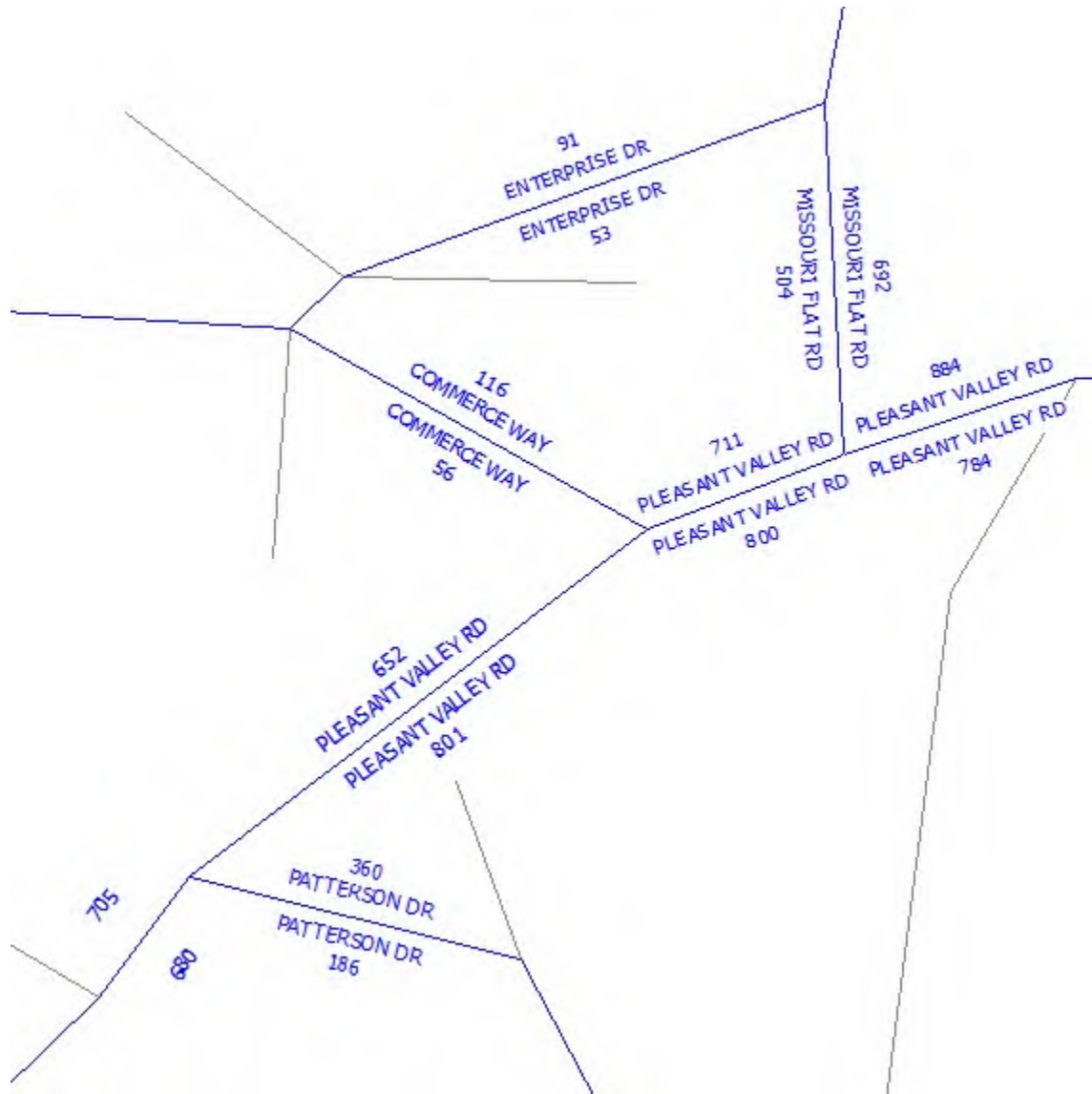


Diamond Springs Park Project
Future Year PM Peak Hour (Raw Data)

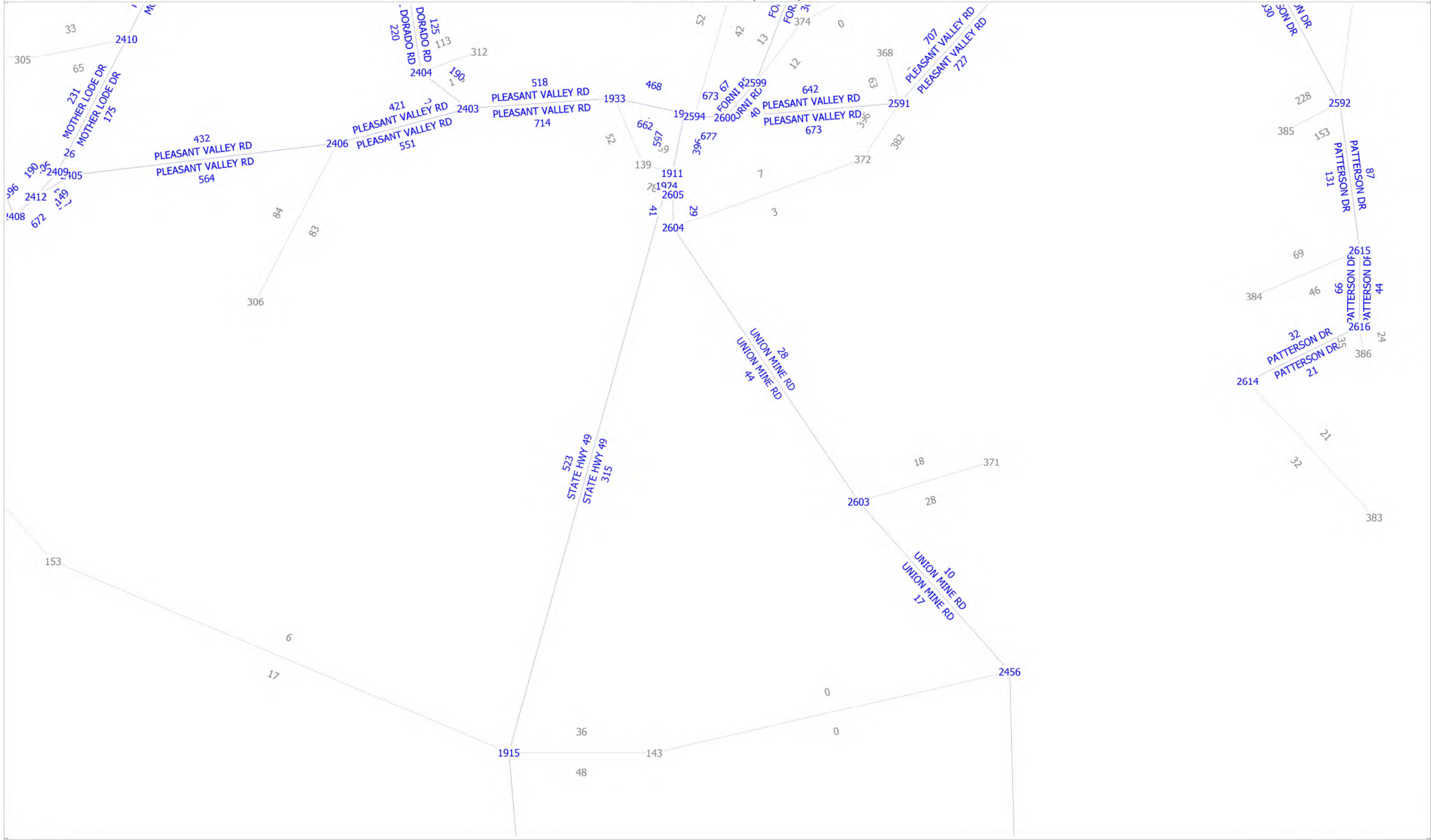


Diamond Springs Park Project
 Future Year AM Peak Hour (Raw Data)

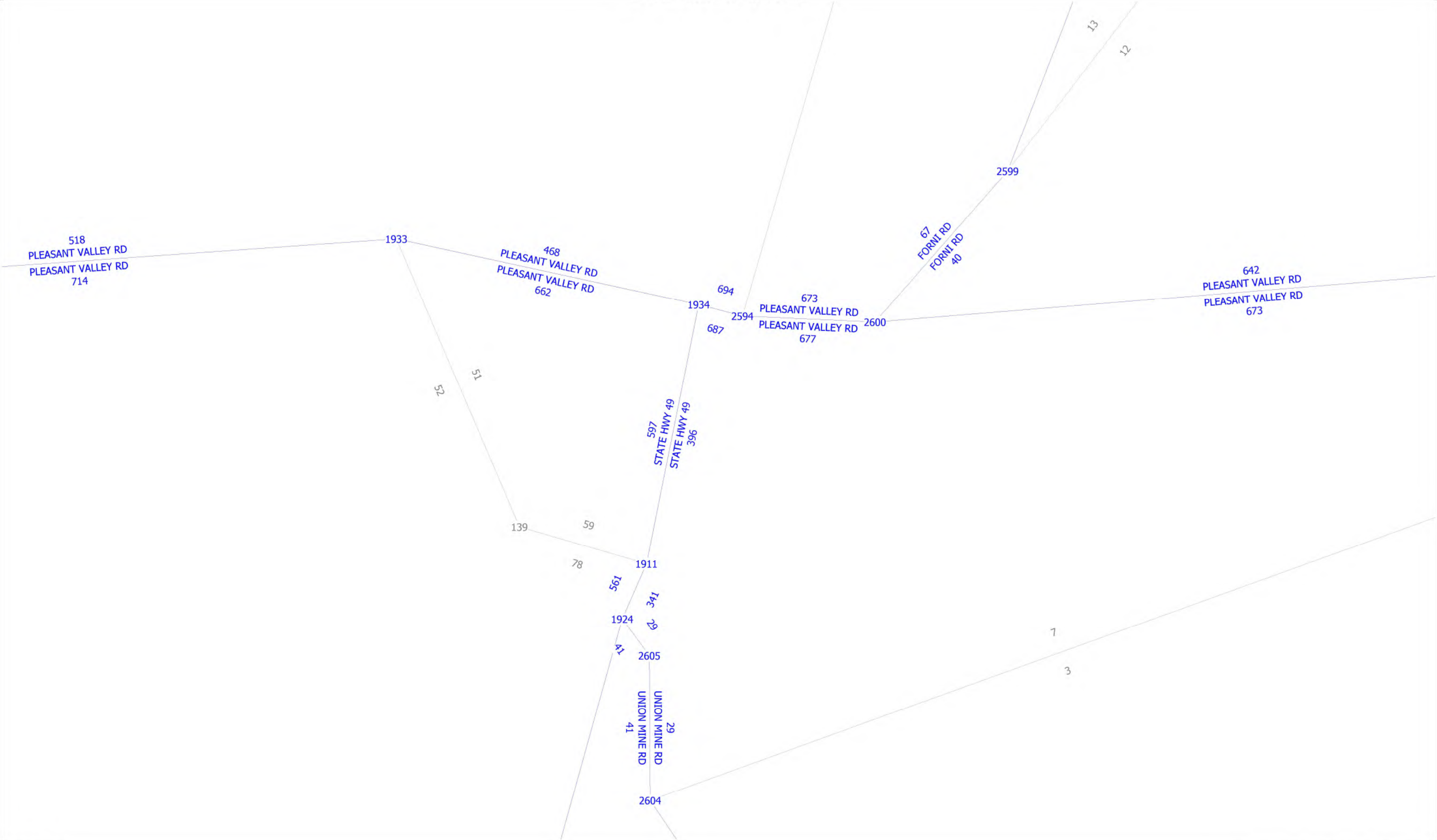


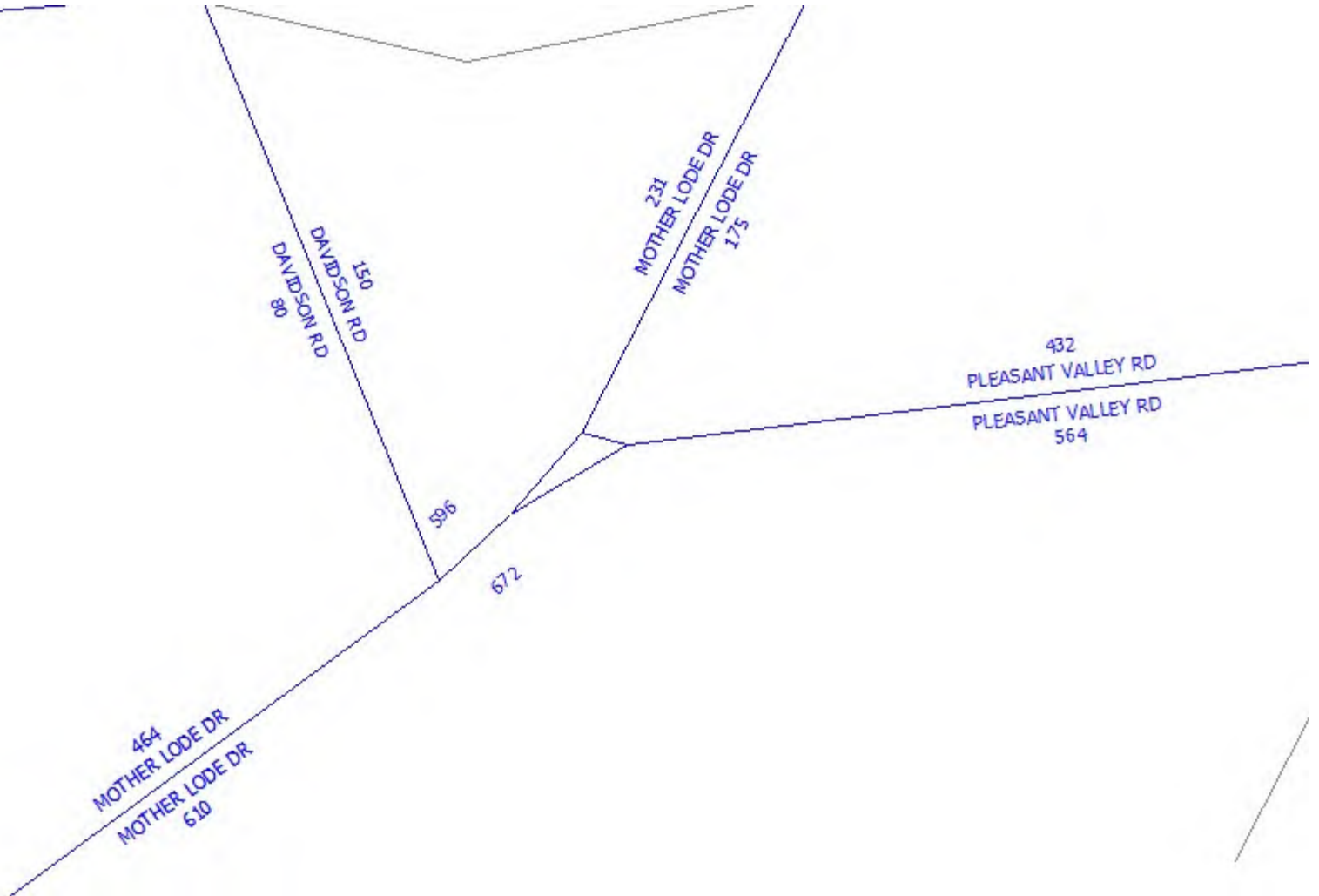


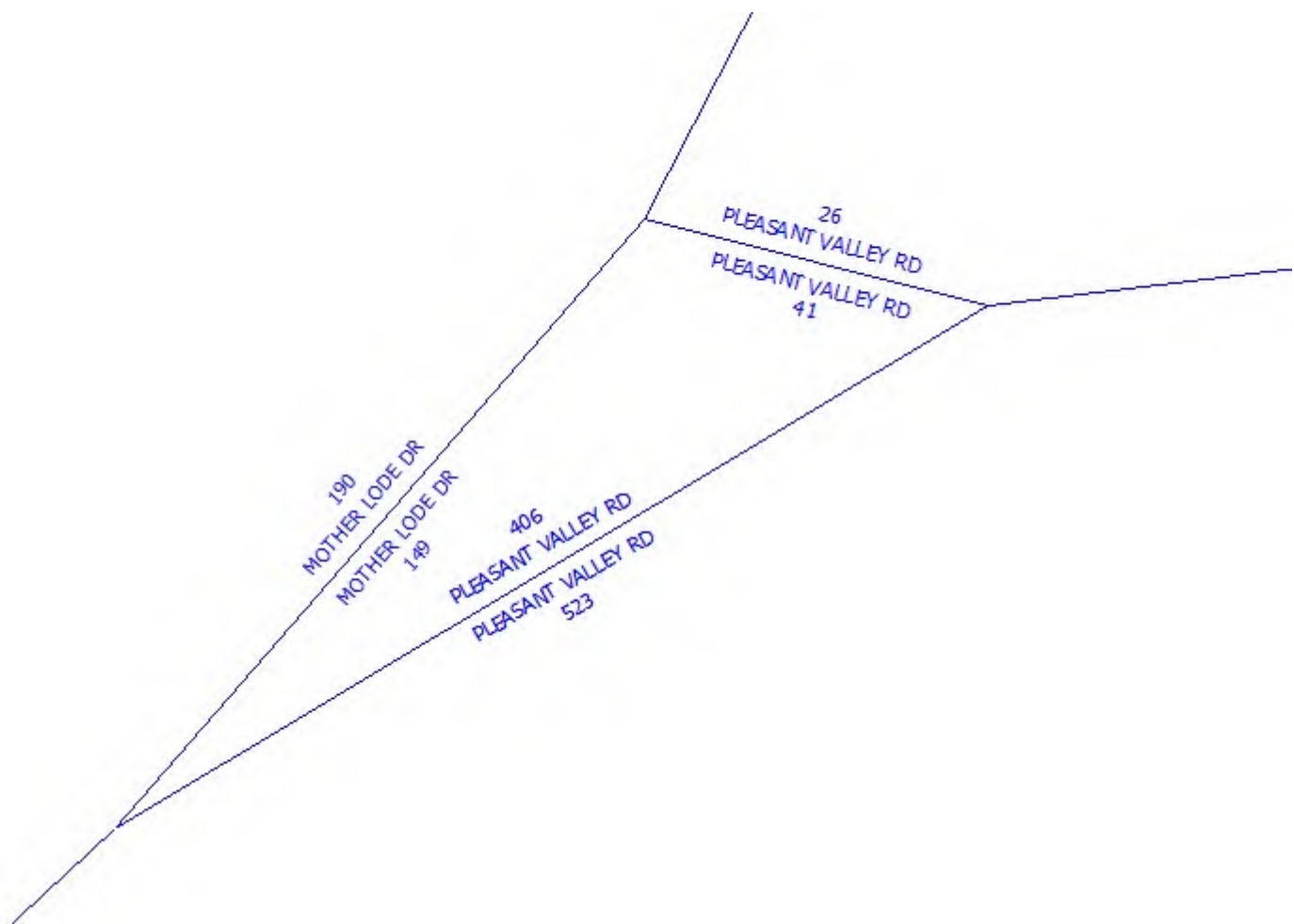
Diamond Springs Park Project
Future Year PM Peak Hour (Raw Data)

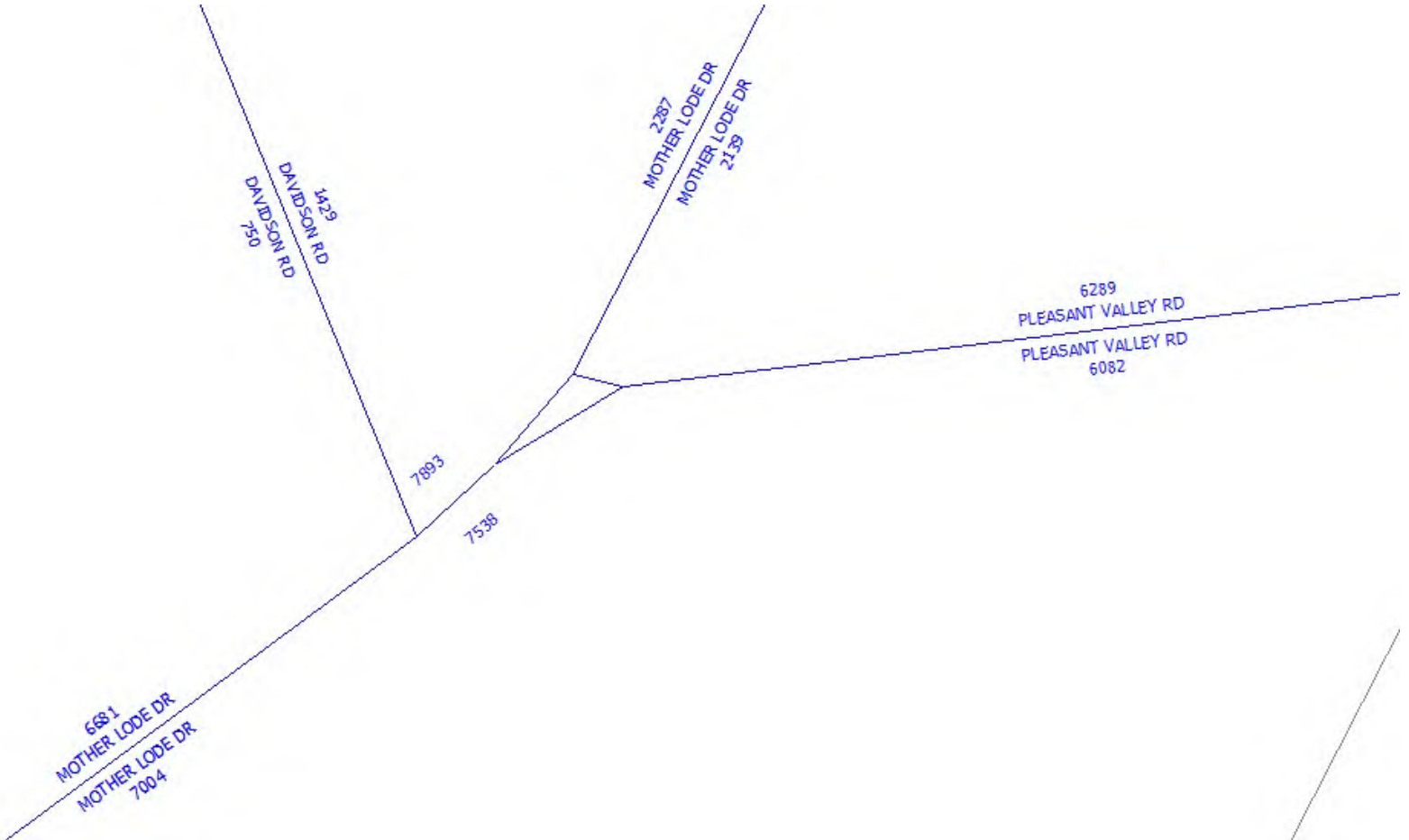


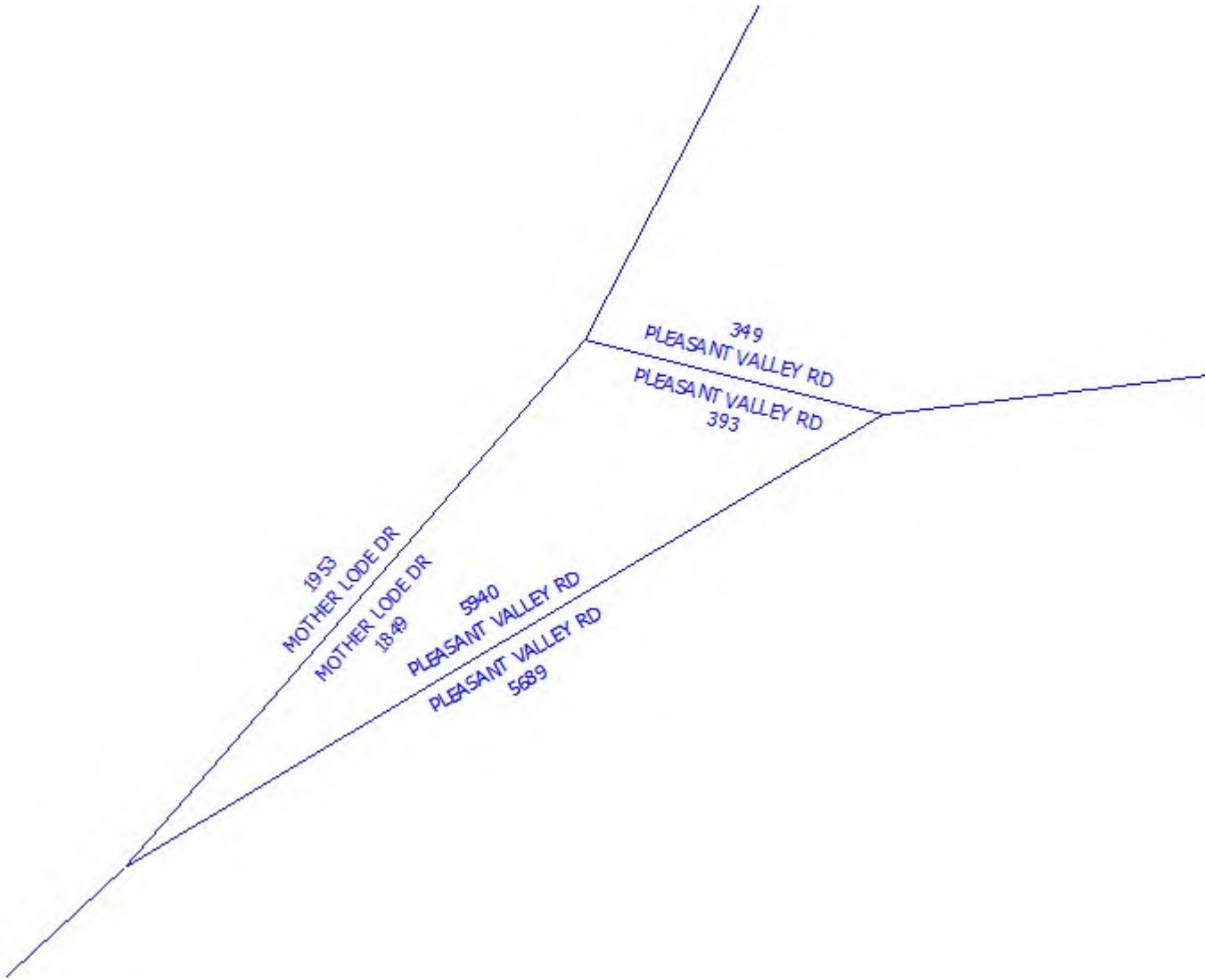
Diamond Springs Park Project
Future Year PM Peak Hour (Raw Data)











Appendix C

LOS Worksheets

Intersection	
Intersection Delay, s/veh	15.8
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	0	10	76	387	18
Future Vol, veh/h	69	0	10	76	387	18
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	0	11	85	435	20
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.7	9.7	18.2
HCM LOS	A	A	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	387	18	69	10	76
LT Vol	387	0	0	10	0
Through Vol	0	0	69	0	76
RT Vol	0	18	0	0	0
Lane Flow Rate	435	20	78	11	85
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.667	0.024	0.124	0.02	0.141
Departure Headway (Hd)	5.52	4.316	5.779	6.441	5.936
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	652	825	617	554	602
Service Time	3.271	2.067	3.843	4.202	3.696
HCM Lane V/C Ratio	0.667	0.024	0.126	0.02	0.141
HCM Control Delay	18.7	7.2	9.7	9.3	9.7
HCM Lane LOS	C	A	A	A	A
HCM 95th-tile Q	5.1	0.1	0.4	0.1	0.5

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	361	0	407	10	0
Future Vol, veh/h	0	361	0	407	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	440	0	496	12	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	440	-
Stage 1	-	-	0	-
Stage 2	-	-	440	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	574	0
Stage 1	0	-	-	0
Stage 2	0	-	649	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	574	-
Mov Cap-2 Maneuver	-	-	574	-
Stage 1	-	-	-	-
Stage 2	-	-	649	-

Approach	EB	SB
HCM Control Delay, s	0	11.4
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	574
HCM Lane V/C Ratio	-	0.021
HCM Control Delay (s)	-	11.4
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	5	366	399	124	100	4
Future Vol, veh/h	5	366	399	124	100	4
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	426	464	144	116	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	616	0	-	0	982
Stage 1	-	-	-	-	544
Stage 2	-	-	-	-	438
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	964	-	-	-	276
Stage 1	-	-	-	-	582
Stage 2	-	-	-	-	651
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	957	-	-	-	269
Mov Cap-2 Maneuver	-	-	-	-	269
Stage 1	-	-	-	-	573
Stage 2	-	-	-	-	646

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	28.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	957	-	-	-	274
HCM Lane V/C Ratio	0.006	-	-	-	0.441
HCM Control Delay (s)	8.8	0	-	-	28.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.1

Intersection	
Intersection Delay, s/veh	59.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	337	147	139	326	1	211	0	228	0	1	0
Future Vol, veh/h	0	337	147	139	326	1	211	0	228	0	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	396	173	164	384	1	248	0	268	0	1	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	89.9	29.6	56.9	12.7
HCM LOS	F	D	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	48%	0%	100%	0%	0%
Vol Thru, %	0%	70%	0%	100%	100%
Vol Right, %	52%	30%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	439	484	139	327	1
LT Vol	211	0	139	0	0
Through Vol	0	337	0	326	1
RT Vol	228	147	0	1	0
Lane Flow Rate	516	569	164	385	1
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.963	1.085	0.366	0.805	0.003
Departure Headway (Hd)	6.904	6.858	8.314	7.795	9.637
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	527	535	435	469	374
Service Time	4.904	4.858	6.014	5.495	7.637
HCM Lane V/C Ratio	0.979	1.064	0.377	0.821	0.003
HCM Control Delay	56.9	89.9	15.7	35.5	12.7
HCM Lane LOS	F	F	C	E	B
HCM 95th-tile Q	12.6	17.7	1.7	7.5	0

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	114	451	390	30	39	67
Future Vol, veh/h	114	451	390	30	39	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	531	459	35	46	79






















Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	494	0	-	0	1276 477
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	799 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1070	-	-	-	184 588
Stage 1	-	-	-	-	624 -
Stage 2	-	-	-	-	443 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1070	-	-	-	151 588
Mov Cap-2 Maneuver	-	-	-	-	151 -
Stage 1	-	-	-	-	513 -
Stage 2	-	-	-	-	443 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	27.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1070	-	-	-	285
HCM Lane V/C Ratio	0.125	-	-	-	0.438
HCM Control Delay (s)	8.8	0	-	-	27.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	-	2.1

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	287	215	302	306	4	96	2	191	11	3	8
Future Volume (veh/h)	4	287	215	302	306	4	96	2	191	11	3	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	368	276	387	392	5	123	3	245	14	4	10
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	12	458	388	437	891	11	566	13	523	259	84	151
Arrive On Green	0.01	0.24	0.24	0.25	0.48	0.48	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	1870	1582	1781	1842	23	1424	38	1580	567	252	455
Grp Volume(v), veh/h	5	368	276	387	0	397	126	0	245	28	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1866	1462	0	1580	1274	0	0
Q Serve(g_s), s	0.2	14.0	12.0	15.8	0.0	10.5	0.0	0.0	9.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	14.0	12.0	15.8	0.0	10.5	3.9	0.0	9.3	3.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.98		1.00	0.50		0.36
Lane Grp Cap(c), veh/h	12	458	388	437	0	902	578	0	523	493	0	0
V/C Ratio(X)	0.43	0.80	0.71	0.89	0.00	0.44	0.22	0.00	0.47	0.06	0.00	0.00
Avail Cap(c_a), veh/h	118	669	566	578	0	1149	578	0	523	493	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.4	26.8	26.1	27.5	0.0	12.8	18.2	0.0	20.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	22.6	4.5	2.4	12.5	0.0	0.3	0.9	0.0	3.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.3	4.4	7.7	0.0	3.8	1.7	0.0	3.5	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	31.3	28.5	39.9	0.0	13.1	19.0	0.0	23.0	17.4	0.0	0.0
LnGrp LOS	E	C	C	D	A	B	B	A	C	B	A	A
Approach Vol, veh/h		649			784			371			28	
Approach Delay, s/veh		30.3			26.4			21.6			17.4	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	23.0	23.0		29.5	5.0	41.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	5.0	46.5				
Max Q Clear Time (g_c+I1), s		11.3	17.8	16.0		5.9	2.2	12.5				
Green Ext Time (p_c), s		1.3	0.7	2.4		0.1	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			26.7									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	1	399	88	69	565	0	41	0	55	1	0	2
Future Vol, veh/h	1	399	88	69	565	0	41	0	55	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	487	107	84	689	0	50	0	67	1	0	2

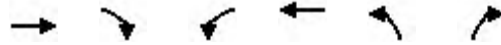
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	690	0	0	594	0	0	1347	1347	487	1434	1454	690
Stage 1	-	-	-	-	-	-	489	489	-	858	858	-
Stage 2	-	-	-	-	-	-	858	858	-	576	596	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	905	-	-	982	-	-	128	151	581	112	130	445
Stage 1	-	-	-	-	-	-	561	549	-	352	374	-
Stage 2	-	-	-	-	-	-	352	374	-	503	492	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	904	-	-	982	-	-	114	130	581	88	112	445
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	130	-	88	112	-
Stage 1	-	-	-	-	-	-	560	548	-	351	322	-
Stage 2	-	-	-	-	-	-	301	322	-	444	491	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1			41.5			24.4		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	211	904	-	-	982	-	-	189
HCM Lane V/C Ratio	0.555	0.001	-	-	0.086	-	-	0.019
HCM Control Delay (s)	41.5	9	0	-	9	0	-	24.4
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	3	0	-	-	0.3	-	-	0.1

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

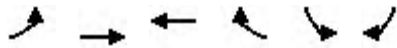
Existing Conditions
 Timing Plan: AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	462	66	47	531	91	101
Future Volume (veh/h)	462	66	47	531	91	101
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	525	75	53	603	103	115
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	741	862	103	1098	263	326
Arrive On Green	0.40	0.40	0.06	0.59	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	525	75	53	603	103	115
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	8.0	0.8	1.0	6.7	1.8	2.1
Cycle Q Clear(g_c), s	8.0	0.8	1.0	6.7	1.8	2.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	741	862	103	1098	263	326
V/C Ratio(X)	0.71	0.09	0.51	0.55	0.39	0.35
Avail Cap(c_a), veh/h	2125	2034	394	2787	1603	1518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	3.7	15.5	4.3	13.1	11.5
Incr Delay (d2), s/veh	1.3	0.0	3.9	0.4	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.2	0.4	0.4	0.6	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.9	3.7	19.4	4.7	14.0	12.2
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	600			656	218	
Approach Delay, s/veh	9.1			5.9	13.1	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	6.5	17.9		24.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	7.5	38.5		50.5
Max Q Clear Time (g_c+l1), s		4.1	3.0	10.0		8.7
Green Ext Time (p_c), s		0.6	0.0	3.4		4.0
Intersection Summary						
HCM 6th Ctrl Delay			8.2			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

Existing Conditions
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↘	↖	↘	
Traffic Volume (veh/h)	329	251	389	472	230	230	
Future Volume (veh/h)	329	251	389	472	230	230	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	354	270	418	508	247	247	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	533	1140	674	889	359	564	
Arrive On Green	0.15	0.61	0.36	0.36	0.20	0.20	
Sat Flow, veh/h	3456	1870	1870	1581	1781	1585	
Grp Volume(v), veh/h	354	270	418	508	247	247	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1581	1781	1585	
Q Serve(g_s), s	4.6	3.1	8.8	9.9	6.1	5.7	
Cycle Q Clear(g_c), s	4.6	3.1	8.8	9.9	6.1	5.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	533	1140	674	889	359	564	
V/C Ratio(X)	0.66	0.24	0.62	0.57	0.69	0.44	
Avail Cap(c_a), veh/h	1127	2066	1279	1400	1068	1195	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	18.9	4.2	12.5	6.7	17.6	11.7	
Incr Delay (d2), s/veh	1.4	0.1	0.9	0.6	2.4	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.6	0.5	3.3	4.5	2.2	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.4	4.3	13.5	7.3	20.0	12.2	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		624	926		494		
Approach Delay, s/veh		13.4	10.1		16.1		
Approach LOS		B	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			33.5		14.1	11.8	21.6
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			52.5		28.5	15.5	32.5
Max Q Clear Time (g_c+I1), s			5.1		8.1	6.6	11.9
Green Ext Time (p_c), s			1.5		1.5	0.8	4.8
Intersection Summary							
HCM 6th Ctrl Delay			12.6				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	9	118	320	20	132	156
Future Vol, veh/h	9	118	320	20	132	156
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	155	421	26	174	205

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	987	435	0	0	447	0
Stage 1	434	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	274	621	-	-	1113	-
Stage 1	653	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	226	620	-	-	1113	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	475	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	552	1113
HCM Lane V/C Ratio	-	-	0.303	0.156
HCM Control Delay (s)	-	-	14.3	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.6

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	157	0	19	97	339	26
Future Vol, veh/h	157	0	19	97	339	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	0	21	108	377	29
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11	10	16.9
HCM LOS	B	A	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	339	26	157	19	97
LT Vol	339	0	0	19	0
Through Vol	0	0	157	0	97
RT Vol	0	26	0	0	0
Lane Flow Rate	377	29	174	21	108
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.613	0.037	0.277	0.038	0.178
Departure Headway (Hd)	5.857	4.651	5.712	6.463	5.957
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	610	760	623	549	596
Service Time	3.646	2.438	3.803	4.263	3.756
HCM Lane V/C Ratio	0.618	0.038	0.279	0.038	0.181
HCM Control Delay	17.6	7.6	11	9.5	10.1
HCM Lane LOS	C	A	B	A	B
HCM 95th-tile Q	4.2	0.1	1.1	0.1	0.6

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	490	0	365	19	0
Future Vol, veh/h	0	490	0	365	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	557	0	415	22	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	557	-
Stage 1	-	-	0	-
Stage 2	-	-	557	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	491	0
Stage 1	0	-	-	0
Stage 2	0	-	574	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	491	-
Mov Cap-2 Maneuver	-	-	491	-
Stage 1	-	-	-	-
Stage 2	-	-	574	-

Approach	EB	SB
HCM Control Delay, s	0	12.7
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	491
HCM Lane V/C Ratio	-	0.044
HCM Control Delay (s)	-	12.7
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	2	507	358	72	105	7
Future Vol, veh/h	2	507	358	72	105	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	570	402	81	118	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	483	0	-	0	1017 443
Stage 1	-	-	-	-	443 -
Stage 2	-	-	-	-	574 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1080	-	-	-	263 615
Stage 1	-	-	-	-	647 -
Stage 2	-	-	-	-	563 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1080	-	-	-	262 615
Mov Cap-2 Maneuver	-	-	-	-	262 -
Stage 1	-	-	-	-	645 -
Stage 2	-	-	-	-	563 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	29.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1080	-	-	-	272
HCM Lane V/C Ratio	0.002	-	-	-	0.463
HCM Control Delay (s)	8.3	0	-	-	29.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.3

Intersection	
Intersection Delay, s/veh	36.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	396	215	230	292	4	137	1	161	3	0	1
Future Vol, veh/h	1	396	215	230	292	4	137	1	161	3	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	413	224	240	304	4	143	1	168	3	0	1
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	62.6	16.8	18.1	11.3
HCM LOS	F	C	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	46%	0%	100%	0%	75%
Vol Thru, %	0%	65%	0%	99%	0%
Vol Right, %	54%	35%	0%	1%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	299	612	230	296	4
LT Vol	137	1	230	0	3
Through Vol	1	396	0	292	0
RT Vol	161	215	0	4	1
Lane Flow Rate	311	638	240	308	4
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.568	1.011	0.469	0.56	0.009
Departure Headway (Hd)	6.569	5.71	7.156	6.635	8.22
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	545	631	506	546	438
Service Time	4.659	3.789	4.856	4.335	6.22
HCM Lane V/C Ratio	0.571	1.011	0.474	0.564	0.009
HCM Control Delay	18.1	62.6	16	17.4	11.3
HCM Lane LOS	C	F	C	C	B
HCM 95th-tile Q	3.5	15.8	2.5	3.4	0

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	132	427	362	18	15	164
Future Vol, veh/h	132	427	362	18	15	164
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	474	402	20	17	182






















Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	423	0	-	0	1181 413
Stage 1	-	-	-	-	413 -
Stage 2	-	-	-	-	768 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1136	-	-	-	210 639
Stage 1	-	-	-	-	668 -
Stage 2	-	-	-	-	458 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1135	-	-	-	173 638
Mov Cap-2 Maneuver	-	-	-	-	173 -
Stage 1	-	-	-	-	550 -
Stage 2	-	-	-	-	458 -

Approach	EB	WB	SB
HCM Control Delay, s	2	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1135	-	-	-	521
HCM Lane V/C Ratio	0.129	-	-	-	0.382
HCM Control Delay (s)	8.6	0	-	-	16.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.8

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Existing Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	370	69	66	305	12	44	0	58	14	0	4
Future Volume (veh/h)	8	370	69	66	305	12	44	0	58	14	0	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	394	73	70	324	13	47	0	62	15	0	4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	503	426	102	561	22	761	0	715	583	12	131
Arrive On Green	0.01	0.27	0.27	0.06	0.31	0.31	0.45	0.00	0.45	0.45	0.00	0.45
Sat Flow, veh/h	1781	1870	1585	1781	1784	72	1422	0	1582	1056	28	289
Grp Volume(v), veh/h	9	394	73	70	0	337	47	0	62	19	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1856	1422	0	1582	1372	0	0
Q Serve(g_s), s	0.3	11.9	2.1	2.3	0.0	9.3	0.0	0.0	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	11.9	2.1	2.3	0.0	9.3	0.9	0.0	1.4	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.79		0.21
Lane Grp Cap(c), veh/h	21	503	426	102	0	583	761	0	715	726	0	0
V/C Ratio(X)	0.44	0.78	0.17	0.69	0.00	0.58	0.06	0.00	0.09	0.03	0.00	0.00
Avail Cap(c_a), veh/h	161	1153	977	337	0	1327	761	0	715	726	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.9	20.6	17.0	28.1	0.0	17.5	9.4	0.0	9.5	9.2	0.0	0.0
Incr Delay (d2), s/veh	13.8	2.7	0.2	8.0	0.0	0.9	0.2	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.9	0.7	1.1	0.0	3.5	0.4	0.0	0.4	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	23.3	17.2	36.2	0.0	18.4	9.5	0.0	9.7	9.3	0.0	0.0
LnGrp LOS	D	C	B	D	A	B	A	A	A	A	A	A
Approach Vol, veh/h		476			407			109				19
Approach Delay, s/veh		22.8			21.4			9.6				9.3
Approach LOS		C			C			A				A
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	8.0	20.8		32.0	5.2	23.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	11.5	37.5		27.5	5.5	43.5				
Max Q Clear Time (g_c+I1), s		3.4	4.3	13.9		2.9	2.3	11.3				
Green Ext Time (p_c), s		0.4	0.1	2.5		0.0	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			20.6									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	3	415	19	49	366	2	17	0	20	0	1	0
Future Vol, veh/h	3	415	19	49	366	2	17	0	20	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	441	20	52	389	2	18	0	21	0	1	0

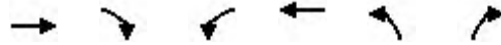
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	391	0	0	464	0	0	945	945	444	962	964	390
Stage 1	-	-	-	-	-	-	450	450	-	494	494	-
Stage 2	-	-	-	-	-	-	495	495	-	468	470	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1168	-	-	1097	-	-	242	262	614	235	255	658
Stage 1	-	-	-	-	-	-	589	572	-	557	546	-
Stage 2	-	-	-	-	-	-	556	546	-	575	560	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1168	-	-	1094	-	-	229	244	612	216	238	658
Mov Cap-2 Maneuver	-	-	-	-	-	-	229	244	-	216	238	-
Stage 1	-	-	-	-	-	-	585	569	-	555	513	-
Stage 2	-	-	-	-	-	-	521	513	-	553	557	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1			16.7			20.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	346	1168	-	-	1094	-	-	238
HCM Lane V/C Ratio	0.114	0.003	-	-	0.048	-	-	0.004
HCM Control Delay (s)	16.7	8.1	0	-	8.5	0	-	20.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

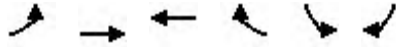
Existing Conditions
 Timing Plan: PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	345	73	145	299	55	81
Future Volume (veh/h)	345	73	145	299	55	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	85	169	348	64	94
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	601	745	226	1090	266	438
Arrive On Green	0.32	0.32	0.13	0.58	0.15	0.15
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	401	85	169	348	64	94
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	6.2	1.0	3.1	3.2	1.1	1.5
Cycle Q Clear(g_c), s	6.2	1.0	3.1	3.2	1.1	1.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	601	745	226	1090	266	438
V/C Ratio(X)	0.67	0.11	0.75	0.32	0.24	0.21
Avail Cap(c_a), veh/h	1701	1675	876	2872	1567	1596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	5.0	14.1	3.6	12.6	9.3
Incr Delay (d2), s/veh	1.3	0.1	4.8	0.2	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.3	1.2	0.2	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	5.0	19.0	3.8	13.1	9.6
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	486			517	158	
Approach Delay, s/veh	10.1			8.7	11.0	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	8.8	15.3		24.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	16.5	30.5		51.5
Max Q Clear Time (g_c+l1), s		3.5	5.1	8.2		5.2
Green Ext Time (p_c), s		0.4	0.3	2.4		2.0
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

Existing Conditions
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	210	287	212	334	544	241	
Future Volume (veh/h)	210	287	212	334	544	241	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	221	302	223	352	573	254	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	354	788	418	969	692	778	
Arrive On Green	0.10	0.42	0.22	0.22	0.39	0.39	
Sat Flow, veh/h	3456	1870	1870	1578	1781	1585	
Grp Volume(v), veh/h	221	302	223	352	573	254	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1578	1781	1585	
Q Serve(g_s), s	2.9	5.3	5.0	5.3	13.7	4.6	
Cycle Q Clear(g_c), s	2.9	5.3	5.0	5.3	13.7	4.6	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	354	788	418	969	692	778	
V/C Ratio(X)	0.62	0.38	0.53	0.36	0.83	0.33	
Avail Cap(c_a), veh/h	621	1779	1265	1683	1355	1368	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.4	9.5	16.2	4.6	13.0	7.3	
Incr Delay (d2), s/veh	1.8	0.3	1.1	0.2	2.6	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.1	1.5	2.0	3.5	4.3	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.2	9.8	17.2	4.8	15.7	7.5	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		523	575		827		
Approach Delay, s/veh		15.0	9.6		13.2		
Approach LOS		B	A		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				24.4	22.9	9.4	15.1
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				45.0	36.0	8.5	32.0
Max Q Clear Time (g_c+I1), s				7.3	15.7	4.9	7.3
Green Ext Time (p_c), s				1.7	2.7	0.2	2.7
Intersection Summary							
HCM 6th Ctrl Delay			12.6				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	1	66	222	4	102	349
Future Vol, veh/h	1	66	222	4	102	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	69	234	4	107	367

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	817	236	0	0	238
Stage 1	236	-	-	-	-
Stage 2	581	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	346	803	-	-	1329
Stage 1	803	-	-	-	-
Stage 2	559	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	311	803	-	-	1329
Mov Cap-2 Maneuver	311	-	-	-	-
Stage 1	803	-	-	-	-
Stage 2	503	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	784	1329
HCM Lane V/C Ratio	-	-	0.09	0.081
HCM Control Delay (s)	-	-	10	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.3

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	0	8	61	296	11
Future Vol, veh/h	77	0	8	61	296	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	0	9	65	315	12
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.2	8.9	12.9
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	296	11	77	8	61
LT Vol	296	0	0	8	0
Through Vol	0	0	77	0	61
RT Vol	0	11	0	0	0
Lane Flow Rate	315	12	82	9	65
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.477	0.014	0.122	0.014	0.1
Departure Headway (Hd)	5.45	4.247	5.37	6.065	5.56
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	661	842	667	590	644
Service Time	3.182	1.978	3.406	3.801	3.296
HCM Lane V/C Ratio	0.477	0.014	0.123	0.015	0.101
HCM Control Delay	13.1	7	9.2	8.9	8.9
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	2.6	0	0.4	0	0.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	296	0	305	10	0
Future Vol, veh/h	0	296	0	305	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	325	0	335	11	0
Major/Minor	Major1		Minor2			
Conflicting Flow All	-	0			325	-
Stage 1	-	-			0	-
Stage 2	-	-			325	-
Critical Hdwy	-	-			6.42	-
Critical Hdwy Stg 1	-	-			-	-
Critical Hdwy Stg 2	-	-			5.42	-
Follow-up Hdwy	-	-			3.518	-
Pot Cap-1 Maneuver	0	-			669	0
Stage 1	0	-			-	0
Stage 2	0	-			732	0
Platoon blocked, %	-					
Mov Cap-1 Maneuver	-	-			669	-
Mov Cap-2 Maneuver	-	-			669	-
Stage 1	-	-			-	-
Stage 2	-	-			732	-
Approach	EB		SB			
HCM Control Delay, s	0		10.5			
HCM LOS			B			
Minor Lane/Major Mvmt	EBT		SBLn1			
Capacity (veh/h)	-		669			
HCM Lane V/C Ratio	-		0.016			
HCM Control Delay (s)	-		10.5			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.1			

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	313	311	54	65	4
Future Vol, veh/h	3	313	311	54	65	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	344	342	59	71	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	401	0	-	0	722 372
Stage 1	-	-	-	-	372 -
Stage 2	-	-	-	-	350 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1158	-	-	-	394 674
Stage 1	-	-	-	-	697 -
Stage 2	-	-	-	-	713 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1158	-	-	-	393 674
Mov Cap-2 Maneuver	-	-	-	-	393 -
Stage 1	-	-	-	-	695 -
Stage 2	-	-	-	-	713 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1158	-	-	-	403
HCM Lane V/C Ratio	0.003	-	-	-	0.188
HCM Control Delay (s)	8.1	0	-	-	16
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	2	235	142	153	259	3	129	3	154	0	1	7
Future Vol, veh/h	2	235	142	153	259	3	129	3	154	0	1	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	258	156	168	285	3	142	3	169	0	1	8
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	17.6	13.8	15	9.6
HCM LOS	C	B	B	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	45%	1%	100%	0%	0%
Vol Thru, %	1%	62%	0%	99%	12%
Vol Right, %	54%	37%	0%	1%	88%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	286	379	153	262	8
LT Vol	129	2	153	0	0
Through Vol	3	235	0	259	1
RT Vol	154	142	0	3	7
Lane Flow Rate	314	416	168	288	9
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.513	0.634	0.309	0.487	0.016
Departure Headway (Hd)	5.879	5.482	6.612	6.095	6.531
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	610	658	543	590	551
Service Time	3.939	3.535	4.37	3.853	4.531
HCM Lane V/C Ratio	0.515	0.632	0.309	0.488	0.016
HCM Control Delay	15	17.6	12.3	14.6	9.6
HCM Lane LOS	B	C	B	B	A
HCM 95th-tile Q	2.9	4.5	1.3	2.7	0

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	126	263	295	14	10	120
Future Vol, veh/h	126	263	295	14	10	120
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	280	314	15	11	128

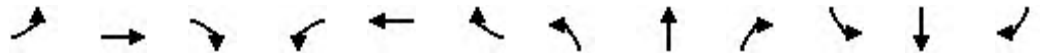
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	331	0	0	872	324
Stage 1	-	-	-	324	-
Stage 2	-	-	-	548	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1228	-	-	321	717
Stage 1	-	-	-	733	-
Stage 2	-	-	-	579	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1226	-	-	279	716
Mov Cap-2 Maneuver	-	-	-	279	-
Stage 1	-	-	-	637	-
Stage 2	-	-	-	578	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1226	-	-	-	639
HCM Lane V/C Ratio	0.109	-	-	-	0.216
HCM Control Delay (s)	8.3	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Existing Conditions
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	276	11	3	247	6	9	0	7	5	0	6
Future Volume (veh/h)	10	276	11	3	247	6	9	0	7	5	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	300	12	3	268	7	10	0	8	5	0	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	414	351	7	383	10	864	0	813	383	38	451
Arrive On Green	0.01	0.22	0.22	0.00	0.21	0.21	0.51	0.00	0.51	0.51	0.00	0.51
Sat Flow, veh/h	1781	1870	1585	1781	1813	47	1411	0	1585	555	74	879
Grp Volume(v), veh/h	11	300	12	3	0	275	10	0	8	12	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1861	1411	0	1585	1508	0	0
Q Serve(g_s), s	0.3	7.7	0.3	0.1	0.0	7.1	0.0	0.0	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	7.7	0.3	0.1	0.0	7.1	0.1	0.0	0.1	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.42		0.58
Lane Grp Cap(c), veh/h	25	414	351	7	0	393	864	0	813	872	0	0
V/C Ratio(X)	0.44	0.72	0.03	0.41	0.00	0.70	0.01	0.00	0.01	0.01	0.00	0.00
Avail Cap(c_a), veh/h	293	1503	1274	293	0	1495	864	0	813	872	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.3	18.6	15.8	25.7	0.0	18.8	6.2	0.0	6.1	6.2	0.0	0.0
Incr Delay (d2), s/veh	11.5	2.4	0.0	33.4	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.1	0.1	0.1	0.0	2.8	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	21.1	15.8	59.1	0.0	21.1	6.2	0.0	6.2	6.2	0.0	0.0
LnGrp LOS	D	C	B	E	A	C	A	A	A	A	A	A
Approach Vol, veh/h		323			278			18				12
Approach Delay, s/veh		21.4			21.5			6.2				6.2
Approach LOS		C			C			A				A
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		31.0	4.7	15.9		31.0	5.2	15.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	8.5	41.5		26.5	8.5	41.5				
Max Q Clear Time (g_c+I1), s		2.1	2.1	9.7		2.2	2.3	9.1				
Green Ext Time (p_c), s		0.0	0.0	1.7		0.0	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	0	247	20	46	254	2	22	0	56	1	0	1
Future Vol, veh/h	0	247	20	46	254	2	22	0	56	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	305	25	57	314	2	27	0	69	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	316	0	0	331	0	0	736	736	306	781	760	315
Stage 1	-	-	-	-	-	-	306	306	-	429	429	-
Stage 2	-	-	-	-	-	-	430	430	-	352	331	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1244	-	-	1228	-	-	335	346	734	312	336	725
Stage 1	-	-	-	-	-	-	704	662	-	604	584	-
Stage 2	-	-	-	-	-	-	603	583	-	665	645	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1244	-	-	1227	-	-	320	326	733	271	317	725
Mov Cap-2 Maneuver	-	-	-	-	-	-	320	326	-	271	317	-
Stage 1	-	-	-	-	-	-	703	661	-	604	551	-
Stage 2	-	-	-	-	-	-	568	550	-	602	644	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.2			13.2			14.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	537	1244	-	-	1227	-	-	395
HCM Lane V/C Ratio	0.179	-	-	-	0.046	-	-	0.006
HCM Control Delay (s)	13.2	0	-	-	8.1	0	-	14.2
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0

HCM 6th Signalized Intersection Summary
8: Patterson Dr & Pleasant Valley Rd - SR-49

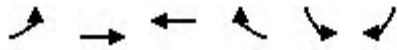
Existing Conditions
Timing Plan: Saturday Mid-Day



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	260	50	76	326	52	81
Future Volume (veh/h)	260	50	76	326	52	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	54	83	354	57	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	487	693	151	943	315	415
Arrive On Green	0.26	0.26	0.08	0.50	0.18	0.18
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	283	54	83	354	57	88
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	3.7	0.6	1.3	3.3	0.8	1.2
Cycle Q Clear(g_c), s	3.7	0.6	1.3	3.3	0.8	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	487	693	151	943	315	415
V/C Ratio(X)	0.58	0.08	0.55	0.38	0.18	0.21
Avail Cap(c_a), veh/h	2153	2105	852	3345	1924	1846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	4.6	12.4	4.3	9.9	8.1
Incr Delay (d2), s/veh	1.1	0.0	3.1	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.4	0.2	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.2	4.7	15.5	4.5	10.1	8.4
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	337			437	145	
Approach Delay, s/veh	9.3			6.6	9.1	
Approach LOS	A			A	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	6.9	11.8		18.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	13.5	32.5		50.5
Max Q Clear Time (g_c+I1), s		3.2	3.3	5.7		5.3
Green Ext Time (p_c), s		0.4	0.1	1.7		2.1
Intersection Summary						
HCM 6th Ctrl Delay			8.0			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

Existing Conditions
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	185	194	269	342	421	160	
Future Volume (veh/h)	185	194	269	342	421	160	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	195	204	283	360	443	168	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	368	877	478	909	566	672	
Arrive On Green	0.11	0.47	0.26	0.26	0.32	0.32	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	195	204	283	360	443	168	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	2.3	2.7	5.6	5.3	9.5	2.9	
Cycle Q Clear(g_c), s	2.3	2.7	5.6	5.3	9.5	2.9	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	368	877	478	909	566	672	
V/C Ratio(X)	0.53	0.23	0.59	0.40	0.78	0.25	
Avail Cap(c_a), veh/h	811	2057	1419	1706	1461	1469	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.8	6.7	13.8	5.0	13.1	7.8	
Incr Delay (d2), s/veh	1.2	0.1	1.2	0.3	2.4	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	0.6	2.2	2.9	3.0	3.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	19.0	6.8	14.9	5.2	15.5	8.0	
LnGrp LOS	B	A	B	A	B	A	
Approach Vol, veh/h		399	643		611		
Approach Delay, s/veh		12.8	9.5		13.4		
Approach LOS		B	A		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				24.3	17.9	9.0	15.3
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				46.4	34.6	9.9	32.0
Max Q Clear Time (g_c+I1), s				4.7	11.5	4.3	7.6
Green Ext Time (p_c), s				1.1	1.9	0.3	3.2
Intersection Summary							
HCM 6th Ctrl Delay			11.7				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	4	65	217	2	40	228
Future Vol, veh/h	4	65	217	2	40	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	73	244	2	45	256

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	591	245	0	0	246
Stage 1	245	-	-	-	-
Stage 2	346	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	470	794	-	-	1320
Stage 1	796	-	-	-	-
Stage 2	716	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	451	794	-	-	1320
Mov Cap-2 Maneuver	451	-	-	-	-
Stage 1	796	-	-	-	-
Stage 2	687	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	760	1320
HCM Lane V/C Ratio	-	-	0.102	0.034
HCM Control Delay (s)	-	-	10.3	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	0	11	76	390	19
Future Vol, veh/h	69	0	11	76	390	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	0	12	85	438	21
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.7	9.7	18.5
HCM LOS	A	A	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	390	19	69	11	76
LT Vol	390	0	0	11	0
Through Vol	0	0	69	0	76
RT Vol	0	19	0	0	0
Lane Flow Rate	438	21	78	12	85
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.673	0.026	0.125	0.022	0.141
Departure Headway (Hd)	5.525	4.321	5.793	6.453	5.947
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	653	824	616	553	600
Service Time	3.276	2.072	3.858	4.217	3.711
HCM Lane V/C Ratio	0.671	0.025	0.127	0.022	0.142
HCM Control Delay	19	7.2	9.7	9.4	9.7
HCM Lane LOS	C	A	A	A	A
HCM 95th-tile Q	5.2	0.1	0.4	0.1	0.5

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	366	0	410	11	0
Future Vol, veh/h	0	366	0	410	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	446	0	500	13	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	446	-
Stage 1	-	-	0	-
Stage 2	-	-	446	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	570	0
Stage 1	0	-	-	0
Stage 2	0	-	645	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	570	-
Mov Cap-2 Maneuver	-	-	570	-
Stage 1	-	-	-	-
Stage 2	-	-	645	-

Approach	EB	SB
HCM Control Delay, s	0	11.5
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	570
HCM Lane V/C Ratio	-	0.024
HCM Control Delay (s)	-	11.5
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	5	372	402	125	101	4
Future Vol, veh/h	5	372	402	125	101	4
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	433	467	145	117	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	620	0	-	0	993
Stage 1	-	-	-	-	548
Stage 2	-	-	-	-	445
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	960	-	-	-	272
Stage 1	-	-	-	-	579
Stage 2	-	-	-	-	646
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	953	-	-	-	265
Mov Cap-2 Maneuver	-	-	-	-	265
Stage 1	-	-	-	-	570
Stage 2	-	-	-	-	641

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	28.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	953	-	-	-	270
HCM Lane V/C Ratio	0.006	-	-	-	0.452
HCM Control Delay (s)	8.8	0	-	-	28.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.2

Intersection	
Intersection Delay, s/veh	60.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	344	147	140	330	1	211	0	230	0	1	0
Future Vol, veh/h	0	344	147	140	330	1	211	0	230	0	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	405	173	165	388	1	248	0	271	0	1	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	94.1	29.5	55.3	12.7
HCM LOS	F	D	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	48%	0%	100%	0%	0%
Vol Thru, %	0%	70%	0%	100%	100%
Vol Right, %	52%	30%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	441	491	140	331	1
LT Vol	211	0	140	0	0
Through Vol	0	344	0	330	1
RT Vol	230	147	0	1	0
Lane Flow Rate	519	578	165	389	1
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.955	1.098	0.363	0.804	0.003
Departure Headway (Hd)	6.919	6.84	8.308	7.789	9.646
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	529	537	436	467	373
Service Time	4.919	4.84	6.008	5.489	7.646
HCM Lane V/C Ratio	0.981	1.076	0.378	0.833	0.003
HCM Control Delay	55.3	94.1	15.7	35.4	12.7
HCM Lane LOS	F	F	C	E	B
HCM 95th-tile Q	12.3	18.3	1.6	7.4	0

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	114	460	395	31	41	67
Future Vol, veh/h	114	460	395	31	41	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	541	465	36	48	79

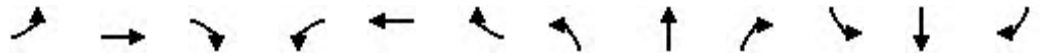
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	501	0	-	0	1292 483
Stage 1	-	-	-	-	483 -
Stage 2	-	-	-	-	809 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1063	-	-	-	180 584
Stage 1	-	-	-	-	620 -
Stage 2	-	-	-	-	438 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1063	-	-	-	148 584
Mov Cap-2 Maneuver	-	-	-	-	148 -
Stage 1	-	-	-	-	508 -
Stage 2	-	-	-	-	438 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	28.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1063	-	-	-	276
HCM Lane V/C Ratio	0.126	-	-	-	0.46
HCM Control Delay (s)	8.9	0	-	-	28.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	-	2.3

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Existing plus Project
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	299	215	302	313	4	96	2	191	11	3	8
Future Volume (veh/h)	4	299	215	302	313	4	96	2	191	11	3	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	383	276	387	401	5	123	3	245	14	4	10
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	12	471	398	436	902	11	556	12	517	254	82	147
Arrive On Green	0.01	0.25	0.25	0.24	0.49	0.49	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	1870	1582	1781	1843	23	1417	38	1580	561	250	451
Grp Volume(v), veh/h	5	383	276	387	0	406	126	0	245	28	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1866	1455	0	1580	1262	0	0
Q Serve(g_s), s	0.2	14.7	12.1	16.0	0.0	10.8	0.0	0.0	9.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	14.7	12.1	16.0	0.0	10.8	4.1	0.0	9.4	4.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.98		1.00	0.50		0.36
Lane Grp Cap(c), veh/h	12	471	398	436	0	914	569	0	517	483	0	0
V/C Ratio(X)	0.43	0.81	0.69	0.89	0.00	0.44	0.22	0.00	0.47	0.06	0.00	0.00
Avail Cap(c_a), veh/h	117	661	559	571	0	1135	569	0	517	483	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.8	26.9	25.9	27.9	0.0	12.7	18.7	0.0	20.5	17.6	0.0	0.0
Incr Delay (d2), s/veh	22.6	5.4	2.2	12.9	0.0	0.3	0.9	0.0	3.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.7	4.4	7.8	0.0	4.0	1.7	0.0	3.6	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.4	32.3	28.1	40.8	0.0	13.1	19.6	0.0	23.6	17.8	0.0	0.0
LnGrp LOS	E	C	C	D	A	B	B	A	C	B	A	A
Approach Vol, veh/h		664			793			371			28	
Approach Delay, s/veh		30.7			26.6			22.2			17.8	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	23.2	23.7		29.5	5.0	41.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	5.0	46.5				
Max Q Clear Time (g_c+I1), s		11.4	18.0	16.7		6.2	2.2	12.8				
Green Ext Time (p_c), s		1.3	0.7	2.3		0.1	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				27.1								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	1	399	100	81	565	0	48	0	62	1	0	2
Future Vol, veh/h	1	399	100	81	565	0	48	0	62	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	487	122	99	689	0	59	0	76	1	0	2

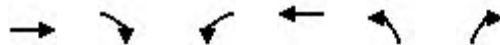
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	690	0	0	609	0	0	1377	1377	487	1476	1499	690
Stage 1	-	-	-	-	-	-	489	489	-	888	888	-
Stage 2	-	-	-	-	-	-	888	888	-	588	611	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	905	-	-	970	-	-	122	145	581	104	122	445
Stage 1	-	-	-	-	-	-	561	549	-	338	362	-
Stage 2	-	-	-	-	-	-	338	362	-	495	484	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	904	-	-	970	-	-	106	121	581	79	102	445
Mov Cap-2 Maneuver	-	-	-	-	-	-	106	121	-	79	102	-
Stage 1	-	-	-	-	-	-	560	548	-	337	302	-
Stage 2	-	-	-	-	-	-	281	302	-	430	483	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			55.2			26		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	197	904	-	-	970	-	-	175
HCM Lane V/C Ratio	0.681	0.001	-	-	0.102	-	-	0.021
HCM Control Delay (s)	55.2	9	0	-	9.1	0	-	26
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	4.2	0	-	-	0.3	-	-	0.1

HCM 6th Signalized Intersection Summary
8: Patterson Dr & Pleasant Valley Rd - SR-49

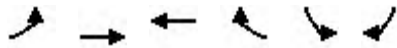
Existing plus Project
Timing Plan: AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	467	67	47	540	93	101
Future Volume (veh/h)	467	67	47	540	93	101
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	531	76	53	614	106	115
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	747	865	103	1102	261	324
Arrive On Green	0.40	0.40	0.06	0.59	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	531	76	53	614	106	115
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	8.1	0.8	1.0	6.8	1.8	2.1
Cycle Q Clear(g_c), s	8.1	0.8	1.0	6.8	1.8	2.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	747	865	103	1102	261	324
V/C Ratio(X)	0.71	0.09	0.51	0.56	0.41	0.35
Avail Cap(c_a), veh/h	2113	2023	392	2771	1594	1510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	3.7	15.6	4.3	13.2	11.6
Incr Delay (d2), s/veh	1.3	0.0	3.9	0.4	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.2	0.4	0.4	0.6	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.9	3.7	19.5	4.7	14.2	12.3
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	607			667	221	
Approach Delay, s/veh	9.1			5.9	13.2	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	6.5	18.1		24.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	7.5	38.5		50.5
Max Q Clear Time (g_c+l1), s		4.1	3.0	10.1		8.8
Green Ext Time (p_c), s		0.6	0.0	3.5		4.1
Intersection Summary						
HCM 6th Ctrl Delay			8.3			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

Existing plus Project
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	333	252	391	472	230	237	
Future Volume (veh/h)	333	252	391	472	230	237	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	358	271	420	508	247	255	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	537	1140	673	889	359	566	
Arrive On Green	0.16	0.61	0.36	0.36	0.20	0.20	
Sat Flow, veh/h	3456	1870	1870	1581	1781	1585	
Grp Volume(v), veh/h	358	271	420	508	247	255	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1581	1781	1585	
Q Serve(g_s), s	4.7	3.2	8.8	9.9	6.1	5.9	
Cycle Q Clear(g_c), s	4.7	3.2	8.8	9.9	6.1	5.9	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	537	1140	673	889	359	566	
V/C Ratio(X)	0.67	0.24	0.62	0.57	0.69	0.45	
Avail Cap(c_a), veh/h	1123	2058	1274	1396	1064	1193	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	19.0	4.2	12.6	6.8	17.7	11.8	
Incr Delay (d2), s/veh	1.4	0.1	1.0	0.6	2.3	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.6	0.5	3.3	4.5	2.2	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.4	4.4	13.6	7.3	20.0	12.3	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		629	928		502		
Approach Delay, s/veh		13.5	10.2		16.1		
Approach LOS		B	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			33.6		14.1	11.9	21.7
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			52.5		28.5	15.5	32.5
Max Q Clear Time (g_c+I1), s			5.2		8.1	6.7	11.9
Green Ext Time (p_c), s			1.5		1.5	0.8	4.9
Intersection Summary							
HCM 6th Ctrl Delay			12.6				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	9	118	322	20	132	157
Future Vol, veh/h	9	118	322	20	132	157
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	155	424	26	174	207

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	992	438	0	0	450	0
Stage 1	437	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	272	619	-	-	1110	-
Stage 1	651	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	224	618	-	-	1110	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	473	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	550	1110
HCM Lane V/C Ratio	-	-	0.304	0.156
HCM Control Delay (s)	-	-	14.4	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.6

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	157	0	23	97	350	29
Future Vol, veh/h	157	0	23	97	350	29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	0	26	108	389	32
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11.1	10.1	17.7
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	350	29	157	23	97
LT Vol	350	0	0	23	0
Through Vol	0	0	157	0	97
RT Vol	0	29	0	0	0
Lane Flow Rate	389	32	174	26	108
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.635	0.042	0.279	0.047	0.183
Departure Headway (Hd)	5.874	4.667	5.764	6.618	6.111
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	611	756	616	544	591
Service Time	3.672	2.464	3.864	4.318	3.811
HCM Lane V/C Ratio	0.637	0.042	0.282	0.048	0.183
HCM Control Delay	18.5	7.7	11.1	9.6	10.2
HCM Lane LOS	C	A	B	A	B
HCM 95th-tile Q	4.5	0.1	1.1	0.1	0.7

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	507	0	379	23	0
Future Vol, veh/h	0	507	0	379	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	576	0	431	26	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	576	-
Stage 1	-	-	0	-
Stage 2	-	-	576	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	479	0
Stage 1	0	-	-	0
Stage 2	0	-	562	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	479	-
Mov Cap-2 Maneuver	-	-	479	-
Stage 1	-	-	-	-
Stage 2	-	-	562	-

Approach	EB	SB
HCM Control Delay, s	0	12.9
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	479
HCM Lane V/C Ratio	-	0.055
HCM Control Delay (s)	-	12.9
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.2

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	528	372	75	109	7
Future Vol, veh/h	2	528	372	75	109	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	593	418	84	122	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	502	0	-	0	1057 460
Stage 1	-	-	-	-	460 -
Stage 2	-	-	-	-	597 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1062	-	-	-	249 601
Stage 1	-	-	-	-	636 -
Stage 2	-	-	-	-	550 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1062	-	-	-	248 601
Mov Cap-2 Maneuver	-	-	-	-	248 -
Stage 1	-	-	-	-	634 -
Stage 2	-	-	-	-	550 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	32.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1062	-	-	-	257
HCM Lane V/C Ratio	0.002	-	-	-	0.507
HCM Control Delay (s)	8.4	0	-	-	32.6
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	2.6

Intersection	
Intersection Delay, s/veh	44.7
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	422	215	236	309	4	137	1	170	3	0	1
Future Vol, veh/h	1	422	215	236	309	4	137	1	170	3	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	440	224	246	322	4	143	1	177	3	0	1
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	80.6	17.8	18.8	11.5
HCM LOS	F	C	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	44%	0%	100%	0%	75%
Vol Thru, %	0%	66%	0%	99%	0%
Vol Right, %	55%	34%	0%	1%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	308	638	236	313	4
LT Vol	137	1	236	0	3
Through Vol	1	422	0	309	0
RT Vol	170	215	0	4	1
Lane Flow Rate	321	665	246	326	4
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.582	1.072	0.48	0.591	0.009
Departure Headway (Hd)	6.763	5.806	7.254	6.733	8.427
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	536	625	499	538	427
Service Time	4.763	3.853	4.954	4.433	6.427
HCM Lane V/C Ratio	0.599	1.064	0.493	0.606	0.009
HCM Control Delay	18.8	80.6	16.5	18.7	11.5
HCM Lane LOS	C	F	C	C	B
HCM 95th-tile Q	3.7	18.7	2.6	3.8	0

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	132	461	384	24	24	164
Future Vol, veh/h	132	461	384	24	24	164
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	512	427	27	27	182

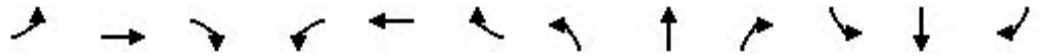
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	455	0	-	0	1248 442
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	806 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1106	-	-	-	191 615
Stage 1	-	-	-	-	648 -
Stage 2	-	-	-	-	439 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1105	-	-	-	155 614
Mov Cap-2 Maneuver	-	-	-	-	155 -
Stage 1	-	-	-	-	527 -
Stage 2	-	-	-	-	439 -

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	20
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1105	-	-	-	446
HCM Lane V/C Ratio	0.133	-	-	-	0.468
HCM Control Delay (s)	8.8	0	-	-	20
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.4

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Existing plus Project
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	413	69	66	333	12	44	0	58	14	0	4
Future Volume (veh/h)	8	413	69	66	333	12	44	0	58	14	0	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	439	73	70	354	13	47	0	62	15	0	4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	547	464	100	603	22	736	0	691	563	12	126
Arrive On Green	0.01	0.29	0.29	0.06	0.34	0.34	0.44	0.00	0.44	0.44	0.00	0.44
Sat Flow, veh/h	1781	1870	1585	1781	1791	66	1422	0	1581	1053	28	288
Grp Volume(v), veh/h	9	439	73	70	0	367	47	0	62	19	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1857	1422	0	1581	1369	0	0
Q Serve(g_s), s	0.3	13.7	2.1	2.4	0.0	10.3	0.0	0.0	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	13.7	2.1	2.4	0.0	10.3	1.0	0.0	1.4	1.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.79		0.21
Lane Grp Cap(c), veh/h	21	547	464	100	0	626	736	0	691	701	0	0
V/C Ratio(X)	0.44	0.80	0.16	0.70	0.00	0.59	0.06	0.00	0.09	0.03	0.00	0.00
Avail Cap(c_a), veh/h	156	1115	944	326	0	1283	736	0	691	701	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.9	20.6	16.5	29.2	0.0	17.2	10.2	0.0	10.4	10.1	0.0	0.0
Incr Delay (d2), s/veh	13.9	2.8	0.2	8.6	0.0	0.9	0.2	0.0	0.3	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.6	0.7	1.2	0.0	3.9	0.4	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	23.4	16.7	37.8	0.0	18.1	10.4	0.0	10.6	10.2	0.0	0.0
LnGrp LOS	D	C	B	D	A	B	B	A	B	B	A	A
Approach Vol, veh/h		521			437			109				19
Approach Delay, s/veh		22.8			21.3			10.5				10.2
Approach LOS		C			C			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	8.0	22.9		32.0	5.2	25.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	11.5	37.5		27.5	5.5	43.5				
Max Q Clear Time (g_c+I1), s		3.4	4.4	15.7		3.0	2.3	12.3				
Green Ext Time (p_c), s		0.4	0.1	2.7		0.0	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	3	415	62	92	366	2	45	0	48	0	1	0
Future Vol, veh/h	3	415	62	92	366	2	45	0	48	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	441	66	98	389	2	48	0	51	0	1	0

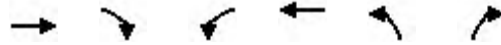
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	391	0	0	510	0	0	1037	1037	444	1092	1102	390
Stage 1	-	-	-	-	-	-	450	450	-	586	586	-
Stage 2	-	-	-	-	-	-	587	587	-	506	516	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1168	-	-	1055	-	-	209	231	614	192	212	658
Stage 1	-	-	-	-	-	-	589	572	-	496	497	-
Stage 2	-	-	-	-	-	-	496	497	-	549	534	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1168	-	-	1052	-	-	188	202	612	159	186	658
Mov Cap-2 Maneuver	-	-	-	-	-	-	188	202	-	159	186	-
Stage 1	-	-	-	-	-	-	585	568	-	494	438	-
Stage 2	-	-	-	-	-	-	436	438	-	501	530	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.8			23.4			24.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	293	1168	-	-	1052	-	-	186
HCM Lane V/C Ratio	0.338	0.003	-	-	0.093	-	-	0.006
HCM Control Delay (s)	23.4	8.1	0	-	8.8	0	-	24.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.4	0	-	-	0.3	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

Existing plus Project
 Timing Plan: PM Peak Hour

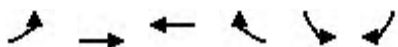


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	367	79	145	333	64	81
Future Volume (veh/h)	367	79	145	333	64	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	427	92	169	387	74	94
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	626	760	226	1109	259	432
Arrive On Green	0.33	0.33	0.13	0.59	0.15	0.15
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	427	92	169	387	74	94
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	6.8	1.1	3.1	3.7	1.3	1.6
Cycle Q Clear(g_c), s	6.8	1.1	3.1	3.7	1.3	1.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	626	760	226	1109	259	432
V/C Ratio(X)	0.68	0.12	0.75	0.35	0.29	0.22
Avail Cap(c_a), veh/h	1659	1635	855	2802	1528	1561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	4.9	14.5	3.6	13.1	9.7
Incr Delay (d2), s/veh	1.3	0.1	4.9	0.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.3	1.2	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	5.0	19.3	3.8	13.7	9.9
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	519			556	168	
Approach Delay, s/veh	10.1			8.5	11.6	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	8.9	16.0		24.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	16.5	30.5		51.5
Max Q Clear Time (g_c+I1), s		3.6	5.1	8.8		5.7
Green Ext Time (p_c), s		0.5	0.3	2.6		2.3
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

Existing plus Project
Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	227	293	221	334	544	267	
Future Volume (veh/h)	227	293	221	334	544	267	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	239	308	233	352	573	281	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	374	794	417	968	692	788	
Arrive On Green	0.11	0.42	0.22	0.22	0.39	0.39	
Sat Flow, veh/h	3456	1870	1870	1578	1781	1585	
Grp Volume(v), veh/h	239	308	233	352	573	281	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1578	1781	1585	
Q Serve(g_s), s	3.2	5.5	5.3	5.4	14.0	5.2	
Cycle Q Clear(g_c), s	3.2	5.5	5.3	5.4	14.0	5.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	374	794	417	968	692	788	
V/C Ratio(X)	0.64	0.39	0.56	0.36	0.83	0.36	
Avail Cap(c_a), veh/h	609	1745	1241	1663	1330	1355	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.6	9.6	16.6	4.7	13.3	7.4	
Incr Delay (d2), s/veh	1.8	0.3	1.2	0.2	2.6	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	1.6	2.2	3.6	4.4	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.4	9.9	17.8	4.9	15.9	7.7	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		547	585		854		
Approach Delay, s/veh		15.4	10.0		13.2		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				25.0	23.2	9.7	15.3
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				45.0	36.0	8.5	32.0
Max Q Clear Time (g_c+I1), s				7.5	16.0	5.2	7.4
Green Ext Time (p_c), s				1.7	2.8	0.2	2.8
Intersection Summary							
HCM 6th Ctrl Delay			12.9				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	1	66	231	4	102	355
Future Vol, veh/h	1	66	231	4	102	355
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	69	243	4	107	374

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	833	245	0	0	247
Stage 1	245	-	-	-	-
Stage 2	588	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	339	794	-	-	1319
Stage 1	796	-	-	-	-
Stage 2	555	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	304	794	-	-	1319
Mov Cap-2 Maneuver	304	-	-	-	-
Stage 1	796	-	-	-	-
Stage 2	498	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	775	1319
HCM Lane V/C Ratio	-	-	0.091	0.081
HCM Control Delay (s)	-	-	10.1	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.3

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↻	↻	↻
Traffic Vol, veh/h	77	0	14	61	322	17
Future Vol, veh/h	77	0	14	61	322	17
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	0	15	65	343	18
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.3	9	13.7
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	322	17	77	14	61
LT Vol	322	0	0	14	0
Through Vol	0	0	77	0	61
RT Vol	0	17	0	0	0
Lane Flow Rate	343	18	82	15	65
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.521	0.021	0.125	0.025	0.102
Departure Headway (Hd)	5.473	4.27	5.472	6.16	5.655
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	658	836	655	581	633
Service Time	3.21	2.006	3.513	3.903	3.398
HCM Lane V/C Ratio	0.521	0.022	0.125	0.026	0.103
HCM Control Delay	14	7.1	9.3	9.1	9
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	3	0.1	0.4	0.1	0.3

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	320	0	337	16	0
Future Vol, veh/h	0	320	0	337	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	352	0	370	18	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	352	-
Stage 1	-	-	0	-
Stage 2	-	-	352	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	646	0
Stage 1	0	-	-	0
Stage 2	0	-	712	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	646	-
Mov Cap-2 Maneuver	-	-	646	-
Stage 1	-	-	-	-
Stage 2	-	-	712	-

Approach	EB	SB
HCM Control Delay, s	0	10.7
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	646
HCM Lane V/C Ratio	-	0.027
HCM Control Delay (s)	-	10.7
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	343	343	60	71	4
Future Vol, veh/h	3	343	343	60	71	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	377	377	66	78	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	443	0	-	0	793 410
Stage 1	-	-	-	-	410 -
Stage 2	-	-	-	-	383 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1117	-	-	-	358 642
Stage 1	-	-	-	-	670 -
Stage 2	-	-	-	-	689 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1117	-	-	-	357 642
Mov Cap-2 Maneuver	-	-	-	-	357 -
Stage 1	-	-	-	-	668 -
Stage 2	-	-	-	-	689 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1117	-	-	-	366
HCM Lane V/C Ratio	0.003	-	-	-	0.225
HCM Control Delay (s)	8.2	0	-	-	17.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Intersection	
Intersection Delay, s/veh	18
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	2	271	142	166	297	3	129	3	166	0	1	7
Future Vol, veh/h	2	271	142	166	297	3	129	3	166	0	1	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	298	156	182	326	3	142	3	182	0	1	8
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	21.9	15.7	16.5	10.1
HCM LOS	C	C	C	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	43%	0%	100%	0%	0%
Vol Thru, %	1%	65%	0%	99%	12%
Vol Right, %	56%	34%	0%	1%	88%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	298	415	166	300	8
LT Vol	129	2	166	0	0
Through Vol	3	271	0	297	1
RT Vol	166	142	0	3	7
Lane Flow Rate	327	456	182	330	9
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.554	0.717	0.343	0.573	0.017
Departure Headway (Hd)	6.092	5.663	6.778	6.262	6.933
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	589	634	527	574	519
Service Time	4.163	3.73	4.553	4.036	4.933
HCM Lane V/C Ratio	0.555	0.719	0.345	0.575	0.017
HCM Control Delay	16.5	21.9	13.1	17.2	10.1
HCM Lane LOS	C	C	B	C	B
HCM 95th-tile Q	3.4	6	1.5	3.6	0.1

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↖	↗
Traffic Vol, veh/h	126	311	346	27	22	120
Future Vol, veh/h	126	311	346	27	22	120
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	331	368	29	23	128

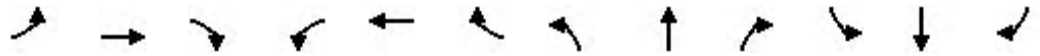
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	399	0	-	0	984 385
Stage 1	-	-	-	-	385 -
Stage 2	-	-	-	-	599 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1160	-	-	-	275 663
Stage 1	-	-	-	-	688 -
Stage 2	-	-	-	-	549 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1158	-	-	-	235 662
Mov Cap-2 Maneuver	-	-	-	-	235 -
Stage 1	-	-	-	-	589 -
Stage 2	-	-	-	-	548 -

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1158	-	-	-	517
HCM Lane V/C Ratio	0.116	-	-	-	0.292
HCM Control Delay (s)	8.5	0	-	-	14.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.2

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Existing plus Project
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	336	11	3	311	6	9	0	7	5	0	6
Future Volume (veh/h)	10	336	11	3	311	6	9	0	7	5	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	365	12	3	338	7	10	0	8	5	0	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	481	408	7	451	9	824	0	776	366	36	430
Arrive On Green	0.01	0.26	0.26	0.00	0.25	0.25	0.49	0.00	0.49	0.49	0.00	0.49
Sat Flow, veh/h	1781	1870	1585	1781	1825	38	1411	0	1585	555	74	879
Grp Volume(v), veh/h	11	365	12	3	0	345	10	0	8	12	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1863	1411	0	1585	1508	0	0
Q Serve(g_s), s	0.3	9.8	0.3	0.1	0.0	9.3	0.0	0.0	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	9.8	0.3	0.1	0.0	9.3	0.2	0.0	0.1	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.42		0.58
Lane Grp Cap(c), veh/h	25	481	408	7	0	460	824	0	776	832	0	0
V/C Ratio(X)	0.44	0.76	0.03	0.41	0.00	0.75	0.01	0.00	0.01	0.01	0.00	0.00
Avail Cap(c_a), veh/h	280	1434	1215	280	0	1428	824	0	776	832	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.5	18.6	15.1	26.9	0.0	18.8	7.1	0.0	7.1	7.1	0.0	0.0
Incr Delay (d2), s/veh	11.6	2.5	0.0	33.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.9	0.1	0.1	0.0	3.7	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	21.0	15.1	60.4	0.0	21.3	7.1	0.0	7.1	7.1	0.0	0.0
LnGrp LOS	D	C	B	E	A	C	A	A	A	A	A	A
Approach Vol, veh/h		388			348			18				12
Approach Delay, s/veh		21.3			21.6			7.1				7.1
Approach LOS		C			C			A				A
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		31.0	4.7	18.4		31.0	5.3	17.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	8.5	41.5		26.5	8.5	41.5				
Max Q Clear Time (g_c+I1), s		2.2	2.1	11.8		2.2	2.3	11.3				
Green Ext Time (p_c), s		0.0	0.0	2.2		0.0	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				20.9								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	0	247	80	107	254	2	86	0	120	1	0	1
Future Vol, veh/h	0	247	80	107	254	2	86	0	120	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	305	99	132	314	2	106	0	148	1	0	1

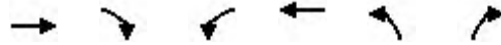
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	316	0	0	405	0	0	886	886	306	1008	984	315
Stage 1	-	-	-	-	-	-	306	306	-	579	579	-
Stage 2	-	-	-	-	-	-	580	580	-	429	405	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1244	-	-	1154	-	-	265	284	734	219	248	725
Stage 1	-	-	-	-	-	-	704	662	-	501	501	-
Stage 2	-	-	-	-	-	-	500	500	-	604	598	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1244	-	-	1153	-	-	236	244	733	156	213	725
Mov Cap-2 Maneuver	-	-	-	-	-	-	236	244	-	156	213	-
Stage 1	-	-	-	-	-	-	703	661	-	501	431	-
Stage 2	-	-	-	-	-	-	430	431	-	482	597	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.5			30			19.1		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	1244	-	-	1153	-	-	257
HCM Lane V/C Ratio	0.652	-	-	-	0.115	-	-	0.01
HCM Control Delay (s)	30	0	-	-	8.5	0	-	19.1
HCM Lane LOS	D	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	4.5	0	-	-	0.4	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

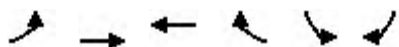
Existing plus Project
 Timing Plan: Saturday Mid-Day



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	311	63	76	374	64	81
Future Volume (veh/h)	311	63	76	374	64	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	338	68	83	407	70	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	546	730	149	986	301	400
Arrive On Green	0.29	0.29	0.08	0.53	0.17	0.17
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	338	68	83	407	70	88
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	4.6	0.7	1.3	3.9	1.0	1.3
Cycle Q Clear(g_c), s	4.6	0.7	1.3	3.9	1.0	1.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	546	730	149	986	301	400
V/C Ratio(X)	0.62	0.09	0.56	0.41	0.23	0.22
Avail Cap(c_a), veh/h	2052	2006	812	3188	1834	1764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	4.5	13.0	4.2	10.7	8.8
Incr Delay (d2), s/veh	1.1	0.1	3.2	0.3	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.2	0.5	0.2	0.3	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.2	4.6	16.3	4.5	11.0	9.0
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	406			490	158	
Approach Delay, s/veh	9.3			6.5	9.9	
Approach LOS	A			A	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	7.0	13.2		20.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	13.5	32.5		50.5
Max Q Clear Time (g_c+I1), s		3.3	3.3	6.6		5.9
Green Ext Time (p_c), s		0.4	0.1	2.0		2.4
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

Existing plus Project
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	223	207	281	342	421	196	
Future Volume (veh/h)	223	207	281	342	421	196	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	235	218	296	360	443	206	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	385	889	487	917	566	681	
Arrive On Green	0.11	0.48	0.26	0.26	0.32	0.32	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	235	218	296	360	443	206	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	2.8	3.0	6.1	5.4	9.8	3.7	
Cycle Q Clear(g_c), s	2.8	3.0	6.1	5.4	9.8	3.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	385	889	487	917	566	681	
V/C Ratio(X)	0.61	0.25	0.61	0.39	0.78	0.30	
Avail Cap(c_a), veh/h	786	1994	1375	1669	1416	1437	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	18.4	6.8	14.1	5.0	13.5	8.1	
Incr Delay (d2), s/veh	1.6	0.1	1.2	0.3	2.4	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.0	0.7	2.4	3.0	3.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.0	6.9	15.4	5.3	15.9	8.4	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		453	656		649		
Approach Delay, s/veh		13.7	9.8		13.5		
Approach LOS		B	A		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				25.2	18.3	9.4	15.8
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				46.4	34.6	9.9	32.0
Max Q Clear Time (g_c+I1), s				5.0	11.8	4.8	8.1
Green Ext Time (p_c), s				1.2	2.0	0.3	3.3
Intersection Summary							
HCM 6th Ctrl Delay			12.2				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	4	65	229	2	40	241
Future Vol, veh/h	4	65	229	2	40	241
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	73	257	2	45	271

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	619	258	0	0	259
Stage 1	258	-	-	-	-
Stage 2	361	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	452	781	-	-	1306
Stage 1	785	-	-	-	-
Stage 2	705	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	433	781	-	-	1306
Mov Cap-2 Maneuver	433	-	-	-	-
Stage 1	785	-	-	-	-
Stage 2	676	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	746	1306
HCM Lane V/C Ratio	-	-	0.104	0.034
HCM Control Delay (s)	-	-	10.4	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	103	0	15	106	461	22
Future Vol, veh/h	103	0	15	106	461	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	16	112	485	23
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.5	10.4	24.2
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	461	22	103	15	106
LT Vol	461	0	0	15	0
Through Vol	0	0	103	0	106
RT Vol	0	22	0	0	0
Lane Flow Rate	485	23	108	16	112
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.768	0.029	0.184	0.03	0.194
Departure Headway (Hd)	5.7	4.495	6.113	6.779	6.271
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	631	785	590	531	576
Service Time	3.493	2.287	4.118	4.479	3.971
HCM Lane V/C Ratio	0.769	0.029	0.183	0.03	0.194
HCM Control Delay	25	7.4	10.5	9.7	10.5
HCM Lane LOS	C	A	B	A	B
HCM 95th-tile Q	7.1	0.1	0.7	0.1	0.7

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	495	0	483	15	0
Future Vol, veh/h	0	495	0	483	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	521	0	508	16	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	521	-
Stage 1	-	-	0	-
Stage 2	-	-	521	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	516	0
Stage 1	0	-	-	0
Stage 2	0	-	596	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	516	-
Mov Cap-2 Maneuver	-	-	516	-
Stage 1	-	-	-	-
Stage 2	-	-	596	-

Approach	EB	SB
HCM Control Delay, s	0	12.2
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	516
HCM Lane V/C Ratio	-	0.031
HCM Control Delay (s)	-	12.2
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	41.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	61	451	422	210	219	53
Future Vol, veh/h	61	451	422	210	219	53
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	475	444	221	231	56

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	673	0	-	0	1166 563
Stage 1	-	-	-	-	563 -
Stage 2	-	-	-	-	603 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	918	-	-	-	~ 214 526
Stage 1	-	-	-	-	570 -
Stage 2	-	-	-	-	546 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	911	-	-	-	~ 191 522
Mov Cap-2 Maneuver	-	-	-	-	~ 191 -
Stage 1	-	-	-	-	512 -
Stage 2	-	-	-	-	542 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	213.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	911	-	-	-	218
HCM Lane V/C Ratio	0.07	-	-	-	1.313
HCM Control Delay (s)	9.3	0	-	-	213.4
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	15.5

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	99.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	477	191	149	413	1	240	0	238	0	1	0
Future Vol, veh/h	0	477	191	149	413	1	240	0	238	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	502	201	157	435	1	253	0	251	0	1	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	182.3	40.7	54.1	13.4
HCM LOS	F	E	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	0%	100%	0%	0%
Vol Thru, %	0%	71%	0%	100%	100%
Vol Right, %	50%	29%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	478	668	149	414	1
LT Vol	240	0	149	0	0
Through Vol	0	477	0	413	1
RT Vol	238	191	0	1	0
Lane Flow Rate	503	703	157	436	1
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.94	1.33	0.346	0.901	0.003
Departure Headway (Hd)	7.322	6.807	8.555	8.035	10.363
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	498	534	423	453	347
Service Time	5.322	4.888	6.255	5.735	8.363
HCM Lane V/C Ratio	1.01	1.316	0.371	0.962	0.003
HCM Control Delay	54.1	182.3	15.7	49.7	13.4
HCM Lane LOS	F	F	C	E	B
HCM 95th-tile Q	11.4	30.2	1.5	9.8	0

Intersection						
Int Delay, s/veh	7.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	171	531	462	54	61	90
Future Vol, veh/h	171	531	462	54	61	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	180	559	486	57	64	95

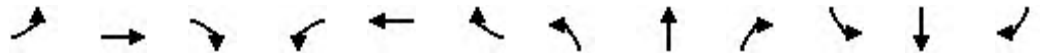
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	543	0	-	0	1434 515
Stage 1	-	-	-	-	515 -
Stage 2	-	-	-	-	919 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1026	-	-	-	147 560
Stage 1	-	-	-	-	600 -
Stage 2	-	-	-	-	389 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1026	-	-	-	110 560
Mov Cap-2 Maneuver	-	-	-	-	110 -
Stage 1	-	-	-	-	448 -
Stage 2	-	-	-	-	389 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	60.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1026	-	-	-	211
HCM Lane V/C Ratio	0.175	-	-	-	0.753
HCM Control Delay (s)	9.3	0	-	-	60.7
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	5.1

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT 2033
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	313	279	368	338	35	140	26	256	15	5	12
Future Volume (veh/h)	38	313	279	368	338	35	140	26	256	15	5	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	329	294	387	356	37	147	27	269	16	5	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	440	372	438	737	77	482	81	532	218	78	139
Arrive On Green	0.04	0.24	0.24	0.25	0.44	0.44	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1870	1582	1781	1662	173	1164	241	1580	435	233	413
Grp Volume(v), veh/h	40	329	294	387	0	393	174	0	269	34	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1835	1406	0	1580	1081	0	0
Q Serve(g_s), s	1.6	12.1	13.0	15.5	0.0	11.3	0.0	0.0	10.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	1.6	12.1	13.0	15.5	0.0	11.3	7.5	0.0	10.1	7.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.09	0.84		1.00	0.47		0.38
Lane Grp Cap(c), veh/h	67	440	372	438	0	813	563	0	532	436	0	0
V/C Ratio(X)	0.59	0.75	0.79	0.88	0.00	0.48	0.31	0.00	0.51	0.08	0.00	0.00
Avail Cap(c_a), veh/h	151	681	576	588	0	1118	563	0	532	436	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.1	26.3	26.6	27.0	0.0	14.6	18.8	0.0	19.7	16.8	0.0	0.0
Incr Delay (d2), s/veh	8.1	2.6	4.1	11.8	0.0	0.4	1.4	0.0	3.4	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.3	4.9	7.5	0.0	4.2	2.4	0.0	3.9	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	28.9	30.7	38.8	0.0	15.1	20.2	0.0	23.1	17.2	0.0	0.0
LnGrp LOS	D	C	C	D	A	B	C	A	C	B	A	A
Approach Vol, veh/h		663			780			443			34	
Approach Delay, s/veh		30.6			26.8			21.9			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	22.7	22.0		29.5	7.3	37.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	6.3	45.2				
Max Q Clear Time (g_c+I1), s		12.1	17.5	15.0		9.7	3.6	13.3				
Green Ext Time (p_c), s		1.7	0.7	2.3		0.1	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			26.8									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	1	477	88	69	662	0	41	0	55	1	0	2
Future Vol, veh/h	1	477	88	69	662	0	41	0	55	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	502	93	73	697	0	43	0	58	1	0	2

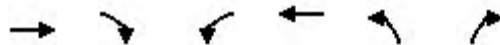
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	698	0	0	595	0	0	1348	1348	502	1424	1441	698
Stage 1	-	-	-	-	-	-	504	504	-	844	844	-
Stage 2	-	-	-	-	-	-	844	844	-	580	597	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	898	-	-	981	-	-	128	151	569	113	133	440
Stage 1	-	-	-	-	-	-	550	541	-	358	379	-
Stage 2	-	-	-	-	-	-	358	379	-	500	491	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	897	-	-	981	-	-	115	132	569	92	117	440
Mov Cap-2 Maneuver	-	-	-	-	-	-	115	132	-	92	117	-
Stage 1	-	-	-	-	-	-	549	540	-	357	333	-
Stage 2	-	-	-	-	-	-	313	333	-	448	490	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			36.5			23.8		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	212	897	-	-	981	-	-	195
HCM Lane V/C Ratio	0.477	0.001	-	-	0.074	-	-	0.016
HCM Control Delay (s)	36.5	9	0	-	9	0	-	23.8
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.3	0	-	-	0.2	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

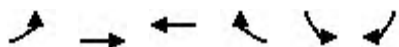
NT 2033
 Timing Plan: AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	558	82	57	629	108	118
Future Volume (veh/h)	558	82	57	629	108	118
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	587	86	60	662	114	124
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	797	900	111	1145	252	323
Arrive On Green	0.43	0.43	0.06	0.61	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	587	86	60	662	114	124
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	9.6	0.9	1.2	7.8	2.1	2.5
Cycle Q Clear(g_c), s	9.6	0.9	1.2	7.8	2.1	2.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	797	900	111	1145	252	323
V/C Ratio(X)	0.74	0.10	0.54	0.58	0.45	0.38
Avail Cap(c_a), veh/h	2024	1939	366	2639	1440	1380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	3.6	16.6	4.3	14.4	12.6
Incr Delay (d2), s/veh	1.3	0.0	4.0	0.5	1.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.2	0.5	0.5	0.8	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	3.7	20.6	4.7	15.6	13.3
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	673			722	238	
Approach Delay, s/veh	9.3			6.0	14.4	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.7	6.8	20.1		26.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	7.5	39.5		51.5
Max Q Clear Time (g_c+l1), s		4.5	3.2	11.6		9.8
Green Ext Time (p_c), s		0.7	0.0	4.0		4.6
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT 2033
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	388	310	430	390	215	283	
Future Volume (veh/h)	388	310	430	390	215	283	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	408	326	453	411	226	298	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	588	1138	652	888	379	607	
Arrive On Green	0.17	0.61	0.35	0.35	0.21	0.21	
Sat Flow, veh/h	3456	1870	1870	1581	1781	1585	
Grp Volume(v), veh/h	408	326	453	411	226	298	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1581	1781	1585	
Q Serve(g_s), s	5.6	4.2	10.5	7.8	5.8	7.2	
Cycle Q Clear(g_c), s	5.6	4.2	10.5	7.8	5.8	7.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	588	1138	652	888	379	607	
V/C Ratio(X)	0.69	0.29	0.69	0.46	0.60	0.49	
Avail Cap(c_a), veh/h	1174	2033	1230	1377	931	1098	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	19.6	4.7	14.1	6.5	17.9	11.8	
Incr Delay (d2), s/veh	1.5	0.1	1.3	0.4	1.5	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	0.8	4.1	3.7	2.1	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.1	4.8	15.4	6.9	19.4	12.4	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		734	864		524		
Approach Delay, s/veh		13.9	11.4		15.4		
Approach LOS		B	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			35.1		15.2	13.1	22.0
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			54.7		26.3	17.1	33.1
Max Q Clear Time (g_c+I1), s			6.2		9.2	7.6	12.5
Green Ext Time (p_c), s			1.9		1.5	1.0	4.6
Intersection Summary							
HCM 6th Ctrl Delay			13.2				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		TT	TT
Traffic Vol, veh/h	19	152	331	41	172	165
Future Vol, veh/h	19	152	331	41	172	165
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	160	348	43	181	174

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	906	371	0	0	391
Stage 1	370	-	-	-	-
Stage 2	536	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	307	675	-	-	1168
Stage 1	699	-	-	-	-
Stage 2	587	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	254	674	-	-	1168
Mov Cap-2 Maneuver	254	-	-	-	-
Stage 1	699	-	-	-	-
Stage 2	486	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	4.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	569	1168
HCM Lane V/C Ratio	-	-	0.316	0.155
HCM Control Delay (s)	-	-	14.2	8.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.5

Intersection	
Intersection Delay, s/veh	26.3
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	242	0	29	161	463	38
Future Vol, veh/h	242	0	29	161	463	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	255	0	31	169	487	40
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	14.9	12.4	37.1
HCM LOS	B	B	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	463	38	242	29	161
LT Vol	463	0	0	29	0
Through Vol	0	0	242	0	161
RT Vol	0	38	0	0	0
Lane Flow Rate	487	40	255	31	169
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.878	0.059	0.457	0.062	0.319
Departure Headway (Hd)	6.485	5.273	6.458	7.283	6.773
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	560	678	555	490	529
Service Time	4.229	3.016	4.524	5.057	4.546
HCM Lane V/C Ratio	0.87	0.059	0.459	0.063	0.319
HCM Control Delay	39.5	8.3	14.9	10.5	12.7
HCM Lane LOS	E	A	B	B	B
HCM 95th-tile Q	9.9	0.2	2.4	0.2	1.4

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	571	0	500	29	0
Future Vol, veh/h	0	571	0	500	29	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	601	0	526	31	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	601	-
Stage 1	-	-	0	-
Stage 2	-	-	601	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	463	0
Stage 1	0	-	-	0
Stage 2	0	-	547	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	463	-
Mov Cap-2 Maneuver	-	-	463	-
Stage 1	-	-	-	-
Stage 2	-	-	547	-

Approach	EB	SB
HCM Control Delay, s	0	13.3
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	463
HCM Lane V/C Ratio	-	0.066
HCM Control Delay (s)	-	13.3
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.2

Intersection						
Int Delay, s/veh	36.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	22	563	431	180	215	69
Future Vol, veh/h	22	563	431	180	215	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	593	454	189	226	73

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	643	0	-	0	1188 549
Stage 1	-	-	-	-	549 -
Stage 2	-	-	-	-	639 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	942	-	-	-	~ 208 535
Stage 1	-	-	-	-	579 -
Stage 2	-	-	-	-	526 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	942	-	-	-	~ 201 535
Mov Cap-2 Maneuver	-	-	-	-	~ 201 -
Stage 1	-	-	-	-	558 -
Stage 2	-	-	-	-	526 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	188.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	942	-	-	-	237
HCM Lane V/C Ratio	0.025	-	-	-	1.261
HCM Control Delay (s)	8.9	0	-	-	188.9
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	15.1

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	104.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	500	260	250	407	4	184	1	176	3	0	1
Future Vol, veh/h	1	500	260	250	407	4	184	1	176	3	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	526	274	263	428	4	194	1	185	3	0	1
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	207.1	30.2	26.9	12.9
HCM LOS	F	D	D	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	51%	0%	100%	0%	75%
Vol Thru, %	0%	66%	0%	99%	0%
Vol Right, %	49%	34%	0%	1%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	361	761	250	411	4
LT Vol	184	1	250	0	3
Through Vol	1	500	0	407	0
RT Vol	176	260	0	4	1
Lane Flow Rate	380	801	263	433	4
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.714	1.395	0.54	0.827	0.01
Departure Headway (Hd)	7.423	6.268	7.973	7.45	9.793
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	490	585	455	489	368
Service Time	5.423	4.313	5.673	5.15	7.793
HCM Lane V/C Ratio	0.776	1.369	0.578	0.885	0.011
HCM Control Delay	26.9	207.1	19.6	36.7	12.9
HCM Lane LOS	D	F	C	E	B
HCM 95th-tile Q	5.6	36.4	3.1	8.1	0

Intersection						
Int Delay, s/veh	16.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	176	488	395	54	61	264
Future Vol, veh/h	176	488	395	54	61	264
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	185	514	416	57	64	278

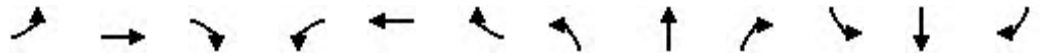
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	474	0	-	0	1330 446
Stage 1	-	-	-	-	446 -
Stage 2	-	-	-	-	884 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1088	-	-	-	171 612
Stage 1	-	-	-	-	645 -
Stage 2	-	-	-	-	404 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1087	-	-	-	130 611
Mov Cap-2 Maneuver	-	-	-	-	130 -
Stage 1	-	-	-	-	491 -
Stage 2	-	-	-	-	404 -

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	69.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1087	-	-	-	361
HCM Lane V/C Ratio	0.17	-	-	-	0.948
HCM Control Delay (s)	9	0	-	-	69.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	10.2

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT 2033
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	418	107	88	351	24	65	0	73	31	0	10
Future Volume (veh/h)	19	418	107	88	351	24	65	0	73	31	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	440	113	93	369	25	68	0	77	33	0	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	545	462	121	581	39	729	0	687	522	14	146
Arrive On Green	0.02	0.29	0.29	0.07	0.34	0.34	0.43	0.00	0.43	0.43	0.00	0.43
Sat Flow, veh/h	1781	1870	1585	1781	1729	117	1425	0	1581	979	31	337
Grp Volume(v), veh/h	20	440	113	93	0	394	68	0	77	44	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1846	1425	0	1581	1347	0	0
Q Serve(g_s), s	0.7	14.3	3.6	3.4	0.0	11.8	0.0	0.0	1.9	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.7	14.3	3.6	3.4	0.0	11.8	1.5	0.0	1.9	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	0.75		0.25
Lane Grp Cap(c), veh/h	41	545	462	121	0	621	729	0	687	682	0	0
V/C Ratio(X)	0.48	0.81	0.24	0.77	0.00	0.63	0.09	0.00	0.11	0.06	0.00	0.00
Avail Cap(c_a), veh/h	177	1041	882	312	0	1168	729	0	687	682	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.6	21.5	17.7	30.1	0.0	18.4	10.9	0.0	11.0	10.9	0.0	0.0
Incr Delay (d2), s/veh	8.4	2.9	0.3	9.8	0.0	1.1	0.3	0.0	0.3	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.9	1.2	1.7	0.0	4.6	0.6	0.0	0.6	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	24.4	18.0	39.9	0.0	19.4	11.2	0.0	11.3	11.1	0.0	0.0
LnGrp LOS	D	C	B	D	A	B	B	A	B	B	A	A
Approach Vol, veh/h		573			487			145				44
Approach Delay, s/veh		23.7			23.3			11.3				11.1
Approach LOS		C			C			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.0	9.0	23.6		33.0	6.0	26.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	11.5	36.5		28.5	6.5	41.5				
Max Q Clear Time (g_c+I1), s		3.9	5.4	16.3		3.9	2.7	13.8				
Green Ext Time (p_c), s		0.6	0.1	2.8		0.2	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay			21.7									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	3	487	19	49	435	2	17	0	20	0	1	0
Future Vol, veh/h	3	487	19	49	435	2	17	0	20	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	513	20	52	458	2	18	0	21	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	536	0	0	1086	1086	516	1103	1105	459
Stage 1	-	-	-	-	-	-	522	522	-	563	563	-
Stage 2	-	-	-	-	-	-	564	564	-	540	542	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1101	-	-	1032	-	-	194	216	559	189	211	602
Stage 1	-	-	-	-	-	-	538	531	-	511	509	-
Stage 2	-	-	-	-	-	-	510	508	-	526	520	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1101	-	-	1029	-	-	182	200	557	172	195	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	200	-	172	195	-
Stage 1	-	-	-	-	-	-	534	527	-	509	474	-
Stage 2	-	-	-	-	-	-	474	473	-	504	516	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.9			19.6			23.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	286	1101	-	-	1029	-	-	195
HCM Lane V/C Ratio	0.136	0.003	-	-	0.05	-	-	0.005
HCM Control Delay (s)	19.6	8.3	0	-	8.7	0	-	23.6
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

NT 2033
 Timing Plan: PM Peak Hour

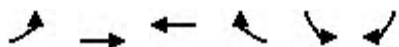


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	406	89	173	356	70	99
Future Volume (veh/h)	406	89	173	356	70	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	427	94	182	375	74	104
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	623	755	244	1120	255	444
Arrive On Green	0.33	0.33	0.14	0.60	0.14	0.14
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	427	94	182	375	74	104
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	6.9	1.2	3.4	3.5	1.3	1.8
Cycle Q Clear(g_c), s	6.9	1.2	3.4	3.5	1.3	1.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	623	755	244	1120	255	444
V/C Ratio(X)	0.68	0.12	0.75	0.33	0.29	0.23
Avail Cap(c_a), veh/h	1634	1609	842	2759	1505	1556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	5.1	14.5	3.5	13.4	9.7
Incr Delay (d2), s/veh	1.3	0.1	4.5	0.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.3	1.3	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.4	5.2	19.0	3.7	14.0	10.0
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	521			557	178	
Approach Delay, s/veh	10.3			8.7	11.6	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	9.3	16.1		25.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	16.5	30.5		51.5
Max Q Clear Time (g_c+I1), s		3.8	5.4	8.9		5.5
Green Ext Time (p_c), s		0.5	0.3	2.6		2.2
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT 2033
Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↗↘	↑	↑	↗	↘	↗	
Traffic Volume (veh/h)	232	336	256	295	495	284	
Future Volume (veh/h)	232	336	256	295	495	284	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	244	354	269	311	521	299	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	385	839	452	955	644	750	
Arrive On Green	0.11	0.45	0.24	0.24	0.36	0.36	
Sat Flow, veh/h	3456	1870	1870	1578	1781	1585	
Grp Volume(v), veh/h	244	354	269	311	521	299	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1578	1781	1585	
Q Serve(g_s), s	3.2	6.1	6.0	4.6	12.5	5.8	
Cycle Q Clear(g_c), s	3.2	6.1	6.0	4.6	12.5	5.8	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	385	839	452	955	644	750	
V/C Ratio(X)	0.63	0.42	0.59	0.33	0.81	0.40	
Avail Cap(c_a), veh/h	693	1816	1263	1640	1316	1348	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.1	8.9	15.9	4.6	13.6	8.1	
Incr Delay (d2), s/veh	1.7	0.3	1.3	0.2	2.5	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	1.7	2.5	2.9	4.0	6.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.8	9.2	17.2	4.8	16.1	8.4	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		598	580		820		
Approach Delay, s/veh		14.4	10.5		13.3		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				25.7	21.6	9.8	16.0
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				46.0	35.0	9.5	32.0
Max Q Clear Time (g_c+I1), s				8.1	14.5	5.2	8.0
Green Ext Time (p_c), s				2.0	2.6	0.3	2.9
Intersection Summary							
HCM 6th Ctrl Delay			12.8				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	S	S
Traffic Vol, veh/h	5	95	249	16	130	394
Future Vol, veh/h	5	95	249	16	130	394
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	100	262	17	137	415

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	960	271	0	0	279
Stage 1	271	-	-	-	-
Stage 2	689	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	285	768	-	-	1284
Stage 1	775	-	-	-	-
Stage 2	498	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	245	768	-	-	1284
Mov Cap-2 Maneuver	245	-	-	-	-
Stage 1	775	-	-	-	-
Stage 2	429	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	694	1284
HCM Lane V/C Ratio	-	-	0.152	0.107
HCM Control Delay (s)	-	-	11.1	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	0	11	85	411	15
Future Vol, veh/h	107	0	11	85	411	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	0	12	89	433	16
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.2	9.8	19
HCM LOS	B	A	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	411	15	107	11	85
LT Vol	411	0	0	11	0
Through Vol	0	0	107	0	85
RT Vol	0	15	0	0	0
Lane Flow Rate	433	16	113	12	89
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.676	0.019	0.181	0.021	0.149
Departure Headway (Hd)	5.629	4.424	5.792	6.496	5.99
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	640	803	615	548	595
Service Time	3.392	2.187	3.867	4.274	3.768
HCM Lane V/C Ratio	0.677	0.02	0.184	0.022	0.15
HCM Control Delay	19.4	7.3	10.2	9.4	9.8
HCM Lane LOS	C	A	B	A	A
HCM 95th-tile Q	5.2	0.1	0.7	0.1	0.5

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	411	0	423	14	0
Future Vol, veh/h	0	411	0	423	14	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	433	0	445	15	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	433	-
Stage 1	-	-	0	-
Stage 2	-	-	433	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	580	0
Stage 1	0	-	-	0
Stage 2	0	-	654	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	580	-
Mov Cap-2 Maneuver	-	-	580	-
Stage 1	-	-	-	-
Stage 2	-	-	654	-

Approach	EB	SB
HCM Control Delay, s	0	11.4
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	580
HCM Lane V/C Ratio	-	0.025
HCM Control Delay (s)	-	11.4
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	4	435	432	75	90	6
Future Vol, veh/h	4	435	432	75	90	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	458	455	79	95	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	534	0	-	0	961 495
Stage 1	-	-	-	-	495 -
Stage 2	-	-	-	-	466 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1034	-	-	-	284 575
Stage 1	-	-	-	-	613 -
Stage 2	-	-	-	-	632 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1034	-	-	-	283 575
Mov Cap-2 Maneuver	-	-	-	-	283 -
Stage 1	-	-	-	-	610 -
Stage 2	-	-	-	-	632 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	23.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1034	-	-	-	292
HCM Lane V/C Ratio	0.004	-	-	-	0.346
HCM Control Delay (s)	8.5	0	-	-	23.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.5

Intersection	
Intersection Delay, s/veh	38.6
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	3	326	198	212	360	4	179	4	214	0	1	10
Future Vol, veh/h	3	326	198	212	360	4	179	4	214	0	1	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	343	208	223	379	4	188	4	225	0	1	11
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	60.1	25.1	30.3	11.6
HCM LOS	F	D	D	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	45%	1%	100%	0%	0%
Vol Thru, %	1%	62%	0%	99%	9%
Vol Right, %	54%	38%	0%	1%	91%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	397	527	212	364	11
LT Vol	179	3	212	0	0
Through Vol	4	326	0	360	1
RT Vol	214	198	0	4	10
Lane Flow Rate	418	555	223	383	12
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.785	0.987	0.477	0.764	0.027
Departure Headway (Hd)	6.764	6.403	7.698	7.176	8.37
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	535	566	466	502	430
Service Time	4.812	4.453	5.462	4.94	6.37
HCM Lane V/C Ratio	0.781	0.981	0.479	0.763	0.028
HCM Control Delay	30.3	60.1	17.3	29.7	11.6
HCM Lane LOS	D	F	C	D	B
HCM 95th-tile Q	7.3	13.9	2.5	6.7	0.1

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	175	365	410	19	14	167
Future Vol, veh/h	175	365	410	19	14	167
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	384	432	20	15	176

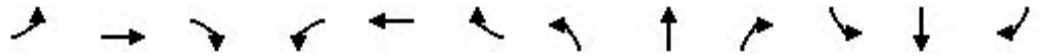
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	454	0	-	0	1196 444
Stage 1	-	-	-	-	444 -
Stage 2	-	-	-	-	752 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1107	-	-	-	206 614
Stage 1	-	-	-	-	646 -
Stage 2	-	-	-	-	466 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1105	-	-	-	162 613
Mov Cap-2 Maneuver	-	-	-	-	162 -
Stage 1	-	-	-	-	508 -
Stage 2	-	-	-	-	465 -

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1105	-	-	-	504
HCM Lane V/C Ratio	0.167	-	-	-	0.378
HCM Control Delay (s)	8.9	0	-	-	16.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	1.7

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT 2033
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	383	15	4	344	8	13	0	10	7	0	8
Future Volume (veh/h)	14	383	15	4	344	8	13	0	10	7	0	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	403	16	4	362	8	14	0	11	7	0	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	520	441	10	483	11	799	0	752	394	32	379
Arrive On Green	0.02	0.28	0.28	0.01	0.26	0.26	0.47	0.00	0.47	0.47	0.00	0.47
Sat Flow, veh/h	1781	1870	1585	1781	1822	40	1411	0	1585	631	68	798
Grp Volume(v), veh/h	15	403	16	4	0	370	14	0	11	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1862	1411	0	1585	1497	0	0
Q Serve(g_s), s	0.5	11.1	0.4	0.1	0.0	10.2	0.0	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	11.1	0.4	0.1	0.0	10.2	0.2	0.0	0.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.47		0.53
Lane Grp Cap(c), veh/h	33	520	441	10	0	493	799	0	752	805	0	0
V/C Ratio(X)	0.45	0.77	0.04	0.42	0.00	0.75	0.02	0.00	0.01	0.02	0.00	0.00
Avail Cap(c_a), veh/h	239	1424	1207	239	0	1418	799	0	752	805	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.1	18.5	14.7	27.7	0.0	18.8	7.8	0.0	7.8	7.8	0.0	0.0
Incr Delay (d2), s/veh	9.4	2.5	0.0	26.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.4	0.1	0.1	0.0	4.0	0.1	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	21.1	14.7	54.0	0.0	21.1	7.8	0.0	7.8	7.8	0.0	0.0
LnGrp LOS	D	C	B	D	A	C	A	A	A	A	A	A
Approach Vol, veh/h		434			374			25			15	
Approach Delay, s/veh		21.4			21.5			7.8			7.8	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		31.0	4.8	20.0		31.0	5.5	19.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	7.5	42.5		26.5	7.5	42.5				
Max Q Clear Time (g_c+I1), s		2.2	2.1	13.1		2.3	2.5	12.2				
Green Ext Time (p_c), s		0.1	0.0	2.5		0.0	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	0	344	20	46	352	2	22	0	56	1	0	1
Future Vol, veh/h	0	344	20	46	352	2	22	0	56	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	362	21	48	371	2	23	0	59	1	0	1

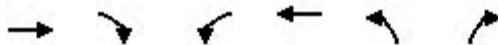
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	373	0	0	384	0	0	832	832	363	870	852	372
Stage 1	-	-	-	-	-	-	363	363	-	468	468	-
Stage 2	-	-	-	-	-	-	469	469	-	402	384	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1185	-	-	1174	-	-	288	305	682	272	297	674
Stage 1	-	-	-	-	-	-	656	625	-	575	561	-
Stage 2	-	-	-	-	-	-	575	561	-	625	611	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1185	-	-	1173	-	-	276	289	681	239	281	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	276	289	-	239	281	-
Stage 1	-	-	-	-	-	-	655	624	-	575	532	-
Stage 2	-	-	-	-	-	-	544	532	-	571	610	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.9			14			15.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	482	1185	-	-	1173	-	-	353
HCM Lane V/C Ratio	0.17	-	-	-	0.041	-	-	0.006
HCM Control Delay (s)	14	0	-	-	8.2	0	-	15.3
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

NT 2033
 Timing Plan: Saturday Mid-Day

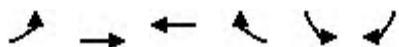


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	361	69	106	453	72	112
Future Volume (veh/h)	361	69	106	453	72	112
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	380	73	112	477	76	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	584	747	177	1038	283	409
Arrive On Green	0.31	0.31	0.10	0.55	0.16	0.16
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	380	73	112	477	76	118
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	5.5	0.8	1.9	4.8	1.2	1.9
Cycle Q Clear(g_c), s	5.5	0.8	1.9	4.8	1.2	1.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	584	747	177	1038	283	409
V/C Ratio(X)	0.65	0.10	0.63	0.46	0.27	0.29
Avail Cap(c_a), veh/h	1933	1890	765	3004	1728	1695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	4.6	13.6	4.2	11.6	9.3
Incr Delay (d2), s/veh	1.2	0.1	3.7	0.3	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	0.7	0.3	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.6	4.7	17.3	4.5	12.1	9.7
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	453			589	194	
Approach Delay, s/veh	9.6			6.9	10.7	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	7.6	14.3		21.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	13.5	32.5		50.5
Max Q Clear Time (g_c+l1), s		3.9	3.9	7.5		6.8
Green Ext Time (p_c), s		0.6	0.2	2.3		2.9
Intersection Summary						
HCM 6th Ctrl Delay			8.5			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT 2033
Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↗↘	↑	↑	↗	↘	↗	
Traffic Volume (veh/h)	257	269	373	475	584	222	
Future Volume (veh/h)	257	269	373	475	584	222	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	271	283	393	500	615	234	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	375	875	541	1078	697	792	
Arrive On Green	0.11	0.47	0.29	0.29	0.39	0.39	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	271	283	393	500	615	234	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	4.9	6.1	12.1	9.4	20.5	5.5	
Cycle Q Clear(g_c), s	4.9	6.1	12.1	9.4	20.5	5.5	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	375	875	541	1078	697	792	
V/C Ratio(X)	0.72	0.32	0.73	0.46	0.88	0.30	
Avail Cap(c_a), veh/h	459	1316	936	1413	1002	1064	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	27.6	10.7	20.5	4.8	18.1	9.4	
Incr Delay (d2), s/veh	4.3	0.2	1.9	0.3	6.8	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	2.0	5.2	7.4	8.1	6.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.9	10.9	22.4	5.1	24.9	9.6	
LnGrp LOS	C	B	C	A	C	A	
Approach Vol, veh/h		554	893		849		
Approach Delay, s/veh		21.1	12.7		20.7		
Approach LOS		C	B		C		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			34.4		29.5	11.4	23.0
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			45.0		36.0	8.5	32.0
Max Q Clear Time (g_c+I1), s			8.1		22.5	6.9	14.1
Green Ext Time (p_c), s			1.6		2.5	0.2	4.4
Intersection Summary							
HCM 6th Ctrl Delay			17.7				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	6	90	301	3	56	317
Future Vol, veh/h	6	90	301	3	56	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	95	317	3	59	334

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	771	319	0	0	320
Stage 1	319	-	-	-	-
Stage 2	452	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	368	722	-	-	1240
Stage 1	737	-	-	-	-
Stage 2	641	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	347	722	-	-	1240
Mov Cap-2 Maneuver	347	-	-	-	-
Stage 1	737	-	-	-	-
Stage 2	604	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	676	1240
HCM Lane V/C Ratio	-	-	0.149	0.048
HCM Control Delay (s)	-	-	11.3	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

Intersection	
Intersection Delay, s/veh	20.1
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	103	0	16	106	464	23
Future Vol, veh/h	103	0	16	106	464	23
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	17	112	488	24
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.5	10.4	24.6
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	464	23	103	16	106
LT Vol	464	0	0	16	0
Through Vol	0	0	103	0	106
RT Vol	0	23	0	0	0
Lane Flow Rate	488	24	108	17	112
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.774	0.03	0.185	0.032	0.195
Departure Headway (Hd)	5.703	4.498	6.129	6.789	6.286
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	630	784	589	530	575
Service Time	3.5	2.294	4.133	4.493	3.986
HCM Lane V/C Ratio	0.775	0.031	0.183	0.032	0.195
HCM Control Delay	25.5	7.4	10.5	9.7	10.5
HCM Lane LOS	D	A	B	A	B
HCM 95th-tile Q	7.3	0.1	0.7	0.1	0.7

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	500	0	486	16	0
Future Vol, veh/h	0	500	0	486	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	526	0	512	17	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	526	-
Stage 1	-	-	0	-
Stage 2	-	-	526	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	512	0
Stage 1	0	-	-	0
Stage 2	0	-	593	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	512	-
Mov Cap-2 Maneuver	-	-	512	-
Stage 1	-	-	-	-
Stage 2	-	-	593	-

Approach	EB	SB
HCM Control Delay, s	0	12.3
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	512
HCM Lane V/C Ratio	-	0.033
HCM Control Delay (s)	-	12.3
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	42.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	61	457	425	211	220	53
Future Vol, veh/h	61	457	425	211	220	53
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	481	447	222	232	56

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	677	0	-	0	1175 566
Stage 1	-	-	-	-	566 -
Stage 2	-	-	-	-	609 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	915	-	-	-	~ 212 524
Stage 1	-	-	-	-	568 -
Stage 2	-	-	-	-	543 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	908	-	-	-	~ 189 520
Mov Cap-2 Maneuver	-	-	-	-	~ 189 -
Stage 1	-	-	-	-	509 -
Stage 2	-	-	-	-	539 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	220.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	908	-	-	-	216
HCM Lane V/C Ratio	0.071	-	-	-	1.33
HCM Control Delay (s)	9.3	0	-	-	220.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	15.8

Notes
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	103.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	484	191	150	417	1	240	0	240	0	1	0
Future Vol, veh/h	0	484	191	150	417	1	240	0	240	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	509	201	158	439	1	253	0	253	0	1	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	189.8	42.2	55.2	13.5
HCM LOS	F	E	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	0%	100%	0%	0%
Vol Thru, %	0%	72%	0%	100%	100%
Vol Right, %	50%	28%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	480	675	150	418	1
LT Vol	240	0	150	0	0
Through Vol	0	484	0	417	1
RT Vol	240	191	0	1	0
Lane Flow Rate	505	711	158	440	1
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.945	1.348	0.349	0.911	0.003
Departure Headway (Hd)	7.352	6.829	8.592	8.072	10.443
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	495	533	422	453	345
Service Time	5.352	4.911	6.292	5.772	8.443
HCM Lane V/C Ratio	1.02	1.334	0.374	0.971	0.003
HCM Control Delay	55.2	189.8	15.8	51.7	13.5
HCM Lane LOS	F	F	C	F	B
HCM 95th-tile Q	11.6	31.1	1.5	10.1	0

Intersection						
Int Delay, s/veh	8.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	171	540	467	55	63	90
Future Vol, veh/h	171	540	467	55	63	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	180	568	492	58	66	95

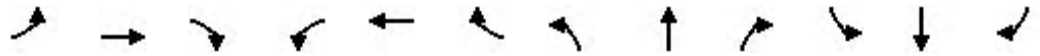
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	550	0	-	0	1449 521
Stage 1	-	-	-	-	521 -
Stage 2	-	-	-	-	928 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1020	-	-	-	144 555
Stage 1	-	-	-	-	596 -
Stage 2	-	-	-	-	385 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1020	-	-	-	107 555
Mov Cap-2 Maneuver	-	-	-	-	107 -
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	385 -

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	67.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1020	-	-	-	204
HCM Lane V/C Ratio	0.176	-	-	-	0.789
HCM Control Delay (s)	9.3	0	-	-	67.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	5.5

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT plus Project 2033
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	325	279	368	345	35	140	26	256	15	5	12
Future Volume (veh/h)	38	325	279	368	345	35	140	26	256	15	5	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	342	294	387	363	37	147	27	269	16	5	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	441	373	438	739	75	481	81	532	217	78	139
Arrive On Green	0.04	0.24	0.24	0.25	0.44	0.44	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1870	1582	1781	1666	170	1164	241	1580	434	233	413
Grp Volume(v), veh/h	40	342	294	387	0	400	174	0	269	34	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1835	1405	0	1580	1080	0	0
Q Serve(g_s), s	1.6	12.7	13.0	15.6	0.0	11.5	0.0	0.0	10.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	1.6	12.7	13.0	15.6	0.0	11.5	7.6	0.0	10.1	7.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.09	0.84		1.00	0.47		0.38
Lane Grp Cap(c), veh/h	67	441	373	438	0	815	562	0	532	435	0	0
V/C Ratio(X)	0.59	0.77	0.79	0.88	0.00	0.49	0.31	0.00	0.51	0.08	0.00	0.00
Avail Cap(c_a), veh/h	151	680	575	587	0	1117	562	0	532	435	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.2	26.5	26.6	27.0	0.0	14.7	18.8	0.0	19.7	16.9	0.0	0.0
Incr Delay (d2), s/veh	8.1	3.0	4.0	11.9	0.0	0.5	1.4	0.0	3.4	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.6	4.9	7.5	0.0	4.3	2.4	0.0	3.9	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	29.5	30.6	38.9	0.0	15.1	20.2	0.0	23.1	17.2	0.0	0.0
LnGrp LOS	D	C	C	D	A	B	C	A	C	B	A	A
Approach Vol, veh/h		676			787			443			34	
Approach Delay, s/veh		30.8			26.8			22.0			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	22.8	22.0		29.5	7.3	37.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	6.3	45.2				
Max Q Clear Time (g_c+I1), s		12.1	17.6	15.0		9.7	3.6	13.5				
Green Ext Time (p_c), s		1.7	0.7	2.4		0.1	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay				26.9								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	1	477	100	81	662	0	48	0	62	1	0	2
Future Vol, veh/h	1	477	100	81	662	0	48	0	62	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	502	105	85	697	0	51	0	65	1	0	2

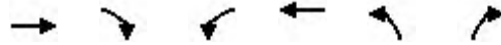
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	698	0	0	607	0	0	1372	1372	502	1457	1477	698
Stage 1	-	-	-	-	-	-	504	504	-	868	868	-
Stage 2	-	-	-	-	-	-	868	868	-	589	609	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	898	-	-	971	-	-	123	146	569	108	126	440
Stage 1	-	-	-	-	-	-	550	541	-	347	370	-
Stage 2	-	-	-	-	-	-	347	370	-	494	485	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	897	-	-	971	-	-	109	125	569	85	108	440
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	125	-	85	108	-
Stage 1	-	-	-	-	-	-	549	540	-	346	317	-
Stage 2	-	-	-	-	-	-	296	317	-	436	484	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	45.2	24.9
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	200	897	-	-	971	-	-	184
HCM Lane V/C Ratio	0.579	0.001	-	-	0.088	-	-	0.017
HCM Control Delay (s)	45.2	9	0	-	9.1	0	-	24.9
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	3.2	0	-	-	0.3	-	-	0.1

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

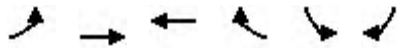
NT plus Project 2033
 Timing Plan: AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	563	83	57	638	110	118
Future Volume (veh/h)	563	83	57	638	110	118
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	593	87	60	672	116	124
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	803	904	111	1148	251	322
Arrive On Green	0.43	0.43	0.06	0.61	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	593	87	60	672	116	124
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	9.7	0.9	1.2	8.0	2.2	2.5
Cycle Q Clear(g_c), s	9.7	0.9	1.2	8.0	2.2	2.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	803	904	111	1148	251	322
V/C Ratio(X)	0.74	0.10	0.54	0.59	0.46	0.38
Avail Cap(c_a), veh/h	2011	1927	364	2621	1430	1371
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	3.6	16.7	4.3	14.5	12.6
Incr Delay (d2), s/veh	1.4	0.0	4.0	0.5	1.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.2	0.5	0.5	0.8	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	3.6	20.8	4.7	15.8	13.4
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	680			732	240	
Approach Delay, s/veh	9.3			6.1	14.6	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.7	6.8	20.3		27.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	7.5	39.5		51.5
Max Q Clear Time (g_c+I1), s		4.5	3.2	11.7		10.0
Green Ext Time (p_c), s		0.7	0.0	4.0		4.7
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT plus Project 2033
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	392	311	432	390	215	290	
Future Volume (veh/h)	392	311	432	390	215	290	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	413	327	455	411	226	305	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	591	1137	651	892	384	613	
Arrive On Green	0.17	0.61	0.35	0.35	0.22	0.22	
Sat Flow, veh/h	3456	1870	1870	1580	1781	1585	
Grp Volume(v), veh/h	413	327	455	411	226	305	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1580	1781	1585	
Q Serve(g_s), s	5.7	4.2	10.7	7.8	5.8	7.4	
Cycle Q Clear(g_c), s	5.7	4.2	10.7	7.8	5.8	7.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	591	1137	651	892	384	613	
V/C Ratio(X)	0.70	0.29	0.70	0.46	0.59	0.50	
Avail Cap(c_a), veh/h	1160	2008	1215	1369	920	1090	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	19.9	4.8	14.3	6.5	17.9	11.9	
Incr Delay (d2), s/veh	1.5	0.1	1.4	0.4	1.4	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	0.8	4.2	3.7	2.1	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.4	4.9	15.7	6.9	19.4	12.5	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		740	866		531		
Approach Delay, s/veh		14.1	11.5		15.4		
Approach LOS		B	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			35.5		15.5	13.2	22.2
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			54.7		26.3	17.1	33.1
Max Q Clear Time (g_c+I1), s			6.2		9.4	7.7	12.7
Green Ext Time (p_c), s			1.9		1.5	1.0	4.6
Intersection Summary							
HCM 6th Ctrl Delay			13.4				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	S	S
Traffic Vol, veh/h	19	152	333	41	172	166
Future Vol, veh/h	19	152	333	41	172	166
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	160	351	43	181	175

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	910	374	0	0	394
Stage 1	373	-	-	-	-
Stage 2	537	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	305	672	-	-	1165
Stage 1	696	-	-	-	-
Stage 2	586	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	253	671	-	-	1165
Mov Cap-2 Maneuver	253	-	-	-	-
Stage 1	696	-	-	-	-
Stage 2	485	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	4.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	567	1165
HCM Lane V/C Ratio	-	-	0.317	0.155
HCM Control Delay (s)	-	-	14.3	8.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.6

Intersection	
Intersection Delay, s/veh	28.3
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	242	0	33	161	474	41
Future Vol, veh/h	242	0	33	161	474	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	255	0	35	169	499	43
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	15.1	12.4	40.5
HCM LOS	C	B	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	474	41	242	33	161
LT Vol	474	0	0	33	0
Through Vol	0	0	242	0	161
RT Vol	0	41	0	0	0
Lane Flow Rate	499	43	255	35	169
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.902	0.063	0.461	0.071	0.321
Departure Headway (Hd)	6.507	5.294	6.515	7.338	6.828
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	559	675	550	486	524
Service Time	4.251	3.038	4.583	5.117	4.606
HCM Lane V/C Ratio	0.893	0.064	0.464	0.072	0.323
HCM Control Delay	43.3	8.4	15.1	10.7	12.8
HCM Lane LOS	E	A	C	B	B
HCM 95th-tile Q	10.7	0.2	2.4	0.2	1.4

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	588	0	514	33	0
Future Vol, veh/h	0	588	0	514	33	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	619	0	541	35	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	619	-
Stage 1	-	-	0	-
Stage 2	-	-	619	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	452	0
Stage 1	0	-	-	0
Stage 2	0	-	537	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	452	-
Mov Cap-2 Maneuver	-	-	452	-
Stage 1	-	-	-	-
Stage 2	-	-	537	-

Approach	EB	SB
HCM Control Delay, s	0	13.6
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	452
HCM Lane V/C Ratio	-	0.077
HCM Control Delay (s)	-	13.6
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.2

Intersection						
Int Delay, s/veh	43.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	22	584	445	183	219	69
Future Vol, veh/h	22	584	445	183	219	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	615	468	193	231	73

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	661	0	-	0	1226 565
Stage 1	-	-	-	-	565 -
Stage 2	-	-	-	-	661 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	927	-	-	-	~ 197 524
Stage 1	-	-	-	-	569 -
Stage 2	-	-	-	-	514 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	927	-	-	-	~ 190 524
Mov Cap-2 Maneuver	-	-	-	-	~ 190 -
Stage 1	-	-	-	-	547 -
Stage 2	-	-	-	-	514 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	227.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	927	-	-	-	224
HCM Lane V/C Ratio	0.025	-	-	-	1.353
HCM Control Delay (s)	9	0	-	-	227.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	16.7

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	118.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	526	260	256	424	4	184	1	185	3	0	1
Future Vol, veh/h	1	526	260	256	424	4	184	1	185	3	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	554	274	269	446	4	194	1	195	3	0	1
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	235.4	34.2	28.6	13.2
HCM LOS	F	D	D	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	0%	100%	0%	75%
Vol Thru, %	0%	67%	0%	99%	0%
Vol Right, %	50%	33%	0%	1%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	787	256	428	4
LT Vol	184	1	256	0	3
Through Vol	1	526	0	424	0
RT Vol	185	260	0	4	1
Lane Flow Rate	389	828	269	451	4
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.734	1.461	0.557	0.867	0.01
Departure Headway (Hd)	7.523	6.347	8.106	7.582	10.055
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	483	572	447	482	358
Service Time	5.523	4.392	5.806	5.282	8.055
HCM Lane V/C Ratio	0.805	1.448	0.602	0.936	0.011
HCM Control Delay	28.6	235.4	20.5	42.4	13.2
HCM Lane LOS	D	F	C	E	B
HCM 95th-tile Q	6	40.1	3.3	9.1	0

Intersection						
Int Delay, s/veh	26.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	176	522	417	60	70	264
Future Vol, veh/h	176	522	417	60	70	264
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	185	549	439	63	74	278

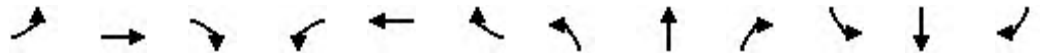
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	503	0	-	0	1391 472
Stage 1	-	-	-	-	472 -
Stage 2	-	-	-	-	919 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1061	-	-	-	157 592
Stage 1	-	-	-	-	628 -
Stage 2	-	-	-	-	389 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1060	-	-	-	117 591
Mov Cap-2 Maneuver	-	-	-	-	117 -
Stage 1	-	-	-	-	470 -
Stage 2	-	-	-	-	389 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	116.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1060	-	-	-	320
HCM Lane V/C Ratio	0.175	-	-	-	1.099
HCM Control Delay (s)	9.1	0	-	-	116.3
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	13.6

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT plus Project 2033
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	461	107	88	379	24	65	0	73	31	0	10
Future Volume (veh/h)	19	461	107	88	379	24	65	0	73	31	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	485	113	93	399	25	68	0	77	33	0	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	588	498	121	624	39	704	0	663	502	13	141
Arrive On Green	0.02	0.31	0.31	0.07	0.36	0.36	0.42	0.00	0.42	0.42	0.00	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1739	109	1427	0	1581	975	31	336
Grp Volume(v), veh/h	20	485	113	93	0	424	68	0	77	44	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1848	1427	0	1581	1342	0	0
Q Serve(g_s), s	0.8	16.3	3.6	3.5	0.0	13.0	0.0	0.0	2.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.8	16.3	3.6	3.5	0.0	13.0	1.6	0.0	2.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	0.75		0.25
Lane Grp Cap(c), veh/h	41	588	498	121	0	664	704	0	663	655	0	0
V/C Ratio(X)	0.49	0.82	0.23	0.77	0.00	0.64	0.10	0.00	0.12	0.07	0.00	0.00
Avail Cap(c_a), veh/h	170	1004	851	301	0	1128	704	0	663	655	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.8	21.6	17.2	31.2	0.0	18.1	11.9	0.0	12.1	12.0	0.0	0.0
Incr Delay (d2), s/veh	8.6	3.0	0.2	9.8	0.0	1.0	0.3	0.0	0.4	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	6.8	1.2	1.7	0.0	5.0	0.6	0.0	0.7	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	24.6	17.4	41.0	0.0	19.2	12.2	0.0	12.4	12.1	0.0	0.0
LnGrp LOS	D	C	B	D	A	B	B	A	B	B	A	A
Approach Vol, veh/h		618			517			145			44	
Approach Delay, s/veh		23.8			23.1			12.3			12.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.0	9.1	25.9		33.0	6.1	28.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	11.5	36.5		28.5	6.5	41.5				
Max Q Clear Time (g_c+I1), s		4.0	5.5	18.3		4.0	2.8	15.0				
Green Ext Time (p_c), s		0.6	0.1	3.1		0.2	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	3	487	62	92	435	2	45	0	48	0	1	0
Future Vol, veh/h	3	487	62	92	435	2	45	0	48	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	513	65	97	458	2	47	0	51	0	1	0

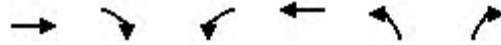
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	581	0	0	1176	1176	516	1230	1240	459
Stage 1	-	-	-	-	-	-	522	522	-	653	653	-
Stage 2	-	-	-	-	-	-	654	654	-	577	587	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1101	-	-	993	-	-	168	191	559	154	175	602
Stage 1	-	-	-	-	-	-	538	531	-	456	464	-
Stage 2	-	-	-	-	-	-	456	463	-	502	497	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1101	-	-	990	-	-	149	165	557	126	151	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	149	165	-	126	151	-
Stage 1	-	-	-	-	-	-	534	527	-	454	403	-
Stage 2	-	-	-	-	-	-	395	402	-	455	494	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.6			30			29		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	240	1101	-	-	990	-	-	151
HCM Lane V/C Ratio	0.408	0.003	-	-	0.098	-	-	0.007
HCM Control Delay (s)	30	8.3	0	-	9	0	-	29
HCM Lane LOS	D	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.9	0	-	-	0.3	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

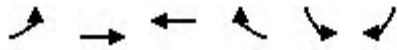
NT plus Project 2033
 Timing Plan: PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	428	95	173	390	79	99
Future Volume (veh/h)	428	95	173	390	79	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	451	100	182	411	83	104
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	646	769	244	1137	249	438
Arrive On Green	0.35	0.35	0.14	0.61	0.14	0.14
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	451	100	182	411	83	104
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	7.4	1.2	3.5	3.9	1.5	1.8
Cycle Q Clear(g_c), s	7.4	1.2	3.5	3.9	1.5	1.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	646	769	244	1137	249	438
V/C Ratio(X)	0.70	0.13	0.75	0.36	0.33	0.24
Avail Cap(c_a), veh/h	1597	1573	823	2696	1471	1525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	5.0	14.8	3.5	13.9	10.0
Incr Delay (d2), s/veh	1.4	0.1	4.5	0.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.3	1.3	0.2	0.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.5	5.1	19.4	3.7	14.6	10.3
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	551			593	187	
Approach Delay, s/veh	10.3			8.5	12.2	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	9.4	16.8		26.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	16.5	30.5		51.5
Max Q Clear Time (g_c+l1), s		3.8	5.5	9.4		5.9
Green Ext Time (p_c), s		0.5	0.3	2.8		2.5
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT plus Project 2033
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↗↘	↑	↑	↗	↘	↗	
Traffic Volume (veh/h)	249	342	265	295	495	310	
Future Volume (veh/h)	249	342	265	295	495	310	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	262	360	279	311	521	326	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	403	849	458	959	643	757	
Arrive On Green	0.12	0.45	0.25	0.25	0.36	0.36	
Sat Flow, veh/h	3456	1870	1870	1579	1781	1585	
Grp Volume(v), veh/h	262	360	279	311	521	326	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1579	1781	1585	
Q Serve(g_s), s	3.5	6.3	6.4	4.7	12.9	6.6	
Cycle Q Clear(g_c), s	3.5	6.3	6.4	4.7	12.9	6.6	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	403	849	458	959	643	757	
V/C Ratio(X)	0.65	0.42	0.61	0.32	0.81	0.43	
Avail Cap(c_a), veh/h	674	1766	1229	1610	1280	1324	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.6	9.0	16.3	4.7	14.0	8.4	
Incr Delay (d2), s/veh	1.8	0.3	1.3	0.2	2.5	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.3	1.8	2.6	3.0	4.2	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.3	9.3	17.6	4.9	16.5	8.7	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		622	590		847		
Approach Delay, s/veh		14.8	10.9		13.5		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				26.6	22.1	10.2	16.4
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				46.0	35.0	9.5	32.0
Max Q Clear Time (g_c+I1), s				8.3	14.9	5.5	8.4
Green Ext Time (p_c), s				2.1	2.7	0.3	2.9
Intersection Summary							
HCM 6th Ctrl Delay			13.2				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	95	258	16	130	400
Future Vol, veh/h	5	95	258	16	130	400
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	100	272	17	137	421

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	976	281	0	0	289
Stage 1	281	-	-	-	-
Stage 2	695	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	279	758	-	-	1273
Stage 1	767	-	-	-	-
Stage 2	495	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	240	758	-	-	1273
Mov Cap-2 Maneuver	240	-	-	-	-
Stage 1	767	-	-	-	-
Stage 2	426	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	684	1273
HCM Lane V/C Ratio	-	-	0.154	0.107
HCM Control Delay (s)	-	-	11.2	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4

Intersection	
Intersection Delay, s/veh	17.7
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	0	17	85	437	21
Future Vol, veh/h	107	0	17	85	437	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	0	18	89	460	22
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.3	9.9	21.1
HCM LOS	B	A	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	437	21	107	17	85
LT Vol	437	0	0	17	0
Through Vol	0	0	107	0	85
RT Vol	0	21	0	0	0
Lane Flow Rate	460	22	113	18	89
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.722	0.027	0.184	0.033	0.151
Departure Headway (Hd)	5.653	4.448	5.895	6.596	6.09
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	635	798	604	539	584
Service Time	3.421	2.216	3.979	4.382	3.875
HCM Lane V/C Ratio	0.724	0.028	0.187	0.033	0.152
HCM Control Delay	21.8	7.3	10.3	9.6	10
HCM Lane LOS	C	A	B	A	A
HCM 95th-tile Q	6.1	0.1	0.7	0.1	0.5

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	435	0	455	20	0
Future Vol, veh/h	0	435	0	455	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	458	0	479	21	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	458	-
Stage 1	-	-	0	-
Stage 2	-	-	458	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	561	0
Stage 1	0	-	-	0
Stage 2	0	-	637	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	561	-
Mov Cap-2 Maneuver	-	-	561	-
Stage 1	-	-	-	-
Stage 2	-	-	637	-

Approach	EB	SB
HCM Control Delay, s	0	11.7
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	561
HCM Lane V/C Ratio	-	0.038
HCM Control Delay (s)	-	11.7
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	4	465	464	81	96	6
Future Vol, veh/h	4	465	464	81	96	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	489	488	85	101	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	573	0	-	0	1028
Stage 1	-	-	-	-	531
Stage 2	-	-	-	-	497
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1000	-	-	-	259
Stage 1	-	-	-	-	590
Stage 2	-	-	-	-	611
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1000	-	-	-	258
Mov Cap-2 Maneuver	-	-	-	-	258
Stage 1	-	-	-	-	587
Stage 2	-	-	-	-	611

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	27.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1000	-	-	-	266
HCM Lane V/C Ratio	0.004	-	-	-	0.404
HCM Control Delay (s)	8.6	0	-	-	27.4
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Intersection Delay, s/veh	50.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	3	362	198	225	398	4	179	4	226	0	1	10
Future Vol, veh/h	3	362	198	225	398	4	179	4	226	0	1	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	381	208	237	419	4	188	4	238	0	1	11
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	86.8	30.6	32.7	12
HCM LOS	F	D	D	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	44%	1%	100%	0%	0%
Vol Thru, %	1%	64%	0%	99%	9%
Vol Right, %	55%	35%	0%	1%	91%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	409	563	225	402	11
LT Vol	179	3	225	0	0
Through Vol	4	362	0	398	1
RT Vol	226	198	0	4	10
Lane Flow Rate	431	593	237	423	12
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.803	1.08	0.501	0.835	0.027
Departure Headway (Hd)	6.983	6.56	7.919	7.397	8.735
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	521	557	457	495	412
Service Time	4.983	4.56	5.619	5.097	6.735
HCM Lane V/C Ratio	0.827	1.065	0.519	0.855	0.029
HCM Control Delay	32.7	86.8	18.3	37.5	12
HCM Lane LOS	D	F	C	E	B
HCM 95th-tile Q	7.6	17.9	2.7	8.3	0.1

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	175	413	461	32	26	167
Future Vol, veh/h	175	413	461	32	26	167
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	435	485	34	27	176

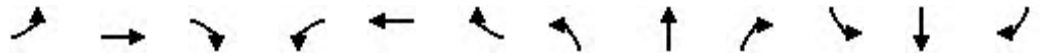
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	521	0	-	0	1307 504
Stage 1	-	-	-	-	504 -
Stage 2	-	-	-	-	803 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1045	-	-	-	176 568
Stage 1	-	-	-	-	607 -
Stage 2	-	-	-	-	441 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1043	-	-	-	134 567
Mov Cap-2 Maneuver	-	-	-	-	134 -
Stage 1	-	-	-	-	464 -
Stage 2	-	-	-	-	440 -

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1043	-	-	-	395
HCM Lane V/C Ratio	0.177	-	-	-	0.514
HCM Control Delay (s)	9.2	0	-	-	23.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	2.8

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT plus Project 2033
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	443	15	4	408	8	13	0	10	7	0	8
Future Volume (veh/h)	14	443	15	4	408	8	13	0	10	7	0	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	466	16	4	429	8	14	0	11	7	0	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	583	494	10	546	10	761	0	717	375	31	361
Arrive On Green	0.02	0.31	0.31	0.01	0.30	0.30	0.45	0.00	0.45	0.45	0.00	0.45
Sat Flow, veh/h	1781	1870	1585	1781	1829	34	1411	0	1585	631	68	798
Grp Volume(v), veh/h	15	466	16	4	0	437	14	0	11	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1863	1411	0	1585	1497	0	0
Q Serve(g_s), s	0.5	13.4	0.4	0.1	0.0	12.6	0.0	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	13.4	0.4	0.1	0.0	12.6	0.3	0.0	0.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.47		0.53
Lane Grp Cap(c), veh/h	33	583	494	10	0	557	761	0	717	767	0	0
V/C Ratio(X)	0.46	0.80	0.03	0.42	0.00	0.79	0.02	0.00	0.02	0.02	0.00	0.00
Avail Cap(c_a), veh/h	228	1357	1150	228	0	1352	761	0	717	767	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.5	18.5	14.0	29.0	0.0	18.8	8.9	0.0	8.8	8.9	0.0	0.0
Incr Delay (d2), s/veh	9.5	2.6	0.0	26.4	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.3	0.1	0.1	0.0	5.0	0.1	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	21.1	14.0	55.5	0.0	21.3	8.9	0.0	8.9	8.9	0.0	0.0
LnGrp LOS	D	C	B	E	A	C	A	A	A	A	A	A
Approach Vol, veh/h		497			441			25				15
Approach Delay, s/veh		21.3			21.6			8.9				8.9
Approach LOS		C			C			A				A
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		31.0	4.8	22.8		31.0	5.6	22.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	7.5	42.5		26.5	7.5	42.5				
Max Q Clear Time (g_c+I1), s		2.3	2.1	15.4		2.3	2.5	14.6				
Green Ext Time (p_c), s		0.1	0.0	2.9		0.0	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	0	344	80	107	352	2	86	0	120	1	0	1
Future Vol, veh/h	0	344	80	107	352	2	86	0	120	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	362	84	113	371	2	91	0	126	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	373	0	0	447	0	0	962	962	363	1065	1045	372
Stage 1	-	-	-	-	-	-	363	363	-	598	598	-
Stage 2	-	-	-	-	-	-	599	599	-	467	447	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1185	-	-	1113	-	-	235	256	682	200	229	674
Stage 1	-	-	-	-	-	-	656	625	-	489	491	-
Stage 2	-	-	-	-	-	-	488	490	-	576	573	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1185	-	-	1112	-	-	212	223	681	147	199	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	212	223	-	147	199	-
Stage 1	-	-	-	-	-	-	655	624	-	489	428	-
Stage 2	-	-	-	-	-	-	425	427	-	469	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2			30			20.1		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	354	1185	-	-	1112	-	-	241
HCM Lane V/C Ratio	0.613	-	-	-	0.101	-	-	0.009
HCM Control Delay (s)	30	0	-	-	8.6	0	-	20.1
HCM Lane LOS	D	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	3.9	0	-	-	0.3	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

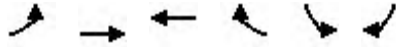
NT plus Project 2033
 Timing Plan: Saturday Mid-Day



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	412	82	106	501	84	112
Future Volume (veh/h)	412	82	106	501	84	112
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	434	86	112	527	88	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	639	782	173	1076	270	395
Arrive On Green	0.34	0.34	0.10	0.58	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	434	86	112	527	88	118
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	6.6	1.0	2.0	5.5	1.5	2.0
Cycle Q Clear(g_c), s	6.6	1.0	2.0	5.5	1.5	2.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	639	782	173	1076	270	395
V/C Ratio(X)	0.68	0.11	0.65	0.49	0.33	0.30
Avail Cap(c_a), veh/h	1844	1803	729	2865	1648	1621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	4.5	14.3	4.1	12.5	10.0
Incr Delay (d2), s/veh	1.3	0.1	4.0	0.3	0.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.2	0.8	0.3	0.5	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.6	4.5	18.3	4.5	13.2	10.5
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	520			639	206	
Approach Delay, s/veh	9.6			6.9	11.6	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	7.7	15.8		23.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	13.5	32.5		50.5
Max Q Clear Time (g_c+l1), s		4.0	4.0	8.6		7.5
Green Ext Time (p_c), s		0.6	0.2	2.7		3.4
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT plus Project 2033
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↗↘	↑	↑	↗	↘	↗	
Traffic Volume (veh/h)	295	282	385	475	584	258	
Future Volume (veh/h)	295	282	385	475	584	258	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	311	297	405	500	615	272	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	407	891	545	1079	694	804	
Arrive On Green	0.12	0.48	0.29	0.29	0.39	0.39	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	311	297	405	500	615	272	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	5.8	6.6	13.1	9.9	21.6	6.8	
Cycle Q Clear(g_c), s	5.8	6.6	13.1	9.9	21.6	6.8	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	407	891	545	1079	694	804	
V/C Ratio(X)	0.76	0.33	0.74	0.46	0.89	0.34	
Avail Cap(c_a), veh/h	438	1255	893	1374	956	1038	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.7	10.9	21.5	5.0	19.1	9.8	
Incr Delay (d2), s/veh	7.3	0.2	2.0	0.3	7.7	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.6	2.2	5.8	7.8	8.8	7.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.0	11.2	23.5	5.3	26.8	10.1	
LnGrp LOS	D	B	C	A	C	B	
Approach Vol, veh/h		608	905		887		
Approach Delay, s/veh		23.8	13.5		21.7		
Approach LOS		C	B		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				36.4	30.6	12.4	24.0
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				45.0	36.0	8.5	32.0
Max Q Clear Time (g_c+I1), s				8.6	23.6	7.8	15.1
Green Ext Time (p_c), s				1.6	2.5	0.1	4.4
Intersection Summary							
HCM 6th Ctrl Delay			19.1				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	6	90	313	3	56	330
Future Vol, veh/h	6	90	313	3	56	330
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	95	329	3	59	347

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	796	331	0	0	332
Stage 1	331	-	-	-	-
Stage 2	465	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	356	711	-	-	1227
Stage 1	728	-	-	-	-
Stage 2	632	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	335	711	-	-	1227
Mov Cap-2 Maneuver	335	-	-	-	-
Stage 1	728	-	-	-	-
Stage 2	594	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	664	1227
HCM Lane V/C Ratio	-	-	0.152	0.048
HCM Control Delay (s)	-	-	11.4	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2

Intersection	
Intersection Delay, s/veh	28.9
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	127	0	19	127	512	25
Future Vol, veh/h	127	0	19	127	512	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	0	20	134	539	26
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11.4	11.2	37.9
HCM LOS	B	B	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	512	25	127	19	127
LT Vol	512	0	0	19	0
Through Vol	0	0	127	0	127
RT Vol	0	25	0	0	0
Lane Flow Rate	539	26	134	20	134
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.894	0.035	0.238	0.039	0.243
Departure Headway (Hd)	5.969	4.762	6.399	7.066	6.557
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	609	753	561	507	548
Service Time	3.69	2.483	4.44	4.809	4.3
HCM Lane V/C Ratio	0.885	0.035	0.239	0.039	0.245
HCM Control Delay	39.4	7.7	11.4	10.1	11.4
HCM Lane LOS	E	A	B	B	B
HCM 95th-tile Q	10.8	0.1	0.9	0.1	0.9

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	589	0	537	19	0
Future Vol, veh/h	0	589	0	537	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	620	0	565	20	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	620	-
Stage 1	-	-	0	-
Stage 2	-	-	620	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	452	0
Stage 1	0	-	-	0
Stage 2	0	-	536	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	452	-
Mov Cap-2 Maneuver	-	-	452	-
Stage 1	-	-	-	-
Stage 2	-	-	536	-

Approach	EB	SB
HCM Control Delay, s	0	13.3
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	452
HCM Lane V/C Ratio	-	0.044
HCM Control Delay (s)	-	13.3
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	176.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	100	510	438	271	302	87
Future Vol, veh/h	100	510	438	271	302	87
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	537	461	285	318	92

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	754	0	-	0	1359 612
Stage 1	-	-	-	-	612 -
Stage 2	-	-	-	-	747 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	856	-	-	-	~ 164 493
Stage 1	-	-	-	-	541 -
Stage 2	-	-	-	-	468 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	849	-	-	-	~ 133 489
Mov Cap-2 Maneuver	-	-	-	-	~ 133 -
Stage 1	-	-	-	-	442 -
Stage 2	-	-	-	-	464 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	\$ 771.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	849	-	-	-	159
HCM Lane V/C Ratio	0.124	-	-	-	2.575
HCM Control Delay (s)	9.8	0	-	-	\$ 771.8
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	35.6

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	169.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	574	222	156	474	1	261	0	245	0	1	0
Future Vol, veh/h	0	574	222	156	474	1	261	0	245	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	604	234	164	499	1	275	0	258	0	1	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	308.6	72.3	73.5	14.7
HCM LOS	F	F	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	52%	0%	100%	0%	0%
Vol Thru, %	0%	72%	0%	100%	100%
Vol Right, %	48%	28%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	506	796	156	475	1
LT Vol	261	0	156	0	0
Through Vol	0	574	0	474	1
RT Vol	245	222	0	1	0
Lane Flow Rate	533	838	164	500	1
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.013	1.624	0.371	1.06	0.003
Departure Headway (Hd)	7.817	7.199	9.154	8.631	11.666
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	469	511	396	425	309
Service Time	5.817	5.199	6.854	6.331	9.666
HCM Lane V/C Ratio	1.136	1.64	0.414	1.176	0.003
HCM Control Delay	73.5	308.6	17.2	90.4	14.7
HCM Lane LOS	F	F	C	F	B
HCM 95th-tile Q	13.6	45.7	1.7	14.5	0

Intersection						
Int Delay, s/veh	30.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	211	587	512	70	77	106
Future Vol, veh/h	211	587	512	70	77	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	222	618	539	74	81	112

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	613	0	-	0	1638 576
Stage 1	-	-	-	-	576 -
Stage 2	-	-	-	-	1062 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	966	-	-	-	111 517
Stage 1	-	-	-	-	562 -
Stage 2	-	-	-	-	332 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	966	-	-	-	~ 72 517
Mov Cap-2 Maneuver	-	-	-	-	~ 72 -
Stage 1	-	-	-	-	365 -
Stage 2	-	-	-	-	332 -

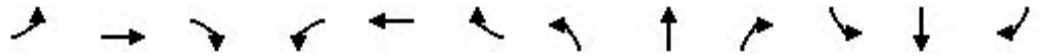
Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	250.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	966	-	-	-	144
HCM Lane V/C Ratio	0.23	-	-	-	1.338
HCM Control Delay (s)	9.8	0	-	-	250.3
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.9	-	-	-	12.1

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	331	324	414	361	56	170	42	301	18	6	15
Future Volume (veh/h)	62	331	324	414	361	56	170	42	301	18	6	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	348	341	436	380	59	179	44	317	19	6	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	481	406	477	752	117	373	78	487	137	53	80
Arrive On Green	0.05	0.26	0.26	0.27	0.48	0.48	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	1870	1582	1781	1575	245	950	254	1580	235	173	261
Grp Volume(v), veh/h	65	348	341	436	0	439	223	0	317	41	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1820	1205	0	1580	668	0	0
Q Serve(g_s), s	2.9	13.8	16.5	19.2	0.0	13.5	0.0	0.0	14.1	0.4	0.0	0.0
Cycle Q Clear(g_c), s	2.9	13.8	16.5	19.2	0.0	13.5	15.1	0.0	14.1	15.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.13	0.80		1.00	0.46		0.39
Lane Grp Cap(c), veh/h	84	481	406	477	0	869	452	0	487	271	0	0
V/C Ratio(X)	0.77	0.72	0.84	0.91	0.00	0.51	0.49	0.00	0.65	0.15	0.00	0.00
Avail Cap(c_a), veh/h	196	623	527	539	0	957	452	0	487	271	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.2	27.5	28.5	28.8	0.0	14.6	24.5	0.0	24.2	20.9	0.0	0.0
Incr Delay (d2), s/veh	13.6	3.0	9.1	18.8	0.0	0.5	3.8	0.0	6.6	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.1	6.8	10.1	0.0	5.0	4.1	0.0	5.7	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	30.4	37.7	47.6	0.0	15.0	28.3	0.0	30.8	22.1	0.0	0.0
LnGrp LOS	D	C	D	D	A	B	C	A	C	C	A	A
Approach Vol, veh/h		754			875			540				41
Approach Delay, s/veh		35.5			31.3			29.8				22.1
Approach LOS		D			C			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	26.2	25.3		29.5	8.3	43.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	8.9	42.6				
Max Q Clear Time (g_c+I1), s		17.1	21.2	18.5		17.5	4.9	15.5				
Green Ext Time (p_c), s		1.6	0.5	2.1		0.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				32.2								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	1	532	88	69	730	0	41	0	55	1	0	2
Future Vol, veh/h	1	532	88	69	730	0	41	0	55	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	560	93	73	768	0	43	0	58	1	0	2

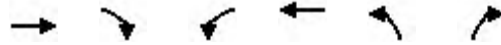
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	769	0	0	653	0	0	1477	1477	560	1553	1570	769
Stage 1	-	-	-	-	-	-	562	562	-	915	915	-
Stage 2	-	-	-	-	-	-	915	915	-	638	655	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	845	-	-	934	-	-	104	126	528	92	111	401
Stage 1	-	-	-	-	-	-	512	510	-	327	352	-
Stage 2	-	-	-	-	-	-	327	352	-	465	463	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	844	-	-	934	-	-	93	108	528	73	96	401
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	108	-	73	96	-
Stage 1	-	-	-	-	-	-	511	509	-	326	304	-
Stage 2	-	-	-	-	-	-	281	304	-	413	462	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			49.9			27.8		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	176	844	-	-	934	-	-	161
HCM Lane V/C Ratio	0.574	0.001	-	-	0.078	-	-	0.02
HCM Control Delay (s)	49.9	9.3	0	-	9.2	0	-	27.8
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	3.1	0	-	-	0.3	-	-	0.1

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

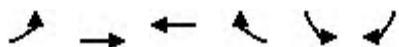
2040
 Timing Plan: AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	625	94	64	698	120	130
Future Volume (veh/h)	625	94	64	698	120	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	658	99	67	735	126	137
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	856	952	116	1186	255	331
Arrive On Green	0.46	0.46	0.07	0.63	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	658	99	67	735	126	137
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	11.9	1.1	1.5	9.6	2.6	3.0
Cycle Q Clear(g_c), s	11.9	1.1	1.5	9.6	2.6	3.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	856	952	116	1186	255	331
V/C Ratio(X)	0.77	0.10	0.58	0.62	0.49	0.41
Avail Cap(c_a), veh/h	1827	1775	330	2382	1299	1260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	3.4	18.4	4.5	16.0	13.9
Incr Delay (d2), s/veh	1.5	0.0	4.4	0.5	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.3	0.6	0.8	1.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.7	3.5	22.8	5.0	17.4	14.7
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	757			802	263	
Approach Delay, s/veh	9.7			6.5	16.0	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		10.3	7.1	23.0		30.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	7.5	39.5		51.5
Max Q Clear Time (g_c+l1), s		5.0	3.5	13.9		11.6
Green Ext Time (p_c), s		0.8	0.0	4.6		5.4
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	429	351	458	332	205	320	
Future Volume (veh/h)	429	351	458	332	205	320	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	452	369	482	349	216	337	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	616	1142	656	912	403	641	
Arrive On Green	0.18	0.61	0.35	0.35	0.23	0.23	
Sat Flow, veh/h	3456	1870	1870	1581	1781	1585	
Grp Volume(v), veh/h	452	369	482	349	216	337	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1581	1781	1585	
Q Serve(g_s), s	6.8	5.3	12.4	6.6	5.9	8.9	
Cycle Q Clear(g_c), s	6.8	5.3	12.4	6.6	5.9	8.9	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	616	1142	656	912	403	641	
V/C Ratio(X)	0.73	0.32	0.74	0.38	0.54	0.53	
Avail Cap(c_a), veh/h	1035	1851	1138	1320	857	1045	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.4	5.2	15.6	6.3	18.8	12.4	
Incr Delay (d2), s/veh	1.7	0.2	1.6	0.3	1.1	0.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.5	1.2	5.0	3.3	2.2	8.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.1	5.4	17.3	6.6	19.9	13.1	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		821	831		553		
Approach Delay, s/veh		15.1	12.8		15.7		
Approach LOS		B	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			38.1		17.0	14.3	23.8
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			54.5		26.5	16.5	33.5
Max Q Clear Time (g_c+I1), s			7.3		10.9	8.8	14.4
Green Ext Time (p_c), s			2.2		1.6	1.0	4.5
Intersection Summary							
HCM 6th Ctrl Delay			14.4				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	176	339	56	200	172
Future Vol, veh/h	26	176	339	56	200	172
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	185	357	59	211	181

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	990	388	0	0	416
Stage 1	387	-	-	-	-
Stage 2	603	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	273	660	-	-	1143
Stage 1	686	-	-	-	-
Stage 2	546	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	217	659	-	-	1143
Mov Cap-2 Maneuver	217	-	-	-	-
Stage 1	686	-	-	-	-
Stage 2	434	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	4.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	522	1143
HCM Lane V/C Ratio	-	-	0.407	0.184
HCM Control Delay (s)	-	-	16.6	8.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2	0.7

Intersection	
Intersection Delay, s/veh	56.8
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↻	↻	↻
Traffic Vol, veh/h	301	0	36	206	549	47
Future Vol, veh/h	301	0	36	206	549	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	317	0	38	217	578	49
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	20	15.1	92.4
HCM LOS	C	C	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	549	47	301	36	206
LT Vol	549	0	0	36	0
Through Vol	0	0	301	0	206
RT Vol	0	47	0	0	0
Lane Flow Rate	578	49	317	38	217
Geometry Grp	7	7	4	7	7
Degree of Util (X)	1.114	0.079	0.592	0.08	0.426
Departure Headway (Hd)	6.94	5.723	7.142	8.065	7.55
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	526	630	510	447	479
Service Time	4.64	3.423	5.142	5.765	5.25
HCM Lane V/C Ratio	1.099	0.078	0.622	0.085	0.453
HCM Control Delay	99.6	8.9	20	11.5	15.7
HCM Lane LOS	F	A	C	B	C
HCM 95th-tile Q	18.9	0.3	3.8	0.3	2.1

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	627	0	594	36	0
Future Vol, veh/h	0	627	0	594	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	660	0	625	38	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	660	-
Stage 1	-	-	0	-
Stage 2	-	-	660	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	428	0
Stage 1	0	-	-	0
Stage 2	0	-	514	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	428	-
Mov Cap-2 Maneuver	-	-	428	-
Stage 1	-	-	-	-
Stage 2	-	-	514	-

Approach	EB	SB
HCM Control Delay, s	0	14.2
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	428
HCM Lane V/C Ratio	-	0.089
HCM Control Delay (s)	-	14.2
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.3

Intersection						
Int Delay, s/veh	141.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	36	603	482	255	292	113
Future Vol, veh/h	36	603	482	255	292	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	635	507	268	307	119

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	775	0	-	0	1352 641
Stage 1	-	-	-	-	641 -
Stage 2	-	-	-	-	711 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	841	-	-	-	~ 165 475
Stage 1	-	-	-	-	525 -
Stage 2	-	-	-	-	487 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	841	-	-	-	~ 153 475
Mov Cap-2 Maneuver	-	-	-	-	~ 153 -
Stage 1	-	-	-	-	488 -
Stage 2	-	-	-	-	487 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	\$ 621.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	841	-	-	-	189
HCM Lane V/C Ratio	0.045	-	-	-	2.256
HCM Control Delay (s)	9.5	0	-	-	\$ 621.4
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	34.3

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	164.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	573	291	264	487	4	217	1	187	3	0	1
Future Vol, veh/h	1	573	291	264	487	4	217	1	187	3	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	603	306	278	513	4	228	1	197	3	0	1
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	317.7	58.5	36	14
HCM LOS	F	F	E	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	54%	0%	100%	0%	75%
Vol Thru, %	0%	66%	0%	99%	0%
Vol Right, %	46%	34%	0%	1%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	405	865	264	491	4
LT Vol	217	1	264	0	3
Through Vol	1	573	0	487	0
RT Vol	187	291	0	4	1
Lane Flow Rate	426	911	278	517	4
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.804	1.649	0.591	1.026	0.011
Departure Headway (Hd)	7.872	6.642	8.539	8.014	10.903
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	465	555	425	455	330
Service Time	5.872	4.642	6.239	5.714	8.903
HCM Lane V/C Ratio	0.916	1.641	0.654	1.136	0.012
HCM Control Delay	36	317.7	22.8	77.7	14
HCM Lane LOS	E	F	C	F	B
HCM 95th-tile Q	7.4	50.6	3.7	13.9	0

Intersection						
Int Delay, s/veh	85.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	206	530	418	80	94	334
Future Vol, veh/h	206	530	418	80	94	334
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	217	558	440	84	99	352

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	525	0	-	0	1475 483
Stage 1	-	-	-	-	483 -
Stage 2	-	-	-	-	992 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1042	-	-	-	139 584
Stage 1	-	-	-	-	620 -
Stage 2	-	-	-	-	359 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1041	-	-	-	~ 97 583
Mov Cap-2 Maneuver	-	-	-	-	~ 97 -
Stage 1	-	-	-	-	432 -
Stage 2	-	-	-	-	359 -

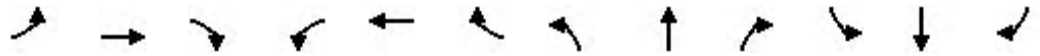
Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	\$ 327.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1041	-	-	-	278
HCM Lane V/C Ratio	0.208	-	-	-	1.621
HCM Control Delay (s)	9.4	0	-	-	\$ 327.7
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.8	-	-	-	27.7

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	452	133	104	383	33	80	0	84	43	0	15
Future Volume (veh/h)	26	452	133	104	383	33	80	0	84	43	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	476	140	109	403	35	84	0	88	45	0	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	582	493	142	612	53	694	0	646	476	14	141
Arrive On Green	0.03	0.31	0.31	0.08	0.36	0.36	0.41	0.00	0.41	0.41	0.00	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1693	147	1435	0	1581	937	34	345
Grp Volume(v), veh/h	27	476	140	109	0	438	84	0	88	61	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1840	1435	0	1581	1317	0	0
Q Serve(g_s), s	1.0	15.8	4.5	4.0	0.0	13.4	0.0	0.0	2.3	1.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	15.8	4.5	4.0	0.0	13.4	2.0	0.0	2.3	3.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	0.74		0.26
Lane Grp Cap(c), veh/h	52	582	493	142	0	665	694	0	646	631	0	0
V/C Ratio(X)	0.51	0.82	0.28	0.77	0.00	0.66	0.12	0.00	0.14	0.10	0.00	0.00
Avail Cap(c_a), veh/h	148	1015	860	331	0	1187	694	0	646	631	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.2	21.4	17.5	30.4	0.0	18.0	12.3	0.0	12.5	12.6	0.0	0.0
Incr Delay (d2), s/veh	7.6	2.9	0.3	8.5	0.0	1.1	0.4	0.0	0.4	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.6	1.5	1.9	0.0	5.1	0.8	0.0	0.8	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	24.3	17.8	38.8	0.0	19.1	12.7	0.0	12.9	12.9	0.0	0.0
LnGrp LOS	D	C	B	D	A	B	B	A	B	B	A	A
Approach Vol, veh/h		643			547			172			61	
Approach Delay, s/veh		23.6			23.1			12.8			12.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	9.8	25.4		32.0	6.5	28.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	12.5	36.5		27.5	5.6	43.4				
Max Q Clear Time (g_c+I1), s		4.3	6.0	17.8		5.0	3.0	15.4				
Green Ext Time (p_c), s		0.7	0.1	3.1		0.3	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay			21.6									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	3	538	19	49	483	2	17	0	20	0	1	0
Future Vol, veh/h	3	538	19	49	483	2	17	0	20	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	566	20	52	508	2	18	0	21	0	1	0

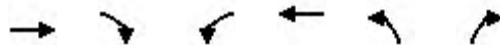
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	510	0	0	589	0	0	1189	1189	569	1206	1208	509
Stage 1	-	-	-	-	-	-	575	575	-	613	613	-
Stage 2	-	-	-	-	-	-	614	614	-	593	595	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1055	-	-	986	-	-	165	188	522	160	183	564
Stage 1	-	-	-	-	-	-	503	503	-	480	483	-
Stage 2	-	-	-	-	-	-	479	483	-	492	492	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1055	-	-	983	-	-	154	173	521	144	168	564
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	173	-	144	168	-
Stage 1	-	-	-	-	-	-	499	499	-	478	447	-
Stage 2	-	-	-	-	-	-	443	447	-	470	489	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			22.1			26.6		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	249	1055	-	-	983	-	-	168
HCM Lane V/C Ratio	0.156	0.003	-	-	0.052	-	-	0.006
HCM Control Delay (s)	22.1	8.4	0	-	8.9	0	-	26.6
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

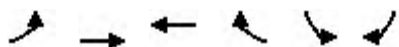
2040
 Timing Plan: PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	448	100	192	396	80	111
Future Volume (veh/h)	448	100	192	396	80	111
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	472	105	202	417	84	117
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	662	772	269	1170	238	451
Arrive On Green	0.35	0.35	0.15	0.63	0.13	0.13
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	472	105	202	417	84	117
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	8.1	1.4	4.1	4.0	1.6	2.1
Cycle Q Clear(g_c), s	8.1	1.4	4.1	4.0	1.6	2.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	662	772	269	1170	238	451
V/C Ratio(X)	0.71	0.14	0.75	0.36	0.35	0.26
Avail Cap(c_a), veh/h	1576	1546	786	2627	1358	1448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	5.3	15.2	3.4	14.7	10.3
Incr Delay (d2), s/veh	1.4	0.1	4.2	0.2	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.4	1.5	0.2	0.6	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	5.3	19.4	3.6	15.6	10.6
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	577			619	201	
Approach Delay, s/veh	10.7			8.7	12.7	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	10.1	17.7		27.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		28.5	16.5	31.5		52.5
Max Q Clear Time (g_c+l1), s		4.1	6.1	10.1		6.0
Green Ext Time (p_c), s		0.6	0.4	3.0		2.5
Intersection Summary						
HCM 6th Ctrl Delay			10.1			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	248	370	286	267	460	314	
Future Volume (veh/h)	248	370	286	267	460	314	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	261	389	301	281	484	331	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	408	878	481	948	609	729	
Arrive On Green	0.12	0.47	0.26	0.26	0.34	0.34	
Sat Flow, veh/h	3456	1870	1870	1579	1781	1585	
Grp Volume(v), veh/h	261	389	301	281	484	331	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1579	1781	1585	
Q Serve(g_s), s	3.4	6.7	6.8	4.1	11.7	6.8	
Cycle Q Clear(g_c), s	3.4	6.7	6.8	4.1	11.7	6.8	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	408	878	481	948	609	729	
V/C Ratio(X)	0.64	0.44	0.63	0.30	0.79	0.45	
Avail Cap(c_a), veh/h	760	1840	1253	1600	1268	1315	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.1	8.5	15.7	4.7	14.2	8.8	
Incr Delay (d2), s/veh	1.7	0.4	1.3	0.2	2.4	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	1.8	2.8	2.5	3.8	6.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.8	8.8	17.0	4.8	16.6	9.2	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		650	582		815		
Approach Delay, s/veh		14.0	11.1		13.6		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				26.9	20.8	10.1	16.8
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				47.0	34.0	10.5	32.0
Max Q Clear Time (g_c+I1), s				8.7	13.7	5.4	8.8
Green Ext Time (p_c), s				2.3	2.6	0.4	3.0
Intersection Summary							
HCM 6th Ctrl Delay			13.0				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	S	S
Traffic Vol, veh/h	7	115	268	24	150	426
Future Vol, veh/h	7	115	268	24	150	426
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	121	282	25	158	448

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1059	295	0	0	307	0
Stage 1	295	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	249	744	-	-	1254	-
Stage 1	755	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	207	744	-	-	1254	-
Mov Cap-2 Maneuver	207	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	383	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	648	1254
HCM Lane V/C Ratio	-	-	0.198	0.126
HCM Control Delay (s)	-	-	11.9	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.4

Intersection	
Intersection Delay, s/veh	24.6
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	128	0	13	101	491	18
Future Vol, veh/h	128	0	13	101	491	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	135	0	14	106	517	19
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11.1	10.6	31.2
HCM LOS	B	B	D

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	491	18	128	13	101
LT Vol	491	0	0	13	0
Through Vol	0	0	128	0	101
RT Vol	0	18	0	0	0
Lane Flow Rate	517	19	135	14	106
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.842	0.025	0.233	0.026	0.19
Departure Headway (Hd)	5.868	4.662	6.222	6.948	6.44
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	620	772	578	515	557
Service Time	3.568	2.362	4.257	4.686	4.177
HCM Lane V/C Ratio	0.834	0.025	0.234	0.027	0.19
HCM Control Delay	32.1	7.5	11.1	9.9	10.7
HCM Lane LOS	D	A	B	A	B
HCM 95th-tile Q	9.1	0.1	0.9	0.1	0.7

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	491	0	506	17	0
Future Vol, veh/h	0	491	0	506	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	517	0	533	18	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	517	-
Stage 1	-	-	0	-
Stage 2	-	-	517	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	518	0
Stage 1	0	-	-	0
Stage 2	0	-	598	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	518	-
Mov Cap-2 Maneuver	-	-	518	-
Stage 1	-	-	-	-
Stage 2	-	-	598	-

Approach	EB	SB
HCM Control Delay, s	0	12.2
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	518
HCM Lane V/C Ratio	-	0.035
HCM Control Delay (s)	-	12.2
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	520	516	90	108	7
Future Vol, veh/h	5	520	516	90	108	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	547	543	95	114	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	638	0	-	0	1148
Stage 1	-	-	-	-	591
Stage 2	-	-	-	-	557
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	946	-	-	-	220
Stage 1	-	-	-	-	553
Stage 2	-	-	-	-	574
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	946	-	-	-	218
Mov Cap-2 Maneuver	-	-	-	-	218
Stage 1	-	-	-	-	549
Stage 2	-	-	-	-	574

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	37.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	946	-	-	-	226
HCM Lane V/C Ratio	0.006	-	-	-	0.536
HCM Control Delay (s)	8.8	0	-	-	37.9
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	2.8

Intersection	
Intersection Delay, s/veh	88.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	3	390	236	254	430	5	214	5	256	0	2	12
Future Vol, veh/h	3	390	236	254	430	5	214	5	256	0	2	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	411	248	267	453	5	225	5	269	0	2	13
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	162	47.5	54.5	13.2
HCM LOS	F	E	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	45%	0%	100%	0%	0%
Vol Thru, %	1%	62%	0%	99%	14%
Vol Right, %	54%	38%	0%	1%	86%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	475	629	254	435	14
LT Vol	214	3	254	0	0
Through Vol	5	390	0	430	2
RT Vol	256	236	0	5	12
Lane Flow Rate	500	662	267	458	15
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.941	1.279	0.599	0.961	0.036
Departure Headway (Hd)	7.372	6.956	8.575	8.049	9.823
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	495	523	425	453	367
Service Time	5.372	4.985	6.275	5.749	7.823
HCM Lane V/C Ratio	1.01	1.266	0.628	1.011	0.041
HCM Control Delay	54.5	162	23.3	61.6	13.2
HCM Lane LOS	F	F	C	F	B
HCM 95th-tile Q	11.4	27.1	3.8	11.7	0.1

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	209	437	490	23	17	199
Future Vol, veh/h	209	437	490	23	17	199
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	220	460	516	24	18	209

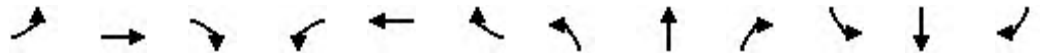
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	542	0	-	0	1430 530
Stage 1	-	-	-	-	530 -
Stage 2	-	-	-	-	900 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1027	-	-	-	148 549
Stage 1	-	-	-	-	590 -
Stage 2	-	-	-	-	397 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1025	-	-	-	105 548
Mov Cap-2 Maneuver	-	-	-	-	105 -
Stage 1	-	-	-	-	419 -
Stage 2	-	-	-	-	396 -

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	24.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1025	-	-	-	411
HCM Lane V/C Ratio	0.215	-	-	-	0.553
HCM Control Delay (s)	9.5	0	-	-	24.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.8	-	-	-	3.3

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	458	18	5	411	10	15	0	12	8	0	10
Future Volume (veh/h)	17	458	18	5	411	10	15	0	12	8	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	482	19	5	433	11	16	0	13	8	0	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	603	511	12	558	14	742	0	695	333	33	382
Arrive On Green	0.02	0.32	0.32	0.01	0.31	0.31	0.44	0.00	0.44	0.44	0.00	0.44
Sat Flow, veh/h	1781	1870	1585	1781	1815	46	1409	0	1585	558	76	871
Grp Volume(v), veh/h	18	482	19	5	0	444	16	0	13	19	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1861	1409	0	1585	1505	0	0
Q Serve(g_s), s	0.6	13.7	0.5	0.2	0.0	12.6	0.0	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	13.7	0.5	0.2	0.0	12.6	0.3	0.0	0.3	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.42		0.58
Lane Grp Cap(c), veh/h	39	603	511	12	0	572	742	0	695	748	0	0
V/C Ratio(X)	0.47	0.80	0.04	0.42	0.00	0.78	0.02	0.00	0.02	0.03	0.00	0.00
Avail Cap(c_a), veh/h	199	1432	1214	199	0	1425	742	0	695	748	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.1	18.0	13.5	28.8	0.0	18.3	9.2	0.0	9.2	9.3	0.0	0.0
Incr Delay (d2), s/veh	8.5	2.5	0.0	21.9	0.0	2.3	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.3	0.1	0.1	0.0	4.9	0.1	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	20.5	13.5	50.7	0.0	20.6	9.3	0.0	9.3	9.3	0.0	0.0
LnGrp LOS	D	C	B	D	A	C	A	A	A	A	A	A
Approach Vol, veh/h		519			449			29				19
Approach Delay, s/veh		20.8			21.0			9.3				9.3
Approach LOS		C			C			A				A
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	4.9	23.2		30.0	5.8	22.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	6.5	44.5		25.5	6.5	44.5				
Max Q Clear Time (g_c+I1), s		2.3	2.2	15.7		2.4	2.6	14.6				
Green Ext Time (p_c), s		0.1	0.0	3.1		0.0	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				20.3								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	0	411	20	46	421	2	22	0	56	1	0	1
Future Vol, veh/h	0	411	20	46	421	2	22	0	56	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	433	21	48	443	2	23	0	59	1	0	1

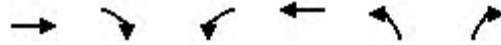
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	445	0	0	455	0	0	975	975	434	1013	995	444
Stage 1	-	-	-	-	-	-	434	434	-	540	540	-
Stage 2	-	-	-	-	-	-	541	541	-	473	455	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1115	-	-	1106	-	-	231	251	622	217	245	614
Stage 1	-	-	-	-	-	-	600	581	-	526	521	-
Stage 2	-	-	-	-	-	-	525	521	-	572	569	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1115	-	-	1105	-	-	220	236	621	188	231	614
Mov Cap-2 Maneuver	-	-	-	-	-	-	220	236	-	188	231	-
Stage 1	-	-	-	-	-	-	599	580	-	526	491	-
Stage 2	-	-	-	-	-	-	494	491	-	518	568	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			16			17.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	410	1115	-	-	1105	-	-	288
HCM Lane V/C Ratio	0.2	-	-	-	0.044	-	-	0.007
HCM Control Delay (s)	16	0	-	-	8.4	0	-	17.6
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

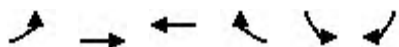
2040
 Timing Plan: Saturday Mid-Day



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	432	83	126	541	86	134
Future Volume (veh/h)	432	83	126	541	86	134
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	455	87	133	569	91	141
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	656	795	187	1097	269	405
Arrive On Green	0.35	0.35	0.10	0.59	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	455	87	133	569	91	141
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	7.2	1.0	2.5	6.2	1.6	2.5
Cycle Q Clear(g_c), s	7.2	1.0	2.5	6.2	1.6	2.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	656	795	187	1097	269	405
V/C Ratio(X)	0.69	0.11	0.71	0.52	0.34	0.35
Avail Cap(c_a), veh/h	1827	1788	701	2809	1533	1530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	4.5	14.8	4.2	13.0	10.4
Incr Delay (d2), s/veh	1.3	0.1	5.0	0.4	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.3	1.0	0.4	0.5	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	4.6	19.8	4.6	13.8	10.9
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	542			702	232	
Approach Delay, s/veh	9.9			7.5	12.0	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.7	8.1	16.5		24.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	13.5	33.5		51.5
Max Q Clear Time (g_c+I1), s		4.5	4.5	9.2		8.2
Green Ext Time (p_c), s		0.7	0.2	2.9		3.7
Intersection Summary						
HCM 6th Ctrl Delay			9.1			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	307	322	447	568	699	266	
Future Volume (veh/h)	307	322	447	568	699	266	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	323	339	471	598	736	280	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	356	868	575	1166	762	842	
Arrive On Green	0.10	0.46	0.31	0.31	0.43	0.43	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	323	339	471	598	736	280	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	7.7	9.9	19.5	13.4	33.7	8.4	
Cycle Q Clear(g_c), s	7.7	9.9	19.5	13.4	33.7	8.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	356	868	575	1166	762	842	
V/C Ratio(X)	0.91	0.39	0.82	0.51	0.97	0.33	
Avail Cap(c_a), veh/h	356	1009	716	1285	765	844	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	37.1	14.6	26.8	4.7	23.3	11.2	
Incr Delay (d2), s/veh	26.3	0.3	6.1	0.4	24.2	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.4	3.7	9.4	12.4	17.3	9.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	63.4	14.9	32.9	5.0	47.5	11.4	
LnGrp LOS	E	B	C	A	D	B	
Approach Vol, veh/h		662	1069		1016		
Approach Delay, s/veh		38.6	17.3		37.6		
Approach LOS		D	B		D		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			43.3		40.3	13.1	30.2
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			45.1		35.9	8.6	32.0
Max Q Clear Time (g_c+I1), s			11.9		35.7	9.7	21.5
Green Ext Time (p_c), s			1.9		0.1	0.0	4.2
Intersection Summary							
HCM 6th Ctrl Delay			29.9				
HCM 6th LOS			C				

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	7	107	360	3	67	379
Future Vol, veh/h	7	107	360	3	67	379
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	113	379	3	71	399

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	922	381	0	0	382
Stage 1	381	-	-	-	-
Stage 2	541	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	300	666	-	-	1176
Stage 1	691	-	-	-	-
Stage 2	583	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	277	666	-	-	1176
Mov Cap-2 Maneuver	277	-	-	-	-
Stage 1	691	-	-	-	-
Stage 2	538	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	613	1176
HCM Lane V/C Ratio	-	-	0.196	0.06
HCM Control Delay (s)	-	-	12.3	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2

Intersection	
Intersection Delay, s/veh	29.6
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	127	0	20	127	515	26
Future Vol, veh/h	127	0	20	127	515	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	0	21	134	542	27
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11.5	11.2	38.8
HCM LOS	B	B	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	515	26	127	20	127
LT Vol	515	0	0	20	0
Through Vol	0	0	127	0	127
RT Vol	0	26	0	0	0
Lane Flow Rate	542	27	134	21	134
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.9	0.036	0.238	0.041	0.244
Departure Headway (Hd)	5.978	4.77	6.415	7.08	6.571
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	607	752	560	506	547
Service Time	3.695	2.487	4.456	4.823	4.314
HCM Lane V/C Ratio	0.893	0.036	0.239	0.042	0.245
HCM Control Delay	40.4	7.7	11.5	10.1	11.4
HCM Lane LOS	E	A	B	B	B
HCM 95th-tile Q	11	0.1	0.9	0.1	1

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	594	0	540	20	0
Future Vol, veh/h	0	594	0	540	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	625	0	568	21	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	625	-
Stage 1	-	-	0	-
Stage 2	-	-	625	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	449	0
Stage 1	0	-	-	0
Stage 2	0	-	534	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	449	-
Mov Cap-2 Maneuver	-	-	449	-
Stage 1	-	-	-	-
Stage 2	-	-	534	-

Approach	EB	SB
HCM Control Delay, s	0	13.4
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	449
HCM Lane V/C Ratio	-	0.047
HCM Control Delay (s)	-	13.4
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

Intersection						
Int Delay, s/veh	179.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	100	516	441	272	303	87
Future Vol, veh/h	100	516	441	272	303	87
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	543	464	286	319	92

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	758	0	-	0	1368 615
Stage 1	-	-	-	-	615 -
Stage 2	-	-	-	-	753 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	853	-	-	-	~ 162 491
Stage 1	-	-	-	-	539 -
Stage 2	-	-	-	-	465 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	847	-	-	-	~ 131 487
Mov Cap-2 Maneuver	-	-	-	-	~ 131 -
Stage 1	-	-	-	-	439 -
Stage 2	-	-	-	-	461 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	\$ 790
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	847	-	-	-	157
HCM Lane V/C Ratio	0.124	-	-	-	2.615
HCM Control Delay (s)	9.9	0	-	-	\$ 790
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	36

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	174.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	0	581	222	157	478	1	261	0	247	0	1	0
Future Vol, veh/h	0	581	222	157	478	1	261	0	247	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	612	234	165	503	1	275	0	260	0	1	0
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	316.1	75	74.7	14.8
HCM LOS	F	F	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	51%	0%	100%	0%	0%
Vol Thru, %	0%	72%	0%	100%	100%
Vol Right, %	49%	28%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	508	803	157	479	1
LT Vol	261	0	157	0	0
Through Vol	0	581	0	478	1
RT Vol	247	222	0	1	0
Lane Flow Rate	535	845	165	504	1
Geometry Grp	2	5	7	7	2
Degree of Util (X)	1.017	1.641	0.374	1.071	0.003
Departure Headway (Hd)	7.843	7.219	9.189	8.666	11.746
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	465	507	395	424	307
Service Time	5.843	5.219	6.889	6.366	9.746
HCM Lane V/C Ratio	1.151	1.667	0.418	1.189	0.003
HCM Control Delay	74.7	316.1	17.3	93.9	14.8
HCM Lane LOS	F	F	C	F	B
HCM 95th-tile Q	13.7	46.5	1.7	14.9	0

Intersection						
Int Delay, s/veh	33.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	211	596	517	71	79	106
Future Vol, veh/h	211	596	517	71	79	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	222	627	544	75	83	112

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	619	0	-	0	1653 582
Stage 1	-	-	-	-	582 -
Stage 2	-	-	-	-	1071 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	961	-	-	-	108 513
Stage 1	-	-	-	-	559 -
Stage 2	-	-	-	-	329 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	961	-	-	-	~ 70 513
Mov Cap-2 Maneuver	-	-	-	-	~ 70 -
Stage 1	-	-	-	-	361 -
Stage 2	-	-	-	-	329 -

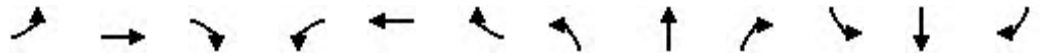
Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	277.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	961	-	-	-	139
HCM Lane V/C Ratio	0.231	-	-	-	1.401
HCM Control Delay (s)	9.9	0	-	-	277.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.9	-	-	-	12.7

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040 plus Project
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	343	324	414	368	56	170	42	301	18	6	15
Future Volume (veh/h)	62	343	324	414	368	56	170	42	301	18	6	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	361	341	436	387	59	179	44	317	19	6	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	481	407	477	755	115	373	78	487	137	53	80
Arrive On Green	0.05	0.26	0.26	0.27	0.48	0.48	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	1870	1582	1781	1580	241	950	254	1580	234	172	260
Grp Volume(v), veh/h	65	361	341	436	0	446	223	0	317	41	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1821	1204	0	1580	666	0	0
Q Serve(g_s), s	2.9	14.4	16.5	19.2	0.0	13.7	0.0	0.0	14.1	0.4	0.0	0.0
Cycle Q Clear(g_c), s	2.9	14.4	16.5	19.2	0.0	13.7	15.2	0.0	14.1	15.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.13	0.80		1.00	0.46		0.39
Lane Grp Cap(c), veh/h	84	481	407	477	0	870	451	0	487	270	0	0
V/C Ratio(X)	0.77	0.75	0.84	0.91	0.00	0.51	0.49	0.00	0.65	0.15	0.00	0.00
Avail Cap(c_a), veh/h	195	623	527	538	0	956	451	0	487	270	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.2	27.7	28.5	28.8	0.0	14.6	24.6	0.0	24.3	20.9	0.0	0.0
Incr Delay (d2), s/veh	13.6	3.7	9.1	18.9	0.0	0.5	3.8	0.0	6.6	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.5	6.8	10.1	0.0	5.1	4.1	0.0	5.7	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	31.4	37.6	47.7	0.0	15.1	28.4	0.0	30.9	22.1	0.0	0.0
LnGrp LOS	D	C	D	D	A	B	C	A	C	C	A	A
Approach Vol, veh/h		767			882			540				41
Approach Delay, s/veh		35.9			31.2			29.9				22.1
Approach LOS		D			C			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	26.2	25.4		29.5	8.3	43.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	8.9	42.6				
Max Q Clear Time (g_c+I1), s		17.2	21.2	18.5		17.6	4.9	15.7				
Green Ext Time (p_c), s		1.6	0.5	2.2		0.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				32.3								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	1	532	100	81	730	0	48	0	62	1	0	2
Future Vol, veh/h	1	532	100	81	730	0	48	0	62	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	560	105	85	768	0	51	0	65	1	0	2

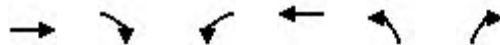
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	769	0	0	665	0	0	1501	1501	560	1586	1606	769
Stage 1	-	-	-	-	-	-	562	562	-	939	939	-
Stage 2	-	-	-	-	-	-	939	939	-	647	667	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	845	-	-	924	-	-	100	122	528	87	105	401
Stage 1	-	-	-	-	-	-	512	510	-	317	343	-
Stage 2	-	-	-	-	-	-	317	343	-	460	457	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	844	-	-	924	-	-	87	102	528	67	88	401
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	102	-	67	88	-
Stage 1	-	-	-	-	-	-	511	509	-	316	287	-
Stage 2	-	-	-	-	-	-	265	287	-	402	456	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.9			67.3			29.4		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	164	844	-	-	924	-	-	151
HCM Lane V/C Ratio	0.706	0.001	-	-	0.092	-	-	0.021
HCM Control Delay (s)	67.3	9.3	0	-	9.3	0	-	29.4
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	4.2	0	-	-	0.3	-	-	0.1

HCM 6th Signalized Intersection Summary
8: Patterson Dr & Pleasant Valley Rd - SR-49

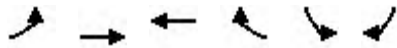
2040 plus Project
Timing Plan: AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	630	95	64	707	122	130
Future Volume (veh/h)	630	95	64	707	122	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	663	100	67	744	128	137
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	860	956	116	1189	255	330
Arrive On Green	0.46	0.46	0.07	0.64	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	663	100	67	744	128	137
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	12.1	1.1	1.5	9.8	2.7	3.0
Cycle Q Clear(g_c), s	12.1	1.1	1.5	9.8	2.7	3.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	860	956	116	1189	255	330
V/C Ratio(X)	0.77	0.10	0.58	0.63	0.50	0.41
Avail Cap(c_a), veh/h	1816	1766	328	2368	1292	1253
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	3.4	18.5	4.5	16.1	14.0
Incr Delay (d2), s/veh	1.5	0.0	4.4	0.5	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.3	0.6	0.9	1.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.7	3.5	22.9	5.0	17.6	14.8
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	763			811	265	
Approach Delay, s/veh	9.8			6.5	16.2	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		10.3	7.2	23.2		30.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	7.5	39.5		51.5
Max Q Clear Time (g_c+l1), s		5.0	3.5	14.1		11.8
Green Ext Time (p_c), s		0.8	0.0	4.6		5.5
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040 plus Project
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑	↑	↔	↔	↔
Traffic Volume (veh/h)	433	352	460	332	205	327
Future Volume (veh/h)	433	352	460	332	205	327
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	456	371	484	349	216	344
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	618	1140	655	917	408	646
Arrive On Green	0.18	0.61	0.35	0.35	0.23	0.23
Sat Flow, veh/h	3456	1870	1870	1581	1781	1585
Grp Volume(v), veh/h	456	371	484	349	216	344
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1581	1781	1585
Q Serve(g_s), s	7.0	5.4	12.7	6.7	5.9	9.2
Cycle Q Clear(g_c), s	7.0	5.4	12.7	6.7	5.9	9.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	618	1140	655	917	408	646
V/C Ratio(X)	0.74	0.33	0.74	0.38	0.53	0.53
Avail Cap(c_a), veh/h	1022	1828	1123	1312	846	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	5.3	15.9	6.3	18.9	12.5
Incr Delay (d2), s/veh	1.8	0.2	1.7	0.3	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.2	5.1	3.4	2.2	8.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	5.5	17.5	6.6	19.9	13.2
LnGrp LOS	C	A	B	A	B	B
Approach Vol, veh/h		827	833		560	
Approach Delay, s/veh		15.4	13.0		15.8	
Approach LOS		B	B		B	
Timer - Assigned Phs			4		6	7 8
Phs Duration (G+Y+Rc), s			38.5		17.3	14.5 24.0
Change Period (Y+Rc), s			4.5		4.5	4.5 4.5
Max Green Setting (Gmax), s			54.5		26.5	16.5 33.5
Max Q Clear Time (g_c+I1), s			7.4		11.2	9.0 14.7
Green Ext Time (p_c), s			2.2		1.6	1.0 4.5
Intersection Summary						
HCM 6th Ctrl Delay			14.6			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	176	341	56	200	173
Future Vol, veh/h	26	176	341	56	200	173
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	185	359	59	211	182

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	993	390	0	0	418
Stage 1	389	-	-	-	-
Stage 2	604	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	272	658	-	-	1141
Stage 1	685	-	-	-	-
Stage 2	546	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	216	657	-	-	1141
Mov Cap-2 Maneuver	216	-	-	-	-
Stage 1	685	-	-	-	-
Stage 2	434	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	4.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	520	1141
HCM Lane V/C Ratio	-	-	0.409	0.185
HCM Control Delay (s)	-	-	16.6	8.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2	0.7

Intersection	
Intersection Delay, s/veh	61.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↻	↻	↻
Traffic Vol, veh/h	301	0	40	206	560	50
Future Vol, veh/h	301	0	40	206	560	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	317	0	42	217	589	53
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	20.3	15.2	100.5
HCM LOS	C	C	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	560	50	301	40	206
LT Vol	560	0	0	40	0
Through Vol	0	0	301	0	206
RT Vol	0	50	0	0	0
Lane Flow Rate	589	53	317	42	217
Geometry Grp	7	7	4	7	7
Degree of Util (X)	1.14	0.084	0.597	0.089	0.429
Departure Headway (Hd)	6.962	5.745	7.204	8.131	7.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	525	627	504	443	475
Service Time	4.662	3.445	5.204	5.831	5.317
HCM Lane V/C Ratio	1.122	0.085	0.629	0.095	0.457
HCM Control Delay	108.7	9	20.3	11.6	15.9
HCM Lane LOS	F	A	C	B	C
HCM 95th-tile Q	20.1	0.3	3.9	0.3	2.1

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	644	0	608	40	0
Future Vol, veh/h	0	644	0	608	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	678	0	640	42	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	678	-
Stage 1	-	-	0	-
Stage 2	-	-	678	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	418	0
Stage 1	0	-	-	0
Stage 2	0	-	504	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	418	-
Mov Cap-2 Maneuver	-	-	418	-
Stage 1	-	-	-	-
Stage 2	-	-	504	-

Approach	EB	SB
HCM Control Delay, s	0	14.6
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	418
HCM Lane V/C Ratio	-	0.101
HCM Control Delay (s)	-	14.6
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.3

Intersection						
Int Delay, s/veh	153.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	36	624	496	258	296	113
Future Vol, veh/h	36	624	496	258	296	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	657	522	272	312	119

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	794	0	-	0	1391 658
Stage 1	-	-	-	-	658 -
Stage 2	-	-	-	-	733 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	827	-	-	-	~ 157 464
Stage 1	-	-	-	-	515 -
Stage 2	-	-	-	-	475 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	827	-	-	-	~ 146 464
Mov Cap-2 Maneuver	-	-	-	-	~ 146 -
Stage 1	-	-	-	-	478 -
Stage 2	-	-	-	-	475 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	\$ 684
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	827	-	-	-	180
HCM Lane V/C Ratio	0.046	-	-	-	2.392
HCM Control Delay (s)	9.6	0	-	-	\$ 684
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	35.8

Notes
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	180.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	1	599	291	270	504	4	217	1	196	3	0	1
Future Vol, veh/h	1	599	291	270	504	4	217	1	196	3	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	631	306	284	531	4	228	1	206	3	0	1
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	345.1	67.6	38.6	14.3
HCM LOS	F	F	E	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	52%	0%	100%	0%	75%
Vol Thru, %	0%	67%	0%	99%	0%
Vol Right, %	47%	33%	0%	1%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	414	891	270	508	4
LT Vol	217	1	270	0	3
Through Vol	1	599	0	504	0
RT Vol	196	291	0	4	1
Lane Flow Rate	436	938	284	535	4
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.824	1.711	0.608	1.069	0.011
Departure Headway (Hd)	7.957	6.716	8.675	8.15	11.167
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	458	553	421	449	322
Service Time	5.957	4.716	6.375	5.85	9.167
HCM Lane V/C Ratio	0.952	1.696	0.675	1.192	0.012
HCM Control Delay	38.6	345.1	23.9	90.9	14.3
HCM Lane LOS	E	F	C	F	B
HCM 95th-tile Q	7.9	54	3.9	15.3	0

Intersection

Int Delay, s/veh 113.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	206	564	440	86	103	334
Future Vol, veh/h	206	564	440	86	103	334
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	217	594	463	91	108	352

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	555	0	-	0	1538 510
Stage 1	-	-	-	-	510 -
Stage 2	-	-	-	-	1028 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1015	-	-	-	127 563
Stage 1	-	-	-	-	603 -
Stage 2	-	-	-	-	345 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1014	-	-	-	~ 86 562
Mov Cap-2 Maneuver	-	-	-	-	~ 86 -
Stage 1	-	-	-	-	410 -
Stage 2	-	-	-	-	345 -

Approach

	EB	WB	SB
HCM Control Delay, s	2.5	0	\$ 447.4
HCM LOS			F

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1014	-	-	-	244
HCM Lane V/C Ratio	0.214	-	-	-	1.885
HCM Control Delay (s)	9.5	0	-	-	\$ 447.4
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.8	-	-	-	32.3

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040 plus Project
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	495	133	104	411	33	80	0	84	43	0	15
Future Volume (veh/h)	26	495	133	104	411	33	80	0	84	43	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	521	140	109	433	35	84	0	88	45	0	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	623	528	141	653	53	670	0	623	457	13	135
Arrive On Green	0.03	0.33	0.33	0.08	0.38	0.38	0.39	0.00	0.39	0.39	0.00	0.39
Sat Flow, veh/h	1781	1870	1585	1781	1704	138	1439	0	1581	933	34	344
Grp Volume(v), veh/h	27	521	140	109	0	468	84	0	88	61	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1842	1439	0	1581	1310	0	0
Q Serve(g_s), s	1.0	18.0	4.5	4.2	0.0	14.7	0.0	0.0	2.5	1.1	0.0	0.0
Cycle Q Clear(g_c), s	1.0	18.0	4.5	4.2	0.0	14.7	2.1	0.0	2.5	3.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	0.74		0.26
Lane Grp Cap(c), veh/h	52	623	528	141	0	706	670	0	623	606	0	0
V/C Ratio(X)	0.52	0.84	0.27	0.77	0.00	0.66	0.13	0.00	0.14	0.10	0.00	0.00
Avail Cap(c_a), veh/h	143	978	829	319	0	1145	670	0	623	606	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.4	21.5	17.0	31.5	0.0	17.8	13.5	0.0	13.6	13.8	0.0	0.0
Incr Delay (d2), s/veh	7.8	3.7	0.3	8.6	0.0	1.1	0.4	0.0	0.5	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.6	1.5	2.0	0.0	5.6	0.9	0.0	0.9	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	25.2	17.3	40.1	0.0	18.9	13.8	0.0	14.0	14.1	0.0	0.0
LnGrp LOS	D	C	B	D	A	B	B	A	B	B	A	A
Approach Vol, veh/h		688			577			172			61	
Approach Delay, s/veh		24.3			22.9			13.9			14.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	10.0	27.8		32.0	6.5	31.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	12.5	36.5		27.5	5.6	43.4				
Max Q Clear Time (g_c+I1), s		4.5	6.2	20.0		5.2	3.0	16.7				
Green Ext Time (p_c), s		0.7	0.1	3.3		0.3	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay				22.1								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	3	538	62	92	483	2	45	0	48	0	1	0
Future Vol, veh/h	3	538	62	92	483	2	45	0	48	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	566	65	97	508	2	47	0	51	0	1	0

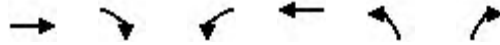
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	510	0	0	634	0	0	1279	1279	569	1333	1343	509
Stage 1	-	-	-	-	-	-	575	575	-	703	703	-
Stage 2	-	-	-	-	-	-	704	704	-	630	640	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1055	-	-	949	-	-	143	166	522	131	152	564
Stage 1	-	-	-	-	-	-	503	503	-	428	440	-
Stage 2	-	-	-	-	-	-	428	440	-	470	470	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1055	-	-	946	-	-	126	141	521	105	129	564
Mov Cap-2 Maneuver	-	-	-	-	-	-	126	141	-	105	129	-
Stage 1	-	-	-	-	-	-	499	499	-	426	377	-
Stage 2	-	-	-	-	-	-	366	377	-	423	467	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			37.1			33.1		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	207	1055	-	-	946	-	-	129
HCM Lane V/C Ratio	0.473	0.003	-	-	0.102	-	-	0.008
HCM Control Delay (s)	37.1	8.4	0	-	9.2	0	-	33.1
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	2.3	0	-	-	0.3	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

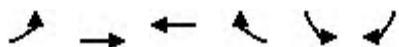
2040 plus Project
 Timing Plan: PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	470	106	192	430	89	111
Future Volume (veh/h)	470	106	192	430	89	111
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	495	112	202	453	94	117
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	684	786	268	1186	233	446
Arrive On Green	0.37	0.37	0.15	0.63	0.13	0.13
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	495	112	202	453	94	117
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	8.7	1.5	4.2	4.5	1.9	2.2
Cycle Q Clear(g_c), s	8.7	1.5	4.2	4.5	1.9	2.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	684	786	268	1186	233	446
V/C Ratio(X)	0.72	0.14	0.75	0.38	0.40	0.26
Avail Cap(c_a), veh/h	1541	1511	769	2568	1328	1420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	5.2	15.6	3.4	15.3	10.7
Incr Delay (d2), s/veh	1.5	0.1	4.2	0.2	1.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.4	1.6	0.3	0.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	5.3	19.8	3.6	16.4	11.0
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	607			655	211	
Approach Delay, s/veh	10.7			8.6	13.4	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	10.3	18.5		28.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		28.5	16.5	31.5		52.5
Max Q Clear Time (g_c+l1), s		4.2	6.2	10.7		6.5
Green Ext Time (p_c), s		0.6	0.4	3.1		2.8
Intersection Summary						
HCM 6th Ctrl Delay			10.2			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040 plus Project
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	265	376	295	267	460	340	
Future Volume (veh/h)	265	376	295	267	460	340	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	279	396	311	281	484	358	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	425	889	487	953	608	736	
Arrive On Green	0.12	0.48	0.26	0.26	0.34	0.34	
Sat Flow, veh/h	3456	1870	1870	1579	1781	1585	
Grp Volume(v), veh/h	279	396	311	281	484	358	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1579	1781	1585	
Q Serve(g_s), s	3.8	6.9	7.2	4.2	12.1	7.7	
Cycle Q Clear(g_c), s	3.8	6.9	7.2	4.2	12.1	7.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	425	889	487	953	608	736	
V/C Ratio(X)	0.66	0.45	0.64	0.29	0.80	0.49	
Avail Cap(c_a), veh/h	739	1790	1219	1570	1233	1292	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.5	8.6	16.1	4.7	14.6	9.1	
Incr Delay (d2), s/veh	1.7	0.4	1.4	0.2	2.4	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.4	1.9	3.0	2.6	4.0	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.3	8.9	17.5	4.9	17.0	9.6	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		675	592		842		
Approach Delay, s/veh		14.4	11.5		13.9		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				27.8	21.3	10.5	17.3
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				47.0	34.0	10.5	32.0
Max Q Clear Time (g_c+I1), s				8.9	14.1	5.8	9.2
Green Ext Time (p_c), s				2.3	2.7	0.4	3.0
Intersection Summary							
HCM 6th Ctrl Delay			13.4				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	7	115	277	24	150	432
Future Vol, veh/h	7	115	277	24	150	432
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	121	292	25	158	455

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1076	305	0	0	317
Stage 1	305	-	-	-	-
Stage 2	771	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	243	735	-	-	1243
Stage 1	748	-	-	-	-
Stage 2	456	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	202	735	-	-	1243
Mov Cap-2 Maneuver	202	-	-	-	-
Stage 1	748	-	-	-	-
Stage 2	378	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	638	1243
HCM Lane V/C Ratio	-	-	0.201	0.127
HCM Control Delay (s)	-	-	12.1	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.4

Intersection	
Intersection Delay, s/veh	28.8
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	128	0	19	101	517	24
Future Vol, veh/h	128	0	19	101	517	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	135	0	20	106	544	25
Number of Lanes	1	0	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11.3	10.8	37
HCM LOS	B	B	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	100%
Vol Right, %	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	517	24	128	19	101
LT Vol	517	0	0	19	0
Through Vol	0	0	128	0	101
RT Vol	0	24	0	0	0
Lane Flow Rate	544	25	135	20	106
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.89	0.033	0.237	0.039	0.193
Departure Headway (Hd)	5.885	4.679	6.335	7.058	6.549
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	620	767	567	507	548
Service Time	3.601	2.394	4.372	4.798	4.289
HCM Lane V/C Ratio	0.877	0.033	0.238	0.039	0.193
HCM Control Delay	38.4	7.6	11.3	10.1	10.9
HCM Lane LOS	E	A	B	B	B
HCM 95th-tile Q	10.7	0.1	0.9	0.1	0.7

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	515	0	538	23	0
Future Vol, veh/h	0	515	0	538	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	542	0	566	24	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	542	-
Stage 1	-	-	0	-
Stage 2	-	-	542	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	501	0
Stage 1	0	-	-	0
Stage 2	0	-	583	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	501	-
Mov Cap-2 Maneuver	-	-	501	-
Stage 1	-	-	-	-
Stage 2	-	-	583	-

Approach	EB	SB
HCM Control Delay, s	0	12.6
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	501
HCM Lane V/C Ratio	-	0.048
HCM Control Delay (s)	-	12.6
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.2

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	550	548	96	114	7
Future Vol, veh/h	5	550	548	96	114	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	579	577	101	120	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	678	0	-	0	1217 628
Stage 1	-	-	-	-	628 -
Stage 2	-	-	-	-	589 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	914	-	-	-	200 483
Stage 1	-	-	-	-	532 -
Stage 2	-	-	-	-	554 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	914	-	-	-	198 483
Mov Cap-2 Maneuver	-	-	-	-	198 -
Stage 1	-	-	-	-	528 -
Stage 2	-	-	-	-	554 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	47.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	914	-	-	-	205
HCM Lane V/C Ratio	0.006	-	-	-	0.621
HCM Control Delay (s)	9	0	-	-	47.7
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	3.6

Intersection	
Intersection Delay, s/veh	108
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	3	426	236	267	468	5	214	5	268	0	2	12
Future Vol, veh/h	3	426	236	267	468	5	214	5	268	0	2	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	448	248	281	493	5	225	5	282	0	2	13
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	191.1	64.3	63.5	13.6
HCM LOS	F	F	F	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	44%	0%	100%	0%	0%
Vol Thru, %	1%	64%	0%	99%	14%
Vol Right, %	55%	35%	0%	1%	86%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	487	665	267	473	14
LT Vol	214	3	267	0	0
Through Vol	5	426	0	468	2
RT Vol	268	236	0	5	12
Lane Flow Rate	513	700	281	498	15
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.979	1.349	0.634	1.052	0.037
Departure Headway (Hd)	7.5	7.138	8.78	8.253	10.217
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	487	518	413	443	353
Service Time	5.5	5.138	6.48	5.953	8.217
HCM Lane V/C Ratio	1.053	1.351	0.68	1.124	0.042
HCM Control Delay	63.5	191.1	25.5	86.2	13.6
HCM Lane LOS	F	F	D	F	B
HCM 95th-tile Q	12.7	30.4	4.2	14.6	0.1

Intersection						
Int Delay, s/veh	8.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	209	485	541	36	29	199
Future Vol, veh/h	209	485	541	36	29	199
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	220	511	569	38	31	209

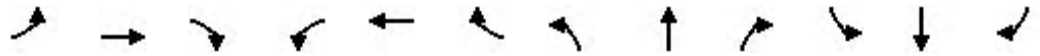
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	609	0	-	0	1541 590
Stage 1	-	-	-	-	590 -
Stage 2	-	-	-	-	951 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	970	-	-	-	127 508
Stage 1	-	-	-	-	554 -
Stage 2	-	-	-	-	375 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	968	-	-	-	86 507
Mov Cap-2 Maneuver	-	-	-	-	86 -
Stage 1	-	-	-	-	378 -
Stage 2	-	-	-	-	374 -

Approach	EB	WB	SB
HCM Control Delay, s	3	0	46.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	968	-	-	-	312
HCM Lane V/C Ratio	0.227	-	-	-	0.769
HCM Control Delay (s)	9.8	0	-	-	46.4
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.9	-	-	-	6

HCM 6th Signalized Intersection Summary
6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040 plus Project
Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗			↑	↗		↖	
Traffic Volume (veh/h)	17	518	18	5	475	10	15	0	12	8	0	10
Future Volume (veh/h)	17	518	18	5	475	10	15	0	12	8	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	545	19	5	500	11	16	0	13	8	0	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	665	563	12	620	14	706	0	661	316	32	363
Arrive On Green	0.02	0.36	0.36	0.01	0.34	0.34	0.42	0.00	0.42	0.42	0.00	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1822	40	1410	0	1585	558	76	871
Grp Volume(v), veh/h	18	545	19	5	0	511	16	0	13	19	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1862	1410	0	1585	1505	0	0
Q Serve(g_s), s	0.6	16.2	0.5	0.2	0.0	15.2	0.0	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	16.2	0.5	0.2	0.0	15.2	0.3	0.0	0.3	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.42		0.58
Lane Grp Cap(c), veh/h	38	665	563	12	0	634	706	0	661	711	0	0
V/C Ratio(X)	0.47	0.82	0.03	0.42	0.00	0.81	0.02	0.00	0.02	0.03	0.00	0.00
Avail Cap(c_a), veh/h	189	1362	1154	189	0	1356	706	0	661	711	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.6	17.9	12.9	30.2	0.0	18.3	10.5	0.0	10.5	10.5	0.0	0.0
Incr Delay (d2), s/veh	8.6	2.6	0.0	22.0	0.0	2.5	0.1	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.3	0.1	0.1	0.0	6.0	0.1	0.0	0.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	20.5	12.9	52.3	0.0	20.8	10.5	0.0	10.5	10.6	0.0	0.0
LnGrp LOS	D	C	B	D	A	C	B	A	B	B	A	A
Approach Vol, veh/h		582			516			29				19
Approach Delay, s/veh		20.8			21.1			10.5				10.6
Approach LOS		C			C			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.0	4.9	26.2		30.0	5.8	25.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	6.5	44.5		25.5	6.5	44.5				
Max Q Clear Time (g_c+I1), s		2.3	2.2	18.2		2.4	2.6	17.2				
Green Ext Time (p_c), s		0.1	0.0	3.5		0.0	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.5								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔			↔	
Traffic Vol, veh/h	0	411	80	107	421	2	86	0	120	1	0	1
Future Vol, veh/h	0	411	80	107	421	2	86	0	120	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	75	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	433	84	113	443	2	91	0	126	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	445	0	0	518	0	0	1105	1105	434	1208	1188	444
Stage 1	-	-	-	-	-	-	434	434	-	670	670	-
Stage 2	-	-	-	-	-	-	671	671	-	538	518	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1115	-	-	1048	-	-	188	211	622	160	188	614
Stage 1	-	-	-	-	-	-	600	581	-	446	455	-
Stage 2	-	-	-	-	-	-	446	455	-	527	533	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1115	-	-	1047	-	-	167	181	621	113	161	614
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	181	-	113	161	-
Stage 1	-	-	-	-	-	-	599	580	-	446	390	-
Stage 2	-	-	-	-	-	-	382	390	-	420	532	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			46.3			24.1		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	291	1115	-	-	1047	-	-	191
HCM Lane V/C Ratio	0.745	-	-	-	0.108	-	-	0.011
HCM Control Delay (s)	46.3	0	-	-	8.9	0	-	24.1
HCM Lane LOS	E	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	5.5	0	-	-	0.4	-	-	0

HCM 6th Signalized Intersection Summary
8: Patterson Dr & Pleasant Valley Rd - SR-49

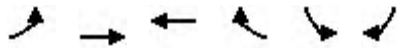
2040 plus Project
Timing Plan: Saturday Mid-Day



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	483	96	126	589	98	134
Future Volume (veh/h)	483	96	126	589	98	134
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	508	101	133	620	103	141
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	706	833	181	1129	264	396
Arrive On Green	0.38	0.38	0.10	0.60	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	508	101	133	620	103	141
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	8.4	1.2	2.6	7.1	1.9	2.7
Cycle Q Clear(g_c), s	8.4	1.2	2.6	7.1	1.9	2.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	706	833	181	1129	264	396
V/C Ratio(X)	0.72	0.12	0.73	0.55	0.39	0.36
Avail Cap(c_a), veh/h	1729	1700	664	2658	1450	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	4.4	15.8	4.3	14.0	11.2
Incr Delay (d2), s/veh	1.4	0.1	5.6	0.4	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.3	1.1	0.5	0.7	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	4.4	21.4	4.7	14.9	11.7
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	609			753	244	
Approach Delay, s/veh	9.9			7.6	13.1	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.9	8.2	18.2		26.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	13.5	33.5		51.5
Max Q Clear Time (g_c+l1), s		4.7	4.6	10.4		9.1
Green Ext Time (p_c), s		0.7	0.2	3.3		4.2
Intersection Summary						
HCM 6th Ctrl Delay			9.3			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040 plus Project
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	345	335	459	568	699	302	
Future Volume (veh/h)	345	335	459	568	699	302	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	363	353	483	598	736	318	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	353	874	584	1170	759	837	
Arrive On Green	0.10	0.47	0.31	0.31	0.43	0.43	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	363	353	483	598	736	318	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	8.6	10.4	20.2	13.4	34.1	10.0	
Cycle Q Clear(g_c), s	8.6	10.4	20.2	13.4	34.1	10.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	353	874	584	1170	759	837	
V/C Ratio(X)	1.03	0.40	0.83	0.51	0.97	0.38	
Avail Cap(c_a), veh/h	353	1001	710	1277	759	837	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	37.9	14.7	26.9	4.7	23.7	11.8	
Incr Delay (d2), s/veh	55.8	0.3	6.8	0.3	25.4	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	6.2	3.9	9.9	12.5	17.8	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	93.6	15.0	33.7	5.0	49.1	12.0	
LnGrp LOS	F	B	C	A	D	B	
Approach Vol, veh/h		716	1081		1054		
Approach Delay, s/veh		54.9	17.8		37.9		
Approach LOS		D	B		D		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			43.9		40.4	13.1	30.8
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			45.1		35.9	8.6	32.0
Max Q Clear Time (g_c+I1), s			12.4		36.1	10.6	22.2
Green Ext Time (p_c), s			2.0		0.0	0.0	4.1
Intersection Summary							
HCM 6th Ctrl Delay			34.6				
HCM 6th LOS			C				

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	107	372	3	67	392
Future Vol, veh/h	7	107	372	3	67	392
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	113	392	3	71	413

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	949	394	0	0	395
Stage 1	394	-	-	-	-
Stage 2	555	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	289	655	-	-	1164
Stage 1	681	-	-	-	-
Stage 2	575	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	266	655	-	-	1164
Mov Cap-2 Maneuver	266	-	-	-	-
Stage 1	681	-	-	-	-
Stage 2	530	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	601	1164
HCM Lane V/C Ratio	-	-	0.2	0.061
HCM Control Delay (s)	-	-	12.5	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑		↔		↔		↔	
Traffic Vol, veh/h	0	69	0	11	76	0	390	0	19	0	0	0
Future Vol, veh/h	0	69	0	11	76	0	390	0	19	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.92	0.89	0.92	0.89	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	78	0	12	85	0	438	0	21	0	0	0
Number of Lanes	0	1	0	1	1	0	1	0	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	1
HCM Control Delay	10	9.7	18.5	0
HCM LOS	A	A	C	-

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	390	19	69	11	76	0
LT Vol	390	0	0	11	0	0
Through Vol	0	0	69	0	76	0
RT Vol	0	19	0	0	0	0
Lane Flow Rate	438	21	78	12	85	0
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.674	0.026	0.129	0.022	0.141	0
Departure Headway (Hd)	5.534	4.331	5.995	6.458	5.952	5.67
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	653	822	595	552	599	0
Service Time	3.284	2.08	4.063	4.223	3.717	3.754
HCM Lane V/C Ratio	0.671	0.026	0.131	0.022	0.142	0
HCM Control Delay	19	7.2	10	9.4	9.7	8.8
HCM Lane LOS	C	A	A	A	A	N
HCM 95th-tile Q	5.2	0.1	0.4	0.1	0.5	0

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	366	0	410	11	0
Future Vol, veh/h	0	366	0	410	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	446	0	500	13	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	446	-
Stage 1	-	-	0	-
Stage 2	-	-	446	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	570	0
Stage 1	0	-	-	0
Stage 2	0	-	645	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	570	-
Mov Cap-2 Maneuver	-	-	570	-
Stage 1	-	-	-	-
Stage 2	-	-	645	-

Approach	EB	SB
HCM Control Delay, s	0	11.5
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	570
HCM Lane V/C Ratio	-	0.024
HCM Control Delay (s)	-	11.5
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

HCM 6th Signalized Intersection Summary
 3: Pleasant Valley Rd & El Dorado Rd

Existing plus Project-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↶		↶	↶
Traffic Volume (veh/h)	5	372	402	125	101	4
Future Volume (veh/h)	5	372	402	125	101	4
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	433	467	145	117	5
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	142	866	638	198	339	302
Arrive On Green	0.47	0.47	0.47	0.47	0.19	0.19
Sat Flow, veh/h	7	1854	1366	424	1781	1585
Grp Volume(v), veh/h	439	0	0	612	117	5
Grp Sat Flow(s),veh/h/ln	1861	0	0	1790	1781	1585
Q Serve(g_s), s	0.0	0.0	0.0	7.3	1.5	0.1
Cycle Q Clear(g_c), s	4.3	0.0	0.0	7.3	1.5	0.1
Prop In Lane	0.01			0.24	1.00	1.00
Lane Grp Cap(c), veh/h	1008	0	0	836	339	302
V/C Ratio(X)	0.44	0.00	0.00	0.73	0.35	0.02
Avail Cap(c_a), veh/h	1409	0	0	1226	1220	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.9	0.0	0.0	5.7	9.2	8.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.2	0.0	0.0	6.9	9.8	8.7
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		439	612		122	
Approach Delay, s/veh		5.2	6.9		9.8	
Approach LOS		A	A		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				16.8	9.5	16.8
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s				6.3	3.5	9.3
Green Ext Time (p_c), s				2.0	0.2	2.7
Intersection Summary						
HCM 6th Ctrl Delay			6.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 4: SR-49 & Pleasant Valley Rd/Pleasant Valley Rd - SR-49

Existing plus Project-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	0	344	147	140	330	1	211	0	230	0	1	0
Future Volume (veh/h)	0	344	147	140	330	1	211	0	230	0	1	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	405	173	165	388	1	248	0	271	0	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	434	186	201	962	2	330	4	295	0	703	0
Arrive On Green	0.00	0.35	0.35	0.11	0.52	0.52	0.38	0.00	0.38	0.00	0.38	0.00
Sat Flow, veh/h	0	1244	531	1781	1865	5	707	10	783	0	1870	0
Grp Volume(v), veh/h	0	0	578	165	0	389	519	0	0	0	1	0
Grp Sat Flow(s),veh/h/ln	0	0	1775	1781	0	1869	1500	0	0	0	1870	0
Q Serve(g_s), s	0.0	0.0	26.2	7.5	0.0	10.6	27.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	26.2	7.5	0.0	10.6	27.5	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.30	1.00		0.00	0.48		0.52	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	620	201	0	964	628	0	0	0	703	0
V/C Ratio(X)	0.00	0.00	0.93	0.82	0.00	0.40	0.83	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	650	224	0	1021	703	0	0	0	797	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	26.2	36.2	0.0	12.3	24.8	0.0	0.0	0.0	16.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	20.0	19.6	0.0	0.3	7.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	0.0	14.1	4.3	0.0	4.3	10.6	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	46.1	55.7	0.0	12.6	32.1	0.0	0.0	0.0	16.2	0.0
LnGrp LOS	A	A	D	E	A	B	C	A	A	A	B	A
Approach Vol, veh/h		578			554			519				1
Approach Delay, s/veh		46.1			25.4			32.1				16.2
Approach LOS		D			C			C				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		35.8	13.9	33.6		35.8		47.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5	10.5	30.5		35.5		45.5				
Max Q Clear Time (g_c+I1), s		29.5	9.5	28.2		2.0		12.6				
Green Ext Time (p_c), s		1.8	0.0	0.9		0.0		2.8				
Intersection Summary												
HCM 6th Ctrl Delay			34.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 5: Pleasant Valley Rd - SR-49 & Forni Rd

Existing plus Project-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	460	395	31	41	67
Future Volume (veh/h)	114	460	395	31	41	67
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	541	465	36	48	79
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	528	908	832	64	327	291
Arrive On Green	0.49	0.49	0.49	0.49	0.18	0.18
Sat Flow, veh/h	897	1870	1714	133	1781	1585
Grp Volume(v), veh/h	134	541	0	501	48	79
Grp Sat Flow(s),veh/h/ln	897	1870	0	1846	1781	1585
Q Serve(g_s), s	3.4	5.7	0.0	5.2	0.6	1.2
Cycle Q Clear(g_c), s	8.6	5.7	0.0	5.2	0.6	1.2
Prop In Lane	1.00			0.07	1.00	1.00
Lane Grp Cap(c), veh/h	528	908	0	897	327	291
V/C Ratio(X)	0.25	0.60	0.00	0.56	0.15	0.27
Avail Cap(c_a), veh/h	686	1237	0	1221	1178	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	5.1	0.0	4.9	9.3	9.5
Incr Delay (d2), s/veh	0.2	0.6	0.0	0.5	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.5		1.1	0.0	1.0	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	5.7	0.0	5.5	9.5	10.0
LnGrp LOS	A	A	A	A	A	B
Approach Vol, veh/h		675	501		127	
Approach Delay, s/veh		6.2	5.5		9.8	
Approach LOS		A	A		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				17.7	9.5	17.7
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				10.6	3.2	7.2
Green Ext Time (p_c), s				2.6	0.3	2.5
Intersection Summary						
HCM 6th Ctrl Delay			6.3			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Existing plus Project-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	299	215	302	313	4	96	2	191	11	3	8
Future Volume (veh/h)	4	299	215	302	313	4	96	2	191	11	3	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	383	276	387	401	5	123	3	245	14	4	10
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	12	471	398	436	902	11	556	12	517	254	82	147
Arrive On Green	0.01	0.25	0.25	0.24	0.49	0.49	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	1870	1582	1781	1843	23	1417	38	1580	561	250	451
Grp Volume(v), veh/h	5	383	276	387	0	406	126	0	245	28	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1866	1455	0	1580	1262	0	0
Q Serve(g_s), s	0.2	14.7	12.1	16.0	0.0	10.8	0.0	0.0	9.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	14.7	12.1	16.0	0.0	10.8	4.1	0.0	9.4	4.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	0.98		1.00	0.50		0.36
Lane Grp Cap(c), veh/h	12	471	398	436	0	914	569	0	517	483	0	0
V/C Ratio(X)	0.43	0.81	0.69	0.89	0.00	0.44	0.22	0.00	0.47	0.06	0.00	0.00
Avail Cap(c_a), veh/h	117	661	559	571	0	1135	569	0	517	483	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.8	26.9	25.9	27.9	0.0	12.7	18.7	0.0	20.5	17.6	0.0	0.0
Incr Delay (d2), s/veh	22.6	5.4	2.2	12.9	0.0	0.3	0.9	0.0	3.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.2	6.7	4.4	7.8	0.0	4.0	1.7	0.0	3.6	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.4	32.3	28.1	40.8	0.0	13.1	19.6	0.0	23.6	17.8	0.0	0.0
LnGrp LOS	E	C	C	D	A	B	B	A	C	B	A	A
Approach Vol, veh/h		664			793			371			28	
Approach Delay, s/veh		30.7			26.6			22.2			17.8	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	23.2	23.7		29.5	5.0	41.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	5.0	46.5				
Max Q Clear Time (g_c+I1), s		11.4	18.0	16.7		6.2	2.2	12.8				
Green Ext Time (p_c), s		1.3	0.7	2.3		0.1	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay											27.1	
HCM 6th LOS											C	

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕		↕		↕	
Traffic Vol, veh/h	1	399	100	81	565	0	48	0	62	1	0	2
Future Vol, veh/h	1	399	100	81	565	0	48	0	62	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	0	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	487	122	99	689	0	59	0	76	1	0	2

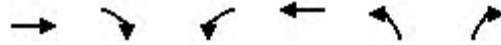
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	690	0	0	609	0	0	1438	-	548	1476	1499	690
Stage 1	-	-	-	-	-	-	550	-	-	888	888	-
Stage 2	-	-	-	-	-	-	888	-	-	588	611	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	905	-	-	970	-	-	111	0	536	104	122	445
Stage 1	-	-	-	-	-	-	519	0	-	338	362	-
Stage 2	-	-	-	-	-	-	338	0	-	495	484	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	904	-	-	970	-	-	102	-	536	82	109	445
Mov Cap-2 Maneuver	-	-	-	-	-	-	216	-	-	82	109	-
Stage 1	-	-	-	-	-	-	518	-	-	337	325	-
Stage 2	-	-	-	-	-	-	302	-	-	424	483	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			19.3			25.4		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	536	904	-	-	970	-	-	180
HCM Lane V/C Ratio	0.271	0.141	0.001	-	-	0.102	-	-	0.02
HCM Control Delay (s)	27.8	12.8	9	0	-	9.1	-	-	25.4
HCM Lane LOS	D	B	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0.5	0	-	-	0.3	-	-	0.1

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

Existing plus Project-IMP
 Timing Plan: AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	467	67	47	540	93	101
Future Volume (veh/h)	467	67	47	540	93	101
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	531	76	53	614	106	115
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	747	865	103	1102	261	324
Arrive On Green	0.40	0.40	0.06	0.59	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	531	76	53	614	106	115
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	8.1	0.8	1.0	6.8	1.8	2.1
Cycle Q Clear(g_c), s	8.1	0.8	1.0	6.8	1.8	2.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	747	865	103	1102	261	324
V/C Ratio(X)	0.71	0.09	0.51	0.56	0.41	0.35
Avail Cap(c_a), veh/h	2113	2023	392	2771	1594	1510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	3.7	15.6	4.3	13.2	11.6
Incr Delay (d2), s/veh	1.3	0.0	3.9	0.4	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.2	0.4	0.4	0.6	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.9	3.7	19.5	4.7	14.2	12.3
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	607			667	221	
Approach Delay, s/veh	9.1			5.9	13.2	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	6.5	18.1		24.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	7.5	38.5		50.5
Max Q Clear Time (g_c+l1), s		4.1	3.0	10.1		8.8
Green Ext Time (p_c), s		0.6	0.0	3.5		4.1
Intersection Summary						
HCM 6th Ctrl Delay			8.3			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

Existing plus Project-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↗↘	↑	↑	↗	↘	↗	
Traffic Volume (veh/h)	333	252	391	472	230	237	
Future Volume (veh/h)	333	252	391	472	230	237	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	358	271	420	508	247	255	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	537	1140	673	889	359	566	
Arrive On Green	0.16	0.61	0.36	0.36	0.20	0.20	
Sat Flow, veh/h	3456	1870	1870	1581	1781	1585	
Grp Volume(v), veh/h	358	271	420	508	247	255	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1581	1781	1585	
Q Serve(g_s), s	4.7	3.2	8.8	9.9	6.1	5.9	
Cycle Q Clear(g_c), s	4.7	3.2	8.8	9.9	6.1	5.9	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	537	1140	673	889	359	566	
V/C Ratio(X)	0.67	0.24	0.62	0.57	0.69	0.45	
Avail Cap(c_a), veh/h	1123	2058	1274	1396	1064	1193	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	19.0	4.2	12.6	6.8	17.7	11.8	
Incr Delay (d2), s/veh	1.4	0.1	1.0	0.6	2.3	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.6	0.5	3.3	4.5	2.2	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.4	4.4	13.6	7.3	20.0	12.3	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		629	928		502		
Approach Delay, s/veh		13.5	10.2		16.1		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				33.6	14.1	11.9	21.7
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				52.5	28.5	15.5	32.5
Max Q Clear Time (g_c+I1), s				5.2	8.1	6.7	11.9
Green Ext Time (p_c), s				1.5	1.5	0.8	4.9
Intersection Summary							
HCM 6th Ctrl Delay			12.6				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	9	118	322	20	132	157
Future Vol, veh/h	9	118	322	20	132	157
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	155	424	26	174	207

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	992	438	0	0	450	0
Stage 1	437	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	272	619	-	-	1110	-
Stage 1	651	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	224	618	-	-	1110	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	473	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	550	1110
HCM Lane V/C Ratio	-	-	0.304	0.156
HCM Control Delay (s)	-	-	14.4	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.3	0.6

Intersection	
Intersection Delay, s/veh	20.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑		↔		↔		↔	
Traffic Vol, veh/h	0	103	0	16	106	0	464	0	23	0	0	0
Future Vol, veh/h	0	103	0	16	106	0	464	0	23	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	108	0	17	112	0	488	0	24	0	0	0
Number of Lanes	0	1	0	1	1	0	1	0	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	1
HCM Control Delay	10.8	10.4	24.8	0
HCM LOS	B	B	C	-

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	464	23	103	16	106	0
LT Vol	464	0	0	16	0	0
Through Vol	0	0	103	0	106	0
RT Vol	0	23	0	0	0	0
Lane Flow Rate	488	24	108	17	112	0
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.776	0.03	0.191	0.032	0.195	0
Departure Headway (Hd)	5.716	4.511	6.337	6.801	6.293	6.124
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	625	782	569	529	574	0
Service Time	3.511	2.305	4.341	4.504	3.997	4.14
HCM Lane V/C Ratio	0.781	0.031	0.19	0.032	0.195	0
HCM Control Delay	25.7	7.4	10.8	9.7	10.5	9.1
HCM Lane LOS	D	A	B	A	B	N
HCM 95th-tile Q	7.3	0.1	0.7	0.1	0.7	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	500	0	486	16	0
Future Vol, veh/h	0	500	0	486	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	526	0	512	17	0

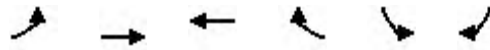
Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	526	-
Stage 1	-	-	0	-
Stage 2	-	-	526	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	512	0
Stage 1	0	-	-	0
Stage 2	0	-	593	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	512	-
Mov Cap-2 Maneuver	-	-	512	-
Stage 1	-	-	-	-
Stage 2	-	-	593	-

Approach	EB	SB
HCM Control Delay, s	0	12.3
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	512
HCM Lane V/C Ratio	-	0.033
HCM Control Delay (s)	-	12.3
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

HCM 6th Signalized Intersection Summary
 3: Pleasant Valley Rd & El Dorado Rd

NT plus Project 2033-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↙	↘
Traffic Volume (veh/h)	61	457	425	211	220	53
Future Volume (veh/h)	61	457	425	211	220	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	481	447	222	232	56
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	166	740	614	305	362	322
Arrive On Green	0.52	0.52	0.52	0.52	0.20	0.20
Sat Flow, veh/h	83	1416	1176	584	1781	1585
Grp Volume(v), veh/h	545	0	0	669	232	56
Grp Sat Flow(s),veh/h/ln	1498	0	0	1760	1781	1585
Q Serve(g_s), s	1.2	0.0	0.0	9.6	3.9	1.0
Cycle Q Clear(g_c), s	10.8	0.0	0.0	9.6	3.9	1.0
Prop In Lane	0.12			0.33	1.00	1.00
Lane Grp Cap(c), veh/h	905	0	0	919	362	322
V/C Ratio(X)	0.60	0.00	0.00	0.73	0.64	0.17
Avail Cap(c_a), veh/h	2823	0	0	2386	1329	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.4	0.0	0.0	6.0	12.0	10.8
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.1	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.6	1.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.1	0.0	0.0	7.2	13.9	11.1
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		545	669		288	
Approach Delay, s/veh		6.1	7.2		13.3	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				21.7	11.2	21.7
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				56.5	24.5	44.5
Max Q Clear Time (g_c+I1), s				12.8	5.9	11.6
Green Ext Time (p_c), s				4.3	0.8	5.3

Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 4: SR-49 & Pleasant Valley Rd/Pleasant Valley Rd - SR-49

NT plus Project 2033-IMP
 Timing Plan: AM Peak Hour

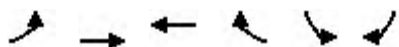


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	0	484	191	150	417	1	240	0	240	0	1	0
Future Volume (veh/h)	0	484	191	150	417	1	240	0	240	0	1	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	509	201	158	439	1	253	0	253	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	507	200	191	1034	2	318	0	258	0	647	0
Arrive On Green	0.00	0.40	0.40	0.11	0.55	0.55	0.35	0.00	0.35	0.00	0.35	0.00
Sat Flow, veh/h	0	1276	504	1781	1865	4	746	0	746	0	1870	0
Grp Volume(v), veh/h	0	0	710	158	0	440	506	0	0	0	1	0
Grp Sat Flow(s),veh/h/ln	0	0	1780	1781	0	1870	1492	0	0	0	1870	0
Q Serve(g_s), s	0.0	0.0	35.7	7.8	0.0	12.3	30.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	35.7	7.8	0.0	12.3	30.2	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.28	1.00		0.00	0.50		0.50	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	707	191	0	1036	576	0	0	0	647	0
V/C Ratio(X)	0.00	0.00	1.00	0.83	0.00	0.42	0.88	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	707	192	0	1037	576	0	0	0	647	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	27.1	39.3	0.0	11.7	29.1	0.0	0.0	0.0	19.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	35.1	24.9	0.0	0.3	14.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	0.0	21.4	4.7	0.0	4.9	12.8	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	62.2	64.2	0.0	12.0	43.6	0.0	0.0	0.0	19.3	0.0
LnGrp LOS	A	A	F	E	A	B	D	A	A	A	B	A
Approach Vol, veh/h		710			598			506				1
Approach Delay, s/veh		62.2			25.8			43.6				19.3
Approach LOS		E			C			D				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		35.6	14.1	40.2		35.6		54.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		31.1	9.7	35.7		31.1		49.9				
Max Q Clear Time (g_c+I1), s		32.2	9.8	37.7		2.0		14.3				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0		3.2				
Intersection Summary												
HCM 6th Ctrl Delay			45.0									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

5: Pleasant Valley Rd - SR-49 & Forni Rd

NT plus Project 2033-IMP
Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	171	540	467	55	63	90	
Future Volume (veh/h)	171	540	467	55	63	90	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	180	568	492	58	66	95	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	520	1194	676	80	230	205	
Arrive On Green	0.11	0.64	0.41	0.41	0.13	0.13	
Sat Flow, veh/h	1781	1870	1642	194	1781	1585	
Grp Volume(v), veh/h	180	568	0	550	66	95	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1836	1781	1585	
Q Serve(g_s), s	1.9	6.1	0.0	9.7	1.3	2.1	
Cycle Q Clear(g_c), s	1.9	6.1	0.0	9.7	1.3	2.1	
Prop In Lane	1.00			0.11	1.00	1.00	
Lane Grp Cap(c), veh/h	520	1194	0	755	230	205	
V/C Ratio(X)	0.35	0.48	0.00	0.73	0.29	0.46	
Avail Cap(c_a), veh/h	1138	2957	0	1849	911	811	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	6.2	3.6	0.0	9.6	15.2	15.6	
Incr Delay (d2), s/veh	0.4	0.3	0.0	1.4	0.7	1.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	1.1	0.0	3.2	0.5	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	6.6	3.9	0.0	10.9	15.9	17.2	
LnGrp LOS	A	A	A	B	B	B	
Approach Vol, veh/h		748	550		161		
Approach Delay, s/veh		4.6	10.9		16.7		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				29.2	9.5	8.8	20.4
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				61.2	19.8	17.7	39.0
Max Q Clear Time (g_c+I1), s				8.1	4.1	3.9	11.7
Green Ext Time (p_c), s				4.7	0.4	0.4	4.2

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT plus Project 2033-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	325	279	368	345	35	140	26	256	15	5	12
Future Volume (veh/h)	38	325	279	368	345	35	140	26	256	15	5	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	342	294	387	363	37	147	27	269	16	5	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	441	373	438	739	75	481	81	532	217	78	139
Arrive On Green	0.04	0.24	0.24	0.25	0.44	0.44	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1870	1582	1781	1666	170	1164	241	1580	434	233	413
Grp Volume(v), veh/h	40	342	294	387	0	400	174	0	269	34	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1835	1405	0	1580	1080	0	0
Q Serve(g_s), s	1.6	12.7	13.0	15.6	0.0	11.5	0.0	0.0	10.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	1.6	12.7	13.0	15.6	0.0	11.5	7.6	0.0	10.1	7.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.09	0.84		1.00	0.47		0.38
Lane Grp Cap(c), veh/h	67	441	373	438	0	815	562	0	532	435	0	0
V/C Ratio(X)	0.59	0.77	0.79	0.88	0.00	0.49	0.31	0.00	0.51	0.08	0.00	0.00
Avail Cap(c_a), veh/h	151	680	575	587	0	1117	562	0	532	435	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.2	26.5	26.6	27.0	0.0	14.7	18.8	0.0	19.7	16.9	0.0	0.0
Incr Delay (d2), s/veh	8.1	3.0	4.0	11.9	0.0	0.5	1.4	0.0	3.4	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.6	4.9	7.5	0.0	4.3	2.4	0.0	3.9	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	29.5	30.6	38.9	0.0	15.1	20.2	0.0	23.1	17.2	0.0	0.0
LnGrp LOS	D	C	C	D	A	B	C	A	C	B	A	A
Approach Vol, veh/h		676			787			443			34	
Approach Delay, s/veh		30.8			26.8			22.0			17.2	
Approach LOS		C			C			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.5	22.8	22.0		29.5	7.3	37.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	6.3	45.2				
Max Q Clear Time (g_c+I1), s		12.1	17.6	15.0		9.7	3.6	13.5				
Green Ext Time (p_c), s		1.7	0.7	2.4		0.1	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay											26.9	
HCM 6th LOS											C	

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕		↕		↕	
Traffic Vol, veh/h	1	477	100	81	662	0	48	0	62	1	0	2
Future Vol, veh/h	1	477	100	81	662	0	48	0	62	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	0	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	502	105	85	697	0	51	0	65	1	0	2













Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	698	0	0	607	0	0	1425	-	555	1457	1477	698
Stage 1	-	-	-	-	-	-	557	-	-	868	868	-
Stage 2	-	-	-	-	-	-	868	-	-	589	609	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	898	-	-	971	-	-	113	0	531	108	126	440
Stage 1	-	-	-	-	-	-	515	0	-	347	370	-
Stage 2	-	-	-	-	-	-	347	0	-	494	485	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	897	-	-	971	-	-	105	-	531	88	115	440
Mov Cap-2 Maneuver	-	-	-	-	-	-	105	-	-	88	115	-
Stage 1	-	-	-	-	-	-	514	-	-	346	337	-
Stage 2	-	-	-	-	-	-	315	-	-	432	484	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1			36.7			24.4		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	105	531	897	-	-	971	-	-	189
HCM Lane V/C Ratio	0.481	0.123	0.001	-	-	0.088	-	-	0.017
HCM Control Delay (s)	67.6	12.7	9	0	-	9.1	-	-	24.4
HCM Lane LOS	F	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	2.1	0.4	0	-	-	0.3	-	-	0.1

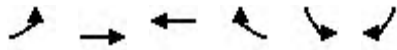
HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

NT plus Project 2033-IMP
 Timing Plan: AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	563	83	57	638	110	118
Future Volume (veh/h)	563	83	57	638	110	118
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	593	87	60	672	116	124
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	803	904	111	1148	251	322
Arrive On Green	0.43	0.43	0.06	0.61	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	593	87	60	672	116	124
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	9.7	0.9	1.2	8.0	2.2	2.5
Cycle Q Clear(g_c), s	9.7	0.9	1.2	8.0	2.2	2.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	803	904	111	1148	251	322
V/C Ratio(X)	0.74	0.10	0.54	0.59	0.46	0.38
Avail Cap(c_a), veh/h	2011	1927	364	2621	1430	1371
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	3.6	16.7	4.3	14.5	12.6
Incr Delay (d2), s/veh	1.4	0.0	4.0	0.5	1.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.2	0.5	0.5	0.8	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	3.6	20.8	4.7	15.8	13.4
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	680			732	240	
Approach Delay, s/veh	9.3			6.1	14.6	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.7	6.8	20.3		27.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	7.5	39.5		51.5
Max Q Clear Time (g_c+I1), s		4.5	3.2	11.7		10.0
Green Ext Time (p_c), s		0.7	0.0	4.0		4.7
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT plus Project 2033-IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	392	311	432	390	215	290	
Future Volume (veh/h)	392	311	432	390	215	290	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	413	327	455	411	226	305	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	591	1137	651	892	384	613	
Arrive On Green	0.17	0.61	0.35	0.35	0.22	0.22	
Sat Flow, veh/h	3456	1870	1870	1580	1781	1585	
Grp Volume(v), veh/h	413	327	455	411	226	305	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1580	1781	1585	
Q Serve(g_s), s	5.7	4.2	10.7	7.8	5.8	7.4	
Cycle Q Clear(g_c), s	5.7	4.2	10.7	7.8	5.8	7.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	591	1137	651	892	384	613	
V/C Ratio(X)	0.70	0.29	0.70	0.46	0.59	0.50	
Avail Cap(c_a), veh/h	1160	2008	1215	1369	920	1090	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	19.9	4.8	14.3	6.5	17.9	11.9	
Incr Delay (d2), s/veh	1.5	0.1	1.4	0.4	1.4	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.0	0.8	4.2	3.7	2.1	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.4	4.9	15.7	6.9	19.4	12.5	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		740	866		531		
Approach Delay, s/veh		14.1	11.5		15.4		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				35.5	15.5	13.2	22.2
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				54.7	26.3	17.1	33.1
Max Q Clear Time (g_c+I1), s				6.2	9.4	7.7	12.7
Green Ext Time (p_c), s				1.9	1.5	1.0	4.6
Intersection Summary							
HCM 6th Ctrl Delay			13.4				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	S	S
Traffic Vol, veh/h	19	152	333	41	172	166
Future Vol, veh/h	19	152	333	41	172	166
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	160	351	43	181	175

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	910	374	0	0	394
Stage 1	373	-	-	-	-
Stage 2	537	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	305	672	-	-	1165
Stage 1	696	-	-	-	-
Stage 2	586	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	253	671	-	-	1165
Mov Cap-2 Maneuver	253	-	-	-	-
Stage 1	696	-	-	-	-
Stage 2	485	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	4.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	567	1165
HCM Lane V/C Ratio	-	-	0.317	0.155
HCM Control Delay (s)	-	-	14.3	8.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.4	0.6

Intersection	
Intersection Delay, s/veh	28.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑		↔		↔		↔	
Traffic Vol, veh/h	0	242	0	33	161	0	474	0	41	0	0	0
Future Vol, veh/h	0	242	0	33	161	0	474	0	41	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	255	0	35	169	0	499	0	43	0	0	0
Number of Lanes	0	1	0	1	1	0	1	0	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	1
HCM Control Delay	15.8	12.5	41.1	0
HCM LOS	C	B	E	-

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	474	41	242	33	161	0
LT Vol	474	0	0	33	0	0
Through Vol	0	0	242	0	161	0
RT Vol	0	41	0	0	0	0
Lane Flow Rate	499	43	255	35	169	0
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.905	0.064	0.476	0.071	0.323	0
Departure Headway (Hd)	6.533	5.32	6.727	7.365	6.854	7.342
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	554	672	532	484	522	0
Service Time	4.28	3.066	4.796	5.143	4.632	5.342
HCM Lane V/C Ratio	0.901	0.064	0.479	0.072	0.324	0
HCM Control Delay	43.9	8.4	15.8	10.7	12.9	10.3
HCM Lane LOS	E	A	C	B	B	N
HCM 95th-tile Q	10.8	0.2	2.5	0.2	1.4	0

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	588	0	514	33	0
Future Vol, veh/h	0	588	0	514	33	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	619	0	541	35	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	619	-
Stage 1	-	-	0	-
Stage 2	-	-	619	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	452	0
Stage 1	0	-	-	0
Stage 2	0	-	537	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	452	-
Mov Cap-2 Maneuver	-	-	452	-
Stage 1	-	-	-	-
Stage 2	-	-	537	-

Approach	EB	SB
HCM Control Delay, s	0	13.6
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	452
HCM Lane V/C Ratio	-	0.077
HCM Control Delay (s)	-	13.6
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.2

HCM 6th Signalized Intersection Summary
 3: Pleasant Valley Rd & El Dorado Rd

NT plus Project 2033-IMP
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↷	↶
Traffic Volume (veh/h)	22	584	445	183	219	69
Future Volume (veh/h)	22	584	445	183	219	69
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	615	468	193	231	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	129	927	645	266	368	328
Arrive On Green	0.51	0.51	0.51	0.51	0.21	0.21
Sat Flow, veh/h	25	1809	1258	519	1781	1585
Grp Volume(v), veh/h	638	0	0	661	231	73
Grp Sat Flow(s),veh/h/ln	1835	0	0	1777	1781	1585
Q Serve(g_s), s	0.0	0.0	0.0	9.3	3.8	1.2
Cycle Q Clear(g_c), s	8.1	0.0	0.0	9.3	3.8	1.2
Prop In Lane	0.04			0.29	1.00	1.00
Lane Grp Cap(c), veh/h	1056	0	0	911	368	328
V/C Ratio(X)	0.60	0.00	0.00	0.73	0.63	0.22
Avail Cap(c_a), veh/h	3148	0	0	2467	1495	1330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.8	0.0	0.0	6.1	11.6	10.6
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.1	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	1.6	1.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.3	0.0	0.0	7.2	13.3	10.9
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		638	661		304	
Approach Delay, s/veh		6.3	7.2		12.8	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				20.9	11.1	20.9
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				54.1	26.9	44.5
Max Q Clear Time (g_c+I1), s				10.1	5.8	11.3
Green Ext Time (p_c), s				5.0	0.8	5.2

Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 4: SR-49 & Pleasant Valley Rd/Pleasant Valley Rd - SR-49

NT plus Project 2033-IMP
 Timing Plan: PM Peak Hour

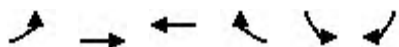


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	1	526	260	256	424	4	184	1	185	3	0	1
Future Volume (veh/h)	1	526	260	256	424	4	184	1	185	3	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.97		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	554	274	269	446	4	194	1	195	3	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	535	264	277	1219	11	233	2	175	259	10	66
Arrive On Green	0.45	0.45	0.45	0.16	0.66	0.66	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	0	1180	583	1781	1851	17	716	9	725	786	41	275
Grp Volume(v), veh/h	829	0	0	269	0	450	390	0	0	4	0	0
Grp Sat Flow(s),veh/h/ln	1763	0	0	1781	0	1867	1449	0	0	1102	0	0
Q Serve(g_s), s	5.3	0.0	0.0	13.5	0.0	9.7	21.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	40.8	0.0	0.0	13.5	0.0	9.7	21.7	0.0	0.0	0.2	0.0	0.0
Prop In Lane	0.00		0.33	1.00		0.01	0.50		0.50	0.75		0.25
Lane Grp Cap(c), veh/h	839	0	0	277	0	1230	409	0	0	336	0	0
V/C Ratio(X)	0.99	0.00	0.00	0.97	0.00	0.37	0.95	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	839	0	0	277	0	1230	409	0	0	336	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.3	0.0	0.0	37.8	0.0	6.9	35.3	0.0	0.0	26.0	0.0	0.0
Incr Delay (d2), s/veh	28.0	0.0	0.0	45.9	0.0	0.2	32.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.7	0.0	0.0	9.4	0.0	3.5	12.4	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	0.0	0.0	83.7	0.0	7.1	67.7	0.0	0.0	26.0	0.0	0.0
LnGrp LOS	D	A	A	F	A	A	E	A	A	C	A	A
Approach Vol, veh/h		829			719			390				4
Approach Delay, s/veh		53.3			35.7			67.7				26.0
Approach LOS		D			D			E				C
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		26.2	18.5	45.3		26.2		63.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.7	14.0	40.8		21.7		59.3				
Max Q Clear Time (g_c+I1), s		23.7	15.5	42.8		2.2		11.7				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0		3.4				
Intersection Summary												
HCM 6th Ctrl Delay				49.6								
HCM 6th LOS				D								

HCM 6th Signalized Intersection Summary

5: Pleasant Valley Rd - SR-49 & Forni Rd

NT plus Project 2033-IMP
Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	176	522	417	60	70	264	
Future Volume (veh/h)	176	522	417	60	70	264	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	185	549	439	63	74	278	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	453	1059	583	84	412	367	
Arrive On Green	0.10	0.57	0.36	0.36	0.23	0.23	
Sat Flow, veh/h	1781	1870	1599	229	1781	1585	
Grp Volume(v), veh/h	185	549	0	502	74	278	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1829	1781	1585	
Q Serve(g_s), s	2.5	8.0	0.0	10.7	1.5	7.3	
Cycle Q Clear(g_c), s	2.5	8.0	0.0	10.7	1.5	7.3	
Prop In Lane	1.00			0.13	1.00	1.00	
Lane Grp Cap(c), veh/h	453	1059	0	667	412	367	
V/C Ratio(X)	0.41	0.52	0.00	0.75	0.18	0.76	
Avail Cap(c_a), veh/h	933	2331	0	1417	1020	908	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	8.2	5.9	0.0	12.4	13.7	15.9	
Incr Delay (d2), s/veh	0.6	0.4	0.0	1.8	0.2	3.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/lr	0.8	2.2	0.0	3.9	0.5	0.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	8.8	6.3	0.0	14.1	13.9	19.2	
LnGrp LOS	A	A	A	B	B	B	
Approach Vol, veh/h		734	502		352		
Approach Delay, s/veh		7.0	14.1		18.1		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				29.7	14.8	9.0	20.7
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				55.5	25.5	16.5	34.5
Max Q Clear Time (g_c+I1), s				10.0	9.3	4.5	12.7
Green Ext Time (p_c), s				4.4	1.0	0.4	3.5

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT plus Project 2033-IMP
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	461	107	88	379	24	65	0	73	31	0	10
Future Volume (veh/h)	19	461	107	88	379	24	65	0	73	31	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	485	113	93	399	25	68	0	77	33	0	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	588	498	121	624	39	704	0	663	502	13	141
Arrive On Green	0.02	0.31	0.31	0.07	0.36	0.36	0.42	0.00	0.42	0.42	0.00	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1739	109	1427	0	1581	975	31	336
Grp Volume(v), veh/h	20	485	113	93	0	424	68	0	77	44	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1848	1427	0	1581	1342	0	0
Q Serve(g_s), s	0.8	16.3	3.6	3.5	0.0	13.0	0.0	0.0	2.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.8	16.3	3.6	3.5	0.0	13.0	1.6	0.0	2.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	0.75		0.25
Lane Grp Cap(c), veh/h	41	588	498	121	0	664	704	0	663	655	0	0
V/C Ratio(X)	0.49	0.82	0.23	0.77	0.00	0.64	0.10	0.00	0.12	0.07	0.00	0.00
Avail Cap(c_a), veh/h	170	1004	851	301	0	1128	704	0	663	655	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.8	21.6	17.2	31.2	0.0	18.1	11.9	0.0	12.1	12.0	0.0	0.0
Incr Delay (d2), s/veh	8.6	3.0	0.2	9.8	0.0	1.0	0.3	0.0	0.4	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	6.8	1.2	1.7	0.0	5.0	0.6	0.0	0.7	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	24.6	17.4	41.0	0.0	19.2	12.2	0.0	12.4	12.1	0.0	0.0
LnGrp LOS	D	C	B	D	A	B	B	A	B	B	A	A
Approach Vol, veh/h		618			517			145			44	
Approach Delay, s/veh		23.8			23.1			12.3			12.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.0	9.1	25.9		33.0	6.1	28.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	11.5	36.5		28.5	6.5	41.5				
Max Q Clear Time (g_c+I1), s		4.0	5.5	18.3		4.0	2.8	15.0				
Green Ext Time (p_c), s		0.6	0.1	3.1		0.2	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay											21.9	
HCM 6th LOS											C	

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕		↕		↕	
Traffic Vol, veh/h	3	487	62	92	435	2	45	0	48	0	1	0
Future Vol, veh/h	3	487	62	92	435	2	45	0	48	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	0	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	513	65	97	458	2	47	0	51	0	1	0

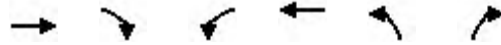
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	581	0	0	1209	-	549	1230	1240	459
Stage 1	-	-	-	-	-	-	555	-	-	653	653	-
Stage 2	-	-	-	-	-	-	654	-	-	577	587	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1101	-	-	993	-	-	160	0	535	154	175	602
Stage 1	-	-	-	-	-	-	516	0	-	456	464	-
Stage 2	-	-	-	-	-	-	456	0	-	502	497	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1101	-	-	990	-	-	146	-	533	129	157	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	146	-	-	129	157	-
Stage 1	-	-	-	-	-	-	512	-	-	454	419	-
Stage 2	-	-	-	-	-	-	410	-	-	453	494	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.6			26.3			28.1		
HCM LOS							D			D		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	146	533	1101	-	-	990	-	-	157
HCM Lane V/C Ratio	0.324	0.095	0.003	-	-	0.098	-	-	0.007
HCM Control Delay (s)	41.1	12.5	8.3	0	-	9	-	-	28.1
HCM Lane LOS	E	B	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	1.3	0.3	0	-	-	0.3	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

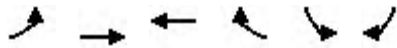
NT plus Project 2033-IMP
 Timing Plan: PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	428	95	173	390	79	99
Future Volume (veh/h)	428	95	173	390	79	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	451	100	182	411	83	104
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	646	769	244	1137	249	438
Arrive On Green	0.35	0.35	0.14	0.61	0.14	0.14
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	451	100	182	411	83	104
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	7.4	1.2	3.5	3.9	1.5	1.8
Cycle Q Clear(g_c), s	7.4	1.2	3.5	3.9	1.5	1.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	646	769	244	1137	249	438
V/C Ratio(X)	0.70	0.13	0.75	0.36	0.33	0.24
Avail Cap(c_a), veh/h	1597	1573	823	2696	1471	1525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	5.0	14.8	3.5	13.9	10.0
Incr Delay (d2), s/veh	1.4	0.1	4.5	0.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.3	1.3	0.2	0.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.5	5.1	19.4	3.7	14.6	10.3
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	551			593	187	
Approach Delay, s/veh	10.3			8.5	12.2	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	9.4	16.8		26.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	16.5	30.5		51.5
Max Q Clear Time (g_c+I1), s		3.8	5.5	9.4		5.9
Green Ext Time (p_c), s		0.5	0.3	2.8		2.5
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT plus Project 2033-IMP
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	249	342	265	295	495	310	
Future Volume (veh/h)	249	342	265	295	495	310	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	262	360	279	311	521	326	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	403	849	458	959	643	757	
Arrive On Green	0.12	0.45	0.25	0.25	0.36	0.36	
Sat Flow, veh/h	3456	1870	1870	1579	1781	1585	
Grp Volume(v), veh/h	262	360	279	311	521	326	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1579	1781	1585	
Q Serve(g_s), s	3.5	6.3	6.4	4.7	12.9	6.6	
Cycle Q Clear(g_c), s	3.5	6.3	6.4	4.7	12.9	6.6	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	403	849	458	959	643	757	
V/C Ratio(X)	0.65	0.42	0.61	0.32	0.81	0.43	
Avail Cap(c_a), veh/h	674	1766	1229	1610	1280	1324	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.6	9.0	16.3	4.7	14.0	8.4	
Incr Delay (d2), s/veh	1.8	0.3	1.3	0.2	2.5	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.3	1.8	2.6	3.0	4.2	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.3	9.3	17.6	4.9	16.5	8.7	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		622	590		847		
Approach Delay, s/veh		14.8	10.9		13.5		
Approach LOS		B	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			26.6		22.1	10.2	16.4
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			46.0		35.0	9.5	32.0
Max Q Clear Time (g_c+I1), s			8.3		14.9	5.5	8.4
Green Ext Time (p_c), s			2.1		2.7	0.3	2.9
Intersection Summary							
HCM 6th Ctrl Delay			13.2				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	5	95	258	16	130	400
Future Vol, veh/h	5	95	258	16	130	400
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	100	272	17	137	421

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	976	281	0	0	289
Stage 1	281	-	-	-	-
Stage 2	695	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	279	758	-	-	1273
Stage 1	767	-	-	-	-
Stage 2	495	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	240	758	-	-	1273
Mov Cap-2 Maneuver	240	-	-	-	-
Stage 1	767	-	-	-	-
Stage 2	426	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	684	1273
HCM Lane V/C Ratio	-	-	0.154	0.107
HCM Control Delay (s)	-	-	11.2	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.4

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑		↔		↔		↔	
Traffic Vol, veh/h	0	107	0	17	85	0	437	0	21	0	0	0
Future Vol, veh/h	0	107	0	17	85	0	437	0	21	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	113	0	18	89	0	460	0	22	0	0	0
Number of Lanes	0	1	0	1	1	0	1	0	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	1
HCM Control Delay	10.6	9.9	21.3	0
HCM LOS	B	A	C	-

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	437	21	107	17	85	0
LT Vol	437	0	0	17	0	0
Through Vol	0	0	107	0	85	0
RT Vol	0	21	0	0	0	0
Lane Flow Rate	460	22	113	18	89	0
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.724	0.027	0.191	0.033	0.152	0
Departure Headway (Hd)	5.664	4.459	6.098	6.603	6.096	5.991
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	635	795	583	538	583	0
Service Time	3.436	2.23	4.187	4.394	3.887	3.991
HCM Lane V/C Ratio	0.724	0.028	0.194	0.033	0.153	0
HCM Control Delay	22	7.4	10.6	9.6	10	9
HCM Lane LOS	C	A	B	A	A	N
HCM 95th-tile Q	6.1	0.1	0.7	0.1	0.5	0

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	435	0	455	20	0
Future Vol, veh/h	0	435	0	455	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	458	0	479	21	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	458	-
Stage 1	-	-	0	-
Stage 2	-	-	458	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	561	0
Stage 1	0	-	-	0
Stage 2	0	-	637	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	561	-
Mov Cap-2 Maneuver	-	-	561	-
Stage 1	-	-	-	-
Stage 2	-	-	637	-

Approach	EB	SB
HCM Control Delay, s	0	11.7
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	561
HCM Lane V/C Ratio	-	0.038
HCM Control Delay (s)	-	11.7
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

HCM 6th Signalized Intersection Summary
 3: Pleasant Valley Rd & El Dorado Rd

NT plus Project 2033-IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Volume (veh/h)	4	465	464	81	96	6
Future Volume (veh/h)	4	465	464	81	96	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	489	488	85	101	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	147	818	682	119	356	317
Arrive On Green	0.44	0.44	0.44	0.44	0.20	0.20
Sat Flow, veh/h	4	1861	1551	270	1781	1585
Grp Volume(v), veh/h	493	0	0	573	101	6
Grp Sat Flow(s),veh/h/ln	1865	0	0	1822	1781	1585
Q Serve(g_s), s	0.0	0.0	0.0	6.4	1.2	0.1
Cycle Q Clear(g_c), s	5.0	0.0	0.0	6.4	1.2	0.1
Prop In Lane	0.01			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	965	0	0	801	356	317
V/C Ratio(X)	0.51	0.00	0.00	0.72	0.28	0.02
Avail Cap(c_a), veh/h	1485	0	0	1313	1283	1142
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.3	0.0	0.0	5.7	8.5	8.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.9	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.7	0.0	0.0	6.9	8.9	8.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		493	573		107	
Approach Delay, s/veh		5.7	6.9		8.9	
Approach LOS		A	A		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				15.5	9.5	15.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s				7.0	3.2	8.4
Green Ext Time (p_c), s				2.3	0.2	2.6
Intersection Summary						
HCM 6th Ctrl Delay			6.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 4: SR-49 & Pleasant Valley Rd/Pleasant Valley Rd - SR-49

NT plus Project 2033-IMP
 Timing Plan: Saturday Mid-Day

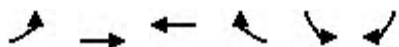


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	3	362	198	225	398	4	179	4	226	0	1	10
Future Volume (veh/h)	3	362	198	225	398	4	179	4	226	0	1	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.92		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	381	208	237	419	4	188	4	238	0	1	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	408	221	272	1044	10	251	13	254	0	41	449
Arrive On Green	0.36	0.36	0.36	0.15	0.56	0.56	0.33	0.33	0.33	0.00	0.33	0.33
Sat Flow, veh/h	2	1134	615	1781	1849	18	577	40	765	0	123	1352
Grp Volume(v), veh/h	592	0	0	237	0	423	430	0	0	0	0	12
Grp Sat Flow(s),veh/h/ln	1752	0	0	1781	0	1867	1383	0	0	0	0	1475
Q Serve(g_s), s	3.9	0.0	0.0	11.3	0.0	11.1	25.1	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	28.4	0.0	0.0	11.3	0.0	11.1	26.2	0.0	0.0	0.0	0.0	0.5
Prop In Lane	0.01		0.35	1.00		0.01	0.44		0.55	0.00		0.92
Lane Grp Cap(c), veh/h	672	0	0	272	0	1054	519	0	0	0	0	490
V/C Ratio(X)	0.88	0.00	0.00	0.87	0.00	0.40	0.83	0.00	0.00	0.00	0.00	0.02
Avail Cap(c_a), veh/h	697	0	0	277	0	1085	545	0	0	0	0	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	0.0	36.0	0.0	10.7	28.0	0.0	0.0	0.0	0.0	19.5
Incr Delay (d2), s/veh	12.3	0.0	0.0	24.4	0.0	0.2	10.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	3.7	0.0	0.0	6.7	0.0	4.4	9.8	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	0.0	60.4	0.0	10.9	38.0	0.0	0.0	0.0	0.0	19.6
LnGrp LOS	D	A	A	E	A	B	D	A	A	A	A	B
Approach Vol, veh/h		592			660			430				12
Approach Delay, s/veh		39.2			28.7			38.0				19.6
Approach LOS		D			C			D				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		33.4	17.8	35.8		33.4		53.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		30.5	13.5	32.5		30.5		50.5				
Max Q Clear Time (g_c+I1), s		28.2	13.3	30.4		2.5		13.1				
Green Ext Time (p_c), s		0.7	0.0	0.9		0.0		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				34.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

5: Pleasant Valley Rd - SR-49 & Forni Rd

NT plus Project 2033-IMP
Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	175	413	461	32	26	167	
Future Volume (veh/h)	175	413	461	32	26	167	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	184	435	485	34	27	176	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	488	1105	617	43	302	269	
Arrive On Green	0.11	0.59	0.36	0.36	0.17	0.17	
Sat Flow, veh/h	1781	1870	1727	121	1781	1585	
Grp Volume(v), veh/h	184	435	0	519	27	176	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1848	1781	1585	
Q Serve(g_s), s	2.1	4.7	0.0	9.4	0.5	3.9	
Cycle Q Clear(g_c), s	2.1	4.7	0.0	9.4	0.5	3.9	
Prop In Lane	1.00			0.07	1.00	1.00	
Lane Grp Cap(c), veh/h	488	1105	0	660	302	269	
V/C Ratio(X)	0.38	0.39	0.00	0.79	0.09	0.66	
Avail Cap(c_a), veh/h	523	1105	0	886	854	760	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	6.9	4.1	0.0	10.8	13.1	14.6	
Incr Delay (d2), s/veh	0.5	0.2	0.0	3.4	0.1	2.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.5	1.0	0.0	3.5	0.2	0.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	7.4	4.3	0.0	14.2	13.3	17.3	
LnGrp LOS	A	A	A	B	B	B	
Approach Vol, veh/h		619	519		203		
Approach Delay, s/veh		5.2	14.2		16.7		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				26.7	10.9	8.8	17.9
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s				6.7	5.9	4.1	11.4
Green Ext Time (p_c), s				2.2	0.5	0.0	1.9
Intersection Summary							
HCM 6th Ctrl Delay			10.4				
HCM 6th LOS			B				

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

NT plus Project 2033-IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	443	15	4	408	8	13	0	10	7	0	8
Future Volume (veh/h)	14	443	15	4	408	8	13	0	10	7	0	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	466	16	4	429	8	14	0	11	7	0	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	583	494	10	546	10	761	0	717	375	31	361
Arrive On Green	0.02	0.31	0.31	0.01	0.30	0.30	0.45	0.00	0.45	0.45	0.00	0.45
Sat Flow, veh/h	1781	1870	1585	1781	1829	34	1411	0	1585	631	68	798
Grp Volume(v), veh/h	15	466	16	4	0	437	14	0	11	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1863	1411	0	1585	1497	0	0
Q Serve(g_s), s	0.5	13.4	0.4	0.1	0.0	12.6	0.0	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	13.4	0.4	0.1	0.0	12.6	0.3	0.0	0.2	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.47		0.53
Lane Grp Cap(c), veh/h	33	583	494	10	0	557	761	0	717	767	0	0
V/C Ratio(X)	0.46	0.80	0.03	0.42	0.00	0.79	0.02	0.00	0.02	0.02	0.00	0.00
Avail Cap(c_a), veh/h	228	1357	1150	228	0	1352	761	0	717	767	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.5	18.5	14.0	29.0	0.0	18.8	8.9	0.0	8.8	8.9	0.0	0.0
Incr Delay (d2), s/veh	9.5	2.6	0.0	26.4	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.3	5.3	0.1	0.1	0.0	5.0	0.1	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	21.1	14.0	55.5	0.0	21.3	8.9	0.0	8.9	8.9	0.0	0.0
LnGrp LOS	D	C	B	E	A	C	A	A	A	A	A	A
Approach Vol, veh/h		497			441			25			15	
Approach Delay, s/veh		21.3			21.6			8.9			8.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		31.0	4.8	22.8		31.0	5.6	22.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	7.5	42.5		26.5	7.5	42.5				
Max Q Clear Time (g_c+I1), s		2.3	2.1	15.4		2.3	2.5	14.6				
Green Ext Time (p_c), s		0.1	0.0	2.9		0.0	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕		↕		↕	
Traffic Vol, veh/h	0	344	80	107	352	2	86	0	120	1	0	1
Future Vol, veh/h	0	344	80	107	352	2	86	0	120	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	0	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	362	84	113	371	2	91	0	126	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	373	0	0	447	0	0	1004	-	405	1065	1045	372
Stage 1	-	-	-	-	-	-	405	-	-	598	598	-
Stage 2	-	-	-	-	-	-	599	-	-	467	447	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1185	-	-	1113	-	-	220	0	646	200	229	674
Stage 1	-	-	-	-	-	-	622	0	-	489	491	-
Stage 2	-	-	-	-	-	-	488	0	-	576	573	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1185	-	-	1112	-	-	202	-	645	148	205	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	202	-	-	148	205	-
Stage 1	-	-	-	-	-	-	621	-	-	489	441	-
Stage 2	-	-	-	-	-	-	438	-	-	463	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2			22.2			19.9		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	202	645	1185	-	-	1112	-	-	243
HCM Lane V/C Ratio	0.448	0.196	-	-	-	0.101	-	-	0.009
HCM Control Delay (s)	36.5	11.9	0	-	-	8.6	-	-	19.9
HCM Lane LOS	E	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	2.1	0.7	0	-	-	0.3	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

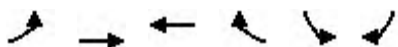
NT plus Project 2033-IMP
 Timing Plan: Saturday Mid-Day



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	412	82	106	501	84	112
Future Volume (veh/h)	412	82	106	501	84	112
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	434	86	112	527	88	118
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	639	782	173	1076	270	395
Arrive On Green	0.34	0.34	0.10	0.58	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	434	86	112	527	88	118
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	6.6	1.0	2.0	5.5	1.5	2.0
Cycle Q Clear(g_c), s	6.6	1.0	2.0	5.5	1.5	2.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	639	782	173	1076	270	395
V/C Ratio(X)	0.68	0.11	0.65	0.49	0.33	0.30
Avail Cap(c_a), veh/h	1844	1803	729	2865	1648	1621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	4.5	14.3	4.1	12.5	10.0
Incr Delay (d2), s/veh	1.3	0.1	4.0	0.3	0.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.2	0.8	0.3	0.5	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.6	4.5	18.3	4.5	13.2	10.5
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	520			639	206	
Approach Delay, s/veh	9.6			6.9	11.6	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	7.7	15.8		23.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		30.5	13.5	32.5		50.5
Max Q Clear Time (g_c+l1), s		4.0	4.0	8.6		7.5
Green Ext Time (p_c), s		0.6	0.2	2.7		3.4
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

NT plus Project 2033-IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	295	282	385	475	584	258	
Future Volume (veh/h)	295	282	385	475	584	258	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	311	297	405	500	615	272	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	407	891	545	1079	694	804	
Arrive On Green	0.12	0.48	0.29	0.29	0.39	0.39	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	311	297	405	500	615	272	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	5.8	6.6	13.1	9.9	21.6	6.8	
Cycle Q Clear(g_c), s	5.8	6.6	13.1	9.9	21.6	6.8	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	407	891	545	1079	694	804	
V/C Ratio(X)	0.76	0.33	0.74	0.46	0.89	0.34	
Avail Cap(c_a), veh/h	438	1255	893	1374	956	1038	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.7	10.9	21.5	5.0	19.1	9.8	
Incr Delay (d2), s/veh	7.3	0.2	2.0	0.3	7.7	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.6	2.2	5.8	7.8	8.8	7.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.0	11.2	23.5	5.3	26.8	10.1	
LnGrp LOS	D	B	C	A	C	B	
Approach Vol, veh/h		608	905		887		
Approach Delay, s/veh		23.8	13.5		21.7		
Approach LOS		C	B		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				36.4	30.6	12.4	24.0
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				45.0	36.0	8.5	32.0
Max Q Clear Time (g_c+I1), s				8.6	23.6	7.8	15.1
Green Ext Time (p_c), s				1.6	2.5	0.1	4.4
Intersection Summary							
HCM 6th Ctrl Delay			19.1				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	S	S
Traffic Vol, veh/h	6	90	313	3	56	330
Future Vol, veh/h	6	90	313	3	56	330
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	95	329	3	59	347

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	796	331	0	0	332	0
Stage 1	331	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	356	711	-	-	1227	-
Stage 1	728	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	335	711	-	-	1227	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	594	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	664	1227
HCM Lane V/C Ratio	-	-	0.152	0.048
HCM Control Delay (s)	-	-	11.4	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2

Intersection												
Int Delay, s/veh	9.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔		↔		↔		↔	
Traffic Vol, veh/h	0	127	0	20	127	0	515	0	26	0	0	0
Future Vol, veh/h	0	127	0	20	127	0	515	0	26	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	75	-	-	0	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	134	0	21	134	0	542	0	27	0	0	0

Major/Minor	Minor2			Minor1			Major2			
Conflicting Flow All	-	1	1	68	1	-	-	0	0	0
Stage 1	-	1	-	0	0	-	-	-	-	-
Stage 2	-	0	-	68	1	-	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	895	1084	925	895	0	-	-	-	-
Stage 1	0	895	-	-	-	0	-	-	-	-
Stage 2	0	-	-	942	895	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	819	895	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	819	895	-	-	-	-	-
Stage 1	-	895	-	-	-	-	-	-	-	-
Stage 2	-	-	-	801	895	-	-	-	-	-

Approach	EB			WB			SB		
HCM Control Delay, s	9.7			9.7			0		
HCM LOS	A			A					

Minor Lane/Major Mvmt	EBLn1WBLn1WBLn2			SBL	SBT	SBR
Capacity (veh/h)	895	819	895	-	-	-
HCM Lane V/C Ratio	0.149	0.026	0.149	-	-	-
HCM Control Delay (s)	9.7	9.5	9.7	0	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.5	0.1	0.5	-	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	594	0	540	20	0
Future Vol, veh/h	0	594	0	540	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	625	0	568	21	0

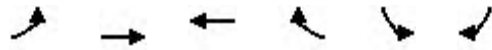
Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	625	-
Stage 1	-	-	0	-
Stage 2	-	-	625	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	449	0
Stage 1	0	-	-	0
Stage 2	0	-	534	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	449	-
Mov Cap-2 Maneuver	-	-	449	-
Stage 1	-	-	-	-
Stage 2	-	-	534	-

Approach	EB	SB
HCM Control Delay, s	0	13.4
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	449
HCM Lane V/C Ratio	-	0.047
HCM Control Delay (s)	-	13.4
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.1

HCM 6th Signalized Intersection Summary
 3: Pleasant Valley Rd & El Dorado Rd

2040 plus Project - IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Volume (veh/h)	100	516	441	272	303	87
Future Volume (veh/h)	100	516	441	272	303	87
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	543	464	286	319	92
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	133	585	500	308	778	692
Arrive On Green	0.46	0.46	0.93	0.93	0.44	0.44
Sat Flow, veh/h	187	1262	1079	665	1781	1585
Grp Volume(v), veh/h	648	0	0	750	319	92
Grp Sat Flow(s),veh/h/ln	1448	0	0	1744	1781	1585
Q Serve(g_s), s	30.0	0.0	0.0	20.3	11.1	3.1
Cycle Q Clear(g_c), s	39.2	0.0	0.0	20.3	11.1	3.1
Prop In Lane	0.16			0.38	1.00	1.00
Lane Grp Cap(c), veh/h	718	0	0	808	778	692
V/C Ratio(X)	0.90	0.00	0.00	0.93	0.41	0.13
Avail Cap(c_a), veh/h	994	0	0	1133	778	692
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	0.89	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	2.5	17.4	15.2
Incr Delay (d2), s/veh	8.8	0.0	0.0	9.3	1.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.9	0.0	0.0	3.2	4.5	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.4	0.0	0.0	11.8	19.0	15.6
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		648	750		411	
Approach Delay, s/veh		32.4	11.8		18.2	
Approach LOS		C	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				48.3	41.7	48.3
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				58.5	22.5	58.5
Max Q Clear Time (g_c+I1), s				41.2	13.1	22.3
Green Ext Time (p_c), s				4.6	0.9	6.5
Intersection Summary						
HCM 6th Ctrl Delay			20.6			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 4: SR-49 & Pleasant Valley Rd/Pleasant Valley Rd - SR-49

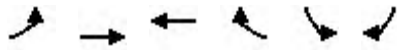
2040 plus Project - IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	0	581	222	157	478	1	261	0	247	0	1	0
Future Volume (veh/h)	0	581	222	157	478	1	261	0	247	0	1	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	612	234	165	503	1	275	0	260	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	570	218	180	1107	2	295	0	222	0	574	0
Arrive On Green	0.00	0.88	0.88	0.20	1.00	1.00	0.31	0.00	0.31	0.00	0.31	0.00
Sat Flow, veh/h	0	1289	493	1781	1866	4	766	0	724	0	1870	0
Grp Volume(v), veh/h	0	0	846	165	0	504	535	0	0	0	1	0
Grp Sat Flow(s),veh/h/ln	0	0	1782	1781	0	1870	1489	0	0	0	1870	0
Q Serve(g_s), s	0.0	0.0	39.8	8.2	0.0	0.0	27.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	39.8	8.2	0.0	0.0	27.6	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.28	1.00		0.00	0.51		0.49	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	788	180	0	1109	517	0	0	0	574	0
V/C Ratio(X)	0.00	0.00	1.07	0.92	0.00	0.45	1.03	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	788	180	0	1109	517	0	0	0	574	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.44	0.60	0.00	0.60	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	5.2	35.5	0.0	0.0	32.8	0.0	0.0	0.0	21.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	44.2	31.2	0.0	0.8	48.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	11.7	4.7	0.0	0.2	18.5	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	49.4	66.7	0.0	0.8	81.5	0.0	0.0	0.0	21.6	0.0
LnGrp LOS	A	A	F	E	A	A	F	A	A	A	C	A
Approach Vol, veh/h		846			669			535				1
Approach Delay, s/veh		49.4			17.1			81.5				21.6
Approach LOS		D			B			F				C
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		32.1	13.6	44.3		32.1		57.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		27.6	9.1	39.8		27.6		53.4				
Max Q Clear Time (g_c+I1), s		29.6	10.2	41.8		2.0		2.0				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0		4.0				
Intersection Summary												
HCM 6th Ctrl Delay												47.2
HCM 6th LOS												D

HCM 6th Signalized Intersection Summary
5: Pleasant Valley Rd - SR-49 & Forni Rd

2040 plus Project - IMP
Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	211	596	517	71	79	106	
Future Volume (veh/h)	211	596	517	71	79	106	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	222	627	544	75	83	112	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	259	919	574	79	728	648	
Arrive On Green	0.17	0.98	0.71	0.71	0.41	0.41	
Sat Flow, veh/h	1781	1870	1609	222	1781	1585	
Grp Volume(v), veh/h	222	627	0	619	83	112	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1830	1781	1585	
Q Serve(g_s), s	5.1	1.6	0.0	26.9	2.6	4.0	
Cycle Q Clear(g_c), s	5.1	1.6	0.0	26.9	2.6	4.0	
Prop In Lane	1.00			0.12	1.00	1.00	
Lane Grp Cap(c), veh/h	259	919	0	654	728	648	
V/C Ratio(X)	0.86	0.68	0.00	0.95	0.11	0.17	
Avail Cap(c_a), veh/h	471	1295	0	803	728	648	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00	
Upstream Filter(l)	0.09	0.09	0.00	0.79	1.00	1.00	
Uniform Delay (d), s/veh	34.9	0.4	0.0	12.1	16.5	16.9	
Incr Delay (d2), s/veh	0.8	0.1	0.0	15.2	0.3	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.3	0.2	0.0	7.1	1.1	4.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	35.7	0.5	0.0	27.3	16.8	17.5	
LnGrp LOS	D	A	A	C	B	B	
Approach Vol, veh/h		849	619		195		
Approach Delay, s/veh		9.7	27.3		17.2		
Approach LOS		A	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				48.7	41.3	12.1	36.6
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				62.3	18.7	18.3	39.5
Max Q Clear Time (g_c+I1), s				3.6	6.0	7.1	28.9
Green Ext Time (p_c), s				5.4	0.4	0.5	3.3

Intersection Summary

HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040 plus Project - IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	343	324	414	368	56	170	42	301	18	6	15
Future Volume (veh/h)	62	343	324	414	368	56	170	42	301	18	6	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	361	341	436	387	59	179	44	317	19	6	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	410	468	396	468	447	68	399	86	532	151	56	95
Arrive On Green	0.23	0.25	0.25	0.26	0.28	0.28	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1870	1582	1781	1580	241	969	256	1580	273	168	282
Grp Volume(v), veh/h	65	361	341	436	0	446	223	0	317	41	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	0	1820	1225	0	1580	723	0	0
Q Serve(g_s), s	2.6	16.1	18.5	21.5	0.0	20.9	0.0	0.0	15.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	2.6	16.1	18.5	21.5	0.0	20.9	16.4	0.0	15.0	16.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.13	0.80		1.00	0.46		0.39
Lane Grp Cap(c), veh/h	410	468	396	468	0	515	485	0	532	302	0	0
V/C Ratio(X)	0.16	0.77	0.86	0.93	0.00	0.87	0.46	0.00	0.60	0.14	0.00	0.00
Avail Cap(c_a), veh/h	410	561	475	485	0	862	485	0	532	302	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.7	31.4	32.3	32.4	0.0	30.6	25.1	0.0	24.7	21.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	4.5	11.1	24.4	0.0	5.1	3.1	0.0	4.8	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.5	7.9	11.9	0.0	9.3	4.4	0.0	6.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	35.9	43.3	56.7	0.0	35.7	28.2	0.0	29.6	22.3	0.0	0.0
LnGrp LOS	C	D	D	E	A	D	C	A	C	C	A	A
Approach Vol, veh/h		767			882			540				41
Approach Delay, s/veh		38.5			46.1			29.0				22.3
Approach LOS		D			D			C				C
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.8	28.2	27.0		34.8	25.2	30.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.0	24.5	27.0		25.0	8.9	42.6				
Max Q Clear Time (g_c+I1), s		18.4	23.5	20.5		18.8	4.6	22.9				
Green Ext Time (p_c), s		1.5	0.2	1.8		0.1	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay												38.9
HCM 6th LOS												D

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕		↕		↕	
Traffic Vol, veh/h	1	532	100	81	730	0	48	0	62	1	0	2
Future Vol, veh/h	1	532	100	81	730	0	48	0	62	1	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	0	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	560	105	85	768	0	51	0	65	1	0	2













Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	769	0	0	665	0	0	1554	-	613	1586	1606	769
Stage 1	-	-	-	-	-	-	615	-	-	939	939	-
Stage 2	-	-	-	-	-	-	939	-	-	647	667	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	845	-	-	924	-	-	92	0	492	87	105	401
Stage 1	-	-	-	-	-	-	479	0	-	317	343	-
Stage 2	-	-	-	-	-	-	317	0	-	460	457	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	844	-	-	924	-	-	85	-	492	70	95	401
Mov Cap-2 Maneuver	-	-	-	-	-	-	199	-	-	70	95	-
Stage 1	-	-	-	-	-	-	478	-	-	316	311	-
Stage 2	-	-	-	-	-	-	286	-	-	398	456	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.9			20.3			28.6		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	199	492	844	-	-	924	-	-	156
HCM Lane V/C Ratio	0.254	0.133	0.001	-	-	0.092	-	-	0.02
HCM Control Delay (s)	29.1	13.4	9.3	0	-	9.3	-	-	28.6
HCM Lane LOS	D	B	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	1	0.5	0	-	-	0.3	-	-	0.1

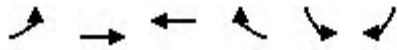
HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

2040 plus Project - IMP
 Timing Plan: AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	630	95	64	707	122	130
Future Volume (veh/h)	630	95	64	707	122	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	663	100	67	744	128	137
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	860	956	116	1189	255	330
Arrive On Green	0.46	0.46	0.07	0.64	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	663	100	67	744	128	137
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	12.1	1.1	1.5	9.8	2.7	3.0
Cycle Q Clear(g_c), s	12.1	1.1	1.5	9.8	2.7	3.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	860	956	116	1189	255	330
V/C Ratio(X)	0.77	0.10	0.58	0.63	0.50	0.41
Avail Cap(c_a), veh/h	1816	1766	328	2368	1292	1253
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	3.4	18.5	4.5	16.1	14.0
Incr Delay (d2), s/veh	1.5	0.0	4.4	0.5	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.3	0.6	0.9	1.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.7	3.5	22.9	5.0	17.6	14.8
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	763			811	265	
Approach Delay, s/veh	9.8			6.5	16.2	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		10.3	7.2	23.2		30.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	7.5	39.5		51.5
Max Q Clear Time (g_c+I1), s		5.0	3.5	14.1		11.8
Green Ext Time (p_c), s		0.8	0.0	4.6		5.5
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040 plus Project - IMP
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	433	352	460	332	205	327	
Future Volume (veh/h)	433	352	460	332	205	327	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	456	371	484	349	216	344	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	618	1140	655	917	408	646	
Arrive On Green	0.18	0.61	0.35	0.35	0.23	0.23	
Sat Flow, veh/h	3456	1870	1870	1581	1781	1585	
Grp Volume(v), veh/h	456	371	484	349	216	344	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1581	1781	1585	
Q Serve(g_s), s	7.0	5.4	12.7	6.7	5.9	9.2	
Cycle Q Clear(g_c), s	7.0	5.4	12.7	6.7	5.9	9.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	618	1140	655	917	408	646	
V/C Ratio(X)	0.74	0.33	0.74	0.38	0.53	0.53	
Avail Cap(c_a), veh/h	1022	1828	1123	1312	846	1036	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.7	5.3	15.9	6.3	18.9	12.5	
Incr Delay (d2), s/veh	1.8	0.2	1.7	0.3	1.1	0.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.6	1.2	5.1	3.4	2.2	8.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.4	5.5	17.5	6.6	19.9	13.2	
LnGrp LOS	C	A	B	A	B	B	
Approach Vol, veh/h		827	833		560		
Approach Delay, s/veh		15.4	13.0		15.8		
Approach LOS		B	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			38.5		17.3	14.5	24.0
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			54.5		26.5	16.5	33.5
Max Q Clear Time (g_c+I1), s			7.4		11.2	9.0	14.7
Green Ext Time (p_c), s			2.2		1.6	1.0	4.5
Intersection Summary							
HCM 6th Ctrl Delay			14.6				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	176	341	56	200	173
Future Vol, veh/h	26	176	341	56	200	173
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	185	359	59	211	182

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	993	390	0	0	418
Stage 1	389	-	-	-	-
Stage 2	604	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	272	658	-	-	1141
Stage 1	685	-	-	-	-
Stage 2	546	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	216	657	-	-	1141
Mov Cap-2 Maneuver	216	-	-	-	-
Stage 1	685	-	-	-	-
Stage 2	434	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	4.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	520	1141
HCM Lane V/C Ratio	-	-	0.409	0.185
HCM Control Delay (s)	-	-	16.6	8.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2	0.7

Intersection												
Int Delay, s/veh	10.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔		↔		↔		↔	
Traffic Vol, veh/h	0	301	0	40	206	0	560	0	50	0	0	0
Future Vol, veh/h	0	301	0	40	206	0	560	0	50	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	75	-	-	0	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	317	0	42	217	0	589	0	53	0	0	0

Major/Minor	Minor2			Minor1			Major2			
Conflicting Flow All	-	1	1	160	1	-	-	0	0	0
Stage 1	-	1	-	0	0	-	-	-	-	-
Stage 2	-	0	-	160	1	-	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	895	1084	806	895	0	-	-	-	-
Stage 1	0	895	-	-	-	0	-	-	-	-
Stage 2	0	-	-	842	895	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	584	895	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	584	895	-	-	-	-	-
Stage 1	-	895	-	-	-	-	-	-	-	-
Stage 2	-	-	-	544	895	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	11.2		10.5		0	
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	895	584	895	-	-	-
HCM Lane V/C Ratio	0.354	0.072	0.242	-	-	-
HCM Control Delay (s)	11.2	11.6	10.3	0	-	-
HCM Lane LOS	B	B	B	A	-	-
HCM 95th %tile Q(veh)	1.6	0.2	0.9	-	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	644	0	608	40	0
Future Vol, veh/h	0	644	0	608	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	678	0	640	42	0

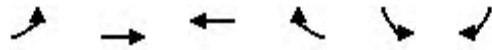
Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	678	-
Stage 1	-	-	0	-
Stage 2	-	-	678	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	418	0
Stage 1	0	-	-	0
Stage 2	0	-	504	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	418	-
Mov Cap-2 Maneuver	-	-	418	-
Stage 1	-	-	-	-
Stage 2	-	-	504	-

Approach	EB	SB
HCM Control Delay, s	0	14.6
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	418
HCM Lane V/C Ratio	-	0.101
HCM Control Delay (s)	-	14.6
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.3

HCM 6th Signalized Intersection Summary
 3: Pleasant Valley Rd & El Dorado Rd

2040 plus Project - IMP
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↖	↗
Traffic Volume (veh/h)	36	624	496	258	296	113
Future Volume (veh/h)	36	624	496	258	296	113
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	657	522	272	312	119
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	54	724	658	343	624	555
Arrive On Green	0.57	0.57	0.57	0.57	0.35	0.35
Sat Flow, veh/h	35	1274	1158	604	1781	1585
Grp Volume(v), veh/h	695	0	0	794	312	119
Grp Sat Flow(s),veh/h/ln	1310	0	0	1762	1781	1585
Q Serve(g_s), s	18.2	0.0	0.0	39.0	15.2	5.8
Cycle Q Clear(g_c), s	57.2	0.0	0.0	39.0	15.2	5.8
Prop In Lane	0.05			0.34	1.00	1.00
Lane Grp Cap(c), veh/h	778	0	0	1001	624	555
V/C Ratio(X)	0.89	0.00	0.00	0.79	0.50	0.21
Avail Cap(c_a), veh/h	872	0	0	1097	624	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	0.91	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	0.0	18.7	28.2	25.1
Incr Delay (d2), s/veh	10.8	0.0	0.0	3.4	2.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	0.0	0.0	15.6	6.7	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.8	0.0	0.0	22.1	31.0	26.0
LnGrp LOS	C	A	A	C	C	C
Approach Vol, veh/h		695	794		431	
Approach Delay, s/veh		31.8	22.1		29.6	
Approach LOS		C	C		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				67.0	43.0	67.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				68.5	32.5	68.5
Max Q Clear Time (g_c+I1), s				59.2	17.2	41.0
Green Ext Time (p_c), s				3.3	1.2	6.6
Intersection Summary						
HCM 6th Ctrl Delay			27.3			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary
 4: SR-49 & Pleasant Valley Rd/Pleasant Valley Rd - SR-49

2040 plus Project - IMP
 Timing Plan: PM Peak Hour

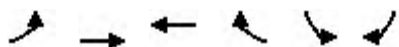


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	1	599	291	270	504	4	217	1	196	3	0	1
Future Volume (veh/h)	1	599	291	270	504	4	217	1	196	3	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.97		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	631	306	284	531	4	228	1	206	3	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	502	243	381	1256	9	232	1	165	254	8	68
Arrive On Green	0.85	0.85	0.85	0.43	1.00	1.00	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	0	1188	575	1781	1854	14	758	3	685	817	33	283
Grp Volume(v), veh/h	938	0	0	284	0	535	435	0	0	4	0	0
Grp Sat Flow(s),veh/h/ln	1764	0	0	1781	0	1868	1446	0	0	1134	0	0
Q Serve(g_s), s	6.3	0.0	0.0	14.7	0.0	0.0	26.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	46.5	0.0	0.0	14.7	0.0	0.0	26.5	0.0	0.0	0.2	0.0	0.0
Prop In Lane	0.00		0.33	1.00		0.01	0.52		0.47	0.75		0.25
Lane Grp Cap(c), veh/h	778	0	0	381	0	1265	398	0	0	330	0	0
V/C Ratio(X)	1.20	0.00	0.00	0.75	0.00	0.42	1.09	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	778	0	0	381	0	1265	398	0	0	330	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.00	0.00	0.68	0.00	0.68	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.5	0.0	0.0	29.0	0.0	0.0	43.4	0.0	0.0	31.8	0.0	0.0
Incr Delay (d2), s/veh	98.1	0.0	0.0	5.4	0.0	0.7	72.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.8	0.0	0.0	5.6	0.0	0.2	19.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.6	0.0	0.0	34.4	0.0	0.7	115.8	0.0	0.0	31.8	0.0	0.0
LnGrp LOS	F	A	A	C	A	A	F	A	A	C	A	A
Approach Vol, veh/h		938			819			435				4
Approach Delay, s/veh		107.6			12.4			115.8				31.8
Approach LOS		F			B			F				C
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		31.0	28.0	51.0		31.0		79.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		26.5	23.5	46.5		26.5		74.5				
Max Q Clear Time (g_c+I1), s		28.5	16.7	48.5		2.2		2.0				
Green Ext Time (p_c), s		0.0	0.5	0.0		0.0		4.3				
Intersection Summary												
HCM 6th Ctrl Delay				73.6								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary

5: Pleasant Valley Rd - SR-49 & Forni Rd

2040 plus Project - IMP
Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	206	564	440	86	103	334	
Future Volume (veh/h)	206	564	440	86	103	334	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	217	594	463	91	108	352	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	282	912	528	104	767	683	
Arrive On Green	0.20	0.97	0.11	0.11	0.43	0.43	
Sat Flow, veh/h	1781	1870	1518	298	1781	1585	
Grp Volume(v), veh/h	217	594	0	554	108	352	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1816	1781	1585	
Q Serve(g_s), s	8.4	2.4	0.0	33.0	4.0	17.9	
Cycle Q Clear(g_c), s	8.4	2.4	0.0	33.0	4.0	17.9	
Prop In Lane	1.00			0.16	1.00	1.00	
Lane Grp Cap(c), veh/h	282	912	0	632	767	683	
V/C Ratio(X)	0.77	0.65	0.00	0.88	0.14	0.52	
Avail Cap(c_a), veh/h	406	1216	0	801	767	683	
HCM Platoon Ratio	2.00	2.00	0.33	0.33	1.00	1.00	
Upstream Filter(l)	0.09	0.09	0.00	0.79	1.00	1.00	
Uniform Delay (d), s/veh	22.1	0.7	0.0	46.4	19.0	22.9	
Incr Delay (d2), s/veh	0.5	0.1	0.0	7.3	0.4	2.8	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.0	0.4	0.0	17.4	1.7	17.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.6	0.8	0.0	53.6	19.4	25.7	
LnGrp LOS	C	A	A	D	B	C	
Approach Vol, veh/h		811	554		460		
Approach Delay, s/veh		6.7	53.6		24.2		
Approach LOS		A	D		C		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			58.1		51.9	15.3	42.8
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			71.5		29.5	18.5	48.5
Max Q Clear Time (g_c+I1), s			4.4		19.9	10.4	35.0
Green Ext Time (p_c), s			5.0		1.1	0.4	3.3
Intersection Summary							
HCM 6th Ctrl Delay			25.3				
HCM 6th LOS			C				
Notes							
User approved pedestrian interval to be less than phase max green.							

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040 plus Project - IMP
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	495	133	104	411	33	80	0	84	43	0	15
Future Volume (veh/h)	26	495	133	104	411	33	80	0	84	43	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	521	140	109	433	35	84	0	88	45	0	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	581	492	136	616	50	761	0	775	524	9	169
Arrive On Green	0.03	0.41	0.41	0.08	0.36	0.36	0.49	0.00	0.49	0.49	0.00	0.49
Sat Flow, veh/h	1781	1870	1585	1781	1704	138	1418	0	1582	954	17	345
Grp Volume(v), veh/h	27	521	140	109	0	468	84	0	88	61	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1842	1418	0	1582	1317	0	0
Q Serve(g_s), s	1.6	28.6	6.5	6.6	0.0	23.9	0.0	0.0	3.3	1.8	0.0	0.0
Cycle Q Clear(g_c), s	1.6	28.6	6.5	6.6	0.0	23.9	3.0	0.0	3.3	4.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	0.74		0.26
Lane Grp Cap(c), veh/h	45	581	492	136	0	666	761	0	775	702	0	0
V/C Ratio(X)	0.59	0.90	0.28	0.80	0.00	0.70	0.11	0.00	0.11	0.09	0.00	0.00
Avail Cap(c_a), veh/h	121	893	757	251	0	1013	761	0	775	702	0	0
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.84	0.84	0.84	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.6	30.6	24.2	50.0	0.0	30.0	15.1	0.0	15.1	15.7	0.0	0.0
Incr Delay (d2), s/veh	9.9	6.8	0.3	10.2	0.0	1.4	0.3	0.0	0.3	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.8	12.3	2.3	3.3	0.0	10.4	1.2	0.0	1.2	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	37.5	24.4	60.1	0.0	31.4	15.4	0.0	15.4	15.9	0.0	0.0
LnGrp LOS	E	D	C	E	A	C	B	A	B	B	A	A
Approach Vol, veh/h		688			577			172			61	
Approach Delay, s/veh		35.8			36.8			15.4			15.9	
Approach LOS		D			D			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		58.4	12.9	38.7		58.4	7.3	44.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	15.5	52.5		28.5	7.5	60.5				
Max Q Clear Time (g_c+I1), s		5.3	8.6	30.6		6.8	3.6	25.9				
Green Ext Time (p_c), s		0.7	0.1	3.6		0.3	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay				33.0								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕		↕		↕	
Traffic Vol, veh/h	3	538	62	92	483	2	45	0	48	0	1	0
Future Vol, veh/h	3	538	62	92	483	2	45	0	48	0	1	0
Conflicting Peds, #/hr	0	0	3	3	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	0	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	566	65	97	508	2	47	0	51	0	1	0







Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	510	0	0	634	0	0	1312	-	602	1333	1343	509
Stage 1	-	-	-	-	-	-	608	-	-	703	703	-
Stage 2	-	-	-	-	-	-	704	-	-	630	640	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1055	-	-	949	-	-	136	0	500	131	152	564
Stage 1	-	-	-	-	-	-	483	0	-	428	440	-
Stage 2	-	-	-	-	-	-	428	0	-	470	470	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1055	-	-	946	-	-	124	-	499	108	135	564
Mov Cap-2 Maneuver	-	-	-	-	-	-	249	-	-	108	135	-
Stage 1	-	-	-	-	-	-	480	-	-	426	395	-
Stage 2	-	-	-	-	-	-	383	-	-	421	467	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			17.7			31.9		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	249	499	1055	-	-	946	-	-	135
HCM Lane V/C Ratio	0.19	0.101	0.003	-	-	0.102	-	-	0.008
HCM Control Delay (s)	22.8	13	8.4	0	-	9.2	-	-	31.9
HCM Lane LOS	C	B	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	0.7	0.3	0	-	-	0.3	-	-	0

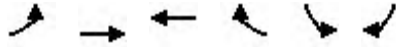
HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

2040 plus Project - IMP
 Timing Plan: PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	470	106	192	430	89	111
Future Volume (veh/h)	470	106	192	430	89	111
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	495	112	202	453	94	117
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	684	786	268	1186	233	446
Arrive On Green	0.37	0.37	0.15	0.63	0.13	0.13
Sat Flow, veh/h	1870	1583	1781	1870	1781	1585
Grp Volume(v), veh/h	495	112	202	453	94	117
Grp Sat Flow(s),veh/h/ln	1870	1583	1781	1870	1781	1585
Q Serve(g_s), s	8.7	1.5	4.2	4.5	1.9	2.2
Cycle Q Clear(g_c), s	8.7	1.5	4.2	4.5	1.9	2.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	684	786	268	1186	233	446
V/C Ratio(X)	0.72	0.14	0.75	0.38	0.40	0.26
Avail Cap(c_a), veh/h	1541	1511	769	2568	1328	1420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	5.2	15.6	3.4	15.3	10.7
Incr Delay (d2), s/veh	1.5	0.1	4.2	0.2	1.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.4	1.6	0.3	0.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	5.3	19.8	3.6	16.4	11.0
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	607			655	211	
Approach Delay, s/veh	10.7			8.6	13.4	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.5	10.3	18.5		28.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		28.5	16.5	31.5		52.5
Max Q Clear Time (g_c+l1), s		4.2	6.2	10.7		6.5
Green Ext Time (p_c), s		0.6	0.4	3.1		2.8
Intersection Summary						
HCM 6th Ctrl Delay			10.2			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040 plus Project - IMP
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	265	376	295	267	460	340	
Future Volume (veh/h)	265	376	295	267	460	340	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	279	396	311	281	484	358	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	425	889	487	953	608	736	
Arrive On Green	0.12	0.48	0.26	0.26	0.34	0.34	
Sat Flow, veh/h	3456	1870	1870	1579	1781	1585	
Grp Volume(v), veh/h	279	396	311	281	484	358	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1579	1781	1585	
Q Serve(g_s), s	3.8	6.9	7.2	4.2	12.1	7.7	
Cycle Q Clear(g_c), s	3.8	6.9	7.2	4.2	12.1	7.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	425	889	487	953	608	736	
V/C Ratio(X)	0.66	0.45	0.64	0.29	0.80	0.49	
Avail Cap(c_a), veh/h	739	1790	1219	1570	1233	1292	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	20.5	8.6	16.1	4.7	14.6	9.1	
Incr Delay (d2), s/veh	1.7	0.4	1.4	0.2	2.4	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.4	1.9	3.0	2.6	4.0	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.3	8.9	17.5	4.9	17.0	9.6	
LnGrp LOS	C	A	B	A	B	A	
Approach Vol, veh/h		675	592		842		
Approach Delay, s/veh		14.4	11.5		13.9		
Approach LOS		B	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				27.8	21.3	10.5	17.3
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				47.0	34.0	10.5	32.0
Max Q Clear Time (g_c+I1), s				8.9	14.1	5.8	9.2
Green Ext Time (p_c), s				2.3	2.7	0.4	3.0
Intersection Summary							
HCM 6th Ctrl Delay			13.4				
HCM 6th LOS			B				

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	115	277	24	150	432
Future Vol, veh/h	7	115	277	24	150	432
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	121	292	25	158	455

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1076	305	0	0	317
Stage 1	305	-	-	-	-
Stage 2	771	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	243	735	-	-	1243
Stage 1	748	-	-	-	-
Stage 2	456	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	202	735	-	-	1243
Mov Cap-2 Maneuver	202	-	-	-	-
Stage 1	748	-	-	-	-
Stage 2	378	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	638	1243
HCM Lane V/C Ratio	-	-	0.201	0.127
HCM Control Delay (s)	-	-	12.1	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.4

Intersection	
Intersection Delay, s/veh	29.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑		↔		↔		↔	
Traffic Vol, veh/h	0	128	0	19	101	0	517	0	24	0	0	0
Future Vol, veh/h	0	128	0	19	101	0	517	0	24	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	135	0	20	106	0	544	0	25	0	0	0
Number of Lanes	0	1	0	1	1	0	1	0	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	1
HCM Control Delay	11.7	10.8	37.4	0
HCM LOS	B	B	E	-

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	517	24	128	19	101	0
LT Vol	517	0	0	19	0	0
Through Vol	0	0	128	0	101	0
RT Vol	0	24	0	0	0	0
Lane Flow Rate	544	25	135	20	106	0
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.892	0.033	0.245	0.039	0.194	0
Departure Headway (Hd)	5.901	4.694	6.546	7.074	6.565	6.364
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	615	765	548	506	546	0
Service Time	3.617	2.41	4.581	4.812	4.303	4.401
HCM Lane V/C Ratio	0.885	0.033	0.246	0.04	0.194	0
HCM Control Delay	38.8	7.6	11.7	10.1	10.9	9.4
HCM Lane LOS	E	A	B	B	B	N
HCM 95th-tile Q	10.7	0.1	1	0.1	0.7	0

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑		↑	↑	
Traffic Vol, veh/h	0	515	0	538	23	0
Future Vol, veh/h	0	515	0	538	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	542	0	566	24	0

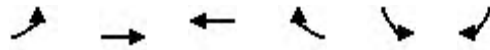
Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	542	-
Stage 1	-	-	0	-
Stage 2	-	-	542	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	501	0
Stage 1	0	-	-	0
Stage 2	0	-	583	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	501	-
Mov Cap-2 Maneuver	-	-	501	-
Stage 1	-	-	-	-
Stage 2	-	-	583	-

Approach	EB	SB
HCM Control Delay, s	0	12.6
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	501
HCM Lane V/C Ratio	-	0.048
HCM Control Delay (s)	-	12.6
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.2

HCM 6th Signalized Intersection Summary
 3: Pleasant Valley Rd & El Dorado Rd

2040 plus Project - IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	↙
Traffic Volume (veh/h)	5	550	548	96	114	7
Future Volume (veh/h)	5	550	548	96	114	7
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	579	577	101	120	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	47	705	611	107	879	782
Arrive On Green	0.39	0.39	0.79	0.79	0.49	0.49
Sat Flow, veh/h	3	1787	1550	271	1781	1585
Grp Volume(v), veh/h	584	0	0	678	120	7
Grp Sat Flow(s),veh/h/ln	1791	0	0	1822	1781	1585
Q Serve(g_s), s	0.6	0.0	0.0	24.7	2.9	0.2
Cycle Q Clear(g_c), s	25.2	0.0	0.0	24.7	2.9	0.2
Prop In Lane	0.01			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	751	0	0	718	879	782
V/C Ratio(X)	0.78	0.00	0.00	0.94	0.14	0.01
Avail Cap(c_a), veh/h	1189	0	0	1150	879	782
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	0.89	1.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	0.0	7.7	11.0	10.3
Incr Delay (d2), s/veh	1.8	0.0	0.0	9.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	0.0	4.8	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.1	0.0	0.0	17.5	11.3	10.3
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		584	678		127	
Approach Delay, s/veh		23.1	17.5		11.3	
Approach LOS		C	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				36.0	44.0	36.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				50.5	20.5	50.5
Max Q Clear Time (g_c+I1), s				27.2	4.9	26.7
Green Ext Time (p_c), s				3.9	0.3	4.9

Intersection Summary

HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 4: SR-49 & Pleasant Valley Rd/Pleasant Valley Rd - SR-49

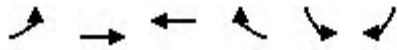
2040 plus Project - IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕			↕	
Traffic Volume (veh/h)	3	426	236	267	468	5	214	5	268	0	2	12
Future Volume (veh/h)	3	426	236	267	468	5	214	5	268	0	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.91		0.90	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	448	248	281	493	5	225	5	282	0	2	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	423	233	276	1083	11	240	6	223	0	59	386
Arrive On Green	0.25	0.25	0.25	0.31	1.00	1.00	0.30	0.30	0.30	0.00	0.30	0.30
Sat Flow, veh/h	2	1128	621	1781	1848	19	583	21	740	0	197	1281
Grp Volume(v), veh/h	699	0	0	281	0	498	512	0	0	0	0	15
Grp Sat Flow(s),veh/h/ln	1751	0	0	1781	0	1867	1344	0	0	0	0	1479
Q Serve(g_s), s	6.3	0.0	0.0	12.4	0.0	0.0	23.5	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	30.0	0.0	0.0	12.4	0.0	0.0	24.1	0.0	0.0	0.0	0.0	0.6
Prop In Lane	0.00		0.35	1.00		0.01	0.44		0.55	0.00		0.87
Lane Grp Cap(c), veh/h	702	0	0	276	0	1094	470	0	0	0	0	445
V/C Ratio(X)	1.00	0.00	0.00	1.02	0.00	0.46	1.09	0.00	0.00	0.00	0.00	0.03
Avail Cap(c_a), veh/h	702	0	0	276	0	1094	470	0	0	0	0	445
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.00	0.00	0.66	0.00	0.66	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.8	0.0	0.0	27.6	0.0	0.0	29.7	0.0	0.0	0.0	0.0	19.7
Incr Delay (d2), s/veh	29.4	0.0	0.0	48.6	0.0	0.9	68.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	0.0	0.0	7.9	0.0	0.3	18.1	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	0.0	0.0	76.2	0.0	0.9	97.9	0.0	0.0	0.0	0.0	19.8
LnGrp LOS	E	A	A	F	A	A	F	A	A	A	A	B
Approach Vol, veh/h		699			779			512				15
Approach Delay, s/veh		60.3			28.1			97.9				19.8
Approach LOS		E			C			F				B
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		28.6	16.9	34.5		28.6		51.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		24.1	12.4	30.0		24.1		46.9				
Max Q Clear Time (g_c+I1), s		26.1	14.4	32.0		2.6		2.0				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0		3.9				
Intersection Summary												
HCM 6th Ctrl Delay				57.1								
HCM 6th LOS				E								

HCM 6th Signalized Intersection Summary
 5: Pleasant Valley Rd - SR-49 & Forni Rd

2040 plus Project - IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	209	485	541	36	29	199	
Future Volume (veh/h)	209	485	541	36	29	199	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	220	511	569	38	31	209	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	258	929	629	42	696	619	
Arrive On Green	0.15	0.99	0.48	0.48	0.39	0.39	
Sat Flow, veh/h	1781	1870	1733	116	1781	1585	
Grp Volume(v), veh/h	220	511	0	607	31	209	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1849	1781	1585	
Q Serve(g_s), s	3.9	0.3	0.0	24.1	0.9	7.4	
Cycle Q Clear(g_c), s	3.9	0.3	0.0	24.1	0.9	7.4	
Prop In Lane	1.00			0.06	1.00	1.00	
Lane Grp Cap(c), veh/h	258	929	0	671	696	619	
V/C Ratio(X)	0.85	0.55	0.00	0.90	0.04	0.34	
Avail Cap(c_a), veh/h	376	1204	0	821	696	619	
HCM Platoon Ratio	2.00	2.00	1.33	1.33	1.00	1.00	
Upstream Filter(l)	0.09	0.09	0.00	0.55	1.00	1.00	
Uniform Delay (d), s/veh	31.6	0.1	0.0	19.4	15.1	17.1	
Incr Delay (d2), s/veh	1.3	0.0	0.0	7.1	0.1	1.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.8	0.1	0.0	9.9	0.4	7.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	32.8	0.2	0.0	26.5	15.2	18.6	
LnGrp LOS	C	A	A	C	B	B	
Approach Vol, veh/h		731	607		240		
Approach Delay, s/veh		10.0	26.5		18.1		
Approach LOS		B	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				44.2	35.8	10.7	33.5
Change Period (Y+Rc), s				4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s				51.5	19.5	11.5	35.5
Max Q Clear Time (g_c+I1), s				2.3	9.4	5.9	26.1
Green Ext Time (p_c), s				4.0	0.5	0.3	2.9

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

2040 plus Project - IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	518	18	5	475	10	15	0	12	8	0	10
Future Volume (veh/h)	17	518	18	5	475	10	15	0	12	8	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	545	19	5	500	11	16	0	13	8	0	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	616	522	12	574	13	787	0	785	352	24	430
Arrive On Green	0.04	0.66	0.66	0.01	0.32	0.32	0.50	0.00	0.50	0.50	0.00	0.50
Sat Flow, veh/h	1781	1870	1585	1781	1822	40	1408	0	1585	582	49	867
Grp Volume(v), veh/h	18	545	19	5	0	511	16	0	13	19	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1862	1408	0	1585	1498	0	0
Q Serve(g_s), s	0.8	19.1	0.3	0.2	0.0	20.7	0.0	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	19.1	0.3	0.2	0.0	20.7	0.4	0.0	0.3	0.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.42		0.58
Lane Grp Cap(c), veh/h	37	616	522	12	0	587	787	0	785	806	0	0
V/C Ratio(X)	0.49	0.88	0.04	0.43	0.00	0.87	0.02	0.00	0.02	0.02	0.00	0.00
Avail Cap(c_a), veh/h	111	837	709	111	0	833	787	0	785	806	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.89	0.89	0.89	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.9	12.4	9.2	39.6	0.0	25.8	10.3	0.0	10.3	10.3	0.0	0.0
Incr Delay (d2), s/veh	8.7	7.9	0.0	22.8	0.0	7.2	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.4	5.1	0.1	0.2	0.0	9.5	0.1	0.0	0.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	20.3	9.2	62.3	0.0	33.1	10.3	0.0	10.3	10.4	0.0	0.0
LnGrp LOS	D	C	A	E	A	C	B	A	B	B	A	A
Approach Vol, veh/h		582			516			29			19	
Approach Delay, s/veh		20.7			33.3			10.3			10.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.1	5.0	30.8		44.1	6.1	29.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.7	5.0	35.8		25.7	5.0	35.8				
Max Q Clear Time (g_c+I1), s		2.4	2.2	21.1		2.5	2.8	22.7				
Green Ext Time (p_c), s		0.1	0.0	2.9		0.0	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				26.0								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕		↕		↕	
Traffic Vol, veh/h	0	411	80	107	421	2	86	0	120	1	0	1
Future Vol, veh/h	0	411	80	107	421	2	86	0	120	1	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	0	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	433	84	113	443	2	91	0	126	1	0	1

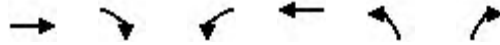
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	445	0	0	518	0	0	1147	-	476	1208	1188	444
Stage 1	-	-	-	-	-	-	476	-	-	670	670	-
Stage 2	-	-	-	-	-	-	671	-	-	538	518	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1115	-	-	1048	-	-	176	0	589	160	188	614
Stage 1	-	-	-	-	-	-	570	0	-	446	455	-
Stage 2	-	-	-	-	-	-	446	0	-	527	533	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1115	-	-	1047	-	-	161	-	588	115	168	614
Mov Cap-2 Maneuver	-	-	-	-	-	-	283	-	-	115	168	-
Stage 1	-	-	-	-	-	-	569	-	-	446	406	-
Stage 2	-	-	-	-	-	-	397	-	-	414	532	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			17.3			23.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	283	588	1115	-	-	1047	-	-	194
HCM Lane V/C Ratio	0.32	0.215	-	-	-	0.108	-	-	0.011
HCM Control Delay (s)	23.6	12.8	0	-	-	8.9	-	-	23.8
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.3	0.8	0	-	-	0.4	-	-	0

HCM 6th Signalized Intersection Summary
 8: Patterson Dr & Pleasant Valley Rd - SR-49

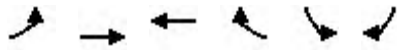
2040 plus Project - IMP
 Timing Plan: Saturday Mid-Day



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	483	96	126	589	98	134
Future Volume (veh/h)	483	96	126	589	98	134
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	508	101	133	620	103	141
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	706	833	181	1129	264	396
Arrive On Green	0.38	0.38	0.10	0.60	0.15	0.15
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	508	101	133	620	103	141
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	8.4	1.2	2.6	7.1	1.9	2.7
Cycle Q Clear(g_c), s	8.4	1.2	2.6	7.1	1.9	2.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	706	833	181	1129	264	396
V/C Ratio(X)	0.72	0.12	0.73	0.55	0.39	0.36
Avail Cap(c_a), veh/h	1729	1700	664	2658	1450	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	4.4	15.8	4.3	14.0	11.2
Incr Delay (d2), s/veh	1.4	0.1	5.6	0.4	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.3	1.1	0.5	0.7	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	4.4	21.4	4.7	14.9	11.7
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	609			753	244	
Approach Delay, s/veh	9.9			7.6	13.1	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.9	8.2	18.2		26.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		29.5	13.5	33.5		51.5
Max Q Clear Time (g_c+l1), s		4.7	4.6	10.4		9.1
Green Ext Time (p_c), s		0.7	0.2	3.3		4.2
Intersection Summary						
HCM 6th Ctrl Delay			9.3			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 9: Pleasant Valley Rd - SR-49 & Missouri Flat Rd

2040 plus Project - IMP
 Timing Plan: Saturday Mid-Day



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗	
Traffic Volume (veh/h)	345	335	459	568	699	302	
Future Volume (veh/h)	345	335	459	568	699	302	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	363	353	483	598	736	318	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	353	874	584	1170	759	837	
Arrive On Green	0.10	0.47	0.31	0.31	0.43	0.43	
Sat Flow, veh/h	3456	1870	1870	1585	1781	1585	
Grp Volume(v), veh/h	363	353	483	598	736	318	
Grp Sat Flow(s),veh/h/ln	1728	1870	1870	1585	1781	1585	
Q Serve(g_s), s	8.6	10.4	20.2	13.4	34.1	10.0	
Cycle Q Clear(g_c), s	8.6	10.4	20.2	13.4	34.1	10.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	353	874	584	1170	759	837	
V/C Ratio(X)	1.03	0.40	0.83	0.51	0.97	0.38	
Avail Cap(c_a), veh/h	353	1001	710	1277	759	837	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	37.9	14.7	26.9	4.7	23.7	11.8	
Incr Delay (d2), s/veh	55.8	0.3	6.8	0.3	25.4	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	6.2	3.9	9.9	12.5	17.8	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	93.6	15.0	33.7	5.0	49.1	12.0	
LnGrp LOS	F	B	C	A	D	B	
Approach Vol, veh/h		716	1081		1054		
Approach Delay, s/veh		54.9	17.8		37.9		
Approach LOS		D	B		D		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			43.9		40.4	13.1	30.8
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			45.1		35.9	8.6	32.0
Max Q Clear Time (g_c+I1), s			12.4		36.1	10.6	22.2
Green Ext Time (p_c), s			2.0		0.0	0.0	4.1
Intersection Summary							
HCM 6th Ctrl Delay			34.6				
HCM 6th LOS			C				

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	7	107	372	3	67	392
Future Vol, veh/h	7	107	372	3	67	392
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	113	392	3	71	413

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	949	394	0	0	395
Stage 1	394	-	-	-	-
Stage 2	555	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	289	655	-	-	1164
Stage 1	681	-	-	-	-
Stage 2	575	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	266	655	-	-	1164
Mov Cap-2 Maneuver	266	-	-	-	-
Stage 1	681	-	-	-	-
Stage 2	530	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	601	1164
HCM Lane V/C Ratio	-	-	0.2	0.061
HCM Control Delay (s)	-	-	12.5	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2

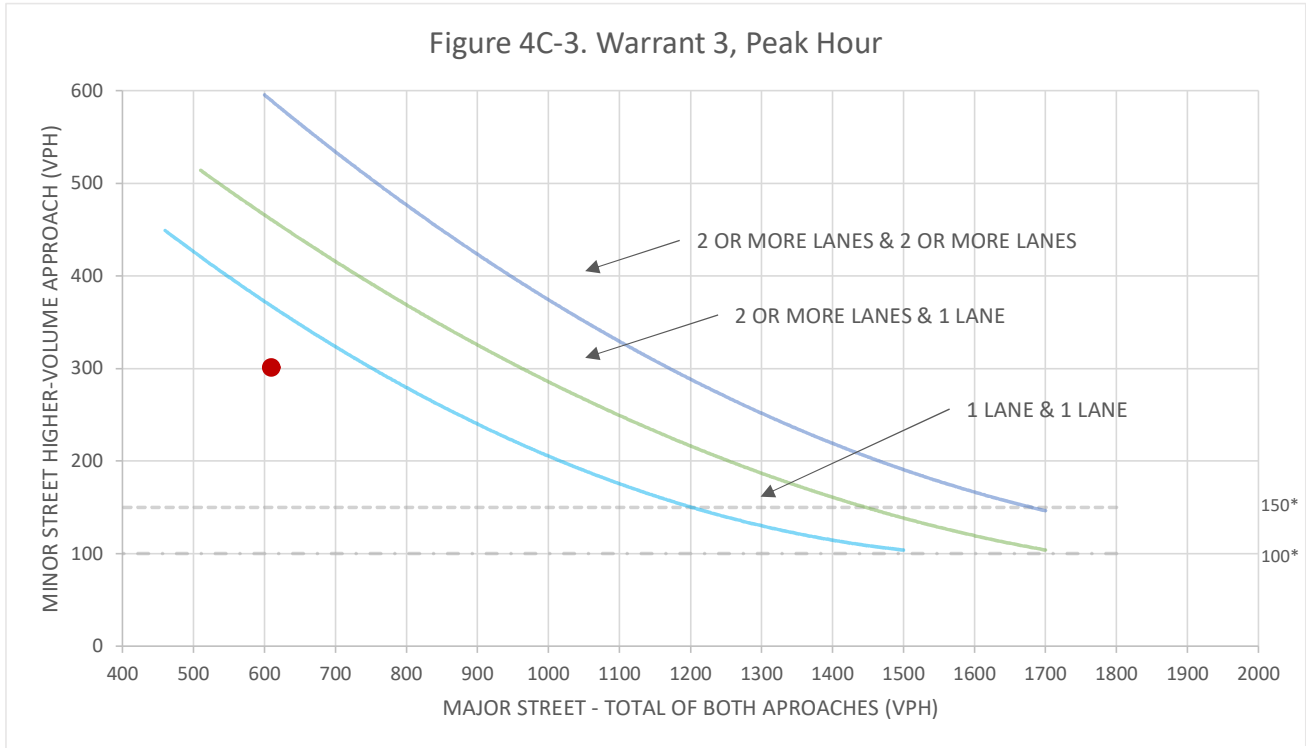
Appendix D

Signal Warrants

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	PM

Intersection #	1
Major Street	Farm Road
Minor Street	Mother Lode Drive

N-S	<input checked="" type="checkbox"/>	E-W	<input type="checkbox"/>
	<input type="checkbox"/>		<input checked="" type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

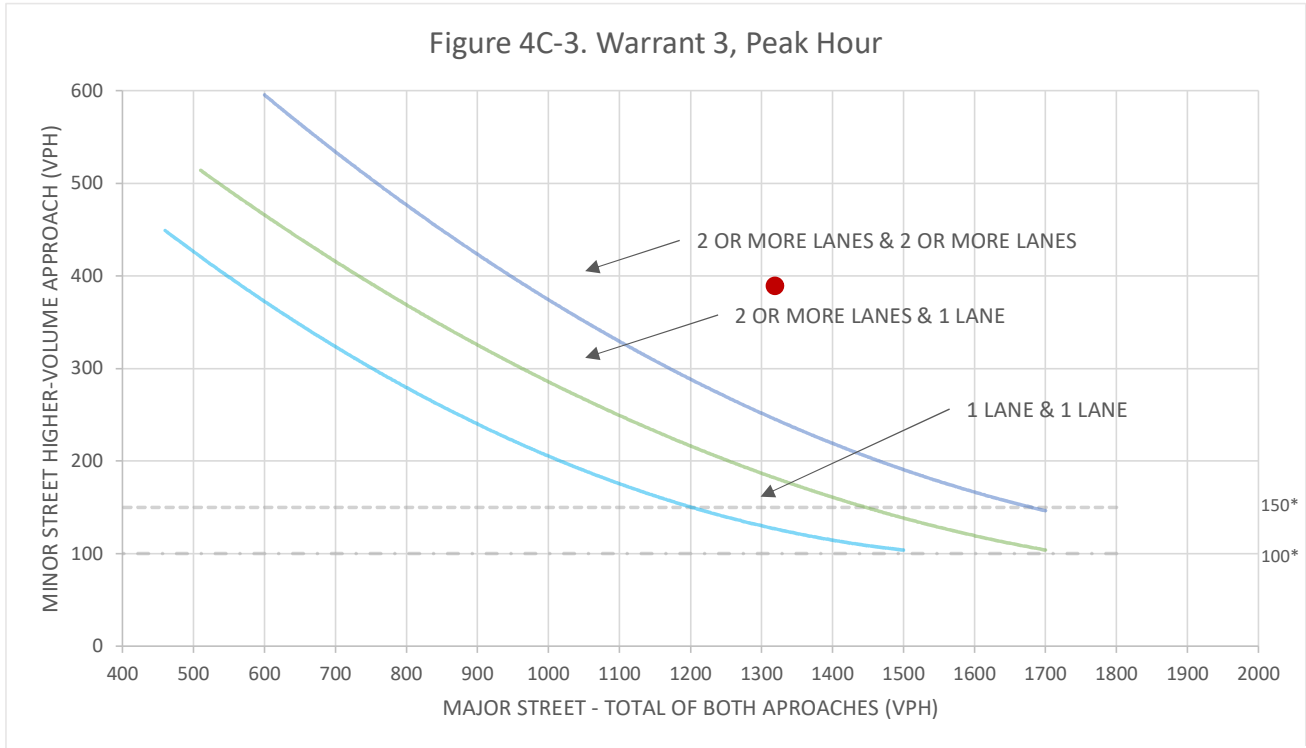
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Farm Road	Mother Lode Drive	
Number of Approach Lanes	1	1	No
Traffic Volume (VPH)*	610	301	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040
Peak Hour	AM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

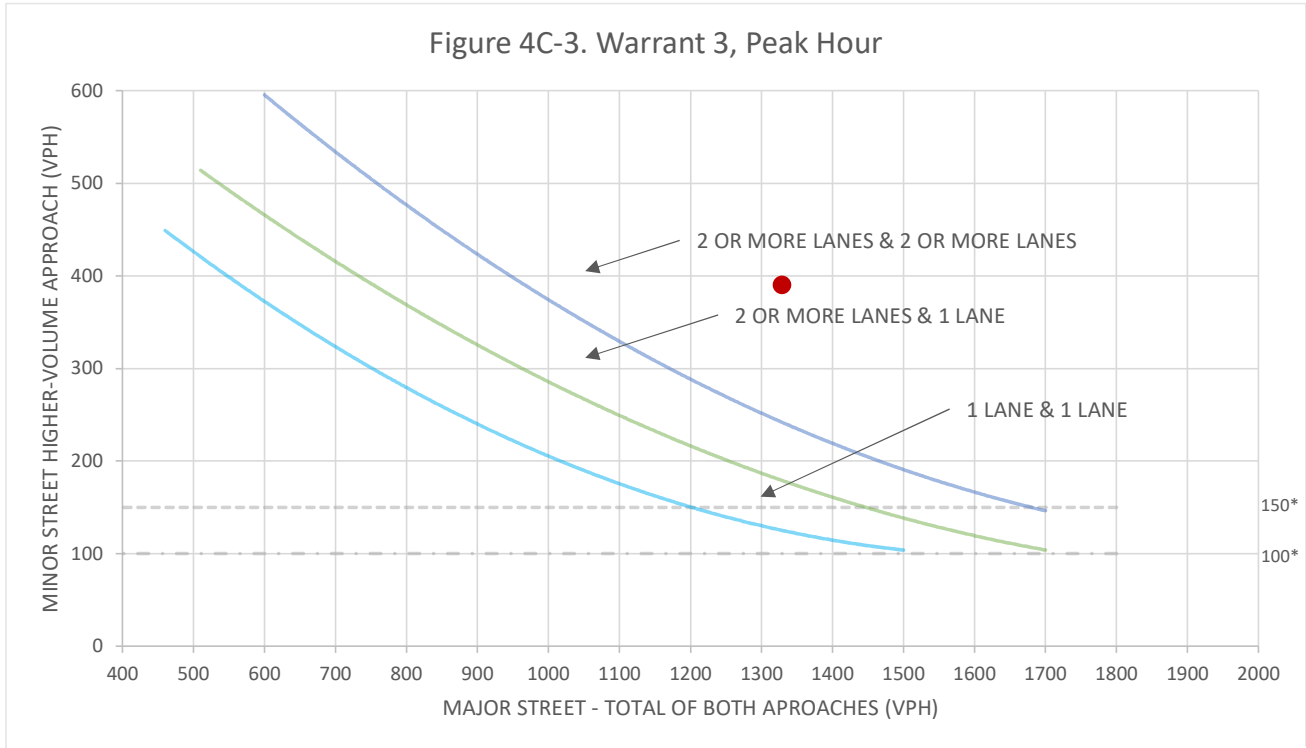
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,319	389	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	AM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

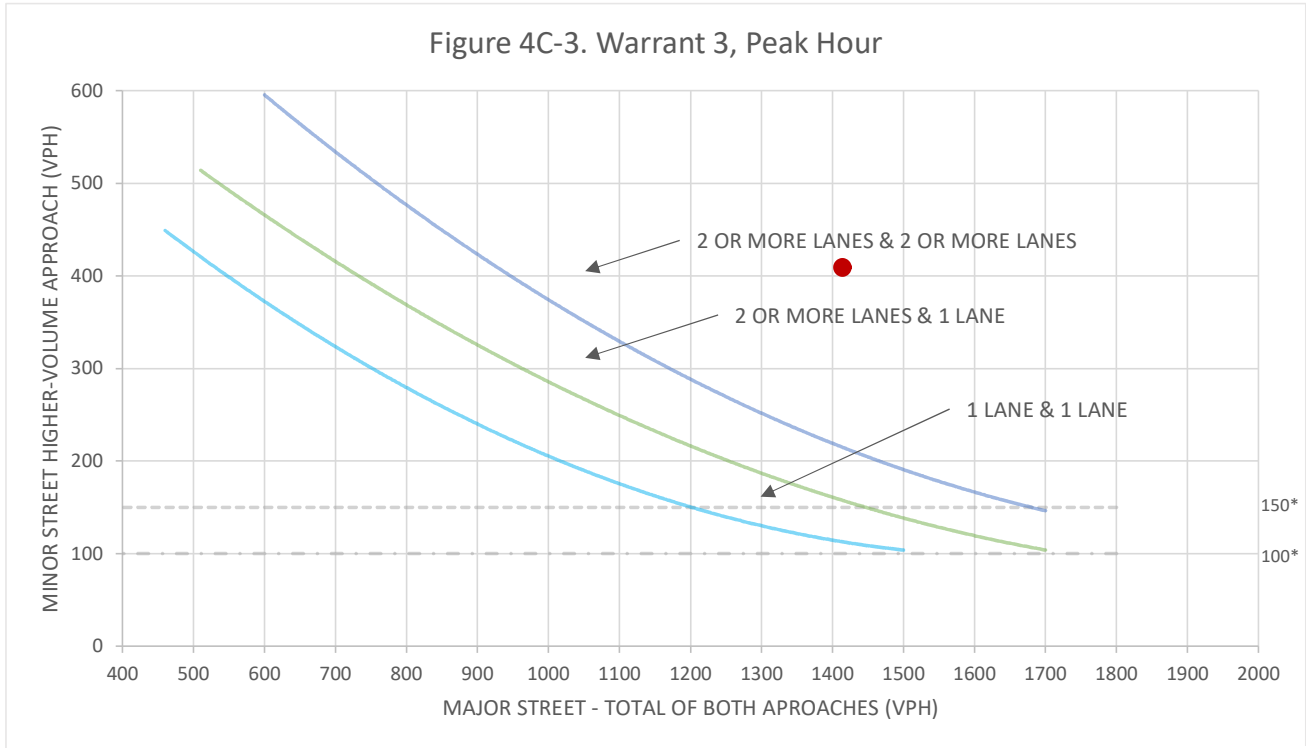
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,329	390	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	PM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

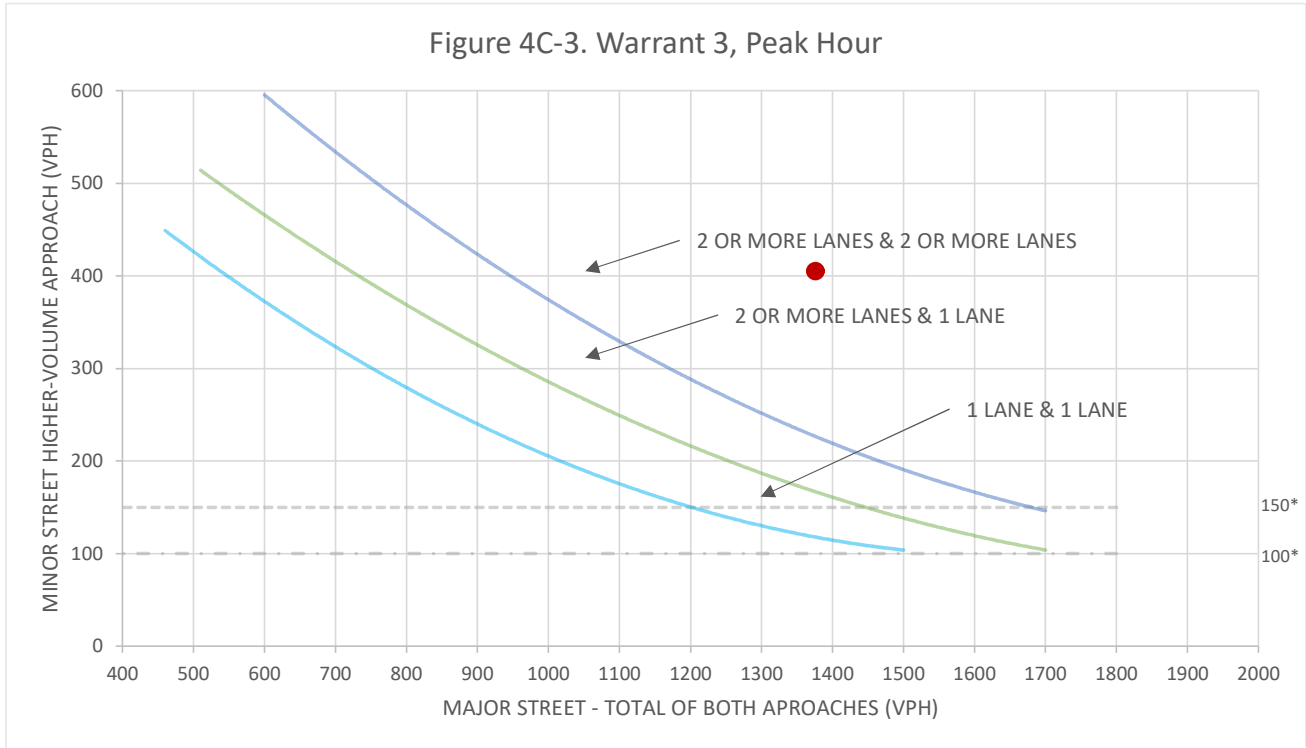
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,414	409	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040
Peak Hour	PM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

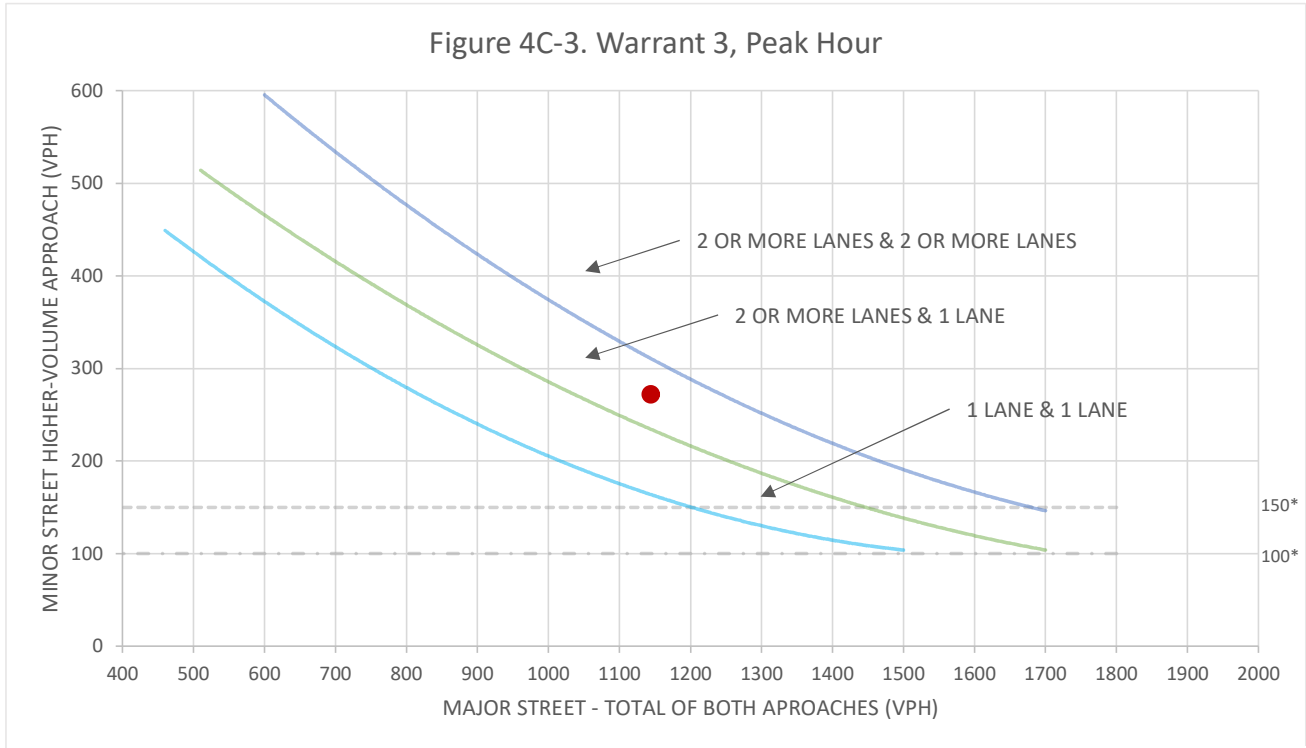
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,376	405	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033
Peak Hour	AM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

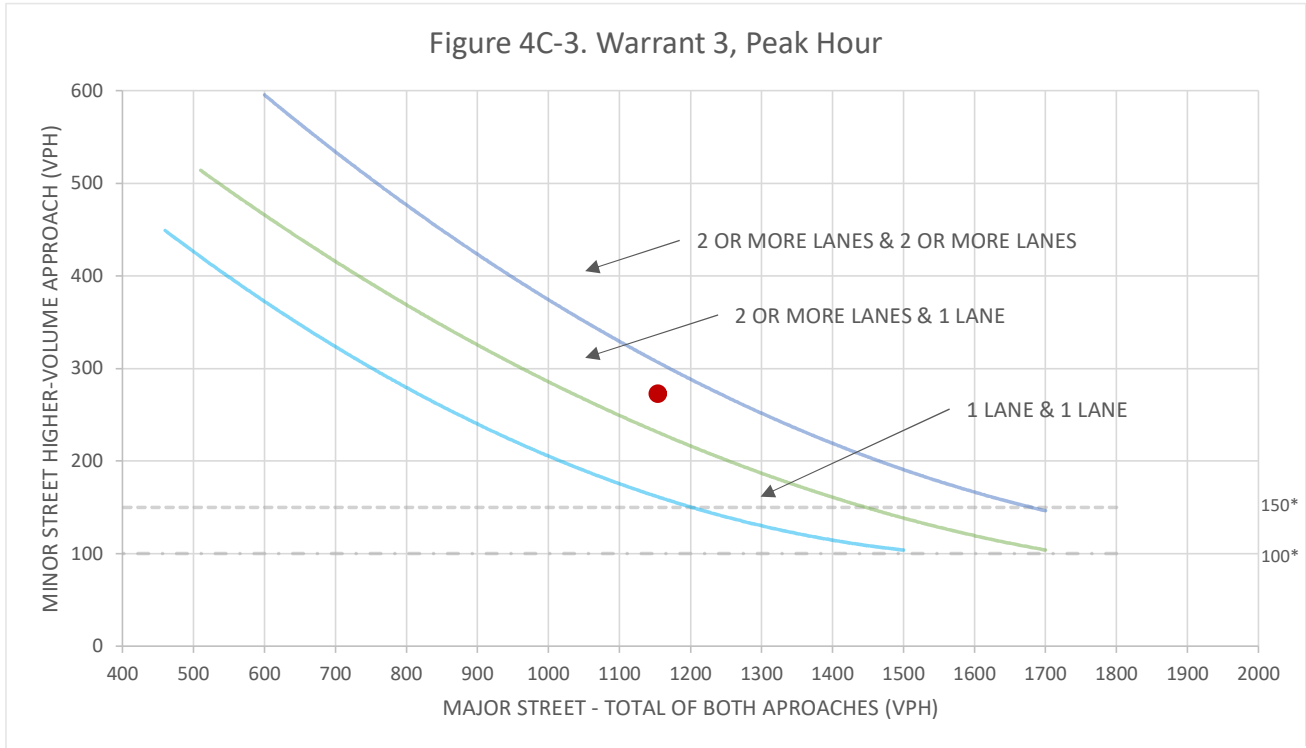
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,144	272	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033 plus Project
Peak Hour	AM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

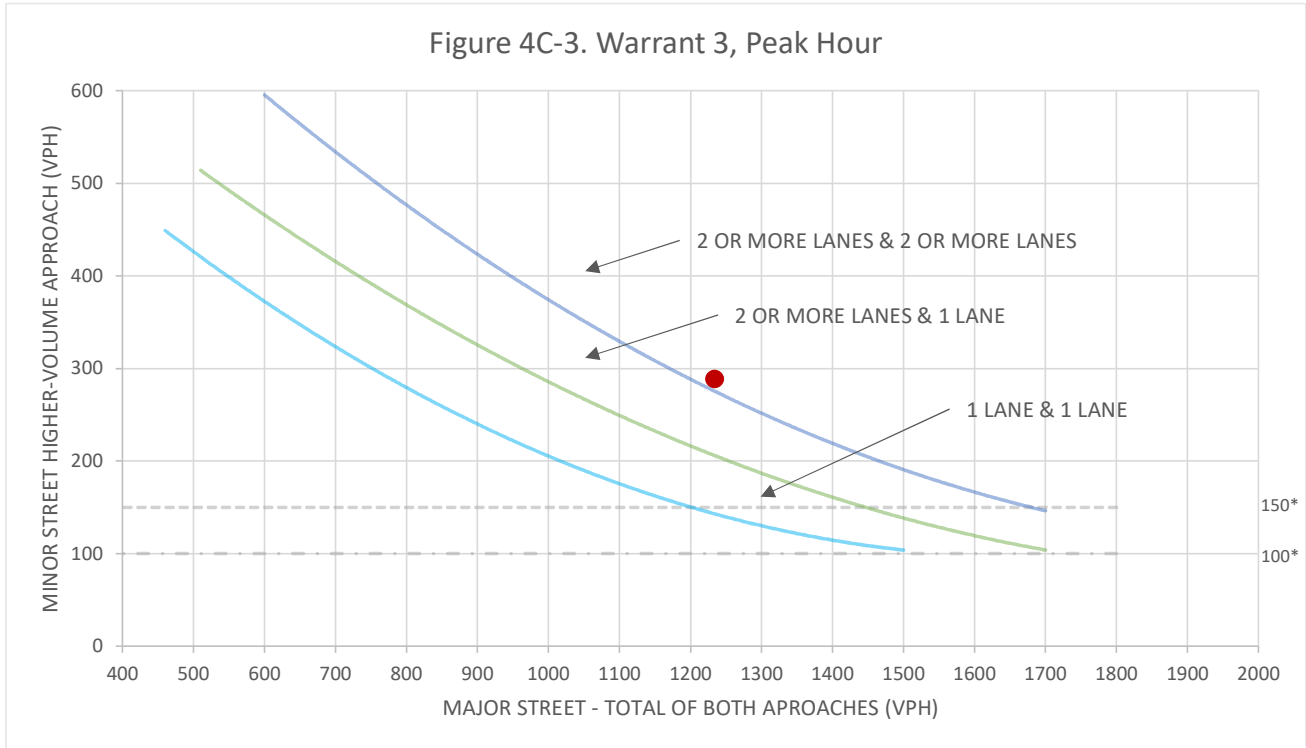
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,154	273	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033 plus Project
Peak Hour	PM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

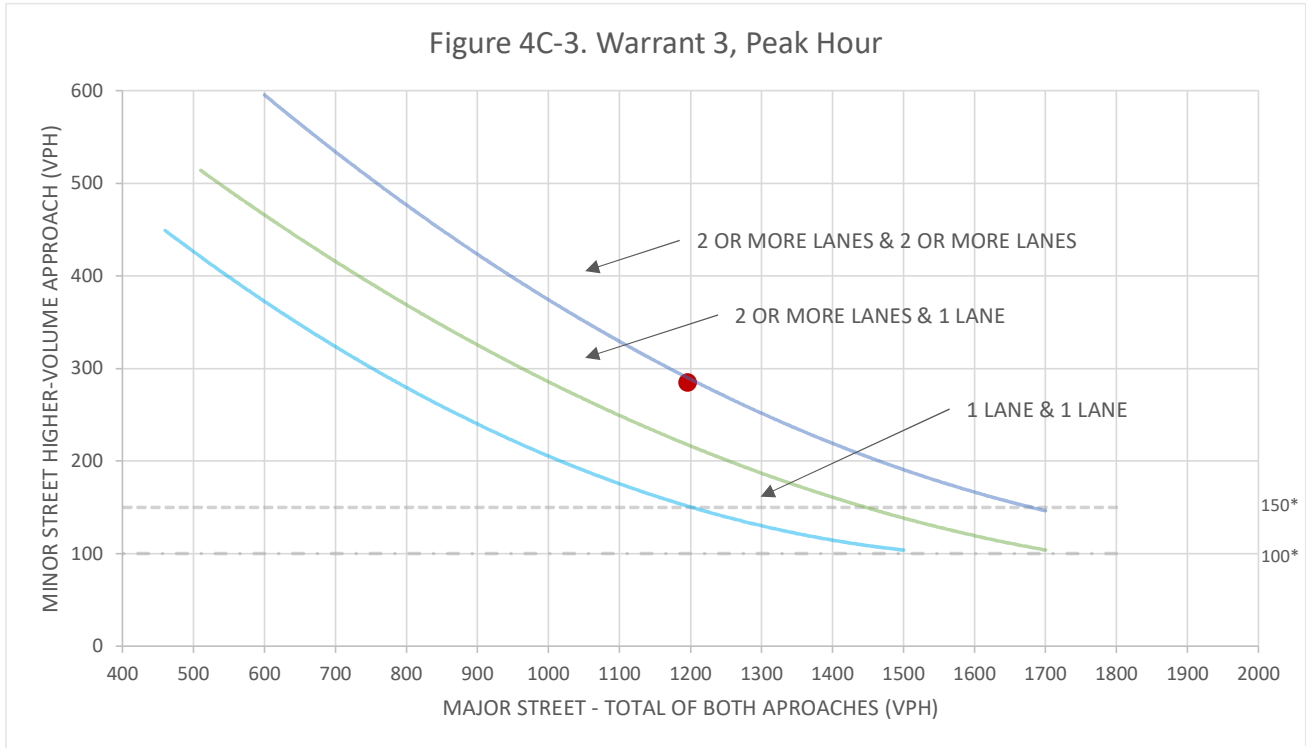
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,234	288	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033
Peak Hour	PM

Intersection #	3
Major Street	Pleasant Valley Road - SR-49
Minor Street	El Dorado Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

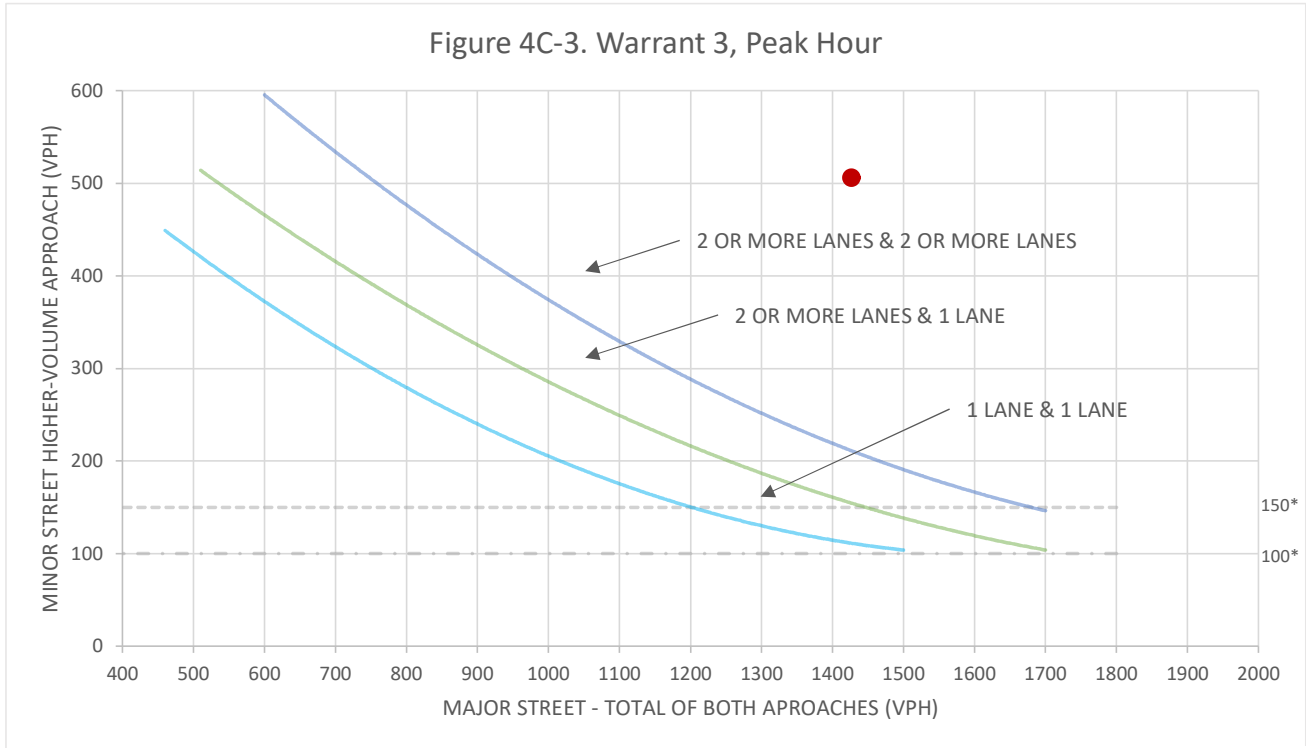
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	El Dorado Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,196	284	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040
Peak Hour	AM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

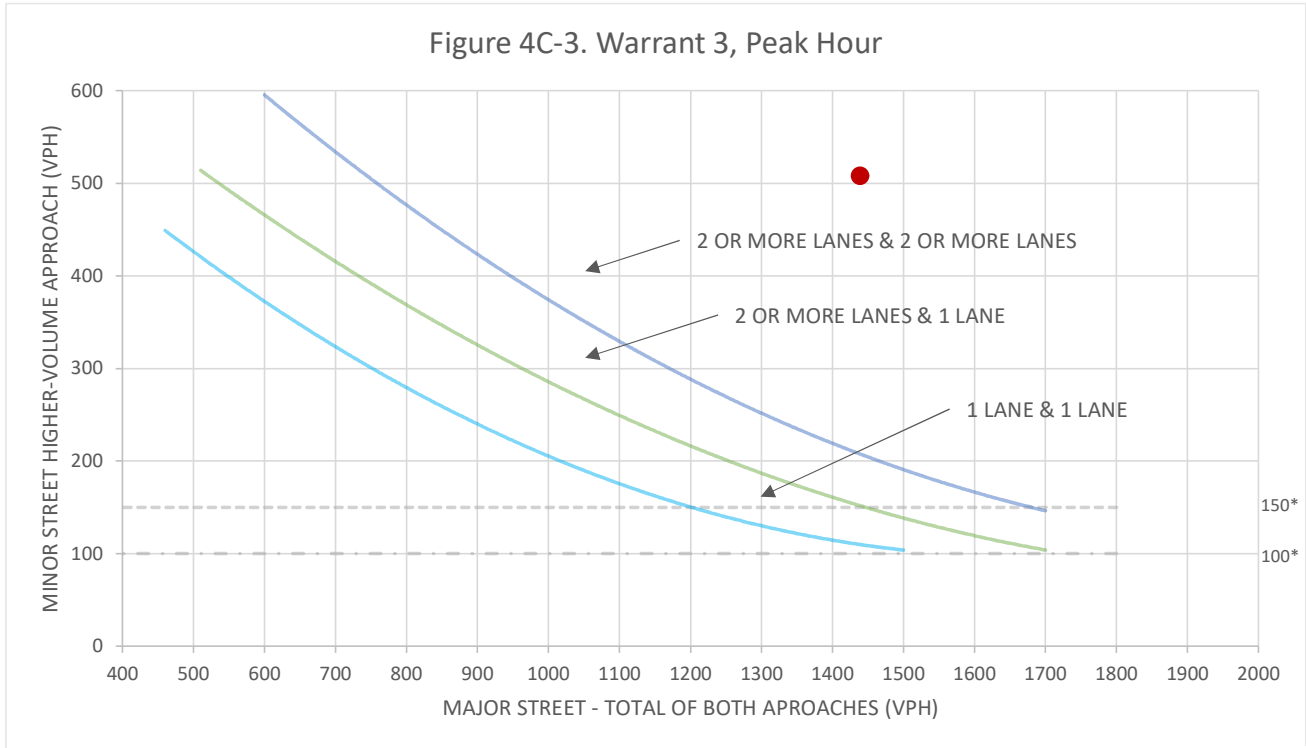
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,427	506	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	AM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

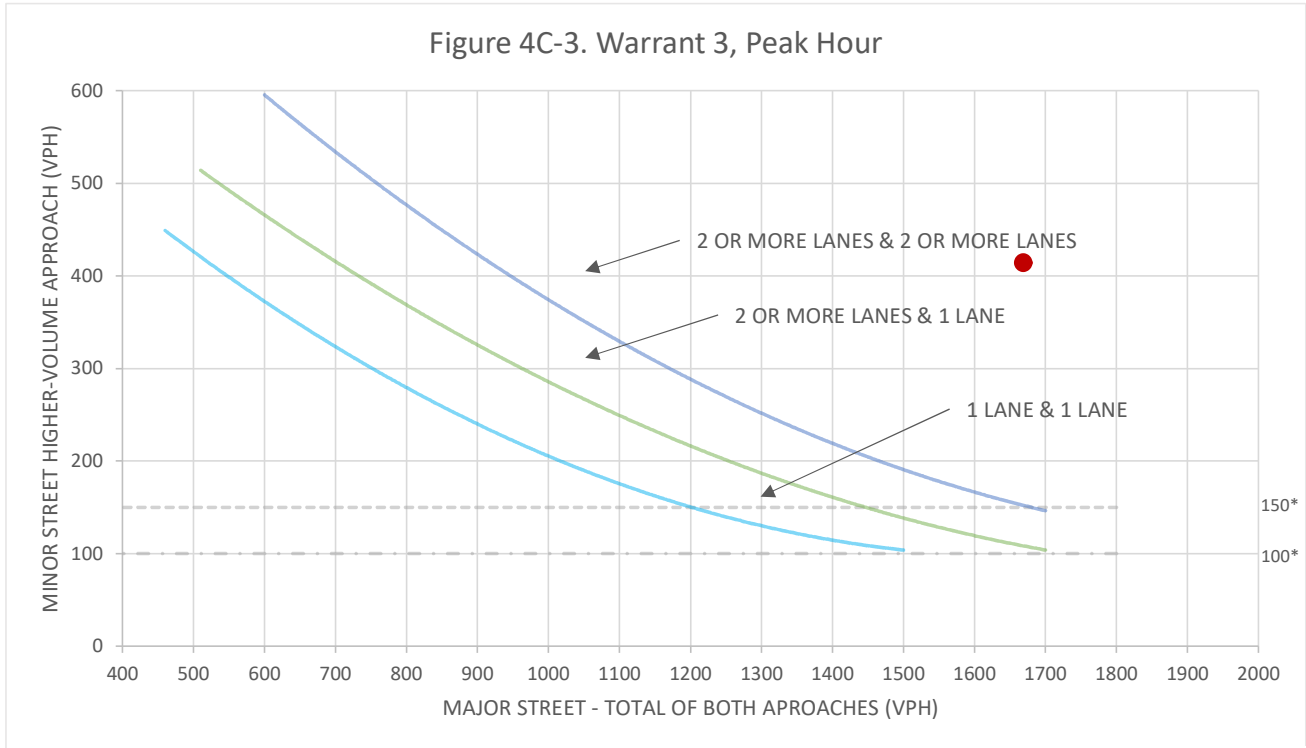
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,439	508	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	PM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

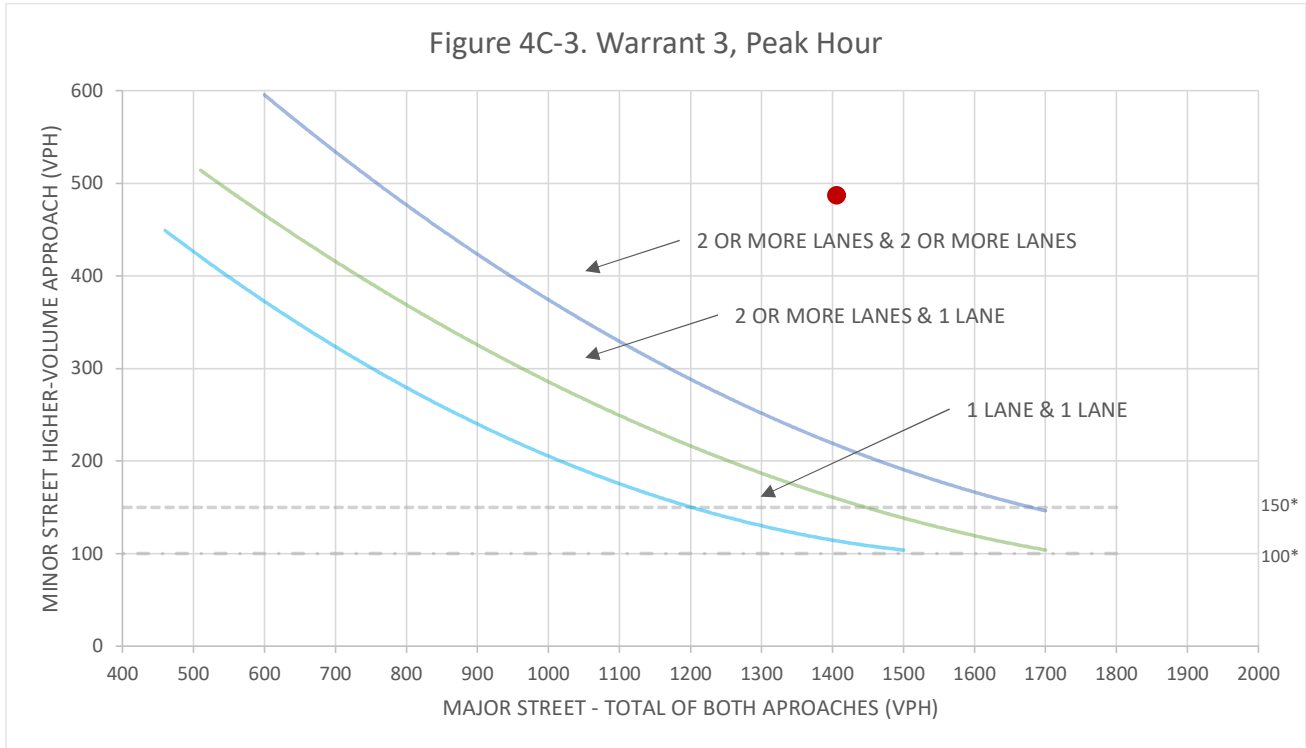
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,669	414	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	Saturday Mid-Day

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

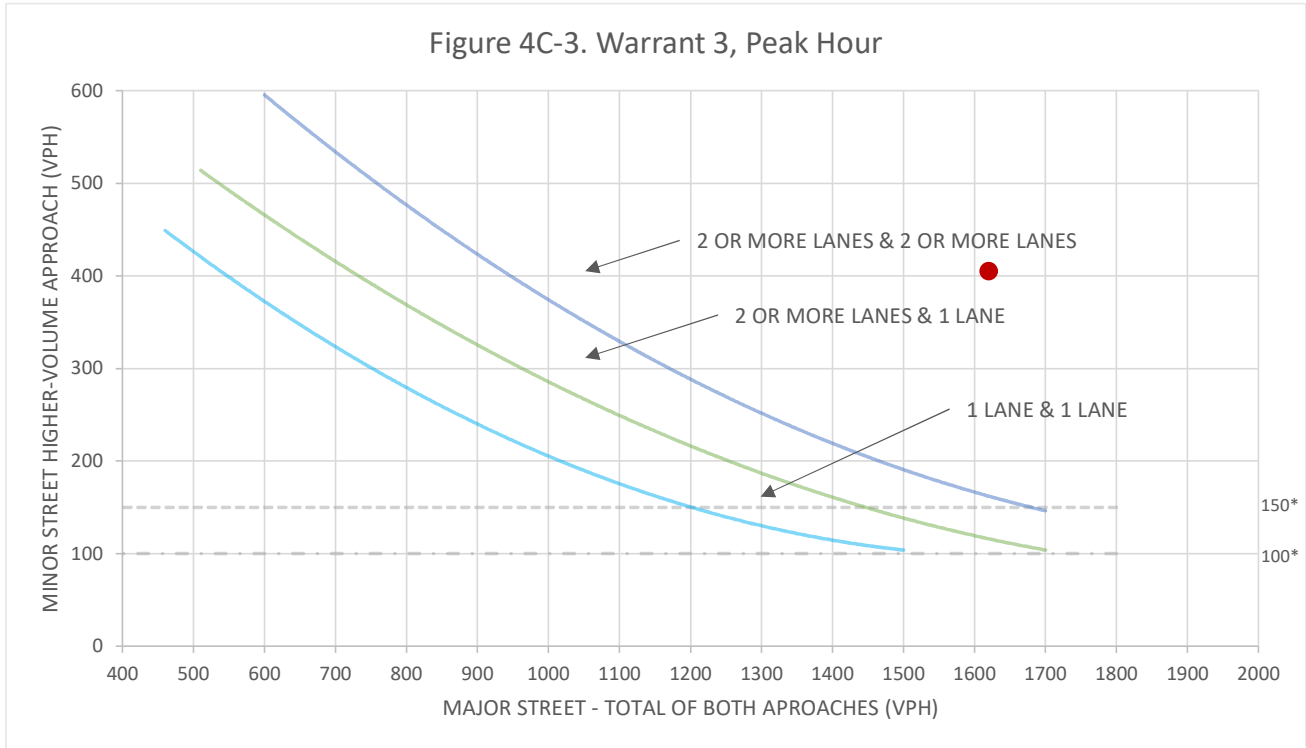
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,406	487	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040
Peak Hour	PM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

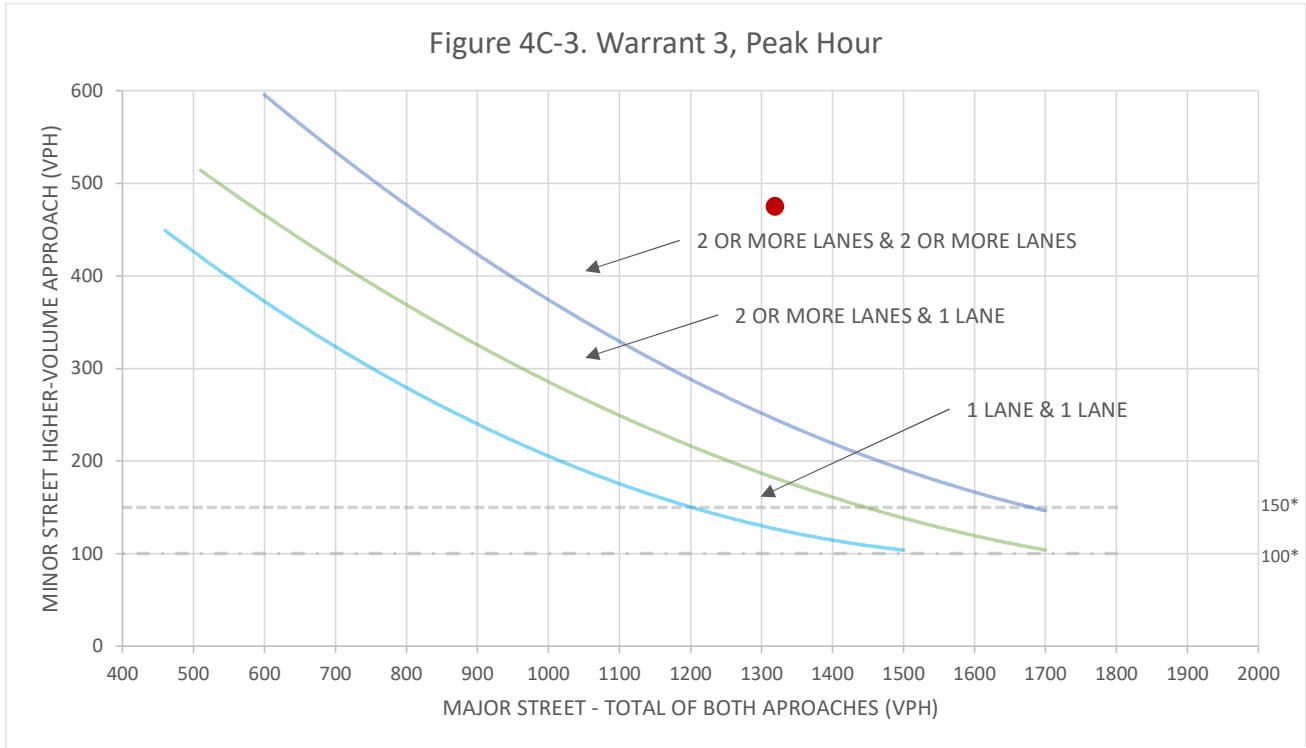
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,620	405	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040
Peak Hour	Saturday Mid-Day

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

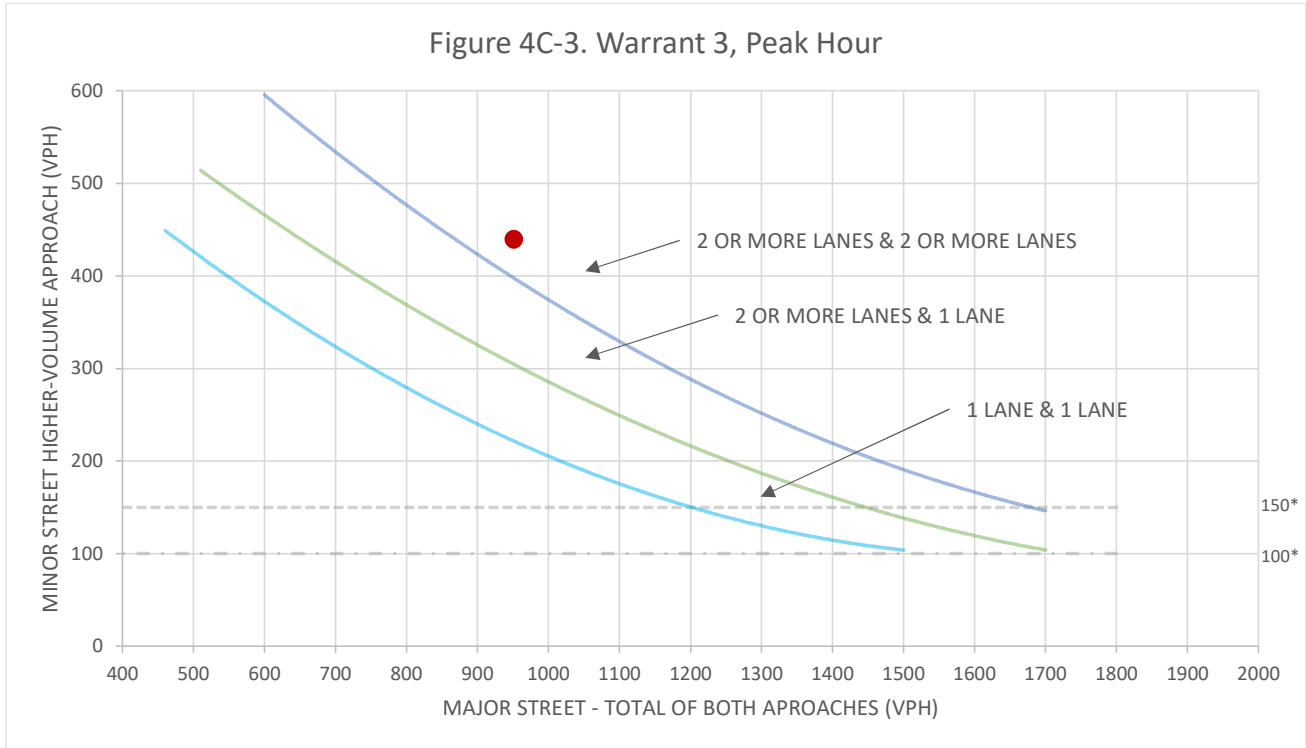
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,319	475	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	Existing
Peak Hour	AM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

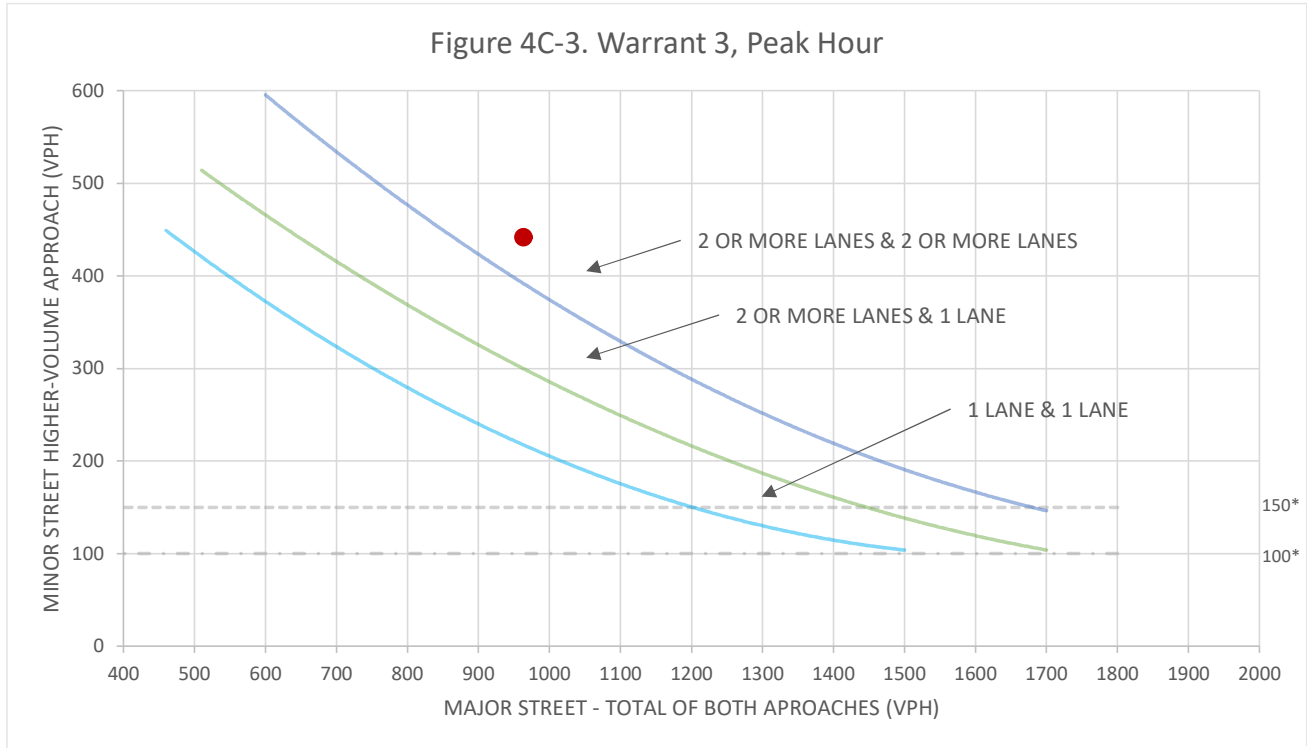
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	951	439	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	Existing plus Project
Peak Hour	AM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

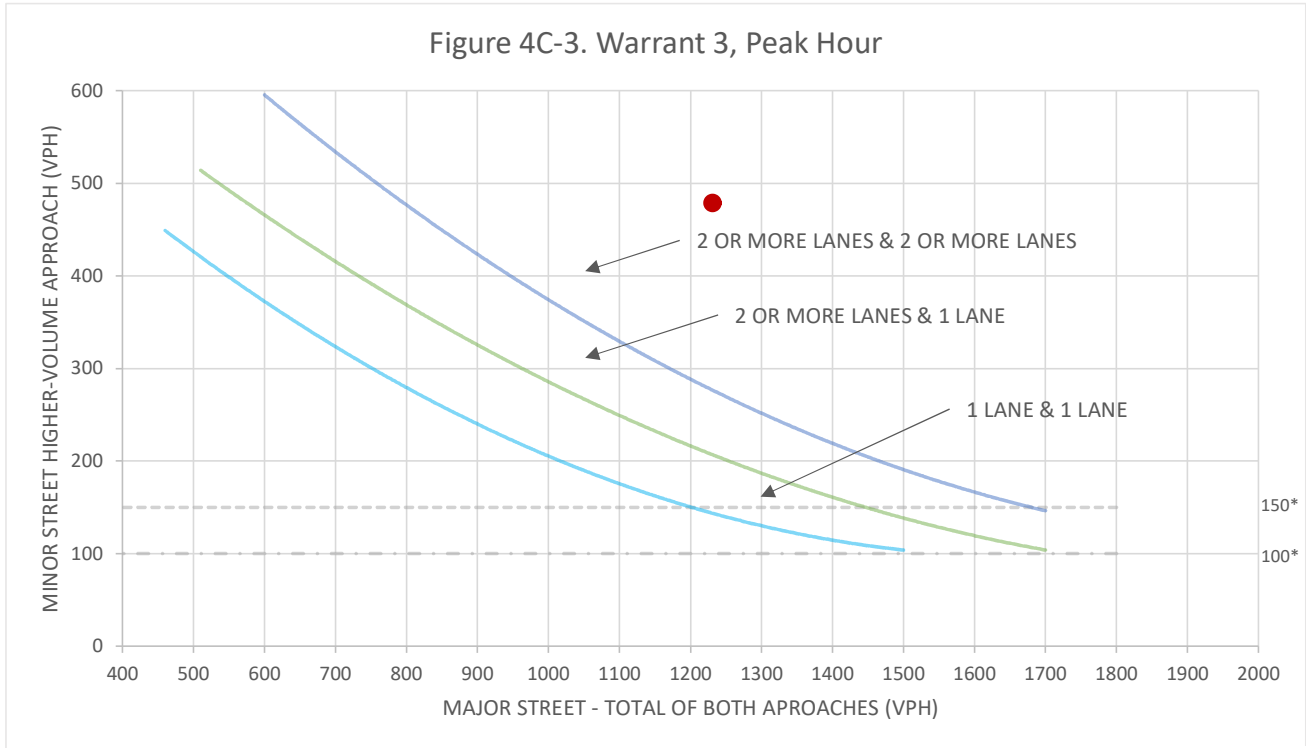
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	963	441	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033
Peak Hour	AM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

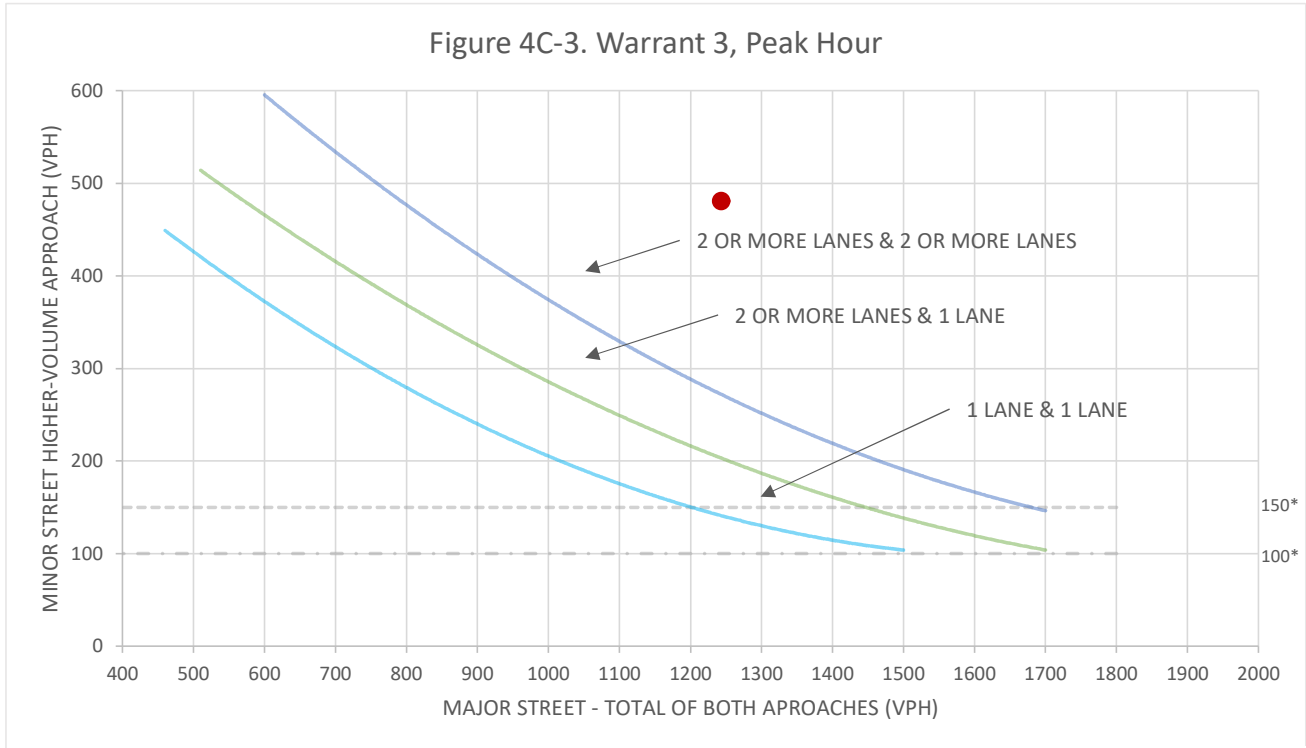
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,231	479	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033 plus Project
Peak Hour	AM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

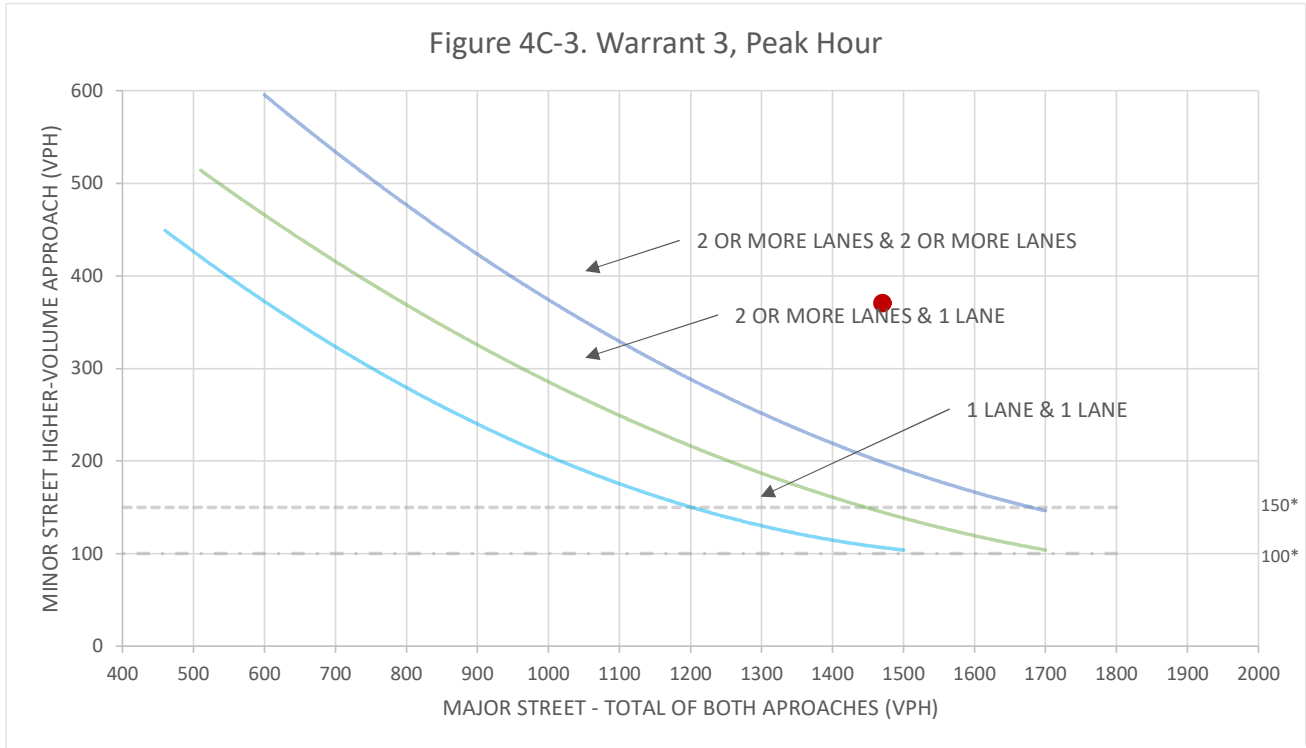
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,243	481	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033 plus Project
Peak Hour	PM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

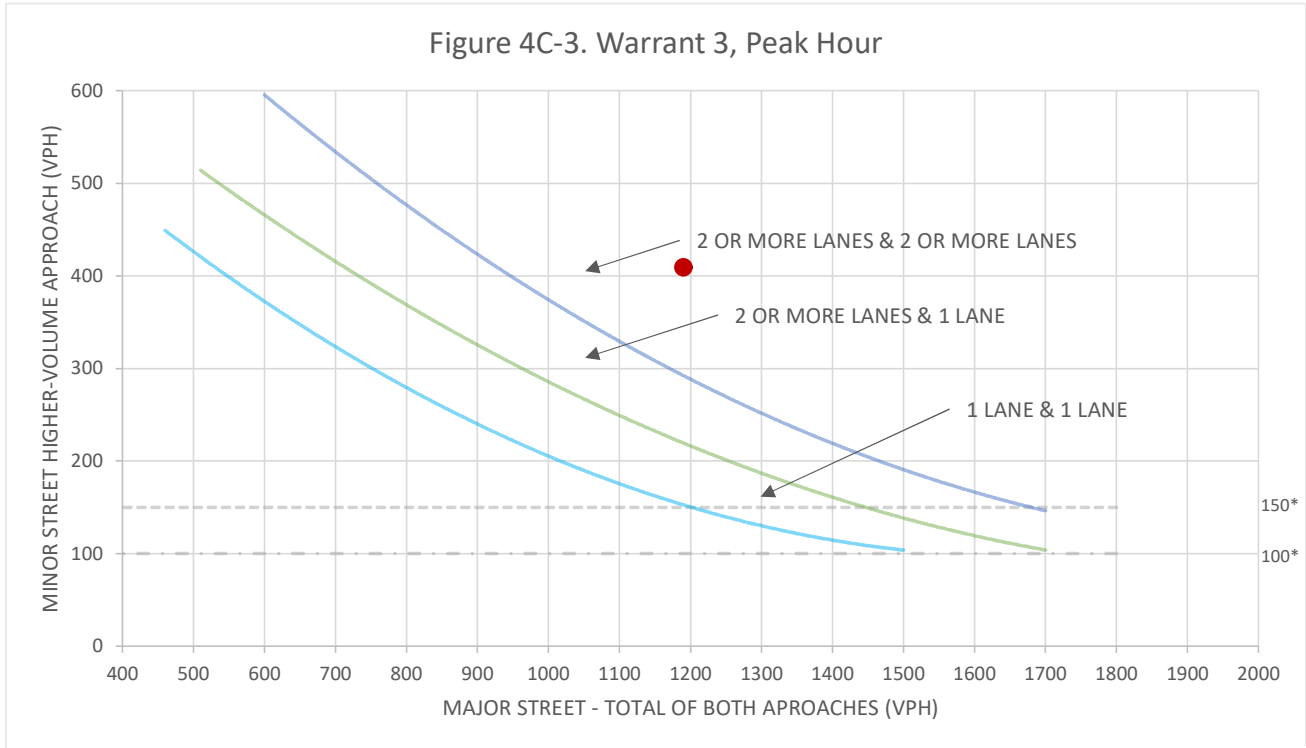
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,471	370	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033 plus Project
Peak Hour	Saturday Mid-Day

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,190	409	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033
Peak Hour	PM

Intersection #	4
Major Street	Pleasant Valley Road - SR-49
Minor Street	SR-49

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

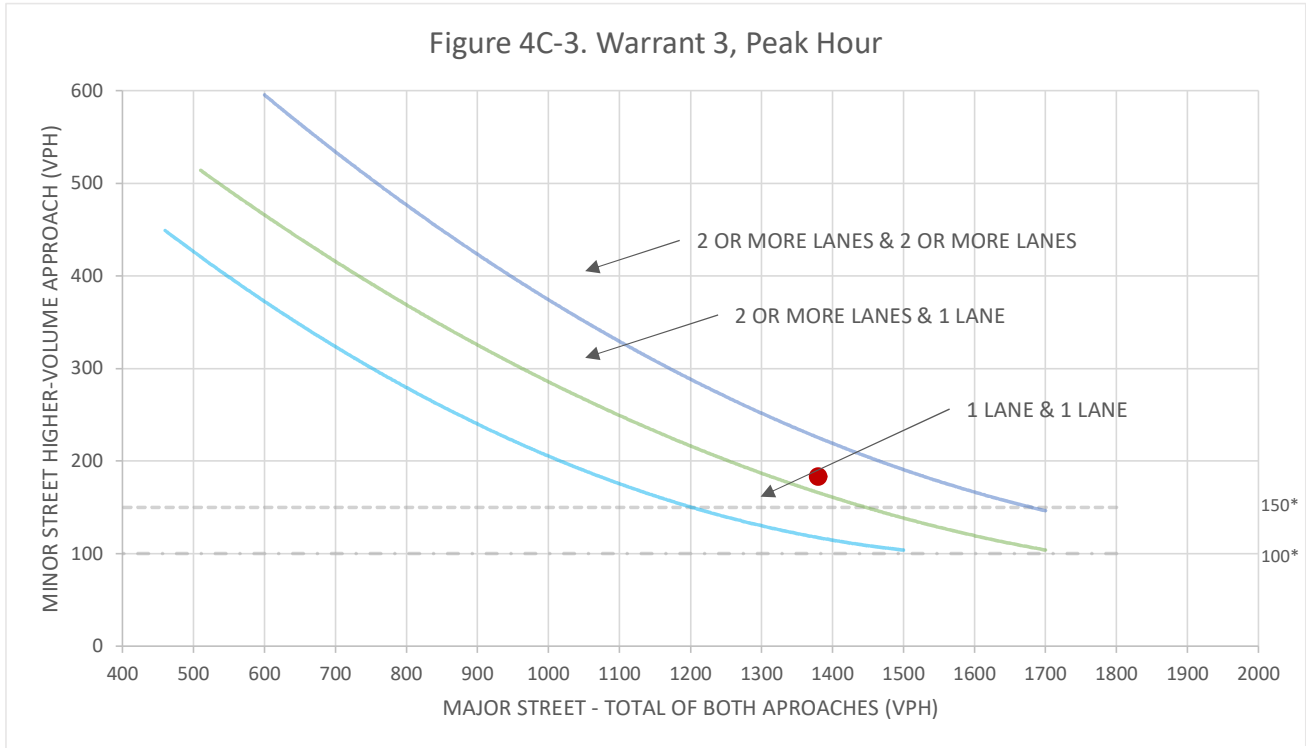
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	SR-49	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,422	361	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040
Peak Hour	AM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

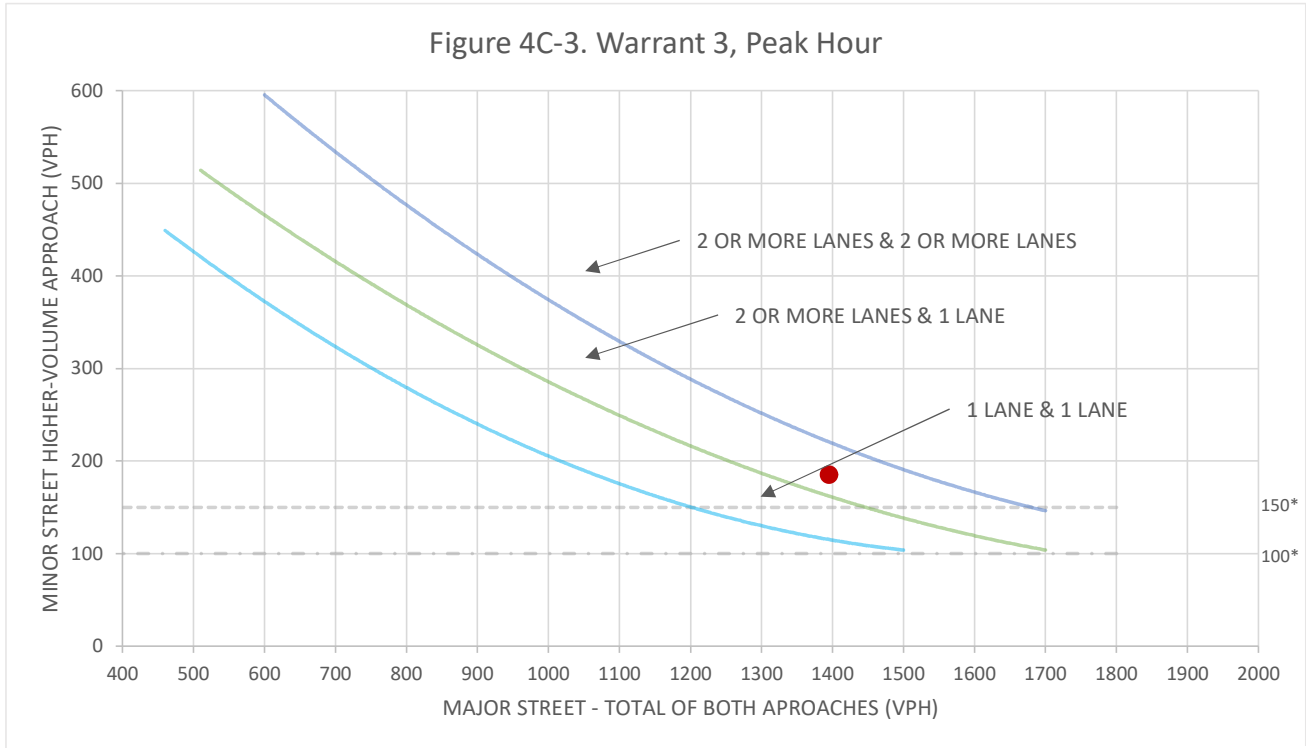
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,380	183	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	AM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

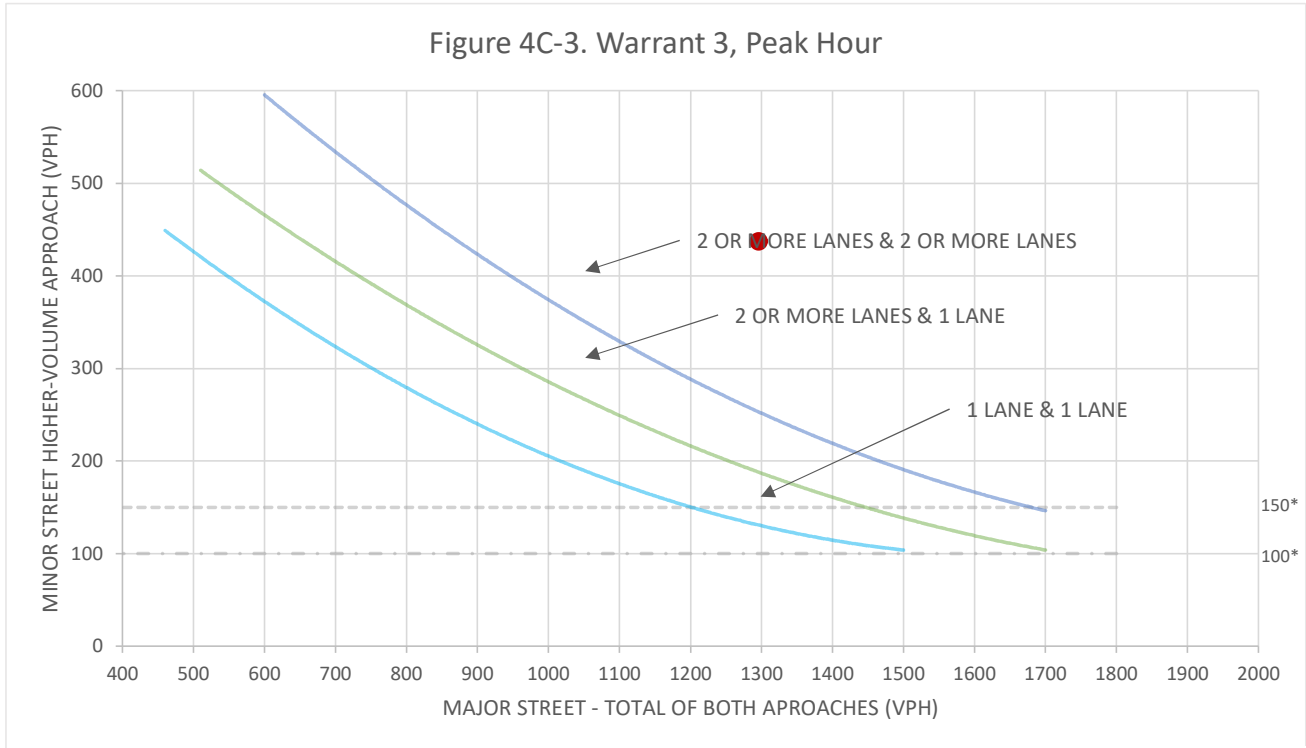
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,395	185	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	PM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

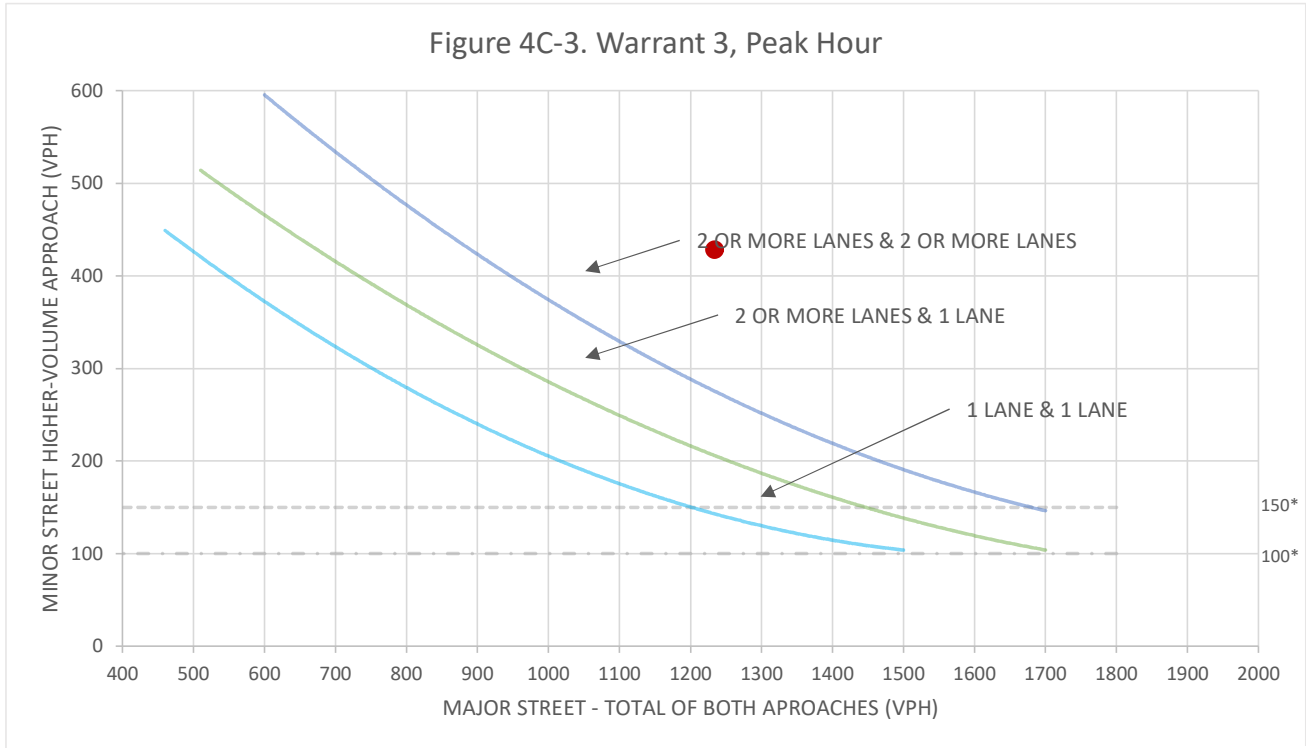
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,296	437	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040
Peak Hour	PM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

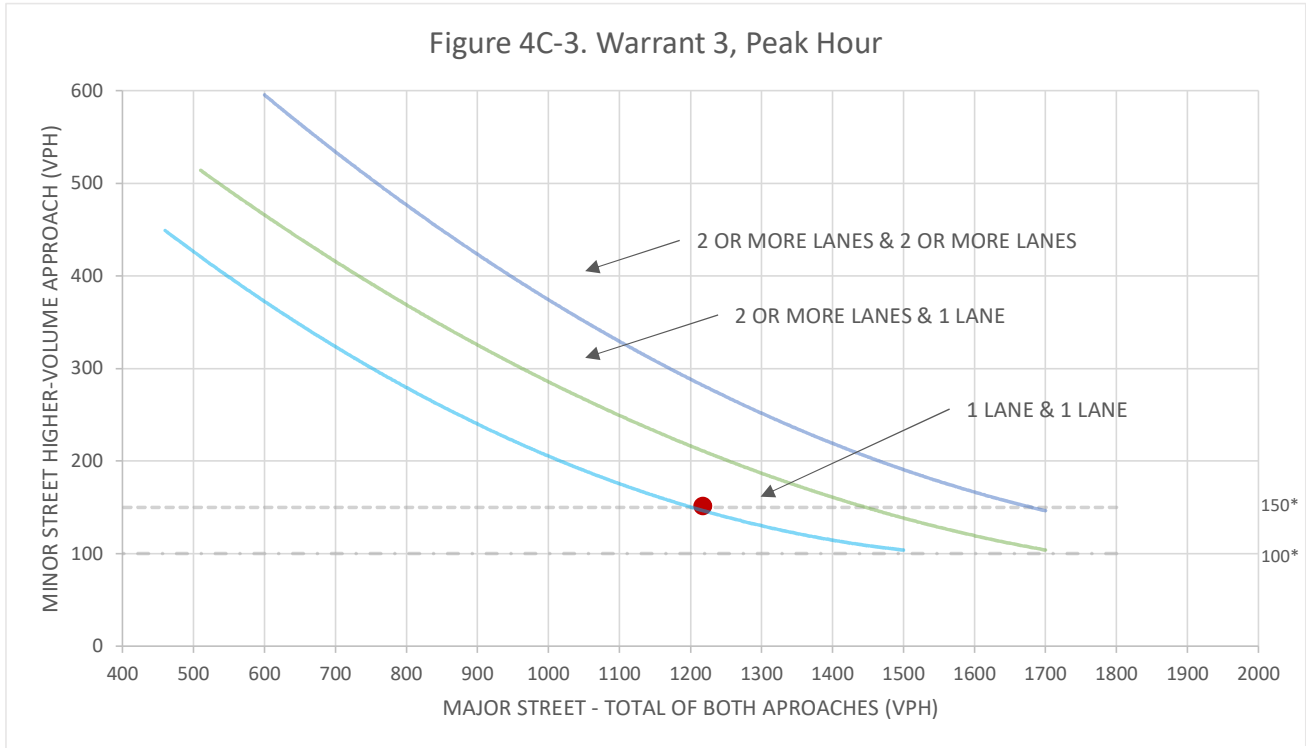
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,234	428	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033
Peak Hour	AM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

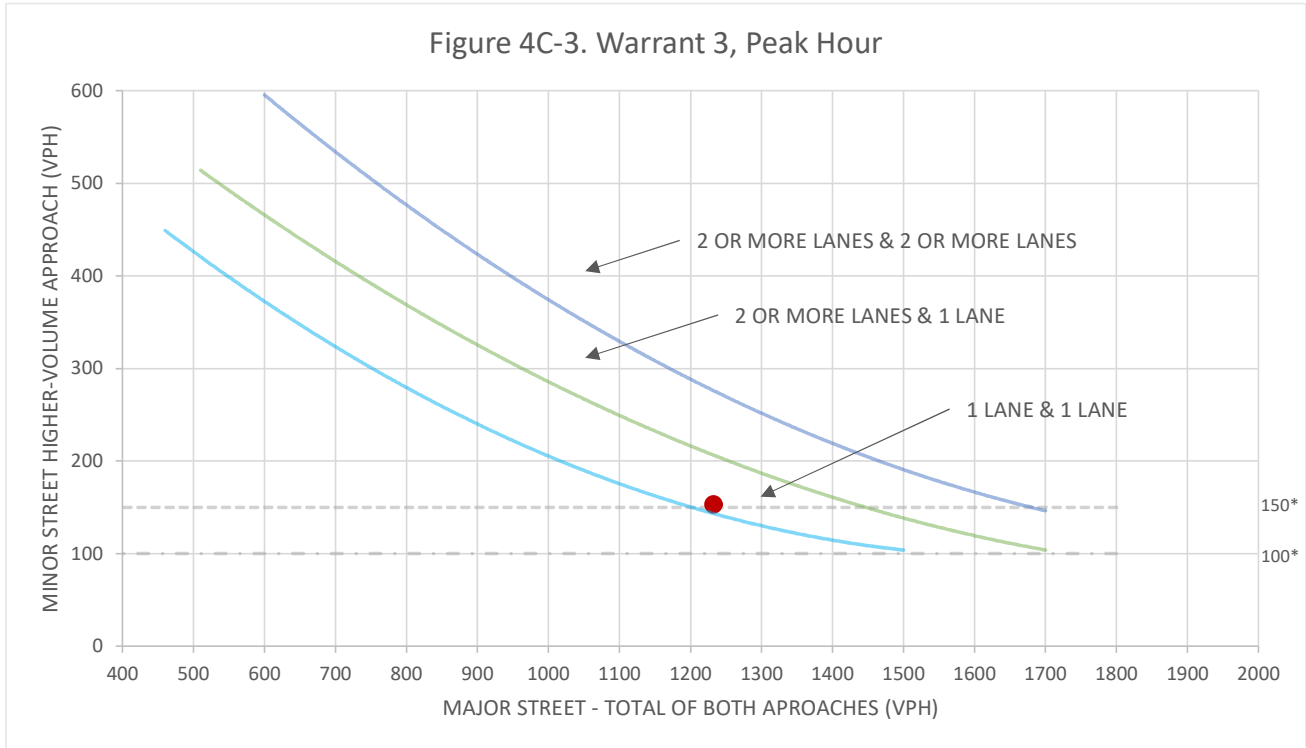
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,217	151	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033 plus Project
Peak Hour	AM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

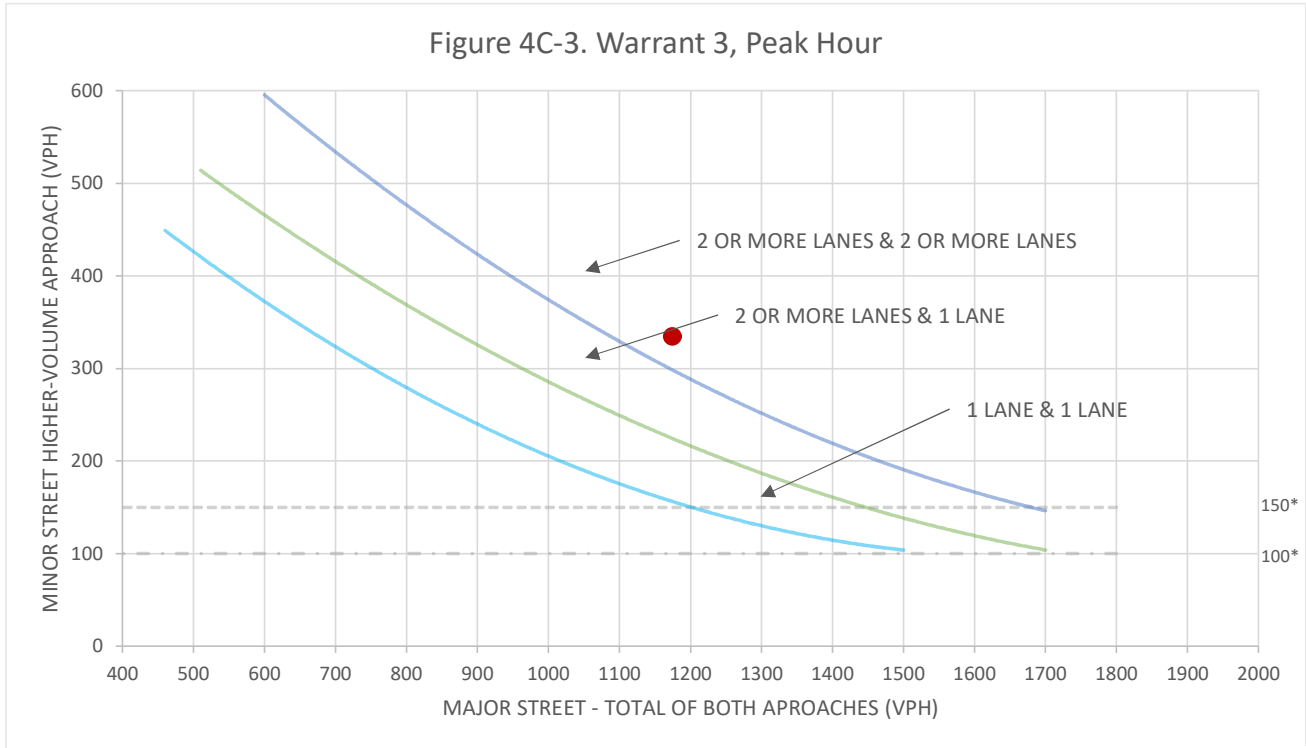
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,232	153	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033 plus Project
Peak Hour	PM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

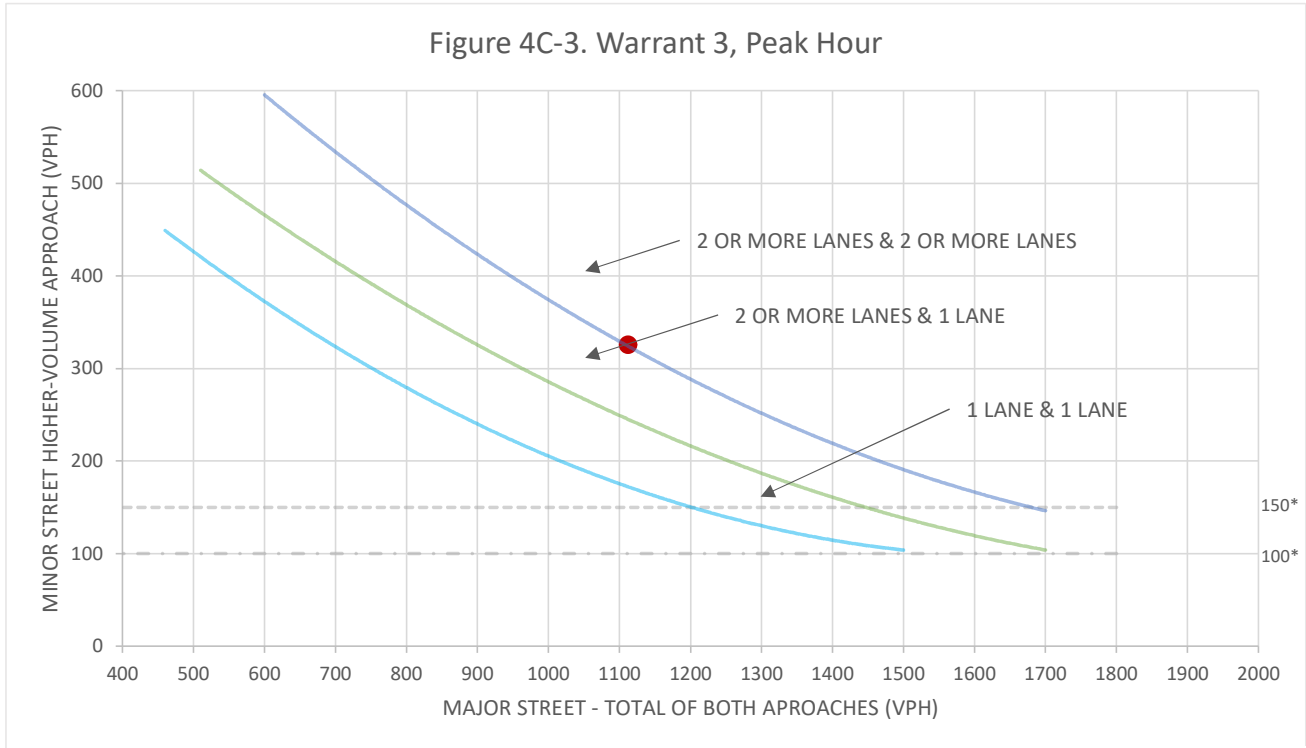
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,175	334	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2033
Peak Hour	PM

Intersection #	5
Major Street	Pleasant Valley Road - SR-49
Minor Street	Forni Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

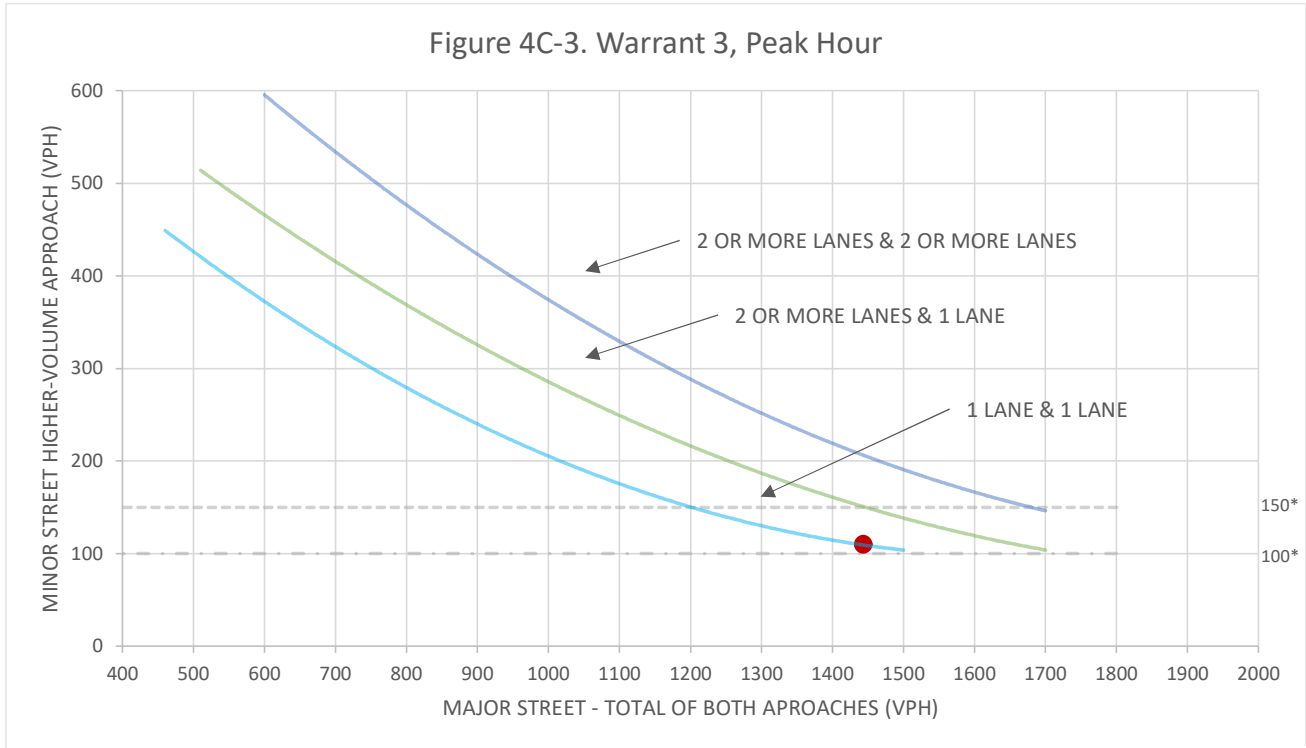
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Forni Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,113	325	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	AM

Intersection #	7
Major Street	Pleasant Valley Road - SR-49
Minor Street	Oak Dell Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

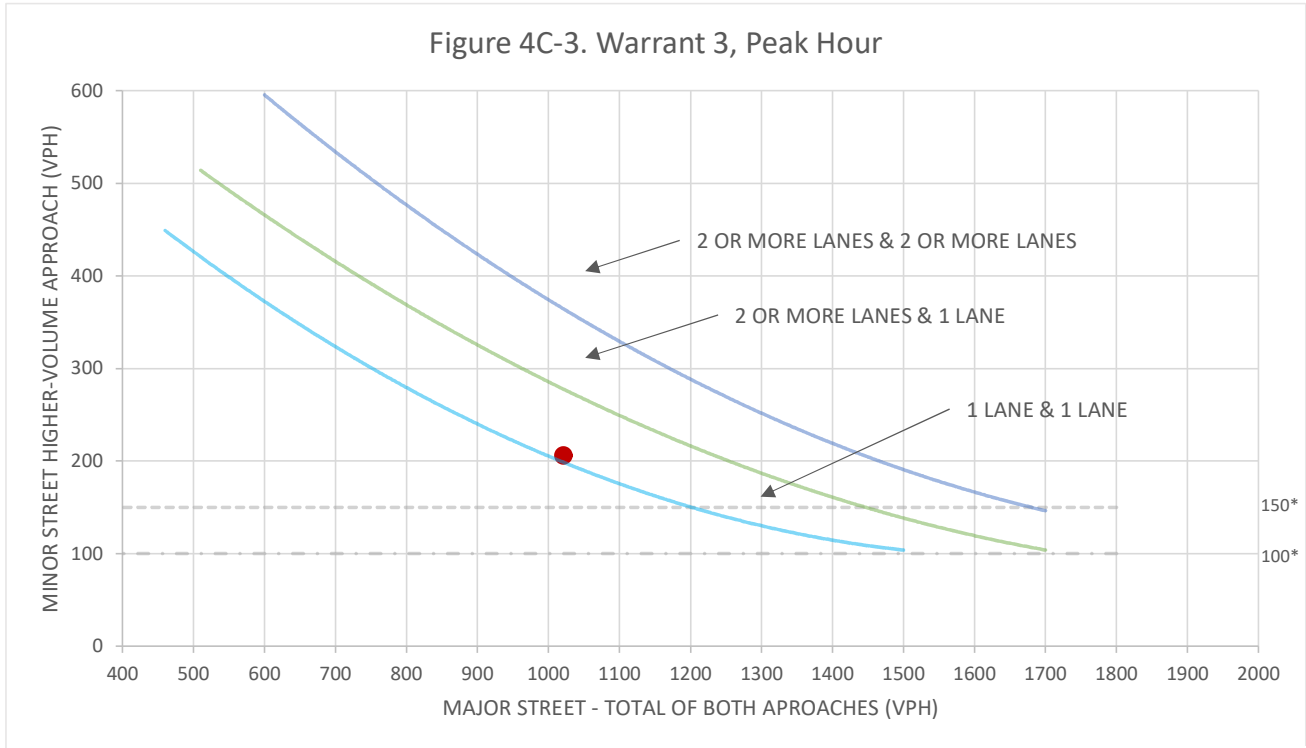
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Oak Dell Road	
Number of Approach Lanes	1	1	No
Traffic Volume (VPH)*	1,444	110	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	2040 plus Project
Peak Hour	Saturday Mid-Day

Intersection #	7
Major Street	Pleasant Valley Road - SR-49
Minor Street	Oak Dell Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

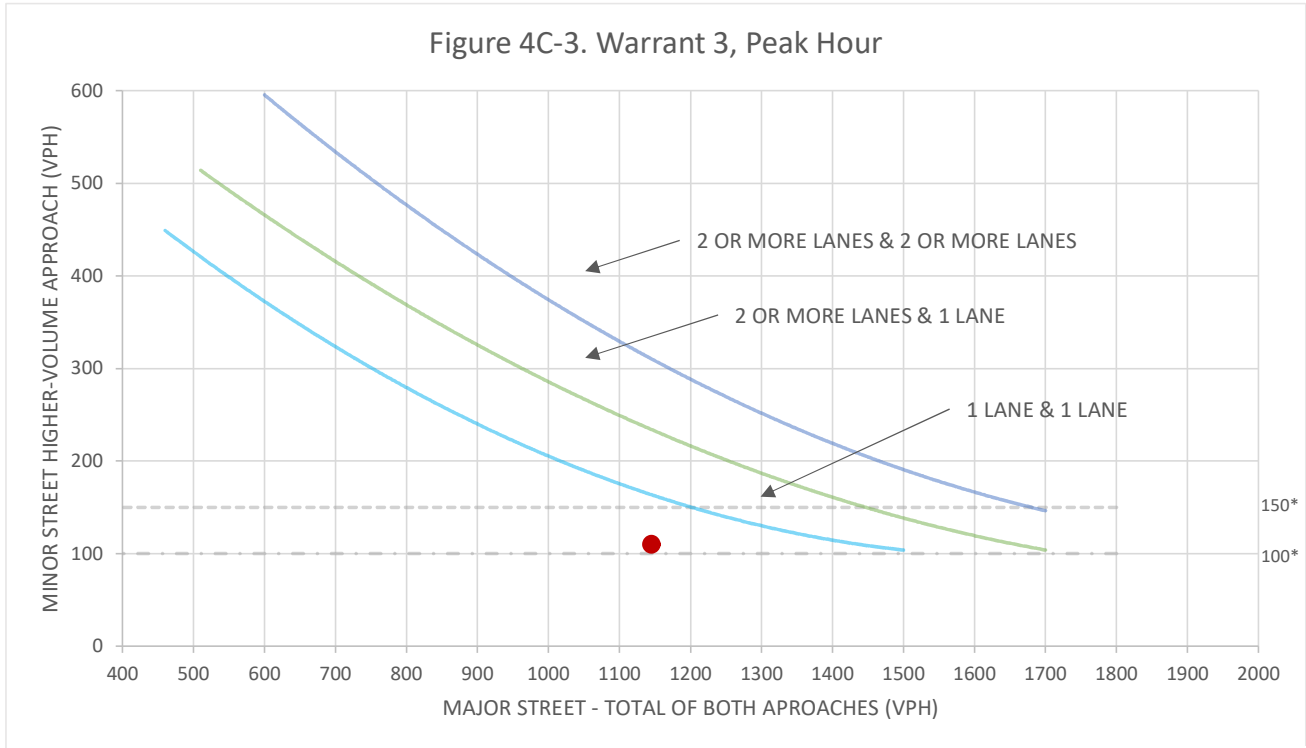
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Oak Dell Road	
Number of Approach Lanes	1	1	Yes
Traffic Volume (VPH)*	1,021	206	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Project	Diamond Springs Project
Scenario	Existing plus Project
Peak Hour	AM

Intersection #	7
Major Street	Pleasant Valley Road - SR-49
Minor Street	Oak Dell Road

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Pleasant Valley Road - SR-49	Oak Dell Road	
Number of Approach Lanes	1	1	No
Traffic Volume (VPH)*	1,145	110	
<p>*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.</p>			

Appendix E

SimTraffic Queuing Worksheets

Intersection: 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	T	R	L	TR	LT	R	LTR
Maximum Queue (ft)	80	355	165	190	393	190	164	62
Average Queue (ft)	43	145	104	180	244	94	70	22
95th Queue (ft)	88	273	184	210	462	163	132	54
Link Distance (ft)		1778			376	446		430
Upstream Blk Time (%)					7			
Queuing Penalty (veh)					54			
Storage Bay Dist (ft)	55		140	165			310	
Storage Blk Time (%)	11	39	0	27	5			
Queuing Penalty (veh)	74	149	2	115	22			

Intersection: 7: Oak Dell Rd & Pleasant Valley Rd - SR-49

Movement	EB	WB	NB	SB
Directions Served	R	LTR	LTR	LTR
Maximum Queue (ft)	12	505	310	33
Average Queue (ft)	1	151	166	3
95th Queue (ft)	7	472	429	18
Link Distance (ft)		1851	472	284
Upstream Blk Time (%)			15	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	75			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 417

Intersection: 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	T	R	L	TR	LT	R	LTR
Maximum Queue (ft)	80	268	164	154	276	86	76	74
Average Queue (ft)	24	133	49	61	131	29	27	26
95th Queue (ft)	64	224	138	118	235	67	58	60
Link Distance (ft)		1778			376	446		430
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	55		140	165			310	
Storage Blk Time (%)	2	32	0	0	3			
Queuing Penalty (veh)	11	51	0	0	4			

Intersection: 7: Oak Dell Rd & Pleasant Valley Rd - SR-49

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (ft)	24	9	188	92	12
Average Queue (ft)	1	0	47	32	0
95th Queue (ft)	11	4	130	66	6
Link Distance (ft)	376		1851	472	284
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		75			
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Zone Summary

Zone wide Queuing Penalty: 66

Intersection: 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	T	R	L	TR	LT	R	LTR
Maximum Queue (ft)	79	204	84	37	277	28	28	39
Average Queue (ft)	17	108	7	5	137	5	5	7
95th Queue (ft)	52	186	41	22	231	22	21	28
Link Distance (ft)		1778			376	446		430
Upstream Blk Time (%)					0			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)	55		140	165			310	
Storage Blk Time (%)	1	20	0		3			
Queuing Penalty (veh)	6	7	0		0			

Intersection: 7: Oak Dell Rd & Pleasant Valley Rd - SR-49

Movement	EB	WB	NB	SB
Directions Served	R	LTR	LTR	LTR
Maximum Queue (ft)	12	221	198	23
Average Queue (ft)	1	50	73	2
95th Queue (ft)	7	145	153	14
Link Distance (ft)		1851	472	284
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	75			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 13

Intersection: 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	T	R	L	TR	LT	R	LTR
Maximum Queue (ft)	80	409	165	190	412	208	161	65
Average Queue (ft)	42	181	116	182	287	106	67	21
95th Queue (ft)	88	329	199	212	450	172	124	54
Link Distance (ft)		1778			371	446		430
Upstream Blk Time (%)					5			
Queuing Penalty (veh)					38			
Storage Bay Dist (ft)	55		140	165			310	
Storage Blk Time (%)	8	40	2	23	14			
Queuing Penalty (veh)	56	153	6	97	57			

Intersection: 7: Oak Dell Rd & Pleasant Valley Rd - SR-49

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	L	TR	L	R	LTR
Maximum Queue (ft)	58	122	324	111	84	19
Average Queue (ft)	3	27	53	41	34	2
95th Queue (ft)	26	68	216	95	70	13
Link Distance (ft)	371		2736	487		278
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100			150	
Storage Blk Time (%)			4	2	0	
Queuing Penalty (veh)			4	1	0	

Zone Summary

Zone wide Queuing Penalty: 412

Intersection: 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	T	R	L	TR	LT	R	LTR
Maximum Queue (ft)	73	450	165	189	380	116	76	89
Average Queue (ft)	22	182	53	91	208	37	27	28
95th Queue (ft)	60	377	150	185	342	88	59	66
Link Distance (ft)		1778			371	446		430
Upstream Blk Time (%)					1			
Queuing Penalty (veh)					4			
Storage Bay Dist (ft)	55		140	165			310	
Storage Blk Time (%)	7	43	0	0	13			
Queuing Penalty (veh)	42	69	0	1	14			

Intersection: 7: Oak Dell Rd & Pleasant Valley Rd - SR-49

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	L	TR	L	R	LTR
Maximum Queue (ft)	124	70	95	86	76	24
Average Queue (ft)	7	24	6	30	29	2
95th Queue (ft)	56	54	44	64	56	11
Link Distance (ft)	371		2736	487		278
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100			150	
Storage Blk Time (%)		0	0	0		
Queuing Penalty (veh)		0	0	0		

Zone Summary

Zone wide Queuing Penalty: 130

Intersection: 6: Koki Ln/Oro Ln & Pleasant Valley Rd - SR-49

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	T	R	L	TR	LT	R	LTR
Maximum Queue (ft)	73	283	81	94	414	30	32	43
Average Queue (ft)	18	132	11	6	216	5	4	10
95th Queue (ft)	50	237	57	44	382	23	20	35
Link Distance (ft)		1778			371	446		430
Upstream Blk Time (%)					7			
Queuing Penalty (veh)					33			
Storage Bay Dist (ft)	55		140	165			310	
Storage Blk Time (%)	2	29	0		25			
Queuing Penalty (veh)	13	10	0		1			

Intersection: 7: Oak Dell Rd & Pleasant Valley Rd - SR-49

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	L	TR	L	R	LTR
Maximum Queue (ft)	35	122	456	112	90	19
Average Queue (ft)	3	35	39	49	44	1
95th Queue (ft)	16	102	252	89	73	9
Link Distance (ft)	371		2736	487		278
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100			150	
Storage Blk Time (%)		0	6	0		
Queuing Penalty (veh)		0	6	0		

Zone Summary

Zone wide Queuing Penalty: 65