



Crystal Creek Aggregates Expansion

Final Draft Traffic Impact Analysis Report

Tullis, Inc. DBA Crystal Creek Aggregates

December 07, 2022

→ The Power of Commitment



REPORT SIGNATURE SHEET

This Traffic Impact Analysis Report for Tullis, Inc. DBA Crystal Creek Aggregates has been prepared under the direction of the following Professional Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



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December 7, 2022

Date

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1. Introduction

This report has been prepared to present the results of a traffic impact analysis performed by GHD for the proposed expansion of the Crystal Creek Aggregates (CCA) facility in Shasta County, California. The proposed project would increase the annual rock product production from 250,000 Tons to 500,000 Tons. The Project is described in further detail in a subsequent section of this report. **Figure 1.1** illustrates the location of the Project within Shasta County.

This report will evaluate the existing transportation setting and roadway operations at project intersections and roadways. Evaluation of project conditions, including project trip generation, distribution and traffic operation under plus project conditions are also included in the report.

The term “project”, as used in this report, refers to the following development:

- Expansion of the mining operation from 250,000 tons to 500,000 tons.

Even though the tonnage of aggregates to be mined will increase under the proposed project, the operating hours of the existing mine will remain the same. This study will evaluate the AM and the PM peak hours roadway operations.

The following traffic scenarios are analyzed as a part of this report,

- Opening Year 2022
- Opening Year 2022 Plus Project
- Cumulative Year 2042
- Cumulative Year 2042 Plus Project

The “Cumulative Year 2042” condition represents future growth in the area in the next 20-years but does not include the expansion of Crystal Creek Aggregates.

Included in this report are analysis and discussion of the following items:

- Technical analysis parameters and methodologies.
- Existing study locations, data collection, and existing conditions assumptions.
- Project description including quantification of trip generation and trip distribution associated with the proposed project.
- Opening Year 2022 and Opening Year 2022 plus Project Conditions.
- Vehicle Miles Traveled (VMT) analysis related to the SB 743 and the trip characteristics of the proposed project associated with location, size, and screening criteria.
- Cumulative Year 2042 Analysis, including No Project and Plus Project Conditions.
- Impact Determination and Mitigation Measures including any bikeway improvements

Figure 1.1 shows the project study area.

SHASTA COUNTY

KESWICK DAM ROAD

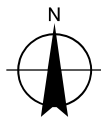
BALL MILL ROAD

PROJECT LOCATION

STUBBS LN

MIDDLE CREEK RD

IRON MOUNTAIN ROAD



CRYSTAL CREEK AGGREGATES EXPANSION
TRAFFIC IMPACT ANALYSIS REPORT

PROJECT LOCATION MAP

Project No. 12560517
Revision No. RPT001
Date 03/28/2022

FIGURE 1.1

2. Background

The existing Crystal Creek Aggregates (CCA) is located in Shasta County, California and operates as an aggregate mining/reclamation facility and a concrete recycling center. The CCA facility was initially permitted in 1990 under Shasta County Use Permit UP-24-90 and Reclamation Plan 1-90. Subsequently, in 2008 General Plan Amendment 07-005, Zone Amendment 07-020, Use Permit Amendment, UP-07-020, and Reclamation Plan Amendment RP-07-022 were approved. A California Environmental Quality Act (CEQA) Mitigated Negative Declaration, with findings as specifically set forth in Planning Commission Resolution Nos. 2008-066 and 2008-067 were also adopted, approving the various entitlements.

The CCA property is currently designated as a Mineral Resource (MR) and Interim Industrial Mineral Resource (I-IMR) General Plan land use classifications and zoned a Mineral Resource (MR) district. CCA operates under Shasta County Use Permit 07-020 (UP 07-020) that is valid until December 31, 2072 and contains the following requirements that impacts transportation:

- Removal of soil and overburden, blasting, extraction, crushing, screening, washing, stockpiling, loading, and off-site sale of sand, gravel and rock, as described in the description of the mining operation and reclamation plan* for the ±110.69 acre area of five parcels.
 - *The reclamation plan was amended as follows:
 - Amendment to Reclamation Plan (REC PL 1-90), May 27, 2008.
 - Amended Mining and Reclamation Plan (REC PL 07-002), October 29, 2007.
- Reclamation Plan Minor Modification (RP 07-002 M1), May 16, 2012.
- No rock, gravel, sand, or other earth materials shall be imported to or recycled on the site without prior approval from the County of Shasta's Planning Director or Planning Commission as appropriate.
- Truck traffic to and from the Project site shall be limited to a monthly average of 45 truck round-trips per day, with a maximum of 220 truck round-trips per day.
- The annual tonnage of processed rock product shall be limited to 250,000 tons.
- The hours of operation shall be from 6 am to 5 pm, Monday through Saturday during Pacific Standard Time.
- The hours of operation shall be from 6 am to 6 pm, Monday through Friday, and from 6 am to 5 pm on Saturdays, during Pacific Daylight Savings Time.
- No heavy equipment shall be moved to or from the site except during the permitted hours of operation, except during an emergency. Operator and employee personal passenger vehicles and office work are exempt from the limits of the hours of operation.
- All trucks hauling dirt, sand, soil or other loose material should be covered or should maintain the minimum required amount of freeboard in accordance with the requirements of the California Vehicle Code Section 23114.
- Pursuant to an agreement with the County, pay for extraordinary maintenance of Iron Mountain Road caused by the Project.
- All material transported off-site shall be either sufficiently watered or securely covered to prevent a public nuisance.
- The facility shall be provided with street address markers located with respect to the nearest roadway and to be clearly visible at all times.

The new project applicant, Tullis, Inc. DBA Crystal Creek Aggregates is proposing a similar Use Permit Amendment with annual rock product production increase from 250,000 tons to 500,000 tons with an increase in an overall project area of approximately 179.97 acres but with no asphalt concrete batch plant. The currently approved plant area of 53.38 acres and quarry area of 57.31, which total 110.69 acres, will not be increased by the proposed project. However, the proposed project area will increase by 69.28 acres, which will be a buffer area. The total estimated amount proposed to be mined will increase from 15.92 million tons to 25.4 million tons over three phases. Extraction

for Phase 1, 2, and 3 is to be 4.84, 5.42 and 2.15 million cubic yards per phase, respectively. The estimated life of the mining operation will increase from the currently approved end of the Year 2072 by 27 years to the end of the Year 2099.

No additional project-related structures are proposed. Current operations for those associated with mining aggregate and the continuation of a Concrete Recycle Center Area to accommodate 50,000 cubic yards (CYs) are proposed to be continued. The existing Concrete Recycle Area location and operation for which an administrative permit was issued and subsequently reissued by the County due to the Carr Fire is proposed to be a permanent project component. The estimated 2.80-acre area would be used for the storage of rubble and concrete byproducts obtained from regional demolition projects. The location of the material and topsoil stockpiles will also remain in their current general location, which will expand and contract as part of the mining operation.

Reclamation will occur, to the maximum extent feasible, concurrently with mining activity. Overburden and topsoil will be placed on each finished bench and vegetation planted within two years after reaching final grade, except for those portions which serve as haul routes or other functions necessary for the mining of future phases of the quarry. The Revegetation Plan was revised to make the mine more resistant to wildland fires.

2.1 Purpose and Need

The Project would expand the facility from an approved use permit area of ± 110.69 acres to a proposed total Project area of ± 179.97 acres. Additionally, the project would increase the total yearly aggregate sale from 250,000 tons to 500,000 tons. The total estimated amount proposed to be mined will increase from 15.92 million tons to 25.4 million tons over three phases.

The overall expansion and subsequent proposed uses and operational changes that were applicable to this traffic impact analysis were as follows:

- Increase rock product mining from 250,000 to 500,000 tons per year.
- Increase the December 31, 2072 “sunset” year to December 31, 2099.
- Number of full-time employees will increase from eight (8) to ten (10).

With the increase in rock product mining production and overall operations, a traffic study is required. This study will provide a determination of General Plan consistency.

This traffic analysis will evaluate the full buildout impacts and address the Shasta County General Plan Circulation Element policies for new developments to include:

C-6L: New development which may result in exceeding LOS E on existing facilities shall demonstrate that all feasible methods of reducing travel demand have been attempted to reach LOS C. New development shall not be approved unless traffic impacts are adequately mitigated. Such mitigation may take the form of, but not limited to, the following:

Provision of capacity improvements to the specific road link to be impacted, the transit system, or any reasonable combination.

Provision of demand reduction measures included as part of the project design or project operation or any feasible combination.

2.2 Previous Traffic Studies

In October 2005, Omni-Means, Ltd. conducted a traffic impact analysis for the expansion of CCA to 250,000 tons.

In February 2007, Omni-Means, Ltd. conducted a traffic impact analysis for the expansion of CCA to 500,000 tons. CCA did not move forward with the expansion at that time.

In August 2020, GHD Inc. conducted a traffic impact analysis for the expansion of CCA to 500,000 tons and the addition of asphalt concrete plant. CCA did not move forward with the expansion at that time.

3. Existing Conditions

In the Project area there are three main roadways that provide access, SR 299 (Eureka Way), Iron Mountain Road, and Keswick Dam Road. The other roadways in the study area are local roadways and therefore not described below.

3.1 Study Area Roadway Network

SR 299 is currently an undivided 2-lane highway in the project vicinity. The highway is under the jurisdiction of Caltrans. The highway operates as a high-speed rural highway. The posted speed limit is 55 MPH.

SR 299 begins in the City of Arcata at SR 101 and stretches easterly through Trinity, Shasta, Lassen, and Modoc Counties. SR 299 is an important interregional transportation facility. SR 299, in the vicinity of the Project, is an important route for recreation traffic and a commuter route serving the greater Redding area.

SR 299 in the project area is also called Eureka Way.

Iron Mountain Road is a 2-lane collector road, beginning at SR 299 approximately 2 miles west of the western limits of the City of Redding and ending several miles north of SR 299. The road is under the jurisdiction of the County of Shasta and serves as primary access to portions of Keswick Lake and the community of Keswick. The County has no reasonably foreseeable plans for roadway improvements of the Iron Mountain Road in the vicinity of the Project.

Keswick Dam Road is a 2-lane arterial road from Iron Mountain Road to Quartz Hill Road and a 4-lane arterial from Quartz Hill Road to where it terminates at Lake Boulevard. This road is under the jurisdiction of Shasta County and serves as primary access to Keswick Dam and Lake Keswick Estates. Currently, the road over the dam has a 20-ton weight limit. The County has no reasonably foreseeable plans for improvement of the facility in the vicinity of the Project.

3.2 Study Intersections and Segments

The seven (7) intersections and one (1) roadway segment will be analyzed in the traffic analysis. The study intersections are as follows:

1. Iron Mountain Road / State Route 299 (Eureka Way)
2. Iron Mountain Road / Middle Creek Road
3. Iron Mountain Road / Crystal Creek Aggregates (CCA) Driveway
4. Iron Mountain Road / Stubbs Lane
5. Iron Mountain Road / Lumber Manufacture 4-Leg Driveway
6. Iron Mountain Road / Ball Mill Road
7. Iron Mountain Road / Keswick Dam Road

The study roadway segment is as follows:

1. Iron Mountain Road, north of SR 299

Due to Keswick Dam Road having a load limit of 20 tons and a fully loaded truck of aggregate is 40 tons, this possible alternative route was deemed infeasible and removed as a study segment.

3.3 Data Collection

In late July and throughout August 2018, the Carr fire burned 230,000 acres and 1,079 residences in Shasta and Trinity counties. Along the Iron Mountain Road corridor, over 200 homes were destroyed including nearly every residence in the community of Keswick. Based on this area having recent reductions to the vehicular traffic with the Carr fire, historical and existing traffic counts were examined.

Traffic counts were collected at the study intersections in November 2018, February 2019, and October 2019.

At the time of the counts in November 2018, the following Carr fire disaster response activities were underway:

- CalRecycle was fully mobilized performing debris removal and erosion control.
- Tullis Inc., under contract to Caltrans, was performing vegetation removal and erosion control along SR 299.
- Utility companies were reconstructing their infrastructure.
- Staging of materials, equipment and personnel were underway at CCA.

GHD compared the November 2018 traffic counts to historical traffic counts from previous studies for the site (2005 and 2007 studies). Based on these historical counts, traffic taken in 2005 were higher than 2018. This is due to the fire and subsequent loss of residential homes in Keswick.

Weekday AM and PM peak hour intersection turn movement traffic counts were collected by National Data & Surveying Services (NDS) collected counts on February 20, 2019 and October 22, 2019. October 2019 counts showed higher amount of traffic at the project intersections compared to February 2019 counts. Therefore, the October 2019 traffic counts were utilized for the traffic operational analysis.

Study intersections were analyzed during the weekday AM and PM peak hour period. The AM and PM peak hour is defined as the highest continuous hour of peak traffic flow counted between 7:00 AM to 9:00 AM and 4:00 PM and 6:00 PM, respectively, under typical weekday conditions.

Counts were taken when all local schools were in session. During the count days, no special events were taking place and the weather was clear. Existing intersection lane geometries and intersection volumes are shown in **Figure 3.1** and **Figure 3.2**.

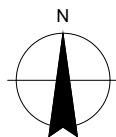
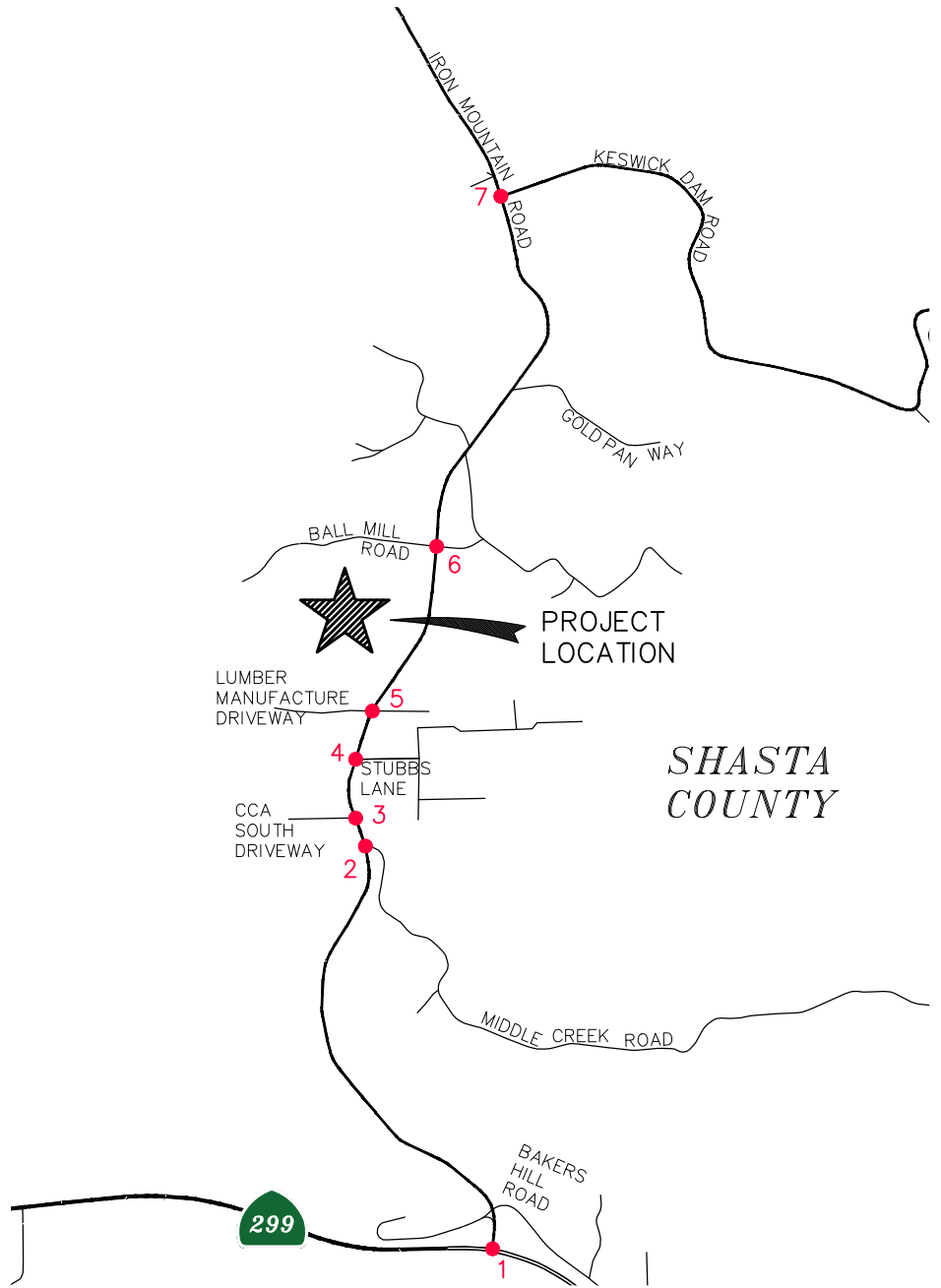
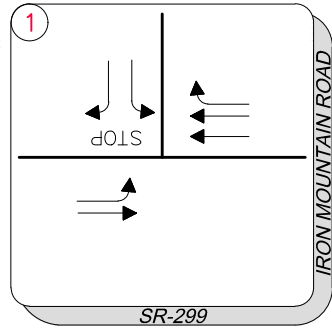
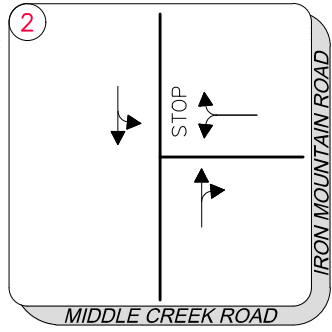
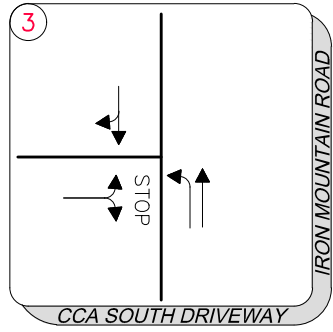
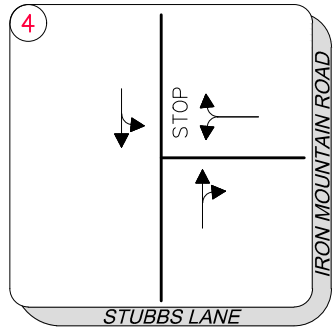
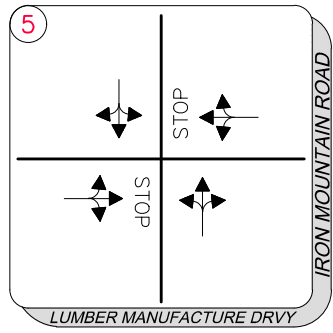
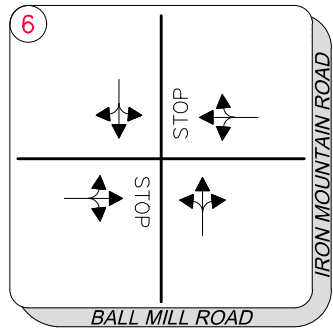
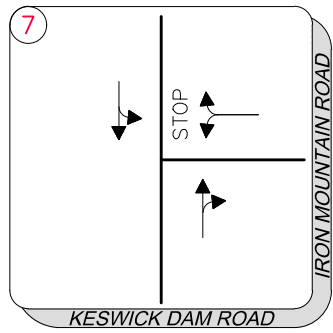
In comparing the recent traffic counts in 2019 to 2018 traffic counts, the 2019 counts are less than the 2018 traffic counts. This is attributed to the additional activities during the emergency disaster response period in 2018.

All traffic counts were taken before any COVID-19 related impact to travel patterns.

Roadway segment counts were also collected for 24-hour periods at the Iron Mountain Road study segment during three consecutive weekdays in October 2019. Results of the average study segment count is as follows:

1. Iron Mountain Road, north of SR 299
Average daily volume 1,321 vehicles (both directions), average AM peak hour volume 119 vehicles, average PM peak hour volume 122 vehicles

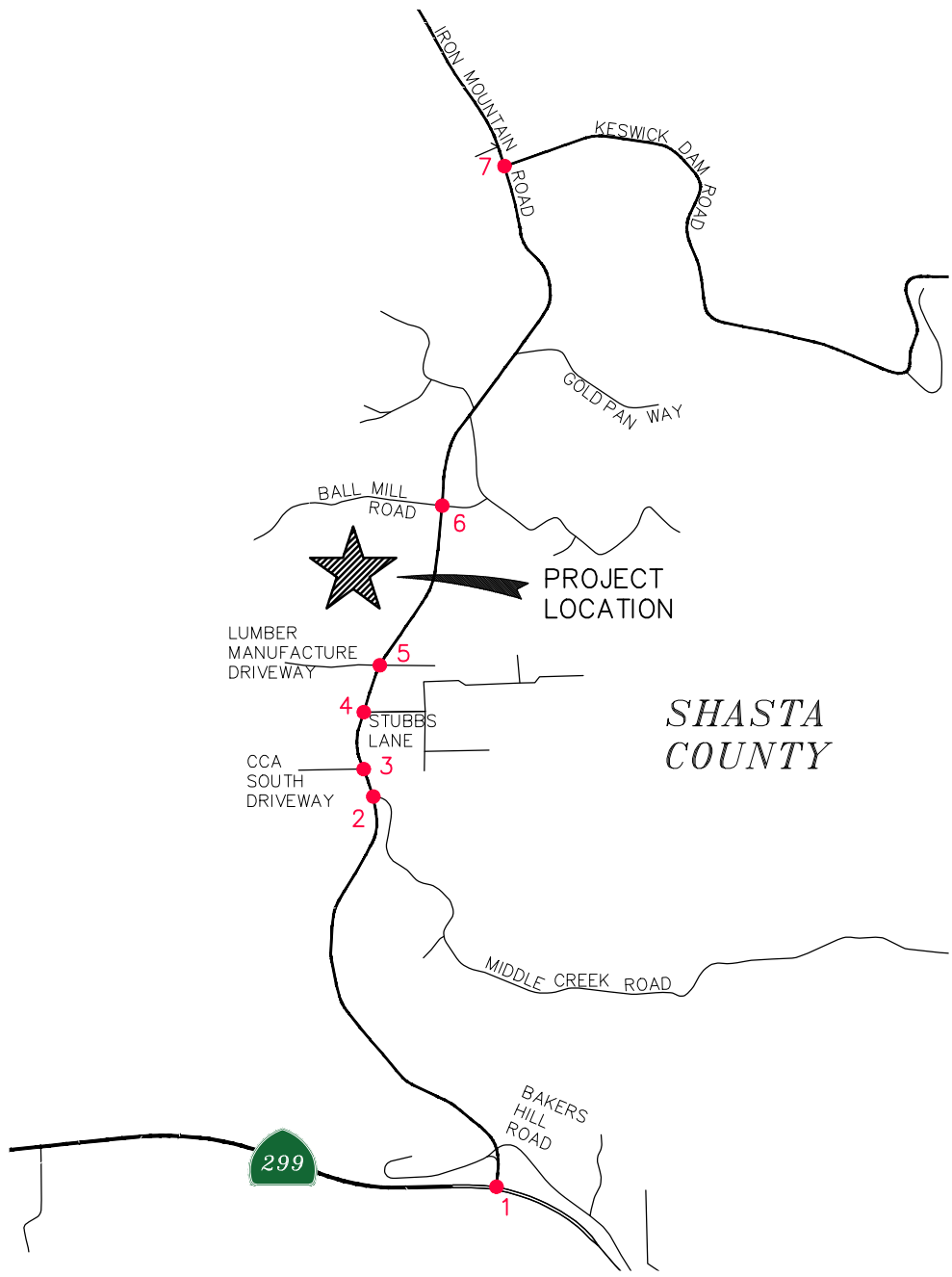
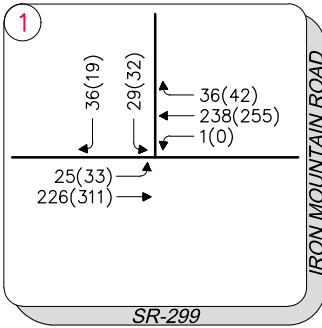
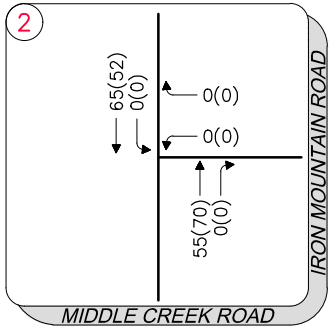
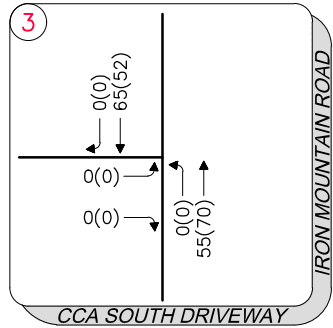
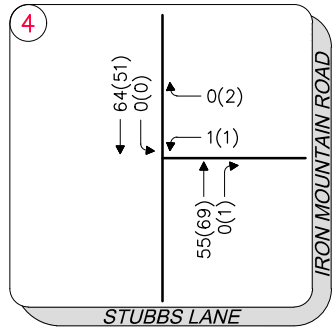
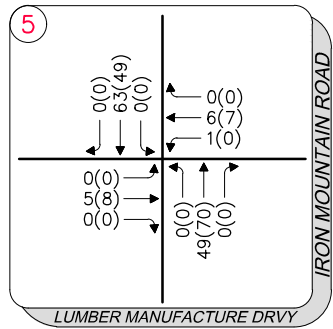
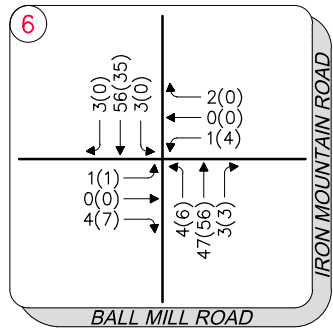
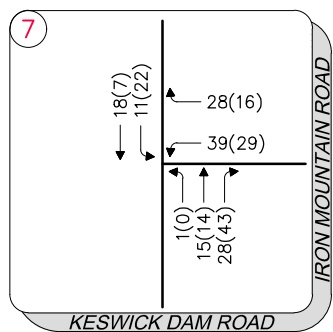
All traffic counts are included in **Appendix A Traffic Counts** of this report.



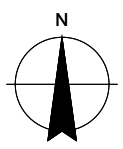
CRYSTAL CREEK AGGREGATES EXPANSION
TRAFFIC IMPACT ANALYSIS REPORT
EXISTING INTERSECTION LANE
GEOMETRIES AND CONTROL

Project No. 12560517
Report No. RPT001
Date 4/28/2022

FIGURE 3.1



LEGEND:
 XX - AM PEAK HOUR TRAFFIC VOLUMES
 (XX) - PM PEAK HOUR TRAFFIC VOLUMES
 ● - STUDY INTERSECTION



**CRYSTAL CREEK AGGREGATES EXPANSION
 TRAFFIC IMPACT ANALYSIS REPORT**

**EXISTING AM AND PM
 PEAK HOUR VOLUMES**

Project No. 12560517
 Report No. RPT001
 Date 4/28/2022

FIGURE 3.2

3.4 Existing Pedestrian, Bicycle, and Transit Conditions

The existing pedestrian, bicycle, and transit facilities were examined within the study area. Since the roadways in the study area are rural roadways, there is no curb or sidewalks present. Rather there are shoulders with open ditch drainage. The roadway shoulders provide an area for pedestrian and bicycle traffic. In addition, there are no crosswalks markings on any study roadways.

Per the Shasta County General Plan, SR 299 is a bicycle planning corridor. Near Iron Mountain Road, SR 299 has varying shoulder widths. For the eastbound direction on SR 299, there are shoulders approximately 12-13' wide and in the westbound direction they ranged from 4-9' wide. On Iron Mountain Road at Middle Creek Road west leg, Middle Creek Trail crosses Iron Mountain Road (with no markings). The Middle Creek Trail is a paved bicycle and pedestrian trail with centerline striping that originates on the east side just north of SR 299 on Middle Creek Road and continues southeast to connect with the Sacramento River Trail. The Sacramento River Trail then continues east to Redding and more specifically Lake Redding.

Bus routes for Shasta Union High School District transportation in the region was reviewed for the study. Currently there are no school's bus services to the project area.

In addition, there are no transit facilities in the study area.

3.5 Collision Analysis

Collisions data for unincorporated Shasta County roadways and Caltrans roadways were collected from Statewide Integrated Traffic Records System (SWITRS) between January 1, 2016 and December 31, 2020. All collisions were analyzed and sorted by location.

In total, 17 collisions were identified to be within the study area. **Table 3.1** shows the number of collisions at study intersections and segments by severity, type, and year.

As seen in **Table 3.1**, the intersections of Iron Mountain Road / SR 299, Iron Mountain Road / Ball Mill Road, and Iron Mountain Road / Keswick Dam Road all have at least one (1) collision in the last five (5) years.

The intersection of Iron Mountain Road / SR 299 experienced four (4) collisions in the last five (5) years. Most common type of collision at this intersection is a broadside collision type.

There were no pedestrian or bicycle collisions at the study intersections. None of the collisions resulted in a severe injury or fatality.

The roadway segment on Iron Mountain Road (from SR 299 to Keswick Dam Road) was analyzed. There were no bicycle or pedestrian collisions but one (1) severe injury collision occurred in 2016 on Iron Mountain Road. It was a single vehicle collision 790 feet north of SR 299. The vehicle was an overturned collision due to improper turning.

Table 3.1 Collisions Related to Project Area (2016-2020)

Location	Total Crashes	Fatal	Severe Injury	Injury (Other Visible)	Injury (Complaint of Pain)	Property Damage Only	Sideswipe	Broadside	Hit Object	Overtaken	Other/Unknown	2016	2017	2018	2019	2020
<i>Intersection</i>																
1. Iron Mountain Road / SR 299	4			2		2		2	1		1	1	1	1	1	
2. Iron Mountain Rd / Middle Creek Rd	0															
3. Iron Mountain Rd / CCA Dwy	0															
4. Iron Mountain Rd / Stubbs Lane	0															
5. Iron Mountain Rd / Lumber Manufacture Dwy	0															
6. Iron Mountain Rd / Ball Mill Rd	1					1		1				1				
7. Iron Mountain Rd / Keswick Dam Rd	1			1					1				1			
<i>Segment</i>																
Iron Mountain Rd from Keswick Dam Rd to SR 299	11		1		1	9			6	5		5	3	1		2

Traffic volumes on these roadways are currently lower than historical averages due to the 2018 Carr Fire. Homes and other traffic generators were destroyed during the fire and are expected to rebuild in the future. Even though collisions are typically random events, the addition of the project trips are not anticipated to increase the collision rates of these roadways since the project is not anticipated to add a significant number of trips to the study locations.

3.6 Field Observations

A preliminary traffic engineering field review was conducted on December 12, 2018. The following information was observed during the field visit:

- No approach metal beam guard railings on Middle Creek Bridge:
 - Approach guard railing flares would be typical for new construction under current standards.
 - Existing driveways and trails make it impractical to add guard railing flares.
- Shoulder drop off conditions exist in isolated locations along Iron Mountain Road.
 - These conditions typically are the result of commercial vehicle traffic off-tracking and lack of shoulder maintenance. It should be noted that as a condition of Approval #53 of the Existing Use Permit CCA pays the County “for extraordinary maintenance of Iron Mountain Road caused by traffic from this operation. This will include annual maintenance as well as the possible resurfacing of the road at a later time.”

4. Technical Analysis Methodology

4.1 Vehicle Miles Traveled (VMT) Methodologies

SB 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and greenhouse gas reductions. The provisions of SB 743 became effective Statewide on July 1, 2020. Under SB 743, automobile delay, traditionally measured as level of service (LOS) will no longer be considered an environmental transportation impact under CEQA. Instead, impacts will be determined by changes to VMT. VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

Caltrans recently published an update for their Transportation Impact Study Guidelines (TISG, May 20, 2020). The Caltrans' TISG is intended for use in preparing a transportation impact analysis of land use projects or plans that may impact or affect the State Highway System and replaces the prior 2002 Guidelines. The TISG heavily references OPR's Technical Advisory as a basis for its guidance. The TISG recommends use of OPR's recommended thresholds for land use projects (15% below existing city or regional VMT per capita or per employee). As each lead agency develops and adopts its own VMT thresholds for land use projects, Caltrans will review them for consistency with OPR's recommendations, and with the state's greenhouse gas emissions reduction targets and California Air Resources Board Scoping Plan. Caltrans identifies possible mitigation framework for projects found to have a potentially significant impact on VMT. These include the following programmatic measures:

- Impact fee programs that contain a demonstrated nexus and proportionality between a fee and capital projects that result in VMT reduction;
- VMT mitigation bank programs; and,
- VMT mitigation exchange programs.

Caltrans also indicates that additional future guidance will include the basis for requesting transportation impact analysis that is not based on VMT, but rather a simplified safety analysis approach that reduces risk to all road users and focuses on multimodal analysis as well as access management issues.

Understanding Caltrans requirements for VMT, GHD evaluated the proposed project in light of the TISG guidelines and its likely VMT impact. Based on TISG guidelines, it was determined a VMT analysis will not be required for this proposed project due to the number of trips generated by the project. Further details of VMT analysis are discussed in subsequent section of this report.

Shasta County is currently in the process of developing its own VMT impact threshold. OPR guidance which are consistent with TISG guidelines mentioned above, is appropriate for measuring VMT for Shasta County in the meantime.

4.2 Intersection LOS and Vehicle Queuing Methodologies

Intersection level of services (LOS) have been calculated for all control types using the methods documented in the Transportation Research Board's publication *Highway Capacity Manual 2016 (HCM 6)*. LOS determinations are presented on a letter grade scale from "A" to "F", whereby LOS "A" represents "free-flow" conditions and LOS "F" represents over capacity conditions.

The *HCS 7* software program was used to implement the HCM 6 methodology for the study roadway segment. Two lane segment analysis methodology was used for Class II highways for the segment on Iron Mountain Road.

Intersection LOS is calculated for all control types using *Synchro 10.0* (Trafficware). All study intersections are Two-Way Stop Control (TWSC). For TWSC intersections vehicle delay represents the worst delay for the minor-street stop-sign controlled movement(s). **Table 4.1** presents the LOS definitions for different types of intersection controls.

For vehicle queueing, the Synchro Suite microsimulation component, *SimTraffic*, was used to simulate queueing conditions. The average of 5 microsimulation runs was used in capturing the average 95th percentile queues

Vehicle queues are considered acceptable within this report if the queues are accommodated within the available storage for left- and right-turn lanes. When thru-movement queues are longer than an adjacent left- or right-turn lane pocket, the pocket length should be extended to allow access where feasible.

4.3 Intersection LOS Thresholds

Of the seven study intersections, six study intersections are under the County of Shasta jurisdiction and one study intersection is under Caltrans jurisdiction (SR 299 / Iron Mountain Road).

4.3.1 Shasta County LOS Guidelines

Per the County of Shasta's General Plan, Circulation Element, as amended September 2004, the following policy is provided for new developments.

C-61 New development which may result in exceeding LOS E on existing facilities shall demonstrate that all feasible methods of reducing travel demand have been attempted to reach LOS C. New development shall not be approved unless traffic impacts are adequately mitigated. Such mitigation may take the form of, but not limited to, the following:

- *Provision of capacity improvements to the specific road link to be impacted, the transit system, or any reasonable combination;*
- *Provision of demand reduction measures included as part of the project design or project operation or any feasible combination.*

The County of Shasta uses LOS "E" as the threshold for requiring new development to mitigate its impacts.

4.3.2 Caltrans LOS Guidelines

The Caltrans guide, *Preparation of Traffic Impact Studies (TIS) (December 2002)*, states the following:

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.

Consistent with Caltrans practice, this study will consider LOS "C" as the standard threshold acceptable operations for any intersection under Caltrans jurisdiction.

With the implementation of SB743, Caltrans has updated their 2002 TIS Guide with VMT analysis. This guide is the *Focused Transportation Impact Study Guide (May 20, 2020)* (TISG) and intended to replace the 2002 TIS Guide.

Consistent with Caltrans and County practices, this study will consider LOS "C" and LOS "E" as the significance threshold for study intersections.

4.4 Technical Analysis Parameters

The traffic study provides a “preliminary operational level” evaluation of traffic operating conditions at the study intersections. The evaluation incorporated appropriate heavy vehicle adjustment percentages, peak hour factors, lane geometries, etc. **Table 4.2** summarizes the intersection technical analysis parameters used within the study. Since the Existing Conditions (2022) coincides with the Opening Year (2022), there was no separate analysis needed for Existing Conditions.

Table 4.1 Technical Analysis Parameters

Technical Parameters	Assumption
1. Intersection Peak Hour Factor (PHF)	PHF of 0.87 - 0.95 in AM; PHF of 0.77 - 0.94 in PM peak hours in Opening Year 2022 and Opening year 2022 Plus Project scenarios PHF of 0.92 or lower (per traffic count) in AM and PM peak hours for Cumulative Year 2042 and Cumulative Year 2042 Plus Project Scenarios
2. Intersection Heavy Vehicle	Minimum of 2%. Heavy vehicle factors are utilized per individual movements and adjusted for additional trucks with Plus Project Scenarios. See Appendix A Traffic Counts for detailed traffic counts.

Table 4.2 Level of Service (LOS) Criteria for Intersections

LOS	Type of Flow	Delay	Maneuverability	Stopped Delay / Vehicle (sec)	
				Signalized	Unsignalized / AWSC, TWSC, and Roundabouts
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤10.0	≤10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10 and ≤20.0	>10 and ≤15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	>20 and ≤35.0	>15 and ≤25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable	Maneuverability is severely limited during short periods due to temporary back-ups.	>35 and ≤55.0	>25 and ≤35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55 and ≤80.0	>35 and ≤50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	>80.0	>50.0

5. Opening Year 2022 Scenario

The proposed project is expected to be operational in the later part of the Year 2022. Opening Year 2022 scenario represents traffic conditions at the time of project opening as well as Existing Conditions. Opening Year 2022 traffic volumes were generated by adding 3-years of 1% per year growth to the existing traffic volumes. The growth rate of 1% per year is consistent with growth in traffic in the area as shown in the Shasta County Regional Activity-Based Travel Model (SHASTASIM 1.2) Year 2020 and 2040 scenarios. The growth rate is consistent with Cumulative Year 2042 scenario and is discussed in further detail in **Section 8** of this report.

5.1 Opening Year 2022 Intersection Operations

Table 5.1 summarizes the intersection operations during the weekday AM and PM peak hour in Opening Year 2022 Scenario. All study intersections are controlled by a stop sign on the minor street approach. With this traffic control and limited side street traffic, all intersections operate at LOS A or LOS B. All traffic analysis reports are included in **Appendix B Traffic Analysis Reports**. Delay and level of service for TWSC intersections are reported for the worst minor street movement, or the major street left turn movements.

As presented in **Table 5.1**, all study intersections currently operate at or above the threshold LOS for the Opening Year 2022 Scenario:

Table 5.1 Opening year 2022 Scenario Intersection LOS

ID	Intersection	Peak Hour	Target LOS	Opening Year 2022		
				Control	Delay	LOS
1	Iron Mountain Road / SR 299	AM	C	TWSC ¹	13.8	B
		PM			15.7	C
2	Iron Mountain Road / Middle Creek Road East Leg	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
3	Iron Mountain Road / CCA South Driveway	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
4	Iron Mountain Road / Stubbs Lane	AM	E	TWSC ¹	9.2	A
		PM			9.2	A
5	Iron Mountain Road / Lumber Manufacture Driveway	AM	E	TWSC ¹	11.1	B
		PM			11.3	B
6	Iron Mountain Road / Ball Mill Road	AM	E	TWSC ¹	9.7	A
		PM			9.5	A
7	Iron Mountain Road / Keswick Dam Road	AM	E	TWSC ¹	9.2	A
		PM			9.2	A
¹ Analyzed using HCM 6 methodology for Two-Way Stop Controlled (TWSC) intersection. Delay presented for worst of minor street movement or the major street left turn movement						

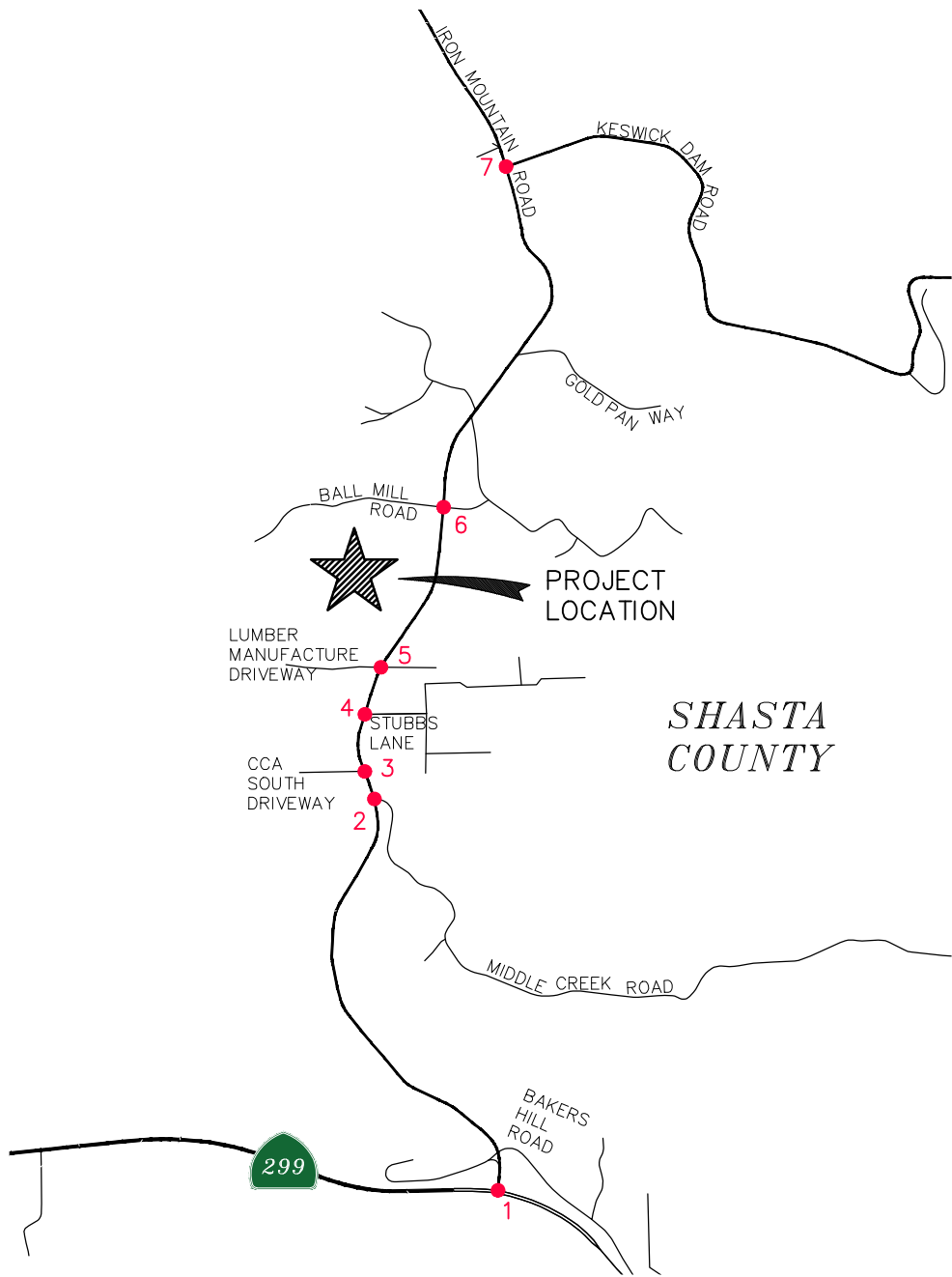
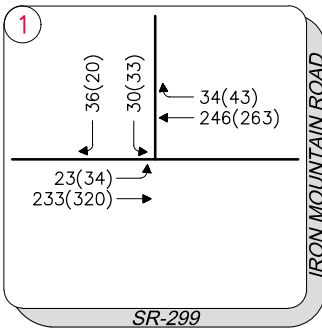
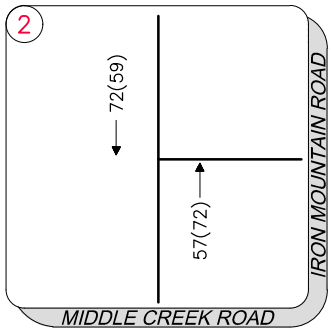
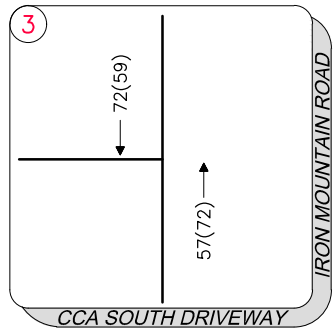
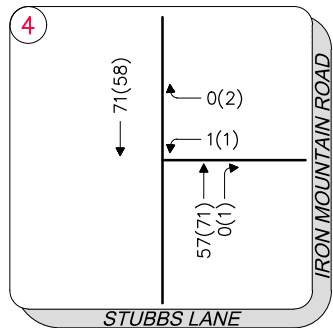
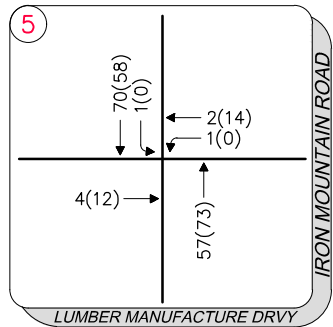
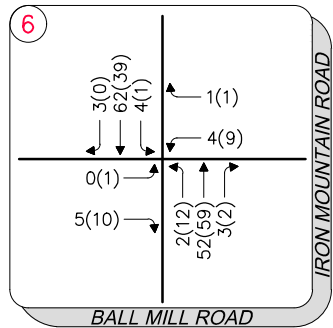
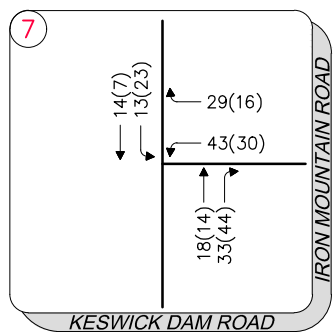
Opening Year 2022 intersection queuing analysis forecasts vehicle queuing at the study intersections. **Table 5.2** presents the 95th percentile queues for the weekday AM and PM peak hours at the study intersections. With the heavy vehicle percentages entered by movement based on existing traffic counts, the vehicle queues are adequate in Opening Year 2022 Scenario. All queuing reports are included in **Appendix B Traffic Analysis Reports**.

Table 5.2 Opening Year 2022 Scenario Vehicle 95th Percentile Queue

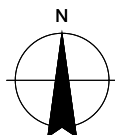
Intersection ¹	Movement	Peak Hour	Scenario		
			Opening Year 2022		
			SimTraffic ² 95th Percentile Queue (ft)	Storage Length (ft)	Adequate
1. Iron Mountain Rd / SR 299	SB (L)	AM	40	210	Yes
		PM	50	210	Yes
	SB (R)	AM	55	210	Yes
		PM	25	210	Yes
	EB (L)	AM	25	85	Yes
		PM	30	85	Yes
	WB (R)	AM	0	165	Yes
PM		0	165	Yes	
4. Iron Mountain Rd / Stubbs Ln	WB (LR)	AM	10	105	Yes
		PM	25	105	Yes
5. Iron Mountain Rd / Lumber Manufacturer 4-leg Driveway	EB (LTR)	AM	40	100	Yes
		PM	65	100	Yes
	WB (LTR)	AM	35	100	Yes
		PM	65	100	Yes
6. Iron Mountain Rd / Ball Mill Rd	EB (LTR)	AM	40	320	Yes
		PM	55	320	Yes
	WB (LTR)	AM	30	240	Yes
		PM	35	240	Yes
7. Iron Mountain Rd / Keswick Dam Rd	WB (LR)	AM	65	420	Yes
		PM	55	420	Yes

¹ Intersection 2 and 3 reported no queues and therefore wasn't included in table.

² Queue lengths are rounded up to the nearest 5 feet increment.



LEGEND:
 XX - AM PEAK HOUR TRAFFIC VOLUMES
 (XX) - PM PEAK HOUR TRAFFIC VOLUMES
 ● - STUDY INTERSECTION



**CRYSTAL CREEK AGGREGATES EXPANSION
 TRAFFIC IMPACT ANALYSIS REPORT**
OPENING YEAR 2022
AM AND PM PEAK HOUR VOLUMES

Project No. 12560517
 Report No. RPT001
 Date 4/28/2022

FIGURE 5.1

5.2 Opening Year 2022 Roadway Segment Operations

Using HCM 6 methodology for two-lane roadways for Class II highways, the following segment was evaluated:

1. Iron Mountain Road, just north of SR 299

The appropriate heavy vehicle percentages, directional volumes (analysis direction and opposing direction), peak hour factors, access points, and roadway characteristics were applied. In addition, this segment was modeled with a 45 mph base free flow speed, rolling terrain, and no passing. This coincides with the current conditions, and it is noted 45 mph is the most conservative per the HCM 6 methodology. As presented in **Table 5.3**, are the results for the one study segment. The study segment of northbound (NB) direction on Iron Mountain Road operates at LOS B. The LOS methodology for Class II highways is based on the percent time spent following with no passing. This segment was modeled with a no-passing zone.

Table 5.3 Opening Year 2022 Scenario – Two-Lane Segment Level of Service

Opening Year 2022									
Seg No	Segment Name	Direction	Base Free Flow Speed (mph) ²	AM Peak Hour			PM Peak Hour		
				PTSF ¹	V/C	Level of Service	PTSF ¹	V/C	Level of Service
1	Iron Mountain Road - North of Baker Hills Road	NB	45	35.8	0.04	A	46.3	0.05	B

¹ Percent Time Spent Following

² For Class II Highways, Base Free Flow Speeds range from 45-70 mph

6. Trip Generation and Trip Distribution

6.1 Project Description

The proposed project would expand the existing facility from an approved use permit area of ±110.69 acres to a proposed total Project area of ±179.97 acres. However, as previously noted the 69.28 acres expansion will serve as a buffer. Additionally, the project would increase the total yearly aggregate sale from 250,000 tons to 500,000 tons. The total estimated amount proposed to be mined will increase from 15.92 million tons to 25.4 million tons over three phases.

The following components of the expansion will impact traffic pattern in the area therefore are applicable to this study:

- Increase rock product mining from 250,000 to 500,000 tons per year.
- Increase the December 31, 2072 “sunset” year to December 31, 2099.
- Number of full-time employees will increase from eight (8) to nine (9).

For the full and complete project description, refer to the January, 2022 Project Description on file with the County of Shasta Resource Management Department.

With Plus Project Conditions, the intersection of Iron Mountain Road/SR 299 (Intersection 1) was analyzed with a westbound 315 foot right turn lane with a 120 foot taper and bike lane per coordination with Caltrans. The existing right turn lane is 165 feet with a 300 foot taper.

6.2 Project Trip Generation

6.2.1 Daily Truck Trips

Based on knowledge of the existing operations, there is a daily average of 92 truck trips (46 trucks going in and out of the site) for existing conditions with 250,000 tons of yearly aggregate sale. However, for purposes of this TIAR, a conservative average of 110 daily truck trips is used for the existing daily average for the trip generation. In addition, the 110 truck trips was also used to evaluate impacts in the October 2005 TIAR for the currently approved UP 07-020. The Use Permit limited truck traffic to and from the project site to 220 daily truck trips.

In doubling the sale of aggregate from 250,000 tons to 500,000 tons as proposed, the number of daily trips could also double to 220 truck trips which, as previously noted, is currently the maximum number of allowable round truck trips per day. However, the average is more likely to be 184 truck trips based on current operations. In capturing a conservative approach, the traffic analysis evaluated the maximum 220 daily truck trips.

6.2.2 Daily Light Duty Vehicle Trips

This existing light duty vehicle trips include all employee trips (2 trips per employee – coming in and going out), all deliveries done with light duty trucks (less than 3 axles), and any customers/consultants. The current number of employees at the site is 8 full time and 1 part time employees. Assuming 2 trips per employee, the light duty daily trips per employees is 18 total trips. An additional 6 trips are added to light vehicle trips to account for any other trips made by for deliveries and clients.

In the proposed conditions, the number of full-time employees will increase from 8 to 9 full-time and the number of part-time employees remains at 1. The proposed daily light duty trips would therefore add 2 additional trips from existing conditions.

6.2.3 Peak Hour Truck Trips

Peak hour truck trips will be estimated based on existing project driveway traffic counts.

Existing vehicle classification traffic counts (identifies trucks vs light duty vehicles) at the 2 existing driveways from October 22, 2019, show the following characteristics:

- 8 truck trips in the AM peak hour (3 in and 5 out) – all at north driveway
- 15 truck trips in the PM peak hour (8 in and 7 out) – all at north driveway

The existing site generates a constant amount of truck trips throughout the day. Therefore, the existing AM and PM truck trips is assumed to be 16 trips (8 in and 8 out) in the AM and 16 trips (8 in and 8 out) in the PM.

The proposed conditions peak hour truck trips were calculated based on correlation between hourly trips to daily trips in the existing conditions.

In existing conditions, 110 daily trips results in 16 peak hour trips (16 AM peak hour and 16 PM peak hour), therefore in proposed conditions, 220 daily trips will be expected to produce 32 peak hour trips (32 AM peak hour and 32 PM peak hour).

6.2.4 Peak Hour Light Vehicle Trips

Similar to peak hour truck trips, peak hour light vehicle trips are estimated based on existing project driveway traffic counts.

Existing classification traffic counts (identifies trucks vs light duty vehicles) at the 2 existing driveways from October 22, 2019, shows the following regarding light vehicle trips:

- 2 trips in the AM peak hour (0 in and 2 out) – all at north driveway
- 8 trips in the PM peak hour (4 in and 4 out) – all at north driveway

There were also light duty vehicle counts at the 2 existing driveways from February 2019. The counts show:

- 4 trips in the AM (1 in and 3 out) – all at north driveway
- 7 trips in the PM (3 in and 4 out) – all at north driveway

Since the AM peak hour counts from February 2019 is higher than October 2019. The most conservative scenario for the existing light vehicle hourly trips were used in the analysis (AM peak hour from Feb 2019 and PM peak hour from Oct 2019) and are as follows:

- 4 trips in the AM (1 in and 3 out)
- 8 trips in the PM (4 in and 4 out)

For proposed conditions, the number of full-time employees will increase from 8 to 9 full-time and the number of part-time employees will remain at 1. This will result in an increase for 1 trip in during AM peak hour and 1 trip out in the PM peak hour.

Proposed trip generation including daily, AM and PM peak hours for light duty vehicles and trucks are summarized in **Table 6.1**. The proposed expansion of CCA will generate 88 net new daily trips, 13 AM peak hour trips (6 In, 7 out) and 9 PM peak hour trips (4 in, 5 out).

Table 6.1 Project Trip Generation

Existing Land Use	Unit	Daily Total	AM			PM		
			Total	In (%)	Out (%)	Total	In (%)	Out (%)
Existing Truck Trips	250,000 tons	110	16	50%	50%	16	50%	50%
Existing Light Duty Vehicle Trips	250,000 tons	24	4	75%	25%	8	50%	50%
Existing Total Trips	-	134	20	11	9	24	12	12
Proposed Land Use	Unit	Daily Total	Total	In (Trips)	Out (Trips)	Total	In (Trips)	Out (Trips)
Proposed Heavy Vehicle	500,000 tons	220	32	16	16	32	16	16
Additional Employee Trips (light vehicle)	Employees	2	1	1	0	1	0	1
Total Proposed Trips	-	222	33	17	16	33	16	17
Net Project Trips	-	88	13	6	7	9	4	5

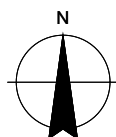
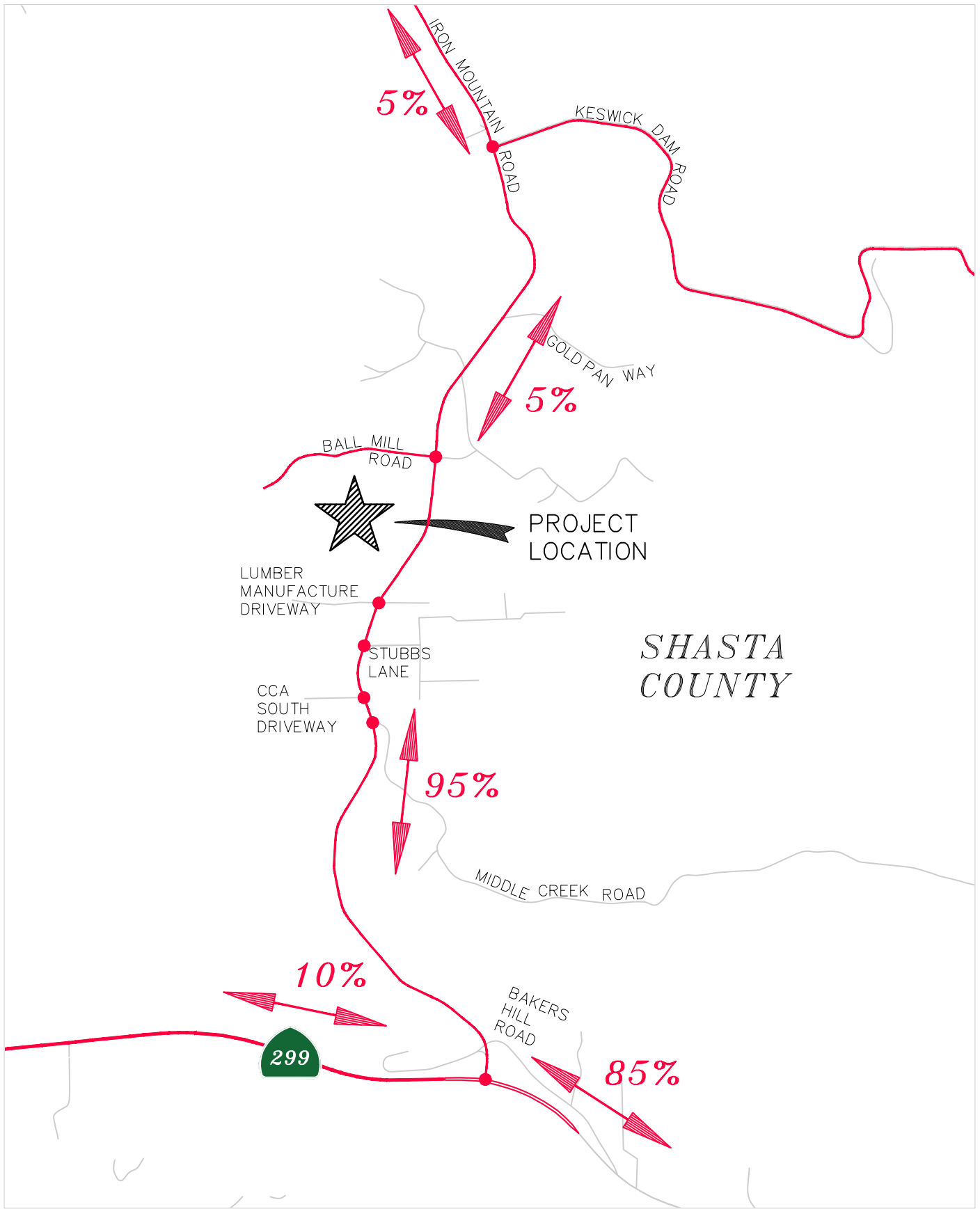
6.3 Project Trip Distribution and Assignment

Project trip distribution patterns for the study area were estimated based on existing traffic patterns, anticipated delivery routes, and local knowledge of the area.

- **95% to/from the South on Iron Mountain Road**
 - 10% to/from the west via SR 299
 - 85% to/from east via SR 299
- **5% to/from the north of Ball Mill Road on Iron Mountain Road**
 - 0% to/from the east via Keswick Dam Road
 - 5% to/from the north via Iron Mountain Road

Due to the 20-ton limit on Keswick Dam Road, there are no truck trips assigned to Keswick Dam Road. The current operations for CCA does not import any aggregate rather all is excavated on site. With this operation, the trucks utilize SR 299 in delivering the material. However, light duty truck can use Keswick Dam Road. The total amount of trips assigned to go north toward Keswick Dam Road is just 1 vehicle in the AM and PM peak hours. This is assumed to be a light duty vehicle and is insignificant.

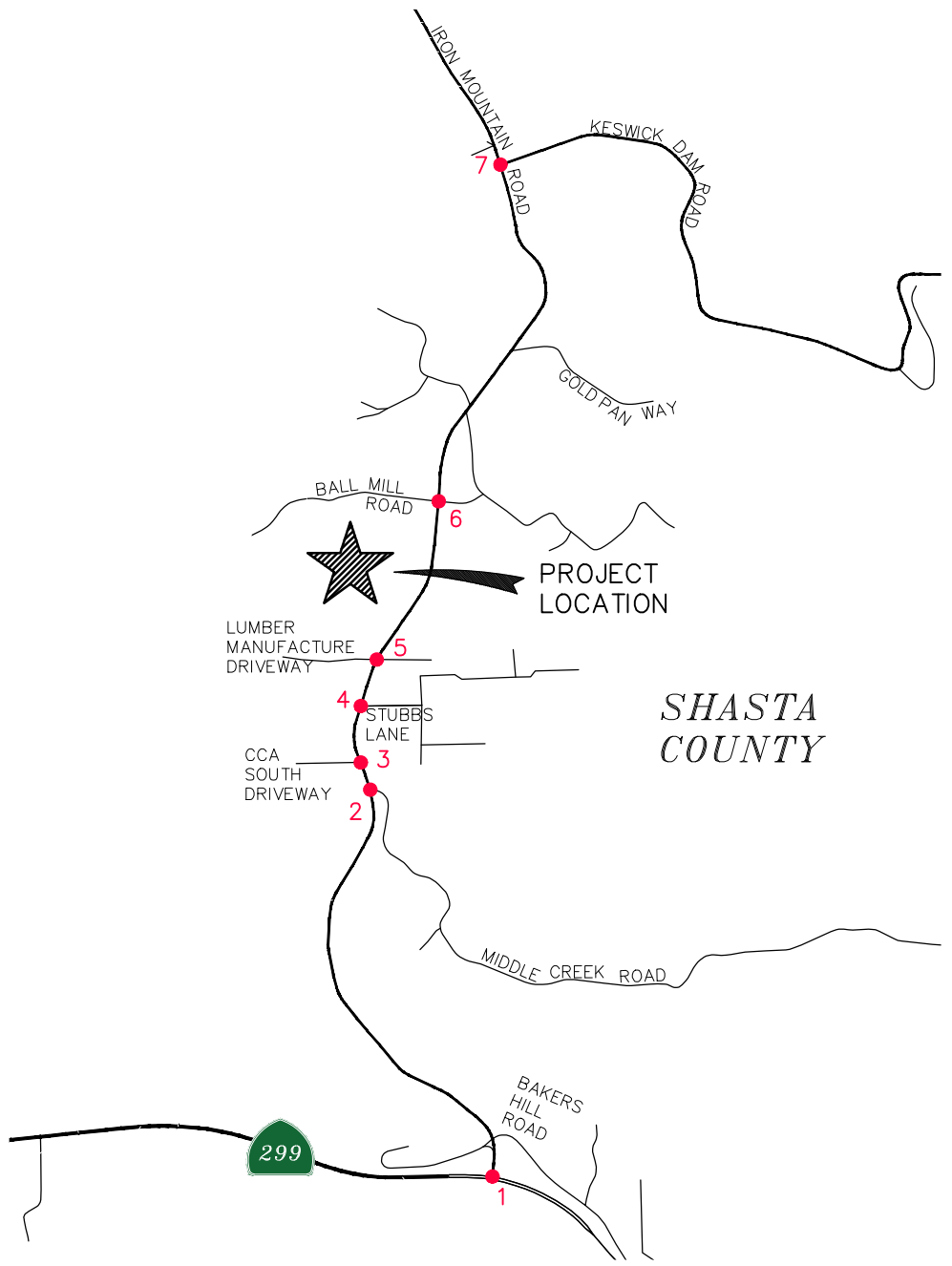
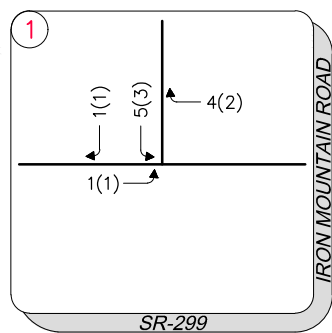
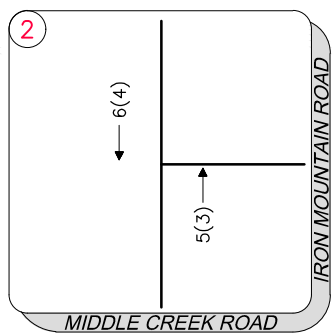
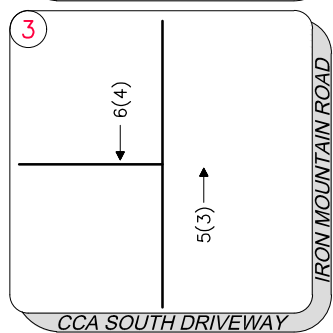
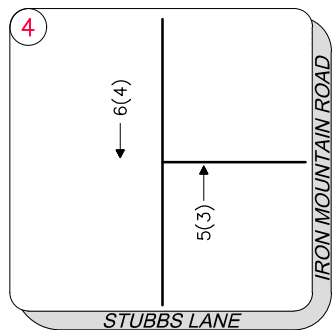
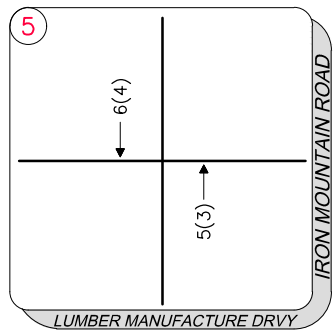
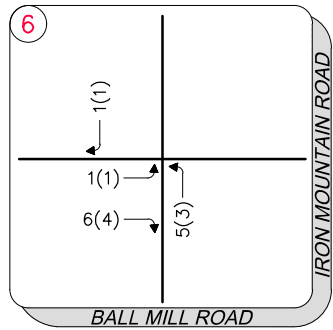
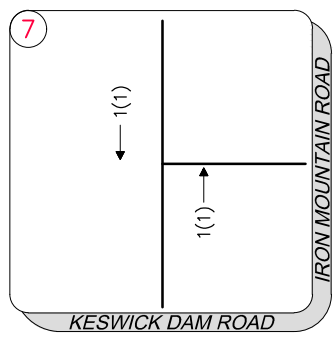
Figures 6.1 and Figure 6.2 show the Project Trip Distribution and Project Trip Assignment, respectively, on the existing street network.



**CRYSTAL CREEK AGGREGATES EXPANSION
TRAFFIC IMPACT ANALYSIS REPORT
PROJECT TRIP DISTRIBUTION**

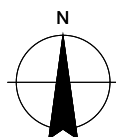
Project No. 12560517
Report No. RPT001
Date 4/28/2022

FIGURE 6.1



LEGEND:

- XX - AM PEAK HOUR TRAFFIC VOLUMES
- (XX) - PM PEAK HOUR TRAFFIC VOLUMES
- - STUDY INTERSECTION



**CRYSTAL CREEK AGGREGATES EXPANSION
TRAFFIC IMPACT ANALYSIS REPORT
PROJECT TRIP ASSIGNMENT**

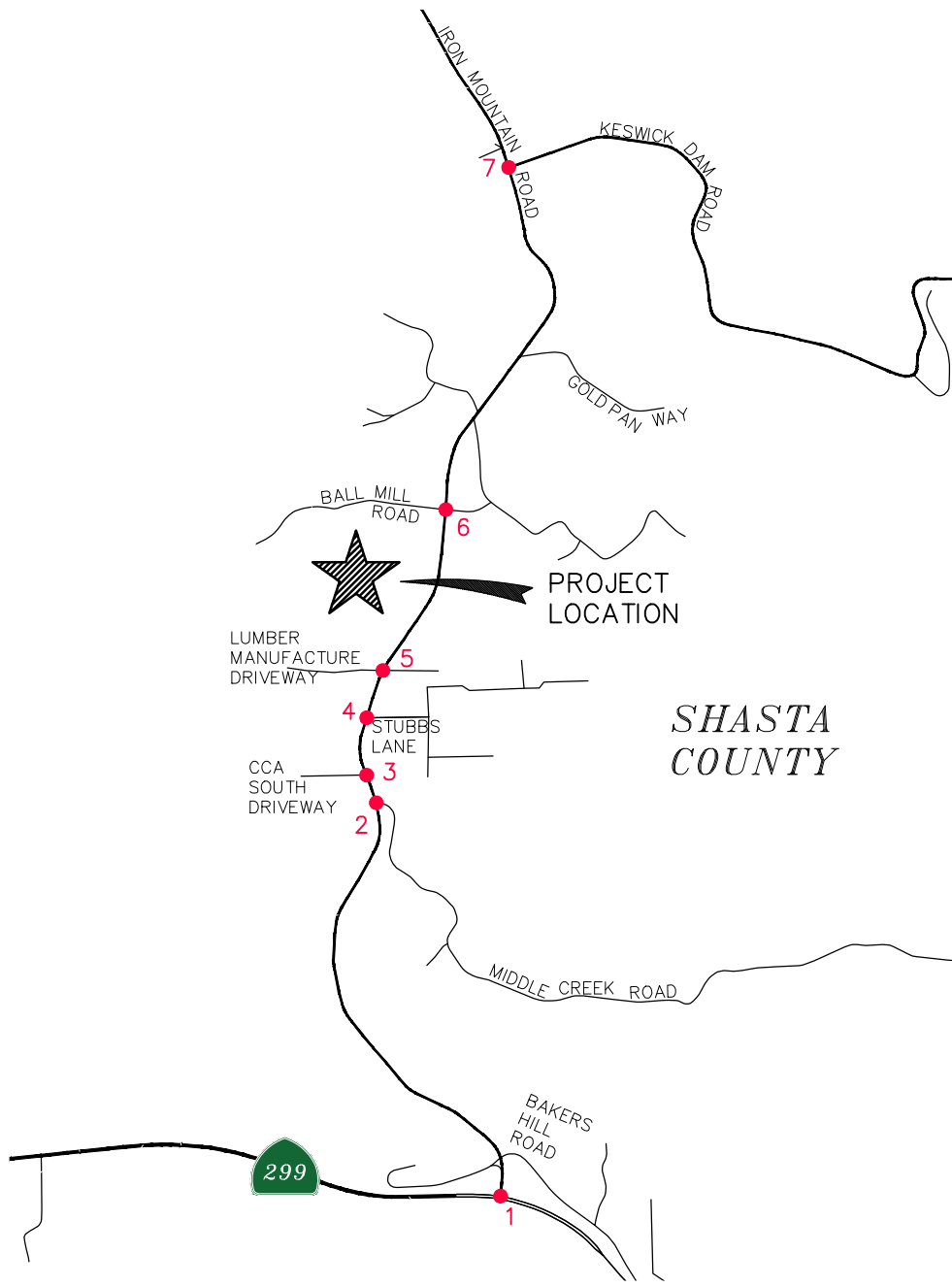
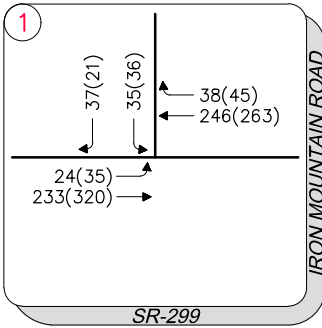
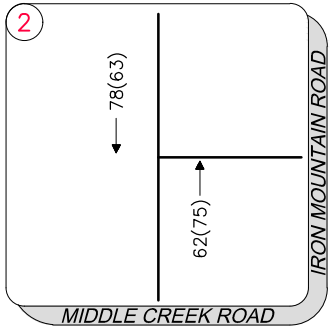
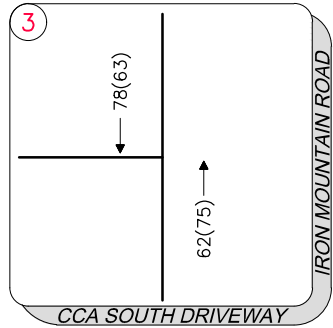
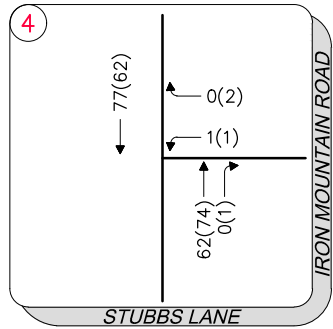
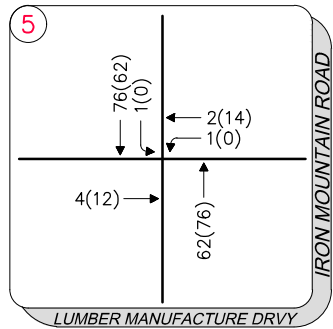
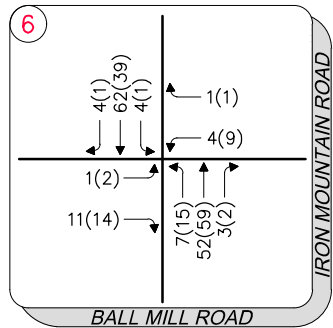
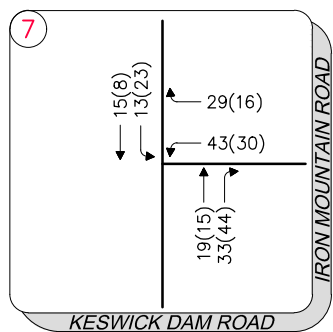
Project No. 12560517
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FIGURE 6.2

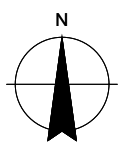
7. Opening Year 2022 Plus Project Scenario

Opening Year 2022 Plus Project scenario volumes were simulated by superimposing traffic generated by the Project trip generation onto Opening Year 2022 traffic volumes. **Figure 7.1** depicts the weekday AM and PM Peak Hour Opening Year 2022 Plus Project intersection volumes.

Intersection of Iron Mountain Road/SR 299 (Intersection 1) was analyzed with a westbound 315 foot right turn lane and a 120 foot taper with a bike lane per coordination with Caltrans. The existing turn lane is 165 feet with a 300 feet taper.



LEGEND:
 XX - AM PEAK HOUR TRAFFIC VOLUMES
 (XX) - PM PEAK HOUR TRAFFIC VOLUMES
 ● - STUDY INTERSECTION



**CRYSTAL CREEK AGGREGATES EXPANSION
 TRAFFIC IMPACT ANALYSIS REPORT**
**OPENING YEAR 2022 PLUS PROJECT
 AM AND PM PEAK HOUR VOLUMES**

Project No. 12560517
 Report No. RPT001
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FIGURE 7.1

7.1 Opening Year 2022 Plus Project Intersection Operations

Table 7.1 presents a summary of the intersection operations during the weekday AM and PM peak hour for the Opening Year 2022 Plus Project Scenario. All traffic analysis reports are included in **Appendix B Traffic Analysis Reports**.

Table 7.1 Opening Year 2022 Plus Project Scenario Intersection LOS

ID	Intersection	Peak Hour	Target LOS	Opening Year 2022 Plus Project		
				Control	Delay	LOS
1	Iron Mountain Road / SR 299	AM	C	TWSC ¹	13.9	B
		PM			15.9	C
2	Iron Mountain Road / Middle Creek Road East Leg	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
3	Iron Mountain Road / CCA South Driveway	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
4	Iron Mountain Road / Stubbs Lane	AM	E	TWSC ¹	9.3	A
		PM			9.2	A
5	Iron Mountain Road / Lumber Manufacture Driveway	AM	E	TWSC ¹	11.2	B
		PM			11.3	B
6	Iron Mountain Road / Ball Mill Road	AM	E	TWSC ¹	9.7	A
		PM			9.5	A
7	Iron Mountain Road / Keswick Dam Road	AM	E	TWSC ¹	9.2	A
		PM			9.2	A
¹ Analyzed using HCM 6 methodology for Two-Way Stop Controlled (TWSC) intersection. Delay presented for worst of minor street movement or the major street left turn movement						

As presented in **Table 7.1** all study intersections currently operate at or above the threshold LOS.

The primary access for the Project is Intersection 6 (Iron Mountain Road at Ball Mill Road). This intersection is currently signed (CCA with address) as the main access point. The other Project access intersections had minimal to no volumes. The intersections on Iron Mountain Road at Stubbs Lane and Lumber Manufacture had limited turning volumes off Iron Mountain in the peak hour. However, the intersection at Lumber Manufacture had through volume across Iron Mountain Road and therefore, the delay was higher than the access points for CCA.

The intersection of Iron Mountain Road/SR 299 continues to operate at an acceptable LOS of C with the addition of project trips. This intersection is analyzed with a longer westbound right turn pocket.

In evaluating the Existing Plus Project Conditions further, the 95th percentile queues were evaluated. As presented in **Table 7.2**, all queues were adequately accommodated at the study intersections. All queuing reports are included in **Appendix B Traffic Analysis Reports**

Table 7.2 Opening Year 2022 Plus Project Scenario 95th Percentile Queues

Intersection	Movement	Peak Hour	Scenario		
			Opening Year 2022 Plus Project		
			SimTraffic ¹ 95th Percentile Queue (ft)	Storage Length (ft)	Adequate
1. Iron Mountain Rd / SR 299	SB (L)	AM	55	210	Yes
		PM	50	210	Yes
	SB (R)	AM	50	210	Yes
		PM	25	210	Yes
	EB (L)	AM	30	85	Yes
		PM	30	85	Yes
	WB (R)	AM	0	315	Yes
		PM	0	315	Yes
4. Iron Mountain Rd / Stubbs Ln	WB (LR)	AM	10	105	Yes
		PM	20	105	Yes
5. Iron Mountain Rd / Lumber Manufacturer 4-leg Driveway	EB (LTR)	AM	40	100	Yes
		PM	65	100	Yes
	WB (LTR)	AM	35	100	Yes
		PM	70	100	Yes
6. Iron Mountain Rd / Ball Mill Rd	EB (LTR)	AM	65	320	Yes
		PM	65	320	Yes
	WB (LTR)	AM	35	240	Yes
		PM	35	240	Yes
	NB (LTR)	AM	5	650	Yes
		PM	10	650	Yes
	SB (LTR)	AM	5	1000	Yes
		PM	0	1000	Yes
7. Iron Mountain Rd / Keswick Dam Rd	WB (LR)	AM	65	420	Yes
		PM	50	420	Yes

¹ Intersection 2 and 3 reported no queues and therefore wasn't included in table.

² Queue lengths are rounded up to the nearest 5 feet increment.

7.2 Opening Year 2022 Plus Project Roadway Segment Operations

As presented in **Table 7.3**, the study segment on Iron Mountain Road was analyzed. The appropriate heavy vehicle percentages and directional volumes were updated for Opening Year 2022 Plus Project Scenario. The study segment will operate at LOS B with the Project traffic.

Table 7.3 Opening Year 2022 Plus Projects – Two-Lane Segment Level of Service

Opening Year 2022 Plus Project									
Seg No	Segment Name	Direction	Base Free Flow Speed (mph) ²	AM Peak Hour			PM Peak Hour		
				PTSF ¹	V/C	Level of Service	PTSF ¹	V/C	Level of Service
1	Iron Mountain Road - North of Baker Hills Road	NB	45	37.8	0.04	A	47.0	0.05	B

¹ Percent Time Spent Following

² For Class II Highways, Base Free Flow Speeds range from 45-70 mph

7.3 Project Site Access/Circulation

With the proposed expansion of CCA, the vehicle access points are proposed to remain the same as existing conditions. The main access will remain at Ball Mill Road with direct access to the existing scales, office, and the mining area. Based on current operations, the existing main access and internal circulation, are sufficient in providing the necessary driveway widths and truck turning radii. The intersections on Iron Mountain Road at Stubbs Lane and Lumber Manufacture are not significantly utilized in the peak hours and have minimal traffic due to the limited uses.

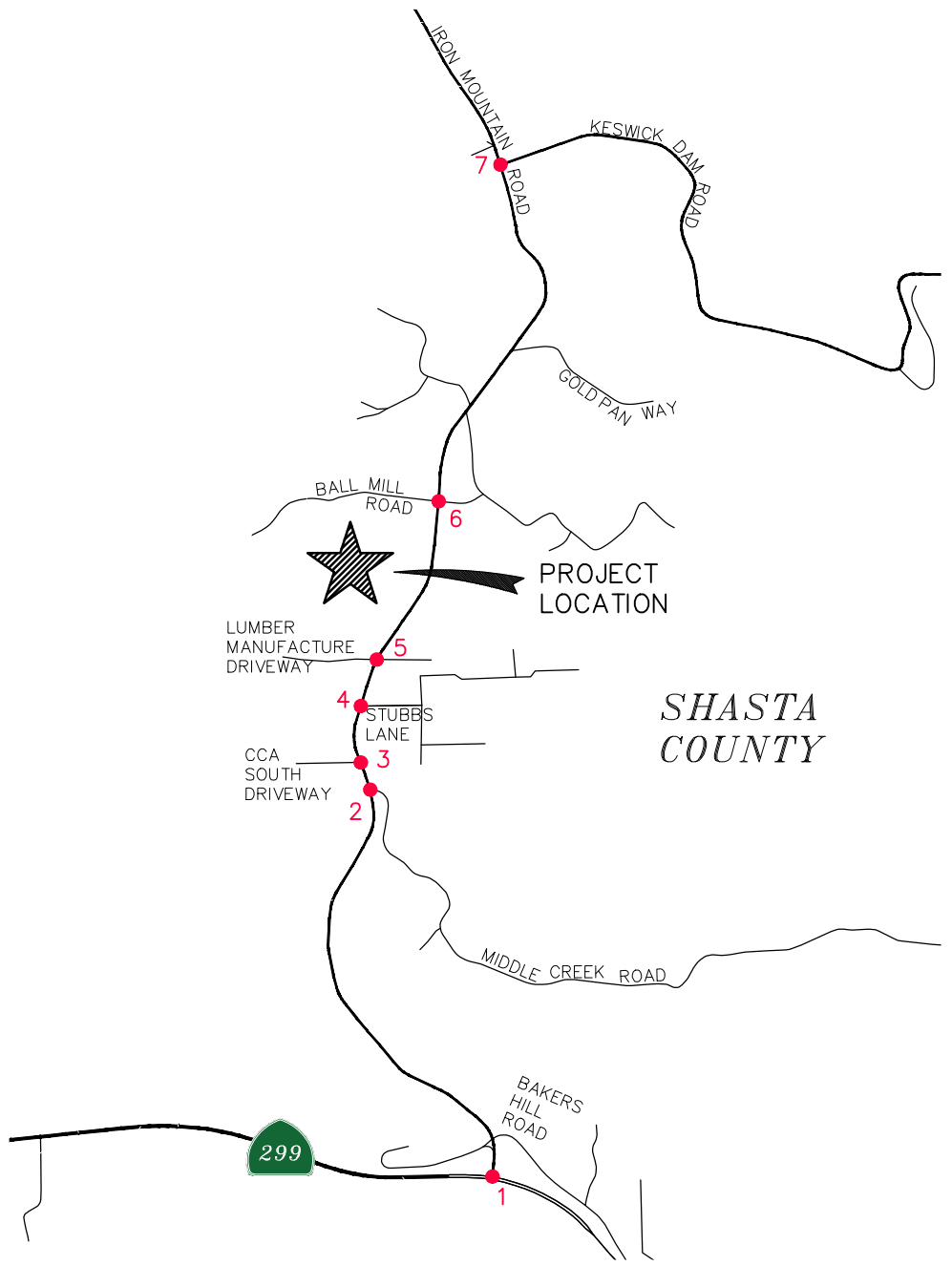
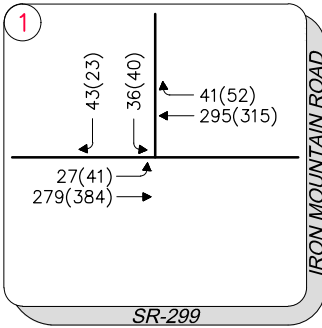
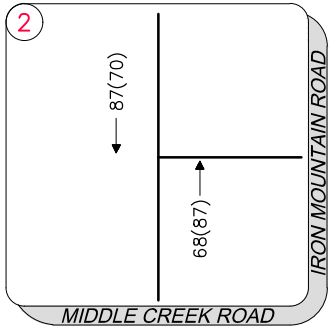
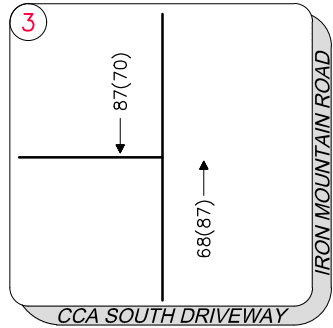
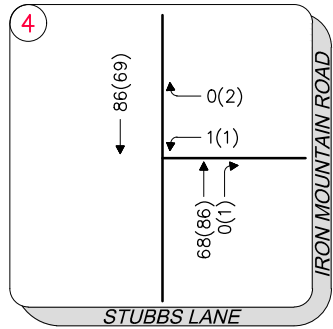
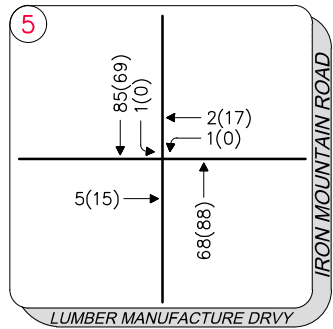
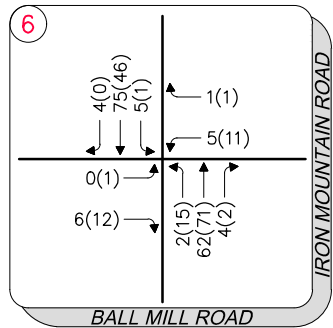
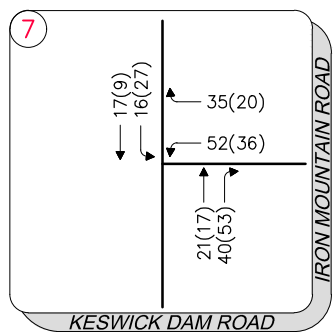
The Project proposes driveway usage as follows:

- **Ball Mill Road Driveway.** This driveway will serve all traffic including aggregate trucks and employees.

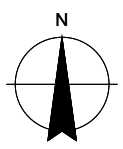
8. Cumulative Year 2042 Scenario

Cumulative Year 2042 Scenario refer to a future analysis scenario approximately 20 years in the future. Cumulative Year 2042 Scenario refer to the cumulative “No Project” condition where the Project remains undeveloped through the year 2042 but the remaining General Plan land uses are assumed developed.

The most recent *SHASTASIM 1.2*, Activity Based Regional Travel Demand Model was used to develop traffic volume growth projections based on the expected 20-year growth within Shasta County and Keswick area. *SHASTASIM 1.2* contains volume projection for roadways in Shasta County for year 2020 and year 2040. A yearly growth rate was calculated based on the growth between the 2020 and 2040 model projections. Based on the model growth, the growth rate used for Cumulative volume development is 1% per year. This 20-year growth rate was applied to Opening Year 2020 volumes to generate a forecast of Cumulative Year 2042 conditions without the Project. Cumulative Year 2042 AM and PM peak hour intersection volumes are shown in **Figure 8.1**.



LEGEND:
 XX - AM PEAK HOUR TRAFFIC VOLUMES
 (XX) - PM PEAK HOUR TRAFFIC VOLUMES
 ● - STUDY INTERSECTION



**CRYSTAL CREEK AGGREGATES EXPANSION
 TRAFFIC IMPACT ANALYSIS REPORT
 CUMULATIVE YEAR 2042
 AM AND PM VOLUMES**

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FIGURE 8.1

8.1 Cumulative Year 2042 Intersection Operations

Table 8.1 presents a summary of the intersection operations for the weekday AM and PM peak hour conditions for the Cumulative Year 2042 Scenario. All traffic analysis reports are included in **Appendix B Traffic Analysis Reports**.

Table 8.1 Cumulative Year 2042 Scenario AM and PM Intersection LOS

ID	Intersection	Peak Hour	Target LOS	Cumulative Year 2042		
				Control	Delay	LOS
1	Iron Mountain Road / SR 299	AM	C	TWSC ¹	15.7	C
		PM			19.0	C
2	Iron Mountain Road / Middle Creek Road East Leg	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
3	Iron Mountain Road / CCA South Driveway	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
4	Iron Mountain Road / Stubbs Lane	AM	E	TWSC ¹	9.4	A
		PM			9.3	A
5	Iron Mountain Road / Lumber Manufacture Driveway	AM	E	TWSC ¹	11.4	B
		PM			11.6	B
6	Iron Mountain Road / Ball Mill Road	AM	E	TWSC ¹	9.8	A
		PM			9.7	A
7	Iron Mountain Road / Keswick Dam Road	AM	E	TWSC ¹	9.4	A
		PM			9.4	A
¹ Analyzed using HCM 6 methodology for Two-Way Stop Controlled (TWSC) intersection. Delay presented for worst of minor street movement or the major street left turn movement						

As shown in **Table 8.1**, all study intersections are projected to operate at or above the threshold LOS with Cumulative Year 2042 volumes. In evaluating the study intersection further, the 95th percentile queues were evaluated. **Table 8.2** presents the 95th percentile queue lengths for Cumulative Year 2042 Scenario. All queuing reports are included in **Appendix B Traffic Analysis Reports**.

Table 8.2 Cumulative Year 2042 Scenario 95th Percentile Queues

Intersection ¹	Movement	Peak Hour	Scenario		
			Cumulative Year 2042		
			SimTraffic ¹ 95th Percentile Queue (ft)	Storage Length (ft)	Adequate
1. Iron Mountain Rd / SR 299	SB (L)	AM	40	210	Yes
		PM	50	210	Yes
	SB (R)	AM	55	210	Yes
		PM	25	210	Yes
	EB (L)	AM	25	85	Yes
		PM	30	85	Yes
	WB (R)	AM	0	165	Yes
		PM	5	165	Yes
4. Iron Mountain Rd / Stubbs Ln	WB (LR)	AM	10	105	Yes
		PM	25	105	Yes
5. Iron Mountain Rd / Lumber Manufacturer 4-leg Driveway	EB (LTR)	AM	40	100	Yes
		PM	65	100	Yes
	WB (LTR)	AM	35	100	Yes
		PM	70	100	Yes
6. Iron Mountain Rd / Ball Mill Rd	EB (LTR)	AM	50	320	Yes
		PM	60	320	Yes
	WB (LTR)	AM	30	240	Yes
		PM	35	240	Yes
	NB (LTR)	AM	0	650	Yes
		PM	15	650	Yes
	SB (LTR)	AM	10	1000	Yes
		PM	0	1000	Yes
7. Iron Mountain Rd / Keswick Dam Rd	WB (LR)	AM	65	420	Yes
		PM	55	420	Yes

¹ Intersection 2 and 3 reported no queues and therefore wasn't included in table.

² Queue lengths are rounded up to the nearest 5 feet increment.

8.2 Cumulative Year 2042 Roadway Segment Operations

As presented in **Table 8.3**, the study segment on Iron Mountain Road was analyzed for Cumulative Year 2042 Scenario. The appropriate heavy vehicle percentages and directional volumes were updated with the same roadway characteristics as existing. The study segment will operate at LOS B with Cumulative Year 2042 Scenario.

Table 8.3 Cumulative Year 2042 Scenario – Two-Lane Segment Level of Service

Cumulative Year 2042									
Seg No	Segment Name	Direction	Base Free Flow Speed (mph) ²	AM Peak Hour			PM Peak Hour		
				PTSF ¹	V/C	Level of Service	PTSF ¹	V/C	Level of Service
1	Iron Mountain Road - North of Baker Hills Road	NB	45	38.4	0.04	A	49.3	0.06	B

¹ Percent Time Spent Following

² For Class II Highways, Base Free Flow Speeds range from 45-70 mph

9. Cumulative Year 2042 Plus Project Scenario

Cumulative Year 2042 Plus Project Scenario traffic volumes were simulated by superimposing traffic generated by the project onto Cumulative Year 2042 Scenario volumes. **Figure 9.1** depicts weekday AM and PM Cumulative Year 2042 Plus Project peak hour intersection volumes.

9.1 Cumulative Year 2042 Plus Project Intersection Operations

Table 9.1 presents a summary of the intersection operations for the weekday AM and PM peak hour for the Cumulative Year 2042 Plus Project Scenario.

As shown in **Table 9.1**, all study intersections are projected to operate at LOS C or better, with Iron Mountain Road at SR-299 intersection operating with the highest delay in the PM peak hour. This is due to the increase in traffic and overall truck percentages. All traffic analysis reports are included in **Appendix B Traffic Analysis Reports**.

The intersection of Iron Mountain Road/SR 299 continues to operate at an acceptable LOS of C with the addition of project trips. This intersection is analyzed with a longer westbound right turn pocket.

Table 9.1 Cumulative Year 2042 Plus Project Scenario Intersection LOS

ID	Intersection	Peak Hour	Target LOS	Cumulative Year 2042 Plus Project		
				Control	Delay	LOS
1	Iron Mountain Road / SR 299	AM	C	TWSC ¹	16.0	C
		PM			19.2	C
2	Iron Mountain Road / Middle Creek Road East Leg	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
3	Iron Mountain Road / CCA South Driveway	AM	E	TWSC ¹	0.0	A
		PM			0.0	A
4	Iron Mountain Road / Stubbs Lane	AM	E	TWSC ¹	9.4	A
		PM			9.3	A
5	Iron Mountain Road / Lumber Manufacture Driveway	AM	E	TWSC ¹	11.5	B
		PM			11.7	B
6	Iron Mountain Road / Ball Mill Road	AM	E	TWSC ¹	9.8	A
		PM			9.8	A
7	Iron Mountain Road / Keswick Dam Road	AM	E	TWSC ¹	9.4	A
		PM			9.4	A
¹ Analyzed using HCM 6 methodology for Two-Way Stop Controlled (TWSC) intersection. Delay presented for worst of minor street movement or the major street left turn movement						

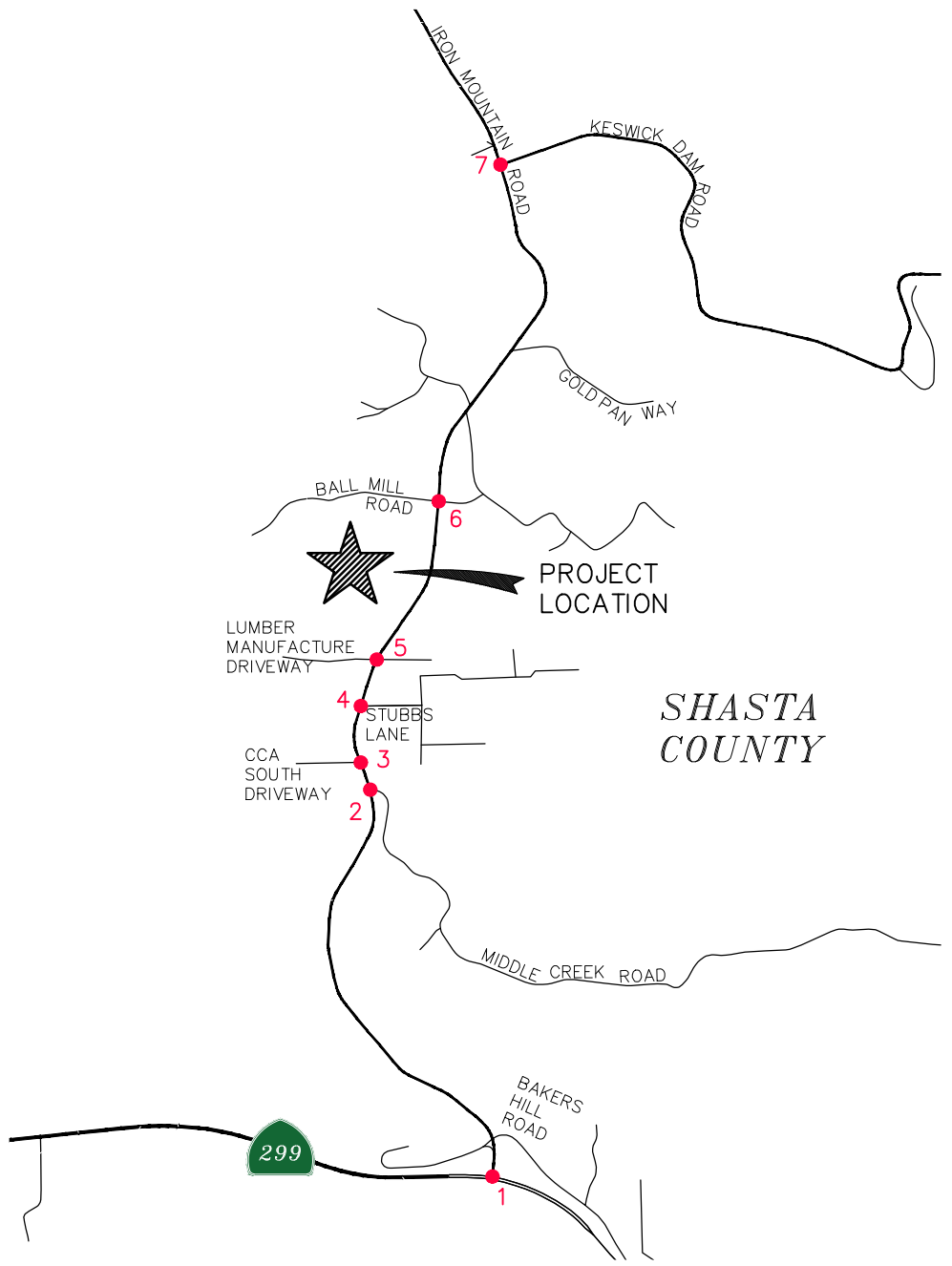
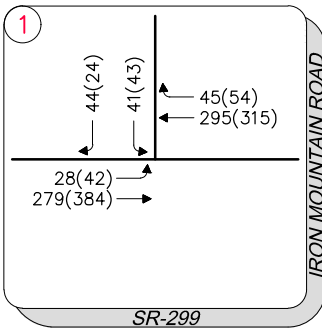
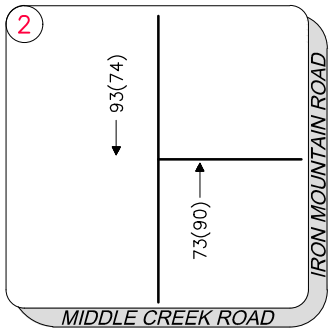
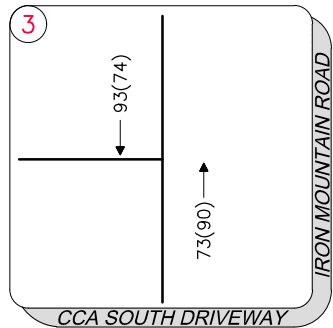
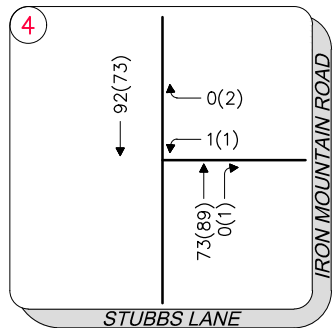
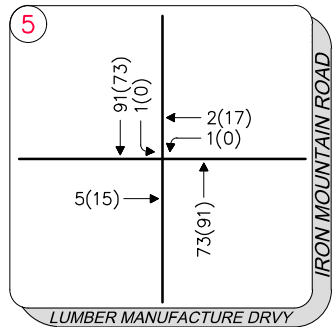
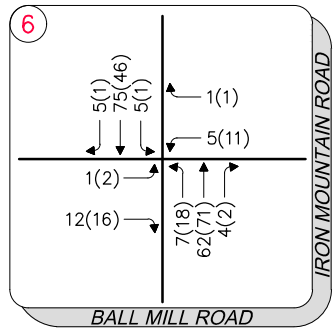
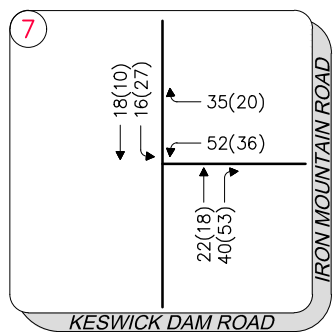
In evaluating the study intersection further, the 95th percentile queues were evaluated. **Table 9.2** presents the 95th percentile queue lengths for Cumulative Year 2042 Plus Project Scenario. All queuing reports are included in **Appendix B Traffic Analysis Reports**.

Table 9.2 Cumulative Year 2042 Plus Project Scenario 95th Percentile Queues

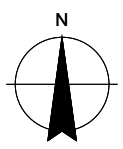
Intersection	Movement	Peak Hour	Scenario		
			Cumulative Year 2042 Plus Project		
			SimTraffic ¹ 95th Percentile Queue (ft)	Storage Length (ft)	Adequate
1. Iron Mountain Rd / SR 299	SB (L)	AM	60	210	Yes
		PM	55	210	Yes
	SB (R)	AM	50	210	Yes
		PM	25	210	Yes
	EB (L)	AM	30	85	Yes
		PM	35	85	Yes
	WB (R)	AM	0	315	Yes
		PM	0	315	Yes
4. Iron Mountain Rd / Stubbs Ln	WB (LR)	AM	0	105	Yes
		PM	15	105	Yes
5. Iron Mountain Rd / Lumber Manufacturer 4-leg Driveway	EB (LTR)	AM	40	100	Yes
		PM	70	100	Yes
	WB (LTR)	AM	30	100	Yes
		PM	75	100	Yes
6. Iron Mountain Rd / Ball Mill Rd	EB (LTR)	AM	70	320	Yes
		PM	75	320	Yes
	WB (LTR)	AM	30	240	Yes
		PM	35	240	Yes
	NB (LTR)	AM	10	650	Yes
		PM	15	650	Yes
	SB (LTR)	AM	5	1000	Yes
		PM	0	1000	Yes
7. Iron Mountain Rd / Keswick Dam Rd	WB (LR)	AM	65	420	Yes
		PM	50	420	Yes

¹ Intersection 2 and 3 reported no queues and therefore wasn't included in table.

² Queue lengths are rounded up to the nearest 5 feet increment.



LEGEND:
 XX - AM PEAK HOUR TRAFFIC VOLUMES
 (XX) - PM PEAK HOUR TRAFFIC VOLUMES
 ● - STUDY INTERSECTION



**CRYSTAL CREEK AGGREGATES EXPANSION
 TRAFFIC IMPACT ANALYSIS REPORT**
**CUMULATIVE YEAR 2042
 PLUS PROJECT AM AND PM VOLUMES**

Project No. 12560517
 Report No. RPT001
 Date 4/28/2022

FIGURE 9.1

9.2 Cumulative Year 2042 Plus Project Roadway Segment Operations

As presented in **Table 9.3**, the study segment on Iron Mountain Road was analyzed for Cumulative Year 2042 Plus Project Scenario. The appropriate heavy vehicle percentages and directional volumes were updated with the project trips. The study segment will operate at LOS B with Cumulative Year 2042 Plus Project Scenario.

Table 9.3 Cumulative Year 2042 Plus Project Scenario – Two-Lane Segment LOS

Cumulative Year 2042 With Project									
Seg No	Segment Name	Direction	Base Free Flow Speed (mph) ²	AM Peak Hour			PM Peak Hour		
				PTSF ¹	V/C	Level of Service	PTSF ¹	V/C	Level of Service
1	Iron Mountain Road - North of Baker Hills Road	NB	45	40.8	0.05	B	49.8	0.06	B

¹ Percent Time Spent Following

² For Class II Highways, Base Free Flow Speeds range from 45-70 mph

10. Vehicle Miles Travelled (VMT) Analysis

As part of this study, GHD has reviewed available literature, guidance, and documentation from the County of Shasta and the Shasta Regional Transportation Agency (SRTA) to identify any draft or advisory VMT screening thresholds, baseline estimates, and/or VMT threshold recommendations. Absent of any adopted or screening criteria for threshold values from the County or SRTA, GHD has presumed the screening thresholds, and a reduction of 15% from baseline as the VMT impact threshold. This impact threshold is consistent with the OPR Technical Advisory (December 2018), Caltrans TISG, and CEQA Guidelines. Many agencies use “screening thresholds” to quickly identify when a project should be expected to cause a less than significant impact without conducting a detailed VMT analysis (see e.g., CEQA Guidelines, §§ 15063(c)(3)(C), 15128, and Appendix G). GHD has first reviewed the screening thresholds per OPR guidance. If the Project does not meet the screening thresholds, then GHD will estimate baseline tour-based VMT per capita, as well as boundary-based VMT for reference, using the SRTA Regional Travel Demand Model.

10.1 Regulatory Framework

In December 2018, OPR released its final Technical Advisory on Evaluating Transportation Impacts in CEQA. Generally, OPR recommends that a reduction of 15% or more in existing VMT should be the target. Below is a summary of OPR’s recommended VMT impact thresholds and methodologies for land use projects:

Residential or Work/Office Projects – A proposed project exceeding a level of 15% below existing regional VMT per employee may indicate a significant transportation impact.

Retail Projects – A net increase in total VMT may indicate a significant transportation impact.

Other Projects – Lead agencies, using more location-specific information, may 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).

10.2 Screening Thresholds

OPR’s Technical Advisory lists the following screening thresholds for land use projects. These types of development projects are presumed to have a less than significant impact on vehicle miles traveled and therefore, a less than significant adverse impact on transportation. OPR’s Technical Advisory suggests that lead agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing.

- Projects that are consistent with the Sustainable Communities Strategy (SCS) or General Plan and generate or attract fewer than 110 light duty vehicle daily trips (per CEQA). Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 light duty vehicle trips or fewer trips could be considered not to lead to a significant impact.
 - VMT is not applicable to heavy vehicle trips
- Map-based screening for residential and office projects located in low VMT areas, and incorporate similar features (density, mix of uses, transit accessibility).
- Certain projects within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor. However, this will not apply if information indicates that the project will still generate high levels of VMT.
- Affordable Housing Development in infill locations.
- Locally-serving retail projects, typically less than 50,000 square feet.

The net daily trip generation for light duty vehicle strip from the proposed expansion is estimated to be 2 vehicle trips. Therefore, the project is assumed to cause a less-than-significant transportation impact, and no further VMT analysis is required.

11. Mitigation Measures

The Project will not degrade the LOS at study intersections and roadways segments to unacceptable levels therefore no mitigation measures are required at the intersections. Per CEQA requirements, this study evaluates the safety and VMT impacts of the project. There are no foreseeable safety impacts from the project. The project is screened out of VMT analysis due to low number of net light duty vehicle project trips.

However, per coordination with Caltrans District 2, there are some improvements identified at the intersection of Iron Mountain Road/SR 299 to accommodate westbound right turning truck traffic and vehicle to bicycle mixing zone with the right turn. This will be further discussed in **Section 11.2**.

11.1 Bikeway Evaluation

There were no bicycle collisions on any of the project intersections or segments between 2016 and 2020. In addition, there were no bicycle collisions 1000 feet to the east or 1000 feet to the west of the intersection on SR 299 and Iron Mountain Road. The current bikeways are provided through the roadway shoulders on SR 299 and Iron Mountain Road.

11.2 State Route 299 and Iron Mountain Road Intersection Improvement

The intersection of Iron Mountain Road/SR 299 is currently a TWSC intersection with SR 299 uncontrolled. Per the Shasta County General Plan, SR 299 is a bicycle planning corridor. In the vicinity of Iron Mountain Road, SR 299 has varying shoulder widths and no bike lanes. Currently, there is an eastbound left turn and a westbound right turn lane at the intersection. The westbound right turn pocket is 165 feet with a 300 feet taper length. The SR 299 approaches to the intersection are also in a crest vertical curve, vehicles will experience a slight uphill grade as they approach the intersection.

The proposed project will add 4 vehicles in the AM peak hour and 2 vehicles in the PM peak hour to westbound right turn movement at this intersection. The project will add 1 vehicle trip in the AM and PM peak hours to the eastbound left turn movement. Most of the trips generated by the project is heavy vehicle trips. To accommodate the added trucks through the intersection and provide the appropriate deceleration length, the project proposes to increase the westbound right turn pocket length to 315 feet with a 120 feet taper.

Additionally, with this right turn modification, a 5 feet bike lane adjacent to the outside westbound through lane will be provided to accommodate bike traffic through the intersection.

Currently, there is an unpaved graded shoulder adjacent to the westbound right turn lane. Evaluation of paving this area should be explored in the design of the right turn lane in providing additional width.

The preliminary layout of the proposed intersection improvements to Iron Mountain Road/SR 299 is shown in **Figure 11.1**.

In the most recent 5 years, there were 4 collisions at the intersections with 2 broadside collisions. There were no bicycle related collisions at the intersection. Increasing the deceleration length of the westbound right turn lane and adding a bike lane for the vehicle and bicycle mixing zone will help to increase safety at the intersection.

11.3 Fair Share Calculation

In calculating the fair share of the project impacts at the Iron Mountain Road/SR 299 intersection, Caltrans methodology can be used.

The proposed project's fair share of the cost of improvements are based upon the method for calculating equitable mitigation measures outlined in the Caltrans Guide for the Preparation of Traffic Impact Studies (State of California, DOT, June 2001). The project's equitable share responsibility is calculated using the following formula:

$P = T / (TB - TE)$ where,

P = The equitable share for the project's traffic impact

T = The vehicle trips generated by the project during the peak hour of adjacent State highway facility in vehicles per hour (vph).

TB = The forecasted traffic volume on an impacted State highway facility at the time of general plan build-out (e.g. 20 year model or the furthest future model date feasible), vph.

TE = The traffic volume existing on the impacted State highway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

Based on project trips through the intersections, the fair share contribution of the project to this intersection improvement is 8% in Cumulative Year 2042 Plus Project Scenario.

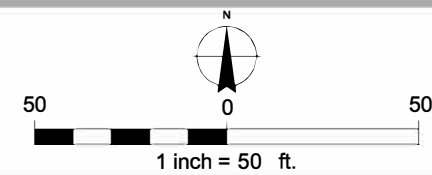
11.4 Additional Observations

The historical crash data as well as observed conditions indicates that commercial vehicles are successfully using Iron Mountain Road. Vehicles trips added by the proposed project will include some amount of commercial vehicles.

No safety improvements are currently recommended based on crash rates.

The Middle Creek Trail was paved in 2011 and the Iron Mountain Road shoulders, between SR 299 and the Middle Creek Trail, were widened in 2012. Iron Mountain Road connects the Salt Creek Trail, south of SR 299 to Middle Creek Trail and has become popular with recreational bicyclists and pedestrians.

Over the years CCA has corrected these conditions. Further, the County receives a yearly tonnage fee to pay for needed corrections as previously discussed in **Section 3** of this report.



CRYSTAL CREEK AGGREGATES EXPANSION
 TRAFFIC IMPACT ANALYSIS REPORT
**I IMPROVEMENTS AT SR 299
 AND IRON MOUNTAIN ROAD**

Project No. 12560517
 Report No.
 Date 03/11/2022

FIGURE 11.1

12. Recommendation and Conclusions

No significant impact to the LOS are anticipated with the Project. No mitigation measures are recommended related to traffic LOS.

The study recommends that the intersection of Iron Mountain Road at SR 299 is improved with the following improvements:

- Increasing the length of westbound right turn lane from 165 ft to 315 ft by widening the paved area at the westbound approach to the intersection.
 - Modifying the length of westbound right turn taper from 300 ft to 120 ft
- Adding a 5 feet bike lane adjacent to the outside westbound through lane through the intersection

These recommendations are consistent with feedback received from Caltrans regarding necessary improvements at the intersection.

No Safety improvements are currently recommended based on crash rates.

The proposed Project is projected to generate 88 net daily vehicle trips (mostly heavy vehicles) with only 2 additional light duty vehicle trips thus meeting the screening threshold of 110 daily light duty vehicle trips per OPR's Technical Advisory. Therefore, this Project is presumed to have a less than significant impact on VMT and therefore, a less than significant adverse impact on transportation.

Appendices

Appendix A

Traffic Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: Iron Mountain Rd & SR299/Eureka Way
 City: Redding
 Control: 1-Way Stop (SB)

Project ID: 19-07384-001
 Date: 10/22/2019

Total

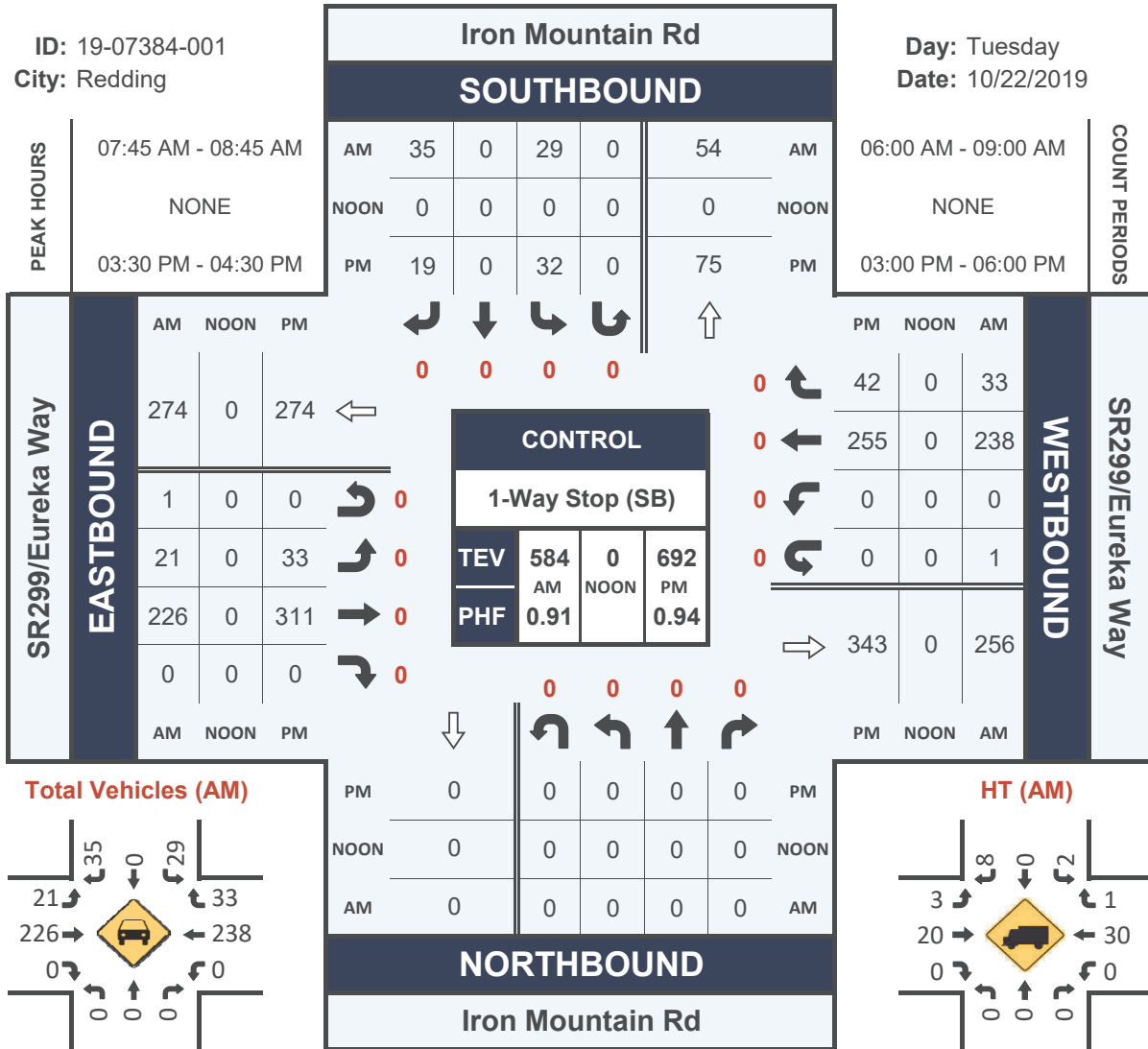
NS/EW Streets:	Iron Mountain Rd				Iron Mountain Rd				SR299/Eureka Way				SR299/Eureka Way				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	0	0	0	1	0	2	0	3	23	0	0	0	41	5	0	75
6:15 AM	0	0	0	0	3	0	2	0	1	26	0	0	0	18	4	0	54
6:30 AM	0	0	0	0	3	0	8	0	3	30	0	0	0	37	5	0	86
6:45 AM	0	0	0	0	5	0	7	0	3	38	0	0	0	54	10	0	117
7:00 AM	0	0	0	0	6	0	5	0	4	35	0	0	0	58	4	0	112
7:15 AM	0	0	0	0	8	0	10	0	4	63	0	0	0	41	10	0	136
7:30 AM	0	0	0	0	10	0	10	0	2	46	0	0	0	43	7	0	118
7:45 AM	0	0	0	0	9	0	8	0	3	59	0	1	0	57	11	0	148
8:00 AM	0	0	0	0	8	0	9	0	8	43	0	0	0	61	8	0	137
8:15 AM	0	0	0	0	7	0	6	0	4	61	0	0	0	74	9	0	161
8:30 AM	0	0	0	0	5	0	12	0	6	63	0	0	0	46	5	1	138
8:45 AM	0	0	0	0	8	0	10	0	4	60	0	0	0	39	7	0	128
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	73	0	89	0	45	547	0	1	0	569	85	1	1410
					45.06%	0.00%	54.94%	0.00%	7.59%	92.24%	0.00%	0.17%	0.00%	86.87%	12.98%	0.15%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	29	0	35	0	21	226	0	1	0	238	33	1	584
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.806	0.000	0.729	0.000	0.656	0.897	0.000	0.250	0.000	0.804	0.750	0.250	0.907
					0.941				0.899				0.819				
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	5	0	4	0	6	64	0	0	0	59	12	0	150
3:15 PM	0	0	0	0	8	0	6	0	2	47	0	0	0	61	6	0	130
3:30 PM	0	0	0	0	7	0	1	0	10	78	0	0	0	66	9	0	171
3:45 PM	0	0	0	0	9	0	8	0	2	88	0	0	0	57	12	0	176
4:00 PM	0	0	0	0	9	0	4	0	8	68	0	0	0	61	11	0	161
4:15 PM	0	0	0	0	7	0	6	0	13	77	0	0	0	71	10	0	184
4:30 PM	0	0	0	0	13	0	4	0	7	68	0	0	0	65	8	0	165
4:45 PM	0	0	0	0	12	0	2	0	3	65	0	0	0	67	3	0	152
5:00 PM	0	0	0	0	8	0	5	0	2	41	0	0	0	68	7	0	131
5:15 PM	0	0	0	0	6	0	3	0	1	85	0	0	0	64	6	0	165
5:30 PM	0	0	0	0	7	0	3	0	2	60	0	0	0	74	8	0	154
5:45 PM	0	0	0	0	4	0	4	0	5	84	0	0	0	53	1	0	151
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	95	0	50	0	61	825	0	0	0	766	93	0	1890
					65.52%	0.00%	34.48%	0.00%	6.88%	93.12%	0.00%	0.00%	0.00%	89.17%	10.83%	0.00%	
PEAK HR :	03:30 PM - 04:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	32	0	19	0	33	311	0	0	0	255	42	0	692
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.889	0.000	0.594	0.000	0.635	0.884	0.000	0.000	0.000	0.898	0.875	0.000	0.940
					0.750				0.956				0.917				

Iron Mountain Rd & SR299/Eureka Way

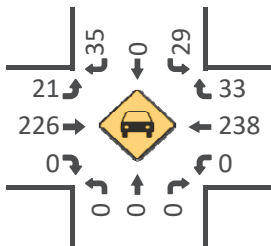
Peak Hour Turning Movement Count

ID: 19-07384-001
City: Redding

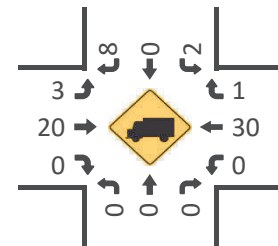
Day: Tuesday
Date: 10/22/2019



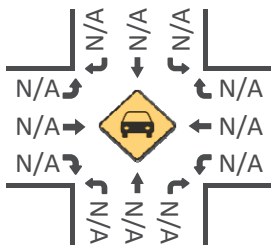
Total Vehicles (AM)



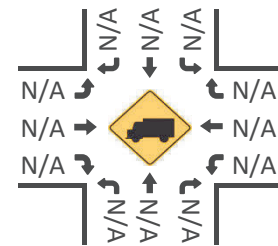
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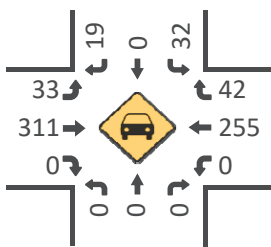
Total Vehicles (Noon)



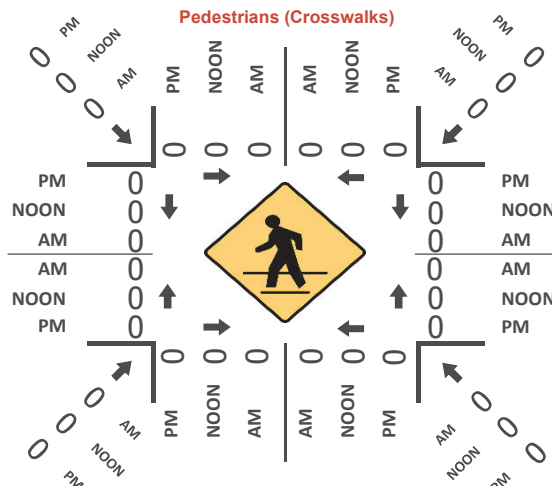
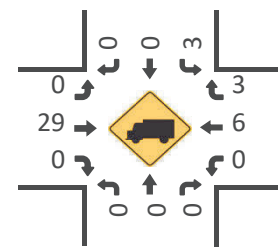
HT (NOON)



Total Vehicles (PM)



HT (PM)

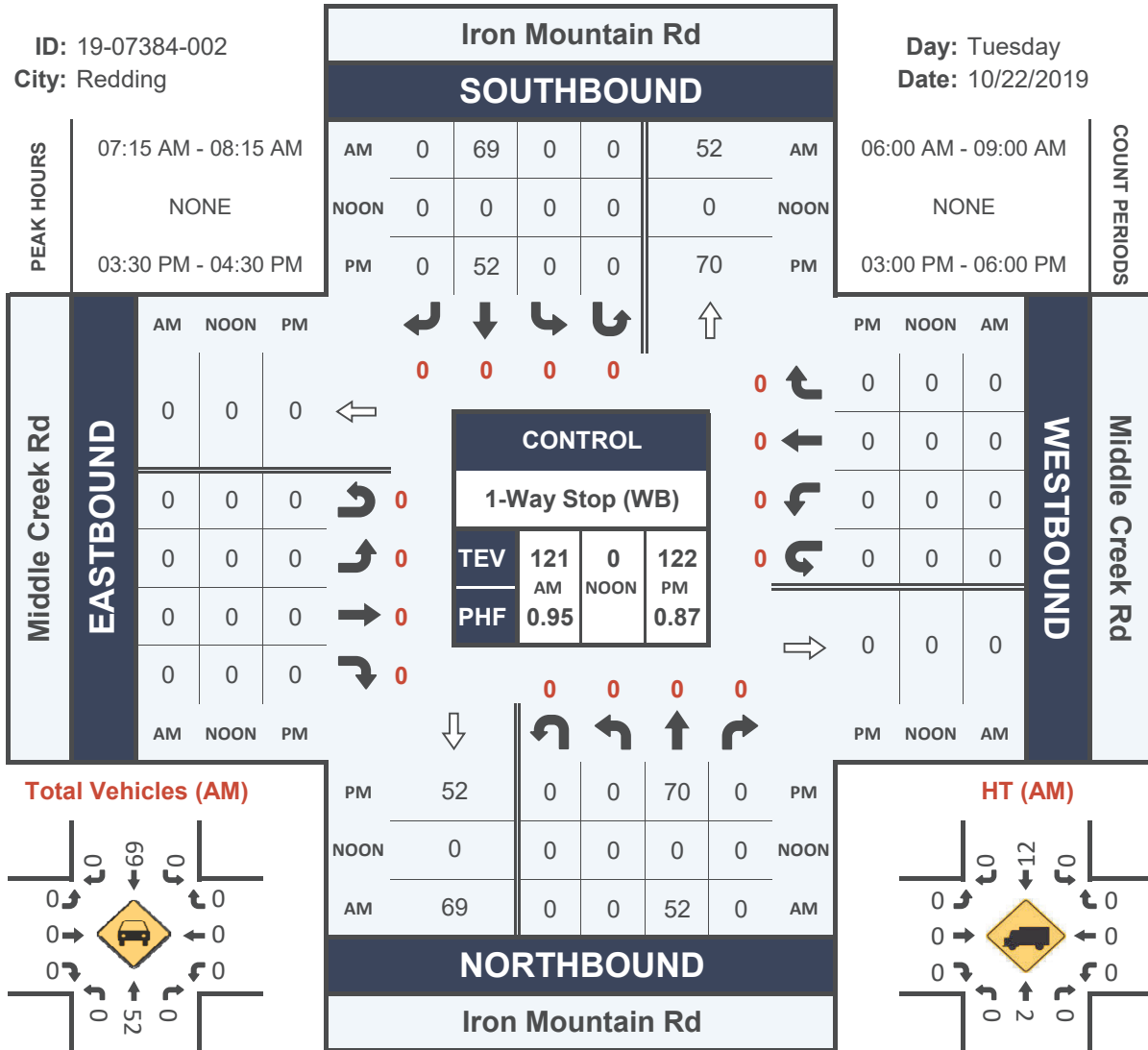


Iron Mountain Rd & Middle Creek Rd

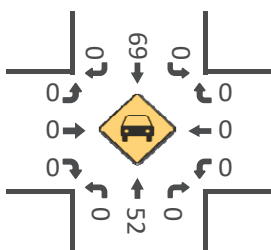
Peak Hour Turning Movement Count

ID: 19-07384-002
City: Redding

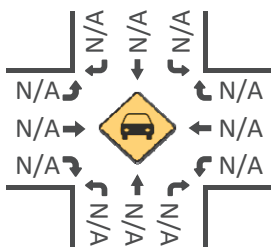
Day: Tuesday
Date: 10/22/2019



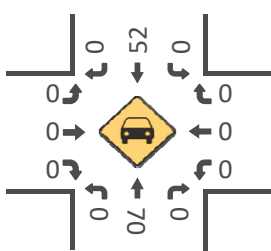
Total Vehicles (AM)



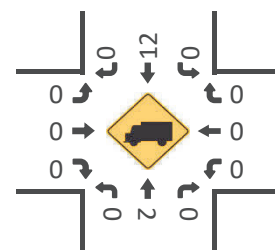
Total Vehicles (Noon)



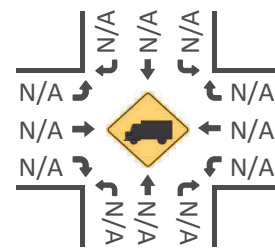
Total Vehicles (PM)



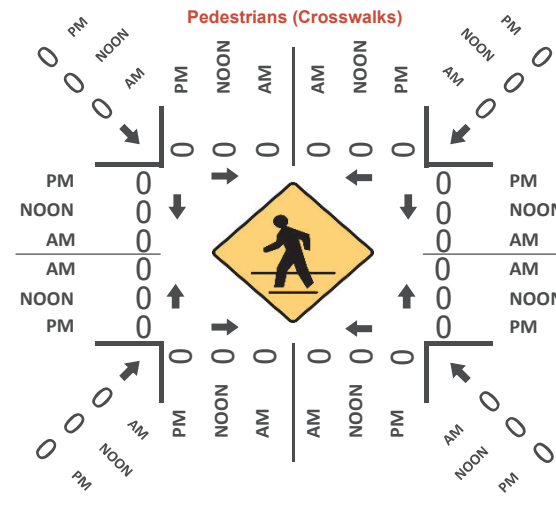
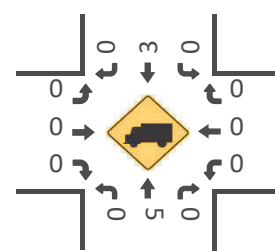
HT (AM)



HT (NOON)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Iron Mountain Rd & CCA South Dwy/Ball Mill Rd
 City: Redding
 Control: No Control

Project ID: 19-07384-003
 Date: 10/22/2019

Total

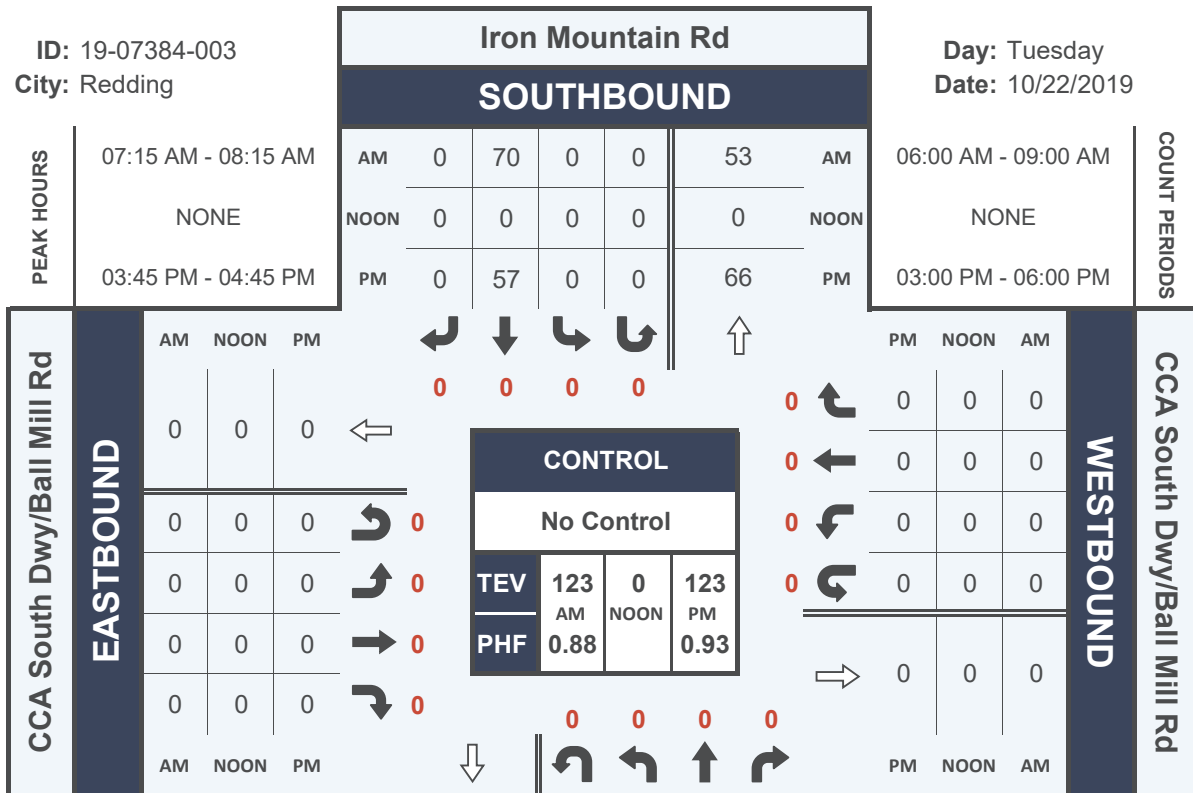
NS/EW Streets:	Iron Mountain Rd				Iron Mountain Rd				CCA South Dwy/Ball Mill Rd				CCA South Dwy/Ball Mill Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	10
6:15 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	10
6:30 AM	0	7	0	0	0	13	0	0	0	0	0	0	0	0	0	0	20
6:45 AM	0	8	0	0	0	9	0	0	0	0	0	0	0	0	0	0	17
7:00 AM	0	10	0	0	0	13	0	0	0	0	0	0	0	0	0	0	23
7:15 AM	0	12	0	0	0	21	0	0	0	0	0	0	0	0	0	0	33
7:30 AM	0	10	0	0	0	16	0	0	0	0	0	0	0	0	0	0	26
7:45 AM	0	15	0	0	0	20	0	0	0	0	0	0	0	0	0	0	35
8:00 AM	0	16	0	0	0	13	0	0	0	0	0	0	0	0	0	0	29
8:15 AM	0	12	0	0	0	14	0	0	0	0	0	0	0	0	0	0	26
8:30 AM	0	12	0	0	0	18	0	0	0	0	0	0	0	0	0	0	30
8:45 AM	0	7	0	0	0	13	0	0	0	0	0	0	0	0	0	0	20
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	121	0	0	0	158	0	0	0	0	0	0	0	0	0	0	279
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	53	0	0	0	70	0	0	0	0	0	0	0	0	0	0	123
PEAK HR FACTOR :	0.000	0.828	0.000	0.000	0.000	0.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.879
	0.828				0.833												
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	19	0	0	0	10	0	0	0	0	0	0	0	0	0	0	29
3:15 PM	0	10	0	0	0	16	0	0	0	0	0	0	0	0	0	0	26
3:30 PM	0	15	0	0	0	8	0	0	0	0	0	0	0	0	0	0	23
3:45 PM	0	14	0	0	0	14	0	0	0	0	0	0	0	0	0	0	28
4:00 PM	0	17	0	0	0	12	0	0	0	0	0	0	0	0	0	0	29
4:15 PM	0	20	0	0	0	13	0	0	0	0	0	0	0	0	0	0	33
4:30 PM	0	15	0	0	0	18	0	0	0	0	0	0	0	0	0	0	33
4:45 PM	0	6	0	0	0	12	0	0	0	0	0	0	0	0	0	0	18
5:00 PM	0	12	0	0	0	11	1	0	0	0	1	0	0	0	0	0	25
5:15 PM	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	0	15
5:30 PM	0	10	0	0	0	9	0	0	0	0	0	0	0	0	0	0	19
5:45 PM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	14
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	151	0	0	0	139	1	0	0	0	1	0	0	0	0	0	292
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	66	0	0	0	57	0	0	0	0	0	0	0	0	0	0	123
PEAK HR FACTOR :	0.000	0.825	0.000	0.000	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.932
	0.825				0.792												

Iron Mountain Rd & CCA South Dwy/Ball Mill Rd

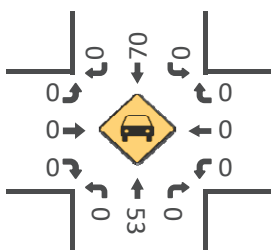
Peak Hour Turning Movement Count

ID: 19-07384-003
City: Redding

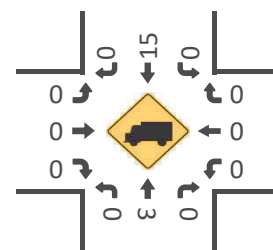
Day: Tuesday
Date: 10/22/2019



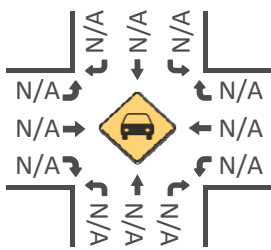
Total Vehicles (AM)



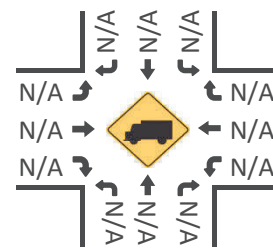
HT (AM)



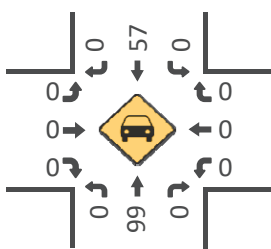
Total Vehicles (Noon)



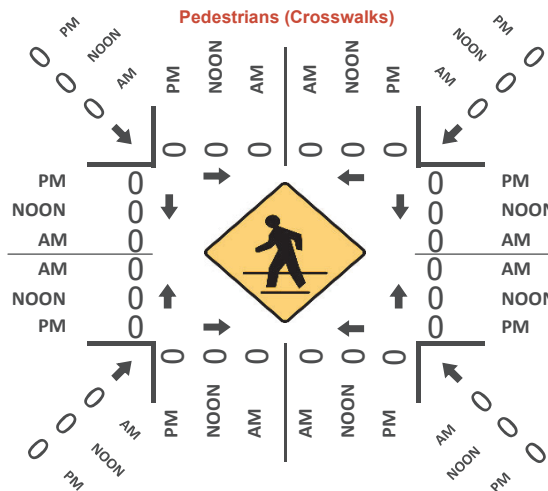
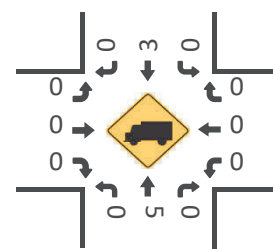
HT (NOON)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Iron Mountain Rd & Stubbs Ln
 City: Redding
 Control: No Control

Project ID: 19-07384-004
 Date: 10/22/2019

Total

NS/EW Streets:	Iron Mountain Rd				Iron Mountain Rd				Stubbs Ln				Stubbs Ln				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	6	0	0	0	2	0	0	0	0	0	0	1	0	0	0	9
6:15 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
6:30 AM	0	9	0	0	0	14	0	0	0	0	0	0	0	0	0	0	23
6:45 AM	0	11	0	0	0	10	0	0	0	0	0	0	1	0	0	0	22
7:00 AM	0	10	1	0	0	12	0	0	0	0	0	0	0	0	0	0	23
7:15 AM	0	7	1	0	0	22	0	0	0	0	0	0	0	0	0	0	30
7:30 AM	0	12	0	0	0	16	0	0	0	0	0	0	0	0	0	0	28
7:45 AM	0	12	0	0	0	18	0	0	0	0	0	0	1	0	0	0	31
8:00 AM	0	17	0	0	0	10	0	0	0	0	0	0	0	0	0	0	27
8:15 AM	0	14	0	0	0	17	0	0	0	0	0	0	0	0	0	0	31
8:30 AM	0	10	0	0	0	16	0	0	0	0	0	0	0	0	0	0	26
8:45 AM	0	7	0	0	0	13	0	0	0	0	0	0	1	0	0	0	21
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	119	2	0	0	154	0	0	0	0	0	0	4	0	0	0	279
	0.00%	98.35%	1.65%	0.00%	0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	55	0	0	0	61	0	0	0	0	0	0	1	0	0	0	117
PEAK HR FACTOR :	0.000	0.809	0.000	0.000	0.000	0.847	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.944
			0.809			0.847								0.250			
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	15	0	0	5	11	0	0	0	0	0	0	1	0	2	0	34
3:15 PM	0	9	1	0	1	10	0	0	0	0	0	0	1	0	1	0	23
3:30 PM	0	18	0	0	0	11	0	0	0	0	0	0	0	0	2	0	31
3:45 PM	0	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	26
4:00 PM	0	18	0	0	0	13	0	0	0	0	0	0	0	0	0	0	31
4:15 PM	0	20	1	0	0	10	0	0	0	0	0	0	1	0	0	0	32
4:30 PM	0	12	0	0	0	12	0	0	0	0	0	0	1	0	1	0	26
4:45 PM	0	9	0	0	0	12	0	0	0	0	0	0	1	0	0	0	22
5:00 PM	0	10	0	0	0	13	0	0	0	0	0	0	0	0	0	0	23
5:15 PM	0	5	2	0	1	10	0	0	0	0	0	0	1	0	0	0	19
5:30 PM	0	13	0	0	0	6	0	0	0	0	0	0	0	0	0	0	19
5:45 PM	0	5	0	0	0	11	0	0	0	0	0	0	0	0	0	0	16
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	147	4	0	7	132	0	0	0	0	0	0	6	0	6	0	302
	0.00%	97.35%	2.65%	0.00%	5.04%	94.96%	0.00%	0.00%					50.00%	0.00%	50.00%	0.00%	
PEAK HR :	03:30 PM - 04:30 PM																TOTAL
PEAK HR VOL :	0	69	1	0	0	47	0	0	0	0	0	0	1	0	2	0	120
PEAK HR FACTOR :	0.000	0.863	0.250	0.000	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.938
			0.833			0.904								0.250			

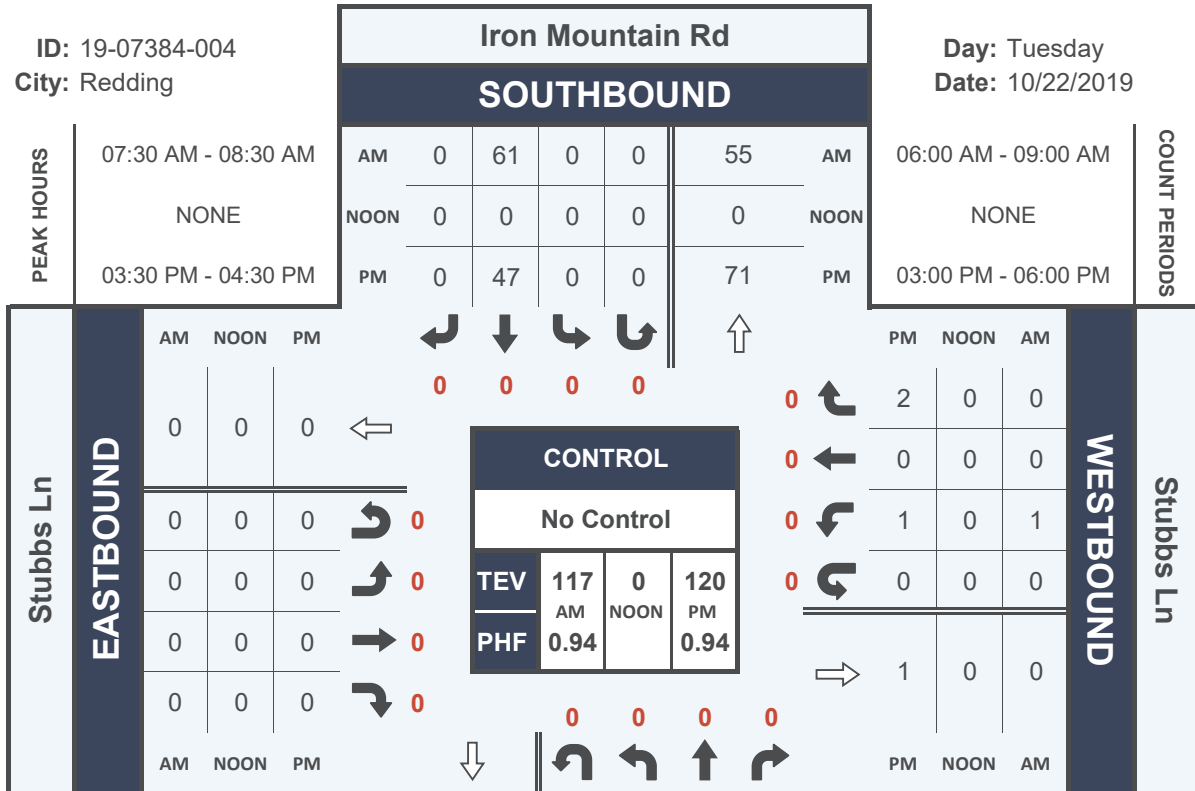
AM

Iron Mountain Rd & Stubbs Ln

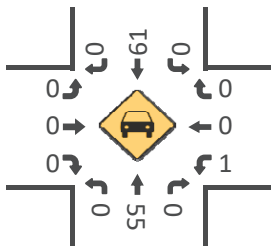
Peak Hour Turning Movement Count

ID: 19-07384-004
City: Redding

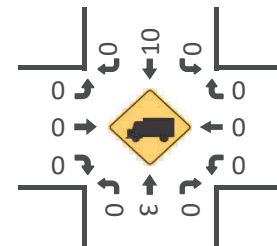
Day: Tuesday
Date: 10/22/2019



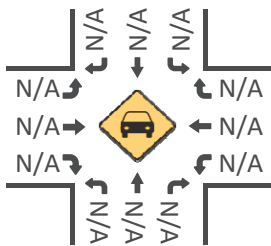
Total Vehicles (AM)



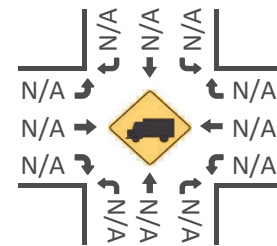
HT (AM)



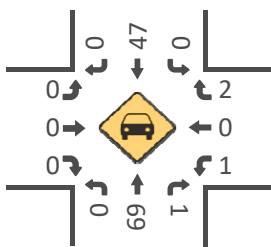
Total Vehicles (Noon)



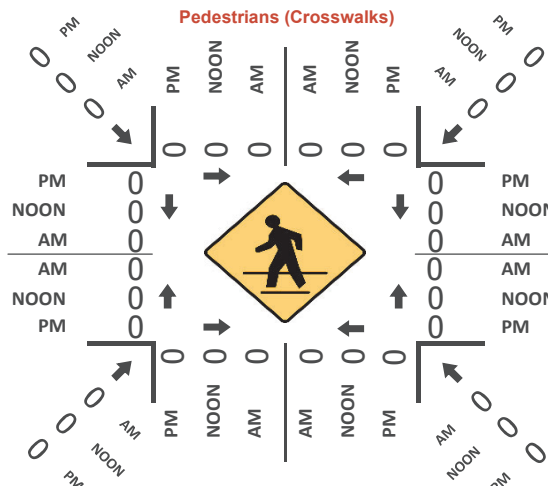
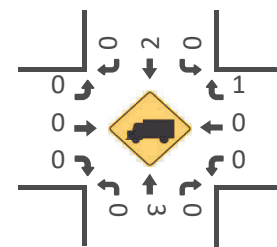
HT (NOON)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Iron Mountain Rd & Lumber Manufacture 4-Leg Dwy
 City: Redding
 Control: No Control

Project ID: 19-07384-005
 Date: 10/22/2019

Total

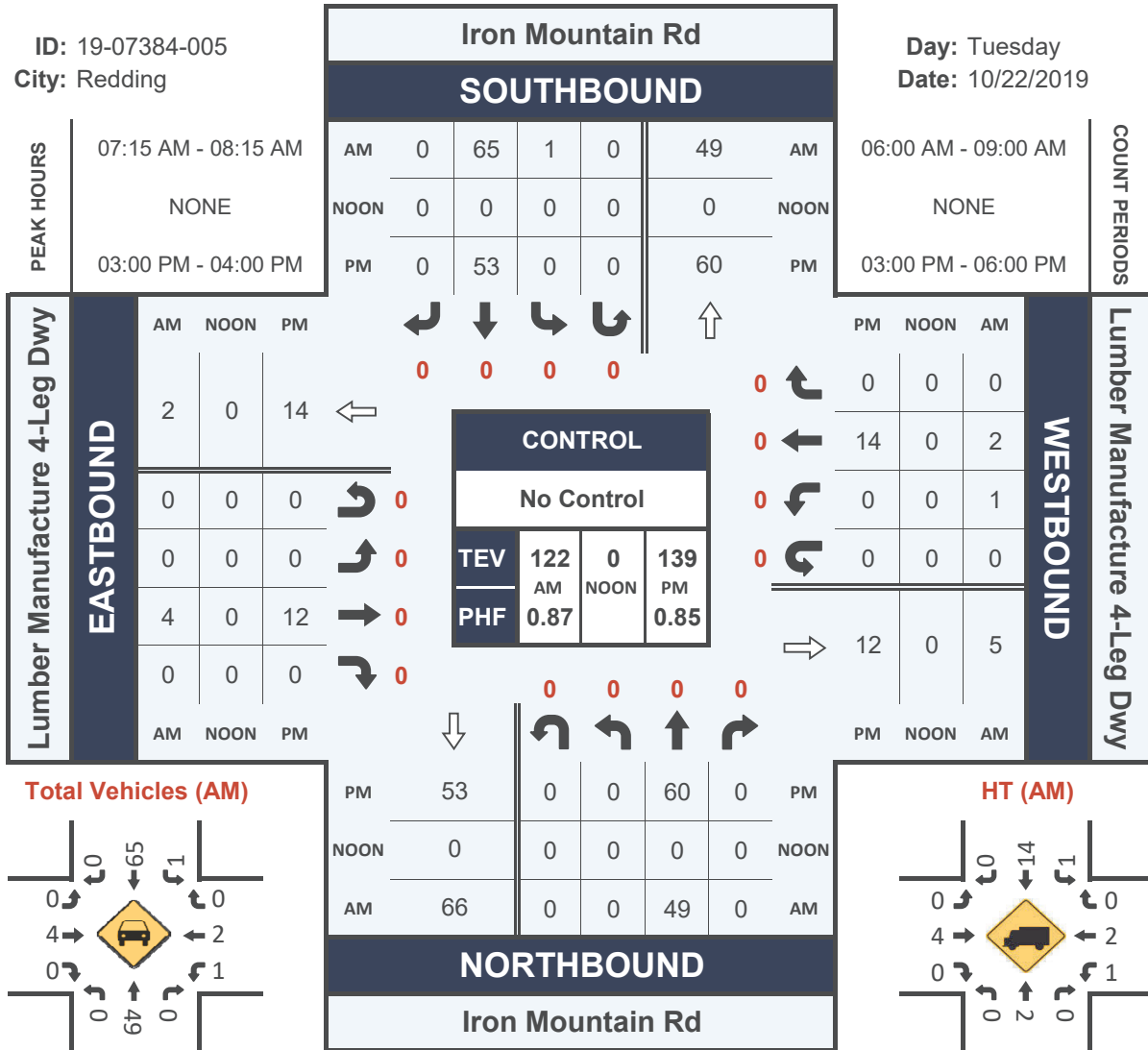
NS/EW Streets:	Iron Mountain Rd				Iron Mountain Rd				Lumber Manufacture 4-Leg Dwy				Lumber Manufacture 4-Leg Dwy				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0	0	11
6:15 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
6:30 AM	0	10	0	0	0	14	0	0	0	0	0	0	0	0	0	0	24
6:45 AM	0	9	0	0	0	10	0	0	0	0	0	0	0	0	0	0	19
7:00 AM	0	11	0	0	0	11	0	0	0	0	0	0	0	3	0	0	25
7:15 AM	0	7	0	0	1	23	0	0	0	3	0	0	0	1	0	0	35
7:30 AM	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	32
7:45 AM	0	9	0	0	0	17	0	0	0	1	0	0	1	1	0	0	29
8:00 AM	0	17	0	0	0	9	0	0	0	0	0	0	0	0	0	0	26
8:15 AM	0	10	0	0	0	15	0	0	0	2	0	0	0	2	0	0	29
8:30 AM	0	11	0	0	0	19	0	0	0	2	0	0	0	3	0	0	35
8:45 AM	0	7	0	0	0	13	0	0	0	1	0	0	0	1	0	0	22
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	118	0	0	1	154	0	0	0	9	0	0	1	11	0	0	294
	0.00%	100.00%	0.00%	0.00%	0.65%	99.35%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	8.33%	91.67%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	49	0	0	1	65	0	0	0	4	0	0	1	2	0	0	122
PEAK HR FACTOR :	0.000	0.721	0.000	0.000	0.250	0.707	0.000	0.000	0.000	0.333	0.000	0.000	0.250	0.500	0.000	0.000	0.871
				0.721				0.688				0.333				0.375	
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	18	0	0	0	18	0	0	0	2	0	0	0	3	0	0	41
3:15 PM	0	11	0	0	0	10	0	0	0	3	0	0	0	6	0	0	30
3:30 PM	0	19	0	0	0	14	0	0	0	2	0	0	0	1	0	0	36
3:45 PM	0	12	0	0	0	11	0	0	0	5	0	0	0	4	0	0	32
4:00 PM	0	20	0	0	0	11	0	0	0	0	0	0	0	2	0	0	33
4:15 PM	0	19	0	0	0	13	0	0	0	1	0	0	0	0	0	0	33
4:30 PM	0	15	0	0	0	10	0	0	0	4	0	0	0	5	0	0	34
4:45 PM	0	10	0	0	0	12	0	0	0	6	0	0	0	2	0	0	30
5:00 PM	0	9	0	0	0	11	0	0	0	0	0	0	0	0	0	0	20
5:15 PM	0	5	0	0	0	12	0	0	0	2	0	0	0	2	0	0	21
5:30 PM	0	12	0	0	0	7	0	0	0	1	0	0	0	1	0	0	21
5:45 PM	0	4	0	0	0	9	0	0	0	1	0	0	0	1	0	0	15
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	154	0	0	0	138	0	0	0	27	0	0	0	27	0	0	346
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	60	0	0	0	53	0	0	0	12	0	0	0	14	0	0	139
PEAK HR FACTOR :	0.000	0.789	0.000	0.000	0.000	0.736	0.000	0.000	0.000	0.600	0.000	0.000	0.000	0.583	0.000	0.000	0.848
				0.789				0.736				0.600				0.583	

Iron Mountain Rd & Lumber Manufacture 4-Leg Dwy

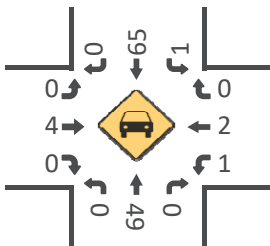
Peak Hour Turning Movement Count

ID: 19-07384-005
City: Redding

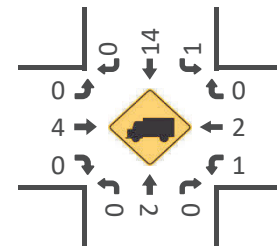
Day: Tuesday
Date: 10/22/2019



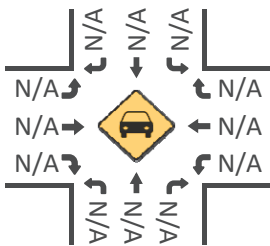
Total Vehicles (AM)



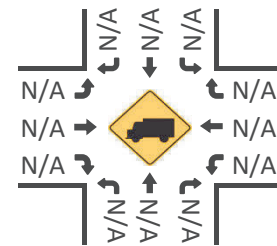
HT (AM)



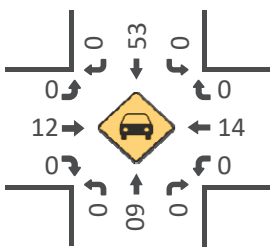
Total Vehicles (Noon)



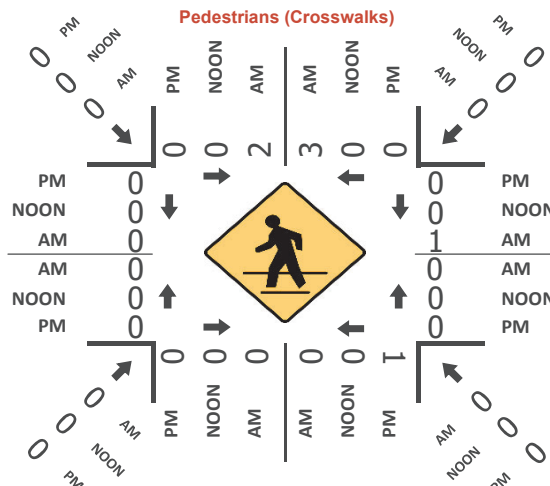
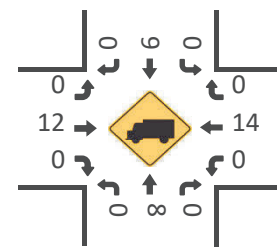
HT (NOON)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Iron Mountain Rd & Ball Mill Rd
City: Redding
Control: 2-Way Stop (EB/WB)

Project ID: 19-07384-006
Date: 10/22/2019

Total

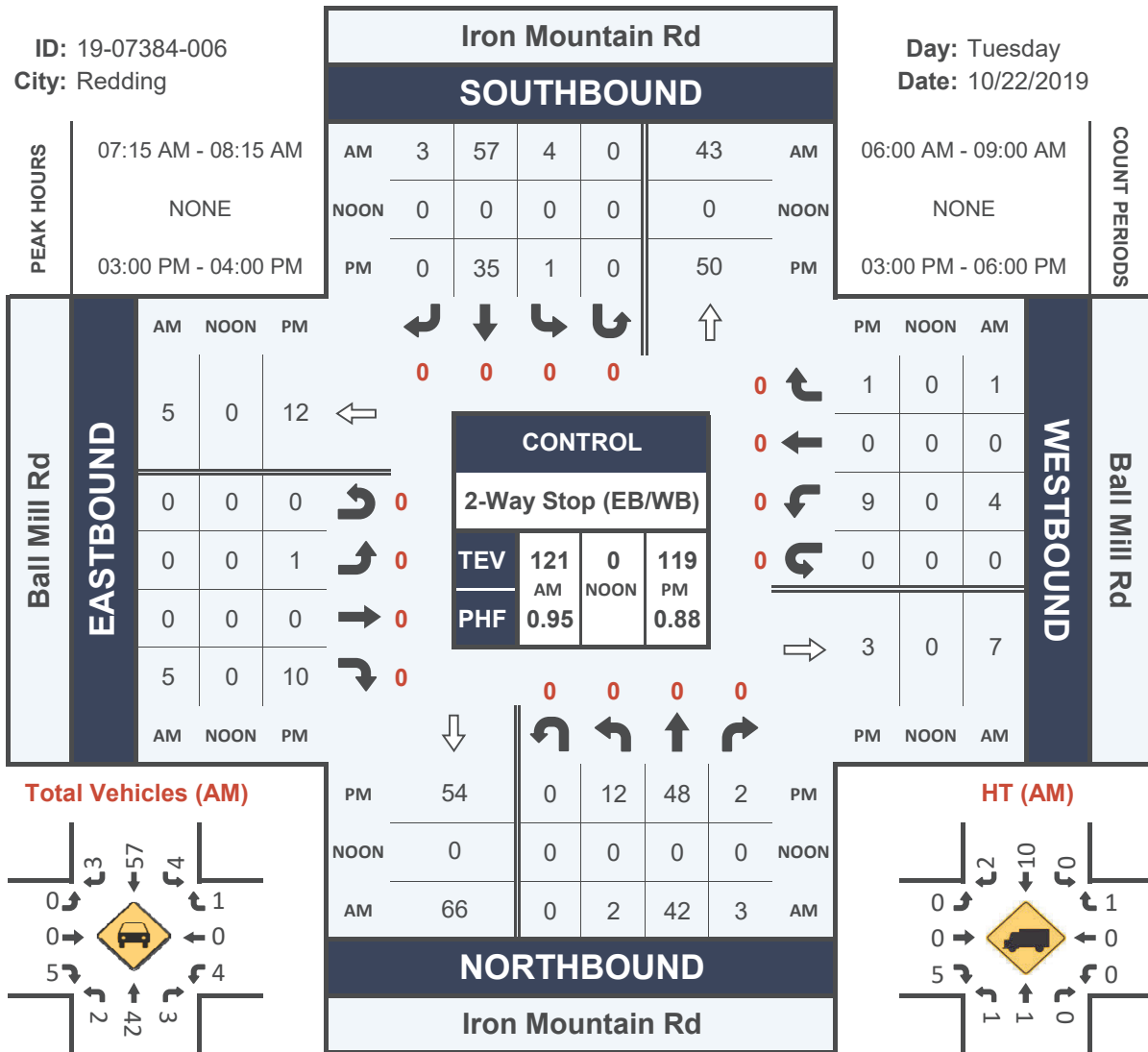
NS/EW Streets:	Iron Mountain Rd				Iron Mountain Rd				Ball Mill Rd				Ball Mill Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
6:15 AM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9
6:30 AM	0	5	0	0	0	12	1	0	0	0	0	0	0	0	0	0	18
6:45 AM	1	3	2	0	0	12	2	0	0	0	0	0	0	0	0	0	20
7:00 AM	3	7	2	0	0	9	0	0	0	0	2	0	0	0	0	0	23
7:15 AM	1	8	1	0	2	16	0	0	0	0	2	0	0	0	0	0	30
7:30 AM	0	10	0	0	0	15	1	0	0	0	1	0	3	0	0	0	30
7:45 AM	1	14	0	0	0	13	1	0	0	0	1	0	1	0	1	0	32
8:00 AM	0	10	2	0	2	13	1	0	0	0	1	0	0	0	0	0	29
8:15 AM	2	11	1	0	1	11	0	0	0	0	2	0	0	0	1	0	29
8:30 AM	1	10	0	0	0	16	1	0	1	0	0	0	0	0	0	0	29
8:45 AM	2	7	1	0	1	16	0	0	0	0	2	0	0	0	0	0	29
TOTAL VOLUMES :	11	95	9	0	6	140	7	0	1	11	11	0	4	0	2	0	286
APPROACH %'s :	9.57%	82.61%	7.83%	0.00%	3.92%	91.50%	4.58%	0.00%	8.33%	0.00%	91.67%	0.00%	66.67%	0.00%	33.33%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	2	42	3	0	4	57	3	0	0	0	5	0	4	0	1	0	121
PEAK HR FACTOR :	0.500	0.750	0.375	0.000	0.500	0.891	0.750	0.000	0.000	0.000	0.625	0.000	0.333	0.000	0.250	0.000	0.945
	0.783				0.889				0.625				0.417				
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	7	13	0	0	1	9	0	0	0	0	4	0	0	0	0	0	34
3:15 PM	1	10	1	0	0	9	0	0	0	0	1	0	7	0	1	0	30
3:30 PM	4	12	0	0	0	5	0	0	0	0	3	0	2	0	0	0	26
3:45 PM	0	13	1	0	0	12	0	0	1	0	2	0	0	0	0	0	29
4:00 PM	2	11	2	0	0	8	0	0	0	0	1	0	1	0	0	0	25
4:15 PM	0	20	0	0	0	10	0	0	0	0	1	0	1	0	0	0	32
4:30 PM	2	15	0	0	0	8	0	0	0	0	3	0	1	0	0	0	29
4:45 PM	1	7	0	0	0	9	0	0	1	0	2	0	0	0	0	0	20
5:00 PM	0	8	4	0	0	9	0	0	1	0	3	0	0	0	0	0	25
5:15 PM	0	4	0	0	0	6	0	0	0	0	0	0	2	0	0	0	12
5:30 PM	0	11	0	0	0	8	0	0	0	0	0	0	1	0	1	0	21
5:45 PM	0	7	1	0	0	8	0	0	0	0	0	0	0	0	0	0	16
TOTAL VOLUMES :	17	131	9	0	1	101	0	0	3	0	20	0	15	0	2	0	299
APPROACH %'s :	10.83%	83.44%	5.73%	0.00%	0.98%	99.02%	0.00%	0.00%	13.04%	0.00%	86.96%	0.00%	88.24%	0.00%	11.76%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	12	48	2	0	1	35	0	0	1	0	10	0	9	0	1	0	119
PEAK HR FACTOR :	0.429	0.923	0.500	0.000	0.250	0.729	0.000	0.000	0.250	0.000	0.625	0.000	0.321	0.000	0.250	0.000	0.875
	0.775				0.750				0.688				0.313				

Iron Mountain Rd & Ball Mill Rd

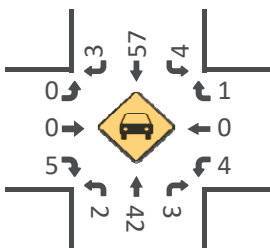
Peak Hour Turning Movement Count

ID: 19-07384-006
City: Redding

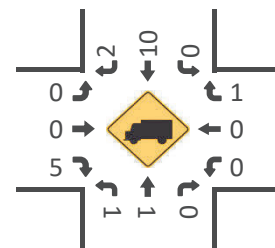
Day: Tuesday
Date: 10/22/2019



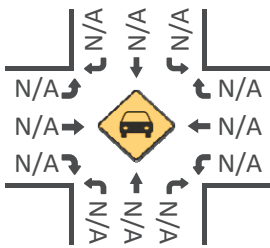
Total Vehicles (AM)



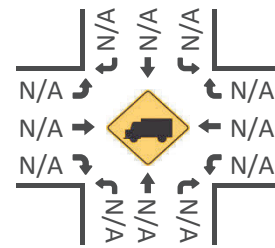
HT (AM)



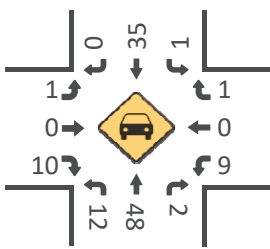
Total Vehicles (Noon)



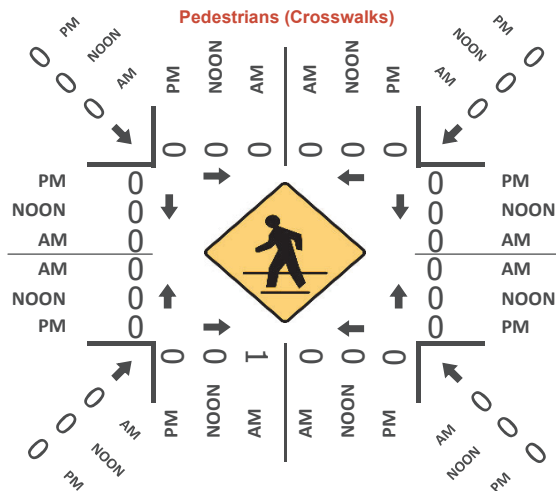
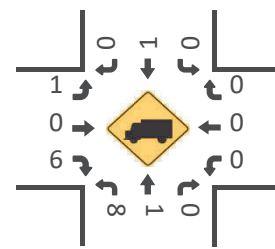
HT (NOON)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Iron Mountain Rd & Keswick Dam Rd
 City: Redding
 Control: 1-Way Stop (WB)

Project ID: 19-07384-007
 Date: 10/22/2019

Total

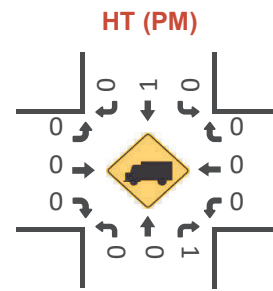
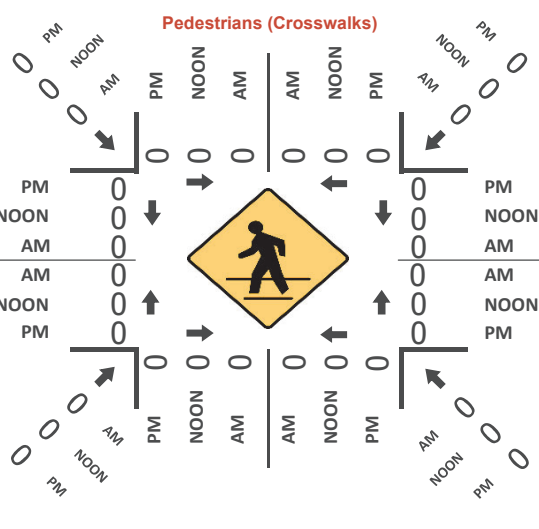
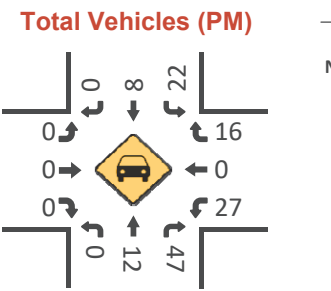
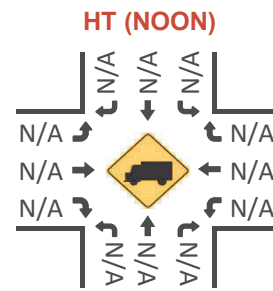
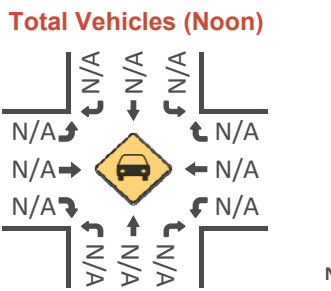
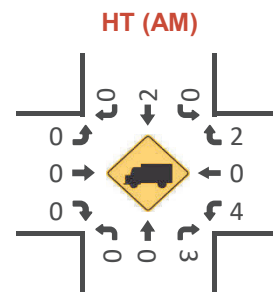
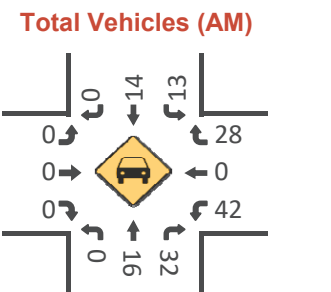
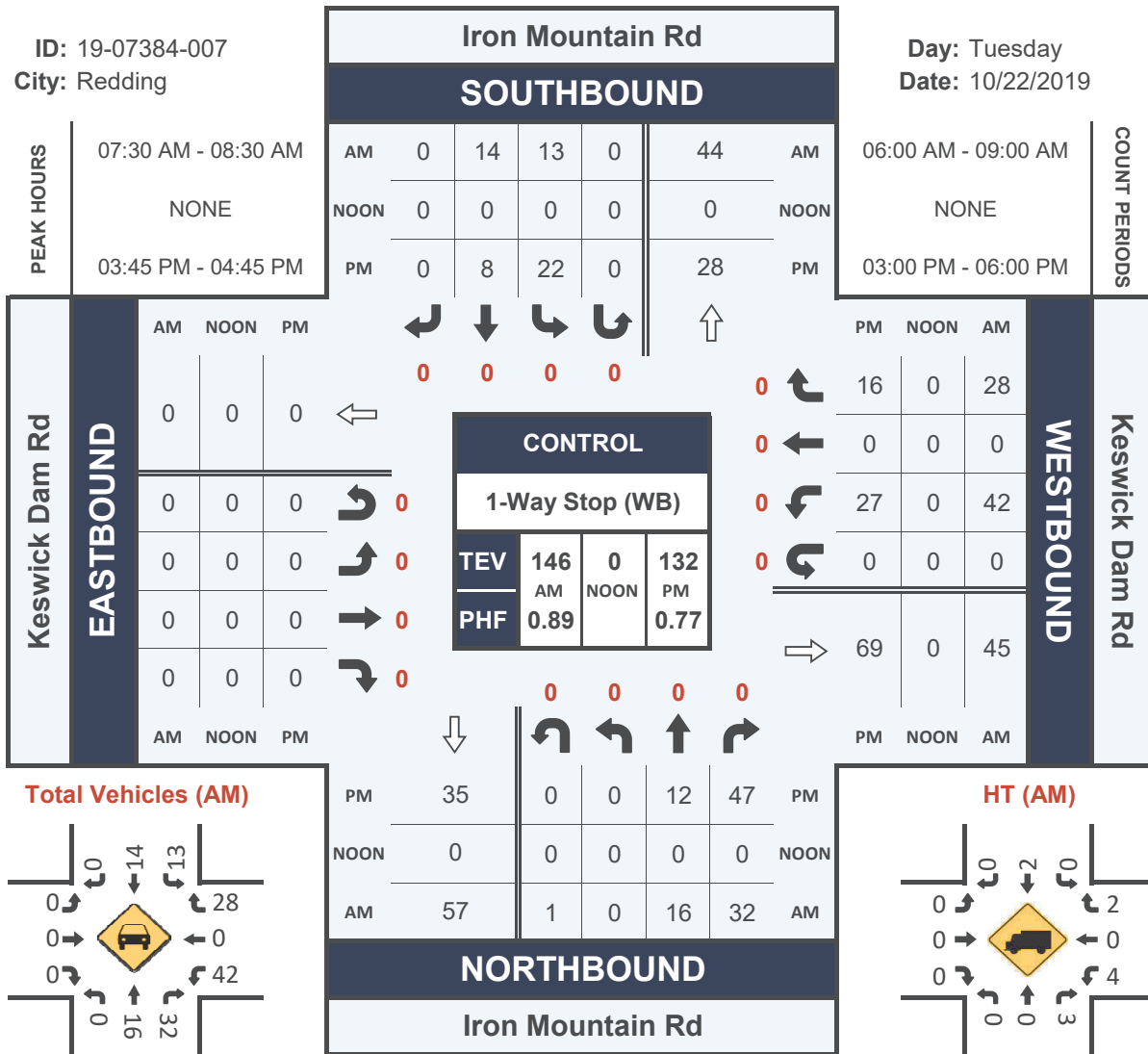
NS/EW Streets:	Iron Mountain Rd				Iron Mountain Rd				Keswick Dam Rd				Keswick Dam Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	2	3	0	2	1	0	0	0	0	0	0	4	0	1	0	13
6:15 AM	0	3	2	0	4	2	0	0	0	0	0	0	13	0	1	0	25
6:30 AM	0	1	1	0	2	2	0	0	0	0	0	0	10	0	3	0	19
6:45 AM	0	1	4	0	4	1	0	0	0	0	0	0	7	0	3	0	20
7:00 AM	0	2	7	0	2	3	0	0	0	0	0	0	15	0	3	0	32
7:15 AM	0	1	6	0	4	2	0	0	0	0	0	0	14	0	2	0	29
7:30 AM	0	6	8	0	5	4	0	0	0	0	0	0	14	0	4	0	41
7:45 AM	0	2	11	1	3	3	0	0	0	0	0	0	6	0	10	0	36
8:00 AM	0	5	6	0	4	4	0	0	0	0	0	0	11	0	5	0	35
8:15 AM	0	3	7	0	1	3	0	0	0	0	0	0	11	0	9	0	34
8:30 AM	0	3	4	0	3	5	0	0	0	0	0	0	11	0	4	0	30
8:45 AM	0	1	4	0	3	4	0	0	0	0	0	0	8	0	2	0	22
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	30	63	1	37	34	0	0	0	0	0	0	124	34	47	0	336
	0.00%	31.91%	67.02%	1.06%	52.11%	47.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	72.51%	0.00%	27.49%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	16	32	1	13	14	0	0	0	0	0	0	42	0	28	0	146
PEAK HR FACTOR :	0.000	0.667	0.727	0.250	0.650	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.700	0.000	0.890
			0.875			0.750									0.875		
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	3	6	0	9	3	0	0	0	0	0	0	3	0	2	0	26
3:15 PM	0	3	12	0	1	3	0	0	0	0	0	0	2	0	2	0	23
3:30 PM	0	3	5	0	3	2	0	0	0	0	0	0	7	0	5	0	25
3:45 PM	0	3	8	0	3	2	0	0	0	0	0	0	9	0	3	0	28
4:00 PM	0	2	18	0	6	0	0	0	0	0	0	0	7	0	2	0	35
4:15 PM	0	6	12	0	10	3	0	0	0	0	0	0	6	0	6	0	43
4:30 PM	0	1	9	0	3	3	0	0	0	0	0	0	5	0	5	0	26
4:45 PM	0	4	4	0	7	2	0	0	0	0	0	0	7	0	2	0	26
5:00 PM	0	3	2	0	7	4	0	0	0	0	0	0	3	0	5	0	24
5:15 PM	0	6	6	0	3	3	0	0	0	0	0	0	4	0	8	0	30
5:30 PM	0	2	4	0	4	4	0	0	0	0	0	0	5	0	3	0	22
5:45 PM	0	1	7	0	1	2	0	0	0	0	0	0	8	0	5	0	24
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	37	93	0	57	31	0	0	0	0	0	0	66	31	48	0	332
	0.00%	28.46%	71.54%	0.00%	64.77%	35.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.89%	0.00%	42.11%	0.00%	
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	12	47	0	22	8	0	0	0	0	0	0	27	0	16	0	132
PEAK HR FACTOR :	0.000	0.500	0.653	0.000	0.550	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.667	0.000	0.767
			0.738			0.577									0.896		

Iron Mountain Rd & Keswick Dam Rd

Peak Hour Turning Movement Count

ID: 19-07384-007
City: Redding

Day: Tuesday
Date: 10/22/2019



VOLUME

Iron Mountain Rd N/O Bakers Hill Rd/Homestake Rd

Day: Wednesday
Date: 10/23/2019

City: Redding
Project #: CA19_7385_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					686	699	0	0	1,385		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
0:00	1	0			1	12:00	11	9			20
0:15	0	0			0	12:15	16	15			31
0:30	0	1			1	12:30	14	23			37
0:45	1	2	0	1	4	12:45	9	50	12	59	109
1:00	1	0			1	13:00	10	14			24
1:15	1	0			1	13:15	19	8			27
1:30	1	0			1	13:30	3	13			16
1:45	0	3	1	1	5	13:45	7	39	15	50	89
2:00	0	0			0	14:00	9	11			20
2:15	2	0			2	14:15	13	19			32
2:30	1	0			1	14:30	12	10			22
2:45	0	3	0		3	14:45	18	52	15	55	107
3:00	0	0			0	15:00	9	16			25
3:15	0	0			0	15:15	8	16			24
3:30	0	1			1	15:30	19	15			34
3:45	1	1	0	1	3	15:45	21	57	12	59	116
4:00	2	1			3	16:00	21	14			35
4:15	2	2			4	16:15	14	13			27
4:30	0	1			1	16:30	17	8			25
4:45	4	8	1	5	18	16:45	14	66	10	45	111
5:00	3	0			3	17:00	10	18			28
5:15	3	2			5	17:15	7	11			18
5:30	1	5			6	17:30	17	13			30
5:45	8	15	6	13	42	17:45	8	42	11	53	95
6:00	6	4			10	18:00	9	13			22
6:15	5	4			9	18:15	11	9			20
6:30	6	9			15	18:30	6	2			8
6:45	15	32	15	32	94	18:45	6	32	8	32	64
7:00	6	9			15	19:00	6	3			9
7:15	11	14			25	19:15	6	4			10
7:30	13	15			28	19:30	4	4			8
7:45	19	49	19	57	135	19:45	2	18	2	13	31
8:00	14	18			32	20:00	5	3			8
8:15	11	17			28	20:15	7	2			9
8:30	12	9			21	20:30	6	1			7
8:45	5	42	12	56	105	20:45	0	18	2	8	26
9:00	13	13			26	21:00	4	6			10
9:15	11	10			21	21:15	3	7			10
9:30	10	8			18	21:30	2	3			5
9:45	15	49	12	43	127	21:45	1	10	1	17	27
10:00	10	9			19	22:00	4	5			9
10:15	14	8			22	22:15	4	1			5
10:30	7	13			20	22:30	1	2			3
10:45	8	39	8	38	85	22:45	0	9	2	10	19
11:00	8	9			17	23:00	3	2			5
11:15	9	17			26	23:15	2	0			2
11:30	18	10			28	23:30	0	1			1
11:45	8	43	10	46	107	23:45	2	7	2	5	12
TOTALS	286	293			579	TOTALS	400	406			806
SPLIT %	49.4%	50.6%			41.8%	SPLIT %	49.6%	50.4%			58.2%

DAILY TOTALS					NB	SB	EB	WB	Total		
					686	699	0	0	1,385		
AM Peak Hour	7:15	7:30		7:30	PM Peak Hour	15:30	12:15		15:30		
AM Pk Volume	57	69		126	PM Pk Volume	75	64		129		
Pk Hr Factor	0.750	0.908		0.829	Pk Hr Factor	0.893	0.696		0.921		
7 - 9 Volume	91	113	0	0	204	4 - 6 Volume	108	98	0	0	206
7 - 9 Peak Hour	7:15	7:30		7:30	4 - 6 Peak Hour	16:00	17:00				16:00
7 - 9 Pk Volume	57	69	0	0	126	4 - 6 Pk Volume	66	53	0	0	111
Pk Hr Factor	0.750	0.908	0.000	0.000	0.829	Pk Hr Factor	0.786	0.736	0.000	0.000	0.793

VOLUME

Iron Mountain Rd N/O Bakers Hill Rd/Homestake Rd

Day: Thursday
Date: 10/24/2019

City: Redding
Project #: CA19_7385_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					587	634	0	0	1,221		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
0:00	0	0			0	12:00	6	11			17
0:15	1	0			1	12:15	16	8			24
0:30	1	3			4	12:30	11	11			22
0:45	2	4	3	6	5	12:45	9	42	7	37	16
1:00	0	0			0	13:00	13	7			20
1:15	0	0			0	13:15	7	14			21
1:30	0	0			0	13:30	12	17			29
1:45	2	2	0		2	13:45	9	41	11	49	20
2:00	0	0			0	14:00	7	8			15
2:15	1	0			1	14:15	12	10			22
2:30	1	2			3	14:30	21	12			33
2:45	0	2	0	2	0	14:45	14	54	13	43	27
3:00	2	0			2	15:00	8	11			19
3:15	1	0			1	15:15	7	15			22
3:30	0	0			0	15:30	19	14			33
3:45	0	3	0		0	15:45	14	48	6	46	20
4:00	1	0			1	16:00	13	14			27
4:15	0	4			4	16:15	15	9			24
4:30	2	0			2	16:30	15	12			27
4:45	2	5	2	6	4	16:45	10	53	11	46	21
5:00	1	0			1	17:00	8	20			28
5:15	2	3			5	17:15	5	12			17
5:30	1	1			2	17:30	6	10			16
5:45	6	10	6	10	12	17:45	15	34	9	51	24
6:00	6	4			10	18:00	4	2			6
6:15	3	2			5	18:15	5	6			11
6:30	8	12			20	18:30	5	8			13
6:45	9	26	14	32	23	18:45	12	26	1	17	13
7:00	1	11			12	19:00	7	5			12
7:15	9	18			27	19:15	5	2			7
7:30	17	14			31	19:30	4	4			8
7:45	9	36	21	64	30	19:45	6	22	0	11	6
8:00	14	13			27	20:00	5	3			8
8:15	9	15			24	20:15	0	6			6
8:30	7	10			17	20:30	5	2			7
8:45	10	40	6	44	16	20:45	5	15	1	12	6
9:00	7	9			16	21:00	2	6			8
9:15	7	16			23	21:15	3	2			5
9:30	9	8			17	21:30	3	2			5
9:45	15	38	13	46	28	21:45	2	10	1	11	3
10:00	7	13			20	22:00	7	1			8
10:15	2	6			8	22:15	1	1			2
10:30	9	11			20	22:30	2	2			4
10:45	9	27	10	40	19	22:45	0	10	1	5	1
11:00	9	16			25	23:00	3	1			4
11:15	7	12			19	23:15	2	1			3
11:30	7	15			22	23:30	1	1			2
11:45	8	31	10	53	18	23:45	2	8	0	3	2
TOTALS	224	303			527	TOTALS	363	331			694
SPLIT %	42.5%	57.5%			43.2%	SPLIT %	52.3%	47.7%			56.8%

DAILY TOTALS					NB	SB	EB	WB	Total		
					587	634	0	0	1,221		
AM Peak Hour	7:15	7:15			7:15	PM Peak Hour	15:30	16:30		15:30	
AM Pk Volume	49	66			115	PM Pk Volume	61	55		104	
Pk Hr Factor	0.721	0.786			0.927	Pk Hr Factor	0.803	0.688		0.788	
7 - 9 Volume	76	108	0	0	184	4 - 6 Volume	87	97	0	0	184
7 - 9 Peak Hour	7:15	7:15			7:15	4 - 6 Peak Hour	16:00	16:30			16:15
7 - 9 Pk Volume	49	66	0	0	115	4 - 6 Pk Volume	53	55	0	0	100
Pk Hr Factor	0.721	0.786	0.000	0.000	0.927	Pk Hr Factor	0.883	0.688	0.000	0.000	0.893

VOLUME

Iron Mountain Rd N/O Bakers Hill Rd/Homestake Rd

Day: Tuesday
Date: 10/22/2019

City: Redding
Project #: CA19_7385_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					659	698	0	0	1,357		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
0:00	0	1			1	12:00	11	12			23
0:15	0	3			3	12:15	6	12			18
0:30	0	1			1	12:30	16	14			30
0:45	0	1	6		1 6	12:45	12	45	10	48	22 93
1:00	2	1			3	13:00	18	12			30
1:15	1	0			1	13:15	16	14			30
1:30	0	0			0	13:30	12	10			22
1:45	0	3	1	2	1 5	13:45	7	53	16	52	23 105
2:00	0	0			0	14:00	12	12			24
2:15	0	1			1	14:15	18	21			39
2:30	0	0			0	14:30	21	10			31
2:45	0	1	2		1 2	14:45	22	73	12	55	34 128
3:00	0	0			0	15:00	13	17			30
3:15	0	1			1	15:15	10	8			18
3:30	0	0			0	15:30	19	15			34
3:45	1	1	0	1	1 2	15:45	12	54	13	53	25 107
4:00	1	1			2	16:00	23	13			36
4:15	1	5			6	16:15	17	16			33
4:30	0	0			0	16:30	6	11			17
4:45	0	2	1	7	1 9	16:45	11	57	15	55	26 112
5:00	0	0			0	17:00	10	12			22
5:15	1	3			4	17:15	7	12			19
5:30	2	3			5	17:30	11	5			16
5:45	6	9	4	10	10 19	17:45	4	32	12	41	16 73
6:00	8	4			12	18:00	11	11			22
6:15	4	3			7	18:15	7	7			14
6:30	9	17			26	18:30	4	4			8
6:45	12	33	12	36	24 69	18:45	7	29	7	29	14 58
7:00	11	10			21	19:00	7	3			10
7:15	10	22			32	19:15	2	1			3
7:30	13	16			29	19:30	4	2			6
7:45	11	45	19	67	30 112	19:45	4	17	5	11	9 28
8:00	16	10			26	20:00	0	1			1
8:15	10	17			27	20:15	3	3			6
8:30	12	17			29	20:30	4	3			7
8:45	8	46	13	57	21 103	20:45	4	11	2	9	6 20
9:00	14	13			27	21:00	3	7			10
9:15	7	15			22	21:15	1	0			1
9:30	15	9			24	21:30	2	1			3
9:45	14	50	14	51	28 101	21:45	0	6	1	9	1 15
10:00	10	13			23	22:00	1	0			1
10:15	11	13			24	22:15	2	1			3
10:30	11	13			24	22:30	2	1			3
10:45	12	44	13	52	25 96	22:45	1	6	3	5	4 11
11:00	13	11			24	23:00	1	1			2
11:15	7	8			15	23:15	0	0			0
11:30	10	10			20	23:30	2	2			4
11:45	9	39	6	35	15 74	23:45	1	4	2	5	3 9
TOTALS	272	326			598	TOTALS	387	372			759
SPLIT %	45.5%	54.5%			44.1%	SPLIT %	51.0%	49.0%			55.9%

DAILY TOTALS					NB	SB	EB	WB	Total
					659	698	0	0	1,357
AM Peak Hour	7:15	7:00			7:15	PM Peak Hour	14:15	14:15	14:15
AM Pk Volume	50	67			117	PM Pk Volume	74	60	134
Pk Hr Factor	0.781	0.761			0.914	Pk Hr Factor	0.841	0.714	0.859
7 - 9 Volume	91	124	0	0	215	4 - 6 Volume	89	96	0 0 185
7 - 9 Peak Hour	7:15	7:00			7:15	4 - 6 Peak Hour	16:00	16:00	16:00
7 - 9 Pk Volume	50	67	0	0	117	4 - 6 Pk Volume	57	55	0 0 112
Pk Hr Factor	0.781	0.761	0.000	0.000	0.914	Pk Hr Factor	0.620	0.859	0.000 0.000 0.778

VOLUME

Keswick Dam Rd E/O Iron Mountain Rd

Day: Wednesday
Date: 10/23/2019

City: Redding
Project #: CA19_7385_002

DAILY TOTALS					NB	SB	EB	WB	Total					
					0	0	569	592	1,161					
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
0:00			2	0	2	12:00			4	4	8			
0:15			0	0	0	12:15			10	14	24			
0:30			1	1	2	12:30			9	15	24			
0:45			1	4	1	12:45			2	25	9	42	11	67
1:00			1	0	1	13:00			13	7	20			
1:15			0	1	1	13:15			13	8	21			
1:30			0	0	0	13:30			10	12	22			
1:45			0	1	1	13:45			7	43	5	32	12	75
2:00			0	0	0	14:00			13	14	27			
2:15			0	0	0	14:15			13	10	23			
2:30			1	0	1	14:30			8	6	14			
2:45			0	1	1	14:45			7	41	7	37	14	78
3:00			0	0	0	15:00			11	8	19			
3:15			1	1	2	15:15			8	7	15			
3:30			0	0	0	15:30			11	15	26			
3:45			1	2	1	15:45			25	55	12	42	37	97
4:00			2	0	2	16:00			12	12	24			
4:15			3	2	5	16:15			17	8	25			
4:30			1	0	1	16:30			17	11	28			
4:45			0	6	0	16:45			12	58	18	49	30	107
5:00			2	1	3	17:00			10	14	24			
5:15			0	0	0	17:15			12	4	16			
5:30			0	4	4	17:30			12	7	19			
5:45			1	3	8	17:45			14	48	12	37	26	85
6:00			5	3	8	18:00			10	9	19			
6:15			4	3	7	18:15			10	12	22			
6:30			2	11	13	18:30			10	6	16			
6:45			3	14	17	18:45			4	34	9	36	13	70
7:00			12	10	22	19:00			1	2	3			
7:15			15	9	24	19:15			1	5	6			
7:30			12	14	26	19:30			3	4	7			
7:45			18	57	20	19:45			5	10	2	13	7	23
8:00			9	16	25	20:00			2	3	5			
8:15			11	18	29	20:15			5	2	7			
8:30			10	14	24	20:30			3	5	8			
8:45			7	37	19	20:45			0	10	3	13	3	23
9:00			11	10	21	21:00			2	4	6			
9:15			7	7	14	21:15			2	4	6			
9:30			7	6	13	21:30			1	6	7			
9:45			8	33	14	21:45			0	5	0	14	0	19
10:00			7	4	11	22:00			2	4	6			
10:15			5	7	12	22:15			1	1	2			
10:30			16	5	21	22:30			3	1	4			
10:45			7	35	10	22:45			0	6	1	7	1	13
11:00			7	8	15	23:00			1	2	3			
11:15			8	9	17	23:15			0	0	0			
11:30			10	6	16	23:30			0	1	1			
11:45			13	38	5	23:45			2	3	1	4	3	7
TOTALS			231	266	497	TOTALS			338	326	664			
SPLIT %			46.5%	53.5%	42.8%	SPLIT %			50.9%	49.1%	57.2%			

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	569	592	1,161		
AM Peak Hour			7:00	7:30	7:30	PM Peak Hour			15:45	16:15	15:45
AM Pk Volume			57	68	118	PM Pk Volume			71	51	114
Pk Hr Factor			0.792	0.850	0.776	Pk Hr Factor			0.710	0.708	0.770
7 - 9 Volume	0	0	94	120	214	4 - 6 Volume	0	0	106	86	192
7 - 9 Peak Hour			7:00	7:30	7:30	4 - 6 Peak Hour			16:00	16:15	16:00
7 - 9 Pk Volume	0	0	57	68	118	4 - 6 Pk Volume	0	0	58	51	107
Pk Hr Factor	0.000	0.000	0.792	0.850	0.776	Pk Hr Factor	0.000	0.000	0.853	0.708	0.892

VOLUME

Keswick Dam Rd E/O Iron Mountain Rd

Day: Thursday
Date: 10/24/2019

City: Redding
Project #: CA19_7385_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	585	610	1,195		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
0:00			2	0	2	12:00			3	7	10
0:15			0	1	1	12:15			8	13	21
0:30			1	1	2	12:30			10	15	25
0:45			0	3	0	12:45		5	26	7	42
1:00			1	0	1	13:00			9	12	21
1:15			1	1	2	13:15			18	8	26
1:30			0	0	0	13:30			11	10	21
1:45			1	3	1	13:45		8	46	7	37
2:00			0	0	0	14:00			7	15	22
2:15			0	1	1	14:15			13	6	19
2:30			1	0	1	14:30			14	5	19
2:45			0	1	1	14:45		7	41	13	39
3:00			1	1	2	15:00			12	9	21
3:15			1	1	2	15:15			14	5	19
3:30			0	0	0	15:30			7	16	23
3:45			1	3	1	15:45		21	54	11	41
4:00			2	0	2	16:00			21	9	30
4:15			2	3	5	16:15			18	7	25
4:30			1	1	2	16:30			16	8	24
4:45			0	5	0	16:45		9	64	13	37
5:00			2	1	3	17:00			9	9	18
5:15			0	0	0	17:15			13	6	19
5:30			0	6	6	17:30			9	10	19
5:45			2	4	6	17:45		8	39	14	39
6:00			5	4	9	18:00			6	11	17
6:15			8	7	15	18:15			6	13	19
6:30			2	14	16	18:30			9	8	17
6:45			5	20	13	18:45		6	27	8	40
7:00			12	13	25	19:00			3	4	7
7:15			15	16	31	19:15			2	6	8
7:30			15	13	28	19:30			3	5	8
7:45			19	61	16	19:45		4	12	4	19
8:00			12	18	30	20:00			2	4	6
8:15			7	18	25	20:15			5	3	8
8:30			7	12	19	20:30			3	3	6
8:45			10	36	12	20:45		1	11	3	13
9:00			13	7	20	21:00			3	4	7
9:15			10	6	16	21:15			3	5	8
9:30			7	9	16	21:30			3	3	6
9:45			6	36	18	21:45		2	11	2	14
10:00			11	6	17	22:00			2	3	5
10:15			5	11	16	22:15			2	1	3
10:30			14	6	20	22:30			2	1	3
10:45			6	36	7	22:45		1	7	0	5
11:00			6	6	12	23:00			1	1	2
11:15			10	8	18	23:15			1	1	2
11:30			12	4	16	23:30			0	0	0
11:45			8	36	11	23:45		1	3	1	3
TOTALS			244	281	525	TOTALS			341	329	670
SPLIT %			46.5%	53.5%	43.9%	SPLIT %			50.9%	49.1%	56.1%

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	585	610	1,195		
AM Peak Hour			7:00	7:30	7:15	PM Peak Hour			15:45	17:30	15:45
AM Pk Volume			61	65	124	PM Pk Volume			76	48	111
Pk Hr Factor			0.803	0.903	0.886	Pk Hr Factor			0.905	0.857	0.867
7 - 9 Volume	0	0	97	118	215	4 - 6 Volume	0	0	103	76	179
7 - 9 Peak Hour			7:00	7:30	7:15	4 - 6 Peak Hour			16:00	17:00	16:00
7 - 9 Pk Volume	0	0	61	65	124	4 - 6 Pk Volume	0	0	64	39	101
Pk Hr Factor	0.000	0.000	0.803	0.903	0.886	Pk Hr Factor	0.000	0.000	0.762	0.696	0.842

VOLUME

Keswick Dam Rd E/O Iron Mountain Rd

Day: Tuesday
Date: 10/22/2019

City: Redding
Project #: CA19_7385_002

DAILY TOTALS					NB	SB	EB	WB	Total					
					0	0	573	619	1,192					
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
0:00			2	0	2	12:00			5	7	12			
0:15			0	1	1	12:15			7	7	14			
0:30			1	1	2	12:30			13	10	23			
0:45			0	3	0	12:45			10	35	7	31	17	66
1:00			0	0	0	13:00			8	10	18			
1:15			1	0	1	13:15			19	13	32			
1:30			0	0	0	13:30			5	12	17			
1:45			1	2	1	13:45			11	43	7	42	18	85
2:00			0	0	0	14:00			6	12	18			
2:15			0	1	1	14:15			11	8	19			
2:30			0	0	0	14:30			23	8	31			
2:45			0	1	2	14:45			13	53	13	41	26	94
3:00			1	1	2	15:00			15	5	20			
3:15			0	1	1	15:15			13	4	17			
3:30			0	0	0	15:30			8	12	20			
3:45			1	2	0	15:45			10	46	12	33	22	79
4:00			1	0	1	16:00			24	8	32			
4:15			1	3	4	16:15			22	12	34			
4:30			1	1	2	16:30			12	10	22			
4:45			0	3	0	16:45			10	68	9	39	19	107
5:00			2	1	3	17:00			10	8	18			
5:15			0	0	0	17:15			9	12	21			
5:30			0	7	7	17:30			8	8	16			
5:45			2	4	3	17:45			8	35	13	41	21	76
6:00			5	5	10	18:00			7	10	17			
6:15			6	14	20	18:15			6	10	16			
6:30			3	13	16	18:30			7	9	16			
6:45			8	22	10	18:45			7	27	11	40	18	67
7:00			9	18	27	19:00			5	6	11			
7:15			10	16	26	19:15			3	6	9			
7:30			13	18	31	19:30			2	5	7			
7:45			15	47	17	19:45			6	16	3	20	9	36
8:00			10	16	26	20:00			1	4	5			
8:15			8	20	28	20:15			4	4	8			
8:30			7	15	22	20:30			2	1	3			
8:45			7	32	10	20:45			2	9	3	12	5	21
9:00			10	9	19	21:00			4	4	8			
9:15			7	7	14	21:15			3	6	9			
9:30			10	15	25	21:30			4	0	4			
9:45			7	34	15	21:45			0	11	3	13	3	24
10:00			8	5	13	22:00			4	2	6			
10:15			9	11	20	22:15			2	1	3			
10:30			14	10	24	22:30			0	1	1			
10:45			7	38	6	22:45			2	8	1	5	3	13
11:00			8	6	14	23:00			0	0	0			
11:15			8	8	16	23:15			1	0	1			
11:30			7	3	10	23:30			0	1	1			
11:45			9	32	11	23:45			2	3	1	2	3	5
TOTALS			219	300	519	TOTALS			354	319	673			
SPLIT %			42.2%	57.8%	43.5%	SPLIT %			52.6%	47.4%	56.5%			

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	573	619	1,192		
AM Peak Hour			7:15	7:30	7:30	PM Peak Hour			15:45	13:15	15:45
AM Pk Volume			48	71	117	PM Pk Volume			68	44	110
Pk Hr Factor			0.800	0.888	0.914	Pk Hr Factor			0.708	0.846	0.809
7 - 9 Volume	0	0	79	130	209	4 - 6 Volume	0	0	103	80	183
7 - 9 Peak Hour			7:15	7:30	7:30	4 - 6 Peak Hour			16:00	17:00	16:00
7 - 9 Pk Volume	0	0	48	71	117	4 - 6 Pk Volume	0	0	68	41	107
Pk Hr Factor	0.000	0.000	0.800	0.888	0.914	Pk Hr Factor	0.000	0.000	0.708	0.788	0.787

Appendix B

Traffic Analysis Reports

HCM 6th TWSC
 1: SR 299 (Eureka Way) & Iron Mountain Rd

Opening Year 2022 AM

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗↗	↖	↖	↖
Traffic Vol, veh/h	23	233	246	34	30	36
Future Vol, veh/h	23	233	246	34	30	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	165	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	14	9	13	3	7	23
Mvmt Flow	25	256	270	37	33	40

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	307	0	0
Stage 1	-	-	270
Stage 2	-	-	306
Critical Hdwy	4.31	-	6.705
Critical Hdwy Stg 1	-	-	5.905
Critical Hdwy Stg 2	-	-	5.505
Follow-up Hdwy	2.333	-	3.5665
Pot Cap-1 Maneuver	1178	-	453
Stage 1	-	-	739
Stage 2	-	-	733
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1178	-	443
Mov Cap-2 Maneuver	-	-	443
Stage 1	-	-	723
Stage 2	-	-	733

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1178	-	-	-	443	832
HCM Lane V/C Ratio	0.021	-	-	-	0.074	0.048
HCM Control Delay (s)	8.1	-	-	-	13.8	9.5
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1

HCM 6th TWSC
 2: Iron Mountain Rd & Middle Creek Road

Opening Year 2022 AM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	0	0	57	0	0	72
Future Vol, veh/h	0	0	57	0	0	72
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	4	2	2	17
Mvmt Flow	0	0	60	0	0	76

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	136	60	0	0	60	0
Stage 1	60	-	-	-	-	-
Stage 2	76	-	-	-	-	-
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	857	1005	-	-	1544	-
Stage 1	963	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	857	1005	-	-	1544	-
Mov Cap-2 Maneuver	857	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	947	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1544	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
3: Iron Mountain Rd & CCA South Drvwy

Opening Year 2022 AM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑	↑	
Traffic Vol, veh/h	0	0	0	57	72	0
Future Vol, veh/h	0	0	0	57	72	0
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	-	160	-	-	-
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	6	21	2
Mvmt Flow	0	0	0	65	82	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	147	82	82	0	0
Stage 1	82	-	-	-	-
Stage 2	65	-	-	-	-
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	845	978	1515	-	-
Stage 1	941	-	-	-	-
Stage 2	958	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	845	978	1515	-	-
Mov Cap-2 Maneuver	845	-	-	-	-
Stage 1	941	-	-	-	-
Stage 2	958	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1515	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
4: Iron Mountain Rd & Stubbs Ln

Opening Year 2022 AM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↑
Traffic Vol, veh/h	1	0	57	0	0	71
Future Vol, veh/h	1	0	57	0	0	71
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	5	2	2	16
Mvmt Flow	1	0	61	0	0	76

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	137	61	0	0	-	-
Stage 1	61	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	856	1004	-	-	0	-
Stage 1	962	-	-	-	0	-
Stage 2	947	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	856	1004	-	-	-	-
Mov Cap-2 Maneuver	856	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	856
HCM Lane V/C Ratio	-	-	0.001
HCM Control Delay (s)	-	-	9.2
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↔			↔	
Traffic Vol, veh/h	0	4	0	1	2	0	0	57	0	1	70	0
Future Vol, veh/h	0	4	0	1	2	0	0	57	0	1	70	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	100	2	100	100	2	2	4	2	100	22	2
Mvmt Flow	0	5	0	1	2	0	0	66	0	1	80	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	149	148	80	151	148	66	-	0	0	66	0	0
Stage 1	82	82	-	66	66	-	-	-	-	-	-	-
Stage 2	67	66	-	85	82	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	8.1	7.5	6.22	-	-	-	5.1	-	-
Critical Hdwy Stg 1	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	4.4	4.9	3.318	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	819	596	980	638	596	998	0	-	-	1088	-	-
Stage 1	926	670	-	748	682	-	0	-	-	-	-	-
Stage 2	943	682	-	728	670	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	816	595	980	634	595	998	-	-	-	1088	-	-
Mov Cap-2 Maneuver	816	595	-	634	595	-	-	-	-	-	-	-
Stage 1	926	669	-	748	682	-	-	-	-	-	-	-
Stage 2	940	682	-	722	669	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.1		11		0		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	595	607	1088	-	-
HCM Lane V/C Ratio	-	-	0.008	0.006	0.001	-	-
HCM Control Delay (s)	-	-	11.1	11	8.3	-	-
HCM Lane LOS	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Opening Year 2022 AM

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	5	4	0	1	2	52	3	4	62	3
Future Vol, veh/h	0	0	5	4	0	1	2	52	3	4	62	3
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	-	-	-	-	-	-	-	-	-	-	-	-
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	100	2	2	100	50	2	2	2	18	67
Mvmt Flow	0	0	5	4	0	1	2	55	3	4	65	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	136	137	67	138	137	57	68	0	0	58	0	0
Stage 1	75	75	-	61	61	-	-	-	-	-	-	-
Stage 2	61	62	-	77	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	7.2	7.12	6.52	7.2	4.6	-	-	4.12	-	-
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	3.518	4.018	4.2	3.518	4.018	4.2	2.65	-	-	2.218	-	-
Pot Cap-1 Maneuver	835	754	779	833	754	791	1277	-	-	1546	-	-
Stage 1	934	833	-	950	844	-	-	-	-	-	-	-
Stage 2	950	843	-	932	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	831	750	779	824	750	791	1277	-	-	1546	-	-
Mov Cap-2 Maneuver	831	750	-	824	750	-	-	-	-	-	-	-
Stage 1	932	831	-	948	842	-	-	-	-	-	-	-
Stage 2	947	841	-	923	830	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.7		9.4		0.3		0.4	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1277	-	-	779	817	1546	-	-
HCM Lane V/C Ratio	0.002	-	-	0.007	0.006	0.003	-	-
HCM Control Delay (s)	7.8	0	-	9.7	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
 7: Iron Mountain Rd & Keswick Dam Rd

Opening Year 2022 AM

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	43	29	18	33	13	14
Future Vol, veh/h	43	29	18	33	13	14
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, %	10	7	2	9	2	14
Mvmt Flow	48	33	20	37	15	16

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	85	39	0	0	57	0
Stage 1	39	-	-	-	-	-
Stage 2	46	-	-	-	-	-
Critical Hdwy	6.5	6.27	-	-	4.12	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	-	-	2.218	-
Pot Cap-1 Maneuver	897	1019	-	-	1547	-
Stage 1	963	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	888	1019	-	-	1547	-
Mov Cap-2 Maneuver	888	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	946	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	936	1547
HCM Lane V/C Ratio	-	-	0.086	0.009
HCM Control Delay (s)	-	-	9.2	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	39	48	70
Average Queue (ft)	5	13	21
95th Queue (ft)	24	36	52
Link Distance (ft)		236	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	85		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement	WB
Directions Served	LR
Maximum Queue (ft)	15
Average Queue (ft)	1
95th Queue (ft)	8
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	72	64	10
Average Queue (ft)	7	5	0
95th Queue (ft)	40	33	0
Link Distance (ft)	284	349	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	44	4	7
Average Queue (ft)	7	6	0	0
95th Queue (ft)	38	27	3	5
Link Distance (ft)	506	240	636	887
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	76	18
Average Queue (ft)	34	1
95th Queue (ft)	61	7
Link Distance (ft)	691	458
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

HCM 6th TWSC

1: SR 299 (Eureka Way) & Iron Mountain Rd

Opening Year 2022 PM

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗↗	↖	↖	↖
Traffic Vol, veh/h	34	320	263	43	33	20
Future Vol, veh/h	34	320	263	43	33	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	165	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	9	2	7	9	2
Mvmt Flow	36	340	280	46	35	21

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	326	0	-	0	692
Stage 1	-	-	-	-	280
Stage 2	-	-	-	-	412
Critical Hdwy	4.13	-	-	-	6.735
Critical Hdwy Stg 1	-	-	-	-	5.935
Critical Hdwy Stg 2	-	-	-	-	5.535
Follow-up Hdwy	2.219	-	-	-	3.319
Pot Cap-1 Maneuver	1232	-	-	-	883
Stage 1	-	-	-	-	725
Stage 2	-	-	-	-	650
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1232	-	-	-	883
Mov Cap-2 Maneuver	-	-	-	-	370
Stage 1	-	-	-	-	704
Stage 2	-	-	-	-	650

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1232	-	-	-	370	883
HCM Lane V/C Ratio	0.029	-	-	-	0.095	0.024
HCM Control Delay (s)	8	-	-	-	15.7	9.2
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.1

HCM 6th TWSC
 2: Iron Mountain Rd & Middle Creek Road

Opening Year 2022 PM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖		↗			↖
Traffic Vol, veh/h	0	0	72	0	0	59
Future Vol, veh/h	0	0	72	0	0	59
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	7	2	2	6
Mvmt Flow	0	0	83	0	0	68

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	151	83	0	0	83	0
Stage 1	83	-	-	-	-	-
Stage 2	68	-	-	-	-	-
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	841	976	-	-	1514	-
Stage 1	940	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	841	976	-	-	1514	-
Mov Cap-2 Maneuver	841	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	955	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1514	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
 3: Iron Mountain Rd & CCA South Drvwy

Opening Year 2022 PM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	WT		T	T	T	
Traffic Vol, veh/h	0	0	0	72	59	0
Future Vol, veh/h	0	0	0	72	59	0
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	-	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	8	5	2
Mvmt Flow	0	0	0	77	63	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	140	63	63	0	0
Stage 1	63	-	-	-	-
Stage 2	77	-	-	-	-
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	853	1002	1540	-	-
Stage 1	960	-	-	-	-
Stage 2	946	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	853	1002	1540	-	-
Mov Cap-2 Maneuver	853	-	-	-	-
Stage 1	960	-	-	-	-
Stage 2	946	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
4: Iron Mountain Rd & Stubbs Ln

Opening Year 2022 PM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↖		↗			↑
Traffic Vol, veh/h	1	2	71	1	0	58
Future Vol, veh/h	1	2	71	1	0	58
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	94	94	94	94	94	94
Heavy Vehicles, %	2	50	4	2	2	4
Mvmt Flow	1	2	76	1	0	62

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	139	77	0	0	-	-
Stage 1	77	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.42	6.7	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.75	-	-	-	-
Pot Cap-1 Maneuver	854	866	-	-	0	-
Stage 1	946	-	-	-	0	-
Stage 2	961	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	854	866	-	-	-	-
Mov Cap-2 Maneuver	854	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	961	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	862
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.2
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	12	0	0	14	0	0	73	0	0	58	0
Future Vol, veh/h	0	12	0	0	14	0	0	73	0	0	58	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	100	2	2	100	2	2	13	2	2	11	2
Mvmt Flow	0	14	0	0	16	0	0	86	0	0	68	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	162	154	68	161	154	86	-	0	0	-	-	0
Stage 1	68	68	-	86	86	-	-	-	-	-	-	-
Stage 2	94	86	-	75	68	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	7.12	7.5	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	3.518	4.9	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	803	591	995	804	591	973	0	-	-	0	-	-
Stage 1	942	680	-	922	667	-	0	-	-	0	-	-
Stage 2	913	667	-	934	680	-	0	-	-	0	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	786	591	995	790	591	973	-	-	-	-	-	-
Mov Cap-2 Maneuver	786	591	-	790	591	-	-	-	-	-	-	-
Stage 1	942	680	-	922	667	-	-	-	-	-	-	-
Stage 2	890	667	-	915	680	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.2		11.3		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	591	591	-	-
HCM Lane V/C Ratio	-	-	0.024	0.028	-	-
HCM Control Delay (s)	-	-	11.2	11.3	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Opening Year 2022 PM

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	1	0	10	9	0	1	12	59	2	1	39	0
Future Vol, veh/h	1	0	10	9	0	1	12	59	2	1	39	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	100	2	60	2	2	2	67	2	2	2	3	2
Mvmt Flow	1	0	11	10	0	1	14	67	2	1	44	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	143	143	44	148	142	68	44	0	0	69	0	0
Stage 1	46	46	-	96	96	-	-	-	-	-	-	-
Stage 2	97	97	-	52	46	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.8	7.12	6.52	6.22	4.77	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.84	3.518	4.018	3.318	2.803	-	-	2.218	-	-
Pot Cap-1 Maneuver	646	748	883	820	749	995	1232	-	-	1532	-	-
Stage 1	768	857	-	911	815	-	-	-	-	-	-	-
Stage 2	717	815	-	961	857	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	639	738	883	801	739	995	1232	-	-	1532	-	-
Mov Cap-2 Maneuver	639	738	-	801	739	-	-	-	-	-	-	-
Stage 1	759	856	-	900	805	-	-	-	-	-	-	-
Stage 2	708	805	-	948	856	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.3		9.5		1.3		0.2	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1232	-	-	853	817	1532	-	-
HCM Lane V/C Ratio	0.011	-	-	0.015	0.014	0.001	-	-
HCM Control Delay (s)	8	0	-	9.3	9.5	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
 7: Iron Mountain Rd & Keswick Dam Rd

Opening Year 2022 PM

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	30	16	14	44	23	7
Future Vol, veh/h	30	16	14	44	23	7
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	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	13
Mvmt Flow	39	21	18	57	30	9

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	116	47	0	0	75	0
Stage 1	47	-	-	-	-	-
Stage 2	69	-	-	-	-	-
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	880	1022	-	-	1524	-
Stage 1	975	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	862	1022	-	-	1524	-
Mov Cap-2 Maneuver	862	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	5.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1524
HCM Lane V/C Ratio	-	-	0.066	0.02
HCM Control Delay (s)	-	-	9.2	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	38	77	24
Average Queue (ft)	8	18	8
95th Queue (ft)	28	49	21
Link Distance (ft)		236	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	85		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwvy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement	WB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	4
95th Queue (ft)	23
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	78	67
Average Queue (ft)	18	18
95th Queue (ft)	63	61
Link Distance (ft)	284	349
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	69	30	24
Average Queue (ft)	15	11	1
95th Queue (ft)	55	35	11
Link Distance (ft)	506	240	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Opening Year 2022 PM

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	65	11
Average Queue (ft)	28	0
95th Queue (ft)	54	4
Link Distance (ft)	691	458
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

HCM 6th TWSC
 1: SR 299 (Eureka Way) & Iron Mountain Rd

Opening Year 2022 Plus Project AM

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↕↕	↖	↖	↖
Traffic Vol, veh/h	24	233	246	38	35	37
Future Vol, veh/h	24	233	246	38	35	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	315	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	18	9	13	13	21	25
Mvmt Flow	26	256	270	42	38	41

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	312	0	0 578 135
Stage 1	-	-	- 270 -
Stage 2	-	-	- 308 -
Critical Hdwy	4.37	-	- 6.915 7.275
Critical Hdwy Stg 1	-	-	- 6.115 -
Critical Hdwy Stg 2	-	-	- 5.715 -
Follow-up Hdwy	2.371	-	- 3.6995 3.5375
Pot Cap-1 Maneuver	1150	-	- 425 827
Stage 1	-	-	- 704 -
Stage 2	-	-	- 696 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1150	-	- 415 827
Mov Cap-2 Maneuver	-	-	- 415 -
Stage 1	-	-	- 688 -
Stage 2	-	-	- 696 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1150	-	-	-	415	827
HCM Lane V/C Ratio	0.023	-	-	-	0.093	0.049
HCM Control Delay (s)	8.2	-	-	-	14.6	9.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.2

HCM 6th TWSC
2: Iron Mountain Rd & Middle Creek Road

Opening Year 2022 Plus Project AM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	0	0	62	0	0	78
Future Vol, veh/h	0	0	62	0	0	78
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	12	2	2	24
Mvmt Flow	0	0	65	0	0	82

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	147	65	0	0	65	0
Stage 1	65	-	-	-	-	-
Stage 2	82	-	-	-	-	-
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	845	999	-	-	1537	-
Stage 1	958	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	845	999	-	-	1537	-
Mov Cap-2 Maneuver	845	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	941	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1537
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
 3: Iron Mountain Rd & CCA South Drvwy

Opening Year 2022 Plus Project AM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑	↑	
Traffic Vol, veh/h	0	0	0	62	78	0
Future Vol, veh/h	0	0	0	62	78	0
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	-	160	-	-	-
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	14	27	2
Mvmt Flow	0	0	0	70	89	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	159	89	89	0	-	0
Stage 1	89	-	-	-	-	-
Stage 2	70	-	-	-	-	-
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	832	969	1506	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	832	969	1506	-	-	-
Mov Cap-2 Maneuver	832	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	953	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1506	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
4: Iron Mountain Rd & Stubbs Ln

Opening Year 2022 Plus Project AM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↑
Traffic Vol, veh/h	1	0	62	0	0	77
Future Vol, veh/h	1	0	62	0	0	77
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	13	2	2	24
Mvmt Flow	1	0	66	0	0	82

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	148	66	0	0	-	-
Stage 1	66	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	844	998	-	-	0	-
Stage 1	957	-	-	-	0	-
Stage 2	941	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	844	998	-	-	-	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	844
HCM Lane V/C Ratio	-	-	0.001
HCM Control Delay (s)	-	-	9.3
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	4	0	1	2	0	0	62	0	1	76	0
Future Vol, veh/h	0	4	0	1	2	0	0	62	0	1	76	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	100	2	100	100	2	2	13	2	100	29	2
Mvmt Flow	0	5	0	1	2	0	0	71	0	1	87	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	161	160	87	163	160	71	-	0	0	71	0	0
Stage 1	89	89	-	71	71	-	-	-	-	-	-	-
Stage 2	72	71	-	92	89	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	8.1	7.5	6.22	-	-	-	5.1	-	-
Critical Hdwy Stg 1	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	4.4	4.9	3.318	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	804	586	971	625	586	991	0	-	-	1083	-	-
Stage 1	918	664	-	743	678	-	0	-	-	-	-	-
Stage 2	938	678	-	722	664	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	801	585	971	621	585	991	-	-	-	1083	-	-
Mov Cap-2 Maneuver	801	585	-	621	585	-	-	-	-	-	-	-
Stage 1	918	663	-	743	678	-	-	-	-	-	-	-
Stage 2	935	678	-	716	663	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	11.2		11.1			0			0.1		
HCM LOS	B		B								

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	585	597	1083	-	-
HCM Lane V/C Ratio	-	-	0.008	0.006	0.001	-	-
HCM Control Delay (s)	-	-	11.2	11.1	8.3	-	-
HCM Lane LOS	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Opening Year 2022 Plus Project AM

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	1	0	11	4	0	1	7	52	3	4	62	4
Future Vol, veh/h	1	0	11	4	0	1	7	52	3	4	62	4
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	-	-	-	-	-	-	-	-	-	-	-	-
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	100	2	2	100	86	2	2	2	18	75
Mvmt Flow	1	0	12	4	0	1	7	55	3	4	65	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	146	147	67	152	148	57	69	0	0	58	0	0
Stage 1	75	75	-	71	71	-	-	-	-	-	-	-
Stage 2	71	72	-	81	77	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	7.2	7.12	6.52	7.2	4.96	-	-	4.12	-	-
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	3.518	4.018	4.2	3.518	4.018	4.2	2.974	-	-	2.218	-	-
Pot Cap-1 Maneuver	823	744	779	815	743	791	1132	-	-	1546	-	-
Stage 1	934	833	-	939	836	-	-	-	-	-	-	-
Stage 2	939	835	-	927	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	816	737	779	797	736	791	1132	-	-	1546	-	-
Mov Cap-2 Maneuver	816	737	-	797	736	-	-	-	-	-	-	-
Stage 1	928	831	-	933	831	-	-	-	-	-	-	-
Stage 2	932	830	-	910	829	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.7		9.6		0.9		0.4	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1132	-	-	782	796	1546	-	-
HCM Lane V/C Ratio	0.007	-	-	0.016	0.007	0.003	-	-
HCM Control Delay (s)	8.2	0	-	9.7	9.6	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
7: Iron Mountain Rd & Keswick Dam Rd

Opening Year 2022 Plus Project AM

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	43	29	19	33	13	15
Future Vol, veh/h	43	29	19	33	13	15
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, %	10	7	6	9	2	20
Mvmt Flow	48	33	21	37	15	17

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	87	40	0	0	58	0
Stage 1	40	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.5	6.27	-	-	4.12	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	-	-	2.218	-
Pot Cap-1 Maneuver	895	1017	-	-	1546	-
Stage 1	962	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	886	1017	-	-	1546	-
Mov Cap-2 Maneuver	886	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	934	1546
HCM Lane V/C Ratio	-	-	0.087	0.009
HCM Control Delay (s)	-	-	9.2	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	48	74	60
Average Queue (ft)	6	22	19
95th Queue (ft)	27	54	49
Link Distance (ft)		236	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	85		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement	WB
Directions Served	LR
Maximum Queue (ft)	23
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	66	61
Average Queue (ft)	7	5
95th Queue (ft)	38	31
Link Distance (ft)	284	349
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	72	45	14	4
Average Queue (ft)	19	7	0	0
95th Queue (ft)	62	31	4	3
Link Distance (ft)	506	240	636	887
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	73	11
Average Queue (ft)	35	0
95th Queue (ft)	62	6
Link Distance (ft)	691	458
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

HCM 6th TWSC
 1: SR 299 (Eureka Way) & Iron Mountain Rd

Opening Year 2022 Plus Project PM

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↕↕	↖	↖	↖
Traffic Vol, veh/h	35	320	263	45	36	21
Future Vol, veh/h	35	320	263	45	36	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	315	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	9	9	2	11	17	5
Mvmt Flow	37	340	280	48	38	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	328	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.235	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2855	-	-
Pot Cap-1 Maneuver	1186	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1186	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1186	-	-	-	355	874
HCM Lane V/C Ratio	0.031	-	-	-	0.108	0.026
HCM Control Delay (s)	8.1	-	-	-	16.4	9.2
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.1

HCM 6th TWSC
2: Iron Mountain Rd & Middle Creek Road

Opening Year 2022 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	0	0	75	0	0	63
Future Vol, veh/h	0	0	75	0	0	63
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	11	2	2	13
Mvmt Flow	0	0	86	0	0	72

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	158	86	0	0	86	0
Stage 1	86	-	-	-	-	-
Stage 2	72	-	-	-	-	-
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	833	973	-	-	1510	-
Stage 1	937	-	-	-	-	-
Stage 2	951	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	833	973	-	-	1510	-
Mov Cap-2 Maneuver	833	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	951	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1510
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
 3: Iron Mountain Rd & CCA South Drvwy

Opening Year 2022 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖		↗	↑	↘	
Traffic Vol, veh/h	0	0	0	75	63	0
Future Vol, veh/h	0	0	0	75	63	0
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	-	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	12	11	2
Mvmt Flow	0	0	0	81	68	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	149	68	68	0	0
Stage 1	68	-	-	-	-
Stage 2	81	-	-	-	-
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	843	995	1533	-	-
Stage 1	955	-	-	-	-
Stage 2	942	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	843	995	1533	-	-
Mov Cap-2 Maneuver	843	-	-	-	-
Stage 1	955	-	-	-	-
Stage 2	942	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1533	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
4: Iron Mountain Rd & Stubbs Ln

Opening Year 2022 Plus Project PM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↑
Traffic Vol, veh/h	1	2	74	1	0	62
Future Vol, veh/h	1	2	74	1	0	62
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	94	94	94	94	94	94
Heavy Vehicles, %	2	50	8	2	2	12
Mvmt Flow	1	2	79	1	0	66

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	146	80	0	0	-	-
Stage 1	80	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.7	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.75	-	-	-	-
Pot Cap-1 Maneuver	846	862	-	-	0	-
Stage 1	943	-	-	-	0	-
Stage 2	957	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	846	862	-	-	-	-
Mov Cap-2 Maneuver	846	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	957	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	857
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.2
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

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	12	0	0	14	0	0	76	0	0	62	0
Future Vol, veh/h	0	12	0	0	14	0	0	76	0	0	62	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	100	2	2	100	2	2	17	2	2	17	2
Mvmt Flow	0	14	0	0	16	0	0	89	0	0	73	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	170	162	73	169	162	89	-	0	0	-	-	0
Stage 1	73	73	-	89	89	-	-	-	-	-	-	-
Stage 2	97	89	-	80	73	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	7.12	7.5	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	3.518	4.9	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	794	584	989	795	584	969	0	-	-	0	-	-
Stage 1	937	676	-	918	664	-	0	-	-	0	-	-
Stage 2	910	664	-	929	676	-	0	-	-	0	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	777	584	989	781	584	969	-	-	-	-	-	-
Mov Cap-2 Maneuver	777	584	-	781	584	-	-	-	-	-	-	-
Stage 1	937	676	-	918	664	-	-	-	-	-	-	-
Stage 2	887	664	-	910	676	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	584	584	-	-
HCM Lane V/C Ratio	-	-	0.024	0.028	-	-
HCM Control Delay (s)	-	-	11.3	11.3	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Opening Year 2022 Plus Project PM

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	14	9	0	1	15	59	2	1	39	1
Future Vol, veh/h	2	0	14	9	0	1	15	59	2	1	39	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	100	2	71	2	2	2	74	2	2	2	3	100
Mvmt Flow	2	0	16	10	0	1	17	67	2	1	44	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	150	150	45	157	149	68	45	0	0	69	0	0
Stage 1	47	47	-	102	102	-	-	-	-	-	-	-
Stage 2	103	103	-	55	47	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.91	7.12	6.52	6.22	4.84	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.939	3.518	4.018	3.318	2.866	-	-	2.218	-	-
Pot Cap-1 Maneuver	639	742	859	809	743	995	1204	-	-	1532	-	-
Stage 1	767	856	-	904	811	-	-	-	-	-	-	-
Stage 2	711	810	-	957	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	631	730	859	785	731	995	1204	-	-	1532	-	-
Mov Cap-2 Maneuver	631	730	-	785	731	-	-	-	-	-	-	-
Stage 1	755	855	-	890	799	-	-	-	-	-	-	-
Stage 2	700	798	-	938	855	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.6	1.6	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1204	-	-	822	802	1532	-	-
HCM Lane V/C Ratio	0.014	-	-	0.022	0.014	0.001	-	-
HCM Control Delay (s)	8	0	-	9.5	9.6	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

HCM 6th TWSC
 7: Iron Mountain Rd & Keswick Dam Rd

Opening Year 2022 Plus Project PM

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			Y
Traffic Vol, veh/h	30	16	15	44	23	8
Future Vol, veh/h	30	16	15	44	23	8
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	77	77	77	77	77	77
Heavy Vehicles, %	2	2	7	2	2	24
Mvmt Flow	39	21	19	57	30	10

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	118	48	0	0	76	0
Stage 1	48	-	-	-	-	-
Stage 2	70	-	-	-	-	-
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	878	1021	-	-	1523	-
Stage 1	974	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	860	1021	-	-	1523	-
Mov Cap-2 Maneuver	860	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	934	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	5.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1523
HCM Lane V/C Ratio	-	-	0.066	0.02
HCM Control Delay (s)	-	-	9.2	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 6th TWSC
 17: Homestake Rd & Iron Mountain Rd

Opening Year 2022 Plus Project PM

Intersection										
Int Delay, s/veh	0									
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations		↗		↔			↖		↘	
Traffic Vol, veh/h	0	0	0	77	0	0	53	0	0	0
Future Vol, veh/h	0	0	0	77	0	0	53	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	-	-	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	84	0	0	58	0	0	0

Major/Minor	Minor1	Major1	Major2	Minor2
Conflicting Flow All	-	84	58	0
Stage 1	-	-	-	58
Stage 2	-	-	-	84
Critical Hdwy	-	6.22	4.12	-
Critical Hdwy Stg 1	-	-	-	6.12
Critical Hdwy Stg 2	-	-	-	6.12
Follow-up Hdwy	-	3.318	2.218	-
Pot Cap-1 Maneuver	0	975	1546	-
Stage 1	0	-	-	954
Stage 2	0	-	-	924
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	975	1546	-
Mov Cap-2 Maneuver	-	-	-	828
Stage 1	-	-	-	954
Stage 2	-	-	-	924

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

Minor Lane/Major Mvmt	NELn1	NELn2	NBL	NBT	NBRWBLn1	SBT	SBR
Capacity (veh/h)	-	-	1546	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	0	-	0	-	-
HCM Lane LOS	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	-	-	0	-	-	-	-

HCM 6th TWSC
 23: Iron Mountain Rd & Starvation Flat Rd

Opening Year 2022 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	0	0	51	61	0
Future Vol, veh/h	0	0	0	51	61	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	55	66	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	66	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	998	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	998	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET SBLn1	SWT	SWR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	0	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	-	-

HCM 6th TWSC
 27: Iron Mountain Rd & Gold Pan Way

Opening Year 2022 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	0	50	0	0	60
Future Vol, veh/h	0	0	50	0	0	60
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	54	0	0	65

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	54	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	1013	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1013	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

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

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	41	70	37
Average Queue (ft)	8	19	7
95th Queue (ft)	30	50	25
Link Distance (ft)		236	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	85		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement	WB
Directions Served	LR
Maximum Queue (ft)	38
Average Queue (ft)	3
95th Queue (ft)	18
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	69	79
Average Queue (ft)	19	23
95th Queue (ft)	62	69
Link Distance (ft)	284	349
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	74	35	11
Average Queue (ft)	21	8	0
95th Queue (ft)	65	31	8
Link Distance (ft)	506	240	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Opening Year 2022 Plus Project PM

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	51	22
Average Queue (ft)	26	1
95th Queue (ft)	48	11
Link Distance (ft)	691	458
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

HCM 6th TWSC
 1: SR 299 (Eureka Way) & Iron Mountain Rd

Cumulative Year 2042 AM

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗↗	↗	↘	↗
Traffic Vol, veh/h	27	279	295	41	36	43
Future Vol, veh/h	27	279	295	41	36	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	165	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	14	9	13	3	7	23
Mvmt Flow	30	307	324	45	40	47

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	369	0	-	0	691
Stage 1	-	-	-	-	324
Stage 2	-	-	-	-	367
Critical Hdwy	4.31	-	-	-	6.705
Critical Hdwy Stg 1	-	-	-	-	5.905
Critical Hdwy Stg 2	-	-	-	-	5.505
Follow-up Hdwy	2.333	-	-	-	3.5665
Pot Cap-1 Maneuver	1115	-	-	-	385
Stage 1	-	-	-	-	694
Stage 2	-	-	-	-	687
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1115	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	375
Stage 1	-	-	-	-	675
Stage 2	-	-	-	-	687

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1115	-	-	-	375	799
HCM Lane V/C Ratio	0.027	-	-	-	0.105	0.059
HCM Control Delay (s)	8.3	-	-	-	15.7	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.2

HCM 6th TWSC
 2: Iron Mountain Rd & Middle Creek Road

Cumulative Year 2042 AM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	0	0	68	0	0	87
Future Vol, veh/h	0	0	68	0	0	87
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	4	2	2	17
Mvmt Flow	0	0	74	0	0	95

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	169	74	0	0	74
Stage 1	74	-	-	-	-
Stage 2	95	-	-	-	-
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	821	988	-	-	1526
Stage 1	949	-	-	-	-
Stage 2	929	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	821	988	-	-	1526
Mov Cap-2 Maneuver	821	-	-	-	-
Stage 1	949	-	-	-	-
Stage 2	929	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1526
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
 3: Iron Mountain Rd & CCA South Drvwy

Cumulative Year 2042 AM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	WT		T	T	T	
Traffic Vol, veh/h	0	0	0	68	87	0
Future Vol, veh/h	0	0	0	68	87	0
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	-	160	-	-	-
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	6	21	2
Mvmt Flow	0	0	0	77	99	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	176	99	99	0	0
Stage 1	99	-	-	-	-
Stage 2	77	-	-	-	-
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	814	957	1494	-	-
Stage 1	925	-	-	-	-
Stage 2	946	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	814	957	1494	-	-
Mov Cap-2 Maneuver	814	-	-	-	-
Stage 1	925	-	-	-	-
Stage 2	946	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1494	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
4: Iron Mountain Rd & Stubbs Ln

Cumulative Year 2042 AM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↑
Traffic Vol, veh/h	1	0	68	0	0	86
Future Vol, veh/h	1	0	68	0	0	86
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	5	2	2	16
Mvmt Flow	1	0	74	0	0	93

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	167	74	0	0	-	-
Stage 1	74	-	-	-	-	-
Stage 2	93	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	823	988	-	-	0	-
Stage 1	949	-	-	-	0	-
Stage 2	931	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	823	988	-	-	-	-
Mov Cap-2 Maneuver	823	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	823
HCM Lane V/C Ratio	-	-	0.001
HCM Control Delay (s)	-	-	9.4
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

HCM 6th TWSC
 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Cumulative Year 2042 AM

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↔			↔	
Traffic Vol, veh/h	0	5	0	1	2	0	0	68	0	1	85	0
Future Vol, veh/h	0	5	0	1	2	0	0	68	0	1	85	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	100	2	100	100	2	2	4	2	100	22	2
Mvmt Flow	0	6	0	1	2	0	0	78	0	1	98	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	179	178	98	181	178	78	-	0	0	78	0	0
Stage 1	100	100	-	78	78	-	-	-	-	-	-	-
Stage 2	79	78	-	103	100	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	8.1	7.5	6.22	-	-	-	5.1	-	-
Critical Hdwy Stg 1	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	4.4	4.9	3.318	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	783	571	958	607	571	983	0	-	-	1075	-	-
Stage 1	906	656	-	735	673	-	0	-	-	-	-	-
Stage 2	930	673	-	711	656	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	780	570	958	602	570	983	-	-	-	1075	-	-
Mov Cap-2 Maneuver	780	570	-	602	570	-	-	-	-	-	-	-
Stage 1	906	655	-	735	673	-	-	-	-	-	-	-
Stage 2	927	673	-	704	655	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	11.4		11.2			0			0.1		
HCM LOS	B		B								

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	570	580	1075	-	-
HCM Lane V/C Ratio	-	-	0.01	0.006	0.001	-	-
HCM Control Delay (s)	-	-	11.4	11.2	8.4	-	-
HCM Lane LOS	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Cumulative Year 2042 AM

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	5	0	1	2	62	4	5	75	4
Future Vol, veh/h	0	0	6	5	0	1	2	62	4	5	75	4
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	100	2	2	100	50	2	2	2	18	67
Mvmt Flow	0	0	7	5	0	1	2	67	4	5	82	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	168	169	84	171	169	69	86	0	0	71	0	0
Stage 1	94	94	-	73	73	-	-	-	-	-	-	-
Stage 2	74	75	-	98	96	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	7.2	7.12	6.52	7.2	4.6	-	-	4.12	-	-
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	3.518	4.018	4.2	3.518	4.018	4.2	2.65	-	-	2.218	-	-
Pot Cap-1 Maneuver	796	724	761	792	724	777	1256	-	-	1529	-	-
Stage 1	913	817	-	937	834	-	-	-	-	-	-	-
Stage 2	935	833	-	908	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	792	720	761	782	720	777	1256	-	-	1529	-	-
Mov Cap-2 Maneuver	792	720	-	782	720	-	-	-	-	-	-	-
Stage 1	911	815	-	935	832	-	-	-	-	-	-	-
Stage 2	932	831	-	898	813	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.8		9.6		0.2		0.4	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	761	781	1529	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.008	0.004	-	-
HCM Control Delay (s)	7.9	0	-	9.8	9.6	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
7: Iron Mountain Rd & Keswick Dam Rd

Cumulative Year 2042 AM

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖		↗			↘
Traffic Vol, veh/h	52	35	21	40	16	17
Future Vol, veh/h	52	35	21	40	16	17
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, %	10	7	2	9	2	14
Mvmt Flow	58	39	24	45	18	19

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	102	47	0	0	69	0
Stage 1	47	-	-	-	-	-
Stage 2	55	-	-	-	-	-
Critical Hdwy	6.5	6.27	-	-	4.12	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	-	-	2.218	-
Pot Cap-1 Maneuver	877	1008	-	-	1532	-
Stage 1	955	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	866	1008	-	-	1532	-
Mov Cap-2 Maneuver	866	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	936	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	918	1532
HCM Lane V/C Ratio	-	-	0.106	0.012
HCM Control Delay (s)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

Queuing and Blocking Report

Cumulative Year 2042 AM

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	43	49	66
Average Queue (ft)	6	17	22
95th Queue (ft)	25	39	53
Link Distance (ft)		236	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	85		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwvy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement	WB
Directions Served	LR
Maximum Queue (ft)	12
Average Queue (ft)	1
95th Queue (ft)	7
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	57	58
Average Queue (ft)	8	6
95th Queue (ft)	39	34
Link Distance (ft)	284	349
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	69	42	8
Average Queue (ft)	11	6	0
95th Queue (ft)	48	29	6
Link Distance (ft)	506	240	887
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Cumulative Year 2042 AM

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	83	13
Average Queue (ft)	38	0
95th Queue (ft)	65	5
Link Distance (ft)	691	458
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

HCM 6th TWSC
 1: SR 299 (Eureka Way) & Iron Mountain Rd

Cumulative Year 2042 PM

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗↗	↖	↖	↖
Traffic Vol, veh/h	41	384	315	52	40	23
Future Vol, veh/h	41	384	315	52	40	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	165	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	9	2	7	9	2
Mvmt Flow	45	417	342	57	43	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	399	0	-	0	849 171
Stage 1	-	-	-	-	342 -
Stage 2	-	-	-	-	507 -
Critical Hdwy	4.13	-	-	-	6.735 6.93
Critical Hdwy Stg 1	-	-	-	-	5.935 -
Critical Hdwy Stg 2	-	-	-	-	5.535 -
Follow-up Hdwy	2.219	-	-	-	3.5855 3.319
Pot Cap-1 Maneuver	1158	-	-	-	304 844
Stage 1	-	-	-	-	674 -
Stage 2	-	-	-	-	586 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1158	-	-	-	292 844
Mov Cap-2 Maneuver	-	-	-	-	292 -
Stage 1	-	-	-	-	648 -
Stage 2	-	-	-	-	586 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	15.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1158	-	-	-	292	844
HCM Lane V/C Ratio	0.038	-	-	-	0.149	0.03
HCM Control Delay (s)	8.2	-	-	-	19.5	9.4
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	0.1

HCM 6th TWSC
 2: Iron Mountain Rd & Middle Creek Road

Cumulative Year 2042 PM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			Y
Traffic Vol, veh/h	0	0	87	0	0	70
Future Vol, veh/h	0	0	87	0	0	70
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	7	2	2	6
Mvmt Flow	0	0	100	0	0	80

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	180	100	0	0	100	0
Stage 1	100	-	-	-	-	-
Stage 2	80	-	-	-	-	-
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	810	956	-	-	1493	-
Stage 1	924	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	810	956	-	-	1493	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	943	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1493
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
 3: Iron Mountain Rd & CCA South Drvwy

Cumulative Year 2042 PM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖		↗	↑	↘	
Traffic Vol, veh/h	0	0	0	87	70	0
Future Vol, veh/h	0	0	0	87	70	0
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	-	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	8	5	2
Mvmt Flow	0	0	0	95	76	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	171	76	76	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	95	-	-	-	-	-
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	819	985	1523	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	819	985	1523	-	-	-
Mov Cap-2 Maneuver	819	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	929	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1523	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
 4: Iron Mountain Rd & Stubbs Ln

Cumulative Year 2042 PM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↑
Traffic Vol, veh/h	1	2	86	1	0	69
Future Vol, veh/h	1	2	86	1	0	69
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	92	92	92	92	92	92
Heavy Vehicles, %	2	50	4	2	2	4
Mvmt Flow	1	2	93	1	0	75

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	169	94	0	0	-	-
Stage 1	94	-	-	-	-	-
Stage 2	75	-	-	-	-	-
Critical Hdwy	6.42	6.7	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.75	-	-	-	-
Pot Cap-1 Maneuver	821	846	-	-	0	-
Stage 1	930	-	-	-	0	-
Stage 2	948	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	821	846	-	-	-	-
Mov Cap-2 Maneuver	821	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	948	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	837
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.3
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

HCM 6th TWSC

5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Cumulative Year 2042 PM

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	0	15	0	0	17	0	0	88	0	0	69	0
Future Vol, veh/h	0	15	0	0	17	0	0	88	0	0	69	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	100	2	2	100	2	2	13	2	2	11	2
Mvmt Flow	0	18	0	0	20	0	0	104	0	0	81	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	195	185	81	194	185	104	-	0	0	-	-	0
Stage 1	81	81	-	104	104	-	-	-	-	-	-	-
Stage 2	114	104	-	90	81	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	7.12	7.5	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	3.518	4.9	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	764	565	979	765	565	951	0	-	-	0	-	-
Stage 1	927	670	-	902	653	-	0	-	-	0	-	-
Stage 2	891	653	-	917	670	-	0	-	-	0	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	743	565	979	747	565	951	-	-	-	-	-	-
Mov Cap-2 Maneuver	743	565	-	747	565	-	-	-	-	-	-	-
Stage 1	927	670	-	902	653	-	-	-	-	-	-	-
Stage 2	864	653	-	893	670	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.6		11.6		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	565	565	-	-
HCM Lane V/C Ratio	-	-	0.031	0.035	-	-
HCM Control Delay (s)	-	-	11.6	11.6	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Cumulative Year 2042 PM

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	0	12	11	0	1	15	71	2	1	46	0
Future Vol, veh/h	1	0	12	11	0	1	15	71	2	1	46	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	100	2	60	2	2	2	67	2	2	2	3	2
Mvmt Flow	1	0	14	13	0	1	17	81	2	1	52	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	171	171	52	177	170	82	52	0	0	83	0	0
Stage 1	54	54	-	116	116	-	-	-	-	-	-	-
Stage 2	117	117	-	61	54	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.8	7.12	6.52	6.22	4.77	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.84	3.518	4.018	3.318	2.803	-	-	2.218	-	-
Pot Cap-1 Maneuver	617	722	874	785	723	978	1223	-	-	1514	-	-
Stage 1	760	850	-	889	800	-	-	-	-	-	-	-
Stage 2	697	799	-	950	850	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	609	710	874	763	711	978	1223	-	-	1514	-	-
Mov Cap-2 Maneuver	609	710	-	763	711	-	-	-	-	-	-	-
Stage 1	749	849	-	876	788	-	-	-	-	-	-	-
Stage 2	686	787	-	934	849	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.3		9.7		1.4		0.2	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	846	777	1514	-	-
HCM Lane V/C Ratio	0.014	-	-	0.017	0.018	0.001	-	-
HCM Control Delay (s)	8	0	-	9.3	9.7	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

HCM 6th TWSC
 7: Iron Mountain Rd & Keswick Dam Rd

Cumulative Year 2042 PM

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			Y
Traffic Vol, veh/h	36	20	17	53	27	9
Future Vol, veh/h	36	20	17	53	27	9
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	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	13
Mvmt Flow	47	26	22	69	35	12

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	139	57	0	0	91
Stage 1	57	-	-	-	-
Stage 2	82	-	-	-	-
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	854	1009	-	-	1504
Stage 1	966	-	-	-	-
Stage 2	941	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	834	1009	-	-	1504
Mov Cap-2 Maneuver	834	-	-	-	-
Stage 1	966	-	-	-	-
Stage 2	919	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	5.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1504
HCM Lane V/C Ratio	-	-	0.082	0.023
HCM Control Delay (s)	-	-	9.4	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Queuing and Blocking Report

Cumulative Year 2042 PM

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	WB	SB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	33	3	74	27
Average Queue (ft)	9	0	21	8
95th Queue (ft)	29	3	48	21
Link Distance (ft)			236	236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	85	165		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwvy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report

Cumulative Year 2042 PM

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement	WB
Directions Served	LR
Maximum Queue (ft)	40
Average Queue (ft)	3
95th Queue (ft)	21
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	69	77
Average Queue (ft)	19	22
95th Queue (ft)	63	69
Link Distance (ft)	284	349
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	69	34	24
Average Queue (ft)	18	9	1
95th Queue (ft)	58	33	11
Link Distance (ft)	506	240	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Cumulative Year 2042 PM

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	57	27
Average Queue (ft)	28	2
95th Queue (ft)	52	14
Link Distance (ft)	691	458
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

HCM 6th TWSC
 1: SR 299 (Eureka Way) & Iron Mountain Rd

Cumulative Year 2042 Plus Project AM

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↕↕	↖	↖	↖
Traffic Vol, veh/h	28	279	295	45	41	44
Future Vol, veh/h	28	279	295	45	41	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	315	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	18	9	13	13	21	25
Mvmt Flow	31	307	324	49	45	48

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	373	0	0 693 162
Stage 1	-	-	- 324 -
Stage 2	-	-	- 369 -
Critical Hdwy	4.37	-	- 6.915 7.275
Critical Hdwy Stg 1	-	-	- 6.115 -
Critical Hdwy Stg 2	-	-	- 5.715 -
Follow-up Hdwy	2.371	-	- 3.6995 3.5375
Pot Cap-1 Maneuver	1089	-	- 359 793
Stage 1	-	-	- 660 -
Stage 2	-	-	- 651 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1089	-	- 349 793
Mov Cap-2 Maneuver	-	-	- 349 -
Stage 1	-	-	- 642 -
Stage 2	-	-	- 651 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1089	-	-	-	349	793
HCM Lane V/C Ratio	0.028	-	-	-	0.129	0.061
HCM Control Delay (s)	8.4	-	-	-	16.8	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.2

HCM 6th TWSC
 2: Iron Mountain Rd & Middle Creek Road

Cumulative Year 2042 Plus Project AM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			Y
Traffic Vol, veh/h	0	0	73	0	0	93
Future Vol, veh/h	0	0	73	0	0	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	12	2	2	24
Mvmt Flow	0	0	79	0	0	101

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	180	79	0	0	79	0
Stage 1	79	-	-	-	-	-
Stage 2	101	-	-	-	-	-
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	810	981	-	-	1519	-
Stage 1	944	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	810	981	-	-	1519	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	923	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1519
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
 3: Iron Mountain Rd & CCA South Drvwy

Cumulative Year 2042 Plus Project AM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘		↙	↑	↗	
Traffic Vol, veh/h	0	0	0	73	93	0
Future Vol, veh/h	0	0	0	73	93	0
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	-	160	-	-	-
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	14	27	2
Mvmt Flow	0	0	0	83	106	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	189	106	106	0	-	0
Stage 1	106	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	800	948	1485	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	800	948	1485	-	-	-
Mov Cap-2 Maneuver	800	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	940	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1485	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
4: Iron Mountain Rd & Stubbs Ln

Cumulative Year 2042 Plus Project AM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↑
Traffic Vol, veh/h	1	0	73	0	0	93
Future Vol, veh/h	1	0	73	0	0	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	13	2	2	24
Mvmt Flow	1	0	79	0	0	101

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	180	79	0	0	-	-
Stage 1	79	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	810	981	-	-	0	-
Stage 1	944	-	-	-	0	-
Stage 2	923	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	810	981	-	-	-	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	923	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	810
HCM Lane V/C Ratio	-	-	0.001
HCM Control Delay (s)	-	-	9.5
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↔			↔	
Traffic Vol, veh/h	0	5	0	1	2	0	0	73	0	1	91	0
Future Vol, veh/h	0	5	0	1	2	0	0	73	0	1	91	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	100	2	100	100	2	2	13	2	100	29	2
Mvmt Flow	0	6	0	1	2	0	0	84	0	1	105	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	192	191	105	194	191	84	-	0	0	84	0	0
Stage 1	107	107	-	84	84	-	-	-	-	-	-	-
Stage 2	85	84	-	110	107	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	8.1	7.5	6.22	-	-	-	5.1	-	-
Critical Hdwy Stg 1	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	4.4	4.9	3.318	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	768	560	949	594	560	975	0	-	-	1069	-	-
Stage 1	898	651	-	729	668	-	0	-	-	-	-	-
Stage 2	923	668	-	704	651	-	0	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	765	559	949	589	559	975	-	-	-	1069	-	-
Mov Cap-2 Maneuver	765	559	-	589	559	-	-	-	-	-	-	-
Stage 1	898	650	-	729	668	-	-	-	-	-	-	-
Stage 2	920	668	-	697	650	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.5		11.4		0		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	559	569	1069	-	-
HCM Lane V/C Ratio	-	-	0.01	0.006	0.001	-	-
HCM Control Delay (s)	-	-	11.5	11.4	8.4	-	-
HCM Lane LOS	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Cumulative Year 2042 Plus Project AM

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	12	5	0	1	7	62	4	5	75	5
Future Vol, veh/h	1	0	12	5	0	1	7	62	4	5	75	5
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	100	2	100	2	2	100	86	2	2	2	18	75
Mvmt Flow	1	0	13	5	0	1	8	67	4	5	82	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	181	182	85	186	182	69	87	0	0	71	0	0
Stage 1	95	95	-	85	85	-	-	-	-	-	-	-
Stage 2	86	87	-	101	97	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	7.2	7.12	6.52	7.2	4.96	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	4.2	3.518	4.018	4.2	2.974	-	-	2.218	-	-
Pot Cap-1 Maneuver	607	712	760	775	712	777	1113	-	-	1529	-	-
Stage 1	719	816	-	923	824	-	-	-	-	-	-	-
Stage 2	727	823	-	905	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	602	705	760	756	705	777	1113	-	-	1529	-	-
Mov Cap-2 Maneuver	602	705	-	756	705	-	-	-	-	-	-	-
Stage 1	714	814	-	917	818	-	-	-	-	-	-	-
Stage 2	721	817	-	887	813	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.9		9.8		0.8		0.4	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1113	-	-	745	759	1529	-	-
HCM Lane V/C Ratio	0.007	-	-	0.019	0.009	0.004	-	-
HCM Control Delay (s)	8.3	0	-	9.9	9.8	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

HCM 6th TWSC
7: Iron Mountain Rd & Keswick Dam Rd

Cumulative Year 2042 Plus Project AM

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖		↗			↘
Traffic Vol, veh/h	52	35	22	40	16	18
Future Vol, veh/h	52	35	22	40	16	18
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, %	10	7	6	9	2	20
Mvmt Flow	58	39	25	45	18	20

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	104	48	0	0	70	0
Stage 1	48	-	-	-	-	-
Stage 2	56	-	-	-	-	-
Critical Hdwy	6.5	6.27	-	-	4.12	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	-	-	2.218	-
Pot Cap-1 Maneuver	875	1007	-	-	1531	-
Stage 1	954	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	865	1007	-	-	1531	-
Mov Cap-2 Maneuver	865	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	936	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	917	1531
HCM Lane V/C Ratio	-	-	0.107	0.012
HCM Control Delay (s)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	42	64	60
Average Queue (ft)	7	23	21
95th Queue (ft)	30	56	50
Link Distance (ft)		236	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	85		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwvy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	62	59
Average Queue (ft)	8	5
95th Queue (ft)	40	30
Link Distance (ft)	284	349
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	81	36	12	4
Average Queue (ft)	19	7	0	0
95th Queue (ft)	66	29	9	3
Link Distance (ft)	506	240	636	887
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

Cumulative Year 2042 Plus Project AM

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	77	14
Average Queue (ft)	38	1
95th Queue (ft)	65	7
Link Distance (ft)	691	458
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

HCM 6th TWSC
 1: SR 299 (Eureka Way) & Iron Mountain Rd

Cumulative Year 2042 Plus Project PM

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗↗	↖	↖	↖
Traffic Vol, veh/h	42	384	315	54	43	24
Future Vol, veh/h	42	384	315	54	43	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	315	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	9	9	2	11	17	5
Mvmt Flow	46	417	342	59	47	26

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	401	0	-	0	851 171
Stage 1	-	-	-	-	342 -
Stage 2	-	-	-	-	509 -
Critical Hdwy	4.235	-	-	-	6.855 6.975
Critical Hdwy Stg 1	-	-	-	-	6.055 -
Critical Hdwy Stg 2	-	-	-	-	5.655 -
Follow-up Hdwy	2.2855	-	-	-	3.6615 3.3475
Pot Cap-1 Maneuver	1113	-	-	-	291 835
Stage 1	-	-	-	-	655 -
Stage 2	-	-	-	-	566 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1113	-	-	-	279 835
Mov Cap-2 Maneuver	-	-	-	-	279 -
Stage 1	-	-	-	-	628 -
Stage 2	-	-	-	-	566 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1113	-	-	-	279	835
HCM Lane V/C Ratio	0.041	-	-	-	0.168	0.031
HCM Control Delay (s)	8.4	-	-	-	20.5	9.5
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	0.1

HCM 6th TWSC
 2: Iron Mountain Rd & Middle Creek Road

Cumulative Year 2042 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	0	0	90	0	0	74
Future Vol, veh/h	0	0	90	0	0	74
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	11	2	2	13
Mvmt Flow	0	0	103	0	0	85

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	188	103	0	0	103	0
Stage 1	103	-	-	-	-	-
Stage 2	85	-	-	-	-	-
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	801	952	-	-	1489	-
Stage 1	921	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	801	952	-	-	1489	-
Mov Cap-2 Maneuver	801	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	938	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1489
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

HCM 6th TWSC
 3: Iron Mountain Rd & CCA South Drvwy

Cumulative Year 2042 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘		↙	↑	↗	
Traffic Vol, veh/h	0	0	0	90	74	0
Future Vol, veh/h	0	0	0	90	74	0
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	-	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	12	11	2
Mvmt Flow	0	0	0	98	80	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	178	80	80	0	0
Stage 1	80	-	-	-	-
Stage 2	98	-	-	-	-
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	812	980	1518	-	-
Stage 1	943	-	-	-	-
Stage 2	926	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	812	980	1518	-	-
Mov Cap-2 Maneuver	812	-	-	-	-
Stage 1	943	-	-	-	-
Stage 2	926	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1518	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
4: Iron Mountain Rd & Stubbs Ln

Cumulative Year 2042 Plus Project PM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↑
Traffic Vol, veh/h	1	2	89	1	0	73
Future Vol, veh/h	1	2	89	1	0	73
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	92	92	92	92	92	92
Heavy Vehicles, %	2	50	8	2	2	12
Mvmt Flow	1	2	97	1	0	79

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	177	98	0	0	-	-
Stage 1	98	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.42	6.7	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.75	-	-	-	-
Pot Cap-1 Maneuver	813	841	-	-	0	-
Stage 1	926	-	-	-	0	-
Stage 2	944	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	813	841	-	-	-	-
Mov Cap-2 Maneuver	813	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	944	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWT
Capacity (veh/h)	-	-	831
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.3
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	15	0	0	17	0	0	91	0	0	73	0
Future Vol, veh/h	0	15	0	0	17	0	0	91	0	0	73	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	100	2	2	100	2	2	17	2	2	17	2
Mvmt Flow	0	18	0	0	20	0	0	107	0	0	86	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	203	193	86	202	193	107	-	0	0	-	-	0
Stage 1	86	86	-	107	107	-	-	-	-	-	-	-
Stage 2	117	107	-	95	86	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	7.12	7.5	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	3.518	4.9	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	755	559	973	756	559	947	0	-	-	0	-	-
Stage 1	922	667	-	898	651	-	0	-	-	0	-	-
Stage 2	888	651	-	912	667	-	0	-	-	0	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	735	559	973	738	559	947	-	-	-	-	-	-
Mov Cap-2 Maneuver	735	559	-	738	559	-	-	-	-	-	-	-
Stage 1	922	667	-	898	651	-	-	-	-	-	-	-
Stage 2	861	651	-	888	667	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	559	559	-	-
HCM Lane V/C Ratio	-	-	0.032	0.036	-	-
HCM Control Delay (s)	-	-	11.7	11.7	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	-

HCM 6th TWSC
6: Iron Mountain Rd & Ball Mill Rd

Cumulative Year 2042 Plus Project PM

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	16	11	0	1	18	71	2	1	46	1
Future Vol, veh/h	2	0	16	11	0	1	18	71	2	1	46	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	100	2	71	2	2	2	74	2	2	2	3	2
Mvmt Flow	2	0	18	13	0	1	20	81	2	1	52	1

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	178	178	53	186	177	82	53	0	0	83	0	0
Stage 1	55	55	-	122	122	-	-	-	-	-	-	-
Stage 2	123	123	-	64	55	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.91	7.12	6.52	6.22	4.84	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.939	3.518	4.018	3.318	2.866	-	-	2.218	-	-
Pot Cap-1 Maneuver	610	716	850	775	717	978	1195	-	-	1514	-	-
Stage 1	759	849	-	882	795	-	-	-	-	-	-	-
Stage 2	691	794	-	947	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	600	702	850	747	703	978	1195	-	-	1514	-	-
Mov Cap-2 Maneuver	600	702	-	747	703	-	-	-	-	-	-	-
Stage 1	745	848	-	866	781	-	-	-	-	-	-	-
Stage 2	678	780	-	926	848	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	9.5		9.8			1.6			0.2		
HCM LOS	A		A								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	812	762	1514	-	-
HCM Lane V/C Ratio	0.017	-	-	0.025	0.018	0.001	-	-
HCM Control Delay (s)	8.1	0	-	9.5	9.8	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-	-

HCM 6th TWSC
7: Iron Mountain Rd & Keswick Dam Rd

Cumulative Year 2042 Plus Project PM

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			A
Traffic Vol, veh/h	36	20	18	53	27	10
Future Vol, veh/h	36	20	18	53	27	10
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	77	77	77	77	77	77
Heavy Vehicles, %	2	2	7	2	2	24
Mvmt Flow	47	26	23	69	35	13

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	141	58	0	0	92
Stage 1	58	-	-	-	-
Stage 2	83	-	-	-	-
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	852	1008	-	-	1503
Stage 1	965	-	-	-	-
Stage 2	940	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	832	1008	-	-	1503
Mov Cap-2 Maneuver	832	-	-	-	-
Stage 1	965	-	-	-	-
Stage 2	918	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	5.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	887	1503
HCM Lane V/C Ratio	-	-	0.082	0.023
HCM Control Delay (s)	-	-	9.4	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

HCM 6th TWSC
 17: Homestake Rd & Iron Mountain Rd

Cumulative Year 2042 Plus Project PM

Intersection										
Int Delay, s/veh	0									
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations		↗		↔			↖		↙	
Traffic Vol, veh/h	0	0	0	93	0	0	63	0	0	0
Future Vol, veh/h	0	0	0	93	0	0	63	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	-	0	-	-	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	101	0	0	68	0	0	0

Major/Minor	Minor1	Major1	Major2	Minor2
Conflicting Flow All	-	101	68	0
Stage 1	-	-	-	68
Stage 2	-	-	-	101
Critical Hdwy	-	6.22	4.12	-
Critical Hdwy Stg 1	-	-	-	6.12
Critical Hdwy Stg 2	-	-	-	6.12
Follow-up Hdwy	-	3.318	2.218	-
Pot Cap-1 Maneuver	0	954	1533	-
Stage 1	0	-	-	942
Stage 2	0	-	-	905
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	954	1533	-
Mov Cap-2 Maneuver	-	-	-	795
Stage 1	-	-	-	942
Stage 2	-	-	-	905

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

Minor Lane/Major Mvmt	NELn1	NELn2	NBL	NBT	NBRWBLn1	SBT	SBR
Capacity (veh/h)	-	-	1533	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	0	-	0	-	-
HCM Lane LOS	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	-	-	0	-	-	-	-

HCM 6th TWSC
 23: Iron Mountain Rd & Starvation Flat Rd

Cumulative Year 2042 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	0	0	51	61	0
Future Vol, veh/h	0	0	0	51	61	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	55	66	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	66	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	998	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	998	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET SBLn1	SWT	SWR
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	0	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	-	-

HCM 6th TWSC
 27: Iron Mountain Rd & Gold Pan Way

Cumulative Year 2042 Plus Project PM

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	0	50	0	0	60
Future Vol, veh/h	0	0	50	0	0	60
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	54	0	0	65

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	54	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.22	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.318	-
Pot Cap-1 Maneuver	0	1013	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1013	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

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

Intersection: 1: SR 299 (Eureka Way) & Iron Mountain Rd

Movement	EB	SB	SB
Directions Served	L	L	R
Maximum Queue (ft)	43	72	28
Average Queue (ft)	10	21	9
95th Queue (ft)	32	53	25
Link Distance (ft)		236	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	85		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 2: Iron Mountain Rd & Middle Creek Road

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Iron Mountain Rd & CCA South Drwy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Iron Mountain Rd & Stubbs Ln

Movement	WB
Directions Served	LR
Maximum Queue (ft)	32
Average Queue (ft)	2
95th Queue (ft)	13
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Iron Mountain Rd & Lumber Manufacture (4-Leg) Dvwy

Movement	EB	WB	SB
Directions Served	LTR	LTR	TR
Maximum Queue (ft)	91	78	9
Average Queue (ft)	23	25	0
95th Queue (ft)	70	73	7
Link Distance (ft)	284	349	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Iron Mountain Rd & Ball Mill Rd

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	92	34	28
Average Queue (ft)	26	9	1
95th Queue (ft)	76	32	15
Link Distance (ft)	506	240	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Cumulative Year 2042 Plus Project PM

Intersection: 7: Iron Mountain Rd & Keswick Dam Rd

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	46	4	27
Average Queue (ft)	26	0	3
95th Queue (ft)	48	3	16
Link Distance (ft)	691	723	458
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

