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NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE IS HEREBY GIVEN that the County of El Dorado, as lead agency, has prepared a Mitigated Negative Declaration (MND) for the below referenced Project. The Draft MND analyzes the potential environmental effects associated with the proposed Project in accordance with the California Environmental Quality Act (CEQA). This Notice of Intent (NOI) is to provide responsible agencies and other interested parties with notice of the availability of the Draft MND and solicit comments and concerns regarding the environmental issues associated with the proposed Project.

LEAD AGENCY: County of El Dorado, 2850 Fairlane Court, Placerville, CA 95667

CONTACT: County Planner: Anna Quan, 530-621-5753

PROJECT: CUP25-0011/Suncast Lane Self Storage

PROJECT LOCATION: The property, identified by Assessor's Parcel Number 117-060-012, consisting of 12 acres, is located in the northwest corner of Latrobe Road and Suncast Lane, in the El Dorado Hills Community Region, and in Supervisorial District 2.

PROJECT DESCRIPTION: A Conditional Use Permit to establish self-storage, including fully enclosed boats and vehicles, on a parcel (Assessor's Parcel Number 117-060-012) that has the land use designation of Research and Development (R&D) and zoning designation of Research and Development - Design Review - Community combining zone (R&D-DC). The project comprises 260,503 gross square feet and 1,194 self-storage units. The project site consists of a three-story building (183,387 sf) to the south, and four (4) single-story buildings, comprising over-sized units, to the north.

PUBLIC REVIEW PERIOD: The public review period for the Draft MND set forth in CEQA for this project is **30** days, beginning **June 25, 2026**, and ending **July 24, 2026**. Any written comments must be received within the public review period. Copies of the Draft MND for this project may be reviewed and/or obtained in the County of El Dorado Planning and Building Department, 2850 Fairlane Court, Placerville, CA 95667, during normal business hours or online at https://edc-trk.aspgov.com/etrakit/. In order to view attachments, please login or create an E-Trakit account and search the project name or application file number in the search box.

Please direct your comments to: County of El Dorado, Planning and Building Department, County Planner: Anna Quan, 2850 Fairlane Court, Placerville, CA 95667 or EMAIL: planning@edcgov.us

PUBLIC HEARING: A public hearing before the Planning Commission has not been scheduled. Once that date has been determined, a public notice will be issued.

COUNTY OF EL DORADO
PLANNING AND BUILDING DEPARTMENT
KAREN L. GARNER, Director
June 24, 2026

DRAFT MITIGATED NEGATIVE DECLARATION

FILE: CUP25-0011 / Suncast Lane Self Storage

PROJECT NAME CUP25-0011 - Suncast Lane Self Storage

NAME OF APPLICANT: El Dorado Hills Owner, LLC

ASSESSOR'S PARCEL NO.: 117-060-012 **SECTION:** 14 **T:** 09N **R:** 8E

LOCATION: The parcel consists of twelve (12) acres and is located in the northwest corner of Latrobe Road and Suncast Lane, in the El Dorado Hills area.

☐ **GENERAL PLAN AMENDMENT:** **FROM:** **TO:**

☐ **REZONING:** **FROM:** **TO:**

☐ **TENTATIVE PARCEL MAP**

☐ **SUBDIVISION:**

SUBDIVISION (NAME):

☒ **SPECIAL USE PERMIT TO ALLOW:** establish self-storage, including fully enclosed boats and vehicles, on a parcel (Assessor's Parcel Number 117-060-012) that has the land use designation of Research and Development (R&D) and zoning designation of Research and Development - Design Review - Community combining zone (R&D-DC). The project comprises 260,503 gross square feet and 1,194 self-storage units. The project site consists of a three-story building (183,387 sf) to the south, and four (4) single-story buildings, comprising over-sized units, to the north.

☐ **OTHER:**

REASONS THE PROJECT WILL NOT HAVE A SIGNIFICANT ENVIRONMENTAL IMPACT:

☐ **NO SIGNIFICANT ENVIRONMENTAL CONCERNS WERE IDENTIFIED DURING THE INITIAL STUDY.**

☒ **MITIGATION HAS BEEN IDENTIFIED WHICH WOULD REDUCE POTENTIALLY SIGNIFICANT IMPACTS.**

☐ **OTHER:**

In accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), State Guidelines, and El Dorado County Guidelines for the Implementation of CEQA, the County Environmental Agent analyzed the project and determined that the project will not have a significant impact on the environment. Based on this finding, the Planning Department hereby prepares this MITIGATED NEGATIVE DECLARATION. A period of thirty (30) days from the date of filing this mitigated negative declaration will be provided to enable public review of the project specifications and this document prior to action on the project by COUNTY OF EL DORADO. A copy of the project specifications is on file at the County of El Dorado Planning Services, 2850 Fairlane Court, Placerville, CA 95667.

This Mitigated Negative Declaration was adopted by the *Hearing Body* on *Date*.

_____

Executive Secretary

Draft
Initial Study/Proposed Mitigated Negative Declaration for the Suncast Lane Self-Storage Project (CUP25-0011)

Prepared by:

El Dorado County
2850 Fairlane Court
Placerville, CA 95667
530-621-5753

Contact: Anna Quan

June 2026

TABLE OF CONTENTS

Section		Page
TABLE OF CONTENTS		I
LIST OF ABBREVIATIONS		III
1	NOTICE ON INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION	1-1
1.1	Project Description	1-1
1.2	Location	1-1
1.3	Mitigation Measures included in the Project to Avoid Potentially Significant Impacts	1-1
1.4	Review and Approval	1-10
1.5	Proposed Findings	1-11
2	PROJECT DESCRIPTION	2-12
2.1	Project Overview	2-12
2.2	Project Location and Existing Setting	2-12
2.3	Project Objectives	2-12
2.4	Project Description	2-13
2.5	Project Approvals	2-13
3	ENVIRONMENTAL CHECKLIST	3-1
3.1	Aesthetics	3-5
3.2	Agriculture and Forest Resources	3-8
3.3	Air Quality	3-10
3.4	Biological Resources	3-17
3.5	Cultural Resources	3-34
3.6	Energy	3-36
3.7	Geology and Soils	3-39
3.8	Greenhouse Gas Emissions	3-43
3.9	Hazards and Hazardous Materials	3-47
3.10	Hydrology and Water Quality	3-50
3.11	Land Use and Planning	3-54
3.12	Mineral Resources	3-57
3.13	Noise	3-58
3.14	Population and Housing	3-62
3.15	Public Services	3-63
3.16	Recreation	3-64
3.17	Transportation	3-66
3.18	Tribal Cultural Resources	3-70
3.19	Utilities and Service Systems	3-75
3.20	Wildfire	3-77
3.21	Mandatory Findings of Significance	3-79
4	REFERENCES	4-1
5	REPORT PREPARERS	5-1

ATTACHMENTS

Attachment A Air Quality and Greenhouse Gas Emissions
Attachment B Biological Resources
Attachment C Transportation

FIGURES

Figure 2-1 Project Vicinity Map 2-15
Figure 2-2 Project Site Plan modified from applicant provided image 2-16

TABLES

Table 3.3-1 Sources and Health Effects of Criteria Air Pollutants 3-12
Table 3.3-2 El Dorado County Attainment Status Designations 3-12
Table 3.3-3 Project-generated Construction Emissions 3-14
Table 3.3-4 Project-generated Operational Emissions (2029) 3-15
Table 3.6-1 Construction-related Fuel Consumption 3-37
Table 3.6-2 Operations-related Fuel Consumption 3-37
Table 3.8-1 Project-generated Construction GHG Emissions 3-45
Table 3.8-2 Project-generated Operational GHG Emissions 3-46
Table 3.13-1 Acoustic Term Definitions 3-58
Table 3.13-2 Typical Noise Levels 3-59

LIST OF ABBREVIATIONS

2023 Ozone Plan	Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan
AB	Assembly Bill
APN	Assessor's Parcel Number
AQAP	air quality attainment plan
Basin Plan	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CESA	California Endangered Species Act
CFC	California Fire Code
CNDDB	California Natural Diversity Database
CO_2	carbon dioxide
County	County of El Dorado
CRPR	California rare plant rank
CWPP	community wildfire protection plan
dB	decibels
DC	Design Review combining zone
DOT	County Department of Transportation
DTSC	California Department of Toxic Substance Control
DWR	California Department of Water Resources
EDCAQMD	El Dorado County Air Quality Management District
EDCHMP	El Dorado County Multi-Jurisdictional Hazard Mitigation Plan
EDCSO	El Dorado County Sheriff's Office
EDHFD	El Dorado Hills Fire Department
EID	El Dorado Irrigation District
ESA	federal Endangered Species Act
EVA	Emergency Vehicle Access
GHG	greenhouse gas
LAMP	Local Agency Management Plan
LOD	Limit of Disturbance
LOS	level of service
LRA	Local Responsibility Area

MCAB	Mountain Counties Air Basin
MRZ	Mineral Resource Zones
MS4	municipal separate storm sewer system
msl	mean sea level
$MTCO_2e/yr$	metric tons of carbon dioxide equivalent per year
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Center
NCIC	North Central Information Center
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation
OHWM	Ordinary High Water Mark
ORMP	Oak Resources Management Plan
PG&E	Pacific Gas and Electric Company
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particles
Project Applicant	El Dorado Hills Owner, LLC
Project	Suncast Lane Self Storage
RD	Research and Development
RWQCB	regional water quality control board
SB	Senate Bill
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SR	State Route
SWMP	storm water management plan
SWPPP	storm water pollution prevention plan
TAC	toxic air contaminant
Technical Advisory	*Technical Advisory on Evaluating Transportation Impacts in CEQA*
US 50	US Highway 50
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service
USGS	US Geological Service
VMT	vehicle miles traveled
WEAT	Worker Environmental Awareness Training
WERS	Western El Dorado Recovery Systems

1 NOTICE ON INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

The attached Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) has been prepared for the County of El Dorado (County) as the lead agency under the California Environmental Quality Act (CEQA). The purpose of this IS/Proposed MND is to evaluate and disclose potential environmental effects resulting from the Suncast Lane Self-Storage Project. Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project.

The County prepared this Proposed MND because, although the attached IS identifies potentially significant environmental effects, revisions to the project have been made or agreed to by the applicant that would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, consistent with Section 15070 of the State CEQA Guidelines.

1.1 PROJECT DESCRIPTION

El Dorado Hills Owner, LLC (the Project Applicant) has submitted an application to the County (the Lead Agency) for the Suncast Lane Self-Storage (Project). The Project would develop a 260,503-square-foot self-storage project, comprising 1,194 units, on a 12-acre parcel.

1.2 LOCATION

The Project site is located in the northwestern quadrant of Latrobe and Suncast Lane, in the unincorporated community of El Dorado Hills, in El Dorado County, California (assessor parcel number [APN] 117-060-012).

1.3 MITIGATION MEASURES INCLUDED IN THE PROJECT TO AVOID POTENTIALLY SIGNIFICANT IMPACTS

The following mitigation measures are identified in the attached IS to reduce potentially significant impacts.

Mitigation Measure 3.4-1: Special-Status Plant Protection

The following shall be incorporated into grading or building permit plans for the Project. Prior to future development at the Project site, the following measures shall be implemented to protect special-status plants:

- Prior to any vegetation clearing, ground disturbing, or construction activities within the Project site, a qualified botanist shall implement protocol-level botanical surveys during the blooming period for the special-status plants with potential to occur in the Project site. The survey shall be conducted during the blooming/identification period closest to the initiation of proposed vegetation clearing or ground disturbance.
- The surveys shall include all areas where habitat potentially suitable for special-status plant species would be removed or disturbed, plus a 25-foot buffer.
- Surveys shall follow methods from CDFW's *Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities* (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the Project region, including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/); and (5) be familiar with federal and state statutes and regulations related to plants and plant collecting.

- If no special-status plants are found, the botanist shall document the findings in a report to the applicant and El Dorado County, and no additional measures are required prior to proposed activities.
- If activities last for more than one year, the botanical surveys described above shall be repeated during the blooming period in subsequent years prior to additional vegetation clearing or ground disturbing activities.
- If special-status plants are found, the botanist shall clearly mark, map, and record their locations. A no-disturbance buffer shall be established surrounding these locations, consisting of high visibility fencing with a minimum 4-foot-tall metal fence posts (such as t-posts). Fencing shall be maintained in place throughout the entirety of all ground disturbance or vegetation removal activities to ensure that the special-status plants are protected from equipment and vehicles, construction personnel, digging, trenching, placement of fill, storage of equipment or materials, and all other activities. All personnel involved in ground disturbance or vegetation removal work shall be informed of the requirement to avoid no-disturbance areas and shall be required to sign an acknowledgement that they have received these instructions and agree to adhere to all mitigation measures.
- If special-status plant species are found that cannot be avoided, appropriate mitigation shall be implemented and shall depend on the species and its protection status.
- For unavoidable impacts to special-status plants and are not listed under the federal ESA or CESA, various methods may be used to minimize or compensate for impacts on these species. Depending on the biology of the species affected and the potential for transplanting and reseeding, establishing populations through seed collection or transplantation from the site that is to be affected may be implemented. Seeding or transplanting may be used to create new plant populations, or to enhance or expand existing populations. Potential mitigation sites could include suitable locations within or outside the project site. Mitigation could include, or consist of, expanding the affected population on the project site if only a portion of the population is to be removed and suitable habitat is available or can be created to expand the extent of the affected population into a new area. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value of the new population and habitat.
- If an affected plant species is protected under the federal ESA or CESA, coordination/consultation with USFWS and/or CDFW will be required. A site-specific mitigation strategy to compensate for loss of occupied habitat and individuals, consistent with the requirements of the federal ESA or CESA, will need to be developed and implemented. Actions to compensate for take of the federal ESA or CESA protected species may include preserving and enhancing existing populations and creation of new populations. Elements of the mitigation approach and success criteria required by USFWS or CDFW may include, but would not be limited to:
    - Identification of appropriate mitigation ratios for enhancement, expansion, and creation of target plant populations to fully compensate for direct loss of affected plant populations as well as temporal losses of functions and values.
    - Number and/or density of target plant individuals in the mitigation area.
    - A requirement that compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when plants reestablish annually for a set number of years with no human intervention, such as supplemental seeding.
    - If mitigation includes dedication of conservation easements, identifying responsible parties for long-term management, conservation easement holders, long-term management requirements, and funding sources as determined appropriate by the regulatory agency(ies).
- Documentation of the completion of the mitigation strategy and coordination/consultation process with USFWS or CDFW shall be provided to El Dorado County before commencement of any project activities that could adversely affect the protected plant species. Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT will include the following: discussion of the state and federal Endangered Species Act, the Clean Water Act, the Project's permits and CEQA documentation, and associated mitigation measures; consequences and

penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife that may be encountered on the project site; location of any avoidance, exclusion, or buffer areas; material to watch for that may indicate the presence of subsurface cultural resources; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species or potential cultural resources. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers will sign a form stating that they attended the training, understand the information presented and will comply with the regulations discussed.

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection

The following shall be incorporated into grading or building permit plans for the Project. The proposed development on the Project site must implement the following measures to protect aquatic resources and special-status wildlife and plant species that may be present within or near the aquatic resources:

- A minimum 35-foot-wide Limit of Disturbance (LOD) shall be established, as measured from the Ordinary High Water Mark, along the entire on-site length of the creek. Where slopes adjacent to the creek exceed thirty percent (30%), as shown in Figures 5 and 7 of Cox Biological Memo (2026), the LOD shall transition abruptly from 35 feet to 50 feet at the mapped 30% slope boundary, with no tapered transition. The 35-foot (or 50-foot, where triggered) LOD shall function as a no-grading / no-stockpile / no-outfall zone, with construction exclusion fencing installed and maintained for the duration of construction. The exclusion fencing shall consist of 4-foot high-visibility orange construction fence staked at intervals no greater than 10 feet, with a silt fence (minimum 24-inch height, buried a minimum of 6 inches) attached at the base of the orange fencing to prevent protected species (e.g., northwestern pond turtle, amphibians, small mammals) from entering the active work area. "ENVIRONMENTALLY SENSITIVE AREA – DO NOT ENTER" signage (bilingual English/Spanish) shall be posted at every fence corner, gate, and access point, and at intervals no greater than 100 linear feet, with a minimum of two signs per fenced reach.
- All applicable permits shall be obtained prior to any disturbance of jurisdictional waters (i.e., Carson Creek tributary). All permit requirements shall be adhered to, including any potential compensatory mitigation that may be required.
- Authorization for dredge or fill of waters of the United States shall be secured from USACE and the regional water quality control board (RWQCB) through the permitting processes for Clean Water Act Sections 401 and 404. In association with Section 404, Section 401 Water Quality Certification from the Central Valley RWQCB shall be obtained. For impacts on waters of the state that are not also waters of the United States and are therefore not covered by the 401 Water Quality Certification, the applicant shall apply to the RWQCB for Waste Discharge Requirements. Any waters of the United States or waters of the state that are affected by the project shall be replaced on a no-net-loss basis in accordance with the applicable USACE and RWQCB permit requirements.
- Before commencing activity that may divert the natural flow or otherwise alter the bed or bank of any lake or stream on the Project site (i.e., the seasonal stream and any associated water bodies), the applicant shall notify CDFW, through issuance of a Lake and Streambed Alteration Notification (notification). If CDFW determines, based on the notification, that project activities trigger the need for a Lake and Streambed Alteration Agreement, the project applicant shall obtain an agreement from CDFW before the activity commences. The applicant shall conduct activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect fish and wildlife resources, when working within the bed or bank of waterways or in riparian habitats associated with those waterways.

Mitigation Measure 3.4-3: Northwestern Pond Turtle Protection

The following shall be incorporated into grading or building permit plans for the Project. Prior to proposed development at the Project site, the following measures shall be implemented to protect Northwestern pond turtles:

- Worker environmental awareness training: Prior to start of ground disturbance, the Applicant shall conduct worker training covering Northwestern pond turtle identification, suitable habitat, avoidance requirements, and reporting/stop-work procedures.
- Preconstruction visual encounter surveys (within 3 days): A qualified biologist and/or herpetologist shall conduct one (1) preconstruction visual encounter survey for amphibians and reptiles within three (3) days prior to any construction activities that involve vegetation clearing, grading, trenching, or other ground disturbance within the project disturbance footprint and within the pond turtle survey area, defined as the area within 200 feet of the Ordinary High Water Mark of the Carson Creek tributary and extending 200 feet upstream and 200 feet downstream of active construction activities. If ground disturbance pauses for more than 14 consecutive days and then resumes, a repeat preconstruction survey shall be completed within the three (3) day window prior to resuming work. The survey results shall be in written format and shared with the County.
    - Surveys shall be conducted under suitable weather conditions and shall include a systematic search of the work area and adjacent suitable habitat, including creek bank margins, basking/cover features, and other microhabitats where turtles may occur.
    - If site conditions warrant (e.g., standing water, accessible margins), the biologist may incorporate limited aquatic visual checks (e.g., shoreline scanning and dipnet/visual checks where safe), consistent with a reconnaissance-level encounter survey.
- Avoidance and buffers: If a Northwestern pond turtle is observed, the biologist shall establish an exclusion buffer of 200 feet (adjustable based on site conditions) and direct the contractor to avoid the animal and associated travel corridor.
- Stop-work and notification: Work shall stop in the immediate area if an individual turtle is encountered until the biologist confirms the animal has moved out of the work zone or is safely excluded from the active work area.
- Exclusion fencing: Where ground disturbance occurs near suitable habitat during periods of turtle activity, temporary exclusion fencing shall be installed along the LOD (or other locations identified by the biologist) to prevent turtles from entering active work areas. The exclusion fencing shall consist of 4-foot high-visibility orange construction fence staked at intervals no greater than 10 feet, with a silt fence (minimum 24-inch height, buried a minimum of 6 inches) attached at the base of the orange fencing to prevent protected species (e.g., northwestern pond turtle, amphibians, small mammals) from entering the active work area. "ENVIRONMENTALLY SENSITIVE AREA – DO NOT ENTER" signage (bilingual English/Spanish) shall be posted at every fence corner, gate, and access point, and at intervals no greater than 100 linear feet, with a minimum of two signs per fenced reach.
- Relocation/handling (only if necessary): If relocation is necessary to avoid injury or mortality, relocation shall be conducted by a qualified biologist in compliance with applicable regulatory requirements and landowner permissions, and with CDFW coordination/authorization as required.
- Construction monitoring: A qualified biological monitor shall be available on-call and shall monitor initial ground-disturbing activities occurring within the pond turtle survey area (as defined above) to verify implementation of avoidance measures and to respond to any wildlife encounters. The survey results shall be in written format and shared with the County.

Mitigation Measure 3.4-4: Burrowing Owl Protection

The following shall be incorporated into grading or building permit plans for the Project. Prior to proposed development at the Project site, the project applicant shall implement the following measures for burrowing owls.

- If proposed activities are implemented in habitat suitable for burrowing owls, a qualified biologist shall conduct surveys for burrowing owls in areas of habitat suitable for the species on and within 1,640 feet (500 meters) of the project site. Inaccessible areas (e.g., adjacent private property) will not be surveyed directly, but the biologist may use binoculars or a spotting scope to survey these areas. A minimum of four surveys shall be conducted to determine whether burrowing owls occupy the site. Surveys shall be conducted according to Appendix D of the 2012 Staff Report on Burrowing Owl Mitigation prepared by the California Department of Fish and Game (now CDFW) (CDFG 2012), or any subsequent updated guidance. If feasible, at least one survey should be conducted between February 15 and April 15 and the remaining surveys should be conducted between April 15 and July 15, at least three weeks apart. Because burrowing owls may recolonize a site after only a few days, one of the surveys, or an additional survey, shall be conducted no less than 14 days before initiating ground disturbance activities to verify that take of burrowing owl would not occur.
- If no burrowing owls are found, the qualified biologist shall submit a report documenting the survey methods and results to lead agency, and no further mitigation shall be required.
- If a burrow occupied by a burrowing owl is found during the surveys, the project applicant shall establish and maintain a buffer around the occupied burrow and any identified satellite burrows (i.e., non-nesting burrows that burrowing owls use to escape predators or move young into after hatching) to prevent take of the burrowing owls.
    - During the non-breeding season (September 1 through January 31), the minimum buffer distance shall be 164 feet (50 m). During the breeding season (February 1 through August 31), the minimum buffer distance shall be increased to 1,640 feet (500 m).
    - The buffer may be adjusted if, in consultation with CDFW, a qualified biologist determines that an alternative buffer shall not result in take of burrowing owl adults, young, or eggs because of particular site features (e.g., topography, natural line-of-sight barriers), level of project disturbance, or other considerations. If the buffer is reduced, a qualified biologist shall monitor the behavior of the burrowing owls during all project activities within 1,640 feet of the burrow. If the owls are disturbed or agitated (e.g., vocalizations, bill snaps, fluffing feathers to increase body size appearance, drooping wings and rotating them forward, crouching and weaving back and forth) by the project activities, the biologist shall have the authority to halt the activities and re-establish a buffer consistent with the first bullet until the agitated behavior ceases and normal behavior resumes.
    - The buffer shall remain in place around the occupied burrow and associated satellite burrows until a qualified biologist has determined through noninvasive methods that the burrows are no longer occupied by burrowing owl. A previously occupied burrow will be considered unoccupied if surveys demonstrate that no owls have used the burrow for seven consecutive days.
    - Locations of burrowing owls detected during surveys shall be reported to the CNDDB.
    - If implementation of a buffer to prevent take of burrowing owl is not feasible, the project applicant shall consult with CDFW and obtain an Incidental Take Permit (ITP) prior to commencing project related ground-disturbing activities. The impacts of taking burrowing owl shall be minimized and fully mitigated.
    - The project applicant shall compensate for the loss of burrowing owl by establishing permanent protection and perpetual management on land that provides burrowing owl habitat. Habitat management lands for burrowing owl may be established by conservation easement or fee title or credits may be purchased from a CDFW-approved conservation or mitigation bank. The compensatory mitigation shall satisfy permit conditions and all other permit conditions shall be implemented.

Mitigation Measure 3.4-5: Nesting Bird and Raptor Protection

The following shall be incorporated into grading or building permit plans for the Project. Future development at the Project site shall implement the following measures to protect nesting birds and raptors:

- To minimize impacts to special-status bird species, raptors, and other native birds, potential future development activities (e.g., tree removal, vegetation clearing, ground disturbance, staging, construction of off-site improvements) shall be conducted during the nonbreeding season (approximately September 1 through January 31, as determined by a qualified biologist), when feasible. If project activities are conducted during the nonbreeding season, no further mitigation is required prior to the proposed activity.
- If development activities must commence during the avian nesting season (between February 1 and August 31), within 7 days prior to commencement of work a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused surveys for special-status birds, nesting raptors, and other native birds. Surveys shall be conducted in publicly accessible areas within 0.5 miles of the development activity area for golden eagle, 0.25 miles of the development activity area for white-tailed kite, 500 feet of the development activity area for other raptor species and special-status birds, and 50 feet of the development activity area for non-raptor common native bird nests.
- If no active bird nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and El Dorado County, and work may proceed. If at any time during the nesting season there is a lapse of two weeks or more with no work, a new survey for nesting birds shall be completed before work proceeds.
- If an active bird nest is found, a no-disturbance buffer shall be established around the nest site until the breeding season has ended or a qualified biologist has determined that the young have fledged or the nest is no longer active.
    - The size of the no-disturbance buffer shall be determined by the biologist, based on the sensitivity of the bird species, nesting chronology of the species, disturbance characteristics (type, extent, visibility, duration, and timing), existing ambient conditions, and other factors (e.g., screening from existing structures, vegetation, or topography), as determined by the biologist. Buffers typically shall be 0.5 miles for golden eagle, 0.25 miles for white-tailed kite, 500 feet for other raptors, 100 feet for non-raptor special-status bird species, and at least 20 feet for common non-raptor bird species. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment shall be unlikely to adversely affect the nest. Any buffer reduction for a special-status bird species shall require coordination with CDFW.
    - Daily monitoring of the nest by a qualified biologist during activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist.
- Documentation of compliance with this mitigation measure and any required coordination with CDFW shall be provided to El Dorado County before commencement of any project construction activities.

Mitigation Measure 3.4-6: Crotch's Bumblebee Protection

The following shall be incorporated into grading or building permit plans for the Project. The following shall be incorporated into grading or building permit plans for the Project. Future development at the Project site shall implement the following measures to protect Crotch's bumblebee:

- Initial ground-disturbing work (e.g., grading, vegetation removal, staging) shall take place between August 15 and March 15 (i.e., outside of the Crotch's bumble bee colony active period, or the period when bumble bees are nesting underground and flying aboveground in the greatest numbers), if feasible, to avoid impacts on nesting Crotch's bumble bees during the colony active period.
- Regardless of the feasibility of the above limited operating period, and because Crotch's bumble bees may use the project site during other life history periods (e.g., overwintering), a qualified biologist familiar with bumble

bees of California and experienced using survey methods for bumble bees shall conduct a habitat assessment and focused survey for Crotch's bumble bee before the start of any ground-disturbing activities. The survey shall be performed when Crotch's bumble bee is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present and shall follow the methods in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species* (CDFW 2023). The survey shall be conducted during the colony active period closest to the start of planned ground-disturbing activities to determine whether Crotch's bumble bees are present on the project site. The survey area shall include all habitat determined to be suitable for Crotch's bumble bees as determined during the habitat assessment. Survey results shall be submitted to the applicant and El Dorado County no less than 7 days before ground-disturbing work begins.

- The applicant shall submit a survey report to CDFW and El Dorado County within 1 month of survey completion and shall notify CDFW and El Dorado County within 24 hours if Crotch's bumble bees are detected, as described in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species* (CDFW 2023).
- If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:
  - Protective buffers shall be implemented around active nesting colonies until these sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies; however, the buffer shall be a minimum of 50 feet.
  - Work on the project site shall be avoided during the colony active period (April through August).
- If impacts on Crotch's bumble bee cannot be avoided, the applicant shall obtain an incidental take permit (ITP) from CDFW and shall implement all avoidance measures included in the ITP.
- Documentation of compliance with this mitigation measure and any required coordination with CDFW or acquisition of an ITP shall be provided to El Dorado County before commencement of any ground-disturbing work.

Mitigation Measure 3.4-7: Bat Protection

The following shall be incorporated into grading or building permit plans for the Project. The following shall be incorporated into grading or building permit plans for the Project. Future development at the Project site must implement the following measures to protect bats:

- Within 14 days before any tree removal, a qualified biologist familiar with bats and bat ecology, and experienced in conducting bat surveys, shall conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) within 250 feet of the tree(s) to be removed.
- If no evidence of bat roosts is found, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and no further study shall be required.
- If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring) or evening emergence surveys shall be used if deemed necessary to supplement survey efforts by the qualified biologist.
- A no-disturbance buffer of 250 feet shall be established by the qualified biologist around active maternity roosts or hibernacula of pallid bat or western red bat, as well as maternity roosts (i.e., considered to be a wildlife nursery) or winter hibernacula of other bat species that contain a substantial number of bats (i.e., more than a few roosting bats that would leave on their own during the day). Project activities shall not occur within this buffer until after the roosts no longer support juvenile bats or hibernating bats as determined by a qualified biologist.
- If roosts of pallid bat or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion

methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites. After the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day. For trees used as maternity roosts or hibernacula by non-special status bat species, the trees may be removed either when a qualified biologist determines that bats are no longer present, or using the exclusion and removal method described above for pallid bat and western red bat if bats are using the tree for a daytime roost, but it is no longer functioning as a maternity roost or hibernacula. Coordination with CDFW and compensatory measures, such as installation of bat boxes, will not be required for non-special status bat species.

Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any tree removal activities.

Mitigation Measure 3.6-1: Install CalGreen Tier 2-Compliant On-Site Electric Vehicle Charging Infrastructure

The following shall be incorporated into grading or building permit plans for the Project. Prior to the issuance of construction permits, the project applicant shall install the appropriate number of EV-capable spaces and EV charging stations (EVCS) for the project determined using Table A5.106.5.3.3 in Appendix A5, "Nonresidential Voluntary Measures," of Part 6 of the Title 24 California Building Code (CalGreen code) in effect at the time of Project construction.

Mitigation Measure 3.18-1: Tribal Monitoring: Initial Ground Disturbance

The following shall be incorporated into grading or building permit plans for the Project. The project proponent or their construction contractor shall comply with the following measure to assist with treatment of TCRs at the earliest possible time during project-related earthmoving activities:

- The project proponent shall coordinate with all consulting tribes (UAIC, Wilton Rancheria, Shingle Springs Band of Miwok Indians) by contacting the UAIC THPO (thpo@auburnrancheria.com), Wilton Rancheria (cpd@wiltonrancheria-nsn.gov), and Shingle Springs Band of Miwok Indians (kperry@ssband.org, mmayberry@ssband.org) at least 2 to 3 months prior to project ground-disturbing activities. Coordination shall include but is not limited to representation by each tribe during ground-disturbing activities. The project proponent shall only retain the services of Tribal Monitor(s) from these tribes. The duration of the construction schedule and Tribal Monitoring shall be determined at this time.
- One or more contracted Tribal Monitor(s) shall monitor the initial ground disturbance in the project area. If there are cultural finds, the Tribes may require additional Tribal Monitoring.
- Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representatives to examine the resource.
- Appropriate treatment of TCRs or other cultural finds may include but is not limited to:
  - Recordation of the resource(s)
  - Avoidance and preservation of the resource(s)

    - Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area subject to no future disturbance. The location of the reburial shall be acceptable to the UAIC, Wilton Rancheria, and Shingle Springs Band of Miwok Indians.
- To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.
- The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.
- The Tribal Monitor(s), in consultation with their respective Tribe, and the project proponent shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.
- In the event the Tribal Monitor(s) does not report to the job site at the scheduled time after receiving a 3-week look-ahead at the construction schedule and a 72-hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless of the presence or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.
- The County shall assist with resolution of disagreements between the project proponent/contractor and the Tribes if such occurs on the project.

Mitigation Measure 3.18-2: Cultural Awareness and Sensitivity Training

The following shall be incorporated into grading or building permit plans for the Project. The following mitigation measure is intended to address the cultural sensitivity of the project area by including Tribal Cultural Awareness and Sensitivity Training for relevant project personnel and construction workers. The training shall be specified in the Standard Construction Specifications for the project.

- The County shall require the applicant/Contractor to provide a Tribal Cultural Awareness and Sensitivity Training (training) for all personnel involved in project construction, including field consultants and construction workers, at their own expense. The training shall be developed in coordination with interested Native American Tribes.
- The training shall be conducted before any project-related construction activities begin at the project site. The training will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The training will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values. The training may be done in coordination with the project archaeologist.
- All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training.

Mitigation Measure 3.18-3: Unanticipated Discoveries

The following shall be incorporated into grading or building permit plans for the Project. If any suspected TCRs or resources of cultural significance to UAIC, Wilton Rancheria, and Shingle Springs Band of Miwok Indians, including but not limited to features, anthropogenic/cultural soils, cultural belongings or objects (artifacts), shell, bone, shaped stones or bone, or ash/charcoal deposits are discovered by any person during construction activities including ground disturbing activities, all work shall pause immediately within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. Work shall cease in and within the immediate vicinity of the find regardless of whether the construction is being actively monitored by a Tribal Monitor, cultural resources specialist, or professional archaeologist.

A Tribal Representative for each of the above-noted Tribes and the County shall be immediately notified, and the Tribal Representatives in coordination with the County shall determine if the find is a TCR (PRC §21074) and the Tribal Representatives shall make recommendations for further evaluation and treatment as necessary.

The culturally affiliated Tribes shall consult with the County to (1) identify the boundaries of the new TCR and (2) if feasible, identify appropriate preservation in place and avoidance measures, including redesign or adjustments to the existing construction process, and long-term management, or 3) if avoidance is infeasible, a reburial location in proximity of the find where no future disturbance is anticipated. Permanent curation of TCRs will not take place unless approved in writing by the culturally affiliated Tribes.

The construction contractor(s) shall provide secure, on-site storage for culturally sensitive soils or objects that are components of TCRs that are found or recovered during construction. Only Tribal Representatives shall have access to the storage. Storage size shall be determined by the nature of the TCR and can range from a small lock box to a Conex box (shipping container). A secure (locked), fenced area can also provide adequate on-site storage if larger amounts of material must be stored.

The construction contractor(s) and County shall facilitate the respectful reburial of the culturally sensitive soils or objects. This includes providing a reburial location that is consistent with the Tribes' preferences, excavation of the reburial location, and assisting with the reburial, upon request.

Any discoveries shall be documented on a Department of Parks and Recreation (DPR) 523 form within two (2) weeks of the discovery and submitted to the appropriate CHRIS center in a timely manner.
Work at the TCR discovery location shall not resume until authorization is granted by the County in coordination with the culturally affiliated Tribes.

If articulated or disarticulated human remains, or human remains in any state of decomposition or skeletal completeness are discovered during construction activities, the County Coroner and the culturally affiliated Tribes shall be contacted immediately. Upon determination by the County Coroner that the find is Native American in origin, the Native American Heritage Commission will assign the Most Likely Descendent who will work with the land owner to define appropriate treatment and disposition of the burials.

1.4 REVIEW AND APPROVAL

The purpose of the IS/Proposed MND is to present to decision-makers and the public information about the environmental consequences of implementing the project. This IS/Proposed MND will be available for a 30-day public review period from June 25, 2026 to July 24, 2026.

Supporting documentation referenced in this document is available for review at:

County of El Dorado
Planning and Building Department
2850 Fairlane Court
Placerville, California 95667

Comments should be addressed to:

Anna Quan, Senior Planner
Planning and Building Department
2850 Fairlane Court
Placerville, California 95667

E-mail comments may be addressed to: Anna.Quan@edcgov.us

If you have questions regarding the IS/Proposed MND, please call Anna Quan at: (530) 621-5753. If you wish to send written comments (including via e-mail), they must be postmarked by July 24, 2026.

After comments are received from the public and reviewing agencies, the County may (1) adopt the MND, a mitigation monitoring and reporting program (MMRP), and approve the project; (2) undertake additional environmental studies, potentially including preparation of an Environmental Impact Report; or (3) deny the project. If the project is approved, the project proponent may proceed with the project.

1.5 PROPOSED FINDINGS

The County has reviewed and considered the proposed project and has determined that the project will not have a significant effect on the environment, with the proposed mitigation measures and based upon the substantial supporting evidence provided in the IS. The County hereby prepares and proposes to adopt a MND for this project.

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

El Dorado Hills Owner, LLC (the Project Applicant) has submitted an application to the County of El Dorado (County) (the Lead Agency under CEQA) for the Suncast Lane Self-Storage (Project). The Project would develop a 260,503-square-foot self-storage project, comprising 1,194 units, on a 12-acre parcel in the El Dorado Hills area.

2.2 PROJECT LOCATION AND EXISTING SETTING

The Project site is located in the unincorporated community of El Dorado Hills, in El Dorado County, California. The Project site is within the western edge of the Sierra Nevada foothills, 18 miles northeast of the City of Sacramento (Figure 2-1). Folsom Lake is approximately 5 miles northwest of the Project and the U.S Highway 50 corridor is approximately 1 mile northwest of the Project.

The Project site consists of a 12-acre parcel, Assessor's Parcel Number (APN) 117-060-012, located at the northwest corner of Latrobe Road and Suncast Lane, and east of Golden Foothill Parkway (Figure 2-2). The Project site is in Section 14, Township 9 North, and Range 8 East, on the Clarksville, California 7.5-minute USGS quadrangle map.

The Project site is predominantly characterized by annual grasslands with a tributary to Carson Creek along the western border of the parcel. The property is hilly, with elevations ranging from approximately 525 to 575 feet above mean sea level (msl).

Existing development on-site consists of a landscape easement at the corner of Latrobe Road and Suncast Lane and a utility corridor that runs north/south through the eastern portion of the site, along Latrobe Road.

Adjoining properties include office buildings to the north, west, and south. The project site is also adjacent to an undeveloped parcel to the southwest. East of the project site, across Latrobe Road, there is a self-storage project and recycling center as well as an El Dorado Irrigation District (EID) water treatment plant.

2.2.1 General Plan and Zoning

The Project site is designated as Research and Development (RD) in the County General Plan Land Use Diagram (El Dorado County 2004a). As described in the County's General Plan Land Use Element and Zoning Ordinance, the RD designation establishes areas for high technology, non-polluting manufacturing plants, research and development facilities, corporate/industrial offices, and support service facilities in a rural or campus-like setting.

The zoning designation for the Project is Research & Development with a Design Review – Community Combining Zone (RD-DC). Zoning Ordinance Section 130.27.050.D states that structures and site development with a research and development zone that is combined with a (-DC) designation are exempt from the design review permit process, as required by the Zoning Ordinance if the RD zone includes architectural style and site design requirements that are more specific in nature and satisfy the intent of the design review concept. The County does have Research and Development Design Standards that were adopted December 15, 2015.

The project requires a Conditional Use Permit (CUP), because the self-storage use requires a CUP in the RD zone. Per Zoning Ordinance Section 130.27.050.C, if the development requires a discretionary permit, such as a CUP, the CUP will satisfy the Design Review Permit requirement. The project will deviate from some provisions of the Research and Development Design Standards, so the design review will be included in the Conditional Use Permit application.

2.3 PROJECT OBJECTIVES

Specific project objectives, as stated by the Project Applicant, include the following:

- Provide diversified self-storage unit sizes in interior climate controlled and exterior drive-up non-climate controlled environments
- Serve residential and commercial customers near their homes or businesses

2.4 PROJECT DESCRIPTION

The project consists of grading and construction improvements that would result in a 260,503-square-foot self-storage facility on a 12-acre site that is adjacent to Latrobe Road to the east and Suncast Lane to the south. The project consists of a three-story climate-controlled building (Building A) in the southern portion of the site and four (4) non-climate-controlled oversized single-story buildings (B, C, D, E) in the northern portion of the site. Building A will be an average of approximately 43-foot-tall, and building materials consist of prefinished metal panels, prefinished Strukturoc panels in two different colors, which are metal panels with a stucco-like finish, stone veneer, and windows. Solar panels are also proposed on the roof of Building A. Buildings B through E are 20-foot-tall and will consist of metal panels, the same colored Strukturoc panels as those of Building A, and individual metal roll-up doors for each oversized unit. The primary entrance to the site would be through a roadway encroachment onto Sunset Lane. An Emergency Vehicle Access (EVA) roadway encroachment is proposed for Latrobe Road. The site is designed primarily for vehicle access. Lighting and landscaping improvements; perimeter fencing / walls; and free-standing and building-attached signage, will be included as part of the site design.

Visitors would be able to enter the site through Suncast Lane and access the office and small parking lot, which consists of five (5) parking spaces and two (2) accessible parking spaces. Customers would then drive past the gated entrance at the south of Building A, and load on the east or west sides of Building A or go north to access the four (4) single-story oversized enclosed self-storage buildings.

Two detention ponds are proposed east of the Carson Creek tributary, which flows along the western property line and west of the self-storage buildings. Grading and improvements for the project will be at least thirty-five (35) feet from the Carson Creek tributary and will avoid the Carson Creek tributary.

In terms of utilities, the project is within the El Dorado Irrigation District (EID) service area and would access EID water and sewer facilities. A 12-inch water line exists in Suncast Lane, as well as an 8-inch water line stub previously installed to serve the parcel. The project would connect to an existing 8-inch water line stub in Suncast Lane as well as connect to the existing 12-inch water main on Latrobe Road to loop the proposed new on-site private fire protection system. There is a 10-inch sewer line abutting the western property line, and there are existing service stubs. A sewer cleanout is proposed for the project and will connect to the existing 6-inch sewer stub, and the two (2) other service stubs not utilized will be removed or abandoned according to EID standards.

The project is within the Local Responsibility Area (LRA) and will be served by El Dorado Hills Fire Department (EDHFD) for fire district response and fire protection.

The hours of operation for the self-storage facility will be 8 am – 5 pm from Monday to Saturday, with the possibility of Sunday hours during the early months of operation. A self-storage manager will be on site to assist customers during the hours of operation. When the facility office is closed and an employee is not on-site, security cameras and electric gates will help to secure the property.

As for construction, the length of construction is estimated to be 12-18 months for total construction, including site work.

2.5 PROJECT APPROVALS

The project would require the following approvals:

- County of El Dorado approval of Conditional Use Permit
- El Dorado County Air Quality Management District: Project Approval

- El Dorado Hills Fire Department: Plan Review
- El Dorado Irrigation District approval of water and sewer facility infrastructure, including new connections.

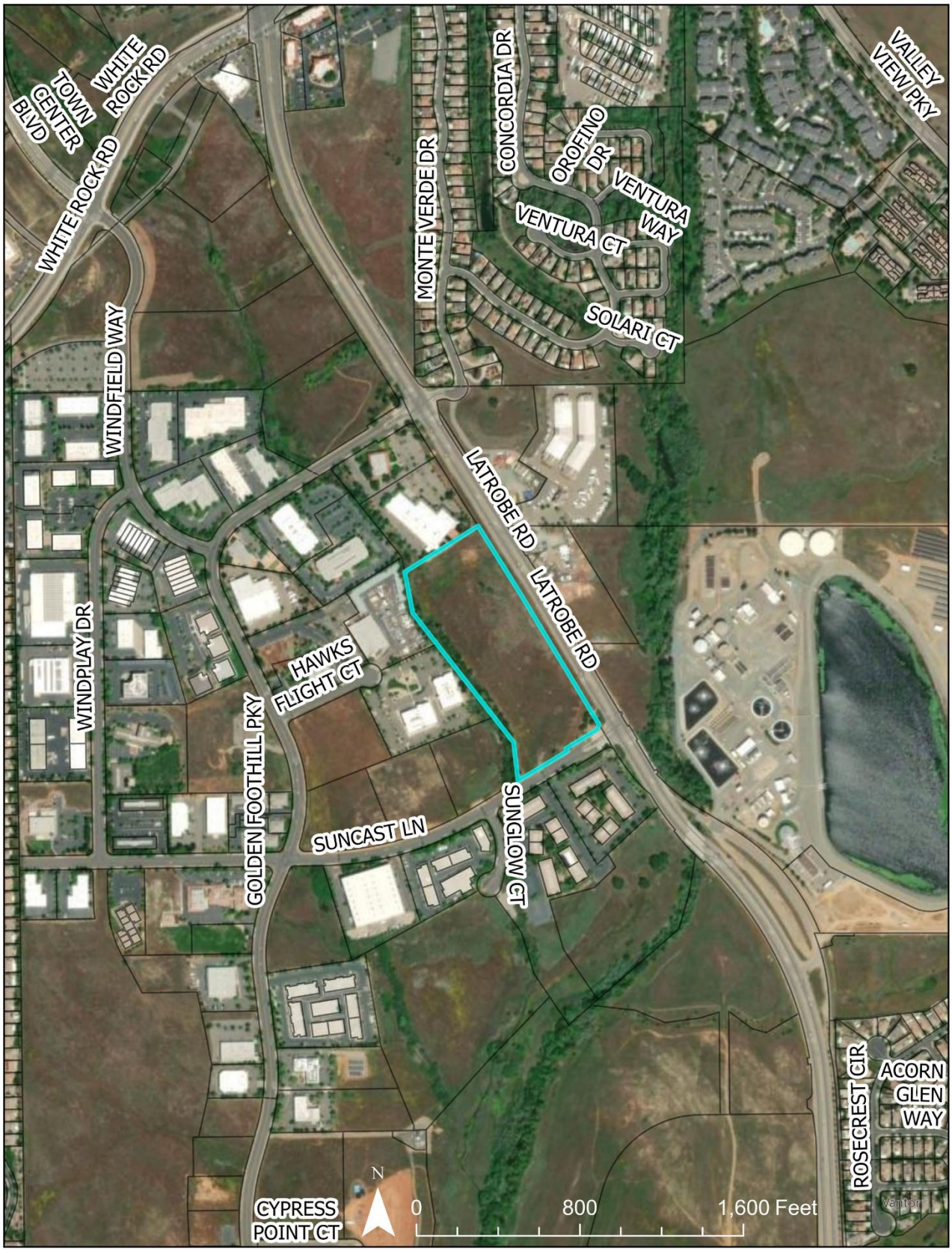


Figure 2-1 Project Vicinity Map

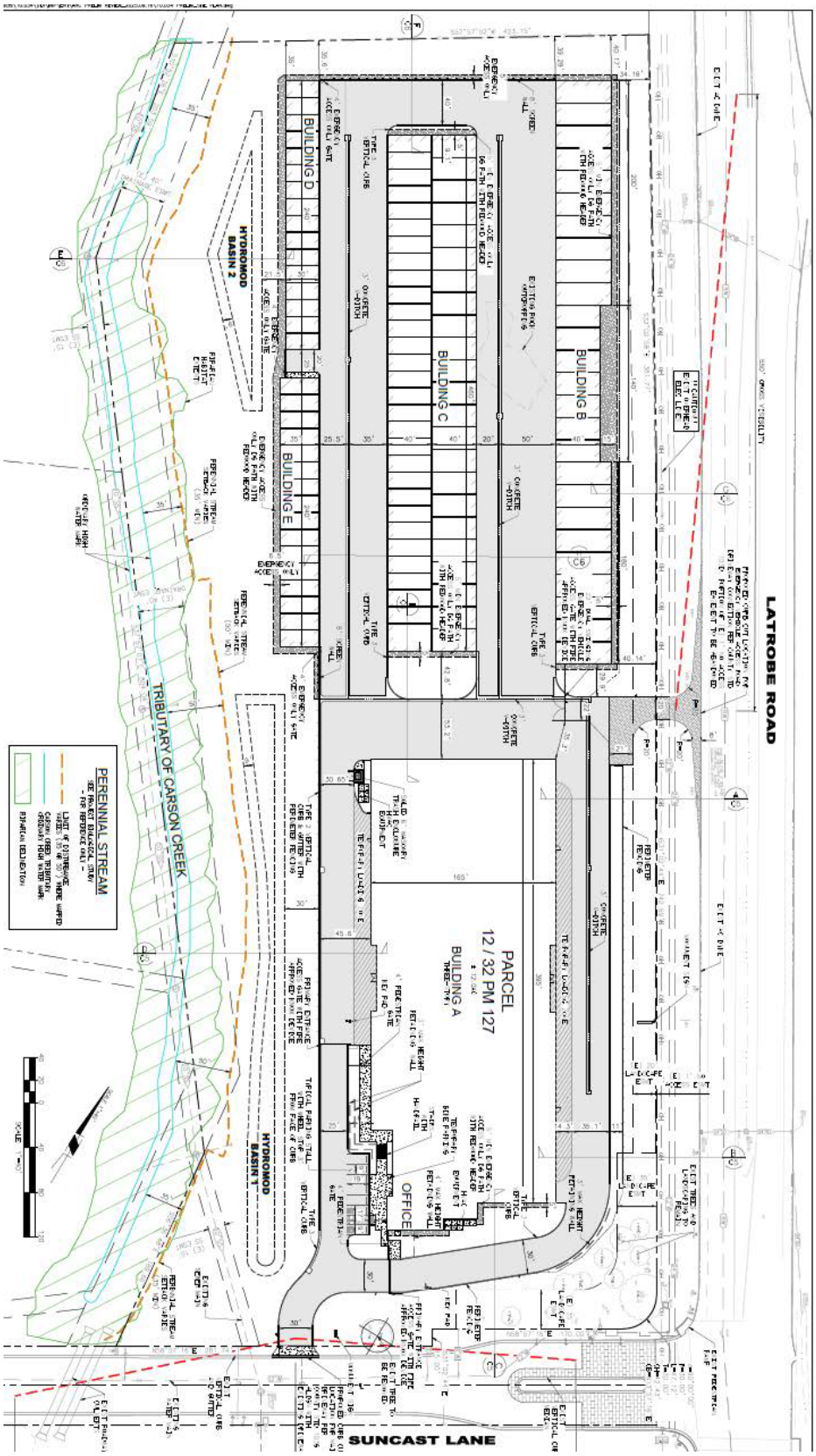


Figure 2-2 Project Site Plan modified from applicant provided image

3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	Project Title:	Suncast Lane Self-Storage
2.	Lead Agency Name and Address:	County of El Dorado Planning and Building Department 2850 Fairlane Court Placerville, California 95667
3.	Contact Person and Phone Number:	Anna Quan, 530-621-5753
4.	Project Location:	Northwest corner of Latrobe Road and Suncast Lane in El Dorado Hills area Assessor parcel number (APN) 117-060-012
5.	Project Sponsor's Name and Address:	El Dorado Hills Owner, LLC, 950 Tower Lane, Suite 1900, Foster City, CA 94404
6.	General Plan Designation:	Research and Development (RD)
7.	Zoning:	Research and Development with Design Review – Combining Zone (RD-DC)

8. Description of Project:

   The project consists of grading and construction improvements that will result in a 260,503-square-foot self-storage facility on a 12-acre site that is adjacent to Latrobe Road to the east and Suncast Lane to the south. The project consists of a three-story climate-controlled building (Building A) in the southern portion of the site and four (4) non-climate-controlled oversized single-story buildings (B, C, D, E) in the northern portion of the site. Associated site improvements, such as landscaping, lighting, parking, and utilities, will be implemented as part of the project. See Chapter 2 of this document for additional information.

9. Surrounding Land Uses and Setting:

   The Project site is predominantly characterized by annual grasslands with a Carson Creek tributary along the western border of the parcel. The property is hilly, with elevations ranging from approximately 525 to 575 feet above mean sea level (msl). Existing development on-site consists of a landscape easement at the corner of Latrobe Road and Suncast Lane and a utility corridor that runs north/south through the eastern portion of the site, along Latrobe Road.

   Adjoining properties include office buildings to the north, west, and south. The project site is also adjacent to an undeveloped parcel to the southwest. East of the project site, across Latrobe Road, there is a self-storage project and recycling center as well as an El Dorado Irrigation District (EID) water treatment plant.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

- County of El Dorado approval of Conditional Use Permit
- El Dorado County Air Quality Management District: Project Approval
- El Dorado Hills Fire Department: Plan Review
- El Dorado Irrigation District approval of water and sewer facility infrastructure, including new connections.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

    Yes. Consultation was requested by United Auburn Indian Community of the Auburn Rancheria (UAIC) on December 22, 2025 and completed on April 2, 2026. Consultation was requested by Wilton Rancheria on January 9, 2026 and completed on April 10, 2026. Consultation was requested by Shingle Springs Band of Miwok Indians on February 5, 2026 and completed on May 6, 2026.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards / Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance
	☐ None	☒ None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature — Date: 6/17/22

Aaron Mount — Printed Name

Planning Manager — Title

El Dorado County Planning + Building — Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The Project is in an urbanized area, with existing development at the Project site consisting of a utility corridor that runs north/south through the eastern portion of the site. Views from the Project site are limited to Latrobe Road to the east, with recycling center, self-storage, EID water treatment plant, and residences and hills beyond; commercial and residential development to the north; Suncast Lane, with commercial and residential development beyond, and office and industrial buildings to the west. The visual quality of the Project site is typical for vacant parcels in the area, with no unusual or distinctive characteristics; the Project site also contains a variety of mechanical disturbance due to leveling, imported fill dirt dumping, and boulder piling. The Project site consists of the Carson Creek tributary along the western border; most of the Project site consists of non-riparian annual grassland. The topography of the project site is flat with a generally southwest facing aspect. Elevations range from approximately 525 to 575 feet above mean sea level (msl).

A list of the county's scenic views and resources is presented in Table 5.3-1 of the El Dorado County General Plan EIR (El Dorado County 2003, p. 5.3-3). This list includes areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, forests, or historic structures or districts that are reminiscent of El Dorado County's heritage. According to Table 5.3-1, Latrobe Road is an important public scenic viewpoint from White Rock Road south to County Line in all directions due to the rolling hills and occasional vistas of Sacramento Valley. Since then, El Dorado Hills Business Park has been built out with multi-story offices and industrial buildings, and there has been extensive residential development on both sides of Latrobe Road.

There are no officially designated or eligible state scenic highways in proximity to the project site. The nearest officially designated state scenic highway is a segment of US Highway 50 (US 50) near Placerville, approximately 14

miles northeast of the Project site (Caltrans 2026). The closest eligible state scenic highway is State Route (SR) 49, approximately 15 miles northeast of the Project site. The project site is not within the viewshed of State US 50 or SR 49, given the distance and topography.

There are no existing onsite sources of light except for a street light pole at the corner of Latrobe Road and Suncast Lane. The developed sites to the north, west, and south all have building-attached and free-standing pole lighting. Lighting proposed for this site is subject to the County's standards for outdoor lighting. The proposed outdoor lighting is located, shielded, and directed so that no direct light falls outside the property line, or into the public right-of-way. The freestanding pole lighting is no more than 20 feet, meeting local requirements, and similar to pole lighting for adjacent uses.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less than Significant. Table 5.3-1 of the 2003 El Dorado County General Plan Draft EIR states that Latrobe Road is an important scenic viewpoint in all directions, from White Rock Road to the south County line, due to the views of rolling hills and occasional views of the Sacramento Valley. The Project site is located in an area designated as scenic along Latrobe Road (i.e., south of White Rock Road), which includes residential and industrial development including a recycling center, self-storage, EIR water treatment plant, and commercial and residential development. The proposed Project would be consistent with the surrounding uses of the project site, as a one three-story building and four single story buildings that would be constructed with prefinished metal panels, stucco-like finish, and stone veneer. Thus, while the portion of Latrobe Road where the project would be developed is within an important public scenic viewpoint in the El Dorado County General Plan EIR, the project would be of similar appearance to the existing uses in the immediate area. In addition, there would not be a substantial adverse effect on the view west of Latrobe Road due to the topography, vegetation, and existing substantial build-out of multi-story office and industrial buildings at the El Dorado Hills Business Park, which obscure the hills in the distance even without the proposed project. In addition, the design of the three-story building accounts for the site topography, which is highest along Latrobe Road and slopes down to the western portion of the site. The building is designed to appear as a two-story building along Latrobe Road. A scenic vista is generally considered to be a location from which the public can experience unique and exemplary high-quality views—typically from elevated vantage points that offer panoramic views. Latrobe Road adjacent to the project site is identified as an important scenic viewpoint for its views of rolling hills and occasional views of the Sacramento Valley to the west (El Dorado County 2014). However, the project site is not located within this scenic vista. The visual character of the site is that of undeveloped nonnative grasslands and its visual context is also greatly influenced by surrounding development (i.e., suburban and commercial buildings, roadways, and associated infrastructure).

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. As discussed in Section 3.1.1, the Project site is not within the viewshed of an officially designated or eligible state scenic highway. The Project would have no effect on scenic resources within a state scenic highway.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant. The Project site is in an urbanized area with a Research and Development with a Design Review – Combining Zone (RD-DC) zoning designation, which identifies areas for the location of high technology, non-polluting manufacturing plants, research and development facilities, corporate and industrial offices, and support

service facilities in a rural or campus-like setting. The proposed self-storage facility is a conditionally permitted use in the RD zone, adheres to many of the Research and Development (RD) Design Standards and would be similar to that of surrounding properties, including the self-storage facility across Latrobe Road, to the east, and would occur in accordance with County requirements, which would ensure that the visual character and quality of new development is compatible with surrounding land use.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant. As discussed in Section 3.1.1, existing sources of light and glare within the Project site are minimal, consisting of street lighting and lights from motor vehicles traveling on adjacent roadways. Surrounding sources of light and glare are from existing office and industrial buildings on adjacent parcels. The proposed project would introduce new light sources that would be similar to the surrounding, existing development in the area. The project would be subject to the County's outdoor lighting standards, which prohibit light trespass onto adjacent parcels and public rights-of-way and requires that outdoor lighting be located, shielded, and directed such that no direct light falls outside the property line or into the public right-of-way. With implementation of these standards, lighting for the site would be limited to the Project site and would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.				
In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

According to the California Department of Conservation (CDC) Farmland Mapping and Monitoring Program, most of the Project site is classified as Grazing Land (CDC 2026a). The remainder is Urban and Built-Up Land. The project site does not have current Wiliamson Act enrollment (CDC 2026b).

County lands that are suitable for timber production are typically designated Natural Resource (NR) on the General Plan Land Use map and zoned Timber Production Zone (TPZ) or Forest Resource (FR). The Project site is zoned RD-

DC and does not contain forestland or timberland. California Public Resource Code (PRC) Section 12220(g) defines forest as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." PRC Section 4526 defines *timberland* as land that "is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees." California Government Code Section 51104(g) defines a *timberland production zone* as "an area which has been zoned pursuant to Sections 51112 or 5113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses; and timber as trees maintained for eventual harvest for forest project purposes (not including nursery stock."

3.2.2 Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. As discussed in Section 3.2.1, there are no lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and there are no agricultural uses within the project site. Therefore, the project would not convert Important Farmland to non-agricultural use.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. As discussed in Section 3.2.1, the project site is not enrolled in a Williamson Act contract. The property is not zoned for agricultural use. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project site is not zoned as forest land, timberland, or Timberland Production and does not contain forest land or timberland as defined by the Public Resources Code or Government Code. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site does not support at least 10-percent native tree cover; hence, it would not meet the PRC Section 12220(g) definition of a forest. The project would not result in the loss of forest land or conversion of forest land to non-forest use.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project site does not contain agricultural or forest land. There is no designated Farmland or forest land in the vicinity of the project site. Project activities have no mechanism to affect Farmland or forest land distant from the project site. Therefore, the project would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use beyond the impact mechanisms evaluated above.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The project is located in the Mountain Counties Air Basin (MCAB), which comprises the western portion of El Dorado County, the middle portion of Placer County, and the entirety of Plumas, Sierra, Nevada, Amador, Calaveras, Tuolumne, and Mariposa counties. Ozone, respirable particulate matter (PM_{10}), and fine particles ($PM_{2.5}$) are the criteria air pollutants of primary concern in this analysis because of their nonattainment status with respect to the applicable National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) in the El Dorado County portion of the MCAB.

The El Dorado County Air Quality Management District (EDCAQMD) is the primary agency responsible for planning to attain and maintain the NAAQS and CAAQS in El Dorado County. EDCAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the State Implementation Plan (SIP) for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the Clean Air Act requirements to attain and maintain the NAAQS for ozone. The Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2023 Ozone Plan) was prepared by the five local air districts of the Sacramento Federal Non-attainment Area, with the support of the California Air Resources Board (CARB), and is an air quality attainment plan (AQAP) applicable to development in the Project area (CARB 2023).

EDCAQMD has developed a *Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts under CEQA* (EDCAQMD 2002) for use by lead agencies when preparing environmental documents. The guidance includes thresholds of significance for criteria pollutants and toxic air contaminants (TACs) and recommendations for conducting air quality analyses. The guidance also describes project screening criteria to identify projects that can be

classified as less than significant for one or more pollutants without the need for detailed calculations or modeling. According to EDCAQMD CEQA guidance (2002), general office has a screening cut-off point of 260,000 square feet and warehousing development has a screening cut-point of 825,000 square feet. Emission from operation of an office or a warehousing development that does not reach this cut-point are presumed to be less-than-significant and do not require air quality modeling. For construction exhaust emissions, impacts from projects that encompass 12 acres or less of ground that is being worked at one time are presumed to be less than significant, as long as standard construction emission conditions are in place (EDCAQMD 2002).

The proposed 260,503-square-foot self-storage project would not have emission levels as great as those of an office development or a warehousing development, because there is only one manager for the site who would regularly come to work, and once the units are leased, the customers would come on an occasional to infrequent basis. Therefore, detailed calculations and modeling of air quality for the Project are not required and impacts can be considered less than significant. Furthermore, the EDCAQMD reviewed the proposed Project application and confirmed that quantitative Air Quality Impact Analysis is not required for the Project (EDC 2026a). In their review of the self-storage application, the EDCAQMD identified the following standard conditions as potentially applicable to the Project:

- New Point or Stationary Source: Prior to construction/installation of any new point/stationary source emissions units (e.g., emergency standby engine greater than 50 HP, boilers/water heaters aggregating to a total input capacity of > 1 MMBH etc.), Authority to Construct applications (AC) shall be submitted to the EDCAQMD. Submittal of applications shall include facility diagram(s), equipment specifications and emissions estimates, and shall adhere to AQMD Rules 501, General Permit Requirements and 523, New Source Review.
- Fugitive Dust: A Fugitive Dust Mitigation Plan Application with appropriate fees shall be submitted to and approved by the EDCAQMD prior to start of project construction if during the course of the project a Grading Permit is required from the Building Department. Dust control measures shall comply with the requirements of AQMD Rule 223, Fugitive Dust – General Requirements and Rule 223.1 – Construction, Bulk Material Handling, Blasting, Other Earthmoving Activities and Trackout Prevention.
- Paving: Road construction shall adhere to AQMD Rule 224, Cutback and Emulsified Asphalt Paving Materials.
- Painting/Coating: The application of architectural coatings shall adhere to AQMD Rule 215, Architectural Coatings.
- Open Burning: Burning of waste vegetation that results from "Land Development Clearing" must be permitted through the AQMD. Only dry vegetative waste materials originating from the property may be disposed of using an open outdoor fire. Burning shall adhere to AQMD Rule 300, Open Burning.
- Construction Emissions: During construction, all self-propelled diesel-fueled engines greater than 25 horsepower shall be in compliance with the CARB Regulation for In-Use Off-Road Diesel Fueled Fleets (§ 2449 et al, title 13, article 4.8, chapter 9, California Code of Regulations). The full text of the regulation can be found at CARB's website here: https://ww2.arb.ca.gov/ourwork/topics/construction-earthmoving-equipment Questions on applicability should be directed to CARB at 1.866.634.3735. CARB is responsible for enforcement of this regulation.
- Portable Equipment: All portable combustion engine equipment with a rating of 50 horsepower or greater shall be registered with CARB. A copy of the current portable equipment registration shall be with said equipment. The applicant shall provide a complete list of heavy-duty diesel-fueled equipment to be used on this project, which includes the make, model, year of equipment, and daily hours of operations of each piece of equipment.
- Electric Vehicle Charging – Non-Residential: The project shall comply with the non-Residential Mandatory Measures identified in the 2022 Cal Green Building Code to facilitate future installation and use of EV chargers. Please refer to: https://www.dgs.ca.gov/BSC/CALGreen

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Emission source types and health effects are summarized in Table 3.3-1 and El Dorado County's attainment status for the CAAQS and the NAAQS are shown in Table 3.3-2.

Table 3.3-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2024.

Attainment Status

As shown in Table 3.3-2, El Dorado County is designated as nonattainment for ozone with respect to both the NAAQS (8-hour standard) and CAAQS (1-hour Classification and 8-hour standard), nonattainment for PM_{10} with respect to the CAAQS, and nonattainment for $PM_{2.5}$ with respect to the NAAQS.

Table 3.3-2 El Dorado County Attainment Status Designations

Pollutant	California Ambient Air Quality Standard	National Ambient Air Quality Standard
1-hour Ozone	Nonattainment	Revoked in 2005
8-hour Ozone	Nonattainment	Serious Nonattainment
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
24-hour Respirable Particulate Matter (PM_{10})	Nonattainment	Unclassified/Attainment

Pollutant	California Ambient Air Quality Standard	National Ambient Air Quality Standard
Annual PM_{10}	Nonattainment	
24-hour Fine Particulate Matter ($PM_{2.5}$)	—	Nonattainment
Annual $PM_{2.5}$	Unclassified	Nonattainment

Source: CARB 2024.

NATURALLY OCCURING ASBESTOS

An asbestos map of western El Dorado County prepared by the County shows the location of individual parcels and areas in the following four categories that either contain NOA or are considered to be subject to elevated risk of containing NOA (El Dorado County 2018):

- Found Area of NOA,
- Quarter Mile Buffer for Found Area of NOA,
- More Likely to Contain Asbestos, and
- Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line.

The Project site is not located in an area that contains NOA or is at an elevated risk of containing NOA (El Dorado County 2018).

3.3.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant. Applicable air quality attainment plans (AQAPs) (e.g. CARB 2023) for the region, including the MCAB portion of El Dorado County, were developed to bring the region into attainment as required by the federal and California Clean Air Acts. According to the EDCAQMD CEQA guidance (2002), projects are considered consistent with applicable air quality plans if they satisfy the following criteria:

- The project does not require a change in the existing land use designation, such as through a general plan amendment or rezone.
- The project does not exceed the "project alone" significance criteria.
- The project implements applicable emission reduction measures.
- The project complies with all applicable district rules and regulations.

The proposed Project would not require a change in existing land use or zoning for the Project site and would consist of development that was included in growth projections used in the formulation of applicable AQAPs. Potential short-term construction and long-term operation associated with future development would be required to implement all applicable emission reduction measures and comply with applicable EDCAQMD rules and regulations. The "Project Alone" significance criteria are based on use of an emissions model to estimate a project's long term operational emissions of reactive organic gases (ROG) and oxides of nitrogen (NOx). According to EDCAQMD guidance, the current project is below the size of projects requiring emission modeling and can be presumed to have less than significant impacts. This is supported by Tables 3.3-1 and 3.3-2, below, which indicate that neither the Project's construction nor operational emissions would exceed EDCAQMD thresholds. Because the Project would not conflict with or obstruct implementation of applicable air quality plans, impacts would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant. El Dorado County is currently designated as nonattainment with respect to the NAAQS and CAAQS for ozone, the NAAQS for $PM_{2.5}$, and the CAAQS for PM_{10}. The significance criteria for ozone are based on two directly emitted primary precursors of ozone, ROG and NOx. Per EDCAQMD's quantitative thresholds for air pollutants, a project that emits 82 pounds per day or more of either of these pollutants would be considered to have a significant adverse impact on air quality. For the other criteria pollutants, including PM_{10}, a project is considered to have a significant impact on air quality if it will cause or contribute significantly to a violation of the applicable national or state ambient air quality standard(s). (EDCAQMD 2002)

The EDCAQMD has advised that the current project is below the size of projects requiring modeling of anticipated emissions. Future construction-related activities for new development could result in project-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from construction activities (e.g., demolition, site preparation, grading, building construction, paving, and architectural coating), off-road equipment, material delivery, and worker commute trips. Additionally, long-term operational emissions associated with potential future new development at the Project site could include area sources (landscape equipment, consumer products, maintenance activities) and mobile sources (vehicle trips to the project site). Future development of the Project site (construction and operation) would be required to comply with applicable EDCAQMD conditions. Emissions resulting from future development would be negligible and would meet the County's screening criteria for projects that can be presumed to have less than significant construction and operational impacts without the need for detailed calculations or modeling.

However, despite the Project meeting the County's screening criteria, this analysis provides quantified estimates of the Project's construction and operational emissions for informational purposes. Table 3.3-3 provides a summary of the Project's estimated construction emissions; Table 3.3-4 provides a summary of the Project's estimated operational emissions.

Table 3.3-3 Project-generated Construction Emissions

Year	ROG (lb/day)	NO_X (lb/day)	CO (lb/day)	SO_x (lb/day)	PM_{10} (lb/day)[1]	$PM_{2.5}$ (lb/day)[1]
2027	4	50	46	<1	24	12
2028	18	19	29	<1	2	1
Maximum	**18**	**50**	**46**	**<1**	**24**	**12**
EDCAQMD threshold of significance	**82**	**82**	**NA**	**NA**	**NA**	**NA**
Threshold exceeded?	**No**	**No**	**NA**	**NA**	**NA**	**NA**

Notes: NA = not applicable (EDCAQMD has not adopted numerical thresholds for PM10 and PM2.5); ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; EDCAQMD = El Dorado County Air Quality Management District.

[1] To provide a conservative estimate of emissions, particulate matter (PM_{10} and $PM_{2.5}$) emissions estimates do not include the benefits associated with EDCAQMD's fugitive dust control measures under Rule 223-1. Thus, actual PM emissions will be less than those presented above, as compliance with Rule 223-1 is mandatory.

Source: Modeled by Ascent in 2026.

Table 3.3-4 Project-generated Operational Emissions (2029)

Emission Category	ROG (lbs/day)	NO_x (lbs/day)	CO (lbs/day)	SO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
Mobile[1]	0	0	0	0	0	0
Area	9	<1	11	<1	<1	<1
Energy	0	0	0	0	0	0
Total Daily Emissions	**9**	**2**	**13**	**<1**	**<1**	**<1**
EDCAQMD Mass Daily Significance Thresholds	**82**	**82**	**NA**	**NA**	**NA**	**NA**
Threshold Exceeded?	**No**	**No**	-	-	-	-

Notes: NA = not applicable (EDCAQMD has not adopted numerical thresholds for PM_{10} and $PM_{2.5}$); ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; EDCAQMD = El Dorado County Air Quality Management District.

[1] Per the findings of the VMT Assessment prepared for the Project, the Project would not result in a net increase in VMT (Kimley-Horn & Associates 2026). Therefore, the Project's operational mobile-source emissions would be similar to existing conditions.

Source: Modeled by Ascent in 2026.

As shown in Tables 3.3-3 and 3.3-4, neither the Project's construction nor operational emissions would exceed applicable thresholds and would therefore not contribute substantially to the region's nonattainment status.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the potential presence of individuals particularly sensitive to pollutants and the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptors to the Project site are existing residential subdivisions, the closest of which is at least 0.13 miles from Project site boundaries, across Latrobe Road, to the northeast.

Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, clearing, grading); paving; on-road truck travel; and other miscellaneous activities. On-road diesel-powered haul trucks traveling to and from the construction areas to deliver materials and equipment are less of a concern because they would not stay on the site for long periods of time and would thus not expose any one receptor to TACs for a prolonged period.

Residential receptors are typically of primary concern when discussing TAC exposure, as they would generally be exposed to project-generated TACs for extended periods of time. As identified above, the nearest sensitive receptors to the Project site are existing residential subdivisions approximately 0.13 miles from Project site boundaries. Construction activities would occur intermittently over an approximately one-year construction period. With regards to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to guidance from the California Office of Environmental Health Hazard Assessment's Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, a 30-year exposure duration is used for estimating cancer risk at residential land uses (OEHHA 2015). Given that the use of heavy-duty off-road diesel equipment would be limited to an overall construction phase

duration of approximately one year, with the most emissions-intensive activities being limited to the intermittent earth-moving construction phases, receptors would not be exposed to TAC emissions for an extended period of time.

The maximum daily emissions of exhaust $PM_{2.5}$ would be approximately 1 pound per day (see Attachment A). Studies show that diesel PM is highly dispersive and that concentrations of diesel PM decline with distance from the source (e.g., 500 feet from a freeway, the concentration of diesel PM decreases by 70 percent) (Roorda-Knape et al. 1999; Zhu et al. 2002, cited in CARB 2005: 9). Thus, considering the highly dispersive properties of diesel PM, the relatively low mass of diesel PM emissions that would be generated during project construction, the relatively short period during which diesel PM-emitting construction activity would take place in the same location near the same receptors, construction-related TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a hazard index of 1.0 or greater. The project does not propose operational sources of TACs (e.g., stationary sources such as refineries or diesel generators, or uses associated with high volumes of truck activity such as shipping centers) and would thus not have the potential to expose receptors to substantial operational TAC concentrations or considerably increase existing TAC emissions and exposure levels above baseline conditions. The project would be subject to EDCAQMD conditions and requirements and would not expose sensitive receptors to substantial pollutant concentrations. In addition, both the CDC and El Dorado County have identified the project site as an area that does not contain NOA. Therefore, future ground disturbance would not result in the potential for NOA to be mobilized and for particles to reach nearby parcels.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. Project development could result in the release of construction odors. Exhaust odors from diesel engines, as well as emissions associated with paving and the application of architectural coatings, may be considered offensive to some individuals. The generation of these odor emissions would vary greatly on a day-to-day basis depending on the type of construction activity. Application of architectural coatings would also be a source of offensive odors from ROG. However, because the application of architectural coatings would be required to comply with EDCAQMD Rule 205, Nuisance, potential construction odors would be minimized. Minor odors from the use of heavy-duty diesel equipment would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. Given the temporary nature of construction activities and the dispersion properties of diesel PM, implementing the project is not anticipated to result in an odor-related impact during the construction activities associated with implementation of the project.

With respect to operation, commercial uses are not land uses that typically generate excessive objectionable odors. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting

The Project site is a 12-acre parcel near the western edge of the Sierra Nevada Foothills with elevations ranging from approximately 525 to 575 feet above msl. The topography of the project site is generally level with several meta-volcanic stone outcroppings and includes imported fill dirt dumping and boulder piling; it has a general southwest aspect.

The Project site is in a commercial / industrial area, with most properties in the region being privately owned. Existing development on-site consists of a utility corridor that runs north/south through the eastern portion of the site as well as a landscape easement at the corner of Latrobe Road and Suncast Lane.

The USDA Natural Resource Conservation (NRCS) Service Web Soil Survey indicates that the project site consists of Argonaut gravelly loam (2 to 15% loams) and Auburn very rocky silt loam (2 to 30% slopes) (NRCS 2026).

The first biological survey was conducted on March 17, 2022 (Barnett Environmental 2022), and the second biological survey was completed on February 12, 2026 (Cox 2026). The Project site includes a Carson Creek tributary along the site's western boundary, supporting an approximately 50-foot-wide riparian corridor along its banks with dominant overstory species that include Freemont's cottonwood (*Populus freemontii*), interior live oak (*Quercus wislizeni*), and various species of willow (*Salix* sp). Slopes along the bank are moderately steep but flatten out quickly past the riparian edge.

The site's (non-riparian) grassland community comprises primarily of common ruderal grasses such as barley (*Hordeum marinum*), ryegrass (*Lolium* sp.), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barbed goatgrass (*Aegilops triumcialis*), rattlesnake grass (*Briza minor*), and wild oat (*Avena fatua*). Common herbaceous species on this site include black mustard (*Brassica nigra*), California horkelia (*Horkelia californica*), vetch (*Vicia villosa*), St. John's wort (*Hypericum perforatum*), brodiaea (*Brodiaea elegans*), fiddleneck (*Amsinckia* sp.), clover (*Trifolium repens*), milkthistle (*Silybum marianum*), and bindweed (*Convolvulus arvensis)*.

There is also a manmade, non-jurisdictional drainage of approximately 0.022 acres in the northern portion of the site. This feature carries stormwater westward, which enters the site from a culvert underneath Latrobe Road. This water does not connect directly to the Carson Creek tributary but appears to disperse into the ground and the surrounding area around 30 feet above the ordinary high water mark of the tributary (Cox 2026).

Wildlife species observed in the grasslands area during the first field survey (Barnett Environmental 2022) include European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), western kingbird (*Tyrannus verticalis*), mourning dove (*Zenaida macroura*), lesser goldfinch (*Carduelis psaltria*), western meadowlark (*Sturnella neglecta*), and black-tailed jackrabbit (*Lepus californicus*). Burrows of smaller rodents such as the California vole (*Microtus californicus*) and deer mouse (*Peromyscus maniculatus*) were also evident throughout.

During the second field survey (Cox 2026), observed wildlife during the site visit included mosquito fish (*Gambusia affinis*) and American bullfrog tadpoles (*Lithobates catesbeianus*) within the water of the Carson Creek Tributary. Hooded merganser (*Lophodytes cucullatus*) were observed utilizing the creek corridor, and other bird species observed on-site included Savannah sparrow (Passerculus sandwichensis), California scrub-jay (*Aphelocoma californica*), Nuttall's woodpecker (Dryobates nuttallii), acorn woodpecker (*Melanerpes formicivorus*), northern mockingbird *(Mimus polyglottos*), and American robin (*Turdus migratorius*).

3.4.2 Discussion

Information on sensitive biological resources previously recorded near the Project site was collected through a search of the following databases and background reports:

- California Natural Diversity Database (CNDDB) record search within the Shingle Springs, Pilot Hill, Coloma, Garden Valley, Placerville, Fiddletown, Latrobe, Folsom SE, and Clarksville US Geological Service (USGS) 7.5-minute quadrangles;
- California Native Plant Society, Rare Plant Inventory search of the Shingle Springs, Pilot Hill, Coloma, Garden Valley, Placerville, Fiddletown, Latrobe, Folsom SE, and Clarksville USGS 7.5-minute quadrangles;
- US Fish and Wildlife Service (USFWS) Information for Planning and Conservation project planning tool;
- USFWS National Wetlands Inventory website;
- USGS National Hydrography Dataset (USGS 2026);

- CDFW Terrestrial Connectivity Data and Resources (CDFW 2026);
- NRCS Web Soil Survey (NRCS 2026);
- Site-specific Wetland and Biological Resources Assessment (Barnett Environmental 2022) (Attachment B);
- Site-specific Biological Memo Addendum (Cox 2026) (Attachment B)
- Conservation and Open Space Element of the El Dorado County General Plan, as amended (EDC 2004a).

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies, which fall into one or more of the following categories:

- officially listed under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA) as endangered, threatened, or rare;
- a candidate for state or federal listing as endangered, threatened, or rare;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- species identified by CDFW as Species of Special Concern (SSC);
- species listed as Fully Protected under the California Fish and Game Code;
- species afforded protection under local planning documents; and
- taxa considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California rare plant rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern. The three relevant to the project are summarized as follows:
  - CRPR 1A - Plants presumed to be extinct in California;
  - CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere; and
  - CRPR 2 - Plants that are rare, threatened, or endangered in California but more common elsewhere.

Special-Status Plants

The Project Site's Carson Creek tributary may provide habitat for the following special-status species:

- Boggs Lake hedge-hyssop (*Gratiola heterosepala*) - This species is a CDFW Fully Endangered and CNPS 1B.2 plant species and could potentially be present along the Carson Creek tributary. The site offers marginal habitat for this species along the Carson Creek tributary. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 4.76 miles to the west/southwest in 1989. There was no sign of this species during the 2-2022 and 2026 field surveys. The potential for occurrence is very low.
- Legenere (*Legenere limosa*) - This species is a CNPS 1B.1 plant species and could potentially be present along the Carson Creek tributary. There is only one reported CNDDB occurrence within five miles of the Study Area, 4.9 miles to the southwest in 2015. There was no sign of this species during the 2022 and 2026 field visits. The potential for occurrence is very low.
- Sanford's arrowhead (*Sagittaria sanfordii*) - This species is a CNPS 1B.2 plant species and could potentially be present along the Carson Creek tributary. However, there is only one reported CNDDB occurrence within five

miles of the Study Area, 0.95 miles to the southwest in 2005. There was no sign of this species during the 2022 and 2026 site surveys. The potential for occurrence is very low.

The proposed development at the Project site could affect special-status plant species, if present in future disturbance areas. Future ground disturbance and/or vegetation removal associated with construction of buildings and driveways, installation of utilities, and other development could result in direct removal of special-status plants if they are present or in habitat alterations or plant damage that leads to the ultimate death of special-status plants or failure to successfully reproduce. Loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species; thus, this impact would be significant.

Mitigation Measures

Mitigation Measure 3.4-1: Special-Status Plant Protection

The following shall be incorporated into grading or building permit plans for the Project. Prior to future development at the Project site, the following measures shall be implemented to protect special-status plants:

- Prior to any vegetation clearing, ground disturbing, or construction activities within the Project site, a qualified botanist shall implement protocol-level botanical surveys during the blooming period for the special-status plants with potential to occur in the Project site. The survey shall be conducted during the blooming/identification period closest to the initiation of proposed vegetation clearing or ground disturbance.
- The surveys shall include all areas where potentially suitable habitat for special-status plant species would be removed or disturbed, plus a 25-foot buffer.
- Surveys shall follow methods from CDFW's *Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities* (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the Project region, including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/); and (5) be familiar with federal and state statutes and regulations related to plants and plant collecting.
- If no special-status plants are found, the botanist shall document the findings in a report to the applicant and El Dorado County, and no additional measures are required prior to proposed activities.
- If activities last for more than one year after completion of the initial botanical survey, the botanical surveys described above shall be repeated during the blooming period in subsequent years prior to additional vegetation clearing or ground disturbing activities.
- If special-status plants are found, the botanist shall clearly mark, map, and record their locations and establish a no-disturbance buffer to surround these locations, consisting of high visibility fencing with a minimum 4-foot-tall metal fence posts (such as t-posts). Fencing shall be maintained in place throughout the entirety of all ground disturbance or vegetation removal activities to ensure that the special-status plants are protected from equipment and vehicles, construction personnel, digging, trenching, placement of fill, storage of equipment or materials, and all other activities. All personnel involved in ground disturbance or vegetation removal work shall be informed of the requirement to avoid no-disturbance areas and shall be required to sign an acknowledgement that they have received these instructions and agree to adhere to all mitigation measures.
- If special-status plant species are found that cannot be avoided, appropriate mitigation shall be implemented and shall depend on the species and its protection status.
- For unavoidable impacts to special-status plants and are not listed under the federal ESA or CESA, various methods may be used to minimize or compensate for impacts on these species. Depending on the biology of the species affected and the potential for transplanting and reseeding, establishing populations through seed

collection or transplantation from the site that is to be affected may be implemented. Seeding or transplanting may be used to create new plant populations, or to enhance or expand existing populations. Potential mitigation sites could include suitable locations within or outside the project site. Mitigation could include, or consist of, expanding the affected population on the project site if only a portion of the population is to be removed and suitable habitat is available or can be created to expand the extent of the affected population into a new area. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value of the new population and habitat.

- If an affected plant species is protected under the federal ESA or CESA, coordination/consultation with USFWS and/or CDFW will be required. A site-specific mitigation strategy to compensate for loss of occupied habitat and individuals, consistent with the requirements of the federal ESA or CESA, will need to be developed and implemented. Actions to compensate for take of the federal ESA or CESA protected species may include preserving and enhancing existing populations and creation of new populations. Elements of the mitigation approach and success criteria required by USFWS or CDFW may include, but would not be limited to:
  - Identification of appropriate mitigation ratios for enhancement, expansion, and creation of target plant populations to fully compensate for direct loss of affected plant populations as well as temporal losses of functions and values.
  - Number and/or density of target plant individuals in the mitigation area.
  - A requirement that compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when plants reestablish annually for a set number of years with no human intervention, such as supplemental seeding.
  - If mitigation includes dedication of conservation easements, identifying responsible parties for long-term management, conservation easement holders, long-term management requirements, and funding sources as determined appropriate by the regulatory agency(ies).
- Documentation of the completion of the mitigation strategy and coordination/consultation process with USFWS or CDFW shall be provided to El Dorado County before commencement of any project activities that could adversely affect the protected plant species. Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT will include the following: discussion of the state and federal Endangered Species Act, the Clean Water Act, the Project's permits and CEQA documentation, and associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife that may be encountered on the project site; location of any avoidance, exclusion, or buffer areas; material to watch for that may indicate the presence of subsurface cultural resources; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species or potential cultural resources. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers will sign a form stating that they attended the training, understand the information presented and will comply with the regulations discussed.

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection

The following shall be incorporated into grading or building permit plans for the Project. The proposed development on the Project site must implement the following measures to protect aquatic resources and special-status wildlife and plant species that may be present within or near the aquatic resources:

- A minimum 35-foot-wide Limit of Disturbance (LOD) shall be established, as measured from the Ordinary High Water Mark, along the entire on-site length of the creek. Where slopes adjacent to the creek exceed thirty percent (30%), as shown in Figures 5 and 7 of Cox Biological Memo (2026), the LOD shall transition abruptly from 35 feet to 50 feet at the mapped 30% slope boundary, with no tapered transition. The 35-foot (or 50-foot, where triggered) LOD shall function as a no-grading / no-stockpile / no-outfall zone, with construction exclusion

fencing installed and maintained for the duration of construction. The exclusion fencing shall consist of 4-foot high-visibility orange construction fence staked at intervals no greater than 10 feet, with a silt fence (minimum 24-inch height, buried a minimum of 6 inches) attached at the base of the orange fencing to prevent protected species (e.g., northwestern pond turtle, amphibians, small mammals) from entering the active work area. "ENVIRONMENTALLY SENSITIVE AREA – DO NOT ENTER" signage (bilingual English/Spanish) shall be posted at every fence corner, gate, and access point, and at intervals no greater than 100 linear feet, with a minimum of two signs per fenced reach.

- All applicable permits shall be obtained prior to any disturbance of jurisdictional waters (i.e., Carson Creek tributary). All permit requirements shall be adhered to, including any potential compensatory mitigation that may be required.
- Authorization for dredge or fill of waters of the United States shall be secured from USACE and the regional water quality control board (RWQCB) through the permitting processes for Clean Water Act Sections 401 and 404. In association with Section 404, Section 401 Water Quality Certification from the Central Valley RWQCB shall be obtained. For impacts on waters of the state that are not also waters of the United States and are therefore not covered by the 401 Water Quality Certification, the applicant shall apply to the RWQCB for Waste Discharge Requirements. Any waters of the United States or waters of the state that are affected by the project shall be replaced on a no-net-loss basis in accordance with the applicable USACE and RWQCB permit requirements.
- Before commencing activity that may divert the natural flow or otherwise alter the bed or bank of any lake or stream on the Project site (i.e., the seasonal stream and any associated water bodies), the applicant shall notify CDFW, through issuance of a Lake and Streambed Alteration Notification (notification). If CDFW determines, based on the notification, that project activities trigger the need for a Lake and Streambed Alteration Agreement, the project applicant shall obtain an agreement from CDFW before the activity commences. The applicant shall conduct activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect fish and wildlife resources, when working within the bed or bank of waterways or in riparian habitats associated with those waterways.

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1 and 3.4-2, the potential loss of special-status plant species would be avoided to the maximum extent feasible. If avoidance isn't possible, impacts would be reduced to less-than-significant by requiring permitting and compliance with permit requirements, including compensation or mitigation for unavoidable impacts, as applicable, such that there is no net loss of these resources. Potential impacts would be reduced to **less than significant with mitigation**.

Special-Status Wildlife

A biological resources evaluation for special-status wildlife species was completed for the Project site in 2022 and then in 2026 (Barnett Environmental 2022, Cox 2026) (Attachment B). No special-status wildlife species were observed at the Project site during reconnaissance-level field surveys in 2022 or in 2026. Certain special-status species are not likely to be present on-site due to lack of any CNDDB occurrences within five miles and the absence during the two site surveys. This includes the following special-status wildlife species (Refer to Table 2 of the Barnett Wetland & Biological Resources Assessment [Barnett 2022]).

- California red-legged frog (*Rana draytonii*) – This species is Threatened under ESA and a CDFW Species of Special Concern (SSC). The potential for occurrence on-site is very low. While the Carson Creek tributary may provide possible habitat for this species, there are no reported CNDDB occurrences within five miles of the Study Area. And the biologists saw no sign of this species during the 2022 or 2026 site visits.
- Foothill yellow-legged frog (*Rana boylii*) – This species is Endangered under CESA and CDFW SSC. While the Carson Creek tributary may provide possible habitat for this species, there are no reported CNDDB occurrences within five miles of the Study Area. And the biologists saw no sign of this species during the 2022 or 2026 site surveys.

Based on species' habitat requirements and currently known ranges, the following special-status wildlife species could potentially occur at the Project site:

- Northwestern pond turtle (*Actinemys marmorata*) - This species is a CDFW SSC and could potentially be present at the Project site in permanent and intermittent waters of rivers and creeks. The Carson Creek tributary provides potential habitat for this species. There are four reported CNDDB occurrences within five miles of the Study Area. The most recent and the closest was in 2016, 1.74 miles to the south. There was no sign of this species during the 2022 or 2026 site surveys.
- Golden eagle (*Aquila chrysaetos*)- This species is Fully Protected and covered under the Bald and Golden Eagle Protection Act. It could potentially forage in grassland areas at the Project site. The Carson Creek tributary may provide potential foraging habitat for this species. There are two reported CNDDB occurrences within five miles of the Study Area. The most recent was in 2015, 2.9 miles to the northeast, and the closest was 2.3 miles to the northeast in 2014. There was no sign of this species during the 2022 and 2026 field visits.
- Tricolored blackbird (*Agelaius tricolor*) – This species is Threatened under CESA and a CDFW SSC and could potentially forage in the grasslands of the project site. The grasslands of the Study Area may provide foraging habitat for this species. There are ten reported CNDDB occurrences within five miles of the Study Area. The most recent observation was in 2016, 4.74 miles to the southwest, and the closest was in 2014, 0.692 miles to the south. The species was not present during the 2022 and 2026 site surveys.
- White-tailed kite (*Elanus leucurus*) – This species is Fully Protected and could potentially forage in the grasslands on-site. The grasslands at this location could provide potential foraging habitat for this species. There are three reported CNDDB occurrences within five miles of the Study Area. The most recent was 3.3 miles to the northwest in 2008, and the closest was 2.8 miles to the northwest in 1990. The species was not present during the 2022 and 2026 site surveys.
- Burrowing owl (*Athene cunicularia*) – This species is a CDFW SSC and could potentially be present due to the overgrown grasses and forbs on site, although disturbance due to Latrobe road may act as a deterrent for this species. Overgrown grasses and forbs on-site could provide habitat for this species, but the disturbance due to Latrobe road likely acts a deterrent for this species. There are three reported CNDDB occurrences within five miles of the Study Area. The most recent was in 2010, 2.87 miles to the southwest, and the closest was 0.1 miles to the west/southwest in 2006. There was no sign of this species during the 2022 and 2026 site surveys. The potential for occurrence on-site is very low (Refer to Table 2 of the Barnett Wetland & Biological Resources Assessment [Barnett 2022]).
- Swainson's hawk (*Buteo swainsoni*) – This species is Threatened under CESA and could potentially forage in the grassland habitat. The Study Area could provide possible foraging habitat for this species. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 2.76 miles to the southwest in 1982. There was no sign of this species during 2022 and 2026 site surveys.
- Crotch's bumble bee (*Bombus crotchii*)- This species is a candidate for listing as endangered under CESA. Annual grassland areas represent potentially suitable habitat for nesting, typically in underground cavities, for foraging where blooming flowers are present, and for overwintering in protected areas on the ground surface or underground. Potential habitat may be present on-site.
- Pallid bat (*Antrozous pallidus*)- Pallid bat is a CDFW SSC that uses grassland, shrubland, and woodland habitats, where it roosts in crevices, caves, mines, buildings, and tree hollows. Potential habitat may be present on-site.
- Western red bat (*Lasiurus frantzii*)-This CDFW SSC roosts primarily in trees, especially near open areas for foraging. Potential habitat may be present on-site.
- In addition to these species, other birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code could also nest on the Project site.

The proposed development at the Project site, including vegetation clearing, grading, and other ground disturbance, could affect these species, if present. Potential impacts to special-status wildlife species could include loss of habitat, direct injury to or mortality of individuals resulting from contact with construction equipment or vehicles, and reduced breeding productivity, either through direct destruction of an active nest or den, or through abandonment of an active breeding site due to human disturbance. Because of their potential to reduce population levels and contribute to a trend towards these species becoming threatened or endangered in the future, these impacts are considered significant.

Mitigation Measures

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection

Implement Mitigation Measure 3.4-2 above.

Mitigation Measure 3.4-3: Northwestern Pond Turtle Protection

The following shall be incorporated into grading or building permit plans for the Project. Prior to proposed development at the Project site, the following measures shall be implemented to protect Northwestern pond turtles:

- Worker environmental awareness training: Prior to start of ground disturbance, the Applicant shall conduct worker training covering Northwestern pond turtle identification, suitable habitat, avoidance requirements, and reporting/stop-work procedures.
- Preconstruction visual encounter surveys (within 3 days): A qualified biologist and/or herpetologist shall conduct one (1) preconstruction visual encounter survey for amphibians and reptiles within three (3) days prior to any construction activities that involve vegetation clearing, grading, trenching, or other ground disturbance within the project disturbance footprint and within the pond turtle survey area, defined as the area within 200 feet of the Ordinary High Water Mark of the Carson Creek tributary and extending 200 feet upstream and 200 feet downstream of active construction activities. I ground disturbance pauses for more than 14 consecutive days and then resumes, a repeat preconstruction survey shall be completed within the three (3) day window prior to resuming work. The survey results shall be in written format and shared with the County.
    - Surveys shall be conducted under suitable weather conditions and shall include a systematic search of the work area and adjacent suitable habitat, including creek bank margins, basking/cover features, and other microhabitats where turtles may occur.
    - If site conditions warrant (e.g., standing water, accessible margins), the biologist may incorporate limited aquatic visual checks (e.g., shoreline scanning and dipnet/visual checks where safe), consistent with a reconnaissance-level encounter survey.
- Avoidance and buffers: If a Northwestern pond turtle is observed, the biologist shall establish an exclusion buffer of 200 feet (adjustable based on site conditions) and direct the contractor to avoid the animal and associated travel corridor.
- Stop-work and notification: Work shall stop in the immediate area if an individual turtle is encountered until the biologist confirms the animal has moved out of the work zone or is safely excluded from the active work area.
- Exclusion fencing: Where ground disturbance occurs near suitable habitat during periods of turtle activity, temporary exclusion fencing shall be installed along the LOD (or other locations identified by the biologist) to prevent turtles from entering active work areas. The exclusion fencing shall consist of 4-foot high-visibility orange construction fence staked at intervals no greater than 10 feet, with a silt fence (minimum 24-inch height, buried a minimum of 6 inches) attached at the base of the orange fencing to prevent protected species (e.g., northwestern pond turtle, amphibians, small mammals) from entering the active work area. "ENVIRONMENTALLY SENSITIVE AREA – DO NOT ENTER" signage (bilingual English/Spanish) shall be posted at every fence corner, gate, and access point, and at intervals no greater than 100 linear feet, with a minimum of two signs per fenced reach.

- Relocation/handling (only if necessary): If relocation is necessary to avoid injury or mortality, relocation shall be conducted by a qualified biologist in compliance with applicable regulatory requirements and landowner permissions, and with CDFW coordination/authorization as required.
- Construction monitoring: A qualified biological monitor shall be available on-call and shall monitor initial ground-disturbing activities occurring within the pond turtle survey area (as defined above) to verify implementation of avoidance measures and to respond to any wildlife encounters. The survey results shall be in written format and shared with the County.

Mitigation Measure 3.4-4: Burrowing Owl Protection

The following shall be incorporated into grading or building permit plans for the Project. Prior to proposed development at the Project site, the project applicant shall implement the following measures for burrowing owls.

- If proposed activities are implemented in habitat suitable for burrowing owls, a qualified biologist shall conduct surveys for burrowing owls in areas of habitat suitable for the species on and within 1,640 feet (500 meters) of the project site. Inaccessible areas (e.g., adjacent private property) will not be surveyed directly, but the biologist may use binoculars or a spotting scope to survey these areas. A minimum of four surveys shall be conducted to determine whether burrowing owls occupy the site. Surveys shall be conducted according to Appendix D of the 2012 Staff Report on Burrowing Owl Mitigation prepared by the California Department of Fish and Game (now CDFW) (CDFG 2012), or any subsequent updated guidance. If feasible, at least one survey should be conducted between February 15 and April 15 and the remaining surveys should be conducted between April 15 and July 15, at least three weeks apart. Because burrowing owls may recolonize a site after only a few days, one of the surveys, or an additional survey, shall be conducted no less than 14 days before initiating ground disturbance activities to verify that take of burrowing owl would not occur.
- If no burrowing owls are found, the qualified biologist shall submit a report documenting the survey methods and results to lead agency, and no further mitigation shall be required.
- If a burrow occupied by a burrowing owl is found during the surveys, the project applicant shall establish and maintain a buffer around the occupied burrow and any identified satellite burrows (i.e., non-nesting burrows that burrowing owls use to escape predators or move young into after hatching) to prevent take of the burrowing owls.
    - During the non-breeding season (September 1 through January 31), the minimum buffer distance shall be 164 feet (50 m). During the breeding season (February 1 through August 31), the minimum buffer distance shall be increased to 1,640 feet (500 m).
    - The buffer may be adjusted if, in consultation with CDFW, a qualified biologist determines that an alternative buffer shall not result in take of burrowing owl adults, young, or eggs because of particular site features (e.g., topography, natural line-of-sight barriers), level of project disturbance, or other considerations. If the buffer is reduced, a qualified biologist shall monitor the behavior of the burrowing owls during all project activities within 1,640 feet of the burrow. If the owls are disturbed or agitated (e.g., vocalizations, bill snaps, fluffing feathers to increase body size appearance, drooping wings and rotating them forward, crouching and weaving back and forth) by the project activities, the biologist shall have the authority to halt the activities and re-establish a buffer consistent with the first bullet until the agitated behavior ceases and normal behavior resumes.
    - The buffer shall remain in place around the occupied burrow and associated satellite burrows until a qualified biologist has determined through noninvasive methods that the burrows are no longer occupied by burrowing owl. A previously occupied burrow will be considered unoccupied if surveys demonstrate that no owls have used the burrow for seven consecutive days.
    - Locations of burrowing owls detected during surveys shall be reported to the CNDDB.

- If implementation of a buffer to prevent take of burrowing owl is not feasible, the project applicant shall consult with CDFW and obtain an Incidental Take Permit (ITP) prior to commencing project related ground-disturbing activities. The impacts of taking burrowing owl shall be minimized and fully mitigated.
- The project applicant shall compensate for the loss of burrowing owl by establishing permanent protection and perpetual management on land that provides burrowing owl habitat. Habitat management lands for burrowing owl may be established by conservation easement or fee title or credits may be purchased from a CDFW-approved conservation or mitigation bank. The compensatory mitigation shall satisfy permit conditions and all other permit conditions shall be implemented.

Mitigation Measure 3.4-5: Nesting Bird and Raptor Protection

The following shall be incorporated into grading or building permit plans for the Project. Future development at the Project site shall implement the following measures to protect nesting birds and raptors:

- To minimize impacts to special-status bird species, raptors, and other native birds, potential future development activities (e.g., tree removal, vegetation clearing, ground disturbance, staging, construction of off-site improvements) shall be conducted during the nonbreeding season (approximately September 1 through January 31, as determined by a qualified biologist), when feasible. If project activities are conducted during the nonbreeding season, no further mitigation is required prior to the proposed activity.
- If development activities must commence during the avian nesting season (between February 1 and August 31), within 7 days prior to commencement of work a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused surveys for special-status birds, nesting raptors, and other native birds. Surveys shall be conducted in publicly accessible areas within 0.5 miles of the development activity area for golden eagle, 0.25 miles of the development activity area for white-tailed kite, 500 feet of the development activity area for other raptor species and special-status birds, and 50 feet of the development activity area for non-raptor common native bird nests.
- If no active bird nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and El Dorado County, and work may proceed. If at any time during the nesting season there is a lapse of two weeks or more with no work, a new survey for nesting birds shall be completed before work proceeds.
- If an active bird nest is found, a no-disturbance buffer shall be established around the nest site until the breeding season has ended or a qualified biologist has determined that the young have fledged or the nest is no longer active.
    - The size of the no-disturbance buffer shall be determined by the biologist, based on the sensitivity of the bird species, nesting chronology of the species, disturbance characteristics (type, extent, visibility, duration, and timing), existing ambient conditions, and other factors (e.g., screening from existing structures, vegetation, or topography), as determined by the biologist. Buffers typically shall be 0.5 miles for golden eagle, 0.25 miles for white-tailed kite, 500 feet for other raptors, 100 feet for non-raptor special-status bird species, and at least 20 feet for common non-raptor bird species. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment shall be unlikely to adversely affect the nest. Any buffer reduction for a special-status bird species shall require coordination with CDFW.
    - Daily monitoring of the nest by a qualified biologist during activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist.
- Documentation of compliance with this mitigation measure and any required coordination with CDFW shall be provided to El Dorado County before commencement of any project construction activities.

Mitigation Measure 3.4-6: Crotch's Bumblebee Protection

The following shall be incorporated into grading or building permit plans for the Project. Future development at the Project site shall implement the following measures to protect Crotch's bumblebee:

- Initial ground-disturbing work (e.g., grading, vegetation removal, staging) shall take place between August 15 and March 15 (i.e., outside of the Crotch's bumble bee colony active period, or the period when bumble bees are nesting underground and flying aboveground in the greatest numbers), if feasible, to avoid impacts on nesting Crotch's bumble bees during the colony active period.
- Regardless of the feasibility of the above limited operating period, and because Crotch's bumble bees may use the project site during other life history periods (e.g., overwintering), a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees shall conduct a habitat assessment and focused survey for Crotch's bumble bee before the start of any ground-disturbing activities. The survey shall be performed when Crotch's bumble bee is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present and shall follow the methods in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species* (CDFW 2023). The survey shall be conducted during the colony active period closest to the start of planned ground-disturbing activities to determine whether Crotch's bumble bees are present on the project site. The survey area shall include all habitat determined to be suitable for Crotch's bumble bees as determined during the habitat assessment. Survey results shall be submitted to the applicant and El Dorado County no less than 7 days before ground-disturbing work begins.
- The applicant shall submit a survey report to CDFW and El Dorado County within 1 month of survey completion and shall notify CDFW and El Dorado County within 24 hours if Crotch's bumble bees are detected, as described in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species* (CDFW 2023).
- If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:
  - Protective buffers shall be implemented around active nesting colonies until these sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies; however, the buffer shall be a minimum of 50 feet.
  - Work on the project site shall be avoided during the colony active period (April through August).
- If impacts on Crotch's bumble bee cannot be avoided, the applicant shall obtain an incidental take permit (ITP) from CDFW and shall implement all avoidance measures included in the ITP.
- Documentation of compliance with this mitigation measure and any required coordination with CDFW or acquisition of an ITP shall be provided to El Dorado County before commencement of any ground-disturbing work.

Mitigation Measure 3.4-7: Bat Protection

The following shall be incorporated into grading or building permit plans for the Project. Future development at the Project site must implement the following measures to protect bats:

- Within 14 days before any tree removal, a qualified biologist familiar with bats and bat ecology, and experienced in conducting bat surveys, shall conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) within 250 feet of the tree(s) to be removed.
- If no evidence of bat roosts is found, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and no further study shall be required.
- If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring)

or evening emergence surveys shall be used if deemed necessary to supplement survey efforts by the qualified biologist.

- A no-disturbance buffer of 250 feet shall be established by the qualified biologist around active maternity roosts or hibernacula of pallid bat or western red bat, as well as maternity roosts (i.e., considered to be a wildlife nursery) or winter hibernacula of other bat species that contain a substantial number of bats (i.e., more than a few roosting bats that would leave on their own during the day). Project activities shall not occur within this buffer until after the roosts no longer support juvenile bats or hibernating bats as determined by a qualified biologist.
- If roosts of pallid bat or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites. After the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day. For trees used as maternity roosts or hibernacula by non-special status bat species, the trees may be removed either when a qualified biologist determines that bats are no longer present, or using the exclusion and removal method described above for pallid bat and western red bat if bats are using the tree for a daytime roost, but it is no longer functioning as a maternity roost or hibernacula. Coordination with CDFW and compensatory measures, such as installation of bat boxes, will not be required for non-special status bat species.

Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any tree removal activities.

Significance after Mitigation

Implementation of Mitigation Measures 3.4-2 through 3.4-7 would reduce the potential impact on special-status wildlife by establishing fencing along delineated no-disturbance buffers along Carson Creek tributary, conducting preconstruction special-status wildlife surveys, and engaging in avoidance, mitigation, and monitoring measures. The sum of these measures would reduce potential impacts to **less than significant with mitigation**.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. The USGS National Hydrography Dataset identifies a perennial stream at the Project site. The location of this stream corresponds with a band of freshwater emergent wetland habitat mapped by the USFWS National Wetland Inventory. Approximately 1,271 feet of the approximately 6-foot-wide Carson Creek tributary supports an approximately 50-foot-wide corridor of riparian habitat along its banks.

The proposed development at the Project site could affect riparian habitat, if present in disturbance areas. As discussed under question a above, this potential impact would be reduced to less than significant through implementation of Mitigation Measure 3.4-2.

There are no other sensitive natural communities recorded at the Project site.

Mitigation Measures

Mitigation Measure 3.4-1: Special-Status Plant Protection
Implement Mitigation Measure 3.4-1 above.

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection
Implement Mitigation Measure 3.4-2 above.

Significance after Mitigation

Through implementation of Mitigation Measures 3.4-1 and 3.4-2, proposed development would avoid impacts to the riparian habitat through no-disturbance setbacks and fencing, identification, and avoidance or mitigation. The potential impacts would be **less than significant with mitigation.**

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant with Mitigation Incorporated. There are approximately 0.174 (7,588 square feet) acres of Waters of U.S./State present on the property (Barnett Environmental 2022).

The proposed development at the Project site could affect aquatic resources (i.e., Carson Creek tributary) if ground disturbance cannot be avoided at their location. This potential impact would be reduced to less than significant through Mitigation Measure 3.4-2. Potential water quality effects are discussed in Section 3.10, Hydrology and Water Quality.

Mitigation Measures

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection
Implement Mitigation Measure 3.4-2 above.

Significance after Mitigation

With implementation of Mitigation Measure 3.4-2, aquatic resources shall be avoided and protected wherever feasible. If avoidance isn't possible, impacts would be reduced to less-than-significant by requiring permitting and compliance with permit requirements, including compensation for unavoidable impacts, as applicable, such that there is no net loss of these resources. The impact would be **less than significant with mitigation.**

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation Incorporated. The Project site contains a Carson Creek tributary, which may be home to native resident or migratory fish or other species and could serve as a native resident or migratory wildlife corridor. The proposed development could potentially substantially interfere with the movement of animal species that live within or near the Carson Creek tributary.

Based on CDFW's *California Essential Habitat Connectivity* project, which includes an evaluation of areas of contiguous natural habitat blocks and linkages between these blocks in California, the Project site is located within an Essential Connectivity Area, Natural Landscape Block (defined as relatively natural habitat blocks that support native biodiversity) or Natural Areas Small, which are designated important blocks of habitat and movement corridors for wildlife. The Project site is not within the range of mule deer migration. Due to its location within an Essential Connectivity Area, portions of the Project site could contribute to overall wildlife habitat connectivity in the region and function as a dispersal corridor for wildlife. (CDFW 2026; Spencer et al. 2010).

The parcel is adjacent to developed uses, including Latrobe Road to the east, Suncast Lane to the south, and commercial / industrial buildings to the north and west, with a vacant parcel to the west. The portion of the site that would be dedicated to development would not substantially limit wildlife movement, as the neighboring parcels are built out. The Carson Creek tributary would continue to serve as a wildlife corridor given the continuity to parcels to the north. Common wildlife currently using the property would be expected to continue moving within and along Carson Creek tributary. Therefore, the proposed development could potentially have a significant impact on the function of the property as a wildlife movement corridor, if potential future development disturbs Carson Creek tributary and the adjoining riparian habitat.

The Project site has habitat that may function as a nursery site for native wildlife and bird species. As discussed above under question a), future development could have a significant effect on special-status birds and aquatic wildlife. However, mitigation measures, including preconstruction surveys and avoidance of active bird nests, Northwestern pond turtles, burrowing owls, Crotch's bumblebees, bats, and aquatic resources protection, will be implemented to reduce impacts to less than significant.

Mitigation Measures

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection
Implement Mitigation Measure 3.4-2 above.

Mitigation Measure 3.4-3: Northwestern Pond Turtle Protection
Implement Mitigation Measure 3.4-3 above.

Mitigation Measure 3.4-4: Burrowing Owl Protection
Implement Mitigation Measure 3.4-4 above.

Mitigation Measure 3.4-5: Nesting Bird and Raptor Protection
Implement Mitigation Measure 3.4-5 above.

Mitigation Measure 3.4-6: Crotch's Bumblebee Protection
Implement Mitigation Measure 3.4-6 above.

Mitigation Measure 3.4-7: Bat Protection
Implement Mitigation Measure 3.4-7 above.

Significance after Mitigation
With implementation of Mitigation Measures 3.4-2 through 3.4-7, avoidance setbacks will be established from Carson Creek tributary and preconstruction surveys for nesting birds and raptors, Northwestern pond turtles, burrowing owls, Crotch's bumblebees, and bats, will be conducted, and avoidance measures, as applicable, will be implemented. The impact would be **less than significant with mitigation.**

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant with Mitigation Incorporated. The adopted El Dorado County General Plan Conservation and Open Space Element discusses significant natural resources in the County, including aquatic habitat, special-status species, and sensitive habitats, and establishes goals, objectives, and policies related to these topics. Relevant policies from the El Dorado County General Plan include:

- **Objective 7.3.3:** Wetlands - Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

- **Policy 7.3.3.1:** For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features. For wetlands, the delineation shall be conducted using the US Army Corps of Engineers (USACE) Wetland Delineation Manual.
- **Policy 7.3.3.5**: Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.

- **Objective 7.3.4:** Drainage - Protection and utilization of natural drainage patterns.
  - **Policy 7.3.4.1**: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.
  - **Policy 7.3.4.2**: Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.
- **Objective 7.4.2:** Identify and Protect Resources - Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.
  - **Policy 7.4.2.5**: Setbacks from all rivers, streams, and lakes shall be included in the Zoning Ordinance for all ministerial and discretionary development projects.
  - **Policy 7.4.4.4**: For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County ORMP. The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in Policy 7.4.2.8.

Zoning Ordinance

Zoning Ordinance Section 130.30.050.F establishes requirements for the protection of wetlands and sensitive riparian habitat. The section applies to all ministerial or discretionary development proposed adjacent to any perennial streams, rivers or lakes, any intermittent streams, and wetlands, as shown on the latest 7.5 minute, 1:24,000 scale United States Geological Survey (USGS) Quadrangle maps, and any sensitive riparian habitat within the County. Pertinent standards are listed below.

- Use Regulations.
  - New ministerial and discretionary development shall avoid or minimize impacts to perennial streams, rivers or lakes, intermittent streams and wetlands, and any sensitive riparian habitat to the maximum extent practicable. Where avoidance and minimization are not feasible, the County shall make findings, based on documentation provided by the project proponent, that avoidance and minimization are infeasible.
  - Any new development which does not avoid impacts to wetlands and sensitive riparian habitat shall prepare and submit a Biological Resource Assessment identifying the location of all features regulated under this Section.
  - An applicant shall obtain all required permits from state or federal agencies having jurisdiction, and shall fully implement any mitigation program required as a condition of such permit. Where the area impacted is not within federal or state jurisdiction, the County shall require appropriate mitigation as recommended in a Biological Resource Assessment.
  - All discretionary development which has the potential to impact wetlands or sensitive riparian habitat shall require a Biological Resource Assessment to establish the area of avoidance and any buffers or setbacks required to reduce the impacts to a less than significant level. Where all impacts are not reasonably avoided, the biological resource evaluation shall identify mitigation measures that may be employed to reduce the

significant effects. These mitigation measures may include the requirement for compliance with the mitigation requirements of a state or federal permit, if required for the proposed development activity.

- Any setback or buffer required by this subsection shall be measured from the ordinary high water mark of a river, perennial or intermittent stream, and the ordinary high water mark or spillway elevation of a lake or reservoir.
- Except where otherwise provided in this section, filling, grading, excavating or obstructing streambeds is prohibited except where necessary for placement of storm drain and irrigation outflow structures approved by the County; placement of public and private utility lines; construction of bridges and connecting roadways; maintenance activities necessary to protect public health and safety; and creek restoration and improvement projects.

- Performance Standards.
  - Construction is prohibited in riparian buffers unless the necessary permits have been obtained from other responsible governmental agencies, and plans have been approved by the County.
  - Grading, alteration of the natural contours of the land, or cutting or alteration of natural vegetation that protects sensitive riparian habitat is prohibited within riparian areas except when such action is required for the construction of an approved development or structure, associated with an agricultural use utilizing approved BMP's, or a creek restoration and enhancement project, or necessary to protect public health and safety.
  - Coordination with Other Regulatory Agencies. All required permits from the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, regional water quality control board(s), California State Water Resources Control Board, or other applicable agencies, shall be obtained prior to commencement of construction. Evidence of approval or pending approval of any such permit shall be provided to the County, including all appropriate supporting materials, environmental documentation, and studies.

The proposed development could potentially impact wetlands and riparian habitat, if they are present in the area of disturbance.

Mitigation Measures

Mitigation Measure 3.4-1: Special-Status Plant Protection

Implement Mitigation Measure 3.4-1 above.

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection

Implement Mitigation Measure 3.4-2 above.

Mitigation Measure 3.4-3: Northwestern Pond Turtle Protection

Implement Mitigation Measure 3.4-3 above.

Mitigation Measure 3.4-4: Burrowing Owl Protection

Implement Mitigation Measure 3.4-4 above.

Mitigation Measure 3.4-5: Nesting Bird and Raptor Protection

Implement Mitigation Measure 3.4-5 above.

Mitigation Measure 3.4-6: Crotch's Bumblebee Protection

Implement Mitigation Measure 3.4-6 above.

Mitigation Measure 3.4-7: Bat Protection

Implement Mitigation Measure 3.4-7 above.

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1 through 3.4-7, future development will adhere to General Plan policies and Zoning Ordinance standards by avoiding impacts to special-status wildlife and plants, as well as, wetlands and riparian habitat, through the implementation of no-disturbance setbacks from Carson Creek tributary, fencing, pre-construction surveys, and mitigation, as applicable. The impact would be **less than significant with mitigation.**

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved state habitat conservation plans that apply to the Project site. Compliance with County conservation requirements is described under question e.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

A cultural resources records search was conducted in March 2022 by the North Central Information Center (NCIC) of the California Historical Resources Information System at California State University, Sacramento. The records search was conducted to determine if archaeological or historic cultural resources had been previously recorded within the Project site, the extent to which the Project site had been previously surveyed, and the number and type of cultural resources within a one-quarter-mile radius of the Project site.

The NCIC records search indicated that there are no prior cultural resource study reports covering the entirety of the Project site; there is one (1) cultural resources study report that covers a portion of the proposed project area. Eighteen (18) studies have been completed within the one-quarter-mile records search radius. According to the records search, four (4) cultural resources have been previously recorded outside of the Project site but within the one-quarter-mile search radius, consisting of two (2) recorded indigenous-period/ethnographic-period resources and two (2) recorded historic-period cultural resources.

This region is known as the ethnographic-period territory of the Nisenan, also called the Southern Maidu. The Project site is situated in the Sierra Nevada foothills about 330 feet west of Carson Creek. There is also an indigenous/ethnographic and historic period site that is in close proximity to the subject parcel. Given the extent of known cultural resources and the environmental setting, the NCIC determined that the site has a moderate potential for locating indigenous-period/ethnographic-period cultural resources in the immediate vicinity of the proposed Project area.

Historic map review indicates evidence of a nineteenth-century roads, house, dredge tailings, and mining features within one-quarter-mile of the Project Site. Given the extent of known cultural resources and patterns of local history, the NCIC determined that the Project Site has a moderate potential for locating historic-period cultural resources in the immediate vicinity of the Project site.

A cultural resources assessment was subsequently prepared, which included a field survey of the Project area (Peak and Associates 2024). There were no discoveries of historical or prehistoric features, artifacts, or other remains.

3.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than Significant. There are no historic resource records at the Project site. Given the mining history of the area, there is a moderate potential for locating historic-period cultural resources within the Project site.

The proposed development could affect historic resources if ground disturbance were to occur at the location of a previously undiscovered historic resource. However, any mining remnants discovered at the Project site are common for the area and have not been identified as historically significant (so can't have a significant impact because there are not any significant resources). Potential future disturbance to historic era mining remains at the Project site would not result in a substantial adverse change in the significance of a historic resource pursuant to Section 15064.5 and impacts would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant. According to the cultural resources assessment, there are no records of archaeological resources at the Project site (Peak and Associates 2024). Nevertheless, the possibility remains that archaeological materials could be encountered during potential future ground disturbing activities. This impact would be less than significant, because the County has included conditions of approval regarding the discovery of archaeological resources, which address appropriate treatment and proper care of archaeological resources.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less than Significant. Based on documentary research, no evidence suggests that any marked or un-marked human interments associated with periods before or after European arrival in the project area are present within or in the immediate vicinity of the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and PRC Section 5097.

These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the El Dorado County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, the Native American Heritage Center (NAHC) shall be notified within 24 hours, and the guidelines of NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated most likely descendants and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with California Health and Safety Code Sections 7050.5 and PRC Section 5097, would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☒	☐	☐

3.6.1 Environmental Setting

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources:

- Natural gas: Approximately 39% of California's net electricity generation is fueled by natural gas, and six out of ten California households use natural gas for home heating (EIA 2024).
- Petroleum: Petroleum products (gasoline, diesel, jet fuel), which are consumed almost exclusively by the transportation sector, account for vast majority of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2023). For the first time since 1953, transportation's reliance on petroleum dipped below 90 percent in 2020 during the COVID-19 pandemic. Transportation's petroleum dependence remained below 90 percent, at 89.7 percent in 2021 and 89.4 percent in 2022 (Bureau of Transportation Statistics 2023). California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states (EIA 2024).
- Electricity and renewables: In 2023, renewable resources, including hydroelectric power and small-scale solar power, supplied 54% of California's in-state electricity generation. (EIA 2024).
- Alternative fuels: Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, 2022 Scoping Plan).

Electricity and natural gas service in the County is provided by Pacific Gas and Electric Company.

3.6.2 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. The proposed development could result in a moderate increase in energy use compared to existing conditions from both construction and operational activities. Implementation of the Project would include construction of five (5) self-storage buildings and associated site improvements (e.g., creating pads, internal drive aisles and emergency vehicle access driveway; utilities; landscaping; lighting). During future construction, energy would be required to operate and maintain construction equipment and transport construction materials. The one-

time energy expenditure required to construct the physical buildings and associated infrastructure would be nonrecoverable. The energy needs for future construction would be temporary and would not require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Associated energy consumption would be typical of that associated with construction of self-storage buildings. Non-renewable energy would not be consumed in a wasteful, inefficient, and unnecessary manner when compared to other construction activity in the region. Table 3.6-1, below, provides a summary of the Project's estimated construction-related fuel consumption.

Table 3.6-1 Construction-related Fuel Consumption

Fuel Type	Consumption Quantity (gallons)
Diesel	73,037
Gasoline	6,674

Source: Modeled by Ascent in 2026.

The development at the Project site could result in a moderate increase in electricity consumption in the region relative to existing conditions. The project would not have any natural gas connections. In addition, the climate-controlled building will have roof-mounted solar panels to reduce electricity consumption. Operation of the project would be typical of self-storage uses requiring electricity for lighting/climate control. Per the findings of the VMT Assessment prepared for the Project, the Project would not result in a net increase in VMT (Kimley-Horn & Associates 2026). Therefore, the Project's mobile-source energy consumption would be similar to existing conditions.

Table 3.6-2, below, provides a summary of the Project's estimated operations-related energy consumption.

Table 3.6-2 Operations-related Fuel Consumption

Energy Type/Units	Consumption Quantity
Electricity (MWh)	4,680
Natural Gas (therms)	0

Notes: MWh = megawatt hours.

Source: Modeled by Ascent in 2026.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant with Mitigation. Relevant plans that pertain to the efficient use of energy include the Energy Efficiency Action Plan, which focuses on energy efficiency and building decarbonization and the 2022 Scoping Plan, which recommends project-level development prioritize VMT reduction, building decarbonization, and vehicle electrification (CEC 2022, CARB 2022). The proposed development has the potential to result in a moderate increase in consumption of energy resources during construction and operation of new buildings and facilities. The proposed development would be minor and would be required to comply with all applicable requirements for construction and operational efficiency. Further, as stated above, the project would be all-electric and would include rooftop solar installations. Thus, the project would not conflict with the building decarbonization goals of the Energy Efficiency Action Plan and the 2022 Scoping Plan. According to the VMT Assessment prepared for the Project, the Project would not result in a net increase in VMT (Kimley-Horn & Associates 2026). Thus, the Project's mobile-source energy consumption would be similar to existing conditions and would not conflict with the goals of the 2022 Scoping Plan to reduce fossil fuel consumption in the transportation sector. The Project would not, however, comply with the most stringent voluntary EV charging standards outlined in the CALGreen Code, as is recommended at the project level in Appendix D, "Local Actions," of the 2022 Scoping Plan (CARB 2022). Because the Project would not align with the vehicle electrification priority area outlined in Appendix D of the 2022 Scoping Plan, this impact would be significant.

Mitigation Measures

Mitigation Measure 3.6-1: Install CalGreen Tier 2-Compliant On-Site Electric Vehicle Charging Infrastructure

The following shall be incorporated into grading or building permit plans for the Project. Prior to the issuance of construction permits, the project applicant shall install the appropriate number of EV-capable spaces and EV charging stations (EVCS) for the project determined using Table A5.106.5.3.3 in Appendix A5, "Nonresidential Voluntary Measures," of Part 6 of the Title 24 California Building Code (CalGreen code) in effect at the time of Project construction.

Significance After Mitigation

With the application of Mitigation Measure 3.6-1, which would require that the Project comply with the CALGreen Code's criteria for Tier 2 EV chargers, the Project would align with all three priority reduction areas recommended for project-level development in Appendix D of the 2022 Scoping Plan. Thus, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and impacts would be **less than significant with mitigation.**

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

Based on mapping by California Geologic Survey, the nearest Alquist-Priolo Fault Zones are over 50 miles from the project site (CDC 2026b). According to the General Plan EIR, "no active faults have been identified in El Dorado

County. One fault, part of the Rescue Lineament–Bear Mountains fault zone, is classified as a well located late-Quaternary fault (CDC 1990); therefore, it represents the only potentially active fault in the county. It is part of the Foothill Fault Suture Zone system, which was considered inactive until a Richter scale magnitude 5.7 earthquake occurred near Oroville on August 1, 1975 (CDC 1990). All other faults located in El Dorado County are classified as pre-Quaternary (inactive)." (EDC 2003).

The geology of the site includes Salt Spring Slate and Copper Hill Volcanics, both of which are from the Late Jurassic age. (Gutierrez 2011, USGS 2026)

There are two (2) NRCS mapped soil units in the Project site:

- Auburn very rocky silt loam, 2 to 30 percent slopes
- Argonaut gravelly loam, 2 to 15 percent slopes

The Auburn soil unit consists of shallow to moderately deep, well drained soils formed in material weathered from amphibolite schist. The soil unit is approximately 25 to 50 cm deep to rock over 50 to 90 percent of the area. The rest of the area, 10 to 50 percent, is 50 to 70 cm to rock. The Argonaut soil unit consists of moderately deep, well drained soils that are formed in materials weathered from meta-andesite. Depth to bedrock is 20 to 40 inches (NRCS 2026).

The topography of the project site is hilly with a generally southwest facing aspect.

Groundwater depth is about 4 to 14 feet below ground surface according to groundwater measurements taken from a monitoring well located approximately 3.75 miles south of the site and at an elevation approximately 50 feet below the project site (Terracon 2024).

Based on the soil characteristics, topography, depth to bedrock, and distance to active faults, there is low potential for geologic hazards from landslides, steep areas, rock falls, mud flows, liquefaction, and expansive soils at the project site.

3.7.2 Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No Impact. As discussed in Section 3.7.1, the project site is not within an Alquist-Priolo Fault Zone and is located over 50 miles west of the nearest Alquist-Priolo Fault Zones (CDC 2026b). Therefore, the project would not cause substantial adverse effects involving rupture of a known earthquake fault.

ii) Strong seismic ground shaking?

Less than Significant As described in Section 3.7.1, the project site is not within an active fault zone; however, earthquakes in the region have potential to cause seismic ground shaking of moderate to low severity at the project site. Potential future construction and building design would be subject to the County's Building Code (Title 110-Buildings and Construction), which incorporates the California Building Code and International Building Code standards. Potential future development at the Project site would involve limited excavation that would not alter seismic and fault conditions in the region and would not create new seismic events or exacerbate existing seismic hazards. Therefore, the project would not cause substantial adverse effects from strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant. Liquefaction is the process in which water is combined with unconsolidated soils, generally from ground motion and pressure, which causes the soils to behave like a liquid (e.g., like "quicksand"). Liquefaction potential is determined from a variety of factors, including soil type, soil density, depth to the groundwater table, and the duration and intensity of ground shaking. Liquefaction is most likely to occur in deposits of water-saturated alluvium or areas of considerable artificial fill. Other types of seismic-related ground failure include ground lurching, differential settlement, and lateral spreading.

The potential for liquefaction and other seismic-related ground failure is considered low on the project site because of the age of the site geology (Terracon 2024). The site is not located within a State Designated Seismic Hazard Zone for liquefaction (CDC 2026b). Therefore, the project would not cause substantial adverse effects from seismic-related ground failure, including liquefaction.

iv) Landslides?

Less than Significant. Rock strength and slope are important factors in landslide susceptibility. The site terrain consists of Jurassic age Copper Hill Volcanic deposits with low to moderate slope class and moderate to high rock strength. According to the Susceptibility to Deep-Seated Landslides in California Map, most areas throughout western portion of El Dorado County, are at low to moderate risk for landslides (Wills et al. 2011). The potential for landslides to occur is considered low given the lack of steep slopes within or adjacent to the project site. Therefore, the project would not cause substantial adverse effects from landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant. Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur in the project site where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses.

The proposed development would include ground disturbance, such as excavation, grading, and trenching, which could increase the potential for erosion to occur. The proposed development will occur in compliance with the grading, erosion, and sediment control requirements outlined in Section 110.14 of the County municipal code. Potential future development would also comply with all applicable EDCAQMD fugitive dust requirements. Furthermore, because the proposed development would result in a disturbance area of more than 1 acre, it would be required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The Construction General Permit requires the development of a storm water pollution prevention plan (SWPPP), with best management practices (BMPs) for erosion and sediment control. The Construction General Permit is issued and enforced by the appropriate RWQCB. The Project site is within the jurisdiction of the Central Valley RWQCB and the project would be subject to all existing regulations associated with the protection of water quality, including erosion and sediment control.

Potential future development would comply with standard requirements for erosion control, thereby preventing substantial soil erosion or the loss of topsoil. Impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant. Refer to Sections 3.7.2(a)(iii) and (iv) above. Very loose clayey sand was noted near the surface in some of the soil borings conducted as part of the geotechnical report (Terracon 2024). Also, the area is known to have seasonal perched groundwater above the very dense / cemented soil. The soils may become unstable when

disturbed. The Project is required to meet all state and local building codes, which includes stabilizing potentially unstable soils through excavation and/or stabilization techniques, including aerating/drying the soil, applying a composite section of aggregate base and geogrid, or applying chemical stabilization by using high calcium quick lime or Portland cement. The potential for on- or off-site landslides, lateral spreading, liquefaction, or collapse is considered low. The proposed development at the Project site would not cause soils to become and remain unstable.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less than Significant. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. Expansive soils are present on the site, and in accordance with state and local building codes, the geotechnical report provides recommended engineering designs and construction practices to mitigate the effects of soil shrinkage and expansion (Terracon 2024). There would be a less-than-significant impact.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project will be served by public water and sewer. No septic systems would serve the proposed Project.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. No fossil-bearing strata or paleontological sites have been previously recorded or observed within or near the project site. Because fossils typically occur in sedimentary rocks, which are not present within the Project site, potential future ground disturbance is unlikely to encounter a paleontological resource. The Project would not destroy a unique paleontological resource or site or unique geologic feature.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014).

Climate change is a global problem. GHGs are global pollutants because even local GHG emissions contribute to global impacts. GHGs have long atmospheric lifetimes (one to several thousand years) and persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration (IPCC 2013).

GREENHOUSE GAS EMISSION SOURCES AND SINKS

As discussed previously, GHG emissions are attributable in large part to human activities. CO_2 is the main byproduct of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, organic material decomposition in landfills, and the burning of forest fires. Nitrous oxide emissions are largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water); respectively, these are the two of the most common processes for removing CO_2 from the atmosphere.

STATEWIDE GHG EMISSION TARGETS AND THE CLIMATE CHANGE SCOPING PLAN

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). EO S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets align with the scientifically established levels needed globally to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UN 2015).

CARB adopted the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 16, 2022, which traces the State's pathway to achieve its carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045. It identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste) to achieve these goals. (CARB 2022)

Unlike thresholds of significance established for criteria air pollutants in the EDCAQMD's CEQA guidance (EDCAQMD 2002), the EDCAQMD has not adopted GHG emissions thresholds for land use development projects. In the absence of County adopted thresholds, El Dorado County AQMD recommends using the adopted thresholds of other lead agencies, which are based on consistency with the goals of AB 32. Since climate change is a global problem and the location of the individual source of GHG emissions is somewhat irrelevant, it's appropriate to use thresholds established by other jurisdictions as a basis for impact significance determinations. Projects exceeding these thresholds would have a potentially significant impact and be required to mitigate those impacts to a less than significant level. Until the County adopts a CAP consistent with CEQA Guidelines Section 15183.5, and/or establishes GHG thresholds, the El Dorado County AQMD has recommended the use of thresholds adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD). The thresholds of significance established by SMAQMD, and used by EDCAQMD, were developed to identify emissions levels for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. Per the SMAQMD Thresholds of Significance Table, most recently updated in 2020, SMAQMD applies a 1,100 metric tons of carbon dioxide equivalent per year ($MTCO_2e/yr$) per year screening threshold for construction-related GHG emissions. Regarding operational emissions, SMAQMD recommends a tiered approach to evaluate the significance of operational emissions. All land use development projects are required to implement the following Tier 1 best management practices (BMPs) prior to the comparison of a project's operational GHG emissions to the 1,100 $MTCO_2e$ threshold:

- BMP 1 – Projects shall be designed and constructed without natural gas infrastructure.
- BMP 2 – Projects shall meet the current CALGreen Tier 2 standards, except all EV-capable spaces shall instead be EV-ready.

Projects can be screened out by comparing their attributes to SMAQMD's operational screening levels table (equivalent to 1,100 MTCO2e/year) after including the implementation of Tier 1 BMPs. If the project emissions exceed the screening level or the project fails to implement Tier 1 BMPs, the project must implement Tier 2 BMP 3, which consists of reducing the project's vehicle miles traveled (VMT) to meet the following requirements of the standards developed by the Governor's Office of Planning and Research (OPR) pursuant to SB 743 (see Chapter 10, "Transportation," for a summary of this bill):

- BMP 3 – Achieve the following VMT reduction targets compared to a county regional average:
    - 15 percent for residential projects,
    - 15 percent for office projects, and

- no net increase in VMT for retail projects.

Projects that cannot meet the Tier 2 BMP 3 requirements must implement all feasible mitigation to reduce emissions.

Using SMAQMD's guidance, the Project would result in a cumulatively significant climate change effect if it would:

- generate construction emissions exceeding 1,100 MTCO2e per year for any year of construction;
- fail to implement SMAQMD's Tier 1 BMPs (i.e., the prohibition on natural gas infrastructure and meeting the current CALGreen Tier 2 Standards for EV charging);
- generate operational emissions exceeding 1,100 $MTCO_2e$ per year following the implementation SMAQMD's Tier 1 BMPs; or
- fail to achieve the VMT reduction targets set forth by OPR under SB 743 if the project continues to exceed 1,100 $MTCO_2e$ per year following the application of Tier 1 BMPs.

As described in its GHG threshold justification report, SMAQMD developed these thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA to align with the statewide GHG emissions target of 40 percent below 1990 levels by 2030 with the passage of SB 32 for land use development projects (SMAQMD 2020). These design features are similar to those recommended to local governments within Appendix D of the Scoping Plan; which identifies building decarbonization, VMT reductions, and the electrification of the mobile source sector as key priority areas that local jurisdictions can target to do their "fair share" in assisting the state in meeting its long-term goal of carbon neutrality by 2045 (CARB 2022). Thus, the following analysis of the Project's consistency with SMAQMD's GHG thresholds also serves the purpose of evaluating the Project's consistency with the 2022 Scoping Plan.

3.8.2 Discussion

a, b) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment of conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant With Mitigation. As stated above, the EDCAQMD recommends the use of thresholds adopted by the SMAQMD for assessing the significance of GHG emissions from individual projects. The SMAQMD thresholds were developed to identify emissions levels for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. Table 3.8-1, below, provides a summary of the Project's estimated construction GHG emissions and compares them to SMAQMD's annual 1,100 $MTCO_2e$ threshold.

Table 3.8-1 Project-generated Construction GHG Emissions

Year	Annual $MTCO_2e$
2027	705
2028	99
SMAQMD Threshold	1,100
Threshold Exceeded?	**No**

Notes: MTCO2e = metric tons of carbon dioxide equivalent; EDCAQMD = El Dorado County Air Quality Management District.

Source: Modeled by Ascent in 2026.

As shown in Table 3.8-1, the Project's construction-generated GHG emissions would not exceed SMAQMD's annual 1,100 $MTCO_2e$ threshold.

As stated above, SMAQMD guidance applies an operational 1,100 $MTCO_2e$/yr threshold to projects that first demonstrate compliance with SMAQMD's Tier 1 BMPs, which entail designing projects to be fully electric and

providing the necessary EV charging infrastructure to meet the Tier 2 voluntary standards of the current CALGreen Code for EV-capable spaces. The Project would be designed to be fully electric and would therefore comply with SMAQMD's Tier 1 BMP to eliminate building natural gas from project design. Regarding EV chargers, the Project would not be designed to include the type and quantity of EV chargers to comply with the CALGreen Code's Tier 2 voluntary requirements. Thus, the Project would conflict with SMAQMD's Tier 1 BMPs. This impact would be significant.

Mitigation Measures

Implement Mitigation Measure 3.6-1: Install CalGreen Tier 2-Compliant On-Site Electric Vehicle Charging Infrastructure.

Significance After Mitigation

With the application of Mitigation Measure 3.6-1, which would require that the Project comply with the CALGreen Code's criteria for Tier 2 EV chargers, the Project would comply with SMAQMD's Tier 1 BMPs and can therefore be compared to SMAQMD's 1,100 $MTCO_2e$ numerical threshold. Table 3.8-2, below, provides a summary of the Project's estimated operational GHG emissions and compares them to SMAQMD's annual 1,100 $MTCO_2e$ threshold.

Table 3.8-2 Project-generated Operational GHG Emissions

Sector	Annual $MTCO_2e$
Mobile[1]	0
Area	4
Energy	721
Water	<1
Waste	76
Refrigerants	<1
Total	**802**
SMAQMD Threshold	**1,100**
Threshold Exceeded?	**No**

Notes: MTCO2e = metric tons of carbon dioxide equivalent; EDCAQMD = El Dorado County Air Quality Management District.

[1] Per the findings of the VMT Assessment prepared for the Project, the Project would not result in a net increase in VMT (Kimley-Horn & Associates 2026). Therefore, the Project's operational mobile-source emissions would be similar to existing conditions.

Source: Modeled by Ascent in 2026.

As shown in Table 3.8-2, the Project's operational GHG emissions would not exceed SMAQMD's annual 1,100 $MTCO_2e$ threshold.

As discussed above, SMAQMD's operational GHG thresholds were developed in consideration of nearer-term statewide GHG reduction goals (i.e., a 40 percent reduction from the 1990 statewide inventory by 2030) that are intended to maintain progress toward the GHG reduction goal of the 2022 Scoping Plan (i.e., achieve an 85 percent reduction in 1990 emissions by 2045). Because the Project would be consistent with SMAQMD's GHG thresholds, the Project would not conflict with GHG reduction goals of the 2022 Scoping Plan.

For these reasons, impacts would be **less than significant with mitigation.**

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3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Environmental Setting

There are no hazardous materials sites at or near the Project site (DTSC 2026, *also CA Water Board Geotracker*). There are existing or proposed schools within 0.25 miles of the project site. The nearest school is Gift of Kids Daycare and Preschool, located at 5130 Golden Foothill Pkwy, El Dorado Hills, CA 95762, approximately 750 feet northwest of the project site, and Golden Hills School, located at 1060 Suncast Ln, El Dorado Hills, CA 95762, approximately 1,430 feet southwest of the project site. Cameron Park Airport is the closest public airport, located approximately 5 miles northeast of the project site.

The project and surrounding vicinity are subject to the County's 2022 General Plan Safety Element Update (EDC 2004a), as well as the El Dorado County Multi-Jurisdictional Hazard Mitigation Plan (EDCHMP) (EDCSO 2024), which provides guidance for the County's response in emergency situations, including wildfire and emergency evacuation.

According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is in a local responsibility area (LRA) within a moderate fire hazard severity zone (CAL FIRE 2026). The Project is also in the service area for the El Dorado Hills Fire Department (EDHFD), which provides fire and initial emergency medical services to the Project site. Wildfire risks are discussed further in Section 3.20. Development at the Project site would be subject to vegetation management requirements of El Dorado County Municipal Code Chapter 8.09 addressing Hazardous Vegetation and Defensible Space.

3.9.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant. A hazardous material is defined as any material that due to its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health or to the environment if released. The proposed development at the Project site may involve the temporary use, transport, and disposal of hazardous materials in the form of inorganic and organic chemicals, solvents, paints, oil, gasoline, cleansers. However, any future construction-related transport, use, and disposal of hazardous materials would be temporary and all materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Furthermore, any emissions from the use of such materials would be temporary in nature and localized to the Project site.

Land uses that involve the routine transport, use, and disposal of hazardous materials include but are not limited to manufacturing plants, dry cleaning facilities, gas stations, agricultural properties, recycling centers, refineries, and shipyards. Proposed development at the Project site would not involve activities that involve the routine transport, use, or disposal of hazardous materials. Any hazardous materials needed for ongoing maintenance and landscaping activities (e.g., solvents, paints, and pesticides) would be used and stored in small quantities typical of commercial land uses. Therefore, the Project would not create a significant hazard to the public or the environment.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than Significant. Refer to Section 3.9.2(a) above. Proposed construction at the Project site could involve the temporary use, transport, and disposal of hazardous materials. This would be required to comply with federal, state, and County regulations relating to control of hazardous materials. Compliance with these regulations would reduce the likelihood of accidents and risks associated with release of hazardous materials. Potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

Once operational, this self storage land use would not involve activities that often give rise to concerns regarding hazardous materials. Therefore, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant. As discussed in Section 3.9.1, even though there is an existing school within 0.25 miles of the project site, the project would be required to comply with federal, state, and County regulations relating to control of hazardous materials. Therefore, the project would have a less than significant impact related to the emission or handling of hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Project site is not located near any hazardous materials sites on the California Department of Toxic Substance Control (DTSC) EnviroStor or SWQCB's Geotracker database (DTSC 2026, SWRCB 2026). The Project site is not located at a site that is mapped as likely to contain naturally occurring asbestos (NOA) (CDC 2000). There would be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The Cameron Park Airport is the closest public airport, located approximately 5 miles northeast of the project site. The Project site is not within the airport's land use plan. There would be no impact.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The project was reviewed by the County Transportation Department, EL Dorado County Sheriff's Office, and El Dorado Hills Fire Department. El Dorado Hills Fire Department has provided conditions for this project, which includes requirements such as but not limited to emergency water supply, fire apparatus access roads and driveways, gates, and fire protection planning. The proposed project would not impair implementation of any emergency response plan or emergency evacuation plan. Impacts would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less than Significant. The project is located in the Local Responsibility Area and has a moderate hazard fire severity zone. El Dorado Hills Fire Department has included a condition of approval that a wildfire protection plan be prepared to determine the acceptability of fire protection and life safety measures designed to mitigate wildfire hazards prior to the issuance of the building permit. The Wildland Fire Safety Plan is intended to reduce the risk of life and property loss by minimizing wildfire intensity and enabling local fire services to respond effectively through measures focused on the use of fire safe construction materials, vegetation management, and access for evacuation and emergency vehicles. With implementation of the Project site's Wildland Fire Safe Plan, as well as compliance with existing laws and regulation, such as El Dorado County Municipal Code Chapter 8.09 addressing Hazardous Vegetation and Defensible Space, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.10.1 Environmental Setting

The USGS National Hydrography Dataset identifies a perennial stream at the Project site. The location of this stream corresponds with a band of freshwater emergent wetland habitat mapped by the USFWS National Wetland Inventory. Approximately 1,271 feet of the approximately 6-foot wide Carson Creek tributary supports an approximately 50-foot-wide corridor of riparian habitat along its banks. There are approximately 0.174 (7,588 square feet) acres of Waters of U.S./State are present on the property (Barnett Environmental 2022).

According to the USGS Watershed Boundary Dataset, the project site is in the Upper Cosumnes Subbasin and the Carson Creek Watershed (USGS 2026). The USGS National Hydrography Dataset identifies Carson Creek tributary, a perennial stream, at the Project site, which flows south to north through the Project site's western edge. The location of this stream corresponds with a band of freshwater emergent wetland habitat mapped by the USFWS National Wetland Inventory. Approximately 1,271 feet of the approximately 6-foot wide Carson Creek tributary supports an approximately 50-foot-wide corridor of riparian habitat along its banks. There are approximately 0.174 (7,588 square feet) acres of Waters of U.S./State are present on the property (Barnett Environmental 2022).

The Carson Creek tributary joins the Carson Creek south of Suncast Lane, and Carson Creek joins with Deer Creek and then the Cosumnes River, which is located approximately 11 miles southwest of the Project site.

According to groundwater basin maps developed under the California Department of Water Resources' (DWR) Sustainable Groundwater Management Act (SGMA), the Project site is located within a non-basin area, which refers to areas that are not part of a defined groundwater basin (DWR 2026a).

According to the Federal Emergency Management Agency, the project site is within an area of minimal flood hazard (FEMA 2008). The project site is not within a tsunami hazard area (CDC 2024c) and is not in proximity to an enclosed body of water that is susceptible to seiche.

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant. The proposed development could adversely affect surface or groundwater quality through ground disturbance, such as excavation, grading, and trenching; as well as construction of new areas of impervious surfaces.

The Project site is under the jurisdiction of the Central Valley RWQCB. The Central Valley RWQCB adopted the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) in 1975, with the current fifth edition approved in 2019, as amended in 2020. The purpose of the Basin Plan is to designate beneficial uses of waters within the Sacramento and San Joaquin River basins, establish water quality objectives to protect those beneficial uses, and implement a program needed to achieve those objectives. The Basin Plan establishes water quality standards for both surface and ground waters (Central Valley RWQCB 2019).

Discretionary projects must comply with the County's West Slope Development and Redevelopment Standards (EDC 2024c), the storm water management plan (SWMP) for Western El Dorado County (EDC 2004b), and the County's Grading, Erosion, and Sediment Control Ordinance (EDC 2013). Any future development with a disturbance area of more than 1 acre (43,560 sq. ft.) would also be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2022-0057-DWQ). Through compliance with all applicable regulations and requirements, potential future development at the Project site would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

The unincorporated portion of El Dorado County's west slope, including the Project site, is subject to the State of California's Phase II NPDES municipal separate storm sewer system (MS4) permit. As such, the County's post-construction water quality requirements follow those outlined in Section E.12 of the MS4 permit. The proposed development at the Project site will be required to comply with applicable NPDES permit requirements, which may include treatment of stormwater prior to the water leaving the site or entering a waterbody, submittal of an Erosion and Sediment Control Plan, and/or other requirements, as applicable. Through compliance with all applicable standard County and State regulations, impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The Project is located in a non-basin area and will not entail drilling a well but will utilize El Dorado Irrigation District water service. Therefore, proposed development would result in less-than-significant impacts to groundwater supplies and groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less than Significant. The proposed development will include ground disturbance, such as excavation, grading, and trenching, and could increase the potential for erosion to occur. As described under Question a), potential future development would be required to comply with all applicable regulations and requirements, including the NPDES MS4 permit; the County SWMP, the County Grading, Erosion, and Sediment Control Ordinance; and, because disturbance is greater than 1 acre, the Construction General Permit issued by the Central Valley RWQCB, which would require a SWPPP with BMPs to control erosion. With adherence to applicable rules and regulations and implementation of BMPs, the proposed development would result in a less than significant impact related to erosion and siltation.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less than Significant. The proposed development at the Project site would introduce new impervious surfaces; however, this would be subject to applicable stormwater infrastructure requirements for treating stormwater runoff and allowing it to percolate back into the soil. Therefore, proposed development would not increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than Significant. Proposed development at the Project site would introduce new impervious surfaces and ground disturbance, such as excavation, grading, and trenching. However, proposed development would be required to comply with all applicable regulations related to stormwater drainage and water quality protection. Therefore, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

iv) Impede or redirect flood flows?

Less than Significant. As discussed in Section 3.10.1, the project site is within an area of minimal flood hazard (FEMA 2008). Therefore, any development on the Project site would not result in impacts related to impeding or redirecting flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As discussed in Section 3.10.1, the Project site is not within a flood hazard zone, a tsunami hazard area, or in proximity to an enclosed body of water that is susceptible to seiche (FEMA 2008; CDC 2024c). Therefore, the

proposed project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The Project site is located in a non-basin area and is not subject to a sustainable groundwater management plan. Proposed development at the Project site would be required to comply with requirements of the NPDES MS4 permit, the County SWMP, the County Grading, Erosion, and Sediment Control Ordinance, and the Construction General Permit issued by the Central Valley RWQCB. During potential future development, BMPs would be implemented during construction activities to prevent stormwater contamination, control sedimentation, and erosion, and comply with stormwater discharge requirements. Because the proposed development would comply with applicable rules and regulations and implementation of BMPs, the project would not conflict with or obstruct implementation of the Basin Plan.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.11.1 Environmental Setting

The Project site is in the El Dorado Hills Business Park, along Latrobe Road, in the unincorporated community of El Dorado Hills, in El Dorado County, near the western edge of the Sierra Nevada foothills. The Project site consists of annual grass lands and the Carson Creek tributary with a landscape easement at the corner of Latrobe Road and Suncast Lane. The parcel is adjoined by Latrobe Road to the east and Suncast Lane to the south. Most of the adjoining properties are developed industrial or commercial buildings.

The project site is designated as Research and Development (RD) in the County General Plan Land Use Diagram (EDC 2004a). As described in the County's General Plan Land Use Element, the RD designation establishes areas for high technology, non-polluting manufacturing plants, research and development facilities, corporate/industrial offices, and support service facilities in a rural or campus-like setting.

The zoning designation for the Project is Research and Development with a Design Review-Community Combining Zone (RD-DC) which identifies lands that are suitable for the location of high technology, non-polluting manufacturing plants, research and development facilities, corporate and industrial offices, and support service facilities in a rural or campus-like setting, such as a business park environment.

Zoning Ordinance Section 130.27.050.D states that structures and site development with a research and development zone that is combined with a (-DC) designation are exempt from the design review permit process, as required by the Zoning Ordinance if the RD zone includes architectural style and site design requirements that are more specific in nature and satisfy the intent of the design review concept. The County does have Research and Development Design Standards that were adopted December 15, 2015.

3.11.2 Discussion

a) Physically divide an established community?

No Impact. As described in Section 3.11.1, the project site consists of a research and development parcel surrounded by similar research and development parcels. The project would be compatible with surrounding land uses and would not include physical features that would restrict access to neighboring communities. Therefore, the project would not physically divide an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact with Mitigation. As discussed in Section 3.11.1, the project site is designated for RD land uses and is zoned RD-DC. The proposed project is consistent with the objectives of these designations, including development standards. The proposed project would not conflict with any land use plan, policy, or regulation. The proposed development at the parcel could conflict with County requirements through the potential for significant impacts to wetlands and riparian habitat and certain special-status wildlife and plants.

However, proposed development at the Project site would be required to conform to all applicable land use and zoning regulations, all applicable policies from the County's General Plan, and state and federal law, as described under Mitigation Measures 3.4-1 through 3.4-5.

Additionally, the following permits or approvals may be required for future development of new parcels at the Project site:

- approval of improvement plans, indicating that the appropriate County agencies have reviewed and approved the project's connection to public utilities and roadways;
- a grading permit, according to the requirements in the County's Grading, Erosion, and Sediment Control Ordinance (County Code Section 110.14); and
- a building permit, which requires payment of various fees (e.g., schools, roads), site plan review, and presentation of various other permits obtained from County departments relating to traffic, public services, and safety.

Because the proposed project, with implementation of mitigation measures, would be consistent with existing land use and zoning designations for the project site, all applicable policies from the County's General Plan, and state and federal law, and because proposed development at the Project site would also be required to conform to applicable policies and regulations, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measure 3.4-1: Special-Status Plant Protection
Implement Mitigation Measure 3.4-1 above.

Mitigation Measure 3.4-2: Aquatic Species and Resources Protection
Implement Mitigation Measure 3.4-2 above.

Mitigation Measure 3.4-3: Northwestern Pond Turtle Protection
Implement Mitigation Measure 3.4-3 above.

Mitigation Measure 3.4-4: Burrowing Owl Protection
Implement Mitigation Measure 3.4-4 above.

Mitigation Measure 3.4-5: Nesting Bird and Raptor Protection
Implement Mitigation Measure 3.4-5 above.

Mitigation Measure 3.4-6: Crotch's Bumblebee Protection
Implement Mitigation Measure 3.4-6 above.

Mitigation Measure 3.4-7: Bat Protection
Implement Mitigation Measure 3.4-7 above.

Significance after Mitigation

Implementation of Mitigation Measures 3.4-1 through 3.4-7 will ensure that proposed development does not conflict with General Plan and Zoning Ordinance policies and requirements that protect riparian habitat, wetlands, and special-status species. With these measures in place, impacts would be reduced to less than significant levels.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting

The California Surface Mining and Reclamation Act of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ) according to the known or inferred mineral potential of that land. Areas classified as MRZ-2 include areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. The process is based solely on geology, without regard to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral resource potential of land is recognized by local government decision-makers and considered before land-use decisions that could preclude mining are made. However, according to the El Dorado County General Plan EIR, the project site is not within an area classified as MRZ-2 (EDC 2003).

3.12.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Project is not on lands designated as an important mineral resources site. Because the Project site is not known to support significant mineral deposits, the proposed development would not result in the loss of availability of a known mineral resource of regional value or of a locally important mineral resource recovery site delineated on a land use plan.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

See response in item (a) above.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Environmental Setting

ACOUSTIC FUNDAMENTALS

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. Definitions of acoustical terms used in this section are provided in Table 3.13-1.

Table 3.13-1 Acoustic Term Definitions

Term	Definition
Noise	Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted.
Decibel (dB)	Sound levels are measured using the decibel scale, developed to relate to the range of human hearing. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.
A-weighted decibel (dBA)	The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed, identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound levels are used to predict community response to noise from the environment,

Term	Definition
	including noise from transportation and stationary sources, and are expressed as A-weighted decibels. All sound levels discussed in this section are A-weighted decibels unless otherwise noted.
Equivalent Noise Level (L_{eq})	The average noise level during a specified time period; that is, the equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
Maximum Noise Level (L_{max})	The highest instantaneous noise level during a specified time period.

Source: Caltrans 2013.

Noise Generation and Attenuation

Noise can be generated by many sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates at a rate of 6 dB for each doubling of distance from a point source. Noise from a line source, such as a road or highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Noise attenuation from ground absorption and reflective wave canceling provides additional attenuation associated with geometric spreading. For acoustically absorptive sites such as soft dirt, grass, or scattered bushes and trees, additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuation rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric conditions such as wind speed, wind direction, turbulence, temperature gradients, and humidity also alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a barrier (e.g., topographic feature, intervening building, and dense vegetation) between the source and the receptor can provide substantial attenuation of noise levels at the receiver. Natural (e.g., berms, hills, and dense vegetation) and human-made features (e.g., buildings and walls) may function as noise barriers.

To provide some context to noise levels described throughout this section, common sources of noise and associated noise levels are presented in Table 3.13-2.

Table 3.13-2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, garbage disposal at 3 feet
Noisy urban area, gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, normal speech at 3 feet
Commercial area, heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library, bedroom at night, concert hall (background)
Quiet rural nighttime	20	Broadcast/recording studio
	10	

Threshold of human hearing	0	Threshold of human hearing

Notes: dB = A-weighted decibels; mph = miles per hour

Source: Caltrans 2013.

Effects of Noise on Humans

Exposure to excessive noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Non-auditory behavioral effects of noise on humans are primarily subjective effects such as annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning.

EXISTING NOISE SOURCES AND LEVELS

As a vacant site within the El Dorado Hills Business Park, the Project site has low levels of ambient noise, with existing noise sources consisting primarily of vehicular traffic along Latrobe Road, Suncast Lane, and other nearby roadways.

NOISE- AND VIBRATION-SENSITIVE LAND USES AND RECEPTORS

Noise- and vibration-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, places where a quiet setting is an essential element of the intended purpose (e.g., schools and libraries), and historic buildings that could sustain structural damage due to vibration. The project is in an existing business park. Noise- and vibration-sensitive receptors in the vicinity of the project area include nearby schools. The closest sensitive receptors are the nearby schools, the closest of which is approximately 750 feet from the project site boundary.

AIRPORTS AND PRIVATE AIRSTRIPS

The nearest public airport is the Cameron Airpark, located approximately 5 miles northeast of the Project site.

COUNTY NOISE STANDARDS

County Municipal Code Chapter 9.16 (Noise) and Chapter 130.37 (Noise Standards) establish standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses, in compliance with General Plan Goal 6.5 (Acceptable Noise Levels). Section 6.5 of the General Plan identifies noise criteria for various stationary and transportation noise sources, including those related to construction.

3.13.2 Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less than Significant. The proposed development at the Project site could result in temporary or permanent increases in ambient noise levels. Proposed construction could result in temporary increased noise levels from equipment use, construction activities, and increased vehicle trips to the site. Construction-related noise sources could include both mobile and stationary on-site equipment (e.g., dozers, loaders, generators). Construction noise would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the day during construction.

County code exempts certain activities, including construction, from noise standards as long as the construction occurs between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, and between the hours of 8:00 a.m. and 5:00 p.m. on weekends and on federally-recognized holidays.

Construction activities would occur within the timeframe identified by the County's noise ordinance when construction noise is exempt from noise standards. Thus, the project would not generate a substantial temporary increase in ambient noise levels in excess of allowable standards in the vicinity of the project.

The proposed development at the Project site could also result in increased operational noise, from both traffic and stationary sources. With potential future additional customers and employees at the Project site, there could be an increase in average daily traffic volumes and associated increases in traffic noise levels along affected roadway segments near the site. However, given the nature of the use and the amount of potential future development at the site (up to 1,194 units, all of which would be enclosed in buildings), the increase in traffic volume and associated noise would be less than significant and would not result in a substantial noise increase due to new vehicle trips.

The loudest operational noise from non-transportation sources is often generated by onsite mechanical equipment such as HVAC equipment. Noise levels generated from HVAC equipment vary substantially depending on unit efficiency, size, and location. Generally, HVAC equipment generates noise levels of 60 dBA at 6 meters (19.6 feet). The proposed locations of HVAC equipment would not be near sensitive receptors and would be further screened by fencing and landscaping. Noise from potential new HVAC equipment serving the Project development is expected to attenuate to below the County's noise standard before reaching the nearest sensitive receptor.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant. The proposed project would not affect groundborne vibration or groundborne noise levels. Potential future site development may use ground vibration–intensive activities, such as pile driving or blasting, although pieces of equipment that generate lower levels of ground vibration, such as dozers and pavers, may be more often used during construction. However, any potential vibration would be minor and temporary and would not result in structural damage or human annoyance.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest public airport is the Cameron Airpark, located approximately 5 miles northeast of the Project site. The Project is not located within the Cameron Park Airport Influence Area (EDC 2012). Given these circumstances, the project would not expose people working in the project area to airport-related noise in excess of County standards.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

According to the County General Plan Housing Element 2021-2029 Update, the 2020 population of the unincorporated areas of El Dorado County was 159,722 residents, which was an increase of 7 percent from the 2010 population. Projections estimate that the population will increase an additional 8.8 percent between 2020 and 2030, with an average growth of 0.9 percent per year. In 2018 there were approximately 68,094 housing units in the unincorporated portions of the County. Of these, 56,478 units (82.9 percent) were occupied, and 11,616 units (17.1 percent) were vacant. However, 8,946 units (13.1 percent) were classified as vacant for seasonal, recreational, or occasional uses only. (EDC 2022)

3.14.2 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. The proposed project consists of 1,194 self-storage units comprising 260,387 square feet on a 12-acre parcel. The proposed development would not result in an increase in population in the area. The self-storage use would have limited employees and would be an amenity for existing residential and commercial customers in the vicinity and would not induce substantial unplanned population growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project is on a vacant site and proposes self storage, so it would not displace people or housing, necessitating the construction of replacement housing elsewhere.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.15.1 Environmental Setting

The El Dorado Hills Fire Department (EDHFD) provides all fire and initial emergency medical services to the Project site. EDHFD's service response area encompasses approximately 78.8 square miles, including the unincorporated communities of El Dorado Hills and Latrobe. EDHFD has five (5) staffed stations with twenty-one (21) fire suppression personnel. EDHFPD owns five (5) fire engines, one (1) ladder truck, and two (2) ambulance units. (EDHFD 2025). The nearest station, Station 87, is located at 4680 Golden Foothill Parkway, approximately 2 minutes (less than a mile) from the Project site.

The El Dorado County Sheriff's Office (EDCSO) provides law enforcement services in the unincorporated portions of the County, including the Project site. EDCSO is made up of the South Lake Tahoe patrol and the West Slope patrol, operating out of Placerville, which serves the Project site.

The project site is within the boundaries of Buckeye Union School District and El Dorado Union High School District. Buckeye Union School District enrolls approximately 4,200 students at two middle schools and five elementary schools and a TK-8th grade District-operated Charter Montessori (BUSD 2026). The El Dorado Union High School District serves 6,561 students at four high schools and three alternative schools (EDUHSD 2026).

Nearby public parks and open space/recreation areas include Heritage Park, approximately 1.4 miles southwest of the Project site, and Valley View Sports Park, approximately 1.3 miles southeast of the Project site.

3.15.2 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less than Significant. Potential future development resulting from the proposed Project would not result in an increase in population in the Project area. The Project site would continue to be served by the EDHFD. Building permits associated with potential future development at the Project site would require permits from County departments relating to traffic, public services, and safety and would require payment of various fees (e.g., schools, roads). Through this process, the potential future development would contribute its proportional amount to support public services operations. The potential addition of Project development would not significantly affect the response time, service ratios, or performance of the EDHFD or any other public service. The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection and emergency services facilities.

Police protection?

Less than Significant. The Project site would continue to receive law enforcement services from the EDCSO West Slope patrol, operating out of Placerville. Potential future development on the Project site would consist of 1,194 self-storage units. This would not significantly increase the demand for EDCSO services or affect EDCSO service ratios and response times. The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities.

Schools?

No Impact. The proposed commercial Project would not generate potential population growth. Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities.

Parks?

No Impact. The commercial Project would not generate population growth. Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public park facilities.

Other public facilities?

No Impact. Given that the Project will not generate population growth, it would not cause a substantial adverse physical impacts associated with the provision of new or physically altered public facilities.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				

a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b)	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting

Section 3.15.1 includes a summary of the existing public parks and recreational facilities in the vicinity of the project site.

3.16.2 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. As discussed in Section 3.15.2(a), nearby public parks and recreational facilities include Heritage Park and Valley View Sports Park. The Project would not result in potential future population growth in the Project Area. The Project would not cause substantial physical deterioration of existing parks or recreational facilities to occur or be accelerated.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The Project does not include recreational facilities and would not require the construction or expansion of recreational facilities. There would be no impact.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

EXISTING TRANSPORTATION NETWORK

Access to the Project site is provided by the surrounding roadway network, which includes U.S. Highway 50, White Rock Road, Latrobe Road, and Suncast Lane (Figures 2-1 and 2-2). U.S. 50 is an east-west freeway that traverses the United States from Sacramento, California to Ocean City, Maryland. In the vicinity of the Project, US 50 passes through the communities of El Dorado Hills and Latrobe. White Rock Road is a principal arterial road that runs east to west, contains two lanes in each direction, and supports a Class II Bike Route. Latrobe Road is a minor arterial road that runs north to south. North of White Rock Road, Latrobe Road is a six-lane roadway, and south of White Rock Road, Latrobe Road is a four-lane roadway. Latrobe Road also supports a Class II Bike Route. Suncast Lane is a local road that runs east to west and contains one lane in each direction.

El Dorado Transit provides public transportation for the western slope of El Dorado County. The Sacramento Commuter route, which runs every twenty minutes from 5:10 am to 7:10 am on weekdays, extends up to the intersection between Post Street and White Rock Road, with the closest stop approximately 0.9 miles northeast of the Project site. This route provides service from Placerville to Sacramento.

REGULATORY SETTING

Senate Bill 743

SB 743, passed in 2013, required OPR to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) which provides guidance for vehicle miles traveled (VMT) analysis. The Office of

Administrative Law approved the updated State CEQA Guidelines and lead agencies had an opt-in period until July 1, 2020 to implement the updated guidelines as they related to VMT. As of July 1, 2020, implementation of Section 15064.3 of the updated CEQA Guidelines is required statewide.

The OPR Technical Advisory states that lead agencies may screen out VMT using project size, maps, transit availability, and provision of affordable housing. Many agencies use these screening thresholds to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study.

Regional Transportation Planning

El Dorado County is within the boundaries of the Sacramento Area Council of Governments, which oversees the regional transportation plan for the Sacramento region, updated every four years in collaboration with local governments. The El Dorado County Transportation Commission is the Regional Transportation Planning Agency for the west slope of El Dorado County and is responsible for coordinating the regional transportation efforts on the western slope of El Dorado County and the City of Placerville.

The County developed and adopted the El Dorado County and City of Placerville SB 743 Implementation Plan (EDCTC 2019), which shifted the evaluation of transportation impacts from LOS to VMT and describes the CEQA analysis for transportation impacts that shall be used in the County. The El Dorado County Board of Supervisors Resolution 141-2020 adopting VMT thresholds of significance for transportation impacts under CEQA (EDC 2020) includes the following screening criteria to identify projects that are presumed to have less than significant impacts:

- Projects that generate or attract less than 100 trips per day, consistent with OPR's determination of projects that generate or attract fewer than 110 trips per day and further reduced to 100 to remain consistent with the existing threshold in General Plan Policy TC-Xe;
- Projects that are within 0.5 miles of either a major transit stop, as defined in Public Resources Code Section 21064.3, or a high quality transit corridor, as defined in Public Resources Section 21155. Consistent with CEQA Guidelines section 15064.3(b)(l) and OPR's conclusions in its Technical Advisory; and
- 100% affordable residential development, including moderate, low, and very low categories as defined in the Regional Housing Needs Assessment, consistent with OPR's conclusions in its Technical Advisory.

3.17.2 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant. The Project entails the development of a commercial self storage site, which would consist of 260,503 gross square feet of self-storage and 218,750 net square feet of rentable area. The self-storage facility would have 1,194 self-storage units, which would generate 395 daily passenger car equivalent trips (PCE).

A Traffic Impact Study (TIS) and VMT Assessment (Attachment C) were prepared by Kimley Horn in accordance with El Dorado County's Transportation Impact Study Guidelines, analyzing potential trip generation during AM and PM peak hours and potential impacts to VMT.

The Traffic Impact Study that was conducted for the Project analyzed the following intersections, project driveways, roadway segments for the following six scenarios:

Intersections:

1. El Dorado Hills Boulevard at US Highway 50 Westbound Ramps / Saratoga Way
2. Latrobe Road at US Highway 50 Eastbound Ramps
3. Latrobe Road at Town Center Boulevard
4. Latrobe Road at White Rock Road
5. Latrobe Road at Golden Foothill Parkway / Monte Verde Drive

6. Latrobe Road at Suncast Lane

Project Driveways:

1. Project Driveway at Suncast Lane

Roadway Segments:

1. Latrobe Road, between White Rock Road and Golden Foothill Parkway
2. Latrobe Road, between Golden Foothill Parkway and Suncast Lane

Scenarios:

- Existing (2025) Conditions
- Existing (2025) plus Proposed Project Conditions
- Near-Term (2035) Conditions
- Near-Term (2035) plus Proposed Project Conditions
- Cumulative (2045) Conditions
- Cumulative (2045) plus Proposed Project Conditions

The proposed Project, which is located in the El Dorado Hills Community Region, would be consistent and compliant with the County's General Plan's Level of Service (LOS) Requirements, which requires that the LOS for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions (General Plan Policy TC-Xd). Because no LOS deficiency was identified as a result of this Project, no improvements would be required. Therefore, the Project would not conflict with the programs, plans, policies, or ordinances addressing the circulation system.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less than Significant. The Project entails the development of a commercial self storage site, which would consist of 260,503 gross square feet of self-storage and 218,750 net square feet of rentable area. The self-storage facility would have 1,194 self-storage units, which would generate 395 daily passenger car equivalent trips (PCE). Based on the number of PCE trips, a traffic impact study was required to evaluate impacts to VMT. It does not qualify as a small project, defined as those that generate fewer than 100 daily trips, which would automatically be considered less than significant. The project is considered a customer-based non-residential land use.

The proposed development includes a traditional self-storage component that functions as a locally serving land use and an oversized storage component that attracts a broader geographic customer base. Because the Project would not increase self-storage demand but would instead shorten or maintain driving distances for residents and businesses by providing additional local capacity, the local storage component of the Project would not generate an increase in VMT. The oversized self-storage component would be large enough to accommodate recreational vehicles (RVs), boats, and similar equipment. The proposed project would not be considered a regional-serving retail development, because similar uses already exist in the area, located near or along the US Highway corridor. The proposed project would again not generate additional self-storage demand but would add capacity to the supply and decrease average driving distances for residents and businesses. Because the project offers storage units that would be closer than existing options for nearby residents, there would be a reduction in travel distances for customers, and thus no net increase in VMT under SB 743. The proposed oversized storage component would also not result in an increase in VMT. Potential VMT impacts would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant. The proposed project, as conditioned, would require an encroachment permit from the County DOT for each point of access, and proposed driveways and emergency vehicle access roads serving each proposed

parcel would be constructed in compliance with the County Design and Improvements Standards Manual. The Project would not create dangerous intersections, would not include incompatible uses, and would not substantially increase hazards.

d) Result in inadequate emergency access?

Less than Significant. The proposed Project, as conditioned, would comply with County Design and Improvements Standards Manual, County Regional Fire Protection Standards (EDHFD 2024), and California Fire Code (CFC) requirements, including those that define standards for providing emergency access, including fire apparatus access. The surrounding roadways provide adequate circulation and access for emergency response and the project would not significantly modify any roads or otherwise affect emergency response times. Therefore, the project would not result in inadequate emergency access.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?		☒ Yes		☐ No
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

3.18.1 Environmental Setting

AB 52, signed by Governor Edmund G. Brown, Jr., in September 2014, established a new class of resources under CEQA: "tribal cultural resources." AB 52, as provided in Public Resource Code Sections 21080.3.1, 21080.3.2, and 21082.3, requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the project is complete, and prior to the issuance of a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration.

The NAHC was contacted to request a Sacred Lands File search for registered sacred lands within or near the project site. The NAHC provided contact information for federally recognized Tribes and Tribal Groups affiliated with the region and recommended that they be contacted for more information on the potential for Native American cultural resources within or near the project area. The following Tribes were contacted on December 10, 2025, for consultation under AB 52:

- Ione Band of Miwok Indians
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Shingle Springs Band of Miwok Indians
- Tsi Akim Maidu

- United Auburn Indian Community of the Auburn Rancheria (UAIC)
- Washoe Tribe of Nevada and California
- Wilton Rancheria

Three (3) Tribes replied and initiated consultation. The Tribes are UAIC, Shingle Springs Band of Miwok Indians, and Wilton Rancheria. All of the tribes are federally recognized Tribes comprised of both Miwok and Maidu (Nisenan) Tribal members who are traditionally and culturally affiliated with the project area. The Tribes have deep spiritual, cultural, and physical ties to their ancestral land and are contemporary stewards of their culture and landscapes. The Tribal communities represent a continuity and endurance of their ancestors by maintaining their connection to their history and culture. It is the Tribes' goal to ensure the preservation and continuance of their cultural heritage for current and future generations.

UAIC conducted a background search for the identification of Tribal Cultural Resources (TCR) for this project, which included a review of pertinent literature, historic maps, and a records search using UAIC's Tribal Historic Information System (THRIS). UAIC's THRIS database is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC Sacred Lands that are submitted to the Native American Heritage Commission (NAHC). The THRIS resources shown in this region also include previously recorded indigenous resources identified through the California Historic Resources Information System Center (CHRIS) as well as historic resources and survey data. According to THRIS data, there is a significant site east of Latrobe Road, in proximity to the project area, that consists of habitation debris, bedrock milling features, lithics, petroglyphs, and hearths/pits. A quarter mile to the project area, there are additional bedrock milling sites. Carson Creek and its tributaries are known to have cultural sensitivity.

On January 14, 2026, UAIC Cultural Regulatory Coordinator Luz Salazar conducted a tribal survey of the Latrobe Self Storage project area. The survey was completed using archaeological and tribal methods to identify cultural resources or areas of cultural significance within the project vicinity. Ground surface visibility of the project area is approximately <15% due to the density of grass and vegetation. Native plants, such as Milk thistle, Live Oak, and Coyote Bush, were observed along the Carson Creek tributary. The visible tracks from vehicles, grading, and rodent back dirt showed a range from medium-brown to reddish, gravelly and clayey soil to brown loamy soil. The area showed signs of disturbance, including grading along the southern portion, next to Suncast Lane, as well as debris dumping in the northeast corner. Vehicle tracks were visible throughout the parcel. Additionally, a sewer pipeline runs adjacent to the tributary, which may lead to erosion and spillage.

Further research includes historic aerial photographs, and much of it reveals that the grading or disturbance started in the 1980s through the mid-1990s.

The survey did not identify any TCRs in the project area, and there is a moderate potential for buried TCRs.

3.18.2 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a,b) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant Impact with Mitigation. There is a moderate potential to encounter previously unknown resources that could qualify as a tribal cultural resource due to the proximity to the Carson Creek tributary and the proximity to significant indigenous-ethnographic sites. Therefore, the impact would be significant.

Mitigation Measures

Mitigation Measure 3.18-1: Tribal Monitoring: Initial Ground Disturbance

The following shall be incorporated into grading or building permit plans for the Project. The project proponent or their construction contractor shall comply with the following measure to assist with treatment of TCRs at the earliest possible time during project-related earthmoving activities:

- The project proponent shall coordinate with all consulting tribes (UAIC, Wilton Rancheria, Shingle Springs Band of Miwok Indians) by contacting the UAIC THPO (thpo@auburnrancheria.com), Wilton Rancheria (cpd@wiltonrancheria-nsn.gov), and Shingle Springs Band of Miwok Indians (kperry@ssband.org, mmayberry@ssband.org) at least 2 to 3 months prior to project ground-disturbing activities. Coordination shall include but is not limited to representation by each tribe during ground-disturbing activities. The project proponent shall only retain the services of Tribal Monitor(s) from these tribes. The duration of the construction schedule and Tribal Monitoring shall be determined at this time.
- One or more contracted Tribal Monitor(s) shall monitor the initial ground disturbance in the project area. If there are cultural finds, the Tribes may require additional Tribal Monitoring.
- Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representatives to examine the resource.
- Appropriate treatment of TCRs or other cultural finds may include but is not limited to:
  - Recordation of the resource(s)
  - Avoidance and preservation of the resource(s)
  - Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area subject to no future disturbance. The location of the reburial shall be acceptable to the UAIC, Wilton Rancheria, and Shingle Springs Band of Miwok Indians.

- To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.
- The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.
- The Tribal Monitor(s), in consultation with their respective Tribe, and the project proponent shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.
- In the event the Tribal Monitor(s) does not report to the job site at the scheduled time after receiving a 3-week look-ahead at the construction schedule and a 72-hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless of the presence or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.
- The County shall assist with resolution of disagreements between the project proponent/contractor and the Tribes if such occurs on the project.

Mitigation Measure 3.18-2: Cultural Awareness and Sensitivity Training

The following shall be incorporated into grading or building permit plans for the Project. The following mitigation measure is intended to address the cultural sensitivity of the project area by including Tribal Cultural Awareness and Sensitivity Training for relevant project personnel and construction workers. The training shall be specified in the Standard Construction Specifications for the project.

- The County shall require the applicant/Contractor to provide a Tribal Cultural Awareness and Sensitivity Training (training) for all personnel involved in project construction, including field consultants and construction workers, at their own expense. The training shall be developed in coordination with interested Native American Tribes.
- The training shall be conducted before any project-related construction activities begin at the project site. The training will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The training will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values. The training may be done in coordination with the project archaeologist.
- All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training.

Mitigation Measure 3.18-3: Unanticipated Discoveries

The following shall be incorporated into grading or building permit plans for the Project. If any suspected TCRs or resources of cultural significance to UAIC, Wilton Rancheria, and Shingle Springs Band of Miwok Indians, including but not limited to features, anthropogenic/cultural soils, cultural belongings or objects (artifacts), shell, bone, shaped stones or bone, or ash/charcoal deposits are discovered by any person during construction activities including ground disturbing activities, all work shall pause immediately within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. Work shall cease in and within the immediate vicinity of the find regardless of whether the construction is being actively monitored by a Tribal Monitor, cultural resources specialist, or professional archaeologist.

A Tribal Representative for each of the above-noted Tribes and the County shall be immediately notified, and the Tribal Representatives in coordination with the County shall determine if the find is a TCR (PRC §21074) and the Tribal Representatives shall make recommendations for further evaluation and treatment as necessary.

The culturally affiliated Tribes shall consult with the County to (1) identify the boundaries of the new TCR and (2) if feasible, identify appropriate preservation in place and avoidance measures, including redesign or adjustments to the existing construction process, and long-term management, or 3) if avoidance is infeasible, a reburial location in proximity of the find where no future disturbance is anticipated. Permanent curation of TCRs will not take place unless approved in writing by the culturally affiliated Tribes.

The construction contractor(s) shall provide secure, on-site storage for culturally sensitive soils or objects that are components of TCRs that are found or recovered during construction. Only Tribal Representatives shall have access to the storage. Storage size shall be determined by the nature of the TCR and can range from a small lock box to a Conex box (shipping container). A secure (locked), fenced area can also provide adequate on-site storage if larger amounts of material must be stored.

The construction contractor(s) and County shall facilitate the respectful reburial of the culturally sensitive soils or objects. This includes providing a reburial location that is consistent with the Tribes' preferences, excavation of the reburial location, and assisting with the reburial, upon request.

Any discoveries shall be documented on a Department of Parks and Recreation (DPR) 523 form within two (2) weeks of the discovery and submitted to the appropriate CHRIS center in a timely manner.

Work at the TCR discovery location shall not resume until authorization is granted by the County in coordination with the culturally affiliated Tribes.

If articulated or disarticulated human remains, or human remains in any state of decomposition or skeletal completeness are discovered during construction activities, the County Coroner and the culturally affiliated Tribes shall be contacted immediately. Upon determination by the County Coroner that the find is Native American in origin, the Native American Heritage Commission will assign the Most Likely Descendent who will work with the land owner to define appropriate treatment and disposition of the burials.

Significance after Mitigation

With implementation of Mitigation Measures 3.18-1, 3.18-2, 3.18-3, the possibility that the project would cause a substantial adverse change in the significance of a tribal cultural resource would be less than significant. Implementation of the above-noted mitigation measures would establish tribal monitoring during initial ground disturbance and ensure that the applicant/Contractor team are informed about sensitive cultural resources and tribal cultural resources and appropriate treatment of unanticipated discoveries. These mitigation measures would reduce potential impacts to a less-than-significant level.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Environmental Setting

The project site is within the El Dorado Irrigation District service area and would be served by public water and sewer.

Pacific Gas and Electric Company (PG&E) provides electricity and AT&T provides telecommunications services.

El Dorado Disposal Services provides solid waste collection, disposal, and recycling services in the region. Solid waste is transported to the Western El Dorado Recovery Systems (WERS) Transfer Station and Material Recovery Facility, located at 4100 Throwita Way in Placerville, which handles a maximum permitted throughput of 400 tons per day (CalRecycle 2024a). After undergoing processing, non-recyclable waste from the WERS Transfer Station and Material Recovery Facility are delivered to the Potrero Hills Landfill, located at 3675 Potrero Hills Lane, in Suisun City, which has a maximum permitted capacity of 83.1 million cubic yards and, as of the year 2006, a remaining estimated capacity of approximately 13.9 million cubic yards, or 16.7 percent of the landfill's total capacity. The landfill receives a maximum disposal of 4,330 tons per day (CalRecycle 2024b).

Chapter 8.42- Solid Waste Management Ordinance No. 4525 describes the County's requirements related to the provision of solid waste disposal services including collection and transport. The California Integrated Waste

Management Act of 1989 (AB 939) required a diversion of a minimum of 50 percent of discarded materials away from disposal in landfills.

3.19.2 Discussion

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant. The proposed Project would be served by EID for water and sanitation services. According to a January 2026 Facility Improvement Letter from EID, as of January 1, 2025, there are approximately 17,722 equivalent dwelling units (EDUs) of water supply available in the El Dorado Hills Water Supply Region. The proposed Project would require 1.7 additional EDUs of water supply. The existing water lines and sewer lines have adequate capacity to serve the Project. PG&E, Comcast, and County Stormwater and Environmental Management Department. There is no indication that the project would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental impacts.

b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant. As mentioned in a) above, EID has adequate water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less than Significant. EID has provided a Facility Improvement Letter that indicates that there is adequate capacity in its sewer facilities to serve the project.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant. The proposed project would generate solid waste from construction as well as solid waste once constructed, including recyclable material. Solid waste services to the project site are provided by El Dorado Disposal Services and waste generated at the site would be disposed of at the Potrero Hills Landfill. The project would not generate waste in excess of local standards or in excess of the capacity of local infrastructure and would not impair the attainment of solid waste reduction goals.

e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant. Solid waste services to the project site are provided by El Dorado Disposal Services and waste generated at the site would be disposed of at the Potrero Hills Landfill. Development at the Project site would be provided with trash and recycling disposal services in accordance with local, state, and federal regulations. The project would, therefore, comply with regulations including the County's ordinances and AB 939. The Project would not fail to comply with federal, state, and local management and reduction regulations related to solid waste.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?		☒ Yes		☐ No
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Environmental Setting

According to CAL FIRE, the project site is within the LRA for fire protection and is located within a designated moderate hazard severity zone (CAL FIRE 2026). The Project is in an urbanized area, with existing development at the Project site consisting of a utility corridor that runs north/south through the eastern portion of the site. The Project Site is surrounded, for the most part, by development to the north, west, and south, and Latrobe Road to the east. The topography of the project site is flat with a generally southwest facing aspect. El Dorado Hills Fire Department has included a condition of approval that a wildfire safe plan be required prior to building permit issuance.

3.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The project and surrounding vicinity are subject to a number of emergency response plans, including the El Dorado County Multi-Jurisdictional Hazard Mitigation Plan (EDCSO 2024), which provides guidance for the County's response in emergency situations, including wildfire and emergency evacuation. Impairment of emergency response plans or emergency evacuation plans would occur if the project would introduce an undue or

extraordinary burden on emergency responders as they respond to an emergency incident. The proposed project would not affect emergency response or evacuation. The proposed project would be required to conform to applicable County Development Standards and Guidelines, County Regional Fire Protection Standards, and CFC requirements, including those that define standards for providing emergency access, including fire apparatus access. The surrounding roadways provide adequate circulation and access for emergency response and the project would not substantially modify any roads or otherwise affect emergency response times. Therefore, the project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant. The proposed development at the Project site would not result in project occupants. There is no on-site caretaker residence. The Western El Dorado Community Wildfire Protection Plan (CWPP) describes wildfire risks and mitigation strategies for the portion of the County that includes the Project site (EDC 2022). Implementation of the County CWPP and conditions required by El Dorado Hills Fire Department, which includes fire sprinklers and other building code requirements and ongoing vegetation management would reduce the likelihood of an ignition becoming an out-of-control wildfire (EDHFD 2026). The project would not exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant. The proposed Project would create internal access roads on-site and would require associated improvements to infrastructure, such as water and sewer connections to existing lines. The proposed development at the Project site would avoid exacerbating fire risk during infrastructure installation through compliance with the most current building and fire codes, CFC requirements, and County Regional Fire Protection Standards, including those for access and roadways, rural water supply, and firefighting. The installation of new infrastructure would also be required to comply with all applicable County regulations to protect the environment.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant. The proposed development at the Project site could result in construction and operational activities that could introduce new ignition sources that could increase wildfire hazards. Implementation of the project, as conditioned, would not exacerbate wildfire risk, nor would it substantially increase the likelihood that the project would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

As discussed in Section 3.7.2(a)(iv), the potential for landslides to occur is negligible because the site generally has gentle hills and there are no steep slopes within or adjacent to the project site. In addition, as discussed in Section 3.10.1, the project site is within an area of minimal flood hazard (FEMA 2008). The proposed development at the Project site would change the drainage patterns of the project site by increasing impervious surfaces; however, development would be designed to comply with the County's West Slope Development and Redevelopment Standards (EDC 2024c), the SWMP for Western El Dorado County (EDC 2004b), and the County's Grading, Erosion, and Sediment Control Ordinance (EDC 2013) to prevent drainage, flooding, and erosion impacts from site runoff (see Section 3.10.2[c] for additional information). Therefore, the Project would not expose people or structures to significant risks from runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history (both before and after European arrival)?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Environmental Setting

The environmental setting for this section is presented above in the environmental settings for each of the checklist issue areas. No additional environmental setting is necessary.

3.21.2 Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history (both before and after European arrival)?

Less than Significant Impact with Mitigation. Based on evaluations and discussions contained in Sections 3.1 through 3.20 of this Initial Study, the Project is not anticipated to substantially degrade the quality of the environment. As discussed in Section 3.4, "Biological Resources," the Project would implement Mitigation Measures 3.4-1 through 3.4-7 as well as Mitigation Measures 3.18-1 through 3.18-3. Therefore, the Project would not substantially reduce the

habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Section 3.5, "Cultural Resources," although unlikely, ground-disturbing activities during project construction may result in the unanticipated discovery of archaeological resources; however, the County requires that specific procedures be followed in the event of unanticipated discoveries (refer to Section 3.5 for additional information) as a condition of project approval. Mitigation, including tribal monitoring, cultural awareness trainings, and procedures for unanticipated discoveries of tribal resources, shall protect historical and archaeological tribal resources in the event that they are found on site during grading and construction. Therefore, the project would not eliminate important examples of the major periods of California history (both before and after European arrival).

b) Does the project have impacts that are individually limited, but cumulatively considerable?

Less than Significant Impact with Mitigation. The Project would not result in significant cumulatively considerable impacts for the following reasons:

- The Project would not make a substantial contribution to the cumulative condition for agricultural and forest resources, biological resources, cultural and tribal cultural resources, and mineral resources due to the lack of Important Farmland and forest land and known mineral resources at the project site. Potential impacts to special-status species and archaeological resources would be reduced to less than significant levels through mitigation or project conditions of approval.
- Impacts related to geology, soils, hazards and hazardous materials are generally site-specific and would not substantially contribute to the cumulative condition.
- The project would be consistent with existing land use and zoning designations for the project site, the County's Municipal Code and ordinances, and the County's Design Guidelines. In addition, no population growth is anticipated from this project. Therefore, the Project would not substantially contribute to the cumulative condition for aesthetics, land use and planning, population and housing, public services, recreation, and wildfire.
- The Project could indirectly increase impervious surfaces and change drainage patterns within the watershed; however, the Project would not substantially contribute to the cumulative condition for hydrology and water quality because the proposed development would be designed to meet all applicable stormwater quality requirements.
- With respect to air quality, energy, noise, transportation, and utilities, the project would be consistent with the existing land use designation and the population assumptions for the area. GHG emissions impacts, which are inherently cumulative, would be less than significant.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant. The project's potential effects on the way residents experience the existing environment (aesthetics) and plans for future use of the area (land use and population and housing) would be less than significant. Elements of the project that could physically affect sensitive populations, including air quality impacts and generation of noise, were also found less than significant. GHG emissions, which are understood to result in global warming, would be less-than-significant.

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El Dorado Self Storage Detailed Report

Table of Contents

1. Basic Project Information
    1.1. Basic Project Information
    1.2. Land Use Types
    1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
    2.1. Construction Emissions Compared Against Thresholds
    2.2. Construction Emissions by Year
        2.2.1. Total Construction Emissions by Year, Unmitigated
        2.2.2. Onsite Construction Emissions by Year, Unmitigated
        2.2.3. Offsite Construction Emissions by Year, Unmitigated
    2.3. Operations Emissions Compared Against Thresholds
    2.4. Operations Emissions by Sector, Unmitigated
3. Construction Emissions Details
    3.1. Demolition (2027)
        3.1.1. Onsite - Unmitigated

3.1.2. Offsite - Unmitigated

3.2. Site Preparation (2027)

3.2.1. Onsite - Unmitigated

3.2.2. Offsite - Unmitigated

3.3. Grading (2027)

3.3.1. Onsite - Unmitigated

3.3.2. Offsite - Unmitigated

3.4. Building Construction (2027)

3.4.1. Onsite - Unmitigated

3.4.2. Offsite - Unmitigated

3.5. Building Construction (2028)

3.5.1. Onsite - Unmitigated

3.5.2. Offsite - Unmitigated

3.6. Paving (2027)

3.6.1. Onsite - Unmitigated

3.6.2. Offsite - Unmitigated

3.7. Paving (2028)

3.7.1. Onsite - Unmitigated

3.7.2. Offsite - Unmitigated

3.8. Architectural Coating (2028)

3.8.1. Onsite - Unmitigated

3.8.2. Offsite - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment
5.14.1. Unmitigated
5.15. Operational Off-Road Equipment
5.15.1. Unmitigated
5.16. Stationary Sources
5.16.1. Emergency Generators and Fire Pumps
5.16.2. Process Boilers
5.17. User Defined
5.18. Vegetation
5.18.1. Land Use Change
5.18.1.1. Unmitigated
5.18.1. Biomass Cover Type
5.18.1.1. Unmitigated
5.18.2. Sequestration
5.18.2.1. Unmitigated
6. Climate Risk Detailed Report
6.1. Climate Risk Summary
6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.3. Land Use

8.4. Construction

8.4.1. Construction Phases

8.4.7. On-Road Fugitive Dust

8.4.8. Architectural Coatings

8.4.9. Paving

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

8.5.3. Energy Usage

8.5.4. Water and Waste Water

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	El Dorado Self Storage
Construction Start Date	1/1/2027
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70000
Precipitation (days)	9.40000
Location	38.638913525693056, -121.06174470214319
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	470
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.44

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	77.6000	1000sqft	12.0000	77,600.0	95,505.0	—	—	—

General Office Building	184.900	1000sqft	0.00000	184,900	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.0143	15.9901	50.0426	31.7080	0.20493	1.32396	23.1146	24.4386	1.23022	11.0323	12.2625	—	20,184.6	20,184.6	0.30552	2.36726	22.6192	20,920.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18.4696	18.0581	39.4877	45.6282	0.10725	1.40257	10.9767	12.3793	1.29220	4.09093	5.38312	—	12,767.1	12,767.1	0.40206	0.53231	0.22852	12,936.0
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.58188	3.54791	12.7358	12.8179	0.03784	0.43388	4.03119	4.46508	0.40029	1.64728	2.04757	—	4,177.89	4,177.89	0.11472	0.25444	1.32874	4,257.91
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.65369	0.64749	2.32428	2.33926	0.00691	0.07918	0.73569	0.81488	0.07305	0.30063	0.37368	—	691.697	691.697	0.01899	0.04213	0.21999	704.945

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	4.12608	3.44419	50.0426	31.7080	0.20493	1.32396	23.1146	24.4386	1.23022	11.0323	12.2625	—	20,184.6	20,184.6	0.30552	2.36726	22.6192	20,920.3
2028	16.0143	15.9901	0.85540	2.07127	0.00173	0.01536	0.18542	0.20078	0.01413	0.04346	0.05759	—	328.332	328.332	0.00825	0.00808	0.60314	331.550
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	5.27226	4.47663	39.4877	45.6282	0.10725	1.40257	10.9767	12.3793	1.29220	4.09093	5.38312	—	12,767.1	12,767.1	0.40206	0.53231	0.22852	12,936.0
2028	18.4696	18.0581	18.5877	29.3624	0.04743	0.57948	1.59000	2.16948	0.53379	0.38404	0.91783	—	6,516.53	6,516.53	0.19344	0.28094	0.16998	6,605.25
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.53455	1.29736	12.7358	12.8179	0.03784	0.43388	4.03119	4.46508	0.40029	1.64728	2.04757	—	4,177.89	4,177.89	0.11472	0.25444	1.32874	4,257.91
2028	3.58188	3.54791	1.64506	2.68249	0.00420	0.04942	0.15979	0.20921	0.04552	0.03844	0.08396	—	591.850	591.850	0.01702	0.02553	0.27839	600.163
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.28005	0.23677	2.32428	2.33926	0.00691	0.07918	0.73569	0.81488	0.07305	0.30063	0.37368	—	691.697	691.697	0.01899	0.04213	0.21999	704.945
2028	0.65369	0.64749	0.30022	0.48956	0.00077	0.00902	0.02916	0.03818	0.00831	0.00702	0.01532	—	97.9876	97.9876	0.00282	0.00423	0.04609	99.3638

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.63178	3.05170	27.9724	28.2794	0.06093	1.17173	19.7375	20.9092	1.07799	10.1146	11.1926	—	6,598.08	6,598.08	0.26765	0.05353	0.00000	6,620.72
2028	15.9355	15.9130	0.80814	1.11833	0.00173	0.01536	0.00000	0.01536	0.01413	0.00000	0.01413	—	133.517	133.517	0.00542	0.00108	0.00000	133.975
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	4.73610	3.97534	34.9710	40.2196	0.08433	1.37964	9.22259	10.6022	1.26927	3.65663	4.92590	—	8,995.16	8,995.16	0.36488	0.07298	0.00000	9,026.03

2028	17.9358	17.5897	16.3606	23.9635	0.03908	0.57114	0.00000	0.57114	0.52544	0.00000	0.52544	—	4,042.00	4,042.00	0.16396	0.03279	0.00000	4,055.88
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.40282	1.17798	10.4311	11.5766	0.02350	0.41986	3.48995	3.90981	0.38627	1.50812	1.89439	—	2,520.35	2,520.35	0.10224	0.02045	0.00000	2,529.00
2028	3.52672	3.49525	1.44929	2.11197	0.00346	0.04868	0.00000	0.04868	0.04479	0.00000	0.04479	—	351.659	351.659	0.01426	0.00285	0.00000	352.866
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.25601	0.21498	1.90368	2.11273	0.00429	0.07663	0.63692	0.71354	0.07050	0.27523	0.34573	—	417.273	417.273	0.01693	0.00339	0.00000	418.705
2028	0.64363	0.63788	0.26450	0.38544	0.00063	0.00888	0.00000	0.00888	0.00817	0.00000	0.00817	—	58.2212	58.2212	0.00236	0.00047	0.00000	58.4210

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.49430	0.39249	22.0702	3.42867	0.15603	0.15222	3.37717	3.52939	0.15222	0.91765	1.06987	—	14,886.8	14,886.8	0.09062	2.32428	22.6192	15,604.3
2028	0.07873	0.07712	0.04726	0.95294	0.00000	0.00000	0.18542	0.18542	0.00000	0.04346	0.04346	—	194.815	194.815	0.00283	0.00700	0.60314	197.575
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.53616	0.50129	4.51669	5.40858	0.02293	0.02293	1.75415	1.77708	0.02293	0.43429	0.45722	—	3,771.96	3,771.96	0.03718	0.45933	0.22852	3,910.00
2028	0.53379	0.46841	2.22708	5.39895	0.00835	0.00835	1.59000	1.59834	0.00835	0.38404	0.39238	—	2,474.52	2,474.52	0.02948	0.24815	0.16998	2,549.38
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.13173	0.11938	2.30465	1.24123	0.01433	0.01402	0.54125	0.55526	0.01402	0.13916	0.15318	—	1,657.54	1,657.54	0.01249	0.23399	1.32874	1,728.91
2028	0.05516	0.05265	0.19577	0.57052	0.00074	0.00074	0.15979	0.16053	0.00074	0.03844	0.03917	—	240.191	240.191	0.00276	0.02268	0.27839	247.297
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.02404	0.02179	0.42060	0.22653	0.00262	0.00256	0.09878	0.10134	0.00256	0.02540	0.02795	—	274.424	274.424	0.00207	0.03874	0.21999	286.240
2028	0.01007	0.00961	0.03573	0.10412	0.00013	0.00013	0.02916	0.02930	0.00013	0.00702	0.00715	—	39.7664	39.7664	0.00046	0.00375	0.04609	40.9428

2.3. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.47478	9.23923	1.52982	12.6211	0.00928	0.12924	0.00000	0.12924	0.12430	0.00000	0.12430	131.987	4,373.67	4,505.65	13.7682	0.05492	0.44968	4,866.67
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.44239	7.36353	1.43376	1.20436	0.00860	0.10897	0.00000	0.10897	0.10897	0.00000	0.10897	131.987	4,326.72	4,458.71	13.7662	0.05452	0.44968	4,819.56
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.44466	8.28853	1.48113	6.83453	0.00894	0.11897	0.00000	0.11897	0.11653	0.00000	0.11653	131.987	4,349.87	4,481.86	13.7672	0.05472	0.44968	4,842.79
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.54115	1.51266	0.27031	1.24730	0.00163	0.02171	0.00000	0.02171	0.02127	0.00000	0.02127	21.8519	720.171	742.023	2.27931	0.00906	0.07445	801.780

2.4. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	9.31706	9.16037	0.09606	11.4167	0.00068	0.02028	—	0.02028	0.01533	—	0.01533	—	46.9472	46.9472	0.00197	0.00040	—	47.1165
Energy	0.15771	0.07886	1.43376	1.20436	0.00860	0.10897	—	0.10897	0.10897	—	0.10897	—	4,325.92	4,325.92	0.57448	0.05450	—	4,356.53
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.79670	0.79670	0.00013	0.00002	—	0.80458
Waste	—	—	—	—	—	—	—	—	—	—	—	131.987	0.00000	131.987	13.1916	0.00000	—	461.776
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44968	0.44968

Attachment A

Total	9.47478	9.23923	1.52982	12.6211	0.00928	0.12924	0.00000	0.12924	0.12430	0.00000	0.12430	131.987	4,373.67	4,505.65	13.7682	0.05492	0.44968	4,866.67
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	7.28467	7.28467	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.15771	0.07886	1.43376	1.20436	0.00860	0.10897	—	0.10897	0.10897	—	0.10897	—	4,325.92	4,325.92	0.57448	0.05450	—	4,356.53
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.79670	0.79670	0.00013	0.00002	—	0.80458
Waste	—	—	—	—	—	—	—	—	—	—	—	131.987	0.00000	131.987	13.1916	0.00000	—	461.776
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44968	0.44968
Total	7.44239	7.36353	1.43376	1.20436	0.00860	0.10897	0.00000	0.10897	0.10897	0.00000	0.10897	131.987	4,326.72	4,458.71	13.7662	0.05452	0.44968	4,819.56
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	8.28695	8.20968	0.04737	5.63017	0.00034	0.01000	—	0.01000	0.00756	—	0.00756	—	23.1521	23.1521	0.00097	0.00020	—	23.2355
Energy	0.15771	0.07886	1.43376	1.20436	0.00860	0.10897	—	0.10897	0.10897	—	0.10897	—	4,325.92	4,325.92	0.57448	0.05450	—	4,356.53
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.79670	0.79670	0.00013	0.00002	—	0.80458
Waste	—	—	—	—	—	—	—	—	—	—	—	131.987	0.00000	131.987	13.1916	0.00000	—	461.776
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44968	0.44968
Total	8.44466	8.28853	1.48113	6.83453	0.00894	0.11897	0.00000	0.11897	0.11653	0.00000	0.11653	131.987	4,349.87	4,481.86	13.7672	0.05472	0.44968	4,842.79
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Area	1.51237	1.49827	0.00865	1.02751	0.00006	0.00183	—	0.00183	0.00138	—	0.00138	—	3.83309	3.83309	0.00016	0.00003	—	3.84691
Energy	0.02878	0.01439	0.26166	0.21980	0.00157	0.01989	—	0.01989	0.01989	—	0.01989	—	716.206	716.206	0.09511	0.00902	—	721.273
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.13190	0.13190	0.00002	< 0.000005	—	0.13321
Waste	—	—	—	—	—	—	—	—	—	—	—	21.8519	0.00000	21.8519	2.18402	0.00000	—	76.4524
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07445	0.07445
Total	1.54115	1.51266	0.27031	1.24730	0.00163	0.02171	0.00000	0.02171	0.02127	0.00000	0.02127	21.8519	720.171	742.023	2.27931	0.00906	0.07445	801.780

3. Construction Emissions Details

3.1. Demolition (2027)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.63907	2.21478	19.9005	18.6307	0.03253	0.79594	—	0.79594	0.73226	—	0.73226	—	3,426.90	3,426.90	0.13901	0.02780	—	3,438.66
Demolition	—	—	—	—	—	—	1.20732	1.20732	—	0.18282	0.18282	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06507	0.05461	0.49070	0.45939	0.00080	0.01963	—	0.01963	0.01806	—	0.01806	—	84.4988	84.4988	0.00343	0.00069	—	84.7888
Demolition	—	—	—	—	—	—	0.02977	0.02977	—	0.00451	0.00451	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.01188	0.00997	0.08955	0.08384	0.00015	0.00358	—	0.00358	0.00330	—	0.00330	—	13.9897	13.9897	0.00057	0.00011	—	14.0378
Demolition	—	—	—	—	—	—	0.00543	0.00543	—	0.00082	0.00082	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07140	0.06568	0.04368	0.82839	0.00000	0.00000	0.15155	0.15155	0.00000	0.03552	0.03552	—	162.403	162.403	0.00265	0.00572	0.54302	164.717
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03307	0.02541	1.77166	0.19811	0.01255	0.01225	0.25750	0.26975	0.01225	0.07050	0.08275	—	1,182.54	1,182.54	0.00704	0.18647	1.76896	1,240.06
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00151	0.00147	0.00123	0.01628	0.00000	0.00000	0.00371	0.00371	0.00000	0.00087	0.00087	—	3.68261	3.68261	0.00008	0.00015	0.00579	3.73490
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00081	0.00062	0.04584	0.00494	0.00031	0.00030	0.00632	0.00662	0.00030	0.00173	0.00203	—	29.1580	29.1580	0.00017	0.00460	0.01883	30.5513
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00028	0.00027	0.00022	0.00297	0.00000	0.00000	0.00068	0.00068	0.00000	0.00016	0.00016	—	0.60970	0.60970	0.00001	0.00002	0.00096	0.61836
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00015	0.00011	0.00837	0.00090	0.00006	0.00006	0.00115	0.00121	0.00006	0.00032	0.00037	—	4.82743	4.82743	0.00003	0.00076	0.00312	5.05812

3.2. Site Preparation (2027)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63178	3.05170	27.9724	28.2794	0.04891	1.17173	—	1.17173	1.07799	—	1.07799	—	5,297.82	5,297.82	0.21490	0.04298	—	5,316.00
Dust From Material Movement	—	—	—	—	—	—	19.7375	19.7375	—	10.1146	10.1146	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20895	0.17558	1.60937	1.62703	0.00281	0.06741	—	0.06741	0.06202	—	0.06202	—	304.806	304.806	0.01236	0.00247	—	305.852
Dust From Material Movement	—	—	—	—	—	—	1.13558	1.13558	—	0.58194	0.58194	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03813	0.03204	0.29371	0.29693	0.00051	0.01230	—	0.01230	0.01132	—	0.01132	—	50.4641	50.4641	0.00205	0.00041	—	50.6373

Dust From Material Movement	—	—	—	—	—	—	0.20724	0.20724	—	0.10620	0.10620	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08330	0.07662	0.05097	0.96645	0.00000	0.00000	0.17681	0.17681	0.00000	0.04144	0.04144	—	189.470	189.470	0.00309	0.00667	0.63352	192.169
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.41100	0.31586	22.0192	2.46222	0.15603	0.15222	3.20036	3.35258	0.15222	0.87620	1.02842	—	14,697.3	14,697.3	0.08753	2.31761	21.9857	15,412.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00412	0.00401	0.00334	0.04432	0.00000	0.00000	0.01011	0.01011	0.00000	0.00237	0.00237	—	10.0249	10.0249	0.00022	0.00041	0.01575	10.1672
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02343	0.01795	1.32926	0.14319	0.00898	0.00876	0.18328	0.19204	0.00876	0.05020	0.05896	—	845.581	845.581	0.00504	0.13334	0.54605	885.988
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00075	0.00073	0.00061	0.00809	0.00000	0.00000	0.00185	0.00185	0.00000	0.00043	0.00043	—	1.65973	1.65973	0.00004	0.00007	0.00261	1.68330
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00428	0.00328	0.24259	0.02613	0.00164	0.00160	0.03345	0.03505	0.00160	0.00916	0.01076	—	139.996	139.996	0.00083	0.02208	0.09040	146.686

3.3. Grading (2027)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.50534	2.94546	25.5801	27.2816	0.06093	1.04307	—	1.04307	0.95962	—	0.95962	—	6,598.08	6,598.08	0.26765	0.05353	—	6,620.72
Dust From Material Movement	—	—	—	—	—	—	9.22259	9.22259	—	3.65663	3.65663	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.50534	2.94546	25.5801	27.2816	0.06093	1.04307	—	1.04307	0.95962	—	0.95962	—	6,598.08	6,598.08	0.26765	0.05353	—	6,620.72
Dust From Material Movement	—	—	—	—	—	—	9.22259	9.22259	—	3.65663	3.65663	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88354	0.74242	6.44759	6.87647	0.01536	0.26291	—	0.26291	0.24188	—	0.24188	—	1,663.08	1,663.08	0.06746	0.01349	—	1,668.78

Dust From Material Movement	—	—	—	—	—	—	2.32460	2.32460	—	0.92167	0.92167	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16125	0.13549	1.17668	1.25496	0.00280	0.04798	—	0.04798	0.04414	—	0.04414	—	275.341	275.341	0.01117	0.00223	—	276.286
Dust From Material Movement	—	—	—	—	—	—	0.42424	0.42424	—	0.16821	0.16821	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09520	0.08757	0.05825	1.10452	0.00000	0.00000	0.20207	0.20207	0.00000	0.04736	0.04736	—	216.537	216.537	0.00353	0.00763	0.72402	219.622
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03841	0.02952	2.05759	0.23008	0.01458	0.01422	0.29906	0.31328	0.01422	0.08188	0.09610	—	1,373.39	1,373.39	0.00818	0.21657	2.05446	1,440.19
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08184	0.07919	0.07438	0.86337	0.00000	0.00000	0.20207	0.20207	0.00000	0.04736	0.04736	—	194.920	194.920	0.00485	0.00807	0.01875	197.464
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03770	0.02880	2.18277	0.23613	0.01458	0.01458	0.29906	0.31364	0.01458	0.08188	0.09646	—	1,373.32	1,373.32	0.00818	0.21657	0.05329	1,438.12

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02063	0.02007	0.01672	0.22192	0.00000	0.00000	0.05063	0.05063	0.00000	0.01186	0.01186	—	50.1926	50.1926	0.00111	0.00203	0.07886	50.9053
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00959	0.00735	0.54417	0.05862	0.00368	0.00359	0.07503	0.07862	0.00359	0.02055	0.02414	—	346.163	346.163	0.00206	0.05459	0.22354	362.705
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00376	0.00366	0.00305	0.04050	0.00000	0.00000	0.00924	0.00924	0.00000	0.00216	0.00216	—	8.30995	8.30995	0.00018	0.00034	0.01306	8.42795
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00175	0.00134	0.09931	0.01070	0.00067	0.00065	0.01369	0.01435	0.00065	0.00375	0.00440	—	57.3113	57.3113	0.00034	0.00904	0.03701	60.0500

3.4. Building Construction (2027)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23076	1.02988	9.39093	12.9379	0.02340	0.33657	—	0.33657	0.30965	—	0.30965	—	2,397.08	2,397.08	0.09724	0.01945	—	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20232	0.16929	1.54372	2.12679	0.00385	0.05533	—	0.05533	0.05090	—	0.05090	—	394.040	394.040	0.01598	0.00320	—	395.392

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03692	0.03090	0.28173	0.38814	0.00070	0.01010	—	0.01010	0.00929	—	0.00929	—	65.2378	65.2378	0.00265	0.00053	—	65.4617
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37546	0.36332	0.34127	3.96116	0.00000	0.00000	0.92710	0.92710	0.00000	0.21731	0.21731	—	894.292	894.292	0.02225	0.03702	0.08604	905.966
Vendor	0.04117	0.02997	1.91827	0.34791	0.00835	0.00835	0.32593	0.33428	0.00835	0.08774	0.09609	—	1,309.42	1,309.42	0.00190	0.19767	0.07042	1,368.45
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06172	0.06006	0.05001	0.66402	0.00000	0.00000	0.15148	0.15148	0.00000	0.03549	0.03549	—	150.185	150.185	0.00333	0.00609	0.23597	152.318
Vendor	0.00692	0.00493	0.31165	0.05563	0.00137	0.00137	0.05331	0.05468	0.00137	0.01436	0.01573	—	215.244	215.244	0.00031	0.03249	0.19248	225.127
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01126	0.01096	0.00913	0.12118	0.00000	0.00000	0.02764	0.02764	0.00000	0.00648	0.00648	—	24.8648	24.8648	0.00055	0.00101	0.03907	25.2179
Vendor	0.00126	0.00090	0.05688	0.01015	0.00025	0.00025	0.00973	0.00998	0.00025	0.00262	0.00287	—	35.6361	35.6361	0.00005	0.00538	0.03187	37.2724
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2028)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10434	0.08731	0.78595	1.13911	0.00206	0.02644	—	0.02644	0.02432	—	0.02432	—	211.126	211.126	0.00856	0.00171	—	211.851
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01904	0.01593	0.14344	0.20789	0.00038	0.00483	—	0.00483	0.00444	—	0.00444	—	34.9544	34.9544	0.00142	0.00028	—	35.0743
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36130	0.32226	0.30830	3.71679	0.00000	0.00000	0.92710	0.92710	0.00000	0.21731	0.21731	—	876.959	876.959	0.02023	0.03702	0.07818	888.575
Vendor	0.04117	0.02902	1.80672	0.33122	0.00835	0.00835	0.32593	0.33428	0.00835	0.08774	0.09609	—	1,278.82	1,278.82	0.00190	0.19767	0.06338	1,337.83
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03182	0.03093	0.02389	0.33527	0.00000	0.00000	0.08115	0.08115	0.00000	0.01901	0.01901	—	78.8936	78.8936	0.00160	0.00326	0.11475	80.0199
Vendor	0.00371	0.00264	0.15713	0.02833	0.00074	0.00074	0.02856	0.02930	0.00074	0.00769	0.00843	—	112.608	112.608	0.00017	0.01741	0.09281	117.893
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00581	0.00564	0.00436	0.06119	0.00000	0.00000	0.01481	0.01481	0.00000	0.00347	0.00347	—	13.0617	13.0617	0.00027	0.00054	0.01900	13.2482
Vendor	0.00068	0.00048	0.02868	0.00517	0.00013	0.00013	0.00521	0.00535	0.00013	0.00140	0.00154	—	18.6436	18.6436	0.00003	0.00288	0.01537	19.5185
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Paving (2027)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.87761	0.73744	6.94439	9.95313	0.01395	0.29813	—	0.29813	0.27428	—	0.27428	—	1,511.11	1,511.11	0.06130	0.01226	—	1,516.29
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04294	0.03608	0.33975	0.48694	0.00068	0.01459	—	0.01459	0.01342	—	0.01342	—	73.9289	73.9289	0.00300	0.00060	—	74.1826
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00784	0.00658	0.06200	0.08887	0.00012	0.00266	—	0.00266	0.00245	—	0.00245	—	12.2398	12.2398	0.00050	0.00010	—	12.2818
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06138	0.05939	0.05579	0.64753	0.00000	0.00000	0.15155	0.15155	0.00000	0.03552	0.03552	—	146.190	146.190	0.00364	0.00605	0.01407	148.098
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00300	0.00292	0.00243	0.03231	0.00000	0.00000	0.00737	0.00737	0.00000	0.00173	0.00173	—	7.30676	7.30676	0.00016	0.00030	0.01148	7.41051
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00055	0.00053	0.00044	0.00590	0.00000	0.00000	0.00134	0.00134	0.00000	0.00032	0.00032	—	1.20972	1.20972	0.00003	0.00005	0.00190	1.22690
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Paving (2028)

3.7.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81550	0.68524	6.62754	9.90989	0.01395	0.25554	—	0.25554	0.23510	—	0.23510	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.22
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.06064	0.05096	0.49285	0.73694	0.00104	0.01900	—	0.01900	0.01748	—	0.01748	—	112.366	112.366	0.00456	0.00091	—	112.752
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01107	0.00930	0.08995	0.13449	0.00019	0.00347	—	0.00347	0.00319	—	0.00319	—	18.6035	18.6035	0.00075	0.00015	—	18.6674
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05906	0.05268	0.05040	0.60758	0.00000	0.00000	0.15155	0.15155	0.00000	0.03552	0.03552	—	143.356	143.356	0.00331	0.00605	0.01278	145.255
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00439	0.00427	0.00330	0.04628	0.00000	0.00000	0.01120	0.01120	0.00000	0.00262	0.00262	—	10.8906	10.8906	0.00022	0.00045	0.01584	11.0461
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00080	0.00078	0.00060	0.00845	0.00000	0.00000	0.00204	0.00204	0.00000	0.00048	0.00048	—	1.80306	1.80306	0.00004	0.00007	0.00262	1.82880
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8. Architectural Coating (2028)

3.8.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	15.8057	15.8057	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	15.8057	15.8057	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02739	0.02264	0.17048	0.23592	0.00036	0.00324	—	0.00324	0.00298	—	0.00298	—	28.1666	28.1666	0.00114	0.00023	—	28.2633
Architectural Coatings	3.33435	3.33435	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00500	0.00413	0.03111	0.04306	0.00007	0.00059	—	0.00059	0.00054	—	0.00054	—	4.66330	4.66330	0.00019	0.00004	—	4.67931
Architectural Coatings	0.60852	0.60852	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07873	0.07712	0.04726	0.95294	0.00000	0.00000	0.18542	0.18542	0.00000	0.04346	0.04346	—	194.815	194.815	0.00283	0.00700	0.60314	197.575
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07226	0.06445	0.06166	0.74336	0.00000	0.00000	0.18542	0.18542	0.00000	0.04346	0.04346	—	175.392	175.392	0.00405	0.00740	0.01564	177.715
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01524	0.01482	0.01145	0.16063	0.00000	0.00000	0.03888	0.03888	0.00000	0.00911	0.00911	—	37.7988	37.7988	0.00077	0.00156	0.05498	38.3384
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00278	0.00270	0.00209	0.02932	0.00000	0.00000	0.00710	0.00710	0.00000	0.00166	0.00166	—	6.25802	6.25802	0.00013	0.00026	0.00910	6.34736
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	452.524	452.524	0.07321	0.00887	—	456.999
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	2,162.69	2,162.69	0.34988	0.04241	—	2,184.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,615.21	2,615.21	0.42308	0.05128	—	2,641.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	452.524	452.524	0.07321	0.00887	—	456.999
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	2,162.69	2,162.69	0.34988	0.04241	—	2,184.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,615.21	2,615.21	0.42308	0.05128	—	2,641.07
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	74.9206	74.9206	0.01212	0.00147	—	75.6614
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	358.057	358.057	0.05793	0.00702	—	361.598
Total	—	—	—	—	—	—	—	—	—	—	—	—	432.978	432.978	0.07005	0.00849	—	437.259

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Attachment A

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	0.15771	0.07886	1.43376	1.20436	0.00860	0.10897	—	0.10897	0.10897	—	0.10897	—	1,710.71	1,710.71	0.15140	0.00322	—	1,715.46
Total	0.15771	0.07886	1.43376	1.20436	0.00860	0.10897	—	0.10897	0.10897	—	0.10897	—	1,710.71	1,710.71	0.15140	0.00322	—	1,715.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	0.15771	0.07886	1.43376	1.20436	0.00860	0.10897	—	0.10897	0.10897	—	0.10897	—	1,710.71	1,710.71	0.15140	0.00322	—	1,715.46
Total	0.15771	0.07886	1.43376	1.20436	0.00860	0.10897	—	0.10897	0.10897	—	0.10897	—	1,710.71	1,710.71	0.15140	0.00322	—	1,715.46
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	0.02878	0.01439	0.26166	0.21980	0.00157	0.01989	—	0.01989	0.01989	—	0.01989	—	283.228	283.228	0.02507	0.00053	—	284.014
Total	0.02878	0.01439	0.26166	0.21980	0.00157	0.01989	—	0.01989	0.01989	—	0.01989	—	283.228	283.228	0.02507	0.00053	—	284.014

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.61750	5.61750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.66717	1.66717	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.03239	1.87570	0.09606	11.4167	0.00068	0.02028	—	0.02028	0.01533	—	0.01533	—	46.9472	46.9472	0.00197	0.00040	—	47.1165
Total	9.31706	9.16037	0.09606	11.4167	0.00068	0.02028	—	0.02028	0.01533	—	0.01533	—	46.9472	46.9472	0.00197	0.00040	—	47.1165
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.61750	5.61750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.66717	1.66717	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.28467	7.28467	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	1.02519	1.02519	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30426	0.30426	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.18291	0.16881	0.00865	1.02751	0.00006	0.00183	—	0.00183	0.00138	—	0.00138	—	3.83309	3.83309	0.00016	0.00003	—	3.84691
Total	1.51237	1.49827	0.00865	1.02751	0.00006	0.00183	—	0.00183	0.00138	—	0.00138	—	3.83309	3.83309	0.00016	0.00003	—	3.84691

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.79670	0.79670	0.00013	0.00002	—	0.80458
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.79670	0.79670	0.00013	0.00002	—	0.80458
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.79670	0.79670	0.00013	0.00002	—	0.80458
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.79670	0.79670	0.00013	0.00002	—	0.80458
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.13190	0.13190	0.00002	< 0.000005	—	0.13321
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.13190	0.13190	0.00002	< 0.000005	—	0.13321

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	39.3124	0.00000	39.3124	3.92913	0.00000	—	137.541

General Office Building	—	—	—	—	—	—	—	—	—	—	—	92.6743	0.00000	92.6743	9.26246	0.00000	—	324.236
Total	—	—	—	—	—	—	—	—	—	—	—	131.987	0.00000	131.987	13.1916	0.00000	—	461.776
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	39.3124	0.00000	39.3124	3.92913	0.00000	—	137.541
General Office Building	—	—	—	—	—	—	—	—	—	—	—	92.6743	0.00000	92.6743	9.26246	0.00000	—	324.236
Total	—	—	—	—	—	—	—	—	—	—	—	131.987	0.00000	131.987	13.1916	0.00000	—	461.776
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	6.50861	0.00000	6.50861	0.65051	0.00000	—	22.7714
General Office Building	—	—	—	—	—	—	—	—	—	—	—	15.3433	0.00000	15.3433	1.53351	0.00000	—	53.6810
Total	—	—	—	—	—	—	—	—	—	—	—	21.8519	0.00000	21.8519	2.18402	0.00000	—	76.4524

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44968	0.44968
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44968	0.44968
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44968	0.44968
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44968	0.44968
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07445	0.07445
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07445	0.07445

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/5/2027	5/17/2027	5.00000	9.00000	—
Site Preparation	Site Preparation	5/18/2027	6/15/2027	5.00000	21.0000	—
Grading	Grading	6/16/2027	10/21/2027	5.00000	92.0000	—
Building Construction	Building Construction	10/9/2027	2/14/2028	5.00000	91.0000	—
Paving	Paving	12/7/2027	2/7/2028	5.00000	45.0000	—
Architectural Coating	Architectural Coating	1/15/2028	5/2/2028	5.00000	77.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Scrapers	Diesel	Average	2.00000	8.00000	423.000	0.48000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	14.3000	LDA,LDT1,LDT2

Demolition	Vendor	—	8.80000	HHDT,MHDT
Demolition	Hauling	13.8889	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	14.3000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80000	HHDT,MHDT
Site Preparation	Hauling	172.619	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	20.0000	14.3000	LDA,LDT1,LDT2
Grading	Vendor	—	8.80000	HHDT,MHDT
Grading	Hauling	16.1304	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	91.7600	14.3000	LDA,LDT1,LDT2
Building Construction	Vendor	43.0237	8.80000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	14.3000	LDA,LDT1,LDT2
Paving	Vendor	—	8.80000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	18.3520	14.3000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	393,750	131,250	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	500.000	0.00000
Site Preparation	—	29,000.0	31.5000	0.00000	0.00000
Grading	15,000.0	—	276.000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	4.00000

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Unrefrigerated Warehouse-No Rail	4.00000	0%
Paving	General Office Building	0.00000	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	203.983	0.03300	0.00400
2028	0.00000	203.983	0.03300	0.00400

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Unrefrigerated Warehouse-No Rail	Wood Fireplaces	0	0
Unrefrigerated Warehouse-No Rail	Gas Fireplaces	0	0
Unrefrigerated Warehouse-No Rail	Propane Fireplaces	0	0
Unrefrigerated Warehouse-No Rail	Electric Fireplaces	0	0
Unrefrigerated Warehouse-No Rail	No Fireplaces	0	0
Unrefrigerated Warehouse-No Rail	Conventional Wood Stoves	0	0
Unrefrigerated Warehouse-No Rail	Catalytic Wood Stoves	0	0
Unrefrigerated Warehouse-No Rail	Non-Catalytic Wood Stoves	0	0
Unrefrigerated Warehouse-No Rail	Pellet Wood Stoves	0	0
General Office Building	Wood Fireplaces	0	0
General Office Building	Gas Fireplaces	0	0
General Office Building	Propane Fireplaces	0	0
General Office Building	Electric Fireplaces	0	0
General Office Building	No Fireplaces	0	0
General Office Building	Conventional Wood Stoves	0	0
General Office Building	Catalytic Wood Stoves	0	0

General Office Building	Non-Catalytic Wood Stoves	0	0
General Office Building	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0.00000	0.00000	393,750	131,250	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	809,731	203.983	0.0330	0.0040	0.00000
General Office Building	3,869,834	203.983	0.0330	0.0040	5,337,882

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	0.00000	884,108
General Office Building	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	72.9440	0.00000
General Office Building	171.957	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.8800	annual days of extreme heat
Extreme Precipitation	9.30000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	9.60000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	74.1879
AQ-PM	16.6770
AQ-DPM	5.15246
Drinking Water	55.7512
Lead Risk Housing	5.98614
Pesticides	23.4483
Toxic Releases	15.9665
Traffic	50.6625
Effect Indicators	—
CleanUp Sites	82.0642
Groundwater	59.6048
Haz Waste Facilities/Generators	56.3997
Impaired Water Bodies	0.00000
Solid Waste	88.9347

Sensitive Population	—
Asthma	12.9611
Cardio-vascular	27.7418
Low Birth Weights	19.0018
Socioeconomic Factor Indicators	—
Education	30.8656
Housing	12.0025
Linguistic	20.5847
Poverty	13.2663
Unemployment	25.2343

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	77.7235981
Employed	34.1075324
Median HI	84.47324522
Education	—
Bachelor's or higher	73.48902862
High school enrollment	100
Preschool enrollment	52.58565379
Transportation	—
Auto Access	78.96830489
Active commuting	58.03926601
Social	—
2-parent households	62.04285898
Voting	94.70037213

Attachment A

Neighborhood	—
Alcohol availability	85.42281535
Park access	10.56075966
Retail density	13.06300526
Supermarket access	26.89593225
Tree canopy	81.44488644
Housing	—
Homeownership	76.49172334
Housing habitability	82.59976902
Low-inc homeowner severe housing cost burden	41.87090979
Low-inc renter severe housing cost burden	78.91697677
Uncrowded housing	66.9190299
Health Outcomes	—
Insured adults	83.39535481
Arthritis	0.0
Asthma ER Admissions	89.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	70.8
Cognitively Disabled	32.0
Physically Disabled	46.5
Heart Attack ER Admissions	74.2
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0

Obesity	0.0
Pedestrian Injuries	67.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	1.3
SLR Inundation Area	0.0
Children	25.4
Elderly	17.2
English Speaking	88.9
Foreign-born	13.6
Outdoor Workers	69.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	90.8
Traffic Density	24.7
Traffic Access	0.0
Other Indices	—
Hardship	36.9
Other Decision Support	—
2016 Voting	97.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	13.0000

Healthy Places Index Score for Project Location (b)	78.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Unref. WH = unconditioned storage areas; General Office = Conditioned areas. Land use and landscape sizes from site plans
Construction: Construction Phases	client-provided schedule based on bid schedule
Construction: On-Road Fugitive Dust	in consideration of the urban nature of the project site, all trips are assumed to occur on paved roads
Construction: Architectural Coatings	VOC content adjusted to reflect EDCAQMD Rule 1113 VOC content limits for flat and non-flat architectural coatings
Construction: Paving	client-provided estimated paved area

Operations: Vehicle Data	Operational transportation zeroed out consistent with the findings of the VMT Assessment prepared for the project: "VMT is a function of daily vehicle trips multiplied by average driving distance. Since the proposed project does not increase self-storage demand but instead shortens or maintains driving distances by providing additional local capacity as demand grows and existing facilities reach capacity, it is presumed that the project would not result in a net increase in VMT." (Kimley-Horn & Associates 2026)
Operations: Energy Use	Unconditioned sf would not require natural gas for climate control
Operations: Water and Waste Water	Total water use provided in project plans

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	1.78145	12.0000
Landscape Area	sq. ft	—	95,505.0
Lot Area	acre	4.24472	0.00000
Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Demolition	Demolition	Start Date	1/1/2027	5/5/2027
Demolition	Demolition	End Date	1/29/2027	5/17/2027
Demolition	Demolition	Work Days per Phase	20.0000	9.00000
Site Preparation	Site Preparation	Start Date	1/30/2027	5/18/2027
Site Preparation	Site Preparation	End Date	2/13/2027	6/15/2027
Site Preparation	Site Preparation	Work Days per Phase	10.00000	21.0000
Grading	Grading	Start Date	2/14/2027	6/16/2027
Grading	Grading	End Date	3/28/2027	10/21/2027
Grading	Grading	Work Days per Phase	30.0000	92.0000
Building Construction	Building Construction	Start Date	3/29/2027	10/9/2027

Building Construction	Building Construction	End Date	5/22/2028	2/14/2028
Building Construction	Building Construction	Work Days per Phase	300.000	91.0000
Paving	Paving	Start Date	5/23/2028	12/7/2027
Paving	Paving	End Date	6/20/2028	2/7/2028
Paving	Paving	Work Days per Phase	20.0000	45.0000
Architectural Coating	Architectural Coating	Start Date	6/21/2028	1/15/2028
Architectural Coating	Architectural Coating	End Date	7/19/2028	5/2/2028
Architectural Coating	Architectural Coating	Work Days per Phase	20.0000	77.0000

8.4.7. On-Road Fugitive Dust

Phase Name	Model Parameter	Units	Default Value	New Value
Demolition	Worker Trip Paved	%	97.1000	100.0000
Demolition	Vendor Trip Paved	%	97.1000	100.0000
Demolition	Hauling Trip Paved	%	97.1000	100.0000
Site Preparation	Worker Trip Paved	%	97.1000	100.0000
Site Preparation	Vendor Trip Paved	%	97.1000	100.0000
Site Preparation	Hauling Trip Paved	%	97.1000	100.0000
Grading	Worker Trip Paved	%	97.1000	100.0000
Grading	Vendor Trip Paved	%	97.1000	100.0000
Grading	Hauling Trip Paved	%	97.1000	100.0000
Building Construction	Worker Trip Paved	%	97.1000	100.0000
Building Construction	Vendor Trip Paved	%	97.1000	100.0000
Building Construction	Hauling Trip Paved	%	97.1000	100.0000
Paving	Worker Trip Paved	%	97.1000	100.0000
Paving	Vendor Trip Paved	%	97.1000	100.0000
Paving	Hauling Trip Paved	%	97.1000	100.0000
Architectural Coating	Worker Trip Paved	%	97.1000	100.0000
Architectural Coating	Vendor Trip Paved	%	97.1000	100.0000

Architectural Coating	Hauling Trip Paved	%	97.1000	100.0000

8.4.8. Architectural Coatings

Phase Name	Model Parameter	Units	Default Value	New Value
Architectural Coating	Non-Residential Interior VOC	g/L	250.000	50.0000
Architectural Coating	Non-Residential Exterior VOC	g/L	250.000	50.0000

8.4.9. Paving

Phase Name	Land Use	Model Parameter	Units	Default Value	New Value
Paving	Unrefrigerated Warehouse-No Rail	Area Paved	acres	0.00000	4.00000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Unrefrigerated Warehouse-No Rail	Weekday Trip Rate	size/day	1.74000	0.00000
Unrefrigerated Warehouse-No Rail	Saturday Trip Rate	size/day	1.74000	0.00000
Unrefrigerated Warehouse-No Rail	Sunday Trip Rate	size/day	1.74000	0.00000
Unrefrigerated Warehouse-No Rail	Non-Res H-W Trip Length	miles	15.7656	0.00000
Unrefrigerated Warehouse-No Rail	Non-Res W-O Trip Length	miles	9.20347	0.00000
Unrefrigerated Warehouse-No Rail	Non-Res O-O Trip Length	miles	10.6971	0.00000
General Office Building	Weekday Trip Rate	size/day	9.74000	0.00000
General Office Building	Saturday Trip Rate	size/day	2.21000	0.00000
General Office Building	Sunday Trip Rate	size/day	0.70000	0.00000
General Office Building	Non-Res H-W Trip Length	miles	15.7656	0.00000

General Office Building	Non-Res W-O Trip Length	miles	9.20347	0.00000
General Office Building	Non-Res O-O Trip Length	miles	10.6971	0.00000

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
Unrefrigerated Warehouse-No Rail	Natural Gas	kBTU/yr	431,055	0.00000
Unrefrigerated Warehouse-No Rail	Natural Gas (Subject to Title 24)	kBTU/yr	365,425	0.00000
Unrefrigerated Warehouse-No Rail	Natural Gas (Not Subject to Title 24)	kBTU/yr	65,630.5	0.00000

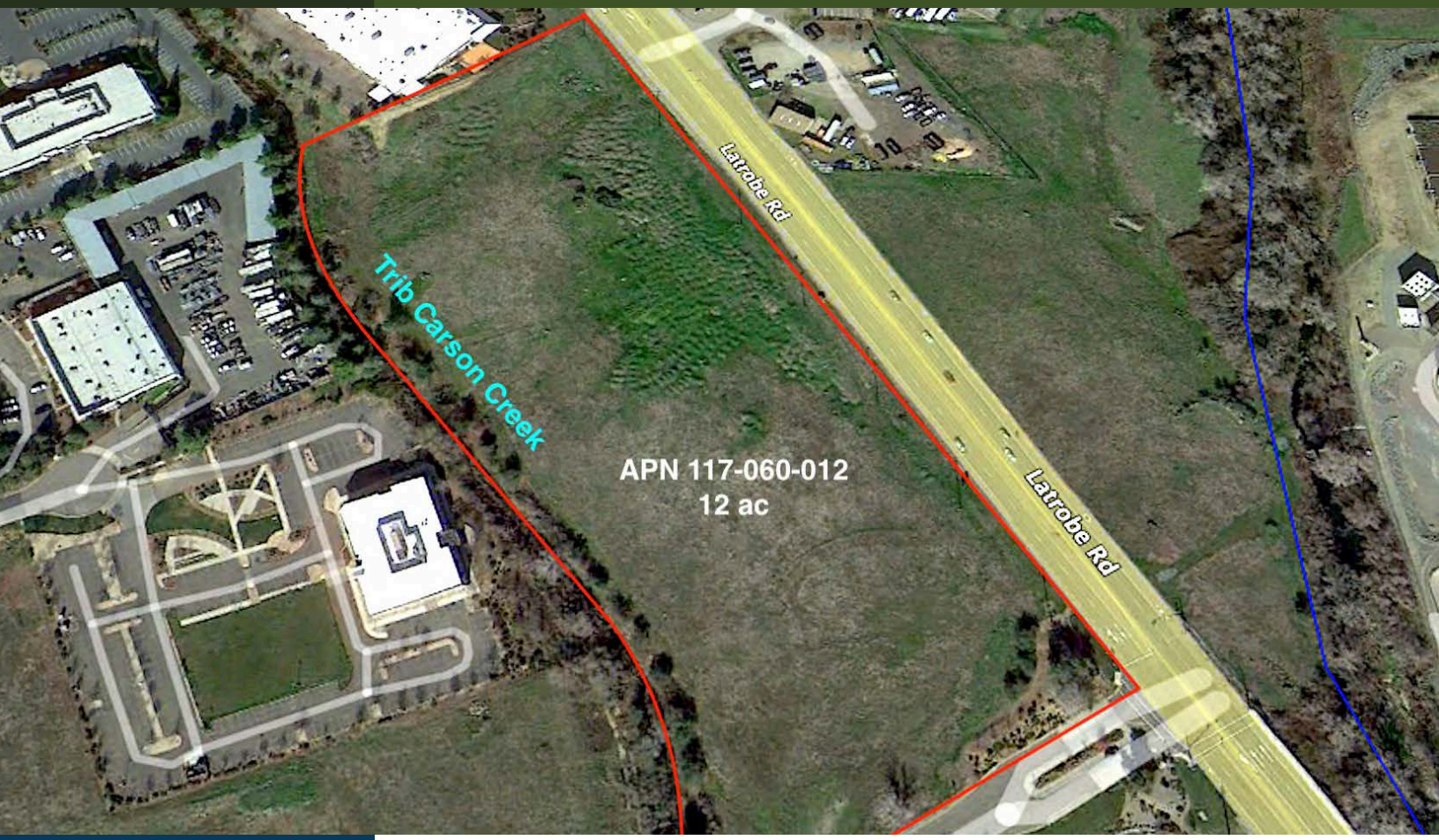
8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
Unrefrigerated Warehouse-No Rail	Indoor Water	gal/year	17,945,000	0.00000
Unrefrigerated Warehouse-No Rail	Outdoor Water	gal/year	1,024,937	884,108
General Office Building	Indoor Water	gal/year	32,862,970	0.00000

Attachment B

Wetland & Biological Resources Assessment

4500 Latrobe Rd
El Dorado Hills, CA 95762
APN 117-060-012



Prepared For:
Ron Smith

Attachment B

TABLE OF CONTENTS

1.0 Introduction 1

2.0 Regulatory Setting 1

2.1 Federal Laws & Regulations 1

2.2 State Laws & Regulations 4

2.3 Local Laws & Regulations 7

3.0 Methodology 8

4.0 Existing Conditions 9

4.1 Soils 9

4.2 Wetlands and "Other Waters of the U.S." and "Waters of the State" 12

4.3 Vegetation Communities & Wildlife Habitats 12

4.4 Wildlife 12

5.0 Special Status Species 16

5.1 Critical Habitat for Special Status Species 16

6.0 Mitigation Measures for Potential Impacts 24

6.1 Special Plant Species 24

6.2 Swainson's Hawk Mitigation Measure 24

6.3 Special Status Bird Species Mitigation Measure 25

6.4 California Red-Legged Frog, Yellow-Legged Frog, Western Pond Turtle 25

7.0 Conclusions 25

8.0 References 26

Attachment B

FIGURES

Figure 1. Site and Vicinity Map 2
Figure 2a. Soils Map 10
Figure 2b. Serpentintic and Ultramafic Soils 11
Figure 3. National Wetlands Inventory Map of the Study Area 13
Figure 4. California Aquatic Resources Inventory Map of the Study Area 14
Figure 5. Existing Conditions 15
Figure 6. CNDDB Records Within Five Miles of the Study Area 17

TABLES

Table 1. Wetlands and Other Waters of the US 12
Table 2. Special Status Species with Potential to Occur in the Assessment Area 18

APPENDICES

Appendix A. NRCS Soil Report 27
Appendix B. CNDDB 42
Appendix C. U.S. Fish and Wildlife Service iPAC 59
Appendix D. Photoplate 74

1.0 INTRODUCTION

Barnett Environmental has prepared this *Wetland & Biological Resources Assessment* (W/BRA) of a 12-acre, currently vacant parcel at ~4500 Latrobe Road (APN: 117-060-012) in El Dorado Hills, (El Dorado County), CA. The Study Area is located in Section 14, Township 9 North, and Range 8 East of the Clarksville 7.5-minute USGS quadrangle map (Figure 1). It lies in the Upper Consumers watershed (Hydrologic Unit Code 18040313) at approximately 533-577 feet in elevation above mean sea level (msl) and centered at approximately 38°38'17.2" north latitude and 121°3'51.57" west longitude.

The parcel is located at the corner of Latrobe Road & Suncast Lane and is surrounded by commercial and retail facilities to the south, across Suncast Lane, and to the north and west. Across Latrobe Road, there is a recycling center and an undeveloped piece of land. A tributary to Carson Creek borders the parcel's western boundary.

Beyond a delineation of wetlands and "other waters of the U.S." and "waters of the State" within the Study Area according to U.S. Army Corps of Engineers (1987) and California Regional Water Quality Control Board (2020) protocol, this report also:

- Identifies and describes extant vegetation communities;
- Records all plant and animal species observed during the field survey(s);
- Evaluates and identifies sensitive habitats and special status plant and animal species that may occur in the Study Area and could be affected by project activities; and
- Provides conclusions and recommendations for mitigating potential adverse impacts to identified resources.

2.0 REGULATORY SETTING

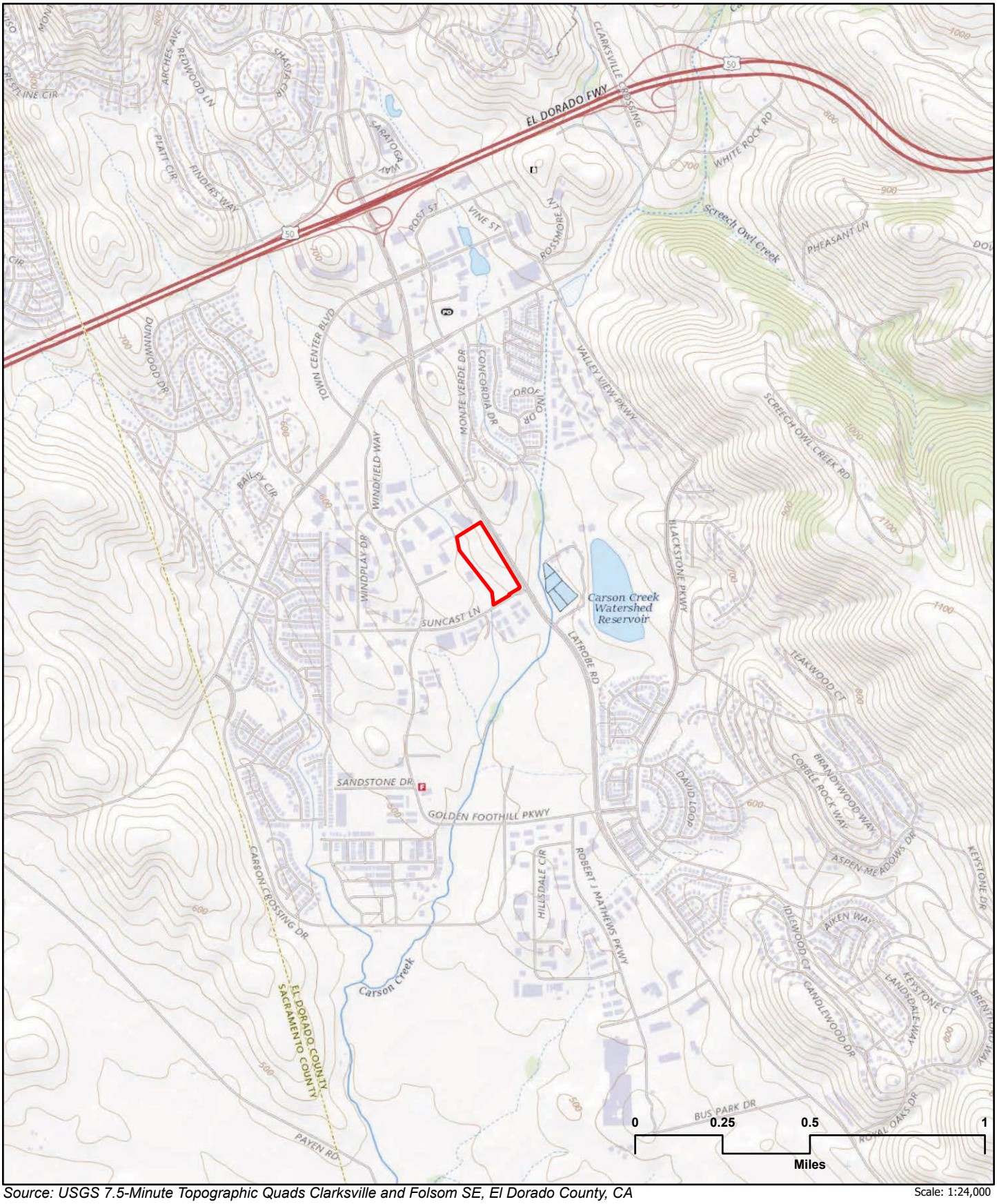
The following federal laws, regulations and/or policies provide the legal framework guiding the protection of biological resources. We have included those laws most relevant to biological and wetland resources in and around the Study Area.

2.1 FEDERAL LAWS & REGULATIONS

FEDERAL ENDANGERED SPECIES ACT (FESA)

The FESA, enacted in 1973, prohibits the taking, possession, sale, or transport of endangered species. Under the FESA, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered. Both the National Marine Fisheries Service (NMFS) and the U.S. Fish & Wildlife Service (USFWS) administer FESA. NMFS is accountable for animals that are threatened or endangered (16 United States Code [USC] 1533[c]) and spend most of their lives in marine waters, including marine fish, most marine mammals, and anadromous fish such as Pacific salmon. The USFWS is accountable for all other federally listed plants and animals.

Attachment B



Source: USGS 7.5-Minute Topographic Quads Clarksville and Folsom SE, El Dorado County, CA

Scale: 1:24,000

FIGURE 1 - VICINITY MAP

Date: March 02, 2022

N

4500 LATROBE RD • EL DORADO COUNTY, CA

Pursuant to the requirements of FESA, a federal agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species could be present in the Study Area and whether the project will have a potentially significant impact on such species. In addition, federal agencies are required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]).

Projects that would result in a "take" of any federally listed threatened or endangered species are required to obtain authorization from NMFS and/or USFWS through either Section 7 (interagency consultation) or section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project. The Section 7 authorization process is used to determine if a project with a federal nexus would jeopardize the continued existence of a listed species and what mitigation measures would be required to avoid jeopardizing the species. The Section 10(a) process allows take of endangered species or their habitat in non-federal activities.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

BALD AND GOLDEN EAGLE PROTECTION ACT

The federal Bald and Golden Eagle Protection Act regulates or prohibits taking, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (16 U.S.C. 668c; 50 CFR 22.3).

FEDERAL CLEAN WATER ACT (CWA)

Section 404

Section 404 of the CWA identifies the U.S. Army Corps of Engineers (USACE) as the principal authority to regulate activity that could discharge fill or dredge material or otherwise adversely modify wetlands or Waters of the U.S. (WOUS). The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function. U.S. Congress has authorized the Environmental Protection Agency (EPA) to have a specific oversight role over USACE's authority.

Section 401

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy.

The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain a certificate from the appropriate state agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the SWRCB to the nine regional boards. The Central Valley Regional Water Quality Control Board (CVRWQCB) is the appointed authority for Section 401 compliance in the project site. The SWRCB additionally requires additional Waste Discharge Requirements under Porter-Cologne to protect aquatic resources that are outside federal jurisdiction.

A request for certification or waiver is submitted to the Regional Board at the same time an application is filed with the USACE. The regional board has 60 days to review the application and act on it. Because no USACE permit is valid under the CWA unless "certified" by the state, these boards may effectively veto or add conditions to any USACE permit.

2.2 STATE LAWS & REGULATIONS

CALIFORNIA ENDANGERED SPECIES ACT (CESA)

The CESA was enacted in 1984. Under the CESA, the California Fish and Wildlife Commission (CFWC) has the responsibility for maintaining a list of threatened and endangered species, while The California Department of Fish & Wildlife (CDFW) is responsible for enforcement. CDFW also maintains lists of species of special concern. A Species of Special Concern (CSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered;
- meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

CESA prohibits the take of California listed animals and plants in most cases, but CDFW may issue incidental take permits under special conditions. Pursuant to the requirements of CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present in the project site and determine whether the project would have a potentially significant impact on such species. In addition, CDFW encourages consultation on any project that could affect a listed or candidate species.

FISH AND GAME CODE – SECTIONS 1600-1616

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "… *bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time*

an existing fish or wildlife resource or from which these resources derive benefit ..." (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

The CDFW also derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the Fish and Game Code (lake and streambed alteration agreements), Section 30411 of the California Coastal Act (CDFW becomes the lead agency for the study and identification of degraded wetlands within the Coastal Zone), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on USACE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

FISH AND GAME CODE – SECTIONS 1900-1913

These Sections embody the Native Plant Protection Act, which is intended to preserve, protect, and enhance endangered or rare native plants in the state. The act directs CDFW to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Under the act, CDFW may adopt regulations governing the taking, possessing, propagation or sale of any endangered or rare native plant.

Section 1913 of that Act allows landowners in conducting certain activities to take actions that will destroy rare or endangered plants, provided that, where the Department of Fish and Game (DFG) has previously notified the owner "that rare or endangered plants are growing" on his or her land, the owner notifies CDFW "at least 10 days in advance of changing the land" to allow the state agency to come and "salvage" the plants. Subject to this requirement, section 1913 states that "the presence of rare or endangered plants" on a property shall not restrict (1) timber operations conducted pursuant to an approved timber harvest plan, (2) "required mining assessment work pursuant to federal or state mining laws," (3) "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, other right-of-way by the owner of the land or his agent," or (4) "the performance by a public agency or publicly or privately owned public utility of its obligation to provide service to the public."

FISH AND GAME CODE – SECTIONS 3503, 3503.5, 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

FISH AND GAME CODE – SECTIONS 3511, 4700, 5050, AND 5515

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as "fully protected." Fully protected species, or parts thereof, may not be taken or possessed at any time, and no provision of the CFWC or any other law may be construed to authorize the issuance of permits of licenses to take any fully protected species. No such permits or licenses heretofore issued may have any force or effect for any such purpose, except that the CFGC may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof ay be possessed under a permit issued by CDFW.

CALIFORNIA PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act established the SWRCB and each Regional Water Quality Control Board (RWQCB) as the principal state agencies for coordinating and controlling water quality in California. Responsibility for the protection of water quality in California rests with the SWRCB and nine RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. Pursuant to the Act, each of California's nine regional boards must prepare and periodically update basin plans that set forth water quality standards for surface and groundwater, as well as actions to control point and non-point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to achieve wetlands protection through enforcement of water quality standards.

The Porter-Cologne Water Quality Control Act provides that "All discharges of waste into the waters of the State are privileges, not rights." Waters of the State are defined in Section 13050(e) of the Porter-Cologne Water Quality Control Act as "…any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter-Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction, which would include the project site. As noted above, the RWQCB is the appointed authority for Section 401 compliance in the project site. If the USACE determines that they have no regulatory authority on the project site and they also determine that a CWA Section 404 permit is not required, the project proponent could still be responsible for obtaining the appropriate CWA Section 401 permit or waiver from RWQCB for impacts to Waters of the State.

In 2019, the State Water Resource Control Board extended their water quality certification to include waste discharge requirements as adopted in the "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State," which include elements of the Clean Water Act. These procedures also lay out the steps for the submission, review, and approval of applications for activities related to these activities.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Although specific federal and state statutes protect threatened and endangered species, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code

dealing with rare or endangered plants and animals and allows a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species." Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

2.3 LOCAL LAWS AND REGULATIONS

EL DORADO GENERAL PLAN

The El Dorado County general plan details the policies that should be undertaken in order to protect the county's natural environment.

OBJECTIVE 7.3.1: WATER RESOURCE PROTECTION Preserve and protect the supply and quality of the County's water resources including the protection of critical watersheds, riparian zones, and aquifers.

- Policy 7.3.1.1 Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.
- Policy 7.3.1.2 Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.

OBJECTIVE 7.3.2: WATER QUALITY Maintenance of and, where possible, improvement of the quality of underground and surface water.

- Policy 7.3.2.1 Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.
- Policy 7.3.2.2 Projects requiring a grading permit shall have an erosion control program approved, where necessary.

OBJECTIVE 7.3.3: WETLANDS Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

- Policy 7.3.3.4 The Zoning Ordinance shall be amended to provide buffers and special setbacks for the protection of riparian areas and wetlands. The County shall encourage the incorporation of protected areas into conservation easements or natural resource protection areas. Until standards for buffers and special setbacks are established in the Zoning Ordinance, the County shall apply a minimum setback of 100 feet from all perennial streams, rivers, lakes, and 50 feet from intermittent streams and wetlands.
- Policy 7.3.3.5 Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.

OBJECTIVE 7.3.4: DRAINAGE Protection and utilization of natural drainage patterns.

- Policy 7.3.4.1 Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.
- Policy 7.3.4.2 Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

EL DORADO COUNTY ZONING ORDINANCE

El Dorado's Zoning ordinance Title 130 Article G.3 contains the following provisions to implement the general plan and to protect aquatic resources:

a. Ministerial development, including single family dwellings and accessory structures, shall be set back a distance of 25 feet from any intermittent stream, wetland or sensitive riparian habitat, or a distance of 50 feet from any perennial lake, river or stream. This standardized setback may be reduced, or grading within the setback may be allowed, if a biological resource evaluation is prepared which indicates that a reduced setback would be sufficient to protect the resources.

b. Any setback or buffer required by this subsection shall be measured from the ordinary high water mark of a river, perennial or intermittent stream, and the ordinary high water mark or spillway elevation of a lake or reservoir.

c. Except where otherwise provided in this section, filling, grading, excavating or obstructing streambeds is prohibited except where necessary for placement of storm drain and irrigation outflow structures approved by the County; placement of public and private utility lines; construction of bridges and connecting roadways; maintenance activities necessary to protect public health and safety; and creek restoration and improvement projects.

3.0 METHODOLOGY

We queried the U.S. Fish & Wildlife Service's *National Wetland Inventory* (NWI; Figure 3); EcoAtlas' *California Aquatic Resources Inventory* (CARI; Figure 3); the NRCS *Web Soil Survey* (Appendix A; Figure 4); and the *Hydric Soil Map Units* El Dorado County, California prior to our field surveys to determine whether any wetlands or "other waters of the U.S.," "waters of the State," or soils compatible with wetland resources had been historically recorded on or around, or are likely to occur on the site, as defined by the 1987 U.S. Army Corps of Engineers (USACE, 1987) *Wetlands Delineation Manual* and its 2008 *Arid West Regional Supplement*. We also assessed potentially federal and/or state jurisdictional wetlands and "other waters of the U.S." in the Study Area in accordance with the 2014 Corps *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) for Non-perennial Streams in the Arid West Region of the Western United States.*

To help anticipate which potential biological resources may be present on the property, we queried the following online sources for information on the Study Area's potential plant and wildlife communities.

California Department of Fish & Wildlife's Natural Diversity Database (RareFind 5) for observations of special status plant and animal species within five miles of the Study Area (Figure 6; Appendix D),

1. U.S. Fish and Wildlife Service's iPac Database of federally-listed special status species in Alameda County (Appendix E),
2. The California Native Plant Society's Inventory of Rare & Endangered Plants in California

A Barnett Environmental biologist surveyed the Study Area on March 17, 2022, for special status plant and wildlife species and their habitats that could occur there. The survey included recorded observations of: (1) dominant plant communities, (2) plant and animal species (with emphasis on rare and endangered species) observed or their sign (nests, burrows, tracks, scat) and (3) the suitability of onsite habitats and those immediately adjoining the Study Area to support special status plant or animal species. We used generalized plant community classification schemes to classify onsite habitat types (Sawyer, Keeler-Wolf, and Evens, 2009).

4.0 EXISTING CONDITIONS

4.1 SOILS

According to Natural Resource Conservation Service (NRCS), the Study Area is comprised of two soil types (Figure 2a; Appendix A):

1. Argonaut gravelly loam, 2 to 15% loams
2. Auburn very rocky silt loam, 2 to 30% slopes

Argonaut gravelly loam, 2-15% slopes, soils occur on ridges at elevations ranging from 120 – 2,500 feet above mean sea level (msl). Residuum weathered from andesite and/or residuum weathered from metasedimentary rock is the parent material of these soils. A typical profile consists of gravelly loam, clay, and weathered bedrock. The depth to the water level is typically more than 80 inches, and these soils are well drained and have a very low to moderately low permeability, 0.00 to 0.06 inches/hour, with a medium run-off rate. They have no ponding or flooding frequency.

Auburn very rocky silt loam, 2-30% slopes, soils occur on hills at elevations ranging from 120 – 3,000 feet above mean sea level (msl). Residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock. A typical profile consists of zero to 14 inches of silt loam over 14-18 inches of bedrock, and rock outcrop comprises 15% of this soil series. The depth to the water level is typically more than 80 inches, and these soils are well drained and have a very low to moderately low permeability, 0.00 to 0.06 inches/hour, with a medium run-off rate. They have no ponding or flooding frequency.

There are serpentinitic soils located approximately three miles to the north/northwest and five miles to the southeast of the Study Area (Figure 2b).

Attachment B



FIGURE 2a - NRCS MAPPED SOILS

Date: March 02, 2022

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Attachment B



FIGURE 2b - SERPENTINITIC AND ULTRAMFIC SOILS

Date: March 02, 2022

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4.2 WETLANDS AND "OTHER WATERS OF THE U.S." AND "WATERS OF THE STATE"

The National Wetlands Inventory (NWI; Figure 3) shows a tributary to Carson Creek along the western border of the parcel, while the California Aquatic Resources Inventory (CARI; Figure 4) map shows no documented aquatic resources on the property. There are approximately 0.174 (7,588 square feet) acres of Waters of U.S./State are present on the property (Figure 6).

TABLE 1: WETLANDS AND "OTHER WATERS OF THE U.S."

WATERS OF THE U.S./STATE*	ACRES	SQUARE FEET
Waters of the U.S./State Total	0.174	7,588
Total	**0.174**	**7,588**

Approximately 1,271 feet of the approximately 6-foot wide Carson Creek tributary supports an approximately 50' wide corridor of riparian habitat along its banks within the Study Area. There was water present in the creek during the March 17, 2022 field survey.

4.3 VEGETATION COMMUNITIES

At the time of the survey, the entire site was comprised of typical Central Valley/Sierra Nevada Foothills annual grassland habitat with no trees on the parcel itself apart from those associated with the riparian habitat along the Carson Creek tributary.

The site's (non-riparian) grassland community is comprised primarily of common ruderal grasses such as barley (*Hordeum marinum*), ryegrass (*Lolium* sp.), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barbed goatgrass (*Aegilops triumcialis*), rattlesnake grass (*Briza minor*), and wild oat (*Avena fatua*). Common herbaceous species on this site include black mustard (*Brassica nigra*), California horkelia (*Horkelia californica*), vetch (*Vicia villosa*), St. John's wort (*Hypericum perforatum*), brodiaea (*Brodiaea elegans*), fiddleneck (*Amsinckia* sp.), clover (*Trifolium repens*), milkthistle (*Silybum marianum*), and bindweed (*Convolvulus arvensis)*.

The Carson Creek tributary along the site's western boundary supports an approximately 50' wide riparian corridor along its banks with dominant overstory species that include Freemont's cottonwood (*Populus freemontii*), interior live oak (*Quercus wislizeni*) and various species of willow (*Salix* sp). Approximately 200 linear feet of this riparian corridor east of the creek in the northern portion of the Study Area appeared to have been cleared in 2013 and gradually recolonized with a stand of broadleaf cattail (*Typha latifolia*), more common in marsh-type habitats than the riparian scrub along the majority of the creek.

4.4 WILDLIFE

Wildlife species observed during our field survey in the grasslands portion of the Study Area include European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), western kingbird (*Tyrannus verticalis*), mourning dove (*Zenaida macroura*), lesser goldfinch (*Carduelis psaltria*), western meadowlark *(Sturnella neglecta*), and

Attachment B



FIGURE 3 - NATIONAL WETLANDS INVENTORY (NWI) WETLANDS

Date: March 02, 2022

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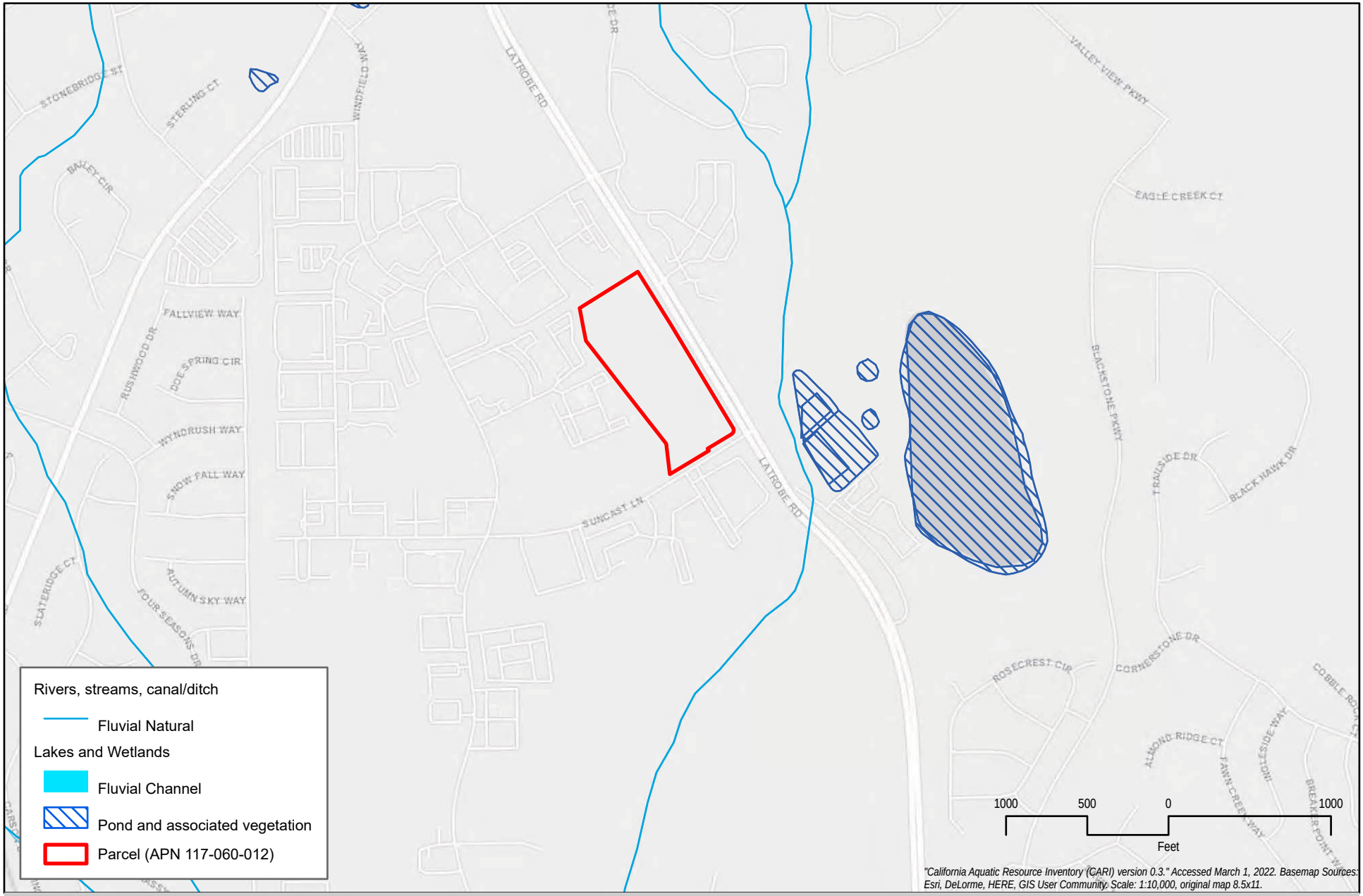


FIGURE 4 - CALIFORNIA AQUATIC RESOURCES INVENTORY (CARI) WETLAND

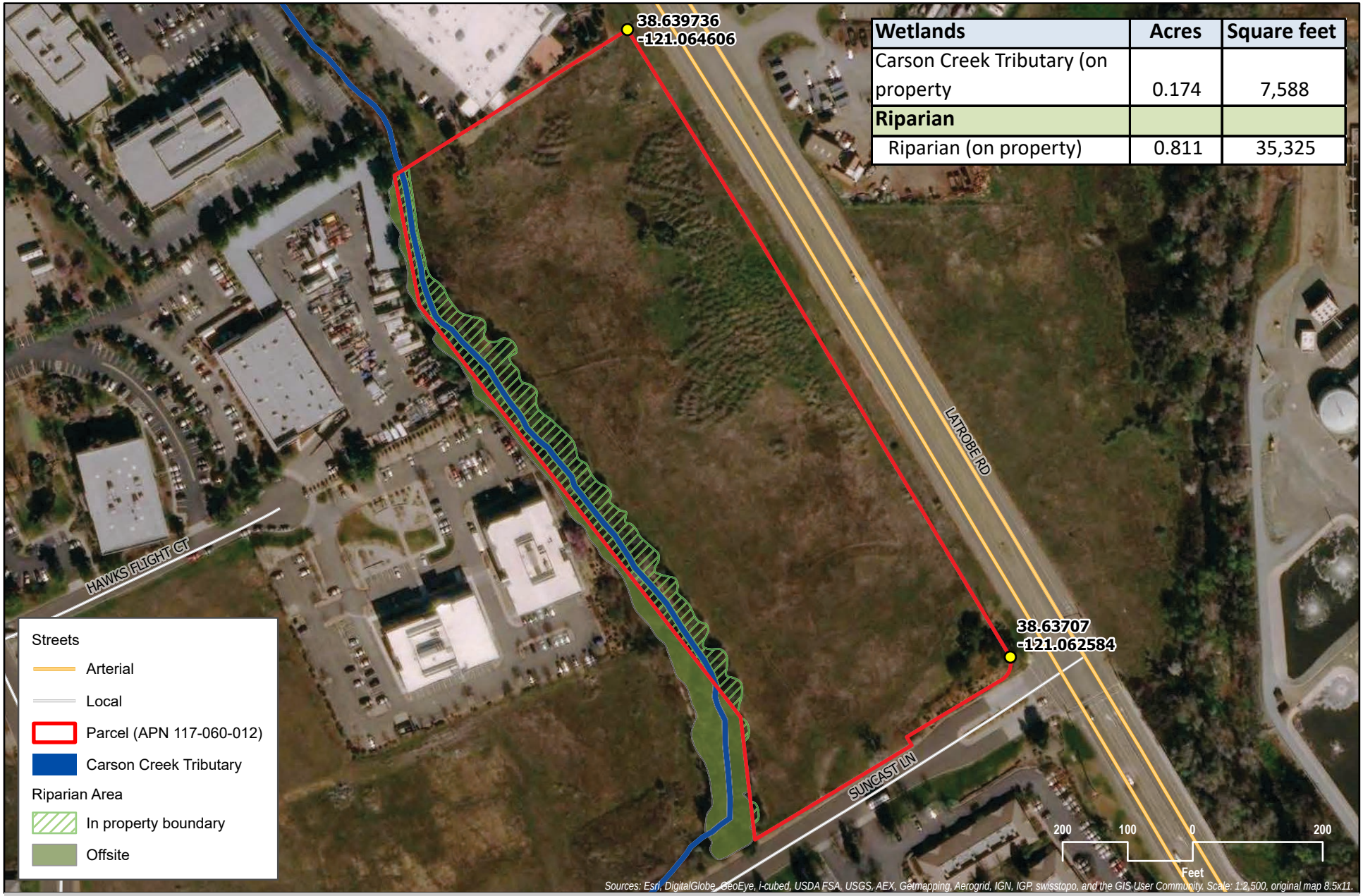
Date: March 02, 2022

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Wetlands	Acres	Square feet
Carson Creek Tributary (on property	0.174	7,588
Riparian		
Riparian (on property)	0.811	35,325

FIGURE 5 - EXISTING CONDITIONS

Date: March 26, 2022

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black-tailed jackrabbit (*Lepus californicus*). Burrows of smaller rodents such as the California vole (*Microtus californicus*) and deer mouse (*Peromyscus maniculatus*) were also evident throughout.

There was no nesting activity in the riparian habitat along the Carson Creek tributary at the time of the survey, but one could expect bird species such as the red-winged blackbird (*Agelaius phoeniceus*) and black phoebe (*Sayornis nigricans*) to nest there; reptiles such as the common garter snake (*Thamnophis sirtalis*) and possibly western pond turtle (*Actinemys marmorata*); and mammals such as the raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis vlrginiana*). Though unlikely at this location, Carson Creek could also possibly support fish species such as green sunfish (*Lepomis cyanellus*), bluegill (*Lepomis macrochirus*), and mosquitofish (*Gambusia affinis*).

5.0 SPECIAL STATUS SPECIES

Special status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the Federal Endangered Species Act (FESA) (50 CFR 17.11/17.12) (or formally proposed for listing) (64 FR 205, October 25, 1999; 57533-57547),
- Listed as endangered or threatened under the California Endangered Species Act (CESA) (or proposed for listing) (14 California Code of Regulations [CCR] 670.5),
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code (FGC, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Designated a Species of Concern by the California Department of Fish and Game,
- Defined as rare or endangered under the California Environmental Quality Act (CEQA), or
- Occurring on List 1 or 2 maintained by the California Native Plant Society.

We reviewed California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) Inventory, and U.S. Fish & Wildlife Service (FWS) iPAC database for special status species potentially occurring within the project vicinity (i.e. five-mile radius). While there may be a number of plant and animal species occurring within five miles of the Study Area (Figure 6), we can refine the list of those species with any real potential of occurring in the Study Area by filtering our query for relevant onsite habitats, locations, and elevations. A summary of the results of this query can be found in Table 2.

5.1 CRITICAL HABITAT FOR SPECIAL STATUS SPECIES

The Federal Endangered Species Act (FESA) requires the federal government to designate critical habitat for any listed species. Critical habitat is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. There is no designated critical habitat within five miles of the Study Area.

Attachment B



Detail Map



- Parcel (APN 117-060-012)
- bald eagle, 1
- Boggs Lake hedge-hyssop, 2
- burrowing owl, 3
- California black rail, 4
- coast horned lizard, 5
- El Dorado County mule ears, 6
- golden eagle, 7
- Layne's ragwort, 8
- legenere, 9
- Sanford's arrowhead, 10
- Swainson's hawk, 11
- tricolored blackbird, 12
- valley elderberry longhorn beetle, 13
- vernal pool fairy shrimp, 14
- vernal pool tadpole shrimp, 15
- western pond turtle, 16
- western spadefoot, 17
- white-tailed kite, 18

CNDDB version March 2022. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area CDFW. https://www.wildlife.ca.gov/Data/CNDDB Accessed March 1, 2022. Sources: Esri, DeLorme, HERE. Scale: 1:78,000, original map 11x17.

FIGURE 6 - CALIFORNIA NATIONAL DIVERSITY DATABASE (CNDDB) RECORDED SPECIES OBSERVATION

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Attachment B

TABLE 2: SPECIAL STATUS WITH POTENTIAL TO OCCUR IN THE STUDY AREA

Amphibians						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
California red-legged frog *Rana draytonii*	FT	SSC		This species inhabits aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dunes, and lagoons.	Very low	The Carson Creek tributary provides possible habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Study Area, and Barnett Environmental saw no sign of this species during the March 2022 site visit.
foothill yellow-legged frog *Rana boylii*		CE, SSC		The foothill yellow-legged frog is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types.	Very low	The Carson Creek tributary on site may provide habitat for this species. There are no reported CNDDB occurrences within five miles of the Study Area, and Barnett Environmental made no observation of this species during the Barnett Environmental March 2022 site visit.

Reptiles						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
western pond turtle *Emys marmorata*		SSC		The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches and reservoirs. Turtles bask on land or near water on logs, branches or boulders.	Low	The Carson Creek tributary provides potential habitat for this species. There are four reported CNDDB occurrences within five miles of the Study Area. The most recent and the closest was in 2016, 1.74 miles to the south. There was no sign of this species during the Barnett Environmental March 2022 field survey.

Attachment B

Birds						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
burrowing owl *Athene cunicularia*		SSC		Burrowing owls live in burrows dug by other animals in open, treeless spaces. Favored nest burrow sites are those with sandy locations and areas with low vegetation around the burrows.	Very low	Overgrown grasses and forbs on site could provide habitat for this species, but the disturbance due to Latrobe road likely acts a deterrent for this species. There are three reported CNDDB occurrences within five miles of the Study Area. The most recent was in 2010, 2.87 miles to the southwest, and the closest was 0.1 miles to the west/ southwest in 2006. There was no sign of this species during the Barnett Environmental March 2022 site visit.
California black rail *Laterallus jamaicensis*		FT, FP		California rails inhabit tidal marshes and freshwater marshes. They inhabit the drier parts of wetlands.	None	There are no marshes on site that could provide habitat for this species. There is only one reported CNDDB occurrence within five miles of the Study Area, 0.54 miles to southeast in 2017. There was no sign of this species during the Barnett Environmental March 2022 field survey.
golden eagle *Aquila chrysaetos*		FP		This species favor partially or completely open country, especially close to mountains, hills and cliffs. They can be found in a variety of habitats, ranging from grassland to coniferous forests, farmlands and areas along rivers and streams.	Low	The Carson Creek tributary may provide potential foraging habitat for this species. There are two reported CNDDB occurrences within five miles of the Study Area. The most recent was in 2015, 2.9 miles to the northeast, and the closest was 2.3 miles to the northeast in 2014. There was no sign of this species during the Barnett Environmental field visit.
Swainson's hawk *Buteo swainsoni*		FT		Open areas like savannas, grasslands, steppes, and cultivated lands.	Very low	The Study Area could provide possible foraging habitat for this species. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 2.76 miles to the southwest in 1982. There was no sign of this species during the Barnett Environmental field survey.
tricolored blackbird *Agelaius tricolor*		FT, SSC		This species forages in open habitat such as farm fields, pastures and large lawns. Within the Central Valley, breeding colonies live in the rice-growing regions of the Sacramento Valley and in the pasturelands of the lower Sacramento Valley and San Joaquin Valley.	Moderate	The grasslands of the Study Area may provide foraging habitat for this species. There are ten reported CNDDB occurrences within five miles of the Study Area. The most recent observation was in 2016, 4.74 miles to the southwest, and the closest was in 2014, 0.692 miles to the south. Barnett Environmental made no observation of this species during its March 2022 field visit.

Attachment B

Birds						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
white-tailed kite *Elanus leucurus*	FP			Found in a wide variety of open habitats in North America, including open oak grassland, desert grassland, farm country, marshes. The main requirements seem to be trees for perching and nesting, and open ground with high populations of rodents.	Low	The grasslands at this location could provide potential foraging habitat for this species. There are three reported CNDDB occurrences within five miles of the Study Area. The most recent was 3.3 to the northwest in 2008, and the closest was 2.8 miles to the northwest in 1990. Barnett Environmental saw no sign of this species during its visit in March 2022.

Plants						
Species	**Federal**	**State**	**CNPS**	**Habitat**	**Potential for Occurrence**	**Rationale for Assessing Potential**
Boggs Lake hedge-hyssop *Gratiola heterosepala*	FE		1B.2	Freshwater wetlands, wetland-riparian	Very low	The site offers marginal habitat for this species along the Carson Creek tributary. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 4.76 miles to the west/ southwest in 1989. There was no sign of this species during the Barnett Environmental March 2022 field survey.
legenere *Legenere limosa*			1B.1	Valley grasslands, freshwater wetlands, wetland-riparian,	Very low	The Carson Creek tributary may provide habitat for tis species. There is only one reported CNDDB occurrence within five miles of the Study Area, 4.9 miles to the southwest in 2015. There was no sign of this species during the Barnett Environmental March 2022 field visit.
Sanford's arrowhead *Sagittaria sanfordii*			1B.2	Occurs in Wetlands, shallow freshwater marsh, wetland -riparian. It has mostly disappeared from the Central Valley and is not present in southern California.	Very low	The Carson Creek tributary may provide potential habitat for this species. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 0.95 miles to the southwest in 2005. There was no sign of this species during the Barnett Environmental field survey.

RARE PLANT SPECIES:

There are three special status plant species with the potential to occur on this property: legenere, Boggs Lake hedge-hyssop, and Sanford's arrowhead.

1. **Legenere** (*Legenere limosa*) – This dicot is a 1B.1 California rare plant in the bellflower family. This species has reclining stems that grow up to one foot long. It blooms from April through June and is associated with smaller, densely vegetated vernal pools ranging from 1.5 to 15 inches in freshwater wetlands, valley grasslands, and wetland-riparian communities. The tributary to Carson Creek may provide potential habitat for this species. There are three reported CNDDB occurrences within five miles of the Study Area. The most recent was in 2010, 2.87 miles to the southwest, and the closest was 0.1 miles to the west/southwest in 2006. There was no sign of legenere during the Barnett Environmental March 2022 site visit.

2. **Boggs Lake hedge-hyssop** (*Gratiola heterosepala*) – This dicot is a 1B.2 California rare plant in the snapdragon family. It has erect, striate stems with lengths from 0.78 to 3.93 inches. Its flowers are few and borne on slender, erect pedicels lacking bracts. This species is a semi-annual aquatic species that grows in mud and shallow water and flowers from April to July. Flower colors are yellow/white. The site offers marginal habitat for this species along the Carson Creek tributary. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 4.76 miles to the west/southwest in 1989. There was no sign of Boggs Lake hedge-hyssop during the Barnett Environmental March 2022 field survey.

3. **Sanford's arrowhead** (*Sagittaria sanfordii*) – This monocot is a 1B.2 California rare plant in the plantain family. This species is an aquatic perennial herb up to 130 cm tall, growing from a spherical tuber. The leaves are very often submerged, variable in shape, usually long and strap-shaped or narrowly lanceolate. Leaves may grow up to 25 centimeters long from the underwater stem. The plant is monoecious, with individuals bearing both male and female flowers. The inflorescence which rises above the surface of the water is a raceme made up of several whorls of flowers, the lowest node bearing female flowers and upper nodes bearing male flowers. The flower is up to 3. 5 centimeters wide with white petals. The male flowers have rings of stamens at the centers. Female flowers each have a spherical cluster of pistils which develops into a head of tiny fruits. The Carson Creek tributary may provide potential habitat for this species. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 0.95 miles to the southwest in 2005. There was no sign of Sanford's arrowhead during the Barnett Environmental March 2022 field survey.

FEDERALLY LISTED WILDLIFE SPECIES:

There is only one federally listed animal species within the potential to occur in the Study Area (Table 2).

1. **California red-legged frog** (*Rana draytonii*). The California red-legged frog is federally listed as threatened under the endangered species act and as a species of special concern in California. It is the largest native frog in the western United States, ranging from 1.75 to 5.25 inches in length. From above, this frog can appear brown, grey, olive, red, or orange, often with a pattern of dark specks or spots. The hind legs are well-developed with large, webbed feet. The undersides of adult California red-legged frogs are white, usually with patches of bright red or orange on the abdomen and hind legs. This species inhabits aquatic habitats including pools

Attachment B

Special Status Species Codes:

FE = Federally listed as Endangered
FT = Federal listed as Threatened
CE = State listed as Endangered
CT = State listed as Threatened
Rare = State listed as Rare
FP = State, Fully Protected
SSC = State Species of Special Concern

1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
2B.1 = Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California

Potential for Occurrence Codes:

None: No suitable habitat for the special status species within the Assessment Area

Very Low: Either the special status species is known to occur within five miles and there is marginal suitable habitat exists in the Assessment Area, or the Assessment Area provides suitable habitat, but the species is not known to occur within a five-mile radius.

Low: Marginally suitable habitat exists in the Assessment Area and the special status species occurs within 5 miles but surrounding urban land use conditions and regularity of human activity make it unlikely that the species occurs in the Assessment Area.

Moderate: The special status species is known to occur within a five-mile radius and the Assessment Area contains suitable habitat, however surrounding urban land use conditions and onsite disturbance reduce the likelihood of occurrence.

High: The Assessment area provides suitable habitat and there is either documentation of species occurrence within a five-mile radius or evidence gathered by a professional surveyor during an onsite field assessment.

Present: Species known to occur within the Assessment Area based on record search and/or evidence collect during onsite field surveys.

and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dunes, and lagoons. The Carson Creek tributary provides possible habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Study Area, and there was no sign of California red-legged frogs during the Barnett Environmental's March 2022 site visit.

STATE-LISTED SPECIES:

There are three state listed special status species with the potential to occur in the Study Area (Table 2):

1. **Swainson's hawk** *(Buteo swainsoni)* – This raptor is listed as threatened by the state of California. Swainson's hawk is a medium sized raptor, approximately 19-22 inches in length and weighing between 1.5 to 3.5 pounds. Light-morph adults are white on the underparts with a dark, reddish "bib" on the chest and a noticeable white throat and face patch, while dark-morph birds are dark brown except for a light patch under the tail. Its habitat is great basin grassland, riparian forest and woodlands, valley and foothill grassland. Swainson's hawk breeds in grasslands with scattered trees, juniper-sage flats, savannahs, and agricultural or ranch lands with groves or lines of trees. The Study Area provides potential foraging habitat for this species. However, there is only one reported CNDDB occurrence within five miles of the Study Area, 2.76 miles to the southwest in 1982. No Swainson's hawks were observed during the Barnett Environmental March 2022 field survey.

2. **Tricolored blackbird** (*Agelaius tricolor*) - The tricolored blackbird is a passerine bird of the family Icteridae. The common name is taken from the male bird's distinctive white stripes underneath their red shoulder patches, or "epaulets", which are visible when the bird is flying or displaying. From afar, tricolored blackbirds have a stocky, broad-shouldered look and when perched often look humpbacked. Like other members of the blackbird family, they have a slender conical bill and a longish tail. Females are smaller than males. The grasslands of the Study Area may provide foraging habitat for this species. There are ten reported CNDDB occurrences within five miles of the Study Area. The most recent observation was in 2016, 4.74 miles to the southwest, and the closest was in 2014, 0.692 miles to the south. Barnett Environmental made no observation of tricolored blackbird during its March 2022 field visit.

CALIFORNIA SPECIES OF SPECIAL CONCERN

There are two California Species of Special Concern have the potential to occur in the Study Area.

1. **Western burrowing owl** *(Athene cunicularia)* – The western burrowing owl is a species of special concern in California. It is a small, long-legged owl, ranging from seven to 10 inches in height. They have a round head, white eyebrows, yellow eyes, and long heads. Burrowing owls can be found in grasslands, rangelands, agricultural areas, deserts, or any other open dry area with low vegetation. They nest and roost in burrows, such as those excavated by prairie dogs. While the Study Area may provide potential habitat for this species, there was no observation made of any burrows on the site. There are three reported CNDDB occurrences within five miles of the Study Area. The most recent was in 2010, 2.87 miles to the southwest, and the closest was 0.1 miles to the west/southwest in 2006. There was no sign of western burrowing owl during the Barnett Environmental March 2022 site visit.

2. **Western pond turtle** (*Actinemys marmorata*) – This species is a candidate for federal status U. S. Fish and Wildlife Service, and it is listed as a species of special concern in California. It is a small to medium sized turtle in the Emydidae family, reaching between seven and nine inches in length. Its dorsal color is usually dark brown or dull olive with or without streaking. Adult turtles have a yellowish belly, with dark blotches and black spots or lines on top of their heads. The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches and reservoirs. They bask on land or near water on logs, branches or boulders. The Carson Creek tributary provides potential habitat for this species. There are four reported CNDDB occurrences within five miles of the Study Area. The most recent and the closest was in 2016, 1.74 miles to the south. There was no sign of the western pond turtle during the Barnett Environmental March 2022 field survey.

3. **Foothill yellow-legged frog** *(Rana boylii)* – A species of special concern in California, this attractive frog can be gray, brown or reddish on its back. It is commonly spotted or mottled. The foothill yellow-legged frog is a striking stream-dwelling amphibian with a distinctive lemon-yellow color under its legs. The foothill yellow-legged frog is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types. The Carson Creek tributary on the Study Area's western border provides marginal habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Study Area, and Barnett Environmental made no observation of the yellow-legged frog during the Barnett Environmental March 2022 site visit.

CALIFORNIA FULLY PROTECTED SPECIES

There is only one California fully protected species with the potential to occur in the Study Area.

4. **White-tailed kite** *(Elanus leucurus)* – This raptor is a fully protected species in California. It is a small to medium-sized raptor with narrow, pointed wings and a long tail. When perched, it looks rather big-headed with a long and skinny body. This species is easily identified by its entirely white tail, red eyes, and black shoulder patches. It occurs in open grasslands, fields, and meadows. Isolated trees in close proximity to foraging habitat are used for perching and nesting. The Study Area could provide potential foraging habitat

for this species. There are three reported CNDDB occurrences within five miles of the Study Area. The most recent was 3.3 to the northwest in 2008, and the closest was 2.8 miles to the northwest in 2008, and the closest was 2.8 miles to the northwest in 1990. Barnett Environmental saw no sign of the white-tailed kite during its visit in March 2022.

5. **Golden eagle** *(Aquila chrysaetos)* - The golden eagle is a fully protected species in California. Adult Golden Eagles are dark brown with a golden sheen on the back of the head and neck. The Study Area could provide potential foraging habitat for the Golden eagle. Golden Eagles favor partially or completely open country, especially around mountains, hills, and cliffs. They use a variety of habitats ranging from arctic to desert, including tundra, shrublands, grasslands, coniferous forests, farmland, and areas along rivers and streams. The Study Area could provide potential foraging habitat for this species. There are two reported CNDDB occurrences within five miles of the Study Area. The most recent was in 2015, 2.9 miles to the northeast, and the closest was 2.3 miles to the northeast in 2014. There was no sign of the golden eagle during the Barnett Environmental March 2022 field visit.

6.0 MITIGATION MEASURES FOR POTENTIAL IMPACTS

The following measures shall be taken to mitigate for any potential impacts to special status species.

6.1 SPECIAL PLANT SPECIES

During the appropriate bloom period prior to construction, a qualified botanist will conduct special-status plant species presence/absence surveys within areas proposed for grading or modification, in accordance with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (California Department of Fish and Game 2009) to determine which special-status plants with the potential to occur on site are evident and identifiable onsite. If any sensitive plant species are observed during the presence/absence surveys and it is determined that such plants would be impacted by project activities, CDFW and the USFWS (if the species is also on the federal list of sensitive species) would be consulted to determine appropriate measures to ensure the protection of the species and its habitat. Such mitigation should include avoidance or, if avoidance is not possible, relocation of affected plants to a mitigation site located in similar habitat within the project site in an area where no impacts are expected to occur. The relocation site should be in an area that is protected from impacts through human disturbance by fencing during the season that special-status plant species would be evident and identifiable—i.e., during their recognized bloom period.

6.2 SWAINSON'S HAWK MITIGATION MEASURE

No Swainson's hawks were observed during the January 2022 field survey; however, a preconstruction raptor survey during the breeding period to determine presence or absence of this, or any other raptor species that may be present either in, or within a 500' buffer of the Study Area. Therefore, prior to issuance of a grading permit for development:

1. A pre-construction nesting bird survey shall be conducted on-site within 15 days prior to construction if construction associated with the project would commence between March 1st and September 1st (i.e., the formally recognized start/end of the nesting season). If disturbance associated with the project would occur outside of the nesting season, no surveys shall be required.
2. If Swainson's hawk are identified as nesting within the Study Area, a sufficient buffer (to be determined in consultation with CDFW) shall be established. The buffer shall be delineated with orange construction fencing. Disturbance within the buffer shall be postponed until an approved biologist has determined that the young have either fledged the nest or that the nesting cycle has otherwise been completed or aborted.

6.3 SPECIAL-STATUS BIRD SPECIES MITIGATION MEASURE

A qualified biologist would conduct nesting bird surveys within 30 days of initiation of ground disturbance activities within the proposed construction footprint (plus predetermined buffer) suitable habitat (and within the appropriate nesting season) throughout the project site to avoid impacts to nesting birds associated with construction. Surveys shall be conducted prior to ground disturbing activities. If an active nest is located, all clearing and construction within 300 feet of the nest (500 feet for raptor nests) or as designated appropriate by a biological monitor, shall be postponed until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting, as determined by a qualified biologist. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described. Additional surveys would then be conducted if ground-disturbing activities are delayed due to active bird nesting, until the qualified biologist determines that the young associated with an active nest have fledged.

6.4 CALIFORNIA RED-LEGGED FROG, YELLOW-LEGGED FROG, WESTERN POND TURTLE MITIGATION

Construction will take place during the summer months to avoid any impacts to the California red-legged frog, the yellow-legged frog, or the western pond turtle.

7.0 CONCLUSIONS

The Study Area contains 0.174 acres of wetlands or "other waters" of the U.S or State within its boundaries. Any work encroaching on these wetlands would require a 1602 Lake and Stream Agreement from the California Department of Fish and Wildlife, a 401 Water Quality Certification for the California Water Board, and a 404 Nationwide Permit from the Army Corps of Engineers.

There are three special status species (legenere, Boggs Lake hedge-hyssop, Sanford's arrowhead), one federally-listed species (California red-legged frog), two state-listed species (Swainson's hawk, tricolored blackbird), three state species of special concern (western burrowing owl, western pond turtle, yellow-legged frog), and two state fully protected species (white-tailed kite, golden eagle) that have the potential to occur on site. In order to confirm the presence or absence of these species of special concern, we recommend pre-construction surveys within two

weeks of planned construction. Furthermore, construction should only take place during the summer months to avoid impacts to any amphibian or reptile special species.

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Attachment B

Appendix A: NRCS Soils Report

Attachment B

United States Department of Agriculture

NRCS

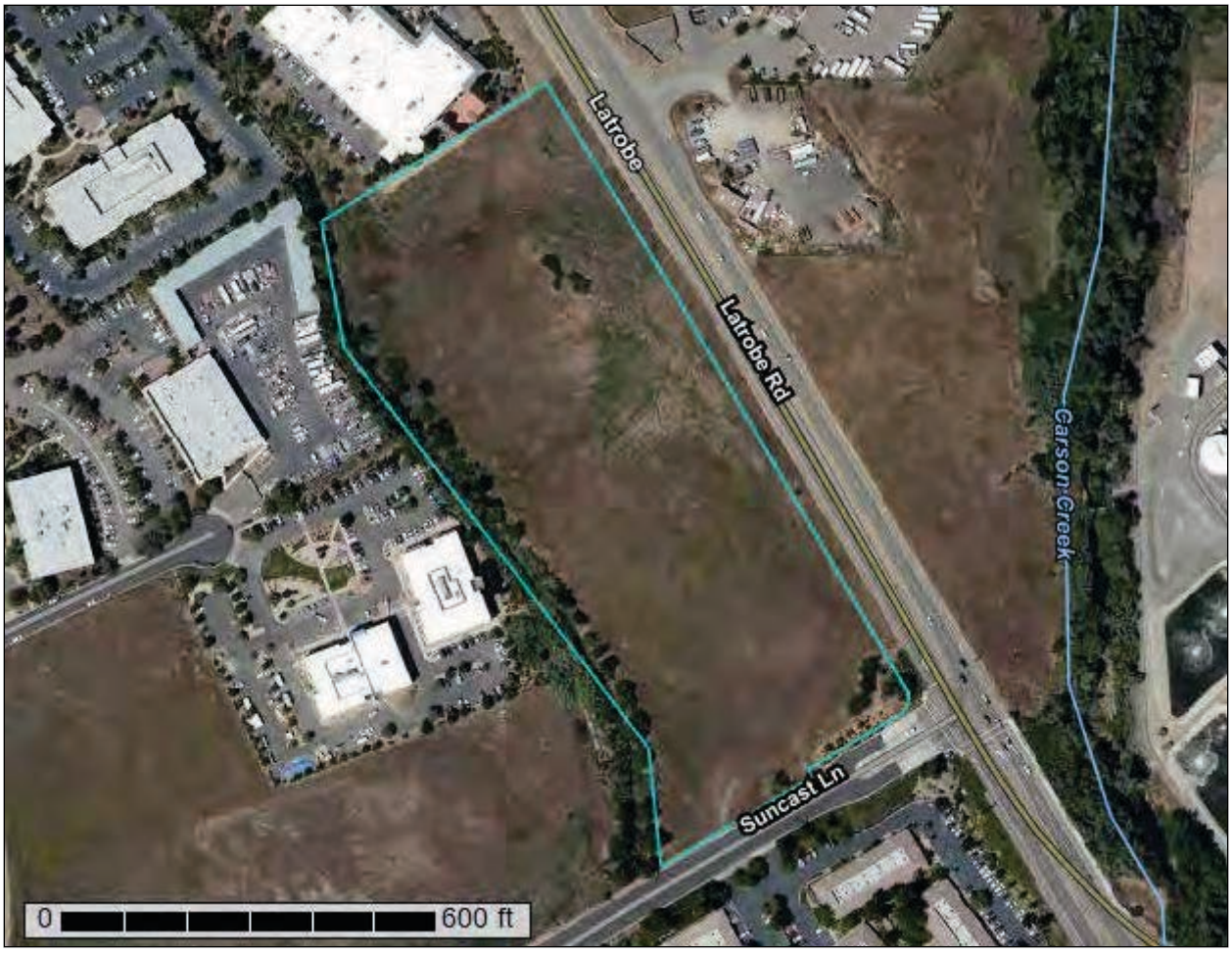
Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for

El Dorado Area, California

4500 Latrobe Rd



March 2, 2022

Attachment B

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Attachment B

Contents

Preface.....2
Soil Map.....5
Soil Map.....6
Legend.....7
Map Unit Legend.....8
Map Unit Descriptions.....8
El Dorado Area, California.....10
AkC—Argonaut gravelly loam, 2 to 15 percent slopes.....10
AxD—Auburn very rocky silt loam, 2 to 30 percent slopes.....11
References.....14

Attachment B

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Attachment B

Custom Soil Resource Report

Soil Map



Map Scale: 1:2,230 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

Attachment B

Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Dorado Area, California
Survey Area Data: Version 13, Sep 3, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 8, 2019—May 12, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AkC	Argonaut gravelly loam, 2 to 15 percent slopes	1.3	10.8%
AxD	Auburn very rocky silt loam, 2 to 30 percent slopes	10.7	89.2%
Totals for Area of Interest		**12.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Dorado Area, California

AkC—Argonaut gravelly loam, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: hhyb
Elevation: 120 to 2,500 feet
Mean annual precipitation: 20 to 50 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 220 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Argonaut and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Argonaut

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from andesite and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 10 inches: gravelly loam
H2 - 10 to 30 inches: clay
H3 - 30 to 34 inches: weathered bedrock

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: 30 to 34 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: F018XI201CA - Moderately Deep Thermic Foothills 22-31 PZ
Hydric soil rating: No

Minor Components

Sobrante

Percent of map unit: 7 percent

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Auburn

Percent of map unit: 7 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent
Landform: Fan remnants
Hydric soil rating: Yes

AxD—Auburn very rocky silt loam, 2 to 30 percent slopes

Map Unit Setting

National map unit symbol: hhyr
Elevation: 120 to 3,000 feet
Mean annual precipitation: 20 to 40 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 175 to 275 days
Farmland classification: Not prime farmland

Map Unit Composition

Auburn and similar soils: 75 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Auburn

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 18 inches: unweathered bedrock

Properties and qualities

Slope: 2 to 30 percent
Depth to restrictive feature: 14 to 18 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R018XD076CA - SHALLOW LOAMY
Hydric soil rating: No

Description of Rock Outcrop

Setting

Parent material: Metamorphic rock

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Minor Components

Argonaut

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Boomer

Percent of map unit: 3 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Sobrante

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent
Hydric soil rating: No

Attachment B

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Appendix B: CNDDB

Attachment B

Multiple Occurrences per Page

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Clarksville (3812161))
 AND (Federal Listing Status IS (Endangered OR Threatened) OR State Listing Status IS (Endangered OR Threatened))

Rana draytonii **Element Code:** AAABH01022

California red-legged frog

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G2G3
	State:	None		**State:**	S2S3
	Other:	CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable			
Habitat:	**General:**	LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.			
	Micro:	REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.			

Occurrence No.	814	**Map Index:**	61448	**EO Index:**	61484	**Element Last Seen:**	2005-05-12
Occ. Rank:	Fair			**Presence:**	Presumed Extant	**Site Last Seen:**	2005-05-12
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2005-05-31

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.73547 / -121.08304	**Accuracy:**	80 meters
UTM:	Zone-10 N4289167 E666615	**Elevation (ft):**	485
PLSS:	T10N, R08E, Sec. 10, SE (M)	**Acres:**	0.0

Location: DRAINAGE / WATERCOURSE AT THE END OF FITCH WAY, EAST SIDE OF FOLSOM LAKE, SW OF IRON MOUNTAIN.

Detailed Location: THIS DRAINAGE EMANATES FROM A PVC PIPE AT THE END OF FITCH WAY; FROG OBSERVED ON A SMALL FOOTBRIDGE CROSSING THE WATERCOURSE.

Ecological: HABITAT CONSISTS OF A SMALL WATERCOURSE THAT DRAINS INTO FOLSOM LAKE; VEGETATED BY SEDGES AND HIMALAYAN BLACKBERRY.

General: 1 JUVENILE FROG WITH DISTINCT DORSOLATERAL FOLDS AND REDISH UNDER THIGHS OBSERVED ON 12 MAY 2005 BY A STATE PARK BIOLOGIST.

Owner/Manager: DPR-FOLSOM LAKE SRA, USBOR

Rana boylii **Element Code:** AAABH01050

foothill yellow-legged frog

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3
	State:	Endangered		**State:**	S3
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, USFS_S-Sensitive			
Habitat:	**General:**	PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.			
	Micro:	NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.			

Occurrence No.	1913	**Map Index:** A9341	**EO Index:**	111185	**Element Last Seen:** 1972-03-28
Occ. Rank:	None		**Presence:**	Extirpated	**Site Last Seen:** 1972-03-28
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2018-09-21

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.71007 / -121.07854	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4286355 E667066	**Elevation (ft):**	630
PLSS:	T10N, R08E, Sec. 22, NE (M)	**Acres:**	70.0

Location: SALMON FALLS ROAD AT GREEN VALLEY ROAD, JUST EAST OF FOLSOM LAKE, EL DORADO HILLS.

Detailed Location:

Ecological:

General: COLLECTED ON 28 MAR 1972. ACCORDING TO JENNINGS, RANA BOYLII IS EXTIRPATED FROM THIS VICINITY.

Owner/Manager: UNKNOWN

Haliaeetus leucocephalus

Element Code: ABNKC10010

bald eagle

Listing Status:	**Federal:**	Delisted	**CNDDB Element Ranks:**	**Global:**	G5
	State:	Endangered		**State:**	S3
	Other:	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	OCEAN SHORE, LAKE MARGINS, AND RIVERS FOR BOTH NESTING AND WINTERING. MOST NESTS WITHIN 1 MILE OF WATER.			
	Micro:	NESTS IN LARGE, OLD-GROWTH, OR DOMINANT LIVE TREE WITH OPEN BRANCHES, ESPECIALLY PONDEROSA PINE. ROOSTS COMMUNALLY IN WINTER.			

Occurrence No.	130	**Map Index:** 22872	**EO Index:**	11783	**Element Last Seen:** 1996-01-16
Occ. Rank:	Fair		**Presence:**	Presumed Extant	**Site Last Seen:** 1996-01-16
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 1996-02-07

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.67978 / -121.02259	**Accuracy:**	2/5 mile
UTM:	Zone-10 N4283097 E672004	**Elevation (ft):**	1250
PLSS:	T10N, R09E, Sec. 31, NE (M)	**Acres:**	0.0

Location: BASS LAKE, EL DORADO HILLS.

Detailed Location:

Ecological: WINTERING TERRITORY. HABITAT CONSISTS OF FOOTHILL PINE/OAK WOODLAND; OAK WOODLAND DOMINATES THE NORTH AND WEST EDGE OF THE RESERVOIR, FOOTHILL PINES DOMINATE THE EAST EDGE, AND GRASSLAND IS FOUND ALONG THE REMAINING AREA.

General: EAGLES HAVE BEEN OBSERVED WINTERING AT THIS SITE FOR THE PAST 40 YEARS. TWO ADULTS WINTERED IN 1992-93; TWO ADULTS WINTERED IN 1993-94; ONE ADULT WINTERED IN 1994-95; ONE ADULT WINTERED IN 1995-96.

Owner/Manager: EL DORADO IRRIGATION DISTRICT

Occurrence No.	358	**Map Index:** 95316	**EO Index:**	96445	**Element Last Seen:** 2015-02-19
Occ. Rank:	Good		**Presence:**	Presumed Extant	**Site Last Seen:** 2015-02-19
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2015-02-26

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.70592 / -121.10757	**Accuracy:**	80 meters
UTM:	Zone-10 N4285843 E664551	**Elevation (ft):**	610
PLSS:	T10N, R08E, Sec. 21, SW (M)	**Acres:**	0.0

Location: 0.3 MI N OF GREEN VALLEY RD AT SOPHIA PKWY, BTWN MORMON ISLAND DAM & BROWN'S RAVINE, EL DORADO HILLS, FOLSOM LAKE SRA.

Detailed Location:

Ecological: BASED ON 2014 AERIALS, NEST IS LIKELY IN A GRAY PINE.

General: TWO ADULTS WERE OBSERVED AT THE NEST ON 19 FEB 2015.

Owner/Manager: DPR-FOLSOM LAKE SRA, USBOR

Laterallus jamaicensis coturniculus

Element Code: ABNME03041

California black rail

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G3G4T1
	State:	Threatened		**State:**	S1
	Other:	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_NT-Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.			
	Micro:	NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.			

Occurrence No.	304	**Map Index:** A5574	**EO Index:**	107311	**Element Last Seen:** 2017-05-21
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:** 2017-05-21
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:** 2017-07-28

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.63051 / -121.05533	**Accuracy:**	80 meters
UTM:	Zone-10 N4277569 E669272	**Elevation (ft):**	550
PLSS:	T09N, R08E, Sec. 13, SW (M)	**Acres:**	5.0

Location: NNE OF ALDRIDGE WAY AT BLACKSTONE PARKWAY, ABOUT 1.3 MILES SE OF WHITE ROCK RD AT LATROBE RD, SHINGLE SPRINGS.

Detailed Location: EAST SIDE OF BLACKSTONE PKWY AT CLOVER VALLEY LN. ACCESS IS LIMITED; SURROUNDED BY RESIDENTIAL HOUSES AND APPARENTLY CAN NOT BE HEARD FROM ROADWAY.

Ecological: AS LATE AS 2002 THIS WAS A MINOR DRAINAGE IN GRASSLAND. IT WAS DAMMED IN 2003 MOST LIKELY WITH RESPECT TO FUTURE RESIDENTAL DEVELOPMENT THAT BEGAN WITH GRADING IN 2006.THIS IS NOW A POND W/IN RESIDENTAL DEVELOPMENT. VIRGINIA RAIL NEST TOO.

General: THIS MAY BE THE FIRST BREEDING RECORD FOR EL DORADO COUNTY. ORIGINALLY REPORTED ON EBIRD ON 27 APR 2017 FOLLOWED BY SEVERAL OTHER BIRDER REPORTS. RESIDENT REPORTED 2 ADULTS AND 2 TINY CHICKS (SMALLER THAN VOLE) ON 21 MAY 2017.

Owner/Manager: UNKNOWN

Agelaius tricolor

Element Code: ABPBXB0020

tricolored blackbird

Listing Status:	**Federal:**	None	**CNDDB Element Ranks:**	**Global:**	G1G2
	State:	Threatened		**State:**	S1S2
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern			
Habitat:	**General:**	HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.			
	Micro:	REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.			

Occurrence No.	4	**Map Index:**	11994	**EO Index:**	14208	**Element Last Seen:**	1994-XX-XX
Occ. Rank:	None			**Presence:**	Possibly Extirpated	**Site Last Seen:**	2014-04-19
Occ. Type:	Natural/Native occurrence			**Trend:**	Fluctuating	**Record Last Updated:**	2016-12-07

Quad Summary:	Clarksville (3812161), Folsom (3812162)
County Summary:	Sacramento

Lat/Long:	38.66281 / -121.12823	**Accuracy:**	non-specific area
UTM:	Zone-10 N4281022 E662853	**Elevation (ft):**	414
PLSS:	T09N, R08E, Sec. 5, W (M)	**Acres:**	209.0

Location:	"FOLSOM" COLONY SITE; ALONG NATOMAS DITCH/PLACERVILLE (SCOTT) ROAD, SE OF FOLSOM.
Detailed Location:	PLACERVILLE RD ALSO KNOWN AS BIDWELL RD. APPEARS THAT CONSTRUCTION OF FOLSOM LAKE COLLEGE BEGAN CIRCA 1993 BASED ON AERIAL IMAGERY FROM GOOGLE EARTH. 1987 EGGS COLLECTED FOR SELENIUM COMPARISON STUDY (KESTERTON).
Ecological:	NESTING SUBSTRATE CONSISTED OF BLACKBERRIES, SURROUNDED BY GRASSLAND. 2008 AERIAL PHOTO SHOWS THAT THE AREA HAS BEEN MOSTLY DEVELOPED. CONSIDERED A LARGE, PRODUCTIVE COLONY BY BEEDY & HAYWORTH (1991). NATOMAS DITCH DRAINED IN 1990.
General:	1.3K NESTING IN 1981. 10K (TOTAL) OBS IN 1987-1991; YOUNG FLEDGED EACH YEAR, EGGS COLLECTED IN 1987. 3-10K NESTED IN 1992-94. 250-300 PROBABLY NESTED IN 1995. 0 OBS IN 1997-98. AN UNSUCCESSFUL ATTEMPT IN 1999. 0 OBS IN 2014.
Owner/Manager:	PVT

Occurrence No.	93	**Map Index:**	12196	**EO Index:**	24734	**Element Last Seen:**	1987-05-31
Occ. Rank:	None			**Presence:**	Extirpated	**Site Last Seen:**	2014-04-18
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-10-04

Quad Summary:	Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.65406 / -121.00633	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4280274 E673480	**Elevation (ft):**	1200
PLSS:	T09N, R09E, Sec. 08, NE (M)	**Acres:**	0.0

Location:	CRAZY HORSE CAMPGROUND, 150 YARDS SOUTH OF HIGHWAY 50, BETWEEN BASS LAKE EXIT AND CAMERON PARK EXIT.
Detailed Location:	MAPPED ACCORDING TO PROVIDED LOCATION DESCRIPTION OF "BTWN BASS LAKE & CAMERON PARK EXITS, EXIT OFF HWY 50... 150 YARDS S OF FWY." COLONY DATA STORED IN THE UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME WAS "CRAZY HORSE CAMPGROUND."
Ecological:	NESTING SUBSTRATE IN 1987 WAS CATTAILS ON A SMALL POND. SMALL POND VISIBLE IN 1993 AERIAL IMAGES. AREA DEVELOPED BY 2000; NO MORE SUITABLE NESTING HABITAT.
General:	AN ESTIMATED 500 BIRDS OBSERVED ON 31 MAY 1987; YOUNG IN NESTS. 0 BIRDS OBSERVED ON 30 JUN 1992, 23 APR 2000, AND 18 APR 2014.
Owner/Manager:	PVT

Occurrence No.	252	**Map Index:**	23984	**EO Index:**	8658	**Element Last Seen:**	1990-05-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1990-05-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1993-08-19

Quad Summary:	Clarksville (3812161)
County Summary:	Sacramento

Lat/Long:	38.68877 / -121.11439	**Accuracy:**	specific area
UTM:	Zone-10 N4283927 E663997	**Elevation (ft):**	400
PLSS:	T10N, R08E, Sec. 28, SW (M)	**Acres:**	5.9

Location:	ADJACENT TO NATOMAS DITCH, 0.7 MILE SOUTH OF GREEN VALLEY ROAD AT MORMON ISLAND DAM, FOLSOM.
Detailed Location:	
Ecological:	NESTING SUBSTRATE CONSISTS OF BLACKBERRY THICKETS ON THE EAST SIDE OF NATOMAS DITCH.
General:	200-250 PAIRS OF TRICOLORED'S OBSERVED IN 1990.
Owner/Manager:	UNKNOWN

Occurrence No.	452	**Map Index:**	89894	**EO Index:**	90914	**Element Last Seen:**	2016-05-01
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2016-05-01
Occ. Type:	Natural/Native occurrence			**Trend:**	Stable	**Record Last Updated:**	2016-05-05

Quad Summary:	Clarksville (3812161)
County Summary:	Sacramento

Lat/Long:	38.64663 / -121.10416	**Accuracy:**	80 meters
UTM:	Zone-10 N4279268 E664983	**Elevation (ft):**	560
PLSS:	T09N, R08E, Sec. 09, SE (M)	**Acres:**	0.0

Location:	JUST SE OF SERPA WAY AT IRON POINT RD, 0.25 MILE SW OF CARPENTER HILL (CARPENTER BM 828), JUST N OF HWY 50, FOLSOM.
Detailed Location:	SITE IS EASILY VISIBLE FROM IRON POINT RD (NO PARKING) AND THE SITE IS ACCESSIBLE FROM SERPA WAY. COLONY DATA STORED IN THE UCD TRBL PORTAL; SITE NAME "IRON POINT ROAD." BIRDS OBSERVED ACTIVELY NEST BUILDING AND/OR FEEDING YOUNG EACH YEAR.
Ecological:	NESTING IN BLACKBERRY PATCH ALONG UNNAMED DRAINAGE. SITE IS SURROUNDED BY RESIDENTIAL & COMMERCIAL BUILDINGS & A MAJOR FREEWAY. THE VICINITY HAS BEEN GRADED FOR DEVELOPMENT SINCE 2003. CONSTRUCTION STARTED 2016. BIRDS FORAGE S OF HWY 50.
General:	1000 OBSERVED ON 5 JUN 2011. 200 OBSERVED ON 12 MAY 2013. 2500 OBSERVED ON 19 APR 2014, 0 OBSERVED BY 18 MAY 2014. 200 OBSERVED ON 31 MAR 2015. 500-3500 OBSERVED BETWEEN 14 APR-31 MAY 2015 (7 VISITS). 1000 OBSERVED ON 1 MAY 2016.
Owner/Manager:	UNKNOWN

Occurrence No.	514	**Map Index:**	96099	**EO Index:**	97255	**Element Last Seen:**	2014-05-31
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	2015-04-27
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-02-01

Quad Summary:	Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.62569 / -121.06609	**Accuracy:**	80 meters
UTM:	Zone-10 N4277014 E668346	**Elevation (ft):**	185
PLSS:	T09N, R08E, Sec. 23, NE (M)	**Acres:**	0.0

Location:	CARSON CREEK, ABOUT 0.25 MI SE OF GOLDEN FOOTHILL PKWY & SANDSTONE DR INTERSECTION, 0.4 MI WSW OF LATROBE RD.
Detailed Location:	MAPPED TO PROVIDED COORDINATES. COLONY INFORMATION STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL, COLONY NAME WAS "BRIDGE COLONY." BLACKBERRY BRAMBLE VISIBLE IN AERIAL IMAGERY ON THE E SIDE OF THE CREEK.
Ecological:	NESTING SUBSTRATE WAS HIMALAYAN BLACKBERRY. SECONDARY SUBSTRATE WAS WILLOWS. COLONY VIEWABLE FROM GOLDEN FOOTHILL PARKWAY AT A BRIDGE OVER CARSON CREEK. COLONY CLOSE TO CREEK. ONLY A 50M STRIP OF NESTING HABITAT REMAINED IN 2015.
General:	ABOUT 250 OBSERVED ON 18 APR 2014; OBSERVED CARRYING NEST MATERIAL, SINGING, CONSIDERED NESTING. ABOUT 700-750 ESTIMATED ON 18, 23, & 31 MAY 2014; CARRYING FOOD, ABOUT 146 FLEDGLINGS OBSERVED. 0 OBSERVED ON 12, 20, & 27 APR 2015.
Owner/Manager:	PVT

Occurrence No.	731	**Map Index:**	98817	**EO Index:**	100306	**Element Last Seen:**	1992-08-05
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1992-08-05
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2016-07-15

Quad Summary:	Clarksville (3812161)
County Summary:	Sacramento

Lat/Long:	38.62849 / -121.09369	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4277275 E665936	**Elevation (ft):**	500
PLSS:	T09N, R08E, Sec. 15, SW (M)	**Acres:**	0.0

Location:	VICINITY OF WHITE ROCK RD AND PLACERVILLE RD INTERSECTION, 1.5 MI SE OF HWY 50 & SCOTT RD INTERSECTION, WHITE ROCK.
Detailed Location:	MAPPED AS BEST GUESS BY CNDDB TO PROVIDED LOCATION DECRIPTION OF "WHITE ROCK ROAD NEAR PLACERVILLE ROAD INTERSECTION." LOCATION ADDITIONALLY DESCRIBED AS "ALONG DITCH ABOUT 50 YARDS NORTH OF WHITE ROCK RD."
Ecological:	SMALL PATCH OF CATTAILS ALONG DITCH. ADJACENT GRASSLANDS USED FOR FORAGING.
General:	10 NESTS WERE COUNTED DURING A POST-BREEDING SURVEY CONDUCTED ON 5 AUG 1992, AROUND 100 INDIVIDUAL BIRDS WERE ESTIMATED.
Owner/Manager:	UNKNOWN

Branchinecta lynchi **Element Code:** ICBRA03030

vernal pool fairy shrimp

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G3
	State:	None		**State:**	S3
	Other:	IUCN_VU-Vulnerable			
Habitat:	**General:**	ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MOUNTAINS, AND SOUTH COAST MOUNTAINS, IN ASTATIC RAIN-FILLED POOLS.			
	Micro:	INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.			

Occurrence No.	168	**Map Index:** 33695	**EO Index:**	30607	**Element Last Seen:**	1993-03-25
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1993-03-25
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	1997-03-10

Quad Summary: Clarksville (3812161)

County Summary: El Dorado, Sacramento

Lat/Long:	38.69245 / -121.10569	**Accuracy:**	3/5 mile
UTM:	Zone-10 N4284351 E664746	**Elevation (ft):**	400
PLSS:	T10N, R08E, Sec. 28 (M)	**Acres:**	0.0

Location: EAST OF BLUE RAVINE, SOUTHEAST OF MORMON ISLAND DAM.

Detailed Location: VERNAL POOLS LOCATED SOMEWHERE IN SECTION 28.

Ecological: NATURAL VERNAL POOLS AND MANMADE VERNAL POOLS.

General: B. LYNCHI OBSERVED IN 1 NATURAL VERNAL POOL AND 2 MANMADE VERNAL POOLS. SUGNET RECORD NUMBERS 83 & 84. NO LEPIDURUS PACKARDI OBSERVED.

Owner/Manager: UNKNOWN

Desmocerus californicus dimorphus

Element Code: IICOL48011

valley elderberry longhorn beetle

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G3T2
	State:	None		**State:**	S3
	Other:				
Habitat:	**General:**	OCCURS ONLY IN THE CENTRAL VALLEY OF CALIFORNIA, IN ASSOCIATION WITH BLUE ELDERBERRY (SAMBUCUS MEXICANA).			
	Micro:	PREFERS TO LAY EGGS IN ELDERBERRIES 2-8 INCHES IN DIAMETER; SOME PREFERENCE SHOWN FOR "STRESSED" ELDERBERRIES.			

Occurrence No.	169	**Map Index:**	39545	**EO Index:**	34547	**Element Last Seen:**	1999-06-29
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1999-06-29
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2000-05-03

Quad Summary: Clarksville (3812161), Folsom (3812162)

County Summary: Sacramento

Lat/Long:	38.67053 / -121.12783	**Accuracy:**	specific area
UTM:	Zone-10 N4281879 E662870	**Elevation (ft):**	340
PLSS:	T09N, R08E, Sec. 05, SW (M)	**Acres:**	13.9

Location: WILLOW CREEK, 0.1 MILE WEST OF PREWETT DRIVE, FOLSOM.

Detailed Location: FOUND IN AREA "E" AND JUST EAST OF AREA "H" IN THE LAKE NATOMA SHORES VELB MITIGATION MONITORING PROJECT AREA. ALSO THE LEXINGTON HILLS PRESERVE SITE.

Ecological: ELDERBERRY AND ASSOCIATED NATIVE HABITAT.

General: 1 EXIT HOLE OBSERVED IN 1994, NO CHANGE 1995. 2 PLANTS WITH NEW EXIT HOLES JUST OUTSIDE MONITORING AREA, 1996. 16 PLANTS WITH NEW EXIT HOLES & 1 ADULT, 1999.
SAME AREA, 1997. EXIT HOLES IN PRESERVE, 1999.

Owner/Manager: UNKNOWN

Packera layneae

Element Code: PDAST8H1V0

Layne's ragwort

Listing Status:	**Federal:**	Threatened	**CNDDB Element Ranks:**	**Global:**	G2
	State:	Rare		**State:**	S2
	Other:	Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley, SB_UCSC-UC Santa Cruz			
Habitat:	**General:**	CHAPARRAL, CISMONTANE WOODLAND.			
	Micro:	ULTRAMAFIC SOIL (SERPENTINE OR GABBRO); OCCASIONALLY ALONG STREAMS. 205-1060 M.			

Occurrence No.	16	**Map Index:**	12131	**EO Index:**	16865	**Element Last Seen:**	1994-06-16
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	1994-06-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-07-10

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.73977 / -121.03785	**Accuracy:**	specific area
UTM:	Zone-10 N4289727 E670533	**Elevation (ft):**	880
PLSS:	T10N, R09E, Sec. 07, NW (M)	**Acres:**	4.0

Location: ALONG THE SOUTH-FACING SLOPE BELOW THE SOUTH END OF A HIGH RIDGE NORTH OF CROCKER CREEK.

Detailed Location: A 1907 BRANDEGEE COLLECTION FROM "SWEETWATER CREEK" AND A 1939 CONSTANCE COLLECTION FROM "ABOVE SANDBAR IN FORKS OF SWEETWATER CREEK, 2 MILES ABOVE ITS MOUTH, SIERRA FOOTHILLS" ALSO ATTRIBUTED TO THIS SITE.

Ecological: ON RESCUE STONY LOAM SOILS, GROWING ON A STEEP SOUTH-FACING SLOPE IN OPENINGS OF A MODERATELY DENSE GABBROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY. ASSOCIATES INCLUDE: ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA SSP. VISCIDA, ETC.

General: 50 PLANTS OBSERVED IN 1994.

Owner/Manager: PVT

Occurrence No.	18	**Map Index:**	12197	**EO Index:**	7632	**Element Last Seen:**	2008-05-09
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2008-05-09
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-09-01

Quad Summary: Shingle Springs (3812068), Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.68606 / -121.00365	**Accuracy:**	specific area
UTM:	Zone-10 N4283831 E673635	**Elevation (ft):**	1340
PLSS:	T10N, R09E, Sec. 29, E (M)	**Acres:**	54.0

Location: JUST NE OF BASS LAKE, NEAR SHINGLE SPRINGS.

Detailed Location: MAPPED BY CNDDB AS 7 POLYGONS TO ENCOMPASS A 1982 TYLER MAP, A 1986 WILSON MAP, AND A 2007 & 2008 HUGHES MAP. IN 1985, TYLER MENTIONS THAT NUMBERS ARE INCREASING IN ERODED AREAS.

Ecological: ON RESCUE HEAVILY ERODED SOIL ASSOCIATED WITH ARCTOSTAPHYLOS PATULA, TOYON, AND SALVIA SONOMENSIS. WYETHIA RETICULATA ALSO AT THIS SITE. PACKERA LAYNEAE MORE DENSE IN CHAPARRAL OPENINGS. POPULATION BURNED IN FALL 1982 BUT RETURNED UNHARMED.

General: <50 PLANTS IN 1982, UNK # IN 1986. PORTION OF POLY AT JUNCTION OF SEC 28, 29, 32 & 33 WAS LIKELY EXTIRP BY RD IMPROV. ~3550 PLANTS IN 2007 IN W-MOST POLY, 1280 PLANTS IN 2008 IN OBLONG POLY IN E1/2 OF SEC 32. INCL FORMER OCC 19, 20, 21, 22.

Owner/Manager: PVT

Occurrence No.	38	**Map Index:**	22131	**EO Index:**	8138	**Element Last Seen:**	2007-08-03
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2007-08-03
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-12-12

Quad Summary:	Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.71971 / -121.02751	**Accuracy:**	specific area
UTM:	Zone-10 N4287520 E671480	**Elevation (ft):**	1180
PLSS:	T10N, R09E, Sec. 18 (M)	**Acres:**	45.0

Location:	MARTEL CREEK DRAINAGE, MOSTLY ON HILL (EL. 1381) SOUTH OF MARTEL CREEK, 2.5 MI NORTH OF BASS LAKE, NNE OF CLARKSVILLE.
Detailed Location:	SEVERAL COLONIES SCATTERED NORTH AND SOUTH (MOSTLY SOUTH) OF MARTEL CREEK FROM ABOUT 0.8 TO 1.5 MILES UPSTREAM FROM CONFLUENCE WITH SWEETWATER CREEK.
Ecological:	NORTHERN GABBROIC MIXED CHAPARRAL. ASSOCIATES INCLUDE SALVIA SONOMENSIS, WYETHIA RETICULATA, W. BOLANDERI, STYRAX OFFICINALIS, POLYGALA CORNUTA, CEANOTHUS LEMMONII, SWERTIA ALBICAULIS, NAVARRETIA FILICAULIS, ERIODICTYON CALIFORNICUM, ETC.
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1986. 564 PLANTS COUNTED IN A PARTIAL SURVEY BUT >2500 ESTIMATED TO OCCUR AT THIS SITE IN 1993. 80 PLANTS OBSERVED IN NORTHERN COLONY IN 2007.
Owner/Manager:	BLM, PVT

Occurrence No.	52	**Map Index:**	69621	**EO Index:**	70393	**Element Last Seen:**	1994-06-16
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	1994-06-16
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2007-07-10

Quad Summary:	Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.74622 / -121.03790	**Accuracy:**	specific area
UTM:	Zone-10 N4290442 E670514	**Elevation (ft):**	1150
PLSS:	T10N, R09E, Sec. 06, SW (M)	**Acres:**	2.0

Location:	ALONG THE TOP THIRD OF A GENTLY SLOPING NORTH-TO-SOUTH DRAINAGE FLOWING INTO CROCKER CREEK, SWEETWATER CREEK DRAINAGE.
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 6.
Ecological:	ON RESCUE STONY LOAM SOILS, GROWING AN A VERY GENTLY SLOPING SEASONAL DRAINAGE PASSING THROUGH A DENSE AREA OF GABRROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY. ASSOCIATES: ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA SSP. VISCIDA.
General:	200 PLANTS OBSERVED IN 1994.
Owner/Manager:	PVT

Occurrence No.	53	**Map Index:** 69622	**EO Index:**	70394	**Element Last Seen:**	1994-05-10
Occ. Rank:	Fair		**Presence:**	Presumed Extant	**Site Last Seen:**	1994-05-10
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2007-07-23

Quad Summary: Clarksville (3812161)
County Summary: El Dorado

Lat/Long:	38.74257 / -121.02156	**Accuracy:**	specific area
UTM:	Zone-10 N4290068 E671942	**Elevation (ft):**	1050
PLSS:	T10N, R09E, Sec. 07, NE (M)	**Acres:**	1.0

Location: SOUTH OF CROCKER CREEK AND ADJACENT TO THE SOUTHERN END OF KANAKA VALLEY, SOUTHEAST OF MORMON HILL.
Detailed Location: AT THE WESTERN BASE OF A WEST FACING SLOPE. MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 7.
Ecological: ON SPARSELY VEGETATED RESCUE STONY LOAM SOILS, GROWING AT THE BASE OF A STEEP WEST-FACING SLOPE AT THE INTERFACE BETWEEN A MODERATELY DENSE GABBROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY.
General: 3 PLANTS OBSERVED BY CRAIG AND FRASER IN 1994.
Owner/Manager: PVT

Occurrence No.	62	**Map Index:** 79428	**EO Index:**	80405	**Element Last Seen:**	2007-XX-XX
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	2007-XX-XX
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2010-07-20

Quad Summary: Clarksville (3812161)
County Summary: El Dorado

Lat/Long:	38.72420 / -121.00401	**Accuracy:**	specific area
UTM:	Zone-10 N4288063 E673512	**Elevation (ft):**	1400
PLSS:	T10N, R09E, Sec. 17, NE (M)	**Acres:**	1.0

Location: NEAR JUNCTION OF SEAN SHELLY LANE WITH STARBUCK ROAD, ABOUT 0.8 AIR MILE WNW OF PINE HILL LOOKOUT.
Detailed Location: MAPPED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 17.
Ecological:
General: FEWER THAN 10 PLANTS OBSERVED IN 2007.
Owner/Manager: PVT

Ceanothus roderickii **Element Code:** PDRHA04190

Pine Hill ceanothus

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G1
	State:	Rare		**State:**	S1
	Other:	Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden			
Habitat:	**General:**	CHAPARRAL, CISMONTANE WOODLAND.			
	Micro:	GABBROIC OR SERPENTINE SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630 M.			

Occurrence No.	4	**Map Index:**	12229	**EO Index:**	12224	**Element Last Seen:**	2017-05-11
Occ. Rank:	Good			**Presence:**	Presumed Extant	**Site Last Seen:**	2017-05-11
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2019-03-25

Quad Summary: Shingle Springs (3812068), Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.71885 / -120.99086	**Accuracy:**	specific area
UTM:	Zone-10 N4287493 E674669	**Elevation (ft):**	2000
PLSS:	T10N, R09E, Sec. 16 (M)	**Acres:**	135.0

Location: PINE HILL SUMMIT AND SURROUNDING SLOPES.

Detailed Location: AREA BURNED IN 1983 AS PART OF RARE PLANT REGENERATION STUDY; GOOD REGENERATION AFTER BURN. MAJORITY OF PLANTS FOUND ON PINE HILL SUMMIT, PLANTS ALSO FOUND ON SURROUNDING SLOPES. VAGUE OBS FROM PINE HILL ATTRIBUTED HERE.

Ecological: ROCKY LOAM OVER GABBRO; ASSOCIATED WITH FREMONTODENDRON DECUMBENS AND WYETHIA RETICULATA. OTHER ASSOCIATES INCLUDE SALVIA SONOMENSIS, CEANOTHUS LEMMONII, ADENOSTOMA, RHAMNUS CROCEA, R. CALIFORNICA, QUERCUS DURATA, ETC.

General: <10 PLANTS IN 1978, <50 IN 1982 & 1984, SCATTERED AROUND SUMMIT IN 1983, <1000 IN 1985, ~2000 IN 1986, 1000S IN 1998, ~1000 IN 2007, 700+ IN 2009, UNK # IN 2010 & 2011, 4000 IN 2013, 20+ IN 2017. INCL FORMER EO #S 3, 16, 17, 18, & 19.

Owner/Manager: DFG-PINE HILL ER, CDF

Occurrence No.	20	**Map Index:**	22145	**EO Index:**	16646	**Element Last Seen:**	1986-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1986-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	1993-01-25

Quad Summary: Clarksville (3812161)

County Summary: El Dorado

Lat/Long:	38.73531 / -121.05130	**Accuracy:**	80 meters
UTM:	Zone-10 N4289207 E669375	**Elevation (ft):**	860
PLSS:	T10N, R08E, Sec. 12, SW (M)	**Acres:**	0.0

Location: WEST OF SWEETWATER CREEK, 0.5 KM (0.25 MI) NW OF LANDING STRIP AND 2.5 KM (1.5 MI) NNE OF LIVE OAK SCHOOL.

Detailed Location: LOCATED IN THE NE 1/4 OF THE SW 1/4 OF SECTION 12.

Ecological:

General: MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE.

Owner/Manager: UNKNOWN

Occurrence No.	23	**Map Index:** 72765	**EO Index:**	73600	**Element Last Seen:**	1993-04-10
Occ. Rank:	Unknown		**Presence:**	Presumed Extant	**Site Last Seen:**	1993-04-10
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2008-10-31

Quad Summary: Clarksville (3812161)
County Summary: El Dorado

Lat/Long:	38.72974 / -121.00500	**Accuracy:**	1/5 mile
UTM:	Zone-10 N4288675 E673412	**Elevation (ft):**	1380
PLSS:	T10N, R09E, Sec. 08, SE (M)	**Acres:**	0.0

Location: PRAYER MTN, 0.2 MILE FROM THE INTERSECTION OF STARBUCK OFF OF DEER VALLEY RD, CAMERON PARK.
Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS 0.2 ROAD MI S OF THE INTERSECTION OF STARBUCK RD & DEER VALLEY RD.
Ecological: GROWING IN A SMALL OPEN AREA IN A CHAPARRAL COMMUNITY. SOIL WITH SOME SMALL ROCKS AND PEBBLES. NEARBY ASSOCIATES INCLUDE: ARCTOSTAPHYLOS SP., ADENOSTOMA FASCICULATUM, CEANOTHUS CUNEATUS, AND PINUS SP.
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1993 SCHNEIDER & WAAYERS COLLECTION. NEEDS FIELDWORK.
Owner/Manager: UNKNOWN

Galium californicum ssp. sierrae

Element Code: PDRUB0N0E7

El Dorado bedstraw

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G5T1
	State:	Rare		**State:**	S1
	Other:	Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley			
Habitat:	**General:**	CISMONTANE WOODLAND, CHAPARRAL, LOWER MONTANE CONIFEROUS FOREST.			
	Micro:	IN PINE-OAK WOODLAND OR CHAPARRAL. RESTRICTED TO GABBROIC OR SERPENTINE SOILS. 130-595 M.			

Occurrence No.	12	**Map Index:** 49114	**EO Index:**	49114	**Element Last Seen:**	1994-06-16
Occ. Rank:	Excellent		**Presence:**	Presumed Extant	**Site Last Seen:**	1994-06-16
Occ. Type:	Natural/Native occurrence		**Trend:**	Unknown	**Record Last Updated:**	2002-10-23

Quad Summary: Clarksville (3812161), Pilot Hill (3812171)
County Summary: El Dorado

Lat/Long:	38.74609 / -121.03649	**Accuracy:**	specific area
UTM:	Zone-10 N4290431 E670636	**Elevation (ft):**	1050
PLSS:	T10N, R09E, Sec. 06, W (M)	**Acres:**	12.8

Location: RIDGE BETWEEN SWEETWATER & CRACKER CREEKS, NORTH OF CLARKSVILLE, EAST OF FOLSOM LAKE.
Detailed Location: 5 COLONIES MAPPED AS 4 POLYGONS FROM TOP OF 1361' PEAK & ALONG THE E EDGE OF RIDGE, EXTENDING DOWN A SEASONAL DRAINAGE FOR 1000 FT TO ABOUT 100 FT ABOVE CRACKER CRK. MAPPED WITHIN THE W 1/2 OF SEC 6 & THE NE 1/4 OF THE NW 1/4 OF SEC 7.
Ecological: ON OPEN RESCUE STONY LOAM SOILS, GROWING AMONGST ROCKS AND BOULDERS IN THE GABBROIC NORTHERN MIXED CHAPARRAL PLANT COMMUNITY. ASSOCIATES INCLUDE ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS VISCIDA SSP. VISCIDA, ERIODICTYON CALIFORNICUM, ET AL.
General: 5 COLONIES OBSERVED BY WOOD AND FRASER IN 1994. FROM NORTH TO SOUTH, NUMBER OF PLANTS AT EACH COLONY: 100, 1, 3, 30, AND 1. SITE SHOULD BE PRESERVED AS OPEN SPACE.
Owner/Manager: PVT-KANAKA VALLEY RANCH

Fremontodendron decumbens

Element Code: PDSTE03030

Pine Hill flannelbush

Listing Status:	**Federal:**	Endangered	**CNDDB Element Ranks:**	**Global:**	G1
	State:	Rare		**State:**	S1

	Other:	Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley
Habitat:	**General:**	CHAPARRAL, CISMONTANE WOODLAND.
	Micro:	ROCKY RIDGES; GABBRO OR SERPENTINE ENDEMIC; OFTEN AMONG ROCKS AND BOULDERS. 425-770 M.

Occurrence No.	1	**Map Index:**	12226	**EO Index:**	14146	**Element Last Seen:**	2017-05-25
Occ. Rank:	Excellent			**Presence:**	Presumed Extant	**Site Last Seen:**	2017-05-25
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2017-07-05

Quad Summary:	Shingle Springs (3812068), Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.7181 / -120.98996	**Accuracy:**	specific area
UTM:	Zone-10 N4287412 E674750	**Elevation (ft):**	1800
PLSS:	T10N, R09E, Sec. 16 (M)	**Acres:**	116.0

Location:	PINE HILL, ABOUT 2 MILES WNW OF RESCUE.
Detailed Location:	MAPPED BY CNDDB AS MANY POLYGONS ACCORDING TO MAPS FROM THE 1980S AND 2013, COORDINATES FROM 2011, 2013 & 2015, AND DIGITAL DATA FROM 2009 AND 2017.
Ecological:	ON RED-BROWN CLAY & GABBRO WITH GRANITE BOULDERS IN CHAPARRAL. ASSOCIATED WITH PINUS SABINIANA, ARCTOSTAPHYLOS VISCIDA, CERCIS OCCIDENTALIS, RHAMNUS ILICIFOLIA, AND THE RARE CEANOTHUS RODERICKII, WYETHIA RETICULATA, & PACKERA LAYNEAE.
General:	W SUMMIT RIDGE BURNED 1983, MANY NEW SEEDLINGS/RESPROUTS PRESENT. POP #S FOR PORTIONS OF SITE: <100 PLANTS IN 1978, 4-5 NEAR SUMMIT IN 1982, <50 IN 1984, ~50 IN 1998, <200 IN 2007, 16 IN 2011, 40+ IN 2017. INCLUDES FORMER OCC #3.
Owner/Manager:	CDF, DFG, PVT

Occurrence No.	5	**Map Index:**	12203	**EO Index:**	3845	**Element Last Seen:**	1986-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1986-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2008-12-11

Quad Summary:	Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.72885 / -121.00682	**Accuracy:**	80 meters
UTM:	Zone-10 N4288573 E673257	**Elevation (ft):**	1500
PLSS:	T10N, R09E, Sec. 17, NE (M)	**Acres:**	0.0

Location:	SOUTHEAST OF DEER VALLEY ROAD AND WEST OF STARBUCK ROAD, WEST OF PINE HILL.
Detailed Location:	MAPPED ABOUT 200 M SOUTH OF DEER VALLY ROAD AND 200 M WEST OF STARBUCK ROAD. WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 17.
Ecological:	IN GABBRO SOIL ON A ROCKY OUTCROP ON THE CREST OF A SMALL RIDGE. GROWING IN CHAPARRAL WITH ARCTOSTAPHYLOS AND ADENOSTOMA.
General:	54 PLANTS SEEN IN 1983. UNKNOWN NUMBER SEEN IN 1986.
Owner/Manager:	PVT

Occurrence No.	6	**Map Index:**	12207	**EO Index:**	3844	**Element Last Seen:**	1986-XX-XX
Occ. Rank:	Unknown			**Presence:**	Presumed Extant	**Site Last Seen:**	1986-XX-XX
Occ. Type:	Natural/Native occurrence			**Trend:**	Unknown	**Record Last Updated:**	2008-12-11

Quad Summary:	Clarksville (3812161)
County Summary:	El Dorado

Lat/Long:	38.72341 / -121.00556	**Accuracy:**	specific area
UTM:	Zone-10 N4287972 E673379	**Elevation (ft):**	1410
PLSS:	T10N, R09E, Sec. 17, NE (M)	**Acres:**	8.3

Location:	EAST OF DEER VALLEY ROAD AND WEST OF STARBUCK ROAD, WEST OF PINE HILL.
Detailed Location:	TWO COLONIES MAPPED; 12 PLANTS AT THE 1476' SUMMIT OF HILL, 1 PLANT EAST OF SUMMIT ALONG STARBUCK ROAD. WITHIN THE SE 1/4 OF THE NE 1/4 OF SECTION 17.
Ecological:	IN GABBRO SOIL ON A ROCKY OUTCROP ON THE CREST OF A SMALL RIDGE. GROWING IN CHAPARRAL WITH ARCTOSTAPHYLOS AND ADENOSTOMA.
General:	13 PLANTS SEEN IN 2 COLONIES IN 1983. UNKNOWN NUMBER SEEN IN 1986.
Owner/Manager:	PVT

Appendix C: IPaC

Attachment B

IPaC

U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

El Dorado County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Attachment B

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

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Attachment B

NAME	STATUS
Giant Garter Snake Thamnophis gigas Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

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Attachment B

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp Lepidurus packardi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
El Dorado Bedstraw Galium californicum ssp. sierrae Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5209	Endangered
Layne's Butterweed Senecio layneae Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4062	Threatened
Pine Hill Ceanothus Ceanothus roderickii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3293	Endangered
Pine Hill Flannelbush Fremontodendron californicum ssp. decumbens Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4818	Endangered
Stebbins' Morning-glory Calystegia stebbinsii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3991	Endangered

Critical habitats

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Attachment B

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED

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Attachment B

FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Cassin's Finch Carpodacus cassinii — Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9462

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Marbled Godwit Limosa fedoa — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

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Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

Attachment B

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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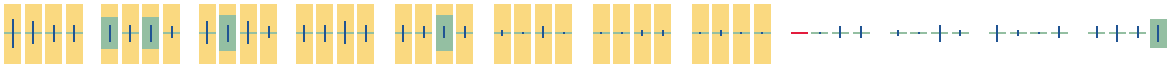


Attachment B

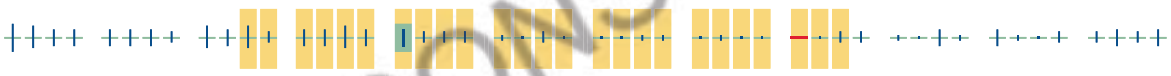
Common Yellowthroat BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Golden Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Lawrence's Goldfinch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Marbled Godwit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



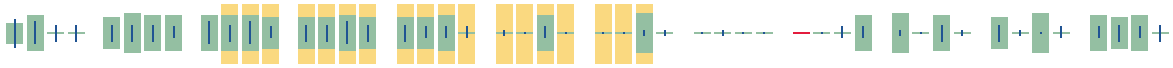
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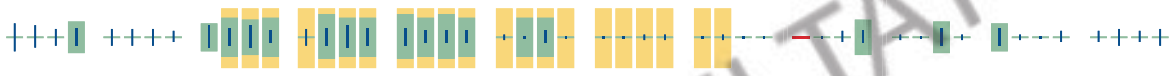
Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



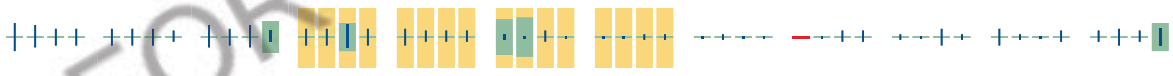
Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tricolored Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Yellow-billed Magpie BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

Attachment B

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

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For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Attachment B

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or clasification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in

Attachment B

activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Appendix D:
Photo Plate

Attachment B



Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community. Scale: 1:2,600, original map 8.5x11.

PHOTO POINTS

Date: March 23, 2022

N

4500 LATROBE RD • EL DORADO COUNTY, CA

DARNETT ENVIRONMENTAL

Attachment B



1. Culvert under Latrobe Road, near NE corner of property looking WSW.



2. Culvert under Latrobe Road, looking SW. Google Maps imagery, 11/2020.

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4500 Latrobe Road • El Dorado County, CA

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3. Looking SW from Latrobe Road, halfway down the easterly side of the property boundary.



4. Panoramic view south to north, taken from the center of the property facing westerly.

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5. Carson Creek Riparian looking northerly, from outside the SW corner of the property



6. Panoramic view of the riparian area, taken from the center of the property, facing westerly.

Barnett Environmental
4500 Latrobe Road • El Dorado County, CA

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COX
Planning Solutions

To: El Dorado County, Planning Division
From: Cox Planning Solutions
Date: 4/27/2026
Re: Biological Memo for APN: 117-060-012; Response to Comments and Addendum

1.0 INTRODUCTION

On behalf of S3 Partners and the project team, this memo is an addendum to the 2022 Wetland and Biological Resources Assessment for the 12-acre, currently vacant parcel at ~4500 Latrobe Road (APN: 117-060-012) in El Dorado Hills, (El Dorado County), CA. The Study Area is located in Section 14, Township 9 North, and Range 8 East of the Clarksville 7.5-minute USGS quadrangle map. It lies in the Upper Consumers watershed (Hydrologic Unit Code 18040313) at approximately 533–577 feet in elevation above mean sea level (msl) and centered at approximately 38°38'17.2" north latitude and 121°3'51.57" west longitude.
This addendum addresses and clarifies information regarding the setback for the Tributary to Carson Creek and the biological mitigation measures in response to the following comments received from El Dorado County regarding CUP25-0011 dated January 2026:

1. *Provide recommended avoidance area or buffer / setback from riparian area for the project to be less than significant in this respect; provide specific description / rationale for proposed recommended buffer. The riparian area has a steeper bank in some areas of the site but not throughout.*
2. *Provide mitigation measure for western pond turtle since there is suitable habitat on-site and there are occurrences within 5 miles.*
3. *Provide mitigation measure for burrowing owl since there is suitable habitat and occurrence within 5 miles.*

2.0 SUMMARY OF RECOMMENDATIONS

2.1 Riparian avoidance/buffer

- Establish a minimum 35-foot Limit of Disturbance (LOD) measured from Ordinary High-Water Mark (OHWM) along the entire on-site length of the perennial creek.
- Apply a steep-slope trigger: where mapped or field-confirmed slopes adjacent to the creek exceed 30%, the LOD shall transition abruptly from 35 feet to 50 feet at the 30% slope boundary.
- Install orange construction fencing along the LOD, with a silt fence attached at the base to exclude protected species from the active work area. Post ESA signage along the fence at regular intervals.

2.2 Species mitigation measures

- **Western pond turtle:** Implement a preconstruction survey, worker environmental training, avoidance buffers, and stop-work/relocation procedures if individuals are encountered.
- **Burrowing owl:** Implement preconstruction surveys, avoidance buffers for any occupied burrows, and (if avoidance is not feasible) a passive relocation protocol outside nesting season with monitoring.

3.0 SITE SURVEY

3.1 METHODOLOGY

Cox Planning biologists conducted a desktop review of available mapping and project data. This included:

- Review of the project civil base and topographic data prepared by the project engineer.
- Review of the previously delineated Ordinary High-Water Mark (OHWM) from 2022.
- Overlay of contour data, aerial imagery, parcel boundaries, aquatic resources, and setback lines in a GIS environment.

To evaluate terrain constraints and erosion potential within the setback area, a slope banding analysis was prepared using topographic data. Slopes were categorized by percent rise over run and mapped in GIS (Figure 7 – Slope). Slope categories included: less than 10 percent, 10–15 percent, 15.1–20 percent, 20.1–25 percent, 25.1–30 percent, and greater than 30 percent. This analysis was used to identify areas where steep slopes may warrant additional buffer protection due to erosion susceptibility.

On February 12, 2026, Cox Planning biologists conducted a site visit of the Latrobe Road site to determine whether field conditions are similar to what was reported in the 2022 biological resources assessment. The effort included a reconnaissance-level site survey of existing site conditions, habitat suitability, and analysis of the Tributary to Carson Creek to determine suitable buffer distances for potential development. The biologists walked the Study Area in parallel meandering transects approximately 10–20 meters apart, looking for animal species (with emphasis on rare and endangered species) observed or their sign (nests, burrows, tracks, scat), and the suitability of onsite habitats and those immediately adjoining the Study Area to support special status plants or animal species. The Arid West Streamflow Duration Assessment (SDAM), a field method created by the Environmental Protection Agency (EPA), was used to determine streamflow duration (ephemeral, intermittent, or perennial) and to inform potential federal Clean Water Act jurisdiction over aquatic features. Each assessment reach was approximately 120 meters in length and was evaluated in accordance with SDAM protocols, which included taking three sampling points (labeled SDAM DPs on Figure 5) at each feature for documentation of channel morphology, bankfull indicators, hydrology, aquatic macroinvertebrates, vegetation composition, algal cover, slope, and riffle-pool development. Data from the datasheets (Appendix A) were then placed into the online form found at https://rconnect-public.epa.gov/SDAMs/, and the model was calculated for each feature to determine whether

they were ephemeral, intermittent, or perennial. Additionally, an EOS Arrow Gold GPS unit with sub-meter accuracy was used to take ordinary-high-watermark (OHWM) points of the Tributary, which were used to form a more accurate location of the Tributary, as seen on Figure 5.

3.2 RESULTS

Special Status Species

No special-status species were observed. No burrows of suitable size were observed for burrowing owls. Observed wildlife during the site visit included mosquito fish (*Gambusia affinis*) and American bullfrog tadpoles (*Lithobates catesbeianus*) within the water of the Carson Creek Tributary. Hooded merganser (*Lophodytes cucullatus*) were observed utilizing the creek corridor, and other bird species observed on-site included Savannah sparrow (*Passerculus sandwichensis*), California scrub-jay (*Aphelocoma californica*), Nuttall's woodpecker (*Dryobates nuttallii*), acorn woodpecker (*Melanerpes formicivorus*), northern mockingbird (*Mimus polyglottos*), and American robin (*Turdus migratorius*).

Riparian Area

As seen in our attached photo plate, a moderately dense riparian area is present surrounding most of the Tributary. Slopes along the bank are moderately steep but flatten out quickly past the riparian edge. The riparian corridor along the tributary consists of a narrow but discernible band of vegetation associated with the active channel and lower banks. Within the channel and along the immediate banks, vegetation is characterized by rushes (*Juncus mexicanus*), willows (*Salix* spp.), flatsedge (*Cyperus* spp.), Fremont cottonwood (*Populus fremontii*), cattail (*Typha* sp.), water pepper (*Persicaria hydropiper*), and patches of blackberry (*Rubus* sp.). These species occur primarily along the bank margins and in localized patches within the channel where moisture is retained.

At the top of bank and transitioning into the adjacent uplands, vegetation shifts to a more upland-dominated assemblage. Species observed in these areas include interior live oak (*Quercus wislizeni*), foothill pine (*Pinus sabiniana*), toyon (*Heteromeles arbutifolia*), poison oak (*Toxicodendron diversilobum*), and various annual and perennial grasses. This transition reflects a moderate distinction between the riparian corridor and surrounding upland habitat, with riparian species concentrated along the banks and upland woodland species dominating the terrace and higher slope positions.

Tributary to Carson Creek

The tributary originates within an urbanized setting and flows predominantly through areas characterized by adjacent residential and commercial/industrial development. As a result, the creek is subject to ongoing anthropogenic pressures, including urban runoff, human activity, and domestic animal presence. These influences likely contribute to reduced water quality and increased disturbance within the channel corridor. Elevated runoff volumes and pollutant inputs typical of urban environments can degrade aquatic habitat conditions and limit overall biological

integrity. We have provided an updated CARI map (Figure 4) showing this feature that was added since 2022.

Field observations further indicate that the creek supports relatively low habitat quality, as evidenced by a depauperate aquatic macroinvertebrate community and an overall lack of biodiversity. Observed invertebrate diversity was limited, and no species typically associated with high-functioning, stable stream systems were detected during the survey. The absence of such indicator taxa suggests reduced ecological complexity and diminished stream health relative to higher-quality perennial systems.

The tributary exhibited multiple indicators consistent with perennial flow conditions at the time of assessment. Observations included:

- Surface flow present throughout 100 percent of the assessment reach
- Steady flow conditions
- Mean bank-full channel width of approximately 8.0 meters
- Greater than 40 percent algal cover on rocky streambed substrate
- Hydrophytic riparian vegetation including Juncus mexicanus, Salix spp., Populus fremontii, and Typha sp.
- Observed aquatic fauna including mosquito fish and bullfrog tadpoles
- Moderate to strong riffle-pool development
- A distinct riparian corridor with vegetation composition differing from adjacent uplands

These indicators were all consistent with a perennial stream, which when analyzed in the online model, the EPA SDAM online form verified as Perennial.

Man-Made Drainage Feature

A man-made, non-jurisdictional drainage of approximately 0.022 acres was delineated on the northern end of the site. This feature carries stormwater westward, entering the site from a culvert underneath Latrobe Road. This water did not connect directly to the Carson Creek Tributary but appeared to disperse into the ground and the surrounding area around 30 feet above the OHWM of the Tributary.

Observations noted on the datasheets (Appendix A) included:

- Surface flow present in approximately 50 percent of the reach, attributed to recent rainfall
- Mean bank full channel width of approximately 0.6 meters
- Limited hydrophytic vegetation occurring in small or discontinuous patches
- No perennial aquatic macroinvertebrate indicator taxa observed
- No riffle-pool development
- Weak vegetative differentiation between the channel and adjacent uplands

These indicators were all consistent with an ephemeral stream, which when run in the online model, the EPA SDAM online form verified as **Ephemeral**.

4.0 Response to County Comment 1 – Riparian buffer/setback recommendation

4.1 County comment summary

Provide recommended avoidance area or buffer/setback from riparian area such that impacts would be less than significant; include specific rationale. The riparian area has a steeper bank in some locations but not throughout.

4.2 Site conditions relevant to setback determination

- The creek reach adjacent to the project is confirmed to be perennial and supports a mature riparian edge (field verified).
- Topography mapping (slope and 1-foot contours) indicates an incised channel with variable bank steepness, including segments where the near-bank slope increases into the >30% class.
- The project drainage design is being developed to satisfy hydromodification requirements that limit post-project hydrologic response for the 2-year, 24-hour event.

4.3 Regulatory/technical basis

Stream setbacks used for stormwater/hydromodification compliance are typically multi-objective (water quality, channel stability, and riparian habitat functions), and setback widths commonly increase where additional risk drivers exist (e.g., steep slopes, instability, habitat value). Buffer science similarly recognizes that wider buffers are more reliable for water quality and aquatic habitat outcomes, and that slope and imperviousness can reduce buffer effectiveness.

CDFW's Lake and Streambed Alteration program is structured around site-specific reasonable measures rather than a universal statewide setback distance, which supports a design approach that ties avoidance/buffers to the site's geomorphic and biological functions.

El Dorado County's zoning framework establishes standardized setbacks for riparian resources and provides an explicit pathway to support a reduced setback where a qualified biological evaluation demonstrates that the reduced distance remains protective.

4.4 Proposed project setback standard

We recommend the following setback approach for County consideration:

- Standard Limit of Disturbance (LOD): Establish a minimum 35-foot LOD measured from OHWM along the entire on-site length of the creek. The 35-foot LOD shall function as a no-grading, no-stockpile, no-staging, no-outfall zone for the duration of construction.
- Steep-slope trigger: Where mapped or field-confirmed slopes adjacent to the creek exceed 30%, the LOD shall transition abruptly from 35 feet to 50 feet at the mapped 30% slope boundary, with no tapered transition. Where applicable, expand the LOD to 50 feet from OHWM.
- Implementation note: The 35-foot (or 50-foot, where triggered) LOD shall function as a no-grading / no-stockpile / no-outfall zone, with construction exclusion fencing installed and maintained for the duration of construction. The exclusion fencing shall consist of 4-foot high-visibility orange construction fence staked at intervals no greater than 10 feet, with a silt fence (minimum 24-inch height, buried a minimum of 6 inches) attached at the base of the orange fencing to prevent protected species (e.g., northwestern pond turtle, amphibians, small mammals) from entering the active work area. "ENVIRONMENTALLY SENSITIVE AREA – DO NOT ENTER" signage (bilingual English/Spanish) shall be posted at every fence corner, gate, and access point, and at intervals no greater than 100 linear feet, with a minimum of two signs per fenced reach.

4.5 Rationale for the proposed setback standard

This standard is intended to (1) maintain a consistent, enforceable minimum corridor-wide avoidance area; and (2) account for the site's variable bank steepness by requiring a wider LOD where steep slopes exist. The abrupt transition from 35 feet to 50 feet at the 30% slope boundary is used (rather than a tapered transition) because it provides a clear, enforceable, and mappable line that corresponds directly to the slope banding analysis (Figure 7) and the civil Grading and Drainage Plan daylight line, minimizes field ambiguity for contractors and inspectors, and ensures the wider protective setback is applied continuously across each steep-slope segment without interpolation.

4.6 Figures supporting Comment 1

The following figures are included to document the standard and its application:

- **Figure 5 (Updated delineation map):** Shows riparian area and OHWM delineation with 35' LOD and 50' LOD polygons with the abrupt transition points clearly labeled. The LOD geometry matches the daylight line shown on the civil Grading and Drainage Plan (Sheets C2 and C3). 1-foot contours are also shown.
- **Figure 7:** Slope map with >30% areas highlighted as the basis for the 50' LOD expansion segments, relative to 35' and 50' LOD polygons.

4.7 Conclusion – Riparian/Wetland Impact Determination

With implementation of the 35-foot minimum LOD from OHWM, the 50-foot LOD in segments adjacent to mapped slopes greater than 30% (with an abrupt transition at the slope boundary), and installation of the combined orange construction fencing and silt fence along the LOD for the duration of construction, the project will avoid direct and indirect impacts to the Tributary to Carson Creek and its associated riparian and wetland resources. Accordingly, with these setback and fencing measures implemented, the project's impact on wetland and riparian resources is determined to be less than significant under CEQA.

5.0 Response to County Comment 2 – Northwestern pond turtle mitigation measure

5.1 County comment summary

Provide a mitigation measure for western pond turtle due to suitable habitat on-site and reported occurrences within 5 miles.

5.2 Findings and context

- Survey results: No northwestern pond turtle (*Actinemys marmorata*, also known as western pond turtle) were observed on-site during the February 12, 2026 reconnaissance survey conducted for this addendum.
- Database context: Based on the prior desktop review (CNDDB) summarized for the project, there are four reported CNDDB occurrences within five miles of the Study Area. The most recent and closest reported occurrence is 2016 (approximately 1.74 miles south). As part of preparing this response, an updated CNDDB query was conducted. The results indicate that no new occurrences of this species, or any other special-status species, have been documented within five miles of the Study Area since the original biological report was prepared.
- Habitat suitability: Suitable habitat is present within the Tributary to Carson Creek because the feature is perennial and supports riparian conditions that may provide aquatic refuge and movement habitat. Therefore, preconstruction avoidance and encounter procedures are warranted prior to grading.

Note on survey timing. The February 12, 2026 survey provides baseline site screening and habitat documentation for this submittal; however, a preconstruction visual encounter survey within 3 days of ground disturbance is recommended to address potential seasonal movement and detectability.

5.3 Proposed mitigation measure

Preconstruction Visual Encounter Survey and Avoidance

- Worker environmental awareness training: Prior to start of ground disturbance, the Applicant shall conduct worker training covering northwestern pond turtle identification, suitable habitat, avoidance requirements, and reporting/stop-work procedures.
- Preconstruction visual encounter survey (within 3 days): A qualified biologist and/or herpetologist shall conduct one (1) preconstruction visual encounter survey for amphibians and reptiles within three (3) days prior to any construction activities that involve vegetation clearing, grading, trenching, or other ground disturbance within the project disturbance footprint and within the pond turtle survey area, defined as the area within 200 feet of the Ordinary High-Water Mark (OHWM) of the Tributary to Carson Creek and extending 200 feet upstream and 200 feet downstream of active construction activities. If ground disturbance pauses for more than 14 consecutive days and then resumes, a repeat preconstruction survey shall be completed within the three (3) day window prior to resuming work.
    - Surveys shall be conducted under suitable weather conditions and shall include a systematic search of the work area and adjacent suitable habitat, including creek bank margins, basking/cover features, and other microhabitats where turtles may occur.
    - If site conditions warrant (e.g., standing water, accessible margins), the biologist may incorporate limited aquatic visual checks (e.g., shoreline scanning and dip-net/visual checks where safe), consistent with a reconnaissance-level encounter survey.
- Avoidance and buffers: If a northwestern pond turtle is observed, the biologist shall establish an exclusion buffer of 200 feet (adjustable based on-site conditions) and direct the contractor to avoid the animal and associated travel corridor.
- Stop-work and notification: Work shall stop in the immediate area if an individual is encountered until the biologist confirms the animal has moved out of the work zone or is safely excluded from the active work area.
- Exclusion fencing: Where ground disturbance occurs near suitable habitat during periods of turtle activity, temporary exclusion fencing shall be installed along the LOD (or other locations identified by the biologist) to prevent turtles from entering active work areas. The exclusion fencing shall be integrated with the combined orange construction fencing and silt fence described in Section 4.4 (Implementation note).
- Relocation/handling (only if necessary): If relocation is necessary to avoid injury or mortality, relocation shall be conducted by a qualified biologist in compliance with applicable regulatory requirements and landowner permissions, and with CDFW coordination/authorization as required.
- Construction monitoring: A qualified biological monitor shall be available on-call and shall monitor initial ground-disturbing activities occurring within the pond turtle survey area (as defined in the preconstruction survey measure above: within 200 feet of OHWM and 200

feet upstream and downstream of active construction) to verify implementation of avoidance measures and to respond to any wildlife encounters.

5.4 Supporting documentation

- Survey results (Section 3.2), datasheets and photo documentation (Appendices A and B)
- CNDDB query map (Figure 6)

5.5 Conclusion – Northwestern Pond Turtle Impact Determination

No northwestern pond turtles were observed during the February 12, 2026 reconnaissance survey, and no new CNDDB occurrences have been documented within five miles of the Study Area since the original biological report was prepared. Given the presence of suitable aquatic habitat within the Tributary to Carson Creek, the project may result in potentially significant impacts to the species absent mitigation. Implementation of the mitigation measure above (worker environmental awareness training, preconstruction visual encounter survey, avoidance buffers, stop-work and notification protocols, exclusion fencing, relocation/handling by a qualified biologist if necessary, and construction monitoring) will reduce the project's impact on northwestern pond turtle to less than significant under CEQA.

6.0 Response to County Comment 3 – Burrowing owl mitigation measure

6.1 County comment summary

Provide a mitigation measure for burrowing owl due to suitable habitat and reported occurrences within 5 miles.

6.2 Findings and context

- **Survey results:** No western burrowing owl (*Athene cunicularia*) and no suitable burrows were observed on-site during the February 12, 2026, reconnaissance survey conducted for this addendum.
- **Database context:** Based on the prior desktop review (CNDDB) summarized for the project, there are three reported CNDDB occurrences within five miles of the Study Area. The most recent reported occurrence is 2010 (approximately 2.87 miles southwest), and the closest reported occurrence is 2006 (approximately 0.1 miles west/southwest). As part of preparing this response, an updated CNDDB query was conducted. The results indicate that no new occurrences of this species, or any other special-status species, have been documented within five miles of the Study Area since the original biological report was prepared.

- **Habitat suitability:** The site contains upland grasslands that may provide suitable foraging and dispersal habitat for burrowing owl; therefore, preconstruction survey and avoidance measures are warranted prior to grading.

Note on wintering-season survey. The February 12, 2026 field effort included a focused review for burrowing owls and burrows and documents presence/absence screening conditions at that date. Per County direction (April 16, 2026), a separate wintering-season preconstruction survey shall be conducted between December 1 and January 31 prior to ground disturbance, in addition to the nesting-season preconstruction survey described below.

6.3 Proposed mitigation measure

The CDFW (CDFG) Staff Report on Burrowing Owl Mitigation (1994) recommends preconstruction surveys to locate active burrowing owl burrows. Therefore, prior to issuance of grading permits, implement the following:

MM-BIO-2 Burrowing Owl – Preconstruction Surveys, Avoidance, and Passive Relocation

- **Preconstruction surveys (wintering and nesting seasons):** Preconstruction surveys shall be conducted by a qualified biologist/ornithologist during both the wintering and nesting seasons unless the species is detected on the first survey.
    - Wintering survey window: Between December 1 and January 31.
    - Nesting survey window: Between April 15 and July 15 (peak breeding season).
    - Time of day: Surveys shall be conducted from two hours before sunset to one hour after sunset, or from one hour before sunrise to two hours after sunrise.
    - Survey area: Surveys shall include the project disturbance footprint plus a 260-foot-wide buffer surrounding the assessment area.
    - Repeat check: Repeat surveys shall be conducted no more than 30 days prior to initial ground disturbance to inspect for re-occupation and the need for additional protection measures.
- **If occupied burrows are identified (avoidance):** If active burrowing owl burrows are identified, project activities shall not disturb the burrow during the nesting season (February 1–August 31) or until a qualified biologist determines that young have fledged or the burrow has been abandoned. A no-disturbance buffer of 160 feet shall be established around each burrow with an active nest until young have fledged, as determined by a qualified biologist.
- **Passive relocation (non-breeding season only):** If destruction of an occupied burrow is unavoidable during the non-breeding season (September 1–January 31), passive relocation shall be conducted by a qualified biologist in accordance with CDFW guidance. Passive relocation includes installation of a one-way exclusion device at the burrow entrance to encourage owls to move from the occupied burrow.
- **Compensatory mitigation (if required):** Where burrow loss or displacement is authorized, compensatory mitigation to offset the loss of foraging and burrow habitat shall be provided consistent with the CDFW Staff Report framework, including acquisition and

permanent protection of foraging habitat at a location acceptable to CDFW. The 1994 Staff Report references 6.5 acres of foraging habitat per pair or unpaired resident bird (based on a 300-foot foraging radius around a burrow).

- **Coordination and documentation:** If burrowing owls are identified and avoidance is not feasible, the Applicant shall coordinate with CDFW and provide documentation of the approved avoidance/relocation/mitigation approach to the County prior to issuance of grading permits. (Any required agreements or authorizations shall be provided to the County as part of that documentation.)

6.4 Supporting documentation

- Survey results (Section 3.2), datasheets and photo documentation (Appendices A and B)
- CNDDB query map (Figure 6)

6.5 Conclusion – Burrowing Owl Impact Determination

No western burrowing owl and no suitable burrows were observed during the February 12, 2026 reconnaissance survey, and no new CNDDB occurrences have been documented within five miles of the Study Area since the original biological report was prepared. Given the presence of suitable upland grassland foraging and dispersal habitat on-site, the project may result in potentially significant impacts to the species absent mitigation. Implementation of MM-BIO-2 (wintering and nesting season preconstruction surveys, avoidance and no-disturbance buffers around occupied burrows, passive relocation in the non-breeding season only if avoidance is not feasible, compensatory mitigation consistent with the CDFW 1994 Staff Report framework if applicable, and coordination and documentation with CDFW and the County) will reduce the project's impact on burrowing owl to less than significant under CEQA.

7.0 CONCLUSION

The proposed approach provides a corridor-wide minimum avoidance standard (35' LOD) while accounting for variable bank steepness through localized 50' expansions in segments where mapped slopes adjacent to the creek exceed 30%, with an abrupt 35'-to-50' transition at the slope boundary. Combined orange construction fencing and silt fence, with bilingual ESA signage, will be installed along the LOD for the duration of construction to exclude protected species from the active work area. Species mitigation measures for northwestern pond turtle and burrowing owl are provided in a condition-ready format. With these setback, fencing, and species-specific mitigation measures implemented, impacts to wetland and riparian resources, northwestern pond turtle, and burrowing owl are determined to be less than significant under CEQA. The special-status plant preconstruction survey mitigation measure from the original 2022 Wetland and Biological Resources Assessment remains in effect and is not modified by this addendum.

Attachment B

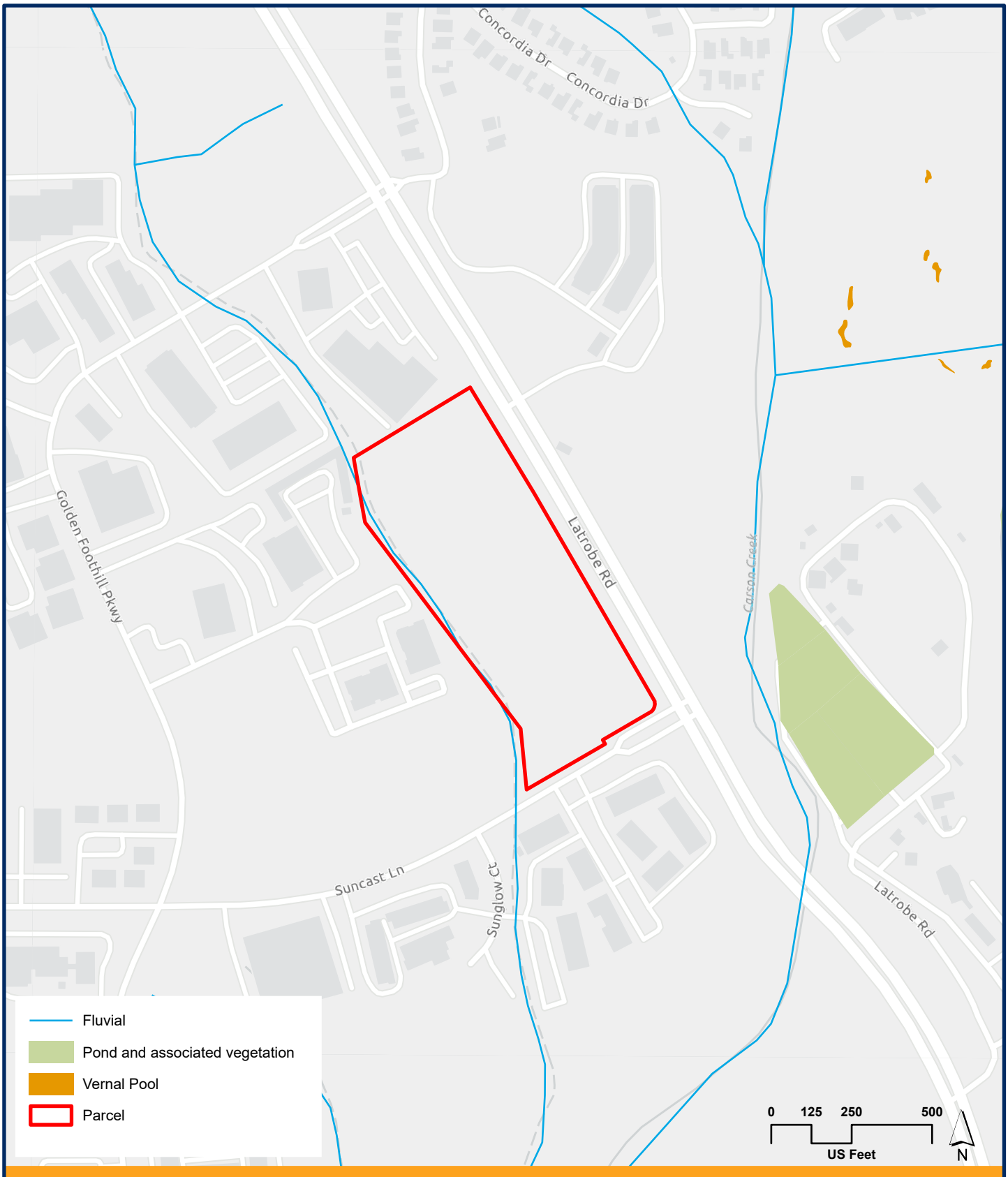


FIGURE 4 - CALIFORNIA AQUATIC RESOURCES INVENTORY (CARI) WETLAND

4500 LATROBE • EL DORADO COUNTY, CA

COX Planning Solutions

Date: March 02, 2026

Attachment B



Aquatic Resources	Square Ft.	Acres
Perennial Stream - Carson Creek Tributary (onsite)	14,913	0.342
Manmade Drainage	972	0.022
Total	15,885	0.364
Riparian Area (onsite)	48,212	1.100

FIGURE 5 - EXISTING CONDITIONS

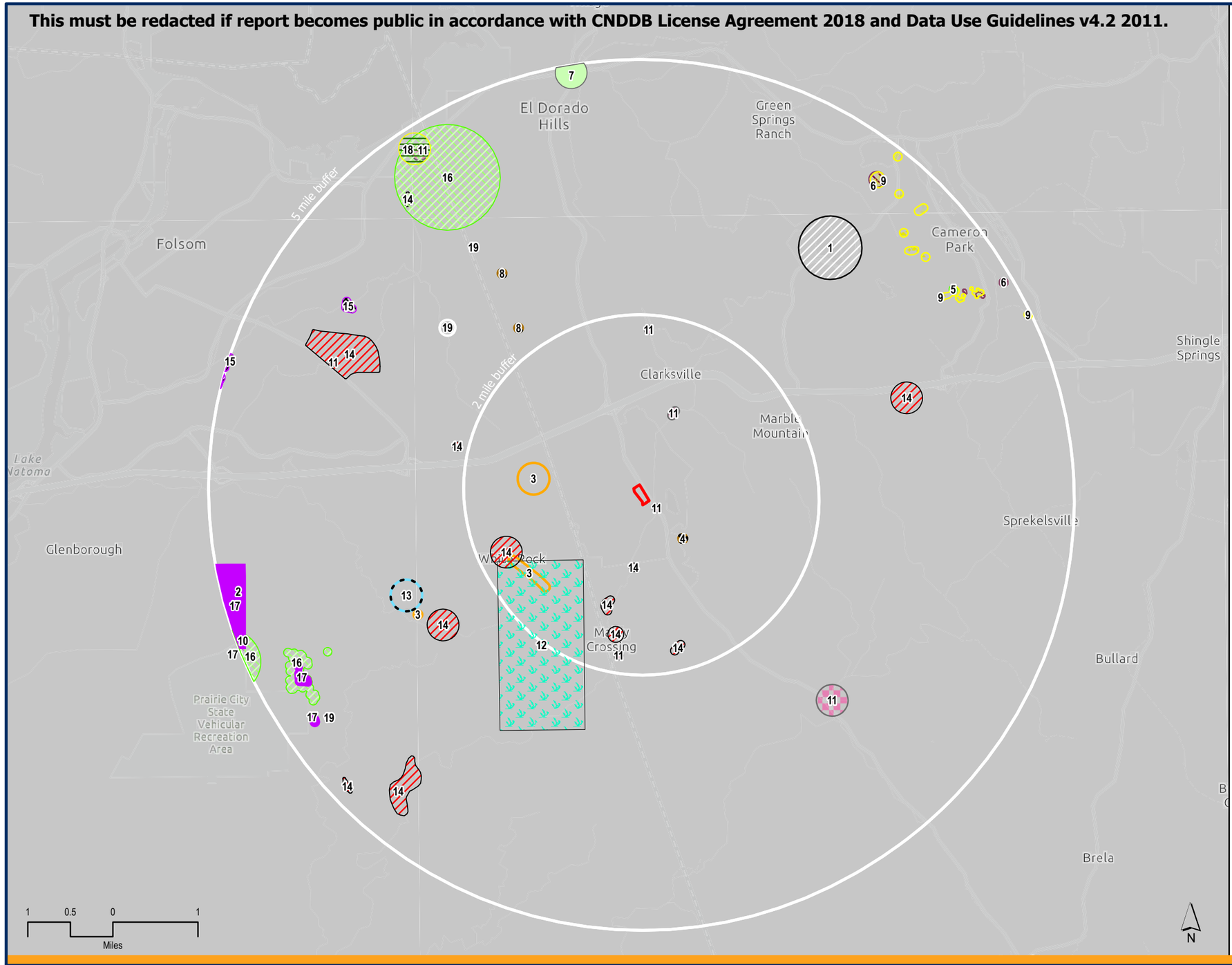
4500 LATROBE • EL DORADO COUNTY, CA

COX Planning Solutions

Date: April 20, 2026

Attachment B

This must be redacted if report becomes public in accordance with CNDDB License Agreement 2018 and Data Use Guidelines v4.2 2011.



Detail Map



CNDDB

- bald eagle 1
- Boggs Lake hedge-hyssop 2
- burrowing owl 3
- California black rail 4
- coast horned lizard 5
- El Dorado County mule ears 6
- foothill yellow-legged frog - south Sierra DPS 7
- golden eagle 8
- Layne's ragwort 9
- legenere 10
- northwestern pond turtle 11
- Sanford's arrowhead 12
- Swainson's hawk 13
- tricolored blackbird 14
- valley elderberry longhorn beetle 15
- vernal pool fairy shrimp 16
- vernal pool tadpole shrimp 17
- western spadefoot 18
- white-tailed kite 19
- Parcel

CNDDB version Feb 2026. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area CDFW. https://www.wildlife.ca.gov/Data/CNDDB Feb 13, 2026. Sources: Esri, DeLorme, HERE. Scale: 1:78,000, original map 11x17.

FIGURE 6 - CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB) RECORDED SPECIES OBSERVATION

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Attachment B

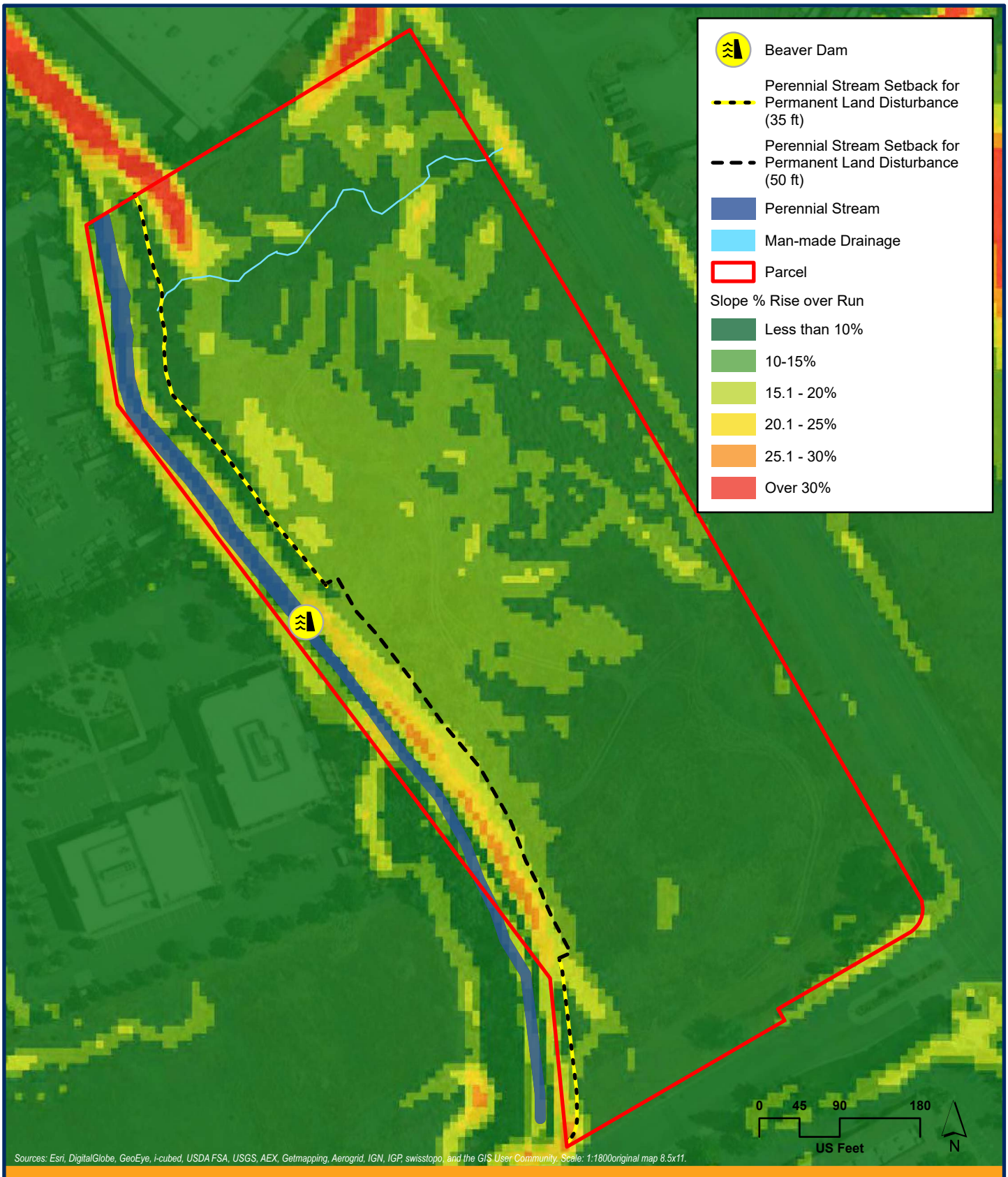


FIGURE 7 - SLOPE

4500 LATROBE • EL DORADO COUNTY, CA

COX Planning Solutions

Date: April 20, 2026

Attachment B

Arid West SDAM Field Form
October 2024

Arid West Streamflow Duration Assessment Method

General site information

Project name or number: Latrobe APN: 117060012

Site code or identifier:

Assessor(s): Stephen Stringer, Morgan Henry

Waterway name: Tributary to Carson Creek

Visit date: 02/12/2026

Current weather conditions (check one):
- ☐ Storm/heavy rain
- ☐ Steady rain
- ☐ Intermittent rain
- ☐ Snowing
- ☐ Cloudy (___ % cover)
- ☑ Clear/sunny

Notes on current or recent weather conditions (e.g., precipitation in prior week): precipitation in prior week

Coordinates at downstream end (decimal degrees):

Lat (N): 38°38'19.94"N

Long (E): 121° 3'56.33"W

Datum: NAD83

Surrounding land-use within 100 m (check one or two):
- ☑ Urban/industrial/residential
- ☐ Agricultural (farmland, crops, vineyards, pasture)
- ☐ Developed open-space (e.g., golf course)
- ☐ Forested
- ☐ Other natural
- ☐ Other:

Describe reach boundaries: end of property line (s) to end of reach distance

Mean bankfull channel width (m): 8.0 (Indicator 1)

10.1 6.7 7.3

Reach length (m):
40x width
min 40 m 120m
max 200 m

Site photographs:
Enter photo ID or check if completed.

Top down: 4 Mid down: 2

Mid up: 3 Bottom up: 1

Disturbed or difficult conditions (check all that apply):
- ☐ Recent flood or debris flow
- ☐ Stream modifications (e.g., channelization)
- ☐ Diversions
- ☐ Discharges
- ☐ Drought
- ☐ Vegetation removal/limitations
- ☐ Other (explain in notes)
- ☑ None

Notes on disturbances or difficult site conditions:

Observed hydrology:

100 % of reach with surface flow

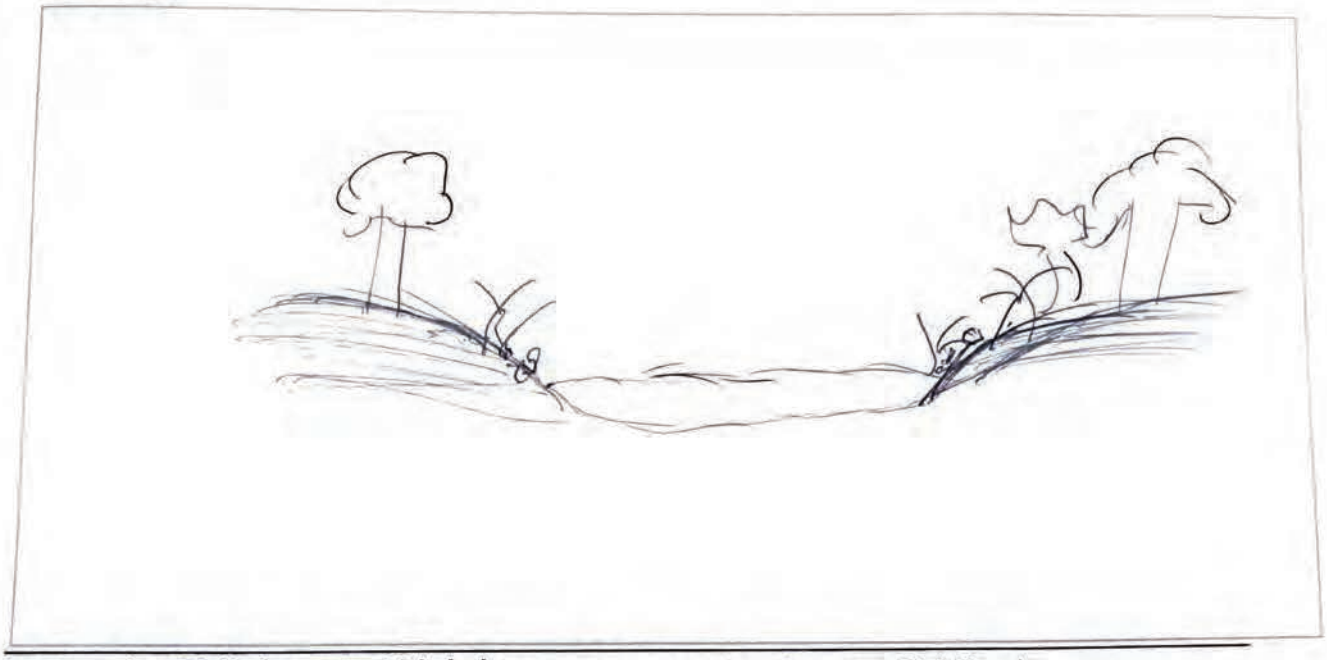
_____ % of reach with sub-surface or surface flow

_____ # of isolated pools

Comments on observed hydrology: steady flow

Attachment B

Site sketch:



1. Mean bankfull channel width (m) (nearest 0.1 m, copy from first page of field form)

8.0

Notes about mean bankfull channel width:

2. Aquatic macroinvertebrates: Abundance of perennial indicator taxa

Collect aquatic macroinvertebrates from at least 6 locations in the assessment reach, searching all suitable habitats on the streambed (including dry habitats, if present). Determine total abundance of individuals in perennial indicator families listed below, such that no one family counts for more than 11 individuals in the total.

Ephemeroptera	Plecoptera	Trichoptera	Coleoptera
Ephemerellidae (spiny crawler mayflies)	Chloroperlidae (green stoneflies)	Brachycentridae (humpless casemakers)	Elmidae (riffle beetles)
Heptageniidae (flathead mayflies)	Perlidae (common stoneflies)	Glossosomatidae (saddle casemakers)	
Leptohyphyidae (little stout crawler mayflies)		Hydropsychidae (common netspinners)	
Leptophlebiidae (prong-gilled mayflies)		Rhyacophilidae (free-living caddisflies)	

Mark the appropriate box for the number of perennial indicator individuals observed.

- ☐ No perennial indicator taxa detected
- ☑ 1 to 4 perennial indicator individuals
- ☐ 5 to 9 perennial indicator individuals
- ☐ 10 to 19 perennial indicator individuals
- ☐ 20 or more perennial indicator individuals

Check if applicable: ☐ No aquatic macroinvertebrates in assessment area

Notes on perennial indicator taxa:

Mosquito fish

bullfrog tad pole

Attachment B

3. Slope

Using a clinometer or other device, record the slope as a percent, up to the nearest half-percent.

/

Notes about slope:

4. Number of hydrophytic plant species

Record up to 6 hydrophytic plant species (FACW or OBL in the appropriate regional wetland plant list, depending on location) within the assessment area: **within the channel or up to one half-channel width outside the channel**. Explain in notes if species has an odd distribution (e.g., one individual or small patch, long-lived species solely represented by seedlings, or long-lived species solely represented by specimens in decline), or if there is uncertainty about the identification. Enter photo ID or check if photos are taken.

4 Number of hydrophytic plant species identified from the assessment reach without odd distribution. Enter zero if none were found.

Check if applicable: ☐ No vegetation in assessment area

Species	Odd distribution?	Notes	Photo ID
Juncus Mexicanus		FACW	
Salix spp.		FACW	
Cyperos spp.		FACW	
Populus Fremontii		FACW	
Typha sp.	✓	OBL; sporadic patches	
Persicaria hydropiper	✓	OBL; sporadic patches	

Notes on hydrophytic vegetation:

5. Prevalence of rooted upland plants in the streambed

____ (0-3)

Half-scores (0.5, 1.5, and 2.5) are allowed.

Evaluate the prevalence of rooted upland plants (i.e., plants rated as FAC, FACU, UPL, NI, or not listed in the regionally appropriate National Wetland Plant List) in the streambed.

0 (Poor) Rooted upland plants are *prevalent* within the streambed/thalweg.
1 (Weak) Rooted upland plants are *consistently dispersed* throughout the streambed/thalweg.
2 (Moderate) There are *a few* rooted upland plants present within the streambed/thalweg.
(3) (Strong) Rooted upland plants are *absent* from the streambed/thalweg.

Upland Species	Notes	Photo ID

Notes on rooted upland plants:

(1) -3 (2) -3 (3) -3

Attachment B

6. Algal cover

Mark the appropriate box for the percent of the streambed covered by live or dead algae on the streambed.

- ☐ Not detected
- ☐ ≤2% cover
- ☐ 2 to 10% cover
- ☐ 10 to 40% cover
- ☑ >40% cover
- ☐ Check here if algae *exclusively* appears to have been deposited from an upstream source, and *no* local growth is evident.

Notes on algal cover on the streambed:

large percentage of rocky streambed covered in algae

7. Differences in vegetation

____ (0-3) *Half-scores (0.5, 1.5, 2.5) are allowed.*	Compare the composition and density of plants growing on the banks and riparian areas to plants in the adjacent uplands. For this indicator, an upland species is not defined by its wetland indicator status, but rather by its location relative to the channel. 0 (Poor) No compositional or density differences in vegetation are present between the banks and the adjacent uplands. 1 (Weak) Vegetation growing along the reach may occur in greater densities or grow more vigorously than vegetation in the adjacent uplands, but there are no dramatic compositional differences between the two. (2) (Moderate) A distinct riparian corridor exists along part of the reach. Riparian vegetation is interspersed with upland vegetation along the length of the reach. 3 (Strong) Dramatic compositional differences in vegetation are present between the banks and the adjacent uplands. A distinct riparian vegetation corridor exists along the entire reach. Riparian, aquatic, or wetland species dominate the length of the reach.

Notes on differences in vegetation:

(1), (2), & (3) - 2 (Moderate)

↳ banks willows, rush, blackberry

Top of bank - interior live oak, Foothill pine, toyon, poison oak, grasses

Attachment B

8. Riffle-pool sequence

____ (0-3) *Half-scores (0.5, 1.5, 2.5) are allowed.*	Evaluate the prevalence of riffles, pools, and other microhabitats in the streambed. 0 (Poor) No riffle-pool sequences observed. 1 (Weak) Mostly has areas of pools or riffles. 2 (Moderate) Represented by a less frequent number of riffles and pools. Distinguishing the transition between riffles and pools is difficult to observe. 3 (Strong) Demonstrated by a frequent number of structural transitions (e.g., riffles followed by pools) along the entire reach. There is an obvious transition between riffles and pools.
Notes about riffle-pool sequence: (1) - 3 - Obvious riffle pool sequences (2) - 2 - linear w/ weak riffle pools (3) - 2.5	

Photo log

Indicate if any other photographs taken during the assessment:

Photo ID	Description
11	Riparian edge
12	Beaver dam

Additional notes about the assessment:

Model classification:

- ☐ Ephemeral
- ☐ At least intermittent
- ☐ Intermittent
- ☐ Less than perennial
- ☑ Perennial
- ☐ Needs more information

Attachment B

Arid West SDAM Field Form
October 2024

Arid West Streamflow Duration Assessment Method

General site information

Project name or number: Latrobe APN: 117060012

Site code or identifier:

Assessor(s): Stephen Stringer, Morgan Henry

Man - Made

Waterway name: Drainage [redacted]

Visit date: 02/12/2026

Current weather conditions (check one):
- ☐ Storm/heavy rain
- ☐ Steady rain
- ☐ Intermittent rain
- ☐ Snowing
- ☐ Cloudy (___ % cover)
- ☑ Clear/sunny

Notes on current or recent weather conditions (e.g., precipitation in prior week):

Coordinates at downstream end (decimal degrees):

Lat (N): 38°38'12.05"N

Long (E): 121° 3'50.97"W

Datum: NAD83

Surrounding land-use within 100 m (check one or two):
- ☑ Urban/industrial/residential
- ☐ Agricultural (farmland, crops, vineyards, pasture)
- ☐ Developed open-space (e.g., golf course)
- ☐ Forested
- ☐ Other natural
- ☐ Other:

Describe reach boundaries: Bottom to top of drainage on property

Mean bankfull channel width (m): 0.6 (Indicator 1)

1 0.5 0.3

Reach length (m):
40x width
min 40 m
max 200 m 120m

Site photographs:
Enter photo ID or check if completed.

Top down: 8 Mid down: 6

Mid up: 7 Bottom up: 5

Disturbed or difficult conditions (check all that apply):
- ☐ Recent flood or debris flow
- ☐ Stream modifications (e.g., channelization)
- ☐ Diversions
- ☐ Discharges
- ☐ Drought
- ☐ Vegetation removal/limitations
- ☐ Other (explain in notes)
- ☑ None

Notes on disturbances or difficult site conditions:

Observed hydrology:

50 % of reach with surface flow

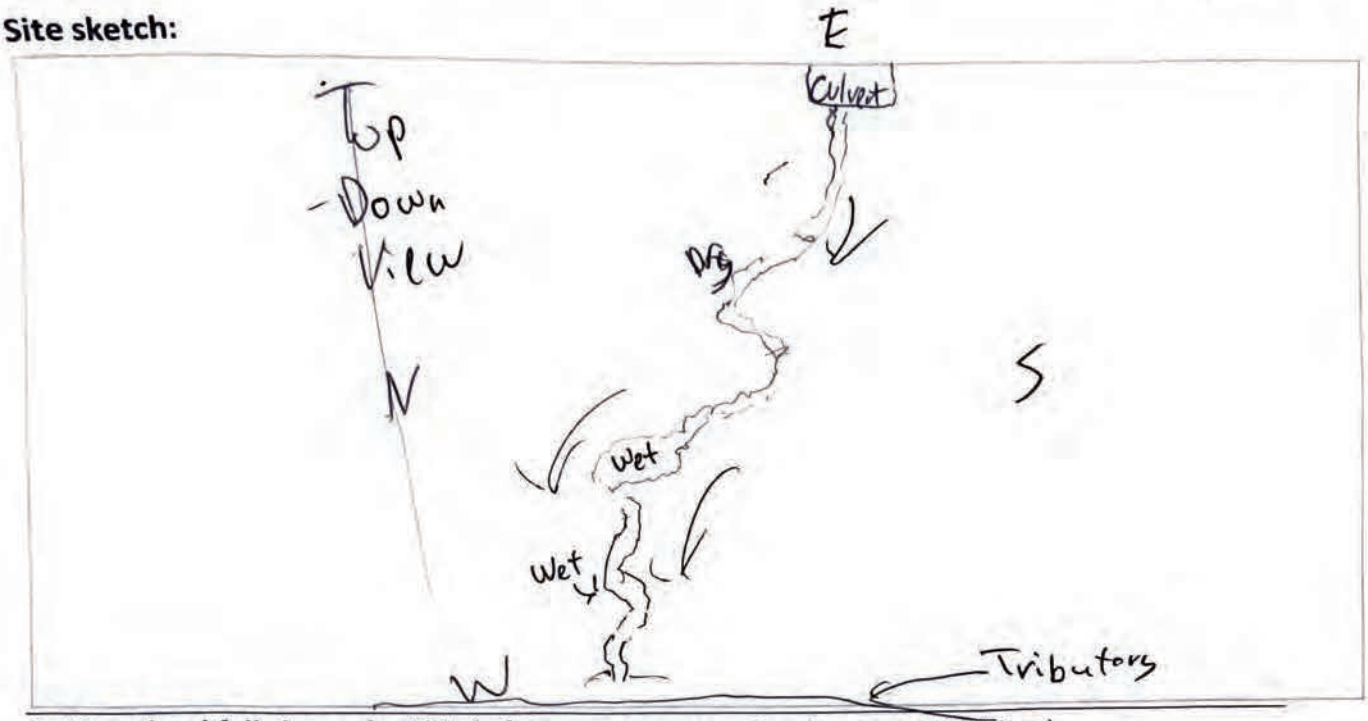
___ % of reach with sub-surface or surface flow

1 # of isolated pools

Comments on observed hydrology: surface flow from recent rains

Attachment B

Site sketch:



1. Mean bankfull channel width (m) (nearest 0.1 m, copy from first page of field form)

0.6

Notes about mean bankfull channel width:

2. Aquatic macroinvertebrates: Abundance of perennial indicator taxa

Collect aquatic macroinvertebrates from at least 6 locations in the assessment reach, searching all suitable habitats on the streambed (including dry habitats, if present). Determine total abundance of individuals in perennial indicator families listed below, such that no one family counts for more than 11 individuals in the total.

Ephemeroptera	Plecoptera	Trichoptera	Coleoptera
Ephemerellidae (spiny crawler mayflies)	Chloroperlidae (green stoneflies)	Brachycentridae (humpless casemakers)	Elmidae (riffle beetles)
Heptageniidae (flathead mayflies)	Perlidae (common stoneflies)	Glossosomatidae (saddle casemakers)	
Leptohyphyidae (little stout crawler mayflies)		Hydropsychidae (common netspinners)	
Leptophlebiidae (prong-gilled mayflies)		Rhyacophilidae (free-living caddisflies)	

Mark the appropriate box for the number of perennial indicator individuals observed.

- ☑ No perennial indicator taxa detected
- ☐ 1 to 4 perennial indicator individuals
- ☐ 5 to 9 perennial indicator individuals
- ☐ 10 to 19 perennial indicator individuals
- ☐ 20 or more perennial indicator individuals

Check if applicable: ☐ No aquatic macroinvertebrates in assessment area

Notes on perennial indicator taxa:

Attachment B

3. Slope

Using a clinometer or other device, record the slope as a percent, up to the nearest half-percent.

8 %

Notes about slope:

4. Number of hydrophytic plant species

Record up to 6 hydrophytic plant species (FACW or OBL in the appropriate regional wetland plant list, depending on location) within the assessment area: **within the channel or up to one half-channel width outside the channel.** Explain in notes if species has an odd distribution (e.g., one individual or small patch, long-lived species solely represented by seedlings, or long-lived species solely represented by specimens in decline), or if there is uncertainty about the identification. Enter photo ID or check if photos are taken.

2 Number of hydrophytic plant species identified from the assessment reach without odd distribution. Enter zero if none were found.

Check if applicable: ☐ No vegetation in assessment area

Species	Odd distribution?	Notes	Photo ID
Mentha pulegium	y	One small patch observed	~~OBL~~ OBL
Lythrum hyssopifolia		few individuals observed	FAC

Notes on hydrophytic vegetation:

5. Prevalence of rooted upland plants in the streambed

1 (0-3) *Half-scores (0.5, 1.5, and 2.5) are allowed.*	Evaluate the prevalence of rooted upland plants (i.e., plants rated as FAC, FACU, UPL, NI, or not listed in the regionally appropriate National Wetland Plant List) in the streambed. 0 (Poor) Rooted upland plants are *prevalent* within the streambed/thalweg. 1 (Weak) Rooted upland plants are *consistently dispersed* throughout the streambed/thalweg. 2 (Moderate) There are *a few* rooted upland plants present within the streambed/thalweg. 3 (Strong) Rooted upland plants are *absent* from the streambed/thalweg.

Upland Species	Notes	Photo ID

Notes on rooted upland plants:

consistently dispersed

6. Algal cover

Mark the appropriate box for the percent of the streambed covered by live or dead algae on the streambed.

- ☑ Not detected
- ☐ ≤2% cover
- ☐ 2 to 10% cover
- ☐ 10 to 40% cover
- ☐ >40% cover
- ☐ Check here if algae *exclusively* appears to have been deposited from an upstream source, and *no* local growth is evident.

Notes on algal cover on the streambed:

7. Differences in vegetation

1 (0-3) *Half-scores (0.5, 1.5, 2.5) are allowed.*	Compare the composition and density of plants growing on the banks and riparian areas to plants in the adjacent uplands. For this indicator, an upland species is not defined by its wetland indicator status, but rather by its location relative to the channel. 0 (Poor) No compositional or density differences in vegetation are present between the banks and the adjacent uplands. 1 (Weak) Vegetation growing along the reach may occur in greater densities or grow more vigorously than vegetation in the adjacent uplands, but there are no dramatic compositional differences between the two. 2 (Moderate) A distinct riparian corridor exists along part of the reach. Riparian vegetation is interspersed with upland vegetation along the length of the reach. 3 (Strong) Dramatic compositional differences in vegetation are present between the banks and the adjacent uplands. A distinct riparian vegetation corridor exists along the entire reach. Riparian, aquatic, or wetland species dominate the length of the reach.

Notes on differences in vegetation:

1

Attachment B

8. Riffle-pool sequence

0 (0-3) *Half-scores (0.5, 1.5, 2.5) are allowed.*	Evaluate the prevalence of riffles, pools, and other microhabitats in the streambed. 0 (Poor) No riffle-pool sequences observed. 1 (Weak) Mostly has areas of pools or riffles. 2 (Moderate) Represented by a less frequent number of riffles and pools. Distinguishing the transition between riffles and pools is difficult to observe. 3 (Strong) Demonstrated by a frequent number of structural transitions (e.g., riffles followed by pools) along the entire reach. There is an obvious transition between riffles and pools.
Notes about riffle-pool sequence: 0	

Photo log

Indicate if any other photographs taken during the assessment:

Photo ID	Description
11	Riparian edge of tributary (non-connecting)
12	Beaver dam of tributary (non-connecting)

Additional notes about the assessment:

Model classification:

- ☑ Ephemeral
- ☐ At least intermittent
- ☐ Intermittent
- ☐ Less than perennial
- ☐ Perennial
- ☐ Needs more information

Attachment B



PHOTO POINTS

4500 LATROBE • EL DORADO COUNTY, CA

COX Planning Solutions

Date: February 27, 2026

Attachment B



1. Bottom up photo taken around southern end of reach (SDAM DP-1), facing north.



2. Mid-down photo taken around center point of reach (SDAM DP-2), facing south.

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February 12, 2026

Attachment B



3. Mid-up photo taken around center point of reach (SDAM DP-2), facing north.



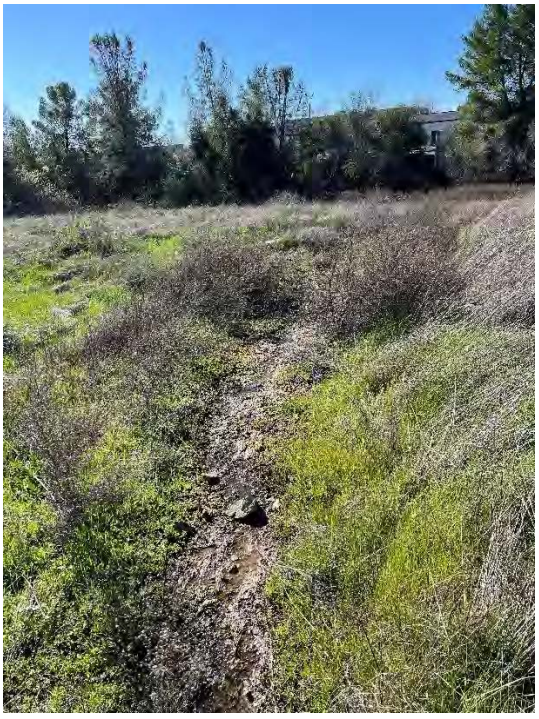
4. Top-down photo taken around top of reach (SDAM DP-3) facing south.

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February 12, 2026

Attachment B



5. Bottom-up photo taken around bottom of drainage reach (SDAM DP-4) facing northeast.



6. Mid-down photo taken around center point of drainage reach (SDAM DP-5) facing west.

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Attachment B



7. Mid-up photo taken around center point of drainage reach (SDAM DP-5) facing east.



8. Top-down photo taken around center point of drainage reach (SDAM DP-6) facing west.

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Attachment B



9. Photo taken showing riparian edge of Carson Creek Tributary facing southwest.



10. Photo taken showing beaver dam in Carson Creek Tributary, facing west.

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Attachment B



11. Photo facing stockpile area, facing south.



12. Photo taken from north side of property facing north.

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February 12, 2026

Attachment B



13. Photo taken from southern end of site facing north.

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February 12, 2026

Attachment C

Transportation Impact Study

Latrobe Storage
El Dorado County, California

May 29, 2026

Prepared for:

El Dorado Hills Owner, LLC.

Prepared by:

Kimley»Horn

1100 Town and Country Road Suite 700
Orange, California 92868

Phone: (714) 939-1030

EXECUTIVE SUMMARY

This report documents the results of a transportation impact study completed for the Latrobe Storage project (the "proposed project," or "project"). The project proposes to construct a self-storage facility totaling 260,503 gross square-feet of self-storage space, consisting of 218,750 net square-feet of rentable area. The self-storage facility is anticipated to have up to 1,194 storage units; 1,083 of those would be traditional self-storage units. The remaining 111 units would be oversized units, large enough to store a boat or recreational vehicle (RV), and would be enclosed and appear similar to traditional units. The project is located on the northwest corner of Latrobe Road and Suncast Lane in El Dorado County, California. Access to the project site would be provided via one proposed unsignalized full-access driveway along Suncast Lane. Additionally, emergency access would be provided via one proposed driveway along Latrobe Road.

This study was performed in accordance with the scope of work approved by El Dorado County in a manner consistent with El Dorado County Community Development Agency's *Transportation Impact Study Guidelines* ("*TIS Guidelines*"). The following transportation facilities were included in this evaluation:

Intersections:

1. El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way
2. Latrobe Road at US-50 Eastbound Ramps
3. Latrobe Road at Town Center Boulevard
4. Latrobe Road at White Rock Road
5. Latrobe Road at Golden Foothill Parkway / Monte Verde Drive
6. Latrobe Road at Suncast Lane

Project Driveways

D1. Project Driveway at Suncast Lane

Roadway Segments

1. Latrobe Road, between White Rock Road and Golden Foothill Parkway
2. Latrobe Road, between Golden Foothill Parkway and Suncast Lane

Based on the County's requirements, this transportation study was conducted for the study facilities for the following scenarios:

- Existing (2025) Conditions
- Existing (2025) plus Proposed Project Conditions
- Near-Term (2035) Conditions
- Near-Term (2035) plus Proposed Project Conditions
- Cumulative (2045) Conditions
- Cumulative (2045) plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is estimated to generate approximately 395 daily PCE trips, with 22 PCE trips (11 inbound and 11 outbound) occurring during the weekday A.M. peak hour, and 39 PCE trips (20 inbound and 19 outbound) occurring during the weekday P.M. peak hour.
- As defined by the County, none of the study intersections or roadway segments are anticipated to operate at an unacceptable Level of Service under any of the plus project conditions for the Existing (2025), Near-Term (2035), and Cumulative (2045) scenarios. As there are no identified deficiencies according to El Dorado County's *TIS Guidelines*, no improvements are proposed.

TABLE OF CONTENTS

INTRODUCTION 1
PROJECT DESCRIPTION 1
PROJECT AREA ROADWAYS 5
ASSESSMENT OF PROPOSED PROJECT 5
Proposed Project Trip Generation and Assignment 5
TRANSPORTATION STUDY METHODOLOGY 9
Level of Service Definitions 9
Intersection Analysis 9
Roadway Segment Analysis 9
Analysis Scenarios 10
EXISTING (2025) CONDITIONS 10
EXISTING (2025) PLUS PROJECT CONDITIONS 13
NEAR-TERM (2035) CONDITIONS 15
NEAR-TERM (2035) PLUS PROJECT CONDITIONS 18
CUMULATIVE (2045) CONDITIONS 20
CUMULATIVE (2045) PLUS PROJECT CONDITIONS 23
DEFICIENCIES AND IMPROVEMENTS 25
Standards of Deficiency 25
Summary of Deficiencies and Improvements 25
OTHER CONSIDERATIONS 26
CONCLUSIONS 28

APPENDICES

Approved Transportation Impact Study Scope ..... Appendix A
Traffic Count Data Sheets ..... Appendix B
Analysis Worksheets for Existing (2025) Conditions ..... Appendix C
Analysis Worksheets for Existing (2025) plus Project Conditions ..... Appendix D
Analysis Worksheets for Near-Term (2035) Conditions ..... Appendix E
Analysis Worksheets for Near-Term (2035) plus Project Conditions ..... Appendix F
Analysis Worksheets for Cumulative (2045) Conditions ..... Appendix G
Analysis Worksheets for Cumulative (2045) plus Project Conditions ..... Appendix H
Truck Turning Radius Exhibit ..... Appendix I
Sight Distance Exhibit ..... Appendix J

LIST OF TABLES

Table 1 – Proposed Project Trip Generation 6
Table 2 – Intersection Level of Service Criteria 9
Table 3 – Roadway Segment Level of Service Criteria 10
Table 4 – Existing (2025) Intersection Levels of Service 12
Table 5 – Existing (2025) Roadway Segment Levels of Service 12
Table 6 – Existing (2025) plus Project Intersection Levels of Service 13
Table 7 – Existing (2025) plus Project Roadway Segment Levels of Service 13
Table 8 – Near-Term (2035) Intersection Levels of Service 17
Table 9 – Near-Term (2035) Roadway Segment Levels of Service 17
Table 10 – Near-Term (2035) plus Project Intersection Levels of Service 18
Table 11 – Near-Term (2035) plus Project Roadway Segment Levels of Service 18
Table 12 – Cumulative (2045) Intersection Levels of Service 22
Table 13 – Cumulative (2045) Roadway Segment Levels of Service 22
Table 14 – Cumulative (2045) plus Project Intersection Levels of Service 23
Table 15 – Cumulative (2045) plus Project Roadway Segment Levels of Service 23

LIST OF FIGURES

Figure 1 – Project Vicinity Map 2
Figure 2 – Project Site Plan 3
Figure 3 – Study Intersections, Traffic Control, and Lane Geometry 4
Figure 4 – Project Trip Distribution 7
Figure 5 – Project Trip Assignment 8
Figure 6 – Existing (2025) Peak-Hour Traffic Volumes 11
Figure 7 – Existing (2025) plus Project Peak-Hour Traffic Volumes 14
Figure 8 – Near-Term (2035) Peak-Hour Traffic Volumes 16
Figure 9 – Near-Term (2035) plus Project Peak-Hour Traffic Volumes 19
Figure 10 – Cumulative (2045) Peak-Hour Traffic Volumes 21
Figure 11 – Cumulative (2045) plus Project Peak-Hour Traffic Volumes 24
Figure 12 – Three-Year (2022-2024) Study Intersections Collision Summary 26

INTRODUCTION

This report documents the results of a transportation impact study (TIS) completed for the Latrobe Storage project (the "proposed project", or "project"). This study was performed in accordance with the scope of work approved by El Dorado County in a manner consistent with El Dorado County Community Development Agency's *Transportation Impact Study Guidelines*[1]. The approved TIS Scope is provided in **Appendix A**.

PROJECT DESCRIPTION

The project proposes to construct a self-storage facility totaling 260,503 gross square-feet of self-storage space, consisting of 218,750 net square-feet of rentable area. The self-storage facility is anticipated to have up to 1,194 storage units; 1,083 of those would be traditional self-storage units. The remaining 111 units would be oversized units, large enough to store a boat or recreational vehicle (RV), and would be enclosed and appear similar to traditional units. The project is located on the northwest corner of Latrobe Road and Suncast Lane in El Dorado County, California. Access to the project site would be provided via one (1) proposed unsignalized full-access driveway along Suncast Lane. The project proposes to construct the north leg of an existing three-legged intersection that currently provides access to medical-dental office buildings at the south leg. An additional driveway along Latrobe Road will be provided for emergency access only. The project location is shown in **Figure 1** and the project site plan is shown in **Figure 2**. The following transportation facilities are included in this evaluation:

Intersections:

1. El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way
2. Latrobe Road at US-50 Eastbound Ramps
3. Latrobe Road at Town Center Boulevard
4. Latrobe Road at White Rock Road
5. Latrobe Road at Golden Foothill Parkway / Monte Verde Drive
6. Latrobe Road at Suncast Lane

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D1. Project Driveway at Suncast Lane

Roadway Segments

1. Latrobe Road, between White Rock Road and Golden Foothill Parkway
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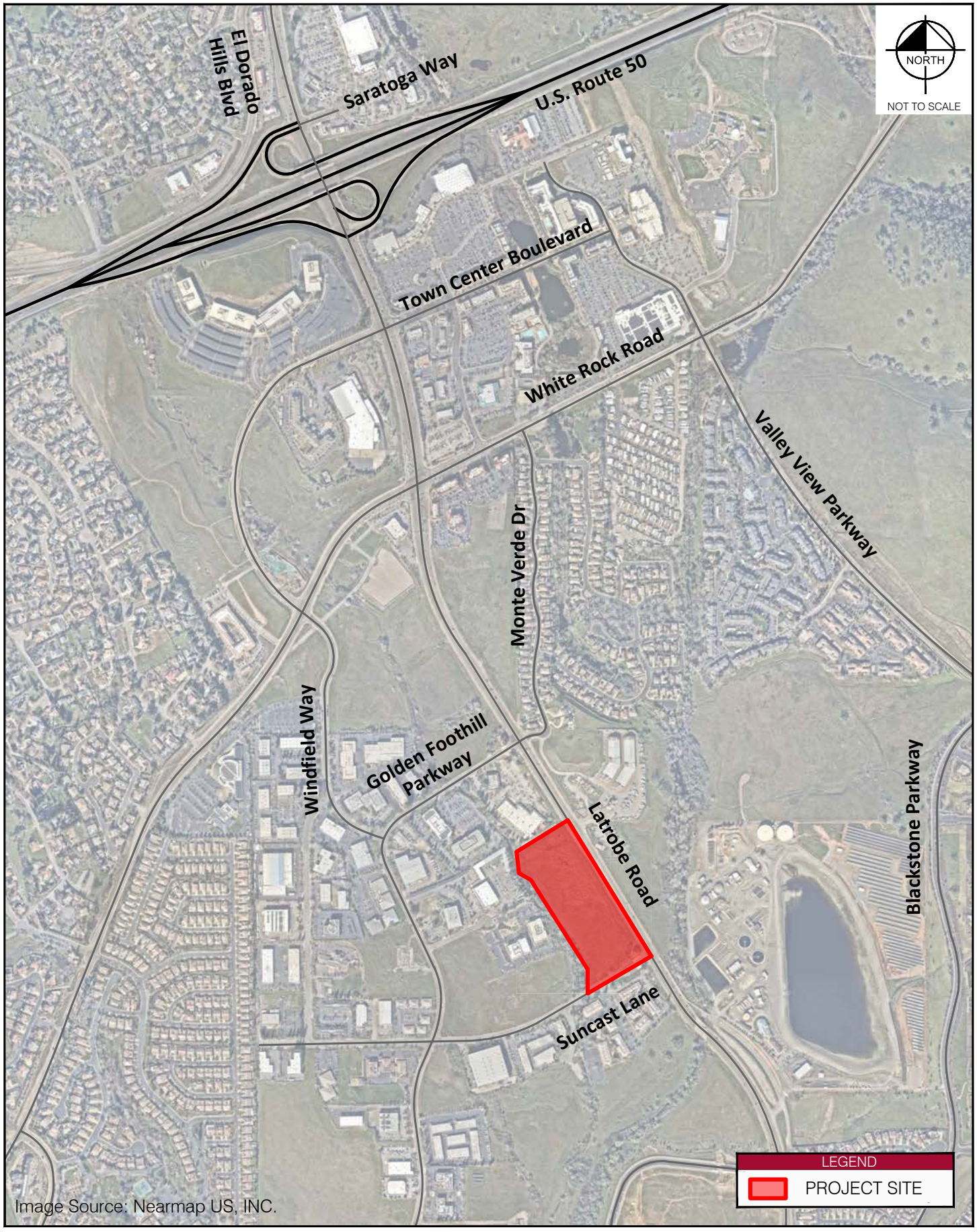
Based on the County's requirements[1], this transportation study was conducted for the study facilities for the following scenarios:

- Existing (2025) Conditions
- Existing (2025) plus Proposed Project Conditions
- Near-Term (2035) Conditions
- Near-Term (2035) plus Proposed Project Conditions
- Cumulative (2045) Conditions
- Cumulative (2045) plus Proposed Project Conditions

Figure 3 illustrates the study intersections, existing traffic control, and existing lane configurations.

[1] *Transportation Impact Study Guidelines*, El Dorado County Community Development Agency, November 2014.

Attachment C



Kimley»Horn

Figure 1
Vicinity Map

Attachment C

UNIT SCHEDULE - BLDG A - ALL LEVELS				
TYPE	ACTUAL #	ACTUAL %	UNIT AREA	TOTAL AREA
5x5	73	6.7%	25 SF	1825 SF
5x10	254	23.5%	50 SF	12700 SF
10x10	269	24.8%	100 SF	26900 SF
10x15	190	17.5%	150 SF	28500 SF
10x20	120	11.1%	200 SF	24000 SF
10x25	107	9.9%	250 SF	26750 SF
10x30	69	6.4%	300 SF	20700 SF
15x25	1	0.1%	375 SF	375 SF
Grand total	1083			141750 SF

NOT TO SCALE

UNIT SCHEDULE - OVERSIZE						
TYPE	ACTUAL #	SSU Depth	SSU Width	ACTUAL %	UNIT AREA	TOTAL UNIT AREA
(A) 20 x 50	19	50' - 0"	20' - 0"	17.1%	1000 SF	19000 SF
(B) 20 x 40	30	40' - 0"	20' - 0"	27.0%	800 SF	24000 SF
(C) 15 x 40	29	40' - 0"	15' - 0"	26.1%	600 SF	17400 SF
(D) 15 x 35	16	35' - 0"	15' - 0"	14.4%	525 SF	8400 SF
(E) 15 x 30	16	30' - 0"	15' - 0"	14.4%	450 SF	7200 SF
(F) 25 x 40	1	40' - 0"	25' - 0"	0.9%	1000 SF	1000 SF
111	111					77000 SF
Grand total: 111	111					77000 SF

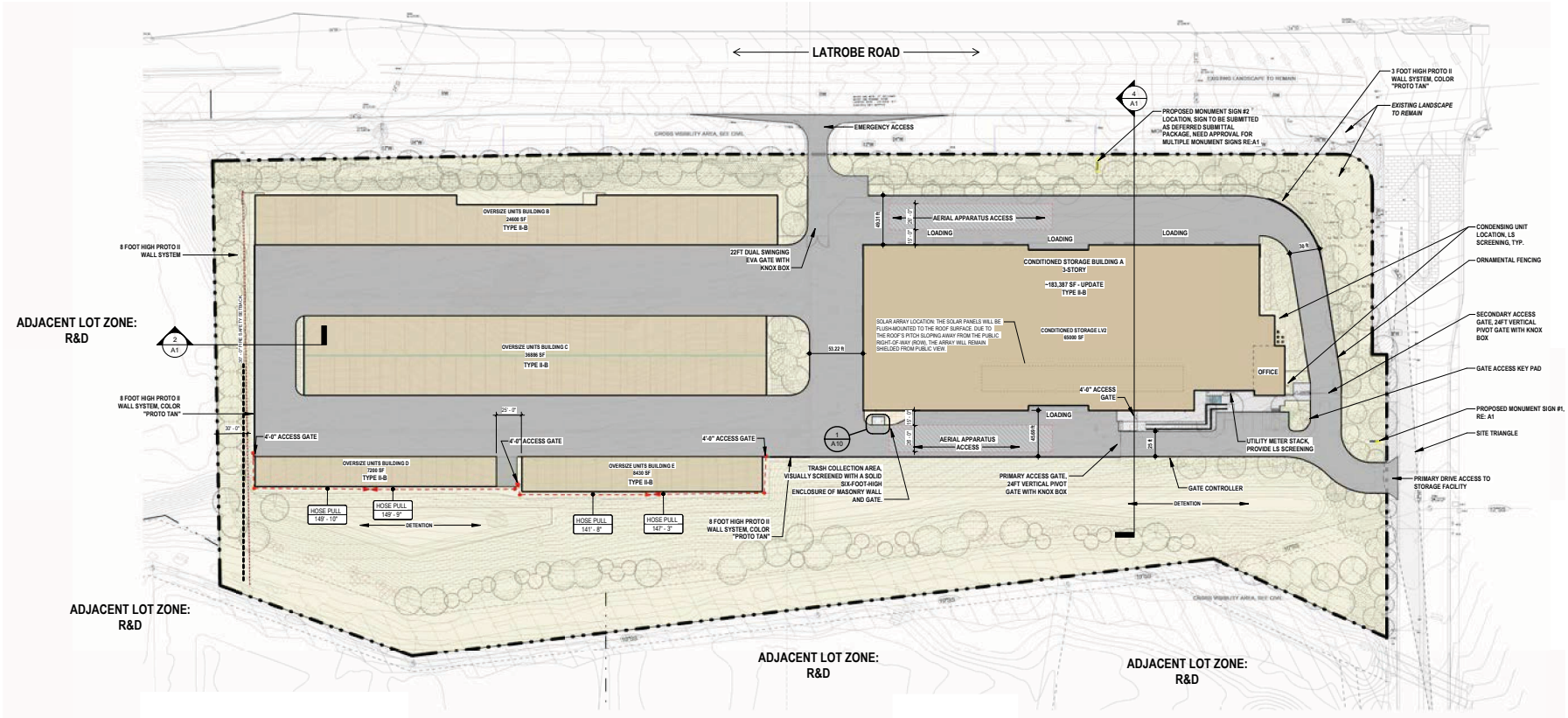


Figure 2
Project Site Plan

Attachment C



Image Source: Nearmap US, INC.

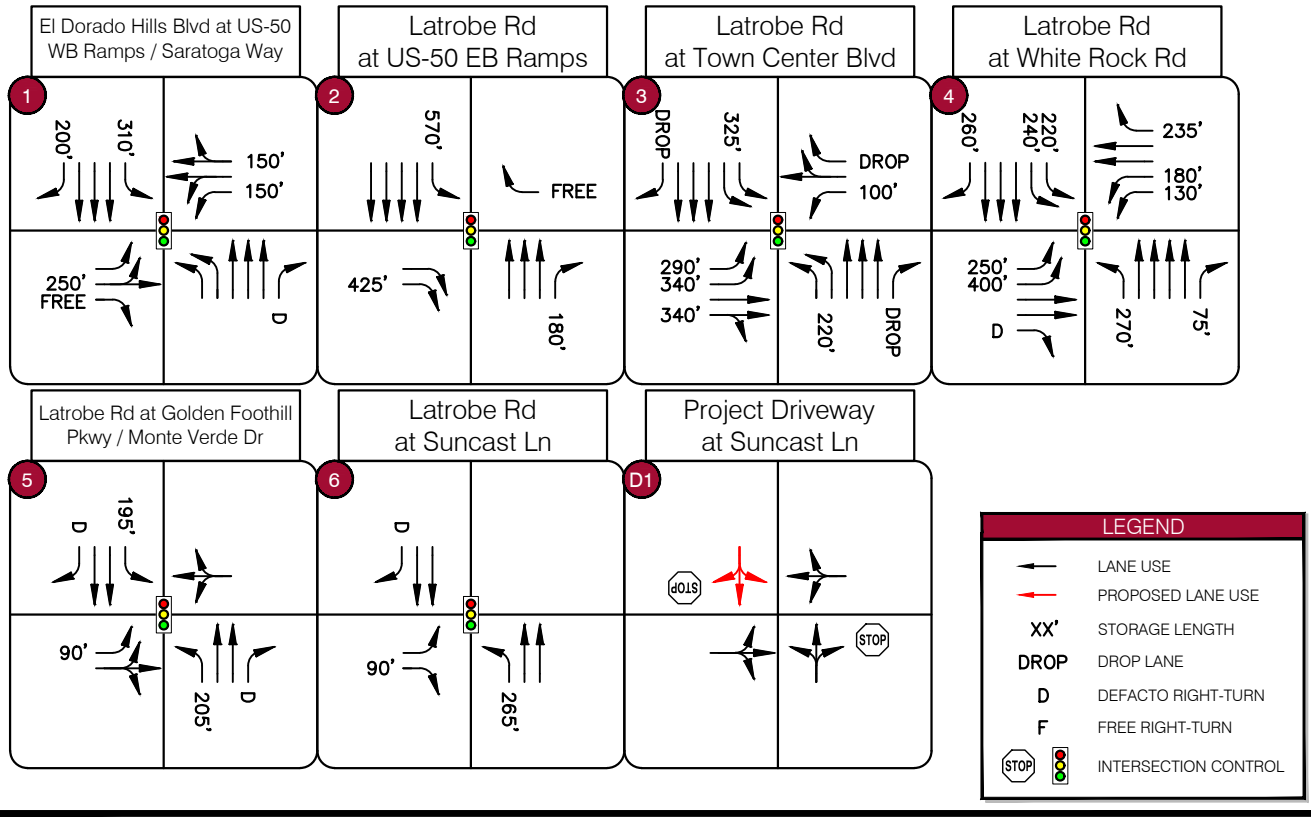


Figure 3
2025 Existing Lane Configuration and Control

PROJECT AREA ROADWAYS

The following are descriptions of the primary roadways in the vicinity of the project:

El Dorado Hills Boulevard is a north-south minor arterial[2] roadway that provides a primary connection for northern El Dorado County. South of the US-50, El Dorado Hills Boulevard becomes Latrobe Road. The four-lane roadway carries approximately 29,500 vehicles per day[3] (vpd) between Wilson Boulevard and Saratoga Way in the vicinity of the proposed project location. South of Saratoga Way, El Dorado Hills Boulevard becomes a six-lane roadway with a posted speed limit of 45 miles per hour (mph).

Latrobe Road is a north-south minor arterial[2] roadway that provides a primary connection to US-50 for southern El Dorado County. North of the US-50, Latrobe Road becomes El Dorado Hills Boulevard. North of White Rock Road, Latrobe Road is a six-lane roadway with a posted speed limit of 45 mph. South of White Rock Road, Latrobe Road is a four-lane roadway with a posted speed limit of 55 mph. Between White Rock Road and Golden Foothill Parkway, Latrobe Road has a posted speed limit of 45 mph in the northbound direction. Between White Rock Road and Investment Boulevard, Latrobe Road carries approximately 22,000 vpd[3].

Town Center Boulevard is an east-west local[2] roadway that extends between White Rock Road and Vine Street. Town Center Boulevard is a two-lane roadway.

White Rock Road is an east-west principal arterial[2] roadway that provides a connection from Rancho Cordova to El Dorado Hills. Near Latrobe Road, White Rock Road carries approximately 13,000 vpd[3] with two through lanes in each direction. West of Latrobe Road, White Rock Road has a posted speed limit of 55 mph. East of Latrobe Road, White Rock Road has a posted speed limit of 55 mph.

Golden Foothill Parkway is an east-west local[2] roadway that connects to Latrobe Road to the north and south of the project site. Golden Foothill Parkway is a two-lane roadway.

Suncast Lane is an east-west local[2] roadway that extends west from Latrobe Road into a residential neighborhood. Suncast Lane is an unstriped two-lane roadway.

ASSESSMENT OF PROPOSED PROJECT

Proposed Project Trip Generation and Assignment

The number of trips anticipated to be generated by the proposed project was approximated using data included in the Institute of Transportation Engineers (ITE) *ITE Trip Generation Manual, 12th Edition*. Passenger car equivalent (PCE) factors were then applied to the truck types, based on number of axles (1.5 PCE for 2-axle trucks, 2.0 PCE for 3-axle trucks, and 3.0 PCE for 4+-axle trucks to determine the total PCE volumes to be generated by the project. The proposed project trip generation rates, PCE factors, and resulting trip generation estimates for daily, weekday AM and PM peak-hours is presented in **Table 1**. As shown in **Table 1**, the proposed project is estimated to generate 395 daily trips with 22 trips occurring during the AM peak-hour and 39 trips occurring during the PM peak-hour.

Project traffic was distributed and assigned to the roadway network based on output from the County's Travel Demand Model and engineering judgement. Project trip distribution percentages are provided in **Figure 4**. The associated assignment of AM and PM peak hour project trips is depicted in **Figure 5**.

[2] *California Road System – Functional Classification*, Caltrans, accessed February 24, 2026.
[3] *Annual Traffic Count Summary*, El Dorado County Department of Transportation, 2023.

Table 1 – Proposed Project Trip Generation

Trip Generation Rates									
ITE Land Use	ITE Code	Unit	Daily	A.M. Peak Hour			P.M. Peak Hour		
				In	Out	Total	In	Out	Total
Mini-Warehouse	151	Net Rentable Area (KSF)[3]	1.650	0.052	0.048	0.100	0.088	0.082	0.170
Trip Generation Estimates									
Project Land Use	Quantity	Unit	Daily	A.M. Peak Hour			P.M. Peak Hour		
				In	Out	Total	In	Out	Total
Mini-Warehouse	218.750	Net Rentable Area (KSF)	361	11	11	22	19	18	37
Passenger Vehicles	94.00%		339	10	10	20	18	17	35
Trucks	6.00%		22	1	1	2	1	1	2
Trip Generation Estimates - Passenger Car Equivalents (PCE)									
Vehicle Type	Vehicle Mix [1, 2]	Daily Vehicles	PCE Factor	Daily	A.M. Peak Hour			P.M. Peak Hour	
					In	Out	Total	In	Out	Total
Passenger Vehicles	94.00%	339	1.0	339	10	10	20	18	17	35
2-Axle Trucks	1.00%	4	1.5	6	0	0	0	0	0	0
3-Axle Trucks	1.25%	4	2.0	8	0	0	0	0	0	0
4+ Axle Trucks	3.75%	14	3.0	42	1	1	2	2	2	4
Total Truck PCE Trips				56	1	1	2	2	2	4
Total Project PCE Trips				**395**	**11**	**11**	**22**	**20**	**19**	**39**

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition
PCE = Passenger Car Equivalents
KSF = Thousand Square Feet

[1] Passenger Vehicle and Truck splits were taken from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition Supplement

[2] Truck mix percentages were calculated based on a ratio between the ITE truck splits for Mini-Warehouse and the SCAQMD Warehouse Truck Study (July 2014) for Without Cold Storage.

[3] ITE Trip Generation Manual provides three unit options for Mini-Warehouse land use: Gross Floor Area, Storage Units, and Net Rentable Area. Using the trip generation rates for Net Rentable Areas yields the highest trip generation estimates. Therefore, this analysis utilized rates based on Net Rentable Area for a conservative assessment.

Attachment C



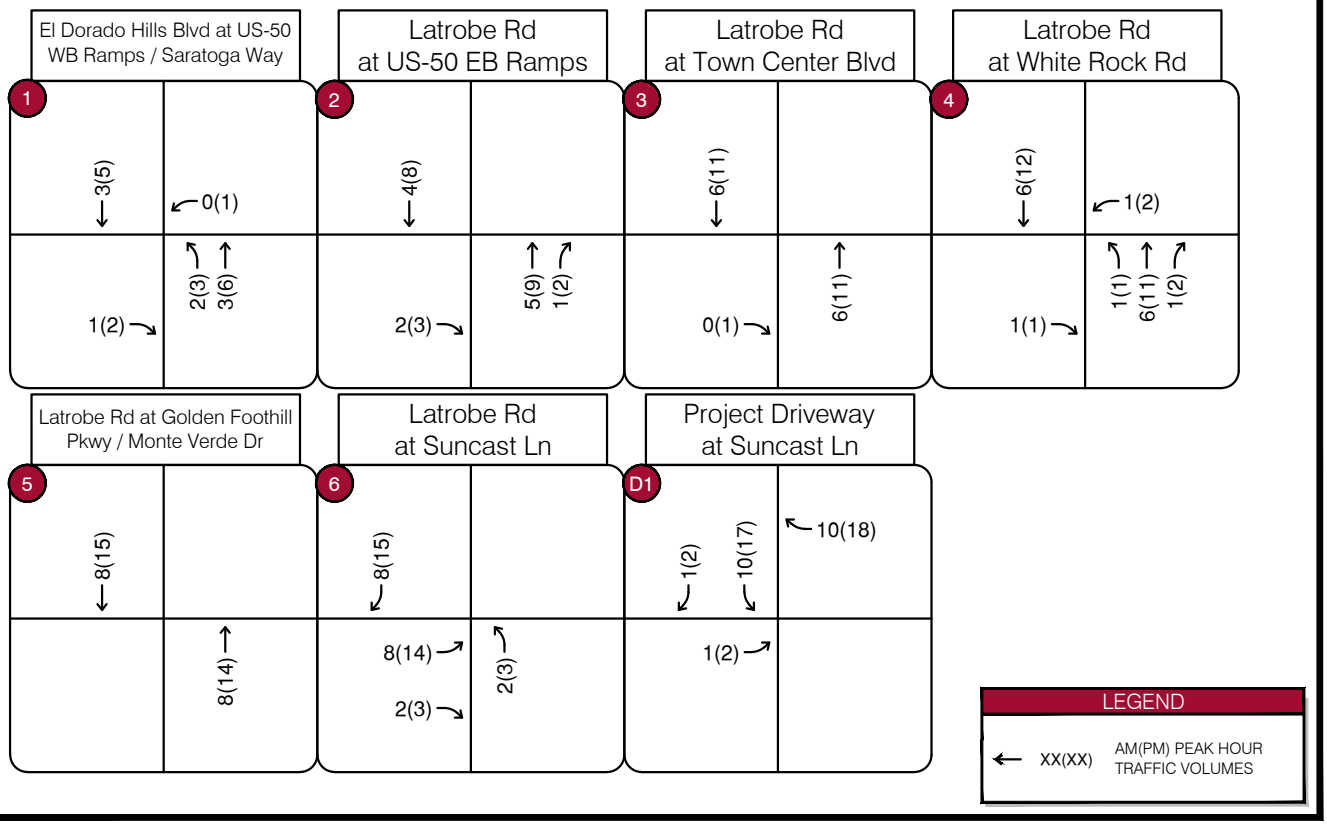
Kimley»Horn

Figure 4
Project Trip Distribution

Attachment C



Image Source: Nearmap US, INC.



Kimley»Horn

Figure 5
Project Trip Assignment

TRANSPORTATION STUDY METHODOLOGY

This transportation study was performed in accordance with El Dorado County's *Transportation Impact Study Guidelines*[1] ("*TIS Guidelines*").

Level of Service Definitions

The level of service (LOS) of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A, which represents minimal delay, to F, which represents heavy delay and a facility that is operating at or near its functional capacity. LOS for this study was determined using methods defined in the *Highway Capacity Manual (HCM), 7th Edition* ("HCM7").

Intersection Analysis

The HCM includes procedures for analyzing side-street stop controlled (SSSC), all-way stop controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection. **Table 2** presents intersection LOS definitions as defined in the HCM.

Table 2 – Intersection Level of Service Criteria

Level of Service (LOS)	Un-Signalized	Signalized
	Average Control Delay* (sec/veh)	Average Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

Source: Highway Capacity Manual, 7th Edition
* Applied to the worst lane/lane group(s) for SSSC

The LOS for the study intersections were determined using the Synchro® traffic analysis software. Synchro 12 uses HCM7 methodology to analyze intersection delay and LOS. It should be noted that Intersection #2 (Latrobe Road at US-50 Eastbound Ramps) was evaluated using HCM2000 methodology, as HCM7 does not support LOS analysis for intersections that operate using non-standard NEMA phasing. Levels of service for intersections are evaluated against El Dorado County thresholds of LOS D for Rural Regions and LOS E for Community Regions[1].

Roadway Segment Analysis

The HCM also includes procedures for analyzing roadway segments. **Table 3** presents roadway segment LOS definitions as defined in the HCM. Roadway segments are assessed using the appropriate two-lane and multi-lane highway designations per HCM7 using HCS7 software. Levels of service for roadway segments are evaluated against El Dorado County thresholds of LOS D for Rural Regions and LOS E for Community Regions[1].

Table 3 – Roadway Segment Level of Service Criteria

Level of Service (LOS)	Two-Lane Highway*	Multi-Lane Highway*
	Follower Density (followers/mile)	Density (pc/mi/ln)
A	≤ 2.5	≤ 11
B	> 2.5 – 5.0	> 11 – 18
C	> 5.0 – 10.0	> 18 – 26
D	> 10.0 – 15.0	> 26 – 35
E	> 15.0	> 35 – 45
F	Exceeds Capacity (v/c > 1.0)	Exceeds Capacity Or > 45

Source: Highway Capacity Manual, 7th Edition
** LOS definition is for lower speed highways (speed limit less than 50 mph)*
pc/mi/ln = passenger car per mile per lane

Analysis Scenarios

As described in the following sections, the LOS analysis was conducted for the study facilities for the following scenarios:

- Existing (2025) Conditions
- Existing (2025) plus Project Conditions
- Near-Term (2035) Conditions
- Near-Term (2035) plus Proposed Project Conditions
- Cumulative (2045) Conditions
- Cumulative (2045) plus Proposed Project Conditions

EXISTING (2025) CONDITIONS

Existing traffic counts were collected to establish the current conditions of the study area intersections. AM and PM peak-hour intersection turning movement counts for all study intersections and daily roadway segment counts for all study segments were collected on Tuesday, October 21, 2025, while local schools were in session.

The peak-hour intersection turning movement counts and heavy vehicle percentages were collected between 6-9 AM and 4-7 PM. Consistent with the County's *TIS Guidelines*[1], a minimum heavy vehicle percentage of 2% was applied for movements where existing percentages were less than 2%. All traffic data used in the existing conditions analysis reflects conditions when local schools were in session. Current timing sheets for existing signalized study facilities were provided by the County and Caltrans. The combination of existing traffic data and signal timing parameters were used to establish the Existing (2025) scenario.

Existing (2025) AM and PM peak-hour traffic volumes are presented in **Figure 6**. Traffic count data sheets are provided in **Appendix B**. Detailed calculations are included in **Appendix C**.

Intersections

Table 4 presents the intersection operating conditions for this scenario. As indicated in **Table 4**, the study intersections operate from LOS A to LOS D.

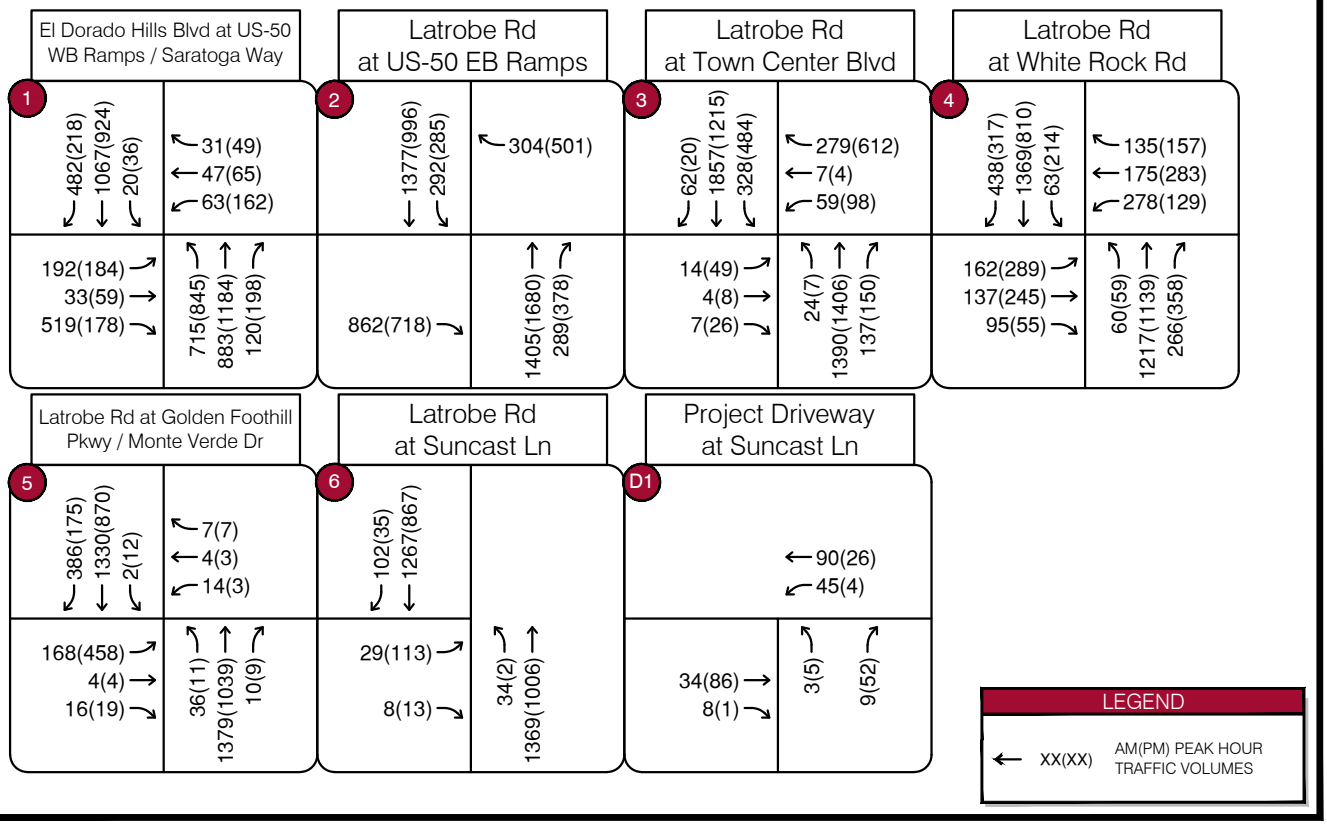
Roadway Segments

Table 5 presents the roadway segment operating conditions for this analysis scenario. As indicated in **Table 5**, the study roadway segments operate from LOS A to LOS C.

Attachment C



Image Source: Nearmap US, INC.



Kimley»Horn

Figure 6
Existing (2025) Traffic Volumes

Table 4 – Existing (2025) Intersection Levels of Service

ID	Intersection	LOS Threshold	Control	Peak Hour	Existing (2025)	
					Delay (sec)	LOS
1	El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way	E	Signal	AM	30.2	C
				PM	29.0	C
2	Latrobe Road at US-50 Eastbound Ramps	E	Signal	AM	16.1	B
				PM	12.9	B
3	Latrobe Road at Town Center Boulevard	E	Signal	AM	17.8	B
				PM	40.7	D
4	Latrobe Road at White Rock Road	E	Signal	AM	25.9	C
				PM	26.7	C
5	Latrobe Road at Golden Foothill Parkway / Monte Verde Drive	E	Signal	AM	20.1	C
				PM	23.0	C
6	Latrobe Road at Suncast Lane	E	Signal	AM	6.2	A
				PM	6.3	A
D1	Suncast Lane at Project Driveway	E	SSSC	AM	2.3 (9.0 NB)	A(A)
				PM	3.2 (9.2 NB)	A(A)

Notes: **Bold** represents deficient operations.
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 5 – Existing (2025) Roadway Segment Levels of Service

Segment	Location	LOS Threshold	Peak-Hour	Analysis Direction	Existing (2025)	
					LOS	Density
1	Latrobe Road, between White Rock Road and Golden Foothill Parkway	E	AM	NB	B	18.0
				SB	B	16.1
			PM	NB	C	21.4
				SB	A	7.8
2	Latrobe Road, between Golden Foothill Parkway and Suncast Lane	E	AM	NB	B	14.5
				SB	B	14.5
			PM	NB	B	11.8
				SB	A	8.1

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

EXISTING (2025) PLUS PROJECT CONDITIONS

As previously discussed, the number of trips anticipated to be generated by the proposed project were primarily derived using data included in the *ITE Trip Generation Manual, 12th Edition*. These trips were then assigned to the roadway network based on anticipated site operations, professional judgement, and output from the County's Travel Demand Model (TDM). Using these volumes, LOS was determined at the study facilities. Existing (2025) plus Project peak-hour traffic volumes are presented in **Figure 7** for the AM and PM peak-hours. The signal timing parameters established in the baseline Existing (2025) scenario were maintained. Detailed calculations are included in **Appendix D**.

Intersections

Table 6 presents the intersection operating conditions for this analysis scenario. As indicated in **Table 6**, the study intersections operate from LOS A to LOS D.

Roadway Segments

Table 7 presents the roadway segment operating conditions for this analysis scenario. As **Table 7** indicates, the roadway segments operate from LOS A to LOS C.

Table 6 – Existing (2025) plus Project Intersection Levels of Service

ID	Intersection	LOS Threshold	Control	Peak Hour	Existing (2025)		Existing (2025) plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way	E	Signal	AM	30.2	C	30.4	C
				PM	29.0	C	29.1	C
2	Latrobe Road at US-50 Eastbound Ramps	E	Signal	AM	16.1	B	16.1	B
				PM	12.9	B	12.9	B
3	Latrobe Road at Town Center Boulevard	E	Signal	AM	17.8	B	17.8	B
				PM	40.7	D	41.0	D
4	Latrobe Road at White Rock Road	E	Signal	AM	25.9	C	26.0	C
				PM	26.7	C	26.7	C
5	Latrobe Road at Golden Foothill Parkway / Monte Verde Drive	E	Signal	AM	20.1	C	20.5	C
				PM	23.0	C	23.2	C
6	Latrobe Road at Suncast Lane	E	Signal	AM	6.2	A	6.6	A
				PM	6.3	A	6.7	A
D1	Suncast Lane at Project Driveway	E	SSSC	AM	2.3 (9.0 NB)	A(A)	2.7 (10.3 SB)	A(B)
				PM	3.2 (9.2 NB)	A(A)	3.6 (9.9 SB)	A(A)

Notes: **Bold** represents deficient operations. Shaded represents a project induced deficiency.
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 7 – Existing (2025) plus Project Roadway Segment Levels of Service

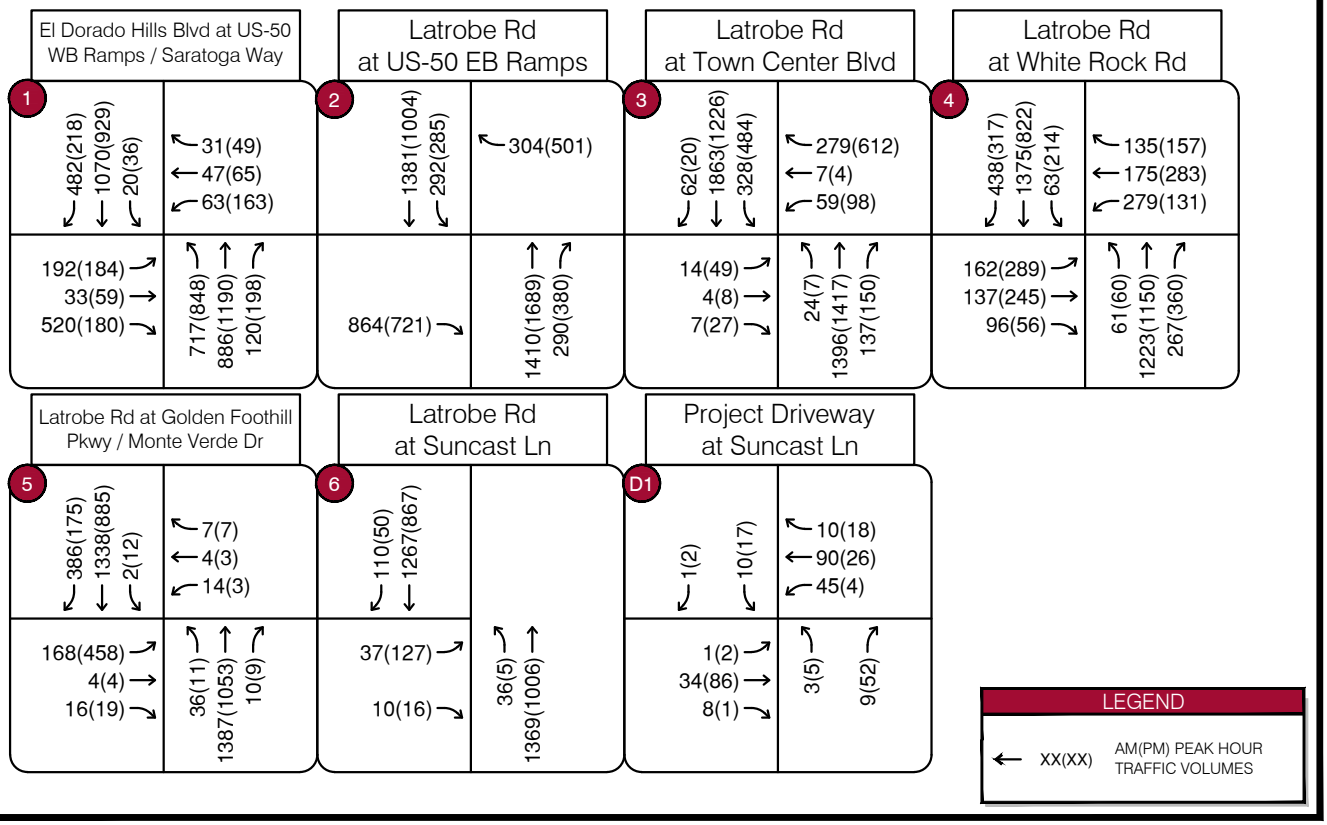
Segment	Location	LOS Threshold	Peak-Hour	Analysis Direction	Existing (2025)		Existing (2025) plus Project	
					LOS	Density	LOS	Density
1	Latrobe Road, between White Rock Road and Golden Foothill Parkway	E	AM	NB	B	18.0	B	18.1
				SB	B	16.1	B	16.2
			PM	NB	C	21.4	C	21.5
				SB	A	7.8	A	7.9
2	Latrobe Road, between Golden Foothill Parkway and Suncast Lane	E	AM	NB	B	14.5	B	14.6
				SB	B	14.5	B	14.7
			PM	NB	B	11.8	B	11.8
				SB	A	8.1	A	8.2

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Attachment C



Image Source: Nearmap US, INC.



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Figure 7
Existing (2025) Plus Project Traffic Volumes

NEAR-TERM (2035) CONDITIONS

The number of trips anticipated in the Near-Term (2035) was derived using the Existing traffic counts collected in 2025 and El Dorado County's Transportation Demand Model (TDM). Volumes along model links and nodes for Existing and Future years were utilized to develop annual growth rates at study intersection turning movements that could then be applied to "grow" existing counts and assess the Near-Term (2035) scenario.

It should be noted that while traffic growth is expected in future conditions, a new interchange on US 50 at Empire Ranch Road is expected to cause a significant shift in traffic volumes from the El Dorado Hills Boulevard / Latrobe Road interchange to the new interchange. As a conservative approach, movements that showed a decrease in traffic volumes from Baseline to Cumulative conditions in the TDM were assumed to have zero growth from Existing conditions.

Near-Term (2035) traffic volumes are presented in **Figure 8**. The signal timing parameters established in the baseline Existing (2025) scenario were maintained. Detailed calculations are included in **Appendix E**.

Intersections

Table 8 presents the intersection operating conditions for this scenario. As indicated in **Table 8**, the study intersections operate from LOS A to LOS D.

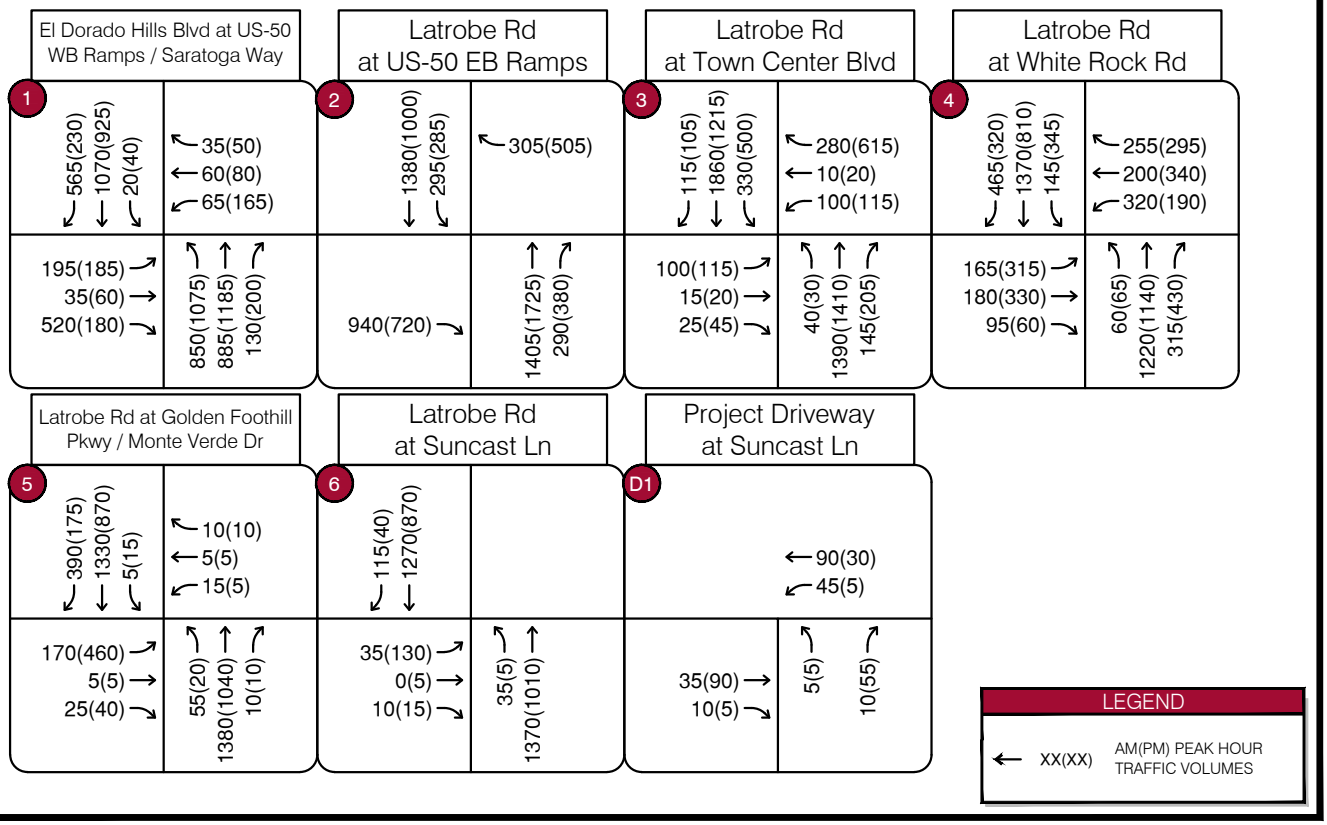
Roadway Segments

Table 9 presents the roadway segment operating conditions for this analysis scenario. As indicated in **Table 9**, the study roadway segments operate from LOS A to LOS C.

Attachment C



Image Source: Nearmap US, INC.



Kimley»Horn

Figure 8
Near-Term (2035) Traffic Volumes

Table 8 –Near-Term (2035) Intersection Levels of Service

ID	Intersection	LOS Threshold	Control	Peak Hour	Near-Term (2035)	
					Delay (sec)	LOS
1	El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way	E	Signal	AM	37.8	D
				PM	37.4	D
2	Latrobe Road at US-50 Eastbound Ramps	E	Signal	AM	16.9	B
				PM	12.9	B
3	Latrobe Road at Town Center Boulevard	E	Signal	AM	22.2	C
				PM	49.8	D
4	Latrobe Road at White Rock Road	E	Signal	AM	32.5	C
				PM	40.2	D
5	Latrobe Road at Golden Foothill Parkway / Monte Verde Drive	E	Signal	AM	22.2	C
				PM	24.6	C
6	Latrobe Road at Suncast Lane	E	Signal	AM	6.4	A
				PM	6.8	A
D1	Suncast Lane at Project Driveway	E	SSSC	AM	2.4 (9.2 NB)	A(A)
				PM	3.1 (9.3 NB)	A(A)

Notes: **Bold** represents unacceptable operations.
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 9 – Near-Term (2035) Roadway Segment Levels of Service

Segment	Location	LOS Threshold	Peak-Hour	Analysis Direction	Near-Term (2035)	
					LOS	Density
1	Latrobe Road, between White Rock Road and Golden Foothill Parkway	E	AM	NB	B	18.5
				SB	B	16.5
			PM	NB	C	22.3
				SB	A	8.3
2	Latrobe Road, between Golden Foothill Parkway and Suncast Lane	E	AM	NB	B	14.7
				SB	B	14.5
			PM	NB	B	12
				SB	A	8.2

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

NEAR-TERM (2035) PLUS PROJECT CONDITIONS

As previously discussed, the number of trips anticipated to be generated by the proposed project were primarily derived using data included in the *ITE Trip Generation Manual, 12th Edition*. These trips were then assigned to the roadway network based on anticipated site operations, professional judgement, and output from the County's Travel Demand Model (TDM). Using these volumes, LOS was determined at the study facilities. Near-Term (2035) plus Project peak-hour traffic volumes are presented in **Figure 9** for the AM and PM peak-hours. The signal timing parameters established in the baseline Existing (2025) scenario were maintained. Detailed calculations are included in **Appendix F**.

Intersections

Table 10 presents the intersection operating conditions for this analysis scenario. As indicated in **Table 10**, the study intersections operate from LOS A to LOS D.

Roadway Segments

Table 11 presents the roadway segment operating conditions for this analysis scenario. As **Table 11** indicates, the roadway segments operate from LOS A to LOS C.

Table 10 – Near-Term (2035) plus Project Intersection Levels of Service

ID	Intersection	LOS Threshold	Control	Peak Hour	Near-Term (2035)		Near-Term (2035) plus Proposed Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way	E	Signal	AM	37.8	D	37.8	D
				PM	37.4	D	37.7	D
2	Latrobe Road at US-50 Eastbound Ramps	E	Signal	AM	16.9	B	17.0	B
				PM	12.9	B	12.9	B
3	Latrobe Road at Town Center Boulevard	E	Signal	AM	22.2	C	22.3	C
				PM	49.8	D	50.2	D
4	Latrobe Road at White Rock Road	E	Signal	AM	32.5	C	32.5	C
				PM	40.2	D	40.3	D
5	Latrobe Road at Golden Foothill Parkway / Monte Verde Drive	E	Signal	AM	22.2	C	22.6	C
				PM	24.6	C	24.8	C
6	Latrobe Road at Suncast Lane	E	Signal	AM	6.4	A	6.8	A
				PM	6.8	A	7.2	A
D1	Suncast Lane at Project Driveway	E	SSSC	AM	2.4 (9.2 NB)	A(A)	2.7 (10.3 SB)	A(B)
				PM	3.1 (9.3 NB)	A(A)	3.5 (10.1 SB)	A(B)

Notes: **Bold** represents unacceptable operations. Shaded represents a project induced deficiency.
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 11 – Near-Term (2035) plus Project Roadway Segment Levels of Service

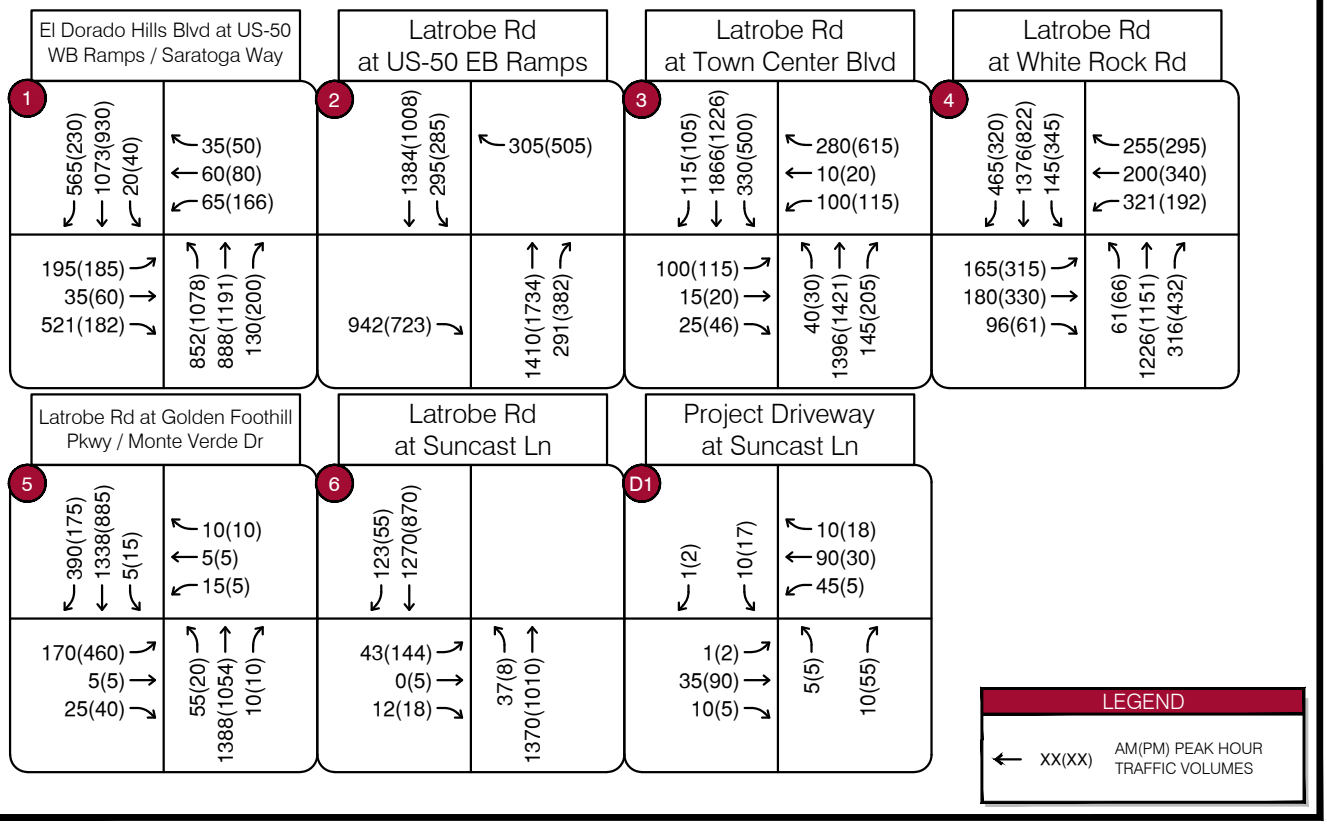
Segment	Location	LOS Threshold	Peak-Hour	Analysis Direction	Near-Term (2035)		Near-Term (2035) plus Project	
					LOS	Density	LOS	Density
1	Latrobe Road, between White Rock Road and Golden Foothill Parkway	E	AM	NB	B	18.5	B	18.6
				SB	B	16.5	B	16.7
			PM	NB	C	22.3	C	22.4
				SB	A	8.3	A	8.4
2	Latrobe Road, between Golden Foothill Parkway and Suncast Lane	E	AM	NB	B	14.7	B	14.8
				SB	B	14.5	B	14.8
			PM	NB	B	12	B	12.1
				SB	A	8.2	A	8.4

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Attachment C



Image Source: Nearmap US, INC.



Kimley»Horn

Figure 9
Near-Term (2035) Plus Project Traffic Volumes

CUMULATIVE (2045) CONDITIONS

The number of trips anticipated in the Cumulative (2045) was derived using the Existing traffic counts collected in 2025 and El Dorado County's Transportation Demand Model (TDM). Volumes along model links and nodes for Existing and Future years were utilized to develop annual growth rates at study intersection turning movements that could then be applied to "grow" existing counts and assess the Cumulative (2045) scenario.

It should be noted that while traffic growth is expected in future conditions, a new interchange on US 50 at Empire Ranch Road is expected to cause a significant shift in traffic volumes from the El Dorado Hills Boulevard / Latrobe Road interchange to the new interchange. As a conservative approach, movements that showed a decrease in traffic volumes from Baseline to Cumulative conditions in the TDM were assumed to have zero growth from Existing conditions.

Cumulative (2045) traffic volumes are presented in **Figure 10**. Per El Dorado County's *TIS Guidelines*[1], traffic signal timing splits were optimized under Cumulative (2045) Conditions. Detailed calculations are included in **Appendix G**.

Intersections

Table 12 presents the intersection operating conditions for this scenario. As indicated in **Table 12**, the study intersections operate from LOS A to LOS E.

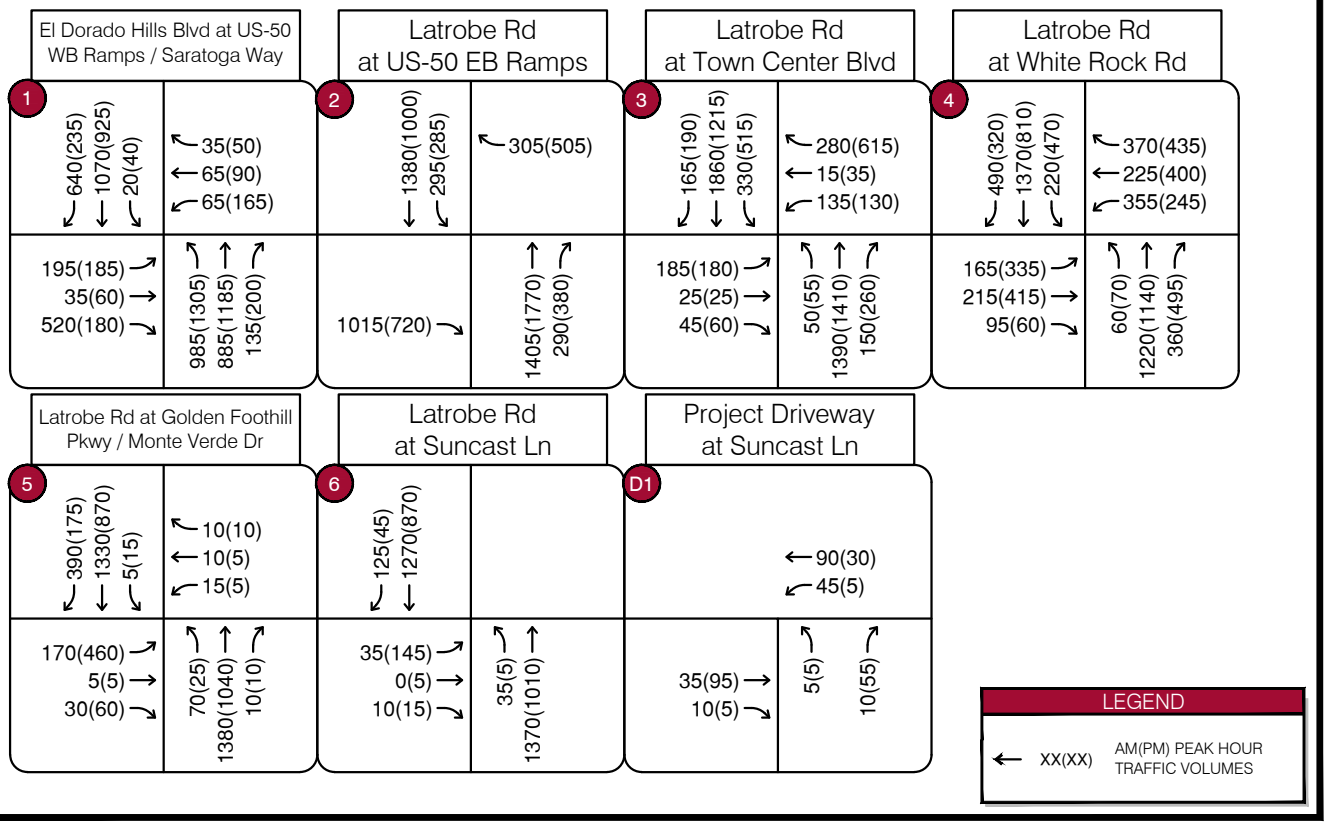
Roadway Segments

Table 13 presents the roadway segment operating conditions for this analysis scenario. As indicated in **Table 13**, the study roadway segments operate from LOS A to LOS C.

Attachment C



Image Source: Nearmap US, INC.



Kimley»Horn

Figure 10
Cumulative (2045) Traffic Volumes

Table 12 – Cumulative (2045) Intersection Levels of Service

ID	Intersection	LOS Threshold	Control	Peak Hour	Cumulative (2045)	
					Delay (sec)	LOS
1	El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way	E	Signal	AM	50.7	D
				PM	47.5	D
2	Latrobe Road at US-50 Eastbound Ramps	E	Signal	AM	17.5	B
				PM	12.7	B
3	Latrobe Road at Town Center Boulevard	E	Signal	AM	29.1	C
				PM	60.1	E
4	Latrobe Road at White Rock Road	E	Signal	AM	43.5	D
				PM	65.9	E
5	Latrobe Road at Golden Foothill Parkway / Monte Verde Drive	E	Signal	AM	19.7	B
				PM	24.9	C
6	Latrobe Road at Suncast Lane	E	Signal	AM	5.9	A
				PM	7.1	A
D1	Suncast Lane at Project Driveway	E	SSSC	AM	2.4 (9.2 NB)	C
				PM	3.1 (9.3 NB)	C

Notes: **Bold** represents unacceptable operations.
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 13 – Cumulative (2045) Roadway Segment Levels of Service

Segment	Location	LOS Threshold	Peak-Hour	Analysis Direction	Cumulative (2045)	
					LOS	Density
1	Latrobe Road, between White Rock Road and Golden Foothill Parkway	E	AM	NB	B	18.9
				SB	B	16.8
			PM	NB	C	23.0
				SB	A	8.8
2	Latrobe Road, between Golden Foothill Parkway and Suncast Lane	E	AM	NB	B	14.9
				SB	B	14.8
			PM	NB	B	12.2
				SB	A	8.4

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

CUMULATIVE (2045) PLUS PROJECT CONDITIONS

As previously discussed, the number of trips anticipated to be generated by the proposed project were primarily derived using data included in the *ITE Trip Generation Manual, 12th Edition*. These trips were then assigned to the roadway network based on anticipated site operations, professional judgement, and output from the County's Travel Demand Model (TDM). Using these volumes, LOS was determined at the study facilities. Cumulative (2045) plus Project peak-hour traffic volumes are presented in **Figure 11** for the AM and PM peak-hours. The signal timing parameters established in the Cumulative (2045) scenario were maintained. Detailed calculations are included in **Appendix H**.

Intersections

Table 14 presents the intersection operating conditions for this analysis scenario. As indicated in **Table 14**, the study intersections operate from LOS A to LOS E.

Roadway Segments

Table 15 presents the roadway segment operating conditions for this analysis scenario. As **Table 15** indicates, the roadway segments operate from LOS A to LOS C.

Table 14 – Cumulative (2045) plus Project Intersection Levels of Service

ID	Intersection	LOS Threshold	Control	Peak Hour	Cumulative (2045)		Cumulative (2045) plus Proposed Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way	E	Signal	AM	50.7	D	50.8	D
				PM	47.5	D	47.9	D
2	Latrobe Road at US-50 Eastbound Ramps	E	Signal	AM	17.5	B	17.5	B
				PM	12.7	B	12.7	B
3	Latrobe Road at Town Center Boulevard	E	Signal	AM	29.1	C	29.2	C
				PM	60.1	E	60.5	E
4	Latrobe Road at White Rock Road	E	Signal	AM	43.5	D	43.6	D
				PM	65.9	E	66.2	E
5	Latrobe Road at Golden Foothill Parkway / Monte Verde Drive	E	Signal	AM	19.7	B	19.9	B
				PM	24.9	C	25.2	C
6	Latrobe Road at Suncast Lane	E	Signal	AM	5.9	A	6.3	A
				PM	7.1	A	7.5	A
D1	Suncast Lane at Project Driveway	E	SSSC	AM	2.4 (9.2 NB)	C	2.7 (10.3 SB)	A(B)
				PM	3.1 (9.3 NB)	C	3.4 (10.1 SB)	A(B)

Notes: **Bold** represents unacceptable operations. Shaded represents a project induced deficiency.
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 15 – Cumulative (2045) plus Project Roadway Segment Levels of Service

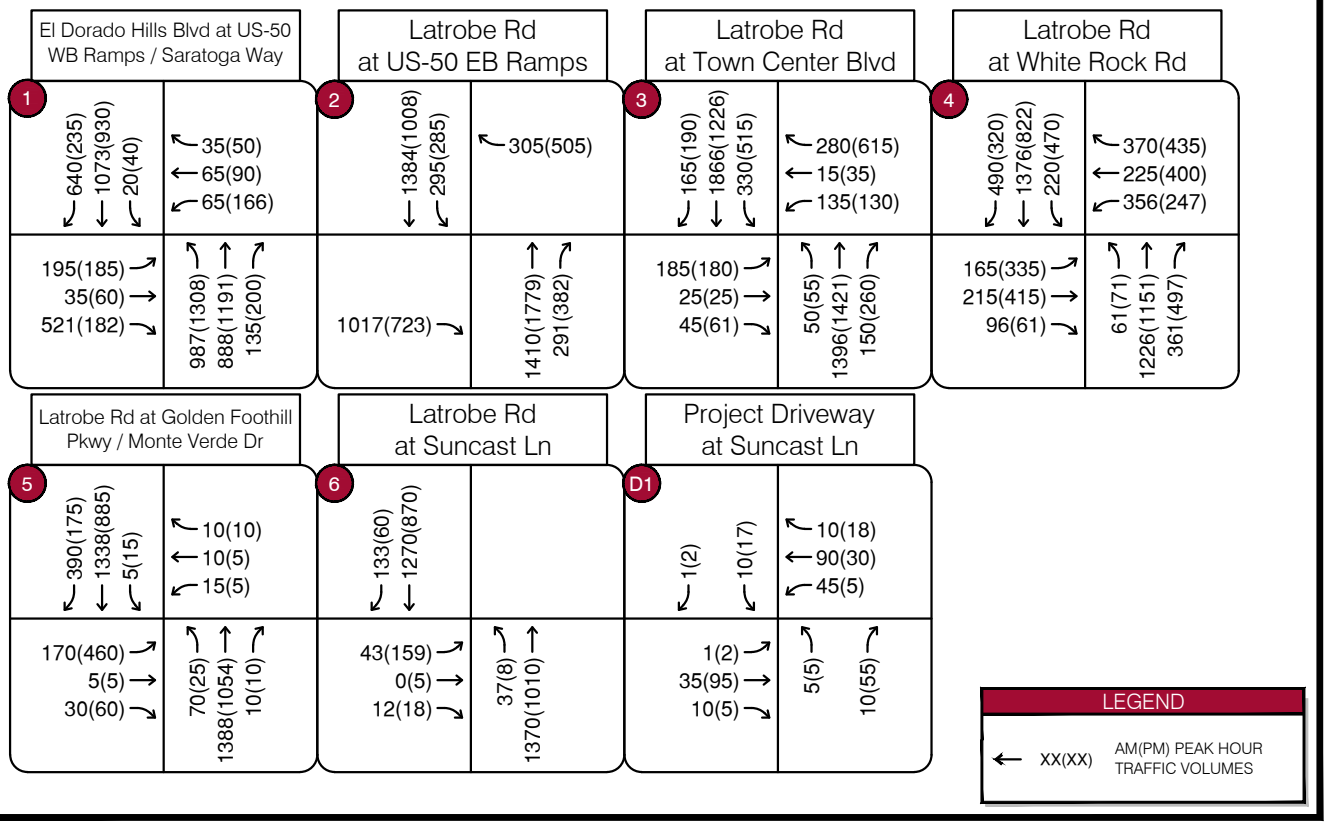
Segment	Location	LOS Threshold	Peak-Hour	Analysis Direction	Cumulative (2045)		Cumulative (2045) plus Project	
					LOS	Density	LOS	Density
1	Latrobe Road, between White Rock Road and Golden Foothill Parkway	E	AM	NB	B	18.9	C	19.0
				SB	B	16.8	B	17.0
			PM	NB	C	23.0	C	23.1
				SB	A	8.8	A	9.0
2	Latrobe Road, between Golden Foothill Parkway and Suncast Lane	E	AM	NB	B	14.9	B	15.0
				SB	B	14.8	B	14.9
			PM	NB	B	12.2	B	12.3
				SB	A	8.4	A	8.6

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Attachment C



Image Source: Nearmap US, INC.



Kimley»Horn

Figure 11
Cumulative (2045) Plus Project Traffic Volumes

DEFICIENCIES AND IMPROVEMENTS

Standards of Deficiency

El Dorado County's *Transportation and Circulation Element*[4] was referenced to identify deficiencies at the study area intersections and roadway segments. The following criteria were used:

> "*Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions…"* (El Dorado County General Plan Policy TC-Xd[4])
>
> *If a project causes the peak hour LOS or volume/capacity ratio on a county road or state highway that would otherwise meet the County standards (without the project) to exceed the values listed in the above text (El Dorado County General Plan Policy TC-Xd[4]), then the impact* [deficiency] *shall be considered significant.*
>
> *If any county road or state highway fails to meet the above listed county standards (El Dorado County General Plan Policy TC-Xd) for peak hour LOS or volume/capacity ratios without the proposed project, and the project will worsen conditions on the road or highway, then the impact* [deficiency] *shall be considered significant. The term, worsen is defined for the purpose of this paragraph according to General Plan Policy TC-Xe[4] as follows:*
>
> > "*A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or*
> > *B. The addition of 100 or more daily trips, or*
> > *C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour*"

All study facilities are located within the El Dorado Hills Community Region, which maintains an acceptable LOS of E.

Additionally, the County's standards[4] specify the following regarding improvement:

> *"When a project identifies an impact* [deficiency] *on the County's roadway network for a scenario with or without the project, a separate analysis must be done to identify what improvements are needed for mitigation* [improvement] *and when the improvements must be in place. The timing of the proposed mitigation* [improvement] *must be in compliance with General Plan Policy TC-Xf:*
>
> *For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A} or [B] or [C]) traffic on the County Road system, the County shall do one of the following:*
>
> > *(1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards as detailed in this Transportation and Circulation Element; or*
> > *(2) ensure the construction of the necessary road improvements are included in the County's 20-year CIP."*

Summary of Deficiencies and Improvements

None of the study intersections or roadway segments are anticipated to operate at an unacceptable Level of Service under any of the plus project conditions for the Existing (2025), Near-Term (2035), and Cumulative (2045) scenarios. As there are no identified deficiencies according to the El Dorado County's *TIS Guidelines*[1], no improvements are proposed.

[4] *El Dorado County General Plan, Transportation and Circulation Element*, July 2004.

OTHER CONSIDERATIONS

On-Site Transportation Review

In accordance with the County's *TIS Guidelines*[1], the following aspects of the proposed project were evaluated:

1. ***Existence of any current traffic problems in the local area such as a high-crash location, non-standard intersection or roadway, or an intersection in need of a traffic signal***

   The County's 2024 *Annual Collision Location Study (ACLS)*[5], was referenced to identify deficiencies at the study area sites (i.e., intersections and roadway segments). The following criteria were used:

   > *"Collisions per Million Entering Vehicles (Coll./MEV) are used within this study to compare the frequency of collisions at the selected collision locations. A benchmark of 1.00 Voll./MEV is the County's accepted collision rate for single locations, such as an intersection or an individual curve. Any location with a collision rate of 1.00 Coll./MEV or above will be considered for additional action."*

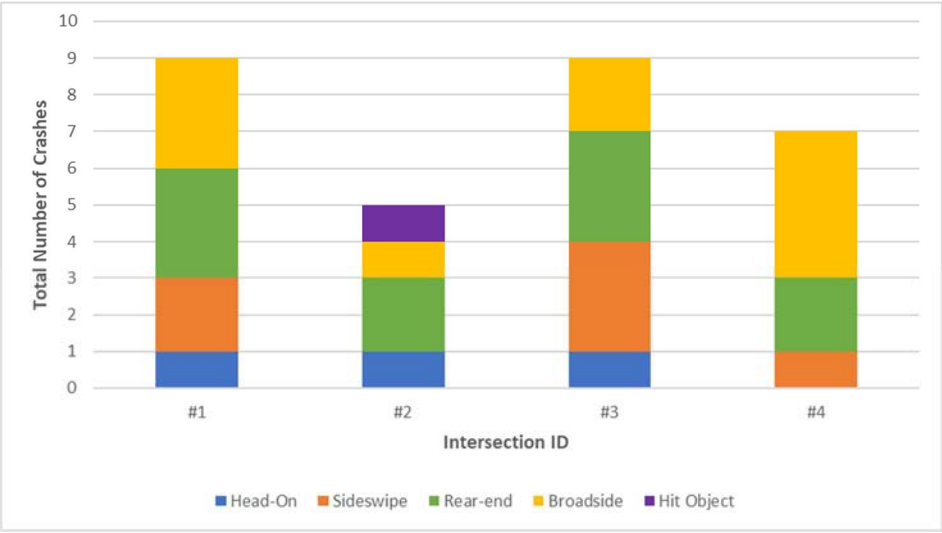
   The following study area sites were selected for preliminary investigation for collisions during the three-year period between January 1, 2022 and December 31, 2024:

   - Intersection #1 – El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way
   - Intersection #2 – Latrobe Road at US-50 Eastbound Ramps
   - Intersection #3 – Latrobe Road at Town Center Boulevard
   - Intersection #4 – Latrobe Road at White Rock Road

   The number and types of crashes at each study intersection are presented in **Figure 12**. The predominant crash types identified at the study intersections were Rear End and Broadside collisions.

   None of the study area sites were identified as requiring additional investigation by the El Dorado County Department of Transportation. It is recommended that the City and Caltrans continue to monitor the number, type, and severity of crashes.

Figure 12 – Three-Year (2022-2024) Study Intersections Collision Summary



[5] *2024 Annual Collision Location Study*, County of El Dorado Department of Transportation, April 10,2025.

2. *Proximity of proposed site driveway(s) to other driveways or intersections*
   Access to the site will be provided via one (1) proposed driveway on Suncast Lane. The driveway will serve as the fourth leg of an existing three-legged intersection that currently provides access to medical-dental office buildings via the south leg. The existing intersection that the project proposes to align its driveway with is located approximately 375 feet west of the signalized intersection at Suncast Lane and Latrobe Road. Notably, there is another existing driveway located approximately 75 feet west of the proposed driveway that also serves the medical-dental office buildings south of Suncast Lane. The proximity of the driveways is considered an existing condition and no changes are proposed by the project.

3. *Adequacy of the project site design to convey all vehicle types*
   The site will include access anticipated to accommodate the circulation needs of all vehicle types. The proposed project will be utilizing a proposed fourth leg of an existing intersection along Suncast Lane. As shown in **Appendix I**, the site access points, including the additional emergency access point on Latrobe Road, will be sufficient to serve fire trucks and other oversized vehicles.

4. *Adequacy of sight distance on-site*
   An evaluation of sight distance was considered for the proposed site access driveway intersection along Suncast Lane based on horizontal and vertical geometric conditions. Suncast Lane has an assumed speed limit of 25 mph and is a straight roadway. As shown in **Appendix J**, there will be adequate sight distance at the site access points, provided there are no items over 3 feet in height within the sight distance triangles. The project site plan (**Figure 2**) is deemed to provide adequate sight distance to facilitate the safe and orderly circulation of users exiting the site.

5. *Adequacy of vehicle parking relative to both the anticipated demand and zoning code requirements*
   The proposed project will provide 7 parking spaces outside of the gated facility, including 2 ADA accessible spaces. These parking spaces are dedicated for the office to be used by new customers completing administrative tasks. All other on-site parking is anticipated to be temporary within loading zones or immediately adjacent to the drive-up units inside the gated area of the site.

Other Transportation-Related Deficiencies and Improvement Considerations

In accordance with the County's *Guidelines*[1], the proposed project was evaluated against the following *General Plan* goals:

- ***Access to Public Transit Services consistent with General Plan Circulation Element Goal TC-2: "To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment."***
  There are no public transit services operating in the immediate project area. There is an existing park and ride facility approximately 0.7 miles north of the project site, located at the northeast corner of the intersection of Latrobe Road and White Rock Road. This transit facility is served by El Dorado Transit Routes 25, 50X, and C. Route 25 operates on Saturdays between Missouri Flat Transfer Center in the City of Placerville and Safeway Plaza in Pollock Pines. Route 50X operates Monday through Friday from the Placerville Station Transfer Center to the Folsom Iron Point light rail station. Route C operates Monday through Friday between Western El Dorado County and downtown Sacramento.

- ***Non-Motorized Transportation consistent with General Plan Circulation Element Goal TC-4: "To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes."***
  According to Figure 7-3 of the *Active Transportation Plan* (February 2020), Class II Bike Lanes currently exist along Latrobe Road, and a Class II Bike Lane is proposed along Golden Foothill Parkway. As bike lanes are not proposed along Suncast Lane in the *Active Transportation Plan*, the project does not propose to provide bike lanes on Suncast Lane. Meanwhile, according to *Figure 6-1* of the *Active Transportation Plan,* there is a Class I Shared-Use Path on the east side of Latrobe Road south of Suncast Lane, and a proposed Class I Shared-Use Path on Latrobe Road north of Suncast Lane. There are existing curb ramps at the intersection of Suncast Lane and Latrobe Road. There is no existing or proposed sidewalk on Suncast Lane. Based on pedestrian counts at the intersection of Latrobe Road and Suncast Lane, no pedestrians utilized the pedestrian crosswalks along the south leg or west leg during the AM and PM peak hours.

CONCLUSIONS

Significant findings of this study include:

- The proposed project is estimated to generate 395 daily trips with 22 trips occurring during the AM peak-hour and 39 trips occurring during the PM peak-hour.
- As defined by the County, none of the study intersections or roadway segments are anticipated to operate at an unacceptable Level of Service under any of the plus project conditions for the Existing (2025), Near-Term (2035), and Cumulative (2045) scenarios. As there are no identified deficiencies according to El Dorado County's *TIS Guidelines*, no improvements are proposed.

Appendix A

Approved Transportation Impact Study Scope

Attachment C

Kimley»Horn
Expect More. Experience Better.

Traffic Memorandum

To: Zach Oates
Senior Civil Engineer
County of El Dorado

From: Kimley-Horn & Associates, Inc.

Date: February 5, 2026

Re: Transportation Impact Study Scope for the Proposed Latrobe Storage Project in the County of El Dorado

---

Kimley-Horn and Associates, Inc. is submitting this Transportation Impact Study Scope to the County of El Dorado regarding the traffic study scope and assumptions for the proposed Latrobe Storage (Project) located on the northwest corner of Latrobe Road and Suncast Lane in the El Dorado County. The transportation impact study (TIS) will be conducted based on the published El Dorado County Transportation Impact Study Guidelines (November 2014). The proposed traffic scope and assumptions for the project are presented below.

PROJECT DESCRIPTION

The project site is approximately 12 acres and is generally bounded by Latrobe Road to the east, office and commercial uses to the north, office and educational uses to the west, and Suncast Lane to the south. The project site is currently vacant. The applicant proposes to construct a self-storage facility totaling 261,541 gross square-feet of self-storage space, consisting of 217,925 net square-feet of rentable area. The self-storage facility is anticipated to have up to 1,046 storage units; 935 of those would be traditional self-storage units. The remaining 111 units would be oversized units, large enough to store a boat or recreational vehicle (RV), and would be enclosed and appear similar to traditional units.

The project site is shown in its regional setting in **Attachment 1**. A copy of the project site plan is shown on **Attachment 2**. Access to the project site would be provided via one proposed unsignalized driveway along Suncast Lane.

SCOPE OF TRAFFIC STUDY

EXISTING TRAFFIC COUNTS

New traffic counts for all study intersections will be collected on a typical (Tuesday, Wednesday, or Thursday) weekday morning (6:00 a.m. to 9:00 a.m.) and afternoon/evening (4:00 p.m. to 7:00 p.m.). 24-hour traffic counts for all roadway segments will be collected on a typical weekday. Counts will be conducted when local schools are in session and the week does not include a holiday, consistent with the County's TIA Guidelines.

Attachment C

Project Trip Generation

Trip estimates for the proposed use were determined using average trip rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual, (12th Edition). Trip estimates were developed for the weekday A.M. and P.M. peak hours. The estimated project trips were calculated for Mini-Warehouse (Land Use 151) using the Net Rentable Area, which yields the most conservative (highest) number of trips compared to other units identified in the ITE Trip Generation Manual for this land use. Passenger car equivalent (PCE) factors were applied to provide a conservative trip estimate and account for the oversized units of the proposed mini-warehousing use.

Trip generation rates and the resulting trip generation estimates for the proposed use are summarized in **Attachment 3**. Based on a review of Attachment 3, after applying PCE factors, the proposed project is estimated to generate approximately 394 daily PCE trips, with 22 PCE trips (11 inbound and 11 outbound) in the weekday A.M. peak hour, and 39 PCE trips (20 inbound and 19 outbound) in the weekday P.M. peak hour.

Project Trip Distribution

The proposed Project trip distribution will be based output from El Dorado County's travel demand model (TDM) and professional judgement based on exiting travel patterns as shown in **Attachment 5**.

Study Area

A Level of Service (LOS) analysis will be conducted according to Highway Capacity Manual (HCM), 7th Edition. The LOS analysis will be completed using Synchro 12 software for the study intersections and Highway Capacity Software (HCS) for the study roadway segments. LOS analysis will be conducted at the following study locations, as shown in **Attachment 4**.

Intersections

1. El Dorado Hills Boulevard at US-50 Westbound Ramps / Saratoga Way
2. Latrobe Road at US-50 Eastbound Ramps
3. Latrobe Road and Town Center Boulevard
4. Latrobe Road at White Rock Road
5. Latrobe Road at Golden Foothill Parkway / Monte Verde Drive
6. Latrobe Road at Suncast Lane

Project Driveways

D1. Project Driveway at Suncast Lane

Roadway Segments

1. Latrobe Road, between White Rock Road and Golden Foothill Parkway
2. Latrobe Road, between Golden Foothill Parkway and Suncast Lane

Study Scenarios

- Existing (2026) Conditions
- Existing (2026) plus Proposed Project Conditions
- Near-Term (2036) Conditions
- Near-Term (2036) plus Proposed Project Conditions

- Cumulative (2046) Conditions
- Cumulative (2046) plus Proposed Project Conditions

Near-Term (2036) and Cumulative (2046) traffic volume estimates will be derived by using Existing traffic counts and interpolating forecast volumes from El Dorado County's TDM. Volumes along model links and nodes for Existing and Future years will be utilized to develop annual growth rates at study intersection turning movements that will then be applied to existing traffic data.

ON-SITE TRANSPORTATION REVIEW

In Accordance with the County's Guidelines, the following aspects of the proposed project will be evaluated:

- Traffic Accident Evaluation
- Proximity to Project Driveway to Adjacent Intersections
- Adequacy of Site to Accommodate All Vehicle Types
- Adequacy of Sight Distance On-Site

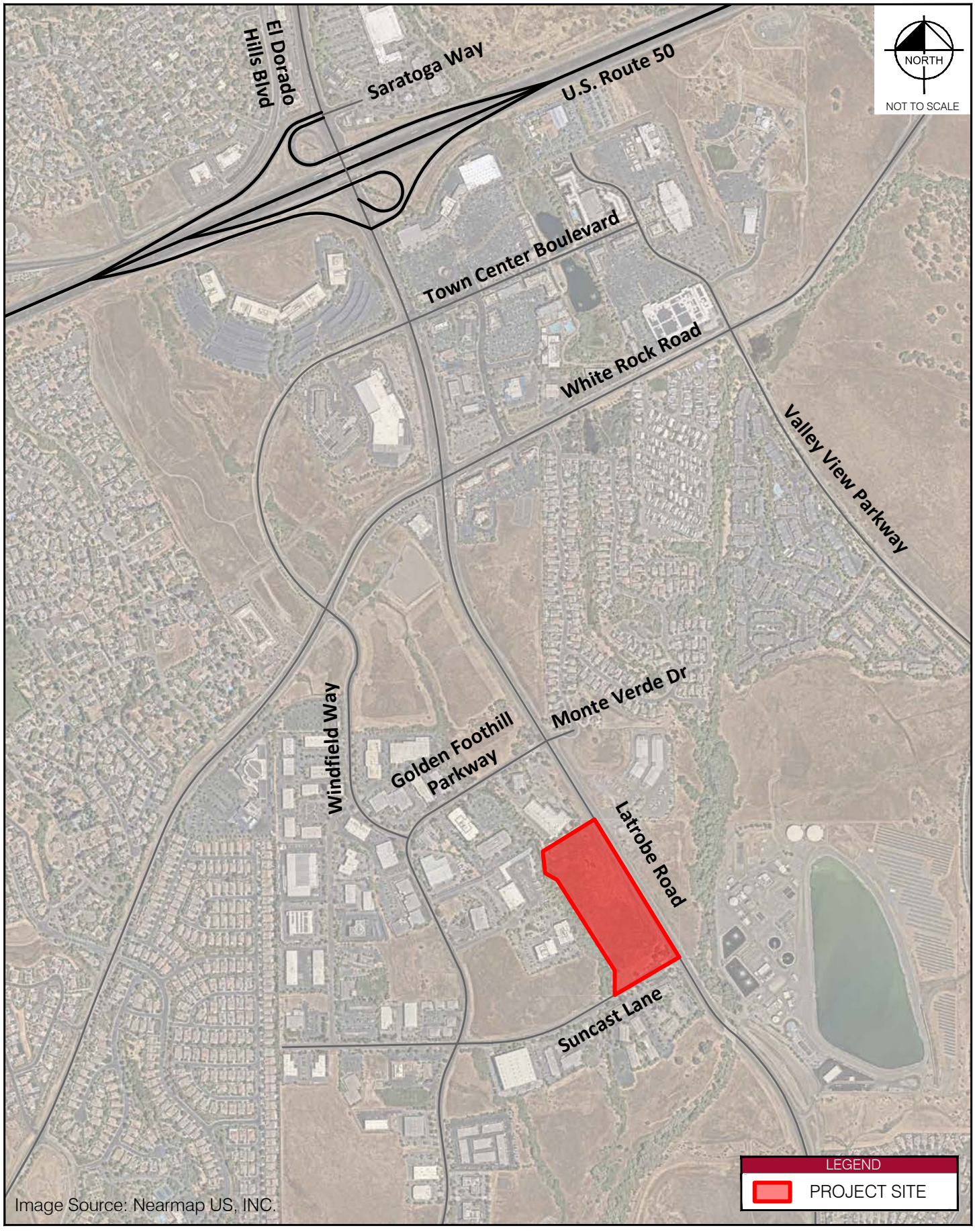
Vehicle Miles Traveled "VMT" Assessment

Based on coordination with County staff, a VMT assessment will be conducted to evaluate the qualitative and quantitative (no modeling required) impacts of the project.

Attachments

Attachment 1 – Vicinity Map
Attachment 2 – Project Site Plan
Attachment 3 – Summary of Project Trip Generation
Attachment 4 – Study Area Intersections and Roadway Segments
Attachment 5 – Project Trip Distribution

Attachment C



Kimley»Horn

Attachment 1
Vicinity Map

Attachment C

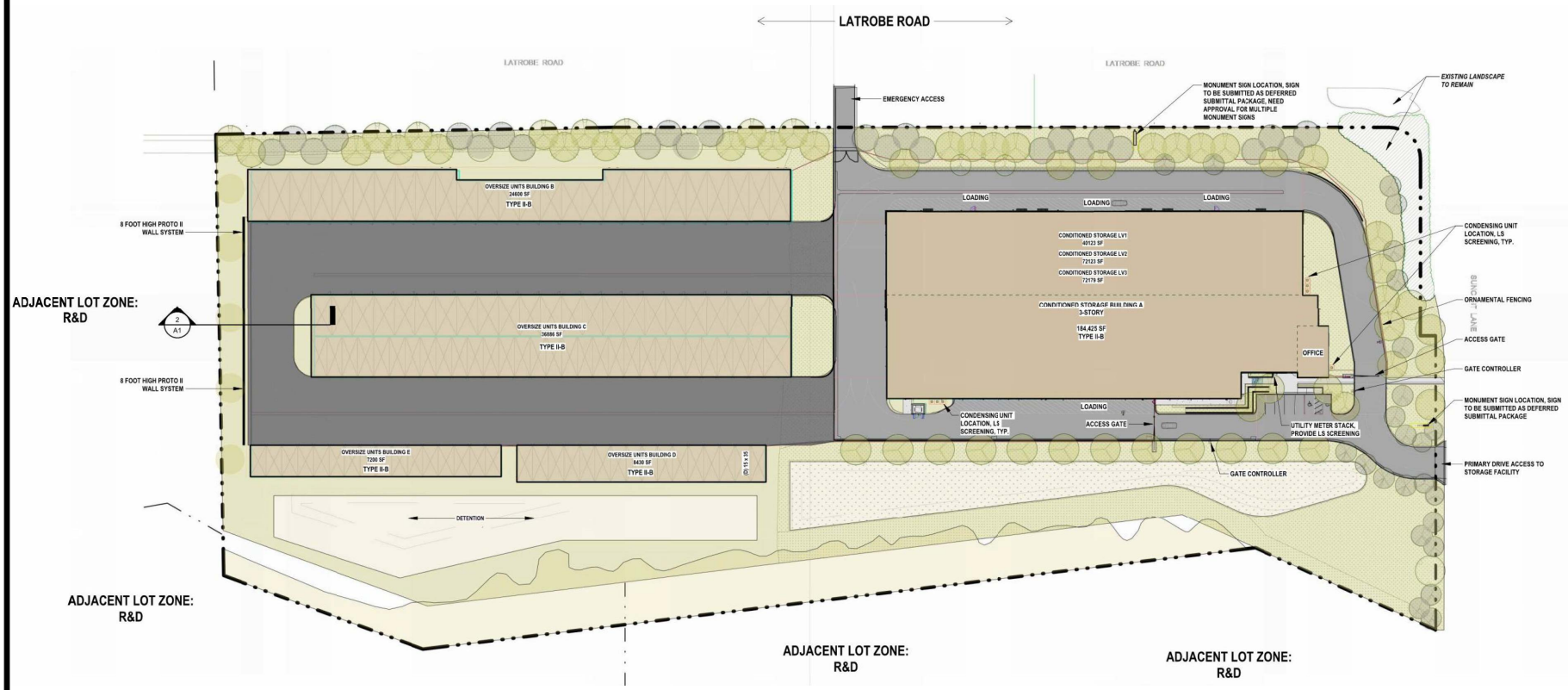
UNIT SCHEDULE - BLDG A (NSF)

TYPE	ACTUAL #	PRO-FORMA	ACTUAL %	UNIT AREA	TOTAL AREA
5x5	51	74	5.5%	25 SF	1275 SF
5x10	154	165	16.5%	50 SF	7700 SF
10x10	204	288	21.8%	100 SF	20400 SF
10x15	162	222	17.3%	150 SF	24300 SF
10x20	162	124	17.3%	200 SF	32400 SF
10x25	115	72	12.3%	250 SF	28750 SF
10x30	87	72	9.3%	300 SF	26100 SF
: 935	935				140925 SF

UNIT SCHEDULE - OVERSIZE

TYPE	ACTUAL #	SSU Depth	SSU Width	ACTUAL %	UNIT AREA	TOTAL UNIT AREA
(A) 20 x 50	19	50' - 0"	20' - 0"	17.1%	1000 SF	19000 SF
(B) 20 x 40	30	40' - 0"	20' - 0"	27.0%	800 SF	24000 SF
(C) 15 x 40	29	40' - 0"	15' - 0"	26.1%	600 SF	17400 SF
(D) 15 x 35	16	35' - 0"	15' - 0"	14.4%	525 SF	8400 SF
(E) 15 x 30	16	30' - 0"	15' - 0"	14.4%	450 SF	7200 SF
(F) 25 x 40	1	40' - 0"	25' - 0"	0.9%	1000 SF	1000 SF
111	111					77000 SF
Grand total: 111	111					77000 SF

NOT TO SCALE



Attachment C

Attachment 3: Summary of Project Trip Generation									
Trip Generation Rates									
ITE Land Use	**ITE Code**	**Unit**	**Daily**	**A.M. Peak Hour**			**P.M. Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Mini-Warehouse	151	Net Rentable Area (KSF)[3]	1.650	0.052	0.048	0.100	0.088	0.082	0.170
Trip Generation Estimates									
Project Land Use	**Quantity**	**Unit**	**Daily**	**A.M. Peak Hour**			**P.M. Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Mini-Warehouse	217.925	Net Rentable Area (KSF)	360	11	11	22	19	18	37
Passenger Vehicles	94.00%		338	10	10	20	18	17	35
Trucks	6.00%		22	1	1	2	1	1	2

Trip Generation Estimates - Passenger Car Equivalents (PCE)										
Vehicle Type	**Vehicle Mix [1, 2]**	**Daily Vehicles**	**PCE Factor**	**Daily**	**A.M. Peak Hour**			**P.M. Peak Hour**		
					In	**Out**	**Total**	**In**	**Out**	**Total**
Passenger Vehicles	94.00%	338	1.0	338	10	10	20	18	17	35
2-Axle Trucks	1.00%	4	1.5	6	0	0	0	0	0	0
3-Axle Trucks	1.24%	4	2.0	8	0	0	0	0	0	0
4+ Axle Trucks	3.75%	14	3.0	42	1	1	2	2	2	4
Total Truck PCE Trips				56	1	1	2	2	2	4
Total Project PCE Trips				**394**	**11**	**11**	**22**	**20**	**19**	**39**

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition

PCE = Passenger Car Equivalents

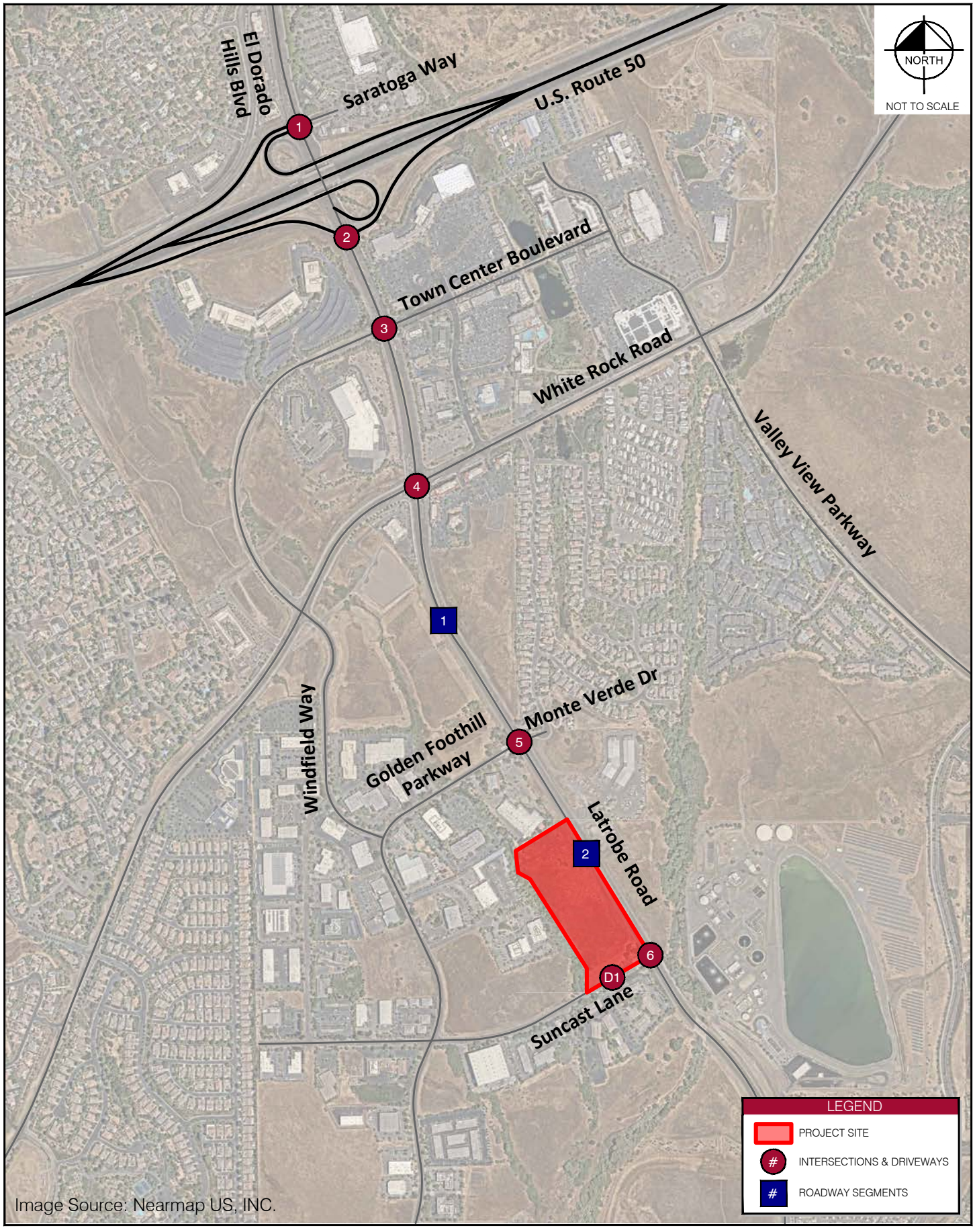
KSF = Thousand Square Feet

[1] Passenger Vehicle and Truck splits were taken from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition Supplement

[2] Truck mix percentages were calculated based on a ratio between the ITE truck splits for Mini-Warehouse and the SCAQMD Warehouse Truck Study (July 2014) for Without Cold Storage.

[3] ITE Trip Generation Manual provides three unit options for Mini-Warehouse land use: Gross Floor Area, Storage Units, and Net Rentable Area. Using the trip generation rates for Net Rentable Areas yields the highest trip generation estimates. Therefore, this analysis utilized rates based on Net Rentable Area for a conservative assessment.

Attachment C



Kimley»Horn

Attachment 4
Study Area Intersections and Roadway Segments

Attachment C



Kimley»Horn

Attachment 5
Project Trip Distribution

Appendix B

Traffic Count Data Sheets

Attachment C

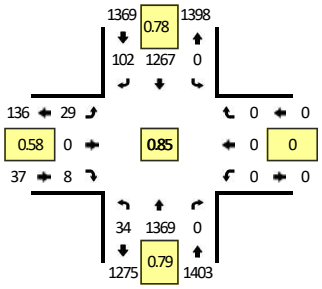
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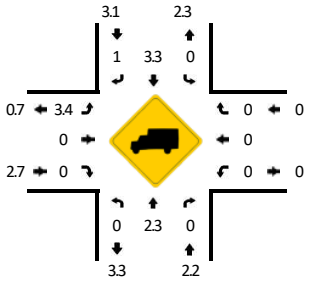
Method for determining peak hour: Total Entering Volume

LOCATION: Latrobe Rd -- Suncast Ln
CITY/STATE: El Dorado Hills, CA

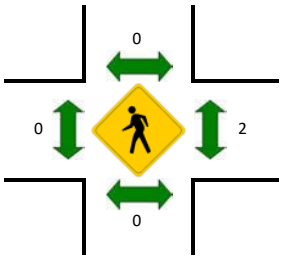
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DATE: Tue, Oct 21 2025

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Peak 15-Min: 7:45 AM -- 8:00 AM

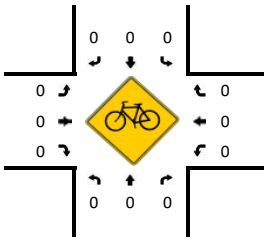


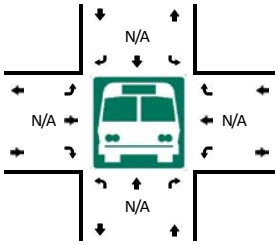


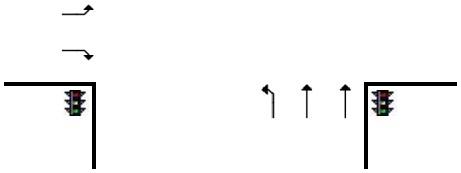
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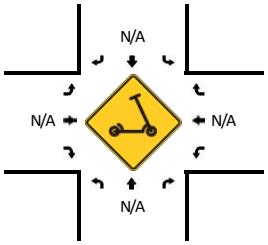












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Suncast Ln (Eastbound)				Suncast Ln (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	46	0	0	0	29	2	0	0	0	0	0	0	0	0	0	77	
6:05 AM	0	56	0	0	0	20	0	0	0	0	0	0	0	0	0	0	76	
6:10 AM	0	48	0	0	0	16	2	0	0	0	0	0	0	0	0	0	66	
6:15 AM	0	30	0	0	0	25	1	0	0	0	0	0	0	0	0	0	56	
6:20 AM	0	34	0	0	0	30	4	0	0	0	0	0	0	0	0	0	68	
6:25 AM	0	28	0	0	0	34	2	0	0	0	0	0	0	0	0	0	64	
6:30 AM	0	25	0	0	0	25	2	0	0	0	0	0	0	0	0	0	52	
6:35 AM	0	40	0	0	0	33	6	0	0	0	0	0	0	0	0	0	79	
6:40 AM	0	38	0	0	0	42	3	0	0	0	0	0	0	0	0	0	83	
6:45 AM	0	33	0	0	0	47	2	0	1	0	0	0	0	0	0	0	83	
6:50 AM	0	27	0	0	0	60	3	0	0	0	0	0	0	0	0	0	90	
6:55 AM	1	37	0	0	0	76	4	0	0	0	0	0	0	0	0	0	118	912
7:00 AM	1	59	0	0	0	45	2	0	2	0	0	0	0	0	0	0	109	944
7:05 AM	0	61	0	0	0	52	2	0	0	0	0	0	0	0	0	0	115	983
7:10 AM	1	44	0	0	0	71	4	0	0	0	0	0	0	0	0	0	120	1037
7:15 AM	1	41	0	0	0	75	4	0	0	0	0	0	0	0	0	0	121	1102
7:20 AM	0	51	0	0	0	83	6	0	0	0	0	0	0	0	0	0	140	1174
7:25 AM	0	66	0	0	0	88	2	0	1	0	0	0	0	0	0	0	157	1267
7:30 AM	1	62	0	0	0	102	9	0	0	0	1	0	0	0	0	0	175	1390
7:35 AM	4	81	0	0	0	118	6	0	0	0	0	0	0	0	0	0	209	1520
7:40 AM	0	87	0	0	0	115	13	0	1	0	0	0	0	0	0	0	216	1653
7:45 AM	2	113	0	0	0	170	15	0	1	0	0	0	0	0	0	0	301	1871
7:50 AM	4	137	0	0	0	112	10	0	2	0	0	0	0	0	0	0	265	2046
7:55 AM	2	154	0	0	0	96	8	0	4	0	1	0	0	0	0	0	265	2193
8:00 AM	4	133	0	0	0	104	6	0	5	0	0	0	0	0	0	0	252	2336
8:05 AM	3	149	0	0	0	82	2	0	4	0	1	0	0	0	0	0	241	2462
8:10 AM	5	118	0	0	0	69	7	0	4	0	0	0	0	0	0	0	203	2545
8:15 AM	4	123	0	0	0	99	5	0	4	0	3	0	0	0	0	0	238	2662
8:20 AM	3	123	0	0	0	105	8	0	2	0	1	0	0	0	0	0	242	2764
8:25 AM	2	89	0	0	0	95	13	0	2	0	1	0	0	0	0	0	202	2809
8:30 AM	0	82	0	0	0	73	7	0	3	0	1	0	0	0	0	0	166	2800
8:35 AM	4	96	0	0	0	62	5	0	2	0	0	0	0	0	0	0	169	2760
8:40 AM	1	68	0	0	0	56	13	0	3	0	0	0	0	0	0	0	141	2685
8:45 AM	3	65	0	0	0	60	10	0	1	0	1	0	0	0	0	0	140	2524
8:50 AM	1	66	0	0	0	76	10	0	2	0	0	0	0	0	0	0	155	2414
8:55 AM	2	65	0	0	0	81	14	0	1	0	0	0	0	0	0	0	163	2312

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	1616	0	0	0	1512	132	0	28	0	4	0	0	0	0	0	3324
Heavy Trucks	0	24	0		0	28	0		0	0	0		0	0	0		52
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

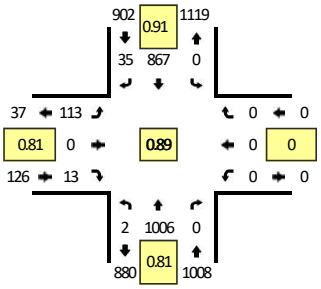
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Method for determining peak hour: Total Entering Volume

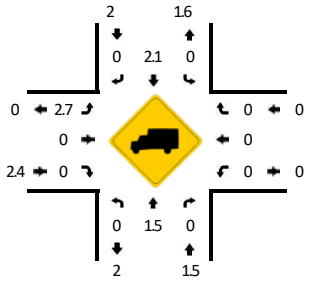
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CITY/STATE: El Dorado Hills, CA

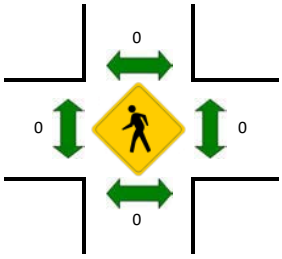
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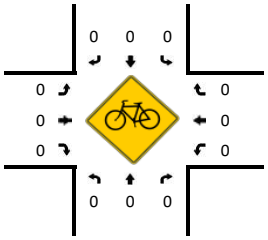


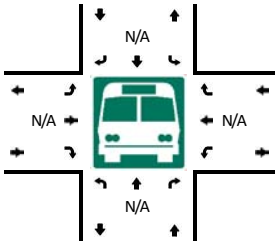


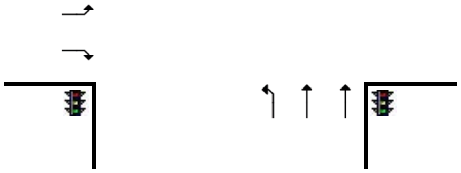


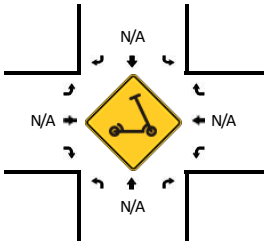












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Suncast Ln (Eastbound)				Suncast Ln (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	94	0	0	0	67	10	0	11	0	3	0	0	0	0	0	186	
4:05 PM	0	92	0	0	0	71	3	0	14	0	0	0	0	0	0	0	180	
4:10 PM	0	96	0	0	0	67	2	0	8	0	3	0	0	0	0	0	176	
4:15 PM	1	82	0	0	0	55	0	0	3	0	0	0	0	0	0	0	141	
4:20 PM	0	48	0	0	0	94	4	0	6	0	0	0	0	0	0	0	152	
4:25 PM	0	65	0	0	0	72	0	0	11	0	0	0	0	0	0	0	148	
4:30 PM	0	90	0	0	0	76	2	0	8	0	1	0	0	0	0	0	177	
4:35 PM	0	119	0	0	0	77	4	0	12	0	2	0	0	0	0	0	214	
4:40 PM	0	95	0	0	0	73	2	0	10	0	0	0	0	0	0	0	180	
4:45 PM	0	99	0	0	0	60	1	0	6	0	1	0	0	0	0	0	167	
4:50 PM	0	70	0	0	0	80	1	0	13	0	1	0	0	0	0	0	165	
4:55 PM	0	56	0	0	0	75	6	0	11	0	2	0	0	0	0	0	150	2036
5:00 PM	1	66	0	0	0	53	2	0	19	0	3	0	0	0	0	0	144	1994
5:05 PM	0	86	0	0	0	68	1	0	8	0	2	0	0	0	0	0	165	1979
5:10 PM	1	72	0	0	0	73	1	0	7	0	0	0	0	0	0	0	154	1957
5:15 PM	0	74	0	0	0	58	3	0	11	0	2	0	0	0	0	0	148	1964
5:20 PM	1	73	0	0	0	86	2	0	9	0	0	0	0	0	0	0	171	1983
5:25 PM	0	44	0	0	0	64	2	0	8	0	1	0	0	0	0	0	119	1954
5:30 PM	0	61	0	0	0	80	3	0	9	0	0	0	0	0	0	0	153	1930
5:35 PM	0	81	0	0	0	47	0	0	10	0	0	0	0	0	0	0	138	1854
5:40 PM	0	68	0	0	0	74	0	0	6	0	2	0	0	0	0	0	150	1824
5:45 PM	0	58	0	0	0	77	2	0	2	0	1	0	0	0	0	0	140	1797
5:50 PM	0	55	0	0	0	59	1	0	3	0	0	0	0	0	0	0	118	1750
5:55 PM	2	55	0	0	0	65	1	0	10	0	0	0	0	0	0	0	133	1733
6:00 PM	0	71	0	0	0	49	2	0	7	0	1	0	0	0	0	0	130	1719
6:05 PM	2	68	0	0	0	46	0	0	5	0	1	0	0	0	0	0	122	1676
6:10 PM	0	78	0	0	0	66	2	0	5	0	0	0	0	0	0	0	151	1673
6:15 PM	0	59	0	0	0	60	0	0	3	0	1	0	0	0	0	0	123	1648
6:20 PM	1	39	0	0	0	64	0	0	6	0	0	0	0	0	0	0	110	1587
6:25 PM	1	41	0	0	0	49	4	0	3	0	1	0	0	0	0	0	99	1567
6:30 PM	0	42	0	0	0	49	2	0	6	0	1	0	0	0	0	0	100	1514
6:35 PM	0	50	0	0	0	60	0	0	3	0	0	0	0	0	0	0	113	1489
6:40 PM	0	51	0	0	0	62	2	0	2	0	0	0	0	0	0	0	117	1456
6:45 PM	1	30	0	0	0	50	2	0	4	0	2	0	0	0	0	0	89	1405
6:50 PM	0	26	0	0	0	57	0	0	1	0	0	0	0	0	0	0	84	1371
6:55 PM	1	28	0	0	0	58	2	0	1	0	0	0	0	0	0	0	90	1328

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1216	0	0	0	904	32	0	120	0	12	0	0	0	0	0	2284
Heavy Trucks	0	16	0		0	12	0		8	0	0		0	0	0		36
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

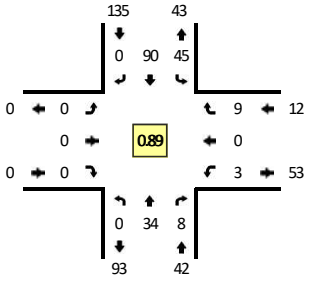
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

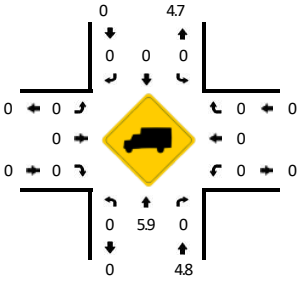
LOCATION: Suncast Ln -- Thompson Family Dentistry Dwy
CITY/STATE: El Dorado Hills, CA

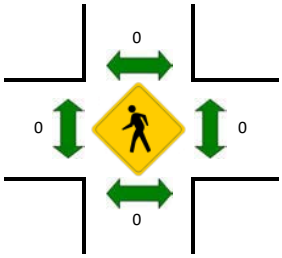
QC JOB #: 17146305
DATE: Tue, Oct 21 2025

Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

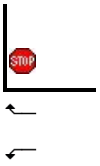


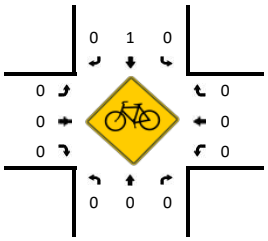


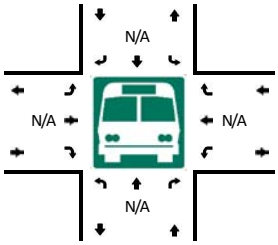




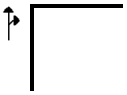


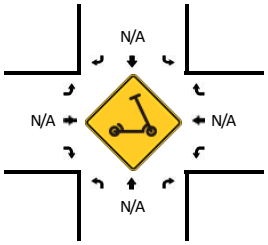












5-Min Count Period Beginning At	Suncast Ln (Northbound)				Suncast Ln (Southbound)				Thompson Family Dentistry Dwy (Eastbound)				Thompson Family Dentistry Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	8	
7:05 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
7:10 AM	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	5	
7:15 AM	0	0	1	0	1	4	0	0	0	0	0	0	0	0	0	0	6	
7:20 AM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6	
7:25 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	4	
7:30 AM	0	1	0	0	4	5	0	0	0	0	0	0	0	0	0	0	10	
7:35 AM	0	0	0	0	2	8	0	0	0	0	0	0	1	0	0	0	11	
7:40 AM	0	1	0	0	6	7	0	0	0	0	0	0	0	0	0	0	14	
7:45 AM	0	1	0	0	8	11	0	0	0	0	0	0	0	0	0	0	20	
7:50 AM	0	1	0	0	3	9	0	0	0	0	0	0	0	0	1	0	14	
7:55 AM	0	5	1	0	4	8	0	0	0	0	0	0	1	0	0	0	19	119
8:00 AM	0	3	3	0	2	9	0	0	0	0	0	0	0	0	1	0	18	129
8:05 AM	0	6	1	0	1	4	0	0	0	0	0	0	0	0	0	0	12	139
8:10 AM	0	4	1	0	3	7	0	0	0	0	0	0	0	0	0	0	15	149
8:15 AM	0	5	0	0	2	8	0	0	0	0	0	0	1	0	2	0	18	161
8:20 AM	0	2	0	0	6	6	0	0	0	0	0	0	1	0	1	0	16	171
8:25 AM	0	2	0	0	5	7	0	0	0	0	0	0	0	0	0	0	14	181
8:30 AM	0	3	1	0	3	4	0	0	0	0	0	0	0	0	1	0	12	183
8:35 AM	0	1	0	0	2	8	0	0	0	0	0	0	0	0	1	0	12	184
8:40 AM	0	1	1	0	6	9	0	0	0	0	0	0	0	0	2	0	19	189
8:45 AM	0	2	0	0	8	3	0	0	0	0	0	0	0	0	1	0	14	183
8:50 AM	0	2	1	0	4	8	0	0	0	0	0	0	0	0	0	0	15	184
8:55 AM	0	0	0	0	8	7	0	0	0	0	0	0	0	0	1	0	16	181

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	28	4	0	60	112	0	0	0	0	0	0	4	0	4	0	212
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 10/31/2025 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

Attachment C

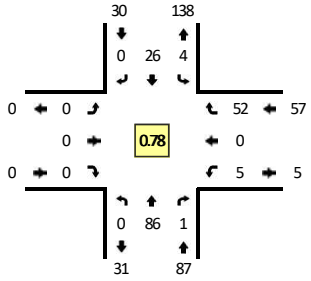
Type of peak hour being reported: Intersection Peak

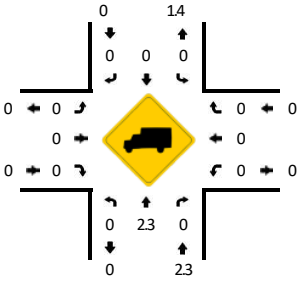
Method for determining peak hour: Total Entering Volume

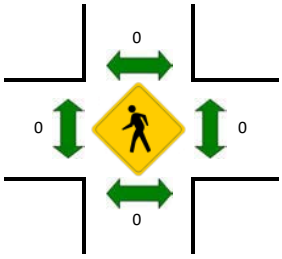
LOCATION: Suncast Ln -- Thompson Family Dentistry Dwy
CITY/STATE: El Dorado Hills, CA

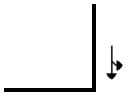
QC JOB #: 17146306
DATE: Tue, Oct 21 2025

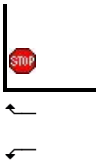
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

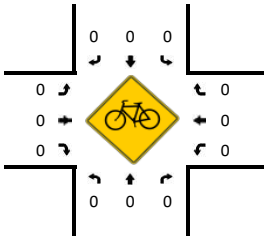


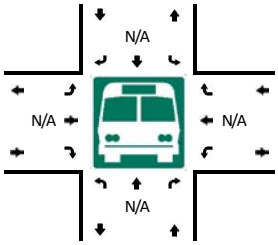




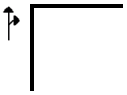


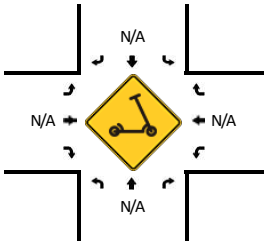












5-Min Count Period Beginning At	Suncast Ln (Northbound)				Suncast Ln (Southbound)				Thompson Family Dentistry Dwy (Eastbound)				Thompson Family Dentistry Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	11	1	0	5	6	0	0	0	0	0	0	2	0	5	0	30	
4:05 PM	0	6	0	0	2	1	0	0	0	0	0	0	0	0	6	0	15	
4:10 PM	0	4	0	0	1	1	0	0	0	0	0	0	0	0	4	0	10	
4:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3	0	6	
4:20 PM	0	2	1	0	4	0	0	0	0	0	0	0	0	0	3	0	10	
4:25 PM	0	7	0	0	0	0	0	0	0	0	0	0	3	0	4	0	14	
4:30 PM	0	9	0	0	0	2	0	0	0	0	0	0	0	0	3	0	14	
4:35 PM	0	12	0	0	1	2	0	0	0	0	0	0	0	0	3	0	18	
4:40 PM	0	4	0	0	1	2	0	0	0	0	0	0	0	0	3	0	10	
4:45 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	4	0	12	
4:50 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	3	0	11	
4:55 PM	0	5	0	0	0	6	0	0	0	0	0	0	0	0	7	0	18	168
5:00 PM	0	12	0	0	0	3	0	0	0	0	0	0	0	0	10	0	25	163
5:05 PM	0	8	0	0	0	1	0	0	0	0	0	0	1	0	3	0	13	161
5:10 PM	0	2	0	0	0	2	0	0	0	0	0	0	3	0	4	0	11	162
5:15 PM	0	11	1	0	1	2	0	0	0	0	0	0	0	0	2	0	17	173
5:20 PM	0	3	0	0	1	2	0	0	0	0	0	0	0	0	4	0	10	173
5:25 PM	0	6	0	0	0	2	0	0	0	0	0	0	1	0	6	0	15	174
5:30 PM	0	5	0	0	2	0	0	0	0	0	0	0	0	0	2	0	9	169
5:35 PM	0	4	1	0	1	0	0	0	0	0	0	0	0	0	4	0	10	161
5:40 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6	0	9	160
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	3	0	6	154
5:50 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	1	0	7	150
5:55 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	2	0	9	141

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	100	0	0	0	40	0	0	0	0	0	0	4	0	80	0	224
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 10/31/2025 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

Attachment C

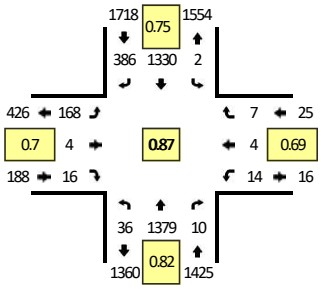
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

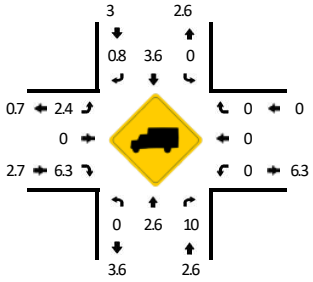
LOCATION: Latrobe Rd -- Golden Foothill Pkwy/ Monte Verde Dr
CITY/STATE: El Dorado Hills, CA

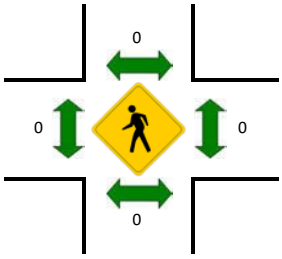
QC JOB #: 17146307
DATE: Tue, Oct 21 2025

Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

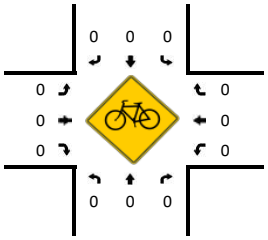


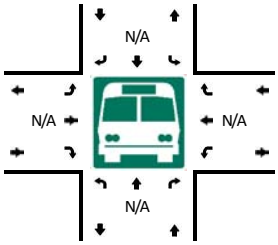


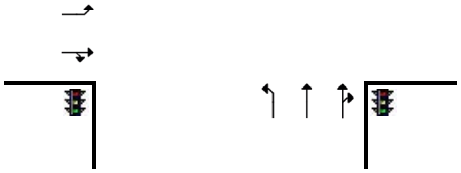


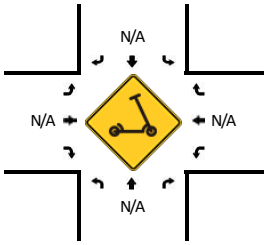












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Golden Foothill Pkwy/ Monte Verde Dr (Eastbound)				Golden Foothill Pkwy/ Monte Verde Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	40	0	0	0	28	1	0	0	0	0	0	0	0	0	0	69	
6:05 AM	1	55	0	0	0	19	8	0	1	0	0	0	0	0	0	0	84	
6:10 AM	0	53	0	0	0	20	3	0	1	0	0	0	0	0	0	0	77	
6:15 AM	0	29	0	0	0	30	3	0	1	0	0	0	0	0	0	0	63	
6:20 AM	1	35	0	0	0	33	4	0	0	0	0	0	0	0	0	0	73	
6:25 AM	1	20	0	0	0	32	5	0	0	0	1	0	0	0	0	0	59	
6:30 AM	1	30	0	0	1	34	11	0	0	0	1	0	0	0	0	0	78	
6:35 AM	1	37	0	0	0	36	18	0	2	0	1	0	0	0	1	0	96	
6:40 AM	1	43	0	0	0	38	20	0	2	0	1	0	0	0	0	0	105	
6:45 AM	0	31	0	0	0	53	14	0	1	0	1	0	0	0	1	0	101	
6:50 AM	1	30	0	0	0	61	36	0	1	0	0	0	0	0	0	0	129	
6:55 AM	1	35	0	0	0	80	28	0	0	0	0	0	0	1	0	0	145	1079
7:00 AM	0	58	0	0	0	54	20	0	3	0	0	0	0	0	0	0	135	1145
7:05 AM	1	58	0	0	0	55	18	0	3	0	0	0	0	0	0	0	135	1196
7:10 AM	0	46	0	0	0	80	14	0	3	0	0	0	0	0	0	0	143	1262
7:15 AM	0	43	0	0	0	88	12	0	3	0	1	0	0	1	1	0	149	1348
7:20 AM	1	50	0	0	0	85	9	0	7	0	2	0	1	1	1	0	157	1432
7:25 AM	0	62	0	0	0	74	17	0	10	0	3	0	1	0	1	0	168	1541
7:30 AM	0	49	1	0	0	104	18	0	4	0	2	0	1	1	2	0	182	1645
7:35 AM	1	87	0	0	0	125	23	0	9	0	0	0	2	0	1	0	248	1797
7:40 AM	2	77	1	0	0	158	30	0	5	0	0	0	2	0	0	0	275	1967
7:45 AM	3	116	1	0	0	162	45	0	9	0	1	0	2	0	0	0	339	2205
7:50 AM	1	132	0	0	0	131	49	0	14	0	2	0	1	0	0	0	330	2406
7:55 AM	5	159	0	0	0	81	33	0	15	0	5	0	1	0	0	0	299	2560
8:00 AM	7	115	2	0	0	112	47	0	16	0	0	0	2	1	0	0	302	2727
8:05 AM	3	142	3	0	1	77	24	0	18	0	2	0	0	1	0	0	271	2863
8:10 AM	5	143	1	0	0	108	34	0	13	2	1	0	1	1	2	0	311	3031
8:15 AM	2	121	1	0	0	74	16	0	20	1	2	0	0	0	2	0	239	3121
8:20 AM	4	121	1	0	1	122	32	0	20	0	1	0	2	1	0	0	305	3269
8:25 AM	1	77	0	0	0	92	25	0	20	1	2	0	0	0	0	0	218	3319
8:30 AM	2	89	0	0	0	88	28	0	9	0	0	0	1	0	2	0	219	3356
8:35 AM	0	98	0	0	1	60	30	0	8	0	1	0	0	0	0	0	198	3306
8:40 AM	0	81	0	0	0	73	16	0	13	0	0	0	0	0	0	0	183	3214
8:45 AM	3	65	0	0	0	86	19	0	7	0	0	0	0	0	0	0	180	3055
8:50 AM	0	64	0	0	0	83	15	0	9	0	1	0	0	0	1	0	173	2898
8:55 AM	4	61	0	0	0	86	28	0	6	0	0	0	0	0	2	0	187	2786

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	1628	4	0	0	1496	508	0	152	0	32	0	16	0	0	0	3872
Heavy Trucks	0	32	0		0	28	4		8	0	4		0	0	0		76
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

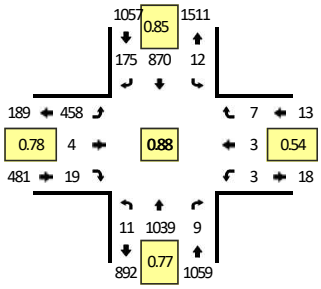
Type of peak hour being reported: Intersection Peak

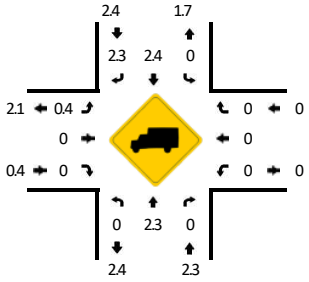
Method for determining peak hour: Total Entering Volume

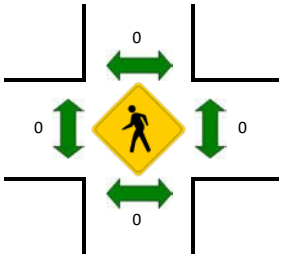
LOCATION: Latrobe Rd -- Golden Foothill Pkwy/ Monte Verde Dr
CITY/STATE: El Dorado Hills, CA

QC JOB #: 17146308
DATE: Tue, Oct 21 2025

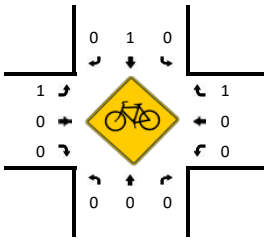
Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

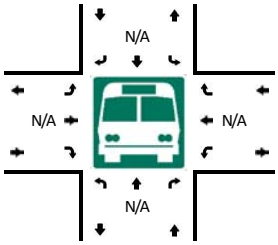


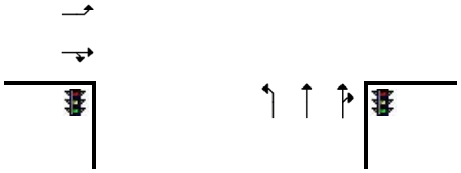


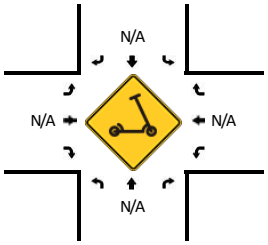












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Golden Foothill Pkwy/ Monte Verde Dr (Eastbound)				Golden Foothill Pkwy/ Monte Verde Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	95	0	0	1	70	14	1	30	0	0	0	0	0	0	0	212	
4:05 PM	0	114	1	0	0	66	13	0	37	0	0	0	2	0	0	0	233	
4:10 PM	0	101	1	0	0	65	11	0	28	0	0	0	1	1	0	0	208	
4:15 PM	0	82	0	0	2	53	15	0	24	2	1	0	0	0	1	0	180	
4:20 PM	1	62	0	0	2	96	16	2	22	0	1	0	0	0	0	0	202	
4:25 PM	2	79	0	0	0	88	11	0	24	0	2	0	1	0	0	0	207	
4:30 PM	1	79	1	0	0	78	17	1	25	0	1	0	0	1	1	0	205	
4:35 PM	0	118	3	0	0	57	14	1	82	2	4	0	1	0	0	0	282	
4:40 PM	0	125	0	0	0	76	9	0	38	0	3	0	0	0	0	0	251	
4:45 PM	0	96	0	0	0	74	14	0	24	0	0	0	0	0	2	0	210	
4:50 PM	0	78	0	0	0	70	12	1	26	0	1	0	0	0	2	0	190	
4:55 PM	2	76	0	0	1	78	17	1	39	0	2	0	0	1	1	0	218	2598
5:00 PM	1	82	2	0	1	66	15	0	30	0	3	0	0	0	0	0	200	2586
5:05 PM	2	80	1	0	0	56	13	0	55	0	0	0	0	0	1	0	208	2561
5:10 PM	1	85	1	0	1	70	13	0	45	0	1	0	1	0	0	0	218	2571
5:15 PM	1	79	1	0	0	61	24	1	48	2	1	0	0	1	0	0	219	2610
5:20 PM	3	63	1	0	0	85	10	0	24	1	5	0	0	1	1	0	194	2602
5:25 PM	0	77	0	0	1	68	10	1	19	1	5	0	0	1	1	0	184	2579
5:30 PM	0	64	0	0	1	72	9	0	28	2	3	0	0	0	0	0	179	2553
5:35 PM	0	87	1	0	1	51	6	0	26	0	2	0	0	0	0	0	174	2445
5:40 PM	1	73	0	0	1	67	3	0	18	0	0	0	0	0	0	0	163	2357
5:45 PM	0	64	0	0	0	73	4	0	16	0	1	0	0	0	1	0	159	2306
5:50 PM	1	57	1	0	1	71	5	0	12	0	0	0	0	0	0	0	148	2264
5:55 PM	0	57	1	0	0	58	4	0	14	0	1	0	0	0	0	0	135	2181
6:00 PM	0	81	1	0	0	50	4	1	21	0	0	0	0	0	0	0	158	2139
6:05 PM	2	75	0	0	0	75	8	0	13	0	1	0	0	0	0	0	174	2105
6:10 PM	0	77	0	0	0	52	9	1	10	0	1	0	0	0	2	0	152	2039
6:15 PM	1	70	0	0	1	49	3	0	8	0	0	1	0	1	0	1	135	1955
6:20 PM	0	44	0	0	0	58	4	1	22	1	2	0	0	0	1	0	133	1894
6:25 PM	0	47	0	0	2	53	2	1	10	1	0	0	1	1	1	0	119	1829
6:30 PM	1	49	0	0	0	57	2	0	8	1	1	0	0	1	0	1	121	1771
6:35 PM	0	43	0	0	0	51	3	0	10	0	1	0	0	0	1	0	109	1706
6:40 PM	1	63	0	0	0	63	3	1	7	0	0	0	0	0	1	0	139	1682
6:45 PM	0	34	1	0	0	52	2	0	3	0	1	0	0	1	0	0	94	1617
6:50 PM	1	27	0	0	0	55	7	0	8	1	3	0	0	0	0	0	102	1571
6:55 PM	0	26	0	0	1	70	4	0	2	0	1	0	0	0	0	0	104	1540

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1356	12	0	0	828	148	4	576	8	28	0	4	0	8	0	2972
Heavy Trucks	0	12	0		0	24	8		4	0	0		0	0	0		48
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		4	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

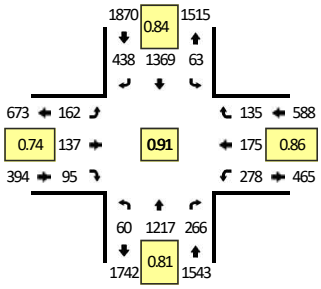
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

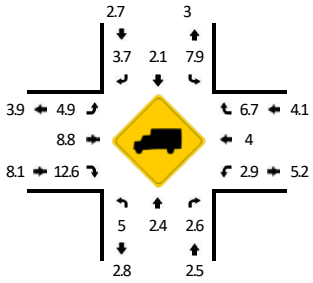
LOCATION: Latrobe Rd -- Whiterock Rd
CITY/STATE: El Dorado Hills, CA

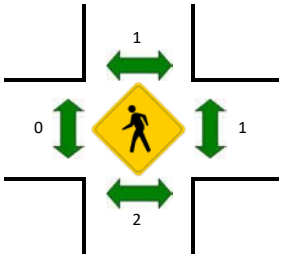
QC JOB #: 17146309
DATE: Tue, Oct 21 2025

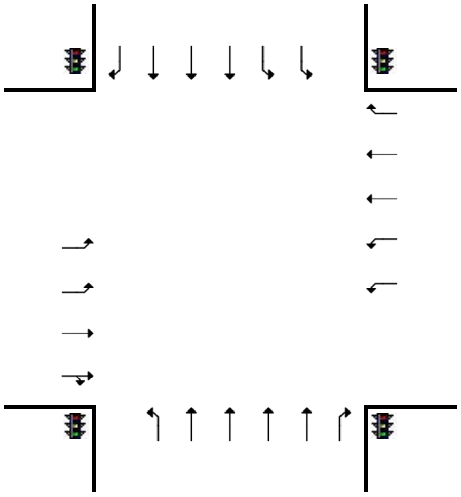
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

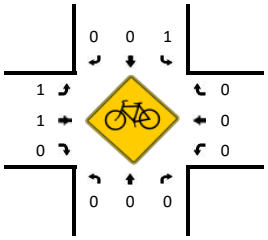


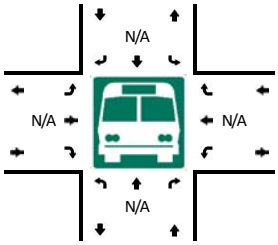


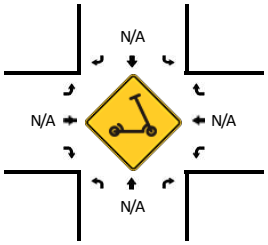












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Whiterock Rd (Eastbound)				Whiterock Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	1	34	4	0	1	26	10	0	4	1	1	0	2	0	2	0	86	
6:05 AM	4	47	3	0	4	27	3	0	4	0	0	0	3	3	0	0	98	
6:10 AM	0	49	3	0	4	19	6	0	5	7	0	0	3	4	1	0	101	
6:15 AM	1	36	1	0	4	22	4	0	4	3	1	0	6	3	8	0	93	
6:20 AM	1	25	1	0	7	35	2	0	6	2	1	0	5	6	3	0	94	
6:25 AM	0	26	2	0	5	30	10	0	8	5	1	0	5	3	8	0	103	
6:30 AM	2	25	0	0	5	37	6	0	5	7	0	0	7	4	6	0	104	
6:35 AM	0	34	2	0	6	43	12	0	4	3	1	0	12	4	5	0	126	
6:40 AM	3	34	1	0	7	46	11	0	8	15	1	0	12	10	2	0	150	
6:45 AM	4	35	3	0	7	69	12	0	7	5	1	0	10	5	4	0	162	
6:50 AM	0	18	4	0	5	79	22	0	10	6	3	0	16	11	7	0	181	
6:55 AM	0	40	2	0	6	84	16	0	7	7	0	0	17	9	4	0	192	1490
7:00 AM	1	42	9	0	9	48	27	0	10	14	1	0	15	15	6	0	197	1601
7:05 AM	3	60	6	0	9	64	18	0	11	10	0	0	13	6	8	0	208	1711
7:10 AM	1	45	4	0	9	73	26	0	7	15	3	0	17	8	8	0	216	1826
7:15 AM	4	29	5	0	6	72	17	0	11	13	0	0	21	10	12	0	200	1933
7:20 AM	1	64	5	0	10	88	22	0	6	16	3	0	14	8	6	0	243	2082
7:25 AM	1	55	5	0	4	75	23	0	15	14	2	0	27	8	9	0	238	2217
7:30 AM	6	55	7	0	3	127	24	0	8	6	2	0	14	13	4	0	269	2382
7:35 AM	2	77	12	0	7	119	26	0	20	11	5	0	23	18	8	0	328	2584
7:40 AM	4	56	11	0	1	134	25	0	12	17	5	0	34	16	11	0	326	2760
7:45 AM	3	90	13	0	5	170	45	0	18	3	0	0	33	16	6	0	402	3000
7:50 AM	5	114	28	0	9	119	38	0	10	11	0	0	31	13	10	0	388	3207
7:55 AM	8	150	33	0	1	122	46	0	6	5	7	0	16	14	9	0	417	3432
8:00 AM	4	100	27	0	4	110	49	0	11	12	13	0	28	14	11	0	383	3618
8:05 AM	10	115	31	0	7	96	34	0	8	11	11	0	15	6	10	0	354	3764
8:10 AM	3	110	23	0	5	84	39	0	13	22	19	0	30	15	12	0	375	3923
8:15 AM	5	103	29	0	9	102	37	1	9	14	14	0	18	19	14	0	374	4097
8:20 AM	4	127	32	0	6	113	27	0	23	10	9	0	19	9	7	0	386	4240
8:25 AM	8	101	18	0	5	122	44	0	11	13	4	0	12	16	19	0	373	4375
8:30 AM	4	74	9	0	3	78	28	0	21	8	8	0	19	19	18	0	289	4395
8:35 AM	3	74	17	0	10	72	29	0	16	10	1	0	18	11	8	0	269	4336
8:40 AM	0	93	12	0	5	63	19	0	13	7	3	0	15	17	13	0	260	4270
8:45 AM	2	66	13	0	6	78	21	0	16	5	3	0	25	9	15	0	259	4127
8:50 AM	3	63	10	0	9	79	28	0	16	11	7	0	13	8	9	0	256	3995
8:55 AM	1	48	14	0	19	87	35	0	17	12	9	0	24	10	11	0	287	3865

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	1416	296	0	60	1644	516	0	136	76	28	0	320	172	100	0	4828
Heavy Trucks	0	36	8		4	16	8		0	0	0		8	8	0		88
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		4	4	0		0	0	0		8
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

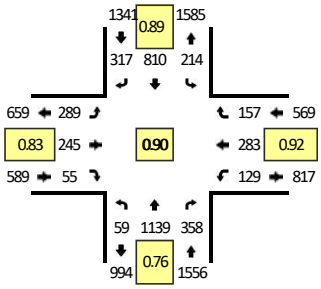
Type of peak hour being reported: Intersection Peak

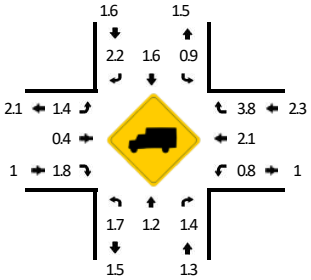
Method for determining peak hour: Total Entering Volume

LOCATION: Latrobe Rd -- Whiterock Rd
CITY/STATE: El Dorado Hills, CA

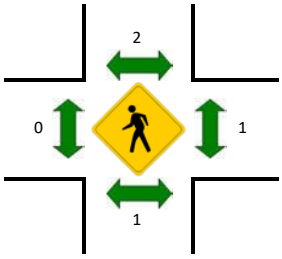
QC JOB #: 17146310
DATE: Tue, Oct 21 2025

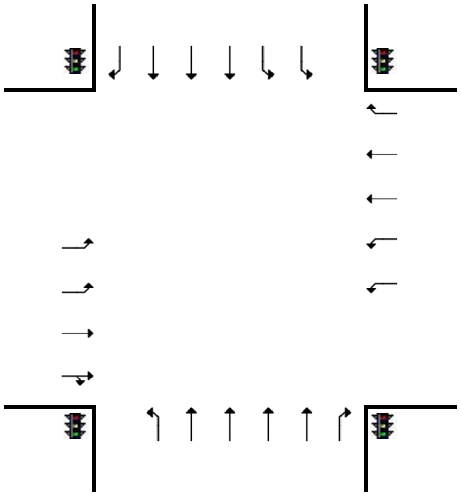
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

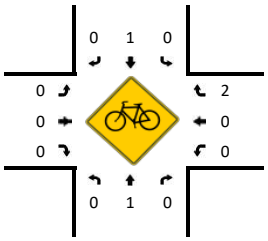


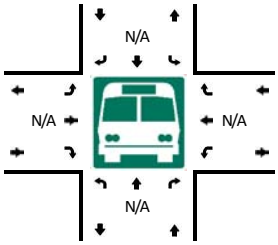


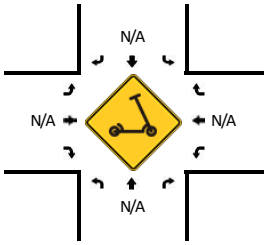
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Whiterock Rd (Eastbound)				Whiterock Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	110	38	0	5	82	23	0	13	15	6	0	17	9	14	0	336	
4:05 PM	2	87	27	0	14	46	21	0	45	21	2	0	17	20	13	0	315	
4:10 PM	1	99	37	0	14	52	28	0	23	20	4	0	18	12	13	0	321	
4:15 PM	1	105	25	0	21	92	22	0	20	13	2	0	13	12	15	0	341	
4:20 PM	3	62	23	0	12	83	17	0	15	22	10	0	20	25	12	0	304	
4:25 PM	3	59	22	0	9	62	23	0	19	25	13	0	27	19	17	0	298	
4:30 PM	0	75	15	0	18	53	29	0	24	18	6	0	16	22	19	0	295	
4:35 PM	6	150	45	0	12	61	17	0	25	24	4	0	17	14	10	0	385	
4:40 PM	5	124	50	0	13	70	22	0	28	21	5	0	16	25	14	0	393	
4:45 PM	4	102	25	0	16	88	32	0	19	12	4	0	13	13	18	0	346	
4:50 PM	4	83	22	0	21	62	16	0	27	24	5	0	17	18	17	0	316	
4:55 PM	3	59	31	0	15	74	40	0	17	16	8	0	6	21	14	0	304	3954
5:00 PM	0	109	26	0	18	60	20	0	34	15	3	0	19	14	9	0	327	3945
5:05 PM	10	97	33	0	15	63	31	0	26	41	6	0	8	27	7	0	364	3994
5:10 PM	2	85	30	0	14	58	28	0	35	15	2	0	7	20	14	0	310	3983
5:15 PM	8	109	35	0	28	64	19	0	18	13	8	0	7	27	12	0	348	3990
5:20 PM	8	67	27	0	12	78	38	0	20	28	4	0	1	53	12	0	348	4034
5:25 PM	9	79	19	0	32	79	25	0	16	18	0	0	2	29	11	0	319	4055
5:30 PM	4	69	22	0	16	50	21	0	23	26	5	0	1	29	18	0	284	4044
5:35 PM	3	79	20	0	10	60	19	0	28	19	2	0	0	32	20	0	292	3951
5:40 PM	0	69	21	0	14	49	14	0	19	24	2	0	0	19	6	0	237	3795
5:45 PM	2	76	19	0	20	60	17	0	20	14	3	0	1	29	13	0	274	3723
5:50 PM	2	59	12	0	15	78	34	0	11	23	3	0	0	21	9	0	267	3674
5:55 PM	0	50	19	0	19	54	21	0	24	19	6	0	0	30	12	0	254	3624
6:00 PM	2	90	9	0	16	34	23	1	35	24	2	0	6	15	9	0	266	3563
6:05 PM	2	59	17	0	14	58	25	0	36	21	3	0	17	8	18	0	278	3477
6:10 PM	3	88	12	0	16	48	16	0	23	22	1	0	6	11	18	0	264	3431
6:15 PM	4	57	12	1	27	55	21	0	23	22	1	0	6	13	16	0	258	3341
6:20 PM	2	38	17	1	11	49	25	0	37	22	1	0	7	14	11	0	235	3228
6:25 PM	3	48	7	0	18	41	22	0	21	15	2	0	11	28	13	0	229	3138
6:30 PM	2	48	9	0	24	52	18	0	23	12	3	0	12	10	11	0	224	3078
6:35 PM	1	44	15	0	11	51	15	0	17	17	2	0	14	9	12	0	208	2994
6:40 PM	2	45	13	0	10	42	12	0	16	8	4	0	11	16	16	0	195	2952
6:45 PM	0	39	9	0	12	39	12	0	9	8	1	0	15	7	15	0	166	2844
6:50 PM	2	22	9	0	14	45	14	0	4	15	1	0	16	11	15	0	168	2745
6:55 PM	1	23	7	0	15	59	15	0	23	12	1	0	17	6	12	0	191	2682

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	1504	480	0	164	876	284	0	288	228	52	0	184	208	168	0	4496
Heavy Trucks	0	8	0		0	16	4		0	4	0		0	8	4		44
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		0	0	0		0	0	8		12
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

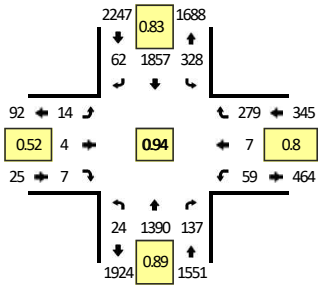
Type of peak hour being reported: Intersection Peak

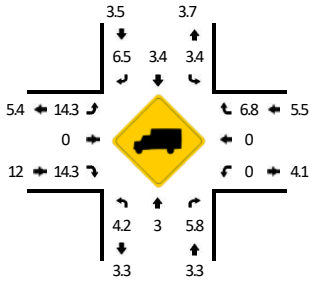
Method for determining peak hour: Total Entering Volume

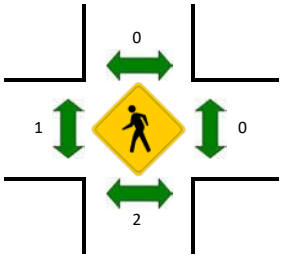
LOCATION: Latrobe Rd -- Town Center Blvd
CITY/STATE: El Dorado Hills, CA

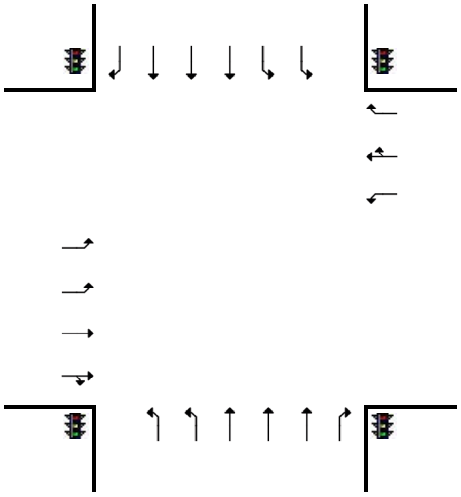
QC JOB #: 17146311
DATE: Tue, Oct 21 2025

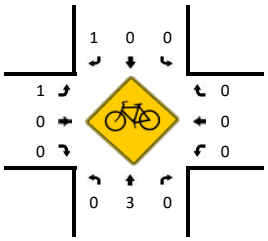
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

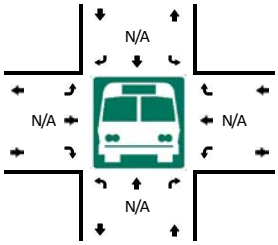


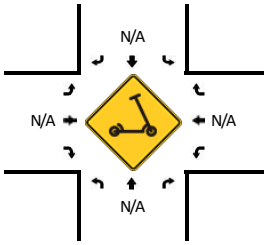












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Town Center Blvd (Eastbound)				Town Center Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	44	5	0	15	34	2	0	0	0	0	0	0	0	5	0	105	
6:05 AM	0	51	1	0	11	24	0	0	0	0	0	0	2	0	6	0	95	
6:10 AM	0	53	3	0	13	30	0	0	0	0	0	0	0	0	7	0	106	
6:15 AM	0	48	1	0	7	30	0	0	1	0	0	0	1	0	13	0	101	
6:20 AM	0	29	1	0	5	43	0	0	0	0	0	0	1	0	13	0	92	
6:25 AM	0	43	3	0	27	47	2	0	1	0	0	0	1	0	10	0	134	
6:30 AM	0	27	6	0	12	52	3	0	0	0	0	0	1	0	9	0	110	
6:35 AM	0	47	3	0	13	54	1	0	0	0	0	0	5	0	14	0	137	
6:40 AM	0	41	4	0	19	71	1	0	0	0	0	0	0	0	12	0	148	
6:45 AM	0	40	2	1	21	82	1	0	1	0	0	0	1	0	11	0	160	
6:50 AM	0	35	3	0	13	97	4	0	0	0	0	0	1	0	12	0	165	
6:55 AM	0	35	4	0	22	106	3	0	0	0	1	0	7	0	14	0	192	1545
7:00 AM	2	35	6	0	27	82	1	1	0	0	0	0	4	0	21	0	179	1619
7:05 AM	2	80	7	0	21	96	3	0	2	0	0	0	9	0	29	0	249	1773
7:10 AM	0	61	5	0	23	89	2	0	2	0	0	0	2	0	19	0	203	1870
7:15 AM	0	47	7	0	13	103	5	0	1	0	0	0	3	0	21	0	200	1969
7:20 AM	0	51	5	0	13	99	2	1	1	0	0	0	6	0	16	0	194	2071
7:25 AM	0	90	8	0	20	111	3	0	0	0	0	0	4	2	22	0	260	2197
7:30 AM	0	55	2	0	22	134	6	0	1	0	0	0	8	0	24	0	252	2339
7:35 AM	0	90	7	0	21	154	6	0	2	0	0	0	5	1	19	0	305	2507
7:40 AM	4	77	12	0	26	194	9	0	3	2	3	0	5	0	12	0	347	2706
7:45 AM	0	90	4	1	31	217	1	1	1	1	0	0	3	1	32	0	383	2929
7:50 AM	5	143	9	0	24	166	3	2	0	0	0	0	3	0	13	0	368	3132
7:55 AM	6	116	15	0	38	146	5	0	2	0	0	0	4	0	16	0	348	3288
8:00 AM	1	132	8	0	35	168	6	0	0	1	2	0	5	1	29	0	388	3497
8:05 AM	0	95	17	0	18	118	5	0	2	0	1	0	8	1	24	0	289	3537
8:10 AM	3	149	16	0	18	127	6	1	0	0	1	0	2	0	24	0	347	3681
8:15 AM	3	121	12	0	34	152	2	0	2	0	0	0	5	0	24	0	355	3836
8:20 AM	1	112	15	0	9	126	3	0	0	0	0	0	7	1	30	0	304	3946
8:25 AM	0	159	9	0	45	174	8	0	0	0	0	0	4	0	30	0	429	4115
8:30 AM	0	106	13	0	24	115	8	1	2	0	0	0	8	2	26	0	305	4168
8:35 AM	2	96	9	0	26	82	0	0	0	1	1	0	7	0	28	0	252	4115
8:40 AM	1	87	10	0	33	81	2	0	1	0	1	0	6	1	27	0	250	4018
8:45 AM	3	80	15	0	32	104	7	0	2	1	0	0	4	0	21	0	269	3904
8:50 AM	0	82	12	0	43	129	5	0	0	0	1	0	11	0	28	0	311	3847
8:55 AM	1	64	6	0	35	126	5	2	3	1	2	0	14	0	19	0	278	3777

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	1564	128	0	388	1920	56	8	8	4	8	0	48	4	232	0	4416
Heavy Trucks	0	64	4		12	52	4		0	0	0		0	0	12		148
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

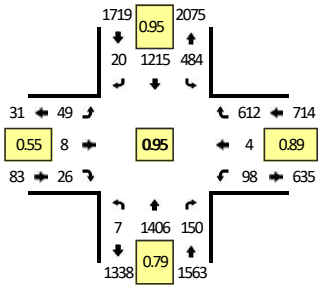
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

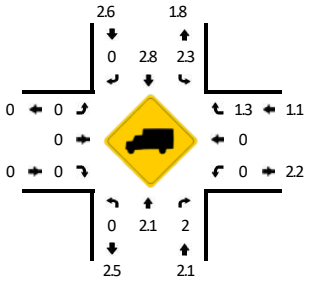
LOCATION: Latrobe Rd -- Town Center Blvd
CITY/STATE: El Dorado Hills, CA

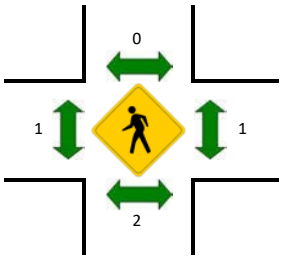
QC JOB #: 17146312
DATE: Tue, Oct 21 2025

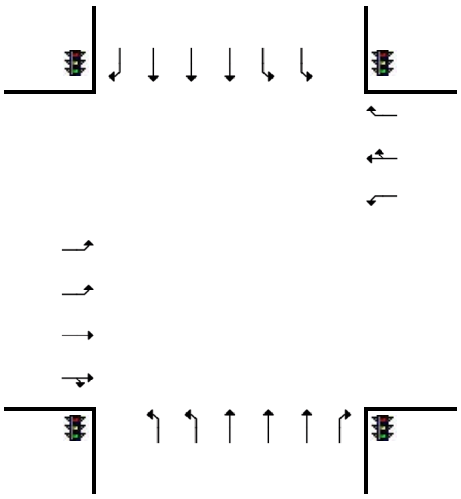
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

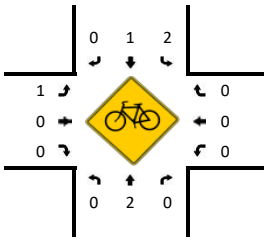


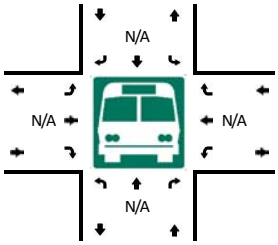


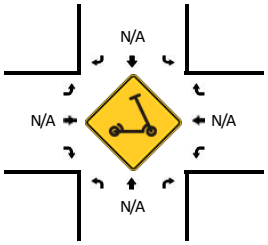












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				Town Center Blvd (Eastbound)				Town Center Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	83	11	0	43	98	3	1	6	0	1	0	7	0	56	0	309	
4:05 PM	0	160	22	0	37	99	2	0	6	2	0	0	6	1	44	0	379	
4:10 PM	0	130	15	0	38	76	1	1	3	2	0	0	8	0	47	0	321	
4:15 PM	1	90	11	0	39	107	2	1	3	1	1	0	6	0	66	1	329	
4:20 PM	0	95	17	0	39	103	0	0	3	1	1	0	4	1	49	0	313	
4:25 PM	0	60	15	0	27	93	2	0	4	0	0	0	5	0	65	0	271	
4:30 PM	0	89	18	0	57	108	2	0	3	0	1	0	6	0	57	0	341	
4:35 PM	3	126	10	0	33	82	4	1	6	1	1	0	9	0	55	0	331	
4:40 PM	0	187	17	0	30	121	1	0	5	2	0	0	6	0	30	0	399	
4:45 PM	0	136	15	0	36	94	0	0	2	0	1	0	10	0	45	0	339	
4:50 PM	1	101	10	0	29	114	6	0	0	0	2	0	9	0	60	0	332	
4:55 PM	0	101	7	0	33	86	0	2	5	1	4	0	11	1	57	0	308	3972
5:00 PM	1	91	12	0	44	79	0	2	8	2	4	0	9	1	52	0	305	3968
5:05 PM	0	99	16	0	43	109	1	1	3	0	4	0	10	0	60	0	346	3935
5:10 PM	0	142	12	0	59	104	1	1	11	1	5	0	7	0	40	1	384	3998
5:15 PM	1	91	13	0	28	67	2	1	3	1	1	0	8	1	62	0	279	3948
5:20 PM	0	166	14	0	47	139	2	0	0	0	2	0	6	0	37	0	413	4048
5:25 PM	1	77	6	0	37	112	1	0	3	0	1	0	6	1	57	0	302	4079
5:30 PM	0	113	8	0	38	80	0	0	0	0	2	0	2	1	42	0	286	4024
5:35 PM	1	102	8	0	48	84	1	0	5	1	2	0	8	1	43	0	304	3997
5:40 PM	0	91	8	0	41	96	0	0	2	0	0	0	4	0	42	0	284	3882
5:45 PM	0	78	10	0	46	100	2	2	3	0	0	0	4	0	42	0	287	3830
5:50 PM	0	97	14	0	35	98	1	1	1	0	0	0	5	1	37	0	290	3788
5:55 PM	0	84	15	0	32	81	0	1	1	1	2	0	4	0	44	0	265	3745
6:00 PM	0	104	11	0	39	61	1	2	1	0	0	0	17	0	54	0	290	3730
6:05 PM	1	92	9	0	37	91	1	0	0	0	2	0	5	1	49	0	288	3672
6:10 PM	0	122	5	0	35	83	0	1	0	0	1	0	7	0	45	0	299	3587
6:15 PM	0	105	15	0	40	96	0	0	2	0	1	0	4	2	41	1	307	3615
6:20 PM	0	63	13	0	20	61	1	0	1	0	0	0	9	1	48	0	217	3419
6:25 PM	1	91	10	0	60	101	1	0	0	0	0	0	8	0	46	0	318	3435
6:30 PM	0	62	7	0	32	62	2	2	1	0	1	0	6	0	51	0	226	3375
6:35 PM	0	69	4	0	25	68	0	0	2	1	0	0	10	0	48	0	227	3298
6:40 PM	1	71	5	0	22	57	1	0	1	0	0	0	8	0	47	0	213	3227
6:45 PM	0	51	5	0	24	67	1	0	3	0	0	0	3	0	46	0	200	3140
6:50 PM	5	59	8	0	26	74	0	1	0	0	0	0	3	1	32	0	209	3059
6:55 PM	1	40	9	0	15	76	0	0	1	0	0	1	9	0	38	0	190	2984

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	1596	156	0	536	1240	20	8	56	8	32	0	84	4	556	4	4304
Heavy Trucks	0	44	4		20	20	0		0	0	0		0	0	4		92
Buses																	
Pedestrians		4				0				4				4			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

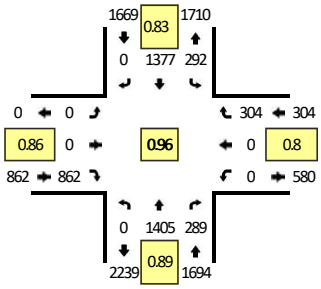
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

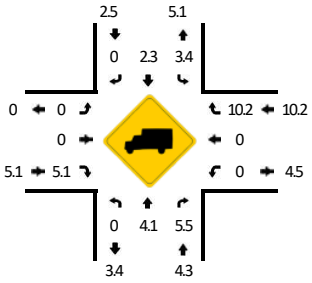
LOCATION: Latrobe Rd -- 50 FWY EB On Ramp
CITY/STATE: El Dorado Hills, CA

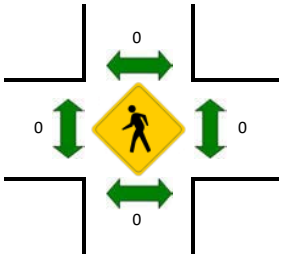
QC JOB #: 17146313
DATE: Tue, Oct 21 2025

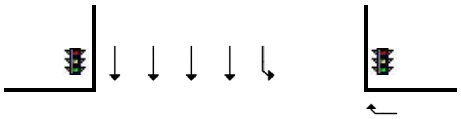
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

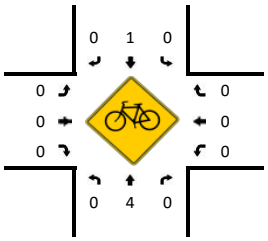


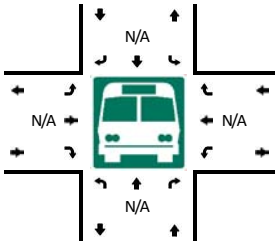


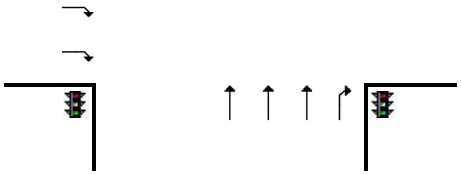


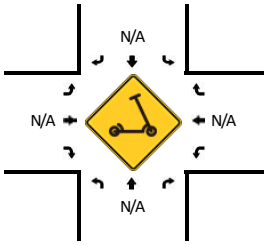












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				50 FWY EB On Ramp (Eastbound)				50 FWY EB On Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	42	5	0	7	24	0	0	0	0	28	0	0	0	7	0	113	
6:05 AM	0	53	4	0	2	17	0	0	0	0	18	0	0	0	6	0	100	
6:10 AM	0	50	10	0	2	18	0	0	0	0	25	0	0	0	4	0	109	
6:15 AM	0	53	5	0	5	18	0	0	0	0	23	0	0	0	4	0	108	
6:20 AM	0	38	5	0	3	35	0	0	0	0	30	0	0	0	5	0	116	
6:25 AM	0	50	4	0	5	23	0	0	0	0	39	0	0	0	7	0	128	
6:30 AM	0	26	6	0	12	23	0	0	0	0	39	0	0	0	14	0	120	
6:35 AM	0	43	5	0	20	34	0	0	0	0	39	0	0	0	13	0	154	
6:40 AM	0	62	7	0	5	36	0	0	0	0	57	0	0	0	12	0	179	
6:45 AM	0	43	4	0	9	47	0	0	0	0	54	0	0	0	13	0	170	
6:50 AM	0	42	6	0	7	61	0	0	0	0	66	0	0	0	20	0	202	
6:55 AM	0	42	9	0	8	51	0	0	0	0	81	0	0	0	25	0	216	1715
7:00 AM	0	47	9	0	12	54	0	0	0	0	50	0	0	0	16	0	188	1790
7:05 AM	0	83	17	0	12	63	0	0	0	0	55	0	0	0	18	0	248	1938
7:10 AM	0	76	11	0	19	52	0	0	0	0	59	0	0	0	15	0	232	2061
7:15 AM	0	63	10	0	16	57	0	0	0	0	68	0	0	0	24	0	238	2191
7:20 AM	0	51	17	0	14	74	0	0	0	0	50	0	0	0	23	0	229	2304
7:25 AM	0	82	24	0	18	77	0	0	0	0	68	0	0	0	21	0	290	2466
7:30 AM	0	76	15	0	17	98	0	0	0	0	67	0	0	0	21	0	294	2640
7:35 AM	0	79	31	0	26	127	0	0	0	0	70	0	0	0	23	0	356	2842
7:40 AM	0	72	22	0	23	141	0	0	0	0	91	0	0	0	20	0	369	3032
7:45 AM	0	96	26	0	39	137	0	0	0	0	88	0	0	0	23	0	409	3271
7:50 AM	0	117	22	0	33	132	0	0	0	0	73	0	0	0	23	0	400	3469
7:55 AM	0	114	20	0	17	117	0	0	0	0	73	0	0	0	31	0	372	3625
8:00 AM	0	138	24	0	28	102	0	0	0	0	84	0	0	0	20	0	396	3833
8:05 AM	0	115	29	0	19	98	0	0	0	0	55	0	0	0	23	0	339	3924
8:10 AM	0	148	24	0	24	111	0	0	0	0	61	0	0	0	27	0	395	4087
8:15 AM	0	128	21	0	17	122	0	0	0	0	70	0	0	0	19	0	377	4226
8:20 AM	0	128	23	0	25	97	0	0	0	0	60	0	0	0	32	0	365	4362
8:25 AM	0	146	29	0	20	109	0	1	0	0	74	0	0	0	24	0	403	4475
8:30 AM	0	124	18	0	20	84	0	0	0	0	63	0	0	0	39	0	348	4529
8:35 AM	0	99	14	0	23	63	0	1	0	0	50	0	0	0	21	0	271	4444
8:40 AM	0	105	21	0	21	78	0	0	0	0	47	0	0	0	21	0	293	4368
8:45 AM	0	92	12	0	22	101	0	0	0	0	61	0	0	0	29	0	317	4276
8:50 AM	0	94	12	0	20	79	0	0	0	0	65	0	0	0	40	0	310	4186
8:55 AM	0	76	14	0	23	100	0	0	0	0	74	0	0	0	33	0	320	4134

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1308	272	0	356	1544	0	0	0	0	936	0	0	0	308	0	4724
Heavy Trucks	0	40	16		16	24	0		0	0	32		0	0	40		168
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

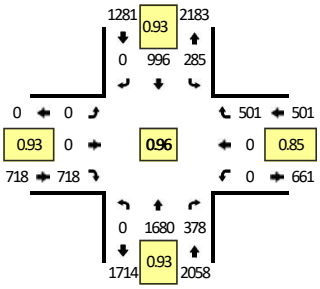
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

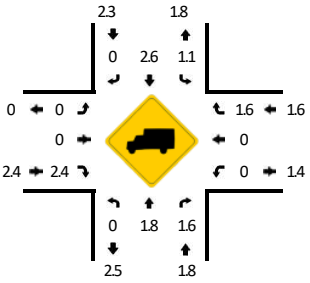
LOCATION: Latrobe Rd -- 50 FWY EB On Ramp
CITY/STATE: El Dorado Hills, CA

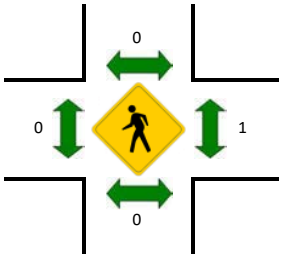
QC JOB #: 17146314
DATE: Tue, Oct 21 2025

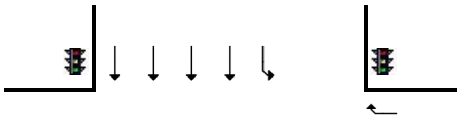
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

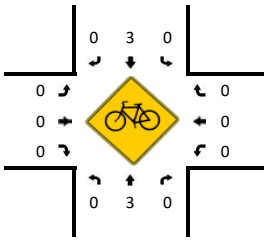


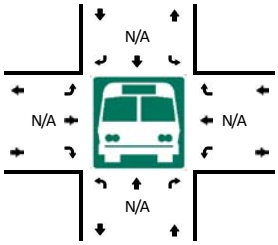


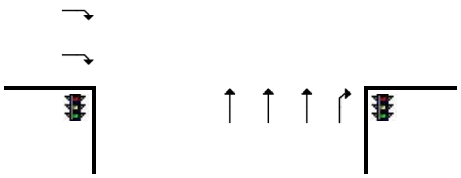


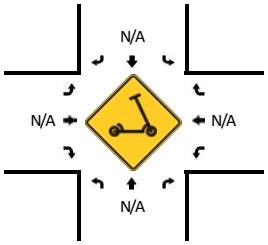












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				50 FWY EB On Ramp (Eastbound)				50 FWY EB On Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	131	35	0	30	90	0	0	0	0	44	0	0	0	36	0	366	
4:05 PM	0	141	37	0	28	78	0	0	0	0	68	0	0	0	43	0	395	
4:10 PM	0	150	37	0	31	66	0	0	0	0	52	0	0	0	36	0	372	
4:15 PM	0	145	33	0	26	86	0	0	0	0	65	0	0	0	37	0	392	
4:20 PM	0	122	30	0	24	83	0	0	0	0	61	0	0	0	30	0	350	
4:25 PM	0	97	25	0	26	92	0	0	0	0	60	0	0	0	26	0	326	
4:30 PM	0	128	23	0	25	75	0	0	0	0	53	0	0	0	39	0	343	
4:35 PM	0	144	42	0	10	79	0	1	0	0	69	0	0	0	44	0	389	
4:40 PM	0	155	30	0	33	84	0	0	0	0	54	0	0	0	52	0	408	
4:45 PM	0	146	35	0	25	69	0	0	0	0	51	0	0	0	52	0	378	
4:50 PM	0	153	25	0	18	96	0	0	0	0	62	0	0	0	42	0	396	
4:55 PM	0	136	40	0	18	80	0	0	0	0	56	0	0	0	48	0	378	4493
5:00 PM	0	114	33	0	32	79	0	0	0	0	55	0	0	0	41	0	354	4481
5:05 PM	0	132	42	0	26	88	0	0	0	0	56	0	0	0	32	0	376	4462
5:10 PM	0	142	30	0	20	98	0	1	0	0	68	0	0	0	37	0	396	4486
5:15 PM	0	154	18	0	30	81	0	0	0	0	56	0	0	0	31	0	370	4464
5:20 PM	0	153	31	0	22	69	0	0	0	0	70	0	0	0	38	0	383	4497
5:25 PM	0	123	29	0	24	98	0	0	0	0	68	0	0	0	45	0	387	4558
5:30 PM	0	134	24	0	17	60	0	0	0	0	52	0	0	0	53	0	340	4555
5:35 PM	0	95	36	0	28	62	0	0	0	0	61	0	0	0	38	0	320	4486
5:40 PM	0	129	34	0	21	81	0	0	0	0	60	0	0	0	42	0	367	4445
5:45 PM	0	94	24	0	11	70	0	0	0	0	78	0	0	0	41	0	318	4385
5:50 PM	0	85	25	0	21	75	0	0	0	0	61	0	0	0	52	0	319	4308
5:55 PM	0	127	26	0	10	54	0	0	0	0	63	0	0	0	39	0	319	4249
6:00 PM	0	118	38	0	15	53	0	0	0	0	48	0	0	0	37	0	309	4204
6:05 PM	0	118	31	0	20	64	0	0	0	0	53	0	0	0	30	0	316	4144
6:10 PM	0	144	21	0	18	76	0	0	0	0	48	0	0	0	31	0	338	4086
6:15 PM	0	128	24	0	15	99	0	0	0	0	42	0	0	0	31	0	339	4055
6:20 PM	0	97	21	0	15	73	0	0	0	0	64	0	0	0	26	0	296	3968
6:25 PM	0	116	16	0	13	60	0	0	0	0	42	0	0	0	31	0	278	3859
6:30 PM	0	92	27	0	12	59	0	0	0	0	40	0	0	0	29	0	259	3778
6:35 PM	0	97	22	0	14	57	0	0	0	0	42	0	0	0	36	0	268	3726
6:40 PM	0	97	22	0	15	42	0	0	0	0	36	0	0	0	26	0	238	3597
6:45 PM	0	74	30	0	21	63	0	0	0	0	37	0	0	0	23	0	248	3527
6:50 PM	0	77	16	0	8	62	0	0	0	0	32	0	0	0	31	0	226	3434
6:55 PM	0	61	18	0	12	41	0	0	0	0	40	0	0	0	40	0	212	3327

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1816	360	0	304	996	0	0	0	0	668	0	0	0	584	0	4728
Heavy Trucks	0	24	0		12	24	0		0	0	8		0	0	8		76
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	8	0		0	0	0		0	0	0		0	0	0		8
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

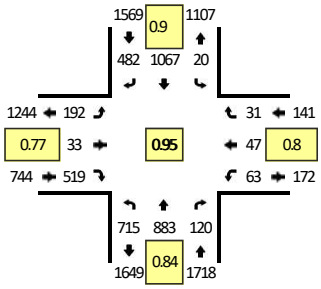
Type of peak hour being reported: Intersection Peak

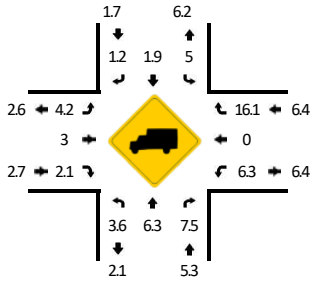
Method for determining peak hour: Total Entering Volume

LOCATION: Latrobe Rd -- 50 FWY West On Ramp
CITY/STATE: El Dorado Hills, CA

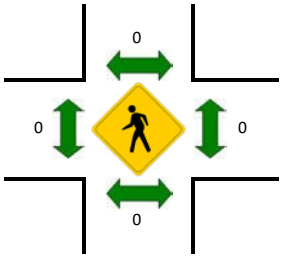
QC JOB #: 17146315
DATE: Tue, Oct 21 2025

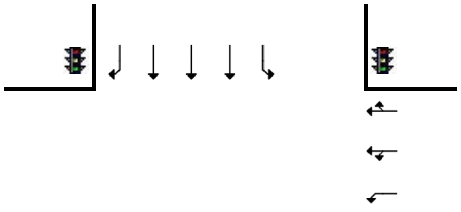
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 8:10 AM -- 8:25 AM

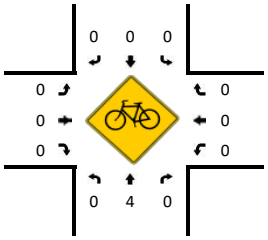


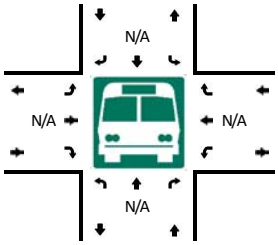


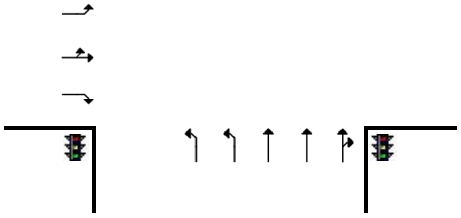
TRUE DATA TO IMPROVE MOBILITY

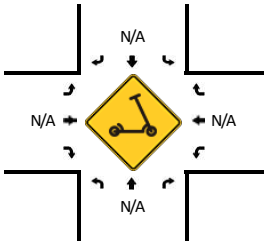












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				50 FWY West On Ramp (Eastbound)				50 FWY West On Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	25	16	3	0	0	18	16	0	2	1	12	0	0	2	1	0	96	
6:05 AM	41	20	2	1	0	10	27	0	8	2	4	0	5	1	0	0	121	
6:10 AM	28	5	1	0	0	11	31	0	4	0	6	0	3	3	1	0	93	
6:15 AM	52	14	5	0	0	17	39	0	3	1	5	0	0	1	0	0	137	
6:20 AM	25	16	3	0	0	26	17	0	3	1	10	0	2	4	0	0	107	
6:25 AM	32	24	2	0	0	19	19	0	6	2	8	0	4	2	0	0	118	
6:30 AM	16	19	3	0	1	29	36	0	6	1	12	0	1	1	0	0	125	
6:35 AM	34	23	1	0	0	29	25	0	9	1	15	0	1	2	0	0	140	
6:40 AM	33	37	4	0	1	28	31	0	3	3	12	0	0	5	1	0	158	
6:45 AM	14	21	6	0	3	43	35	0	6	1	11	0	4	5	2	0	151	
6:50 AM	28	40	3	0	1	44	38	0	6	2	30	0	3	6	2	0	203	
6:55 AM	19	37	10	0	0	42	35	0	11	5	24	0	1	1	1	0	186	1635
7:00 AM	21	38	3	0	3	33	36	0	6	4	15	0	3	2	2	0	166	1705
7:05 AM	39	51	5	0	2	48	37	0	3	5	22	0	2	7	1	0	222	1806
7:10 AM	42	45	7	0	0	49	47	0	10	3	23	0	1	4	1	0	232	1945
7:15 AM	44	42	5	0	1	41	32	0	6	3	22	0	7	5	1	0	209	2017
7:20 AM	26	50	7	0	2	65	50	0	10	1	29	0	1	4	5	0	250	2160
7:25 AM	31	50	11	0	2	52	46	0	13	9	38	0	6	3	1	0	262	2304
7:30 AM	46	45	7	0	2	62	27	0	12	0	49	0	6	2	8	0	266	2445
7:35 AM	29	49	9	0	2	93	48	0	14	5	69	0	3	1	2	0	324	2629
7:40 AM	34	66	6	0	1	105	33	0	13	3	69	0	7	2	2	0	341	2812
7:45 AM	68	49	11	0	1	94	41	1	17	3	50	0	4	7	4	0	350	3011
7:50 AM	70	50	13	0	1	98	43	0	22	2	56	0	5	3	3	0	366	3174
7:55 AM	61	74	12	0	0	79	31	0	20	5	43	0	6	6	2	0	339	3327
8:00 AM	62	84	12	0	3	85	53	0	15	2	36	0	6	3	1	0	362	3523
8:05 AM	46	66	6	0	3	98	60	0	22	6	29	0	7	1	3	0	347	3648
8:10 AM	68	97	11	0	2	95	38	0	13	1	37	0	7	9	5	0	383	3799
8:15 AM	62	92	9	0	2	96	40	0	11	3	33	0	2	5	1	0	356	3946
8:20 AM	66	89	18	0	2	72	34	0	26	2	36	0	4	6	5	0	360	4056
8:25 AM	80	79	3	0	1	92	36	0	10	0	29	0	6	2	2	0	340	4134
8:30 AM	69	88	10	0	1	60	25	0	9	1	32	0	6	2	1	0	304	4172
8:35 AM	50	65	17	0	2	60	42	0	20	6	24	0	8	5	3	0	302	4150
8:40 AM	42	72	7	0	3	67	39	0	27	5	23	0	5	6	6	0	302	4111
8:45 AM	24	89	8	0	2	102	30	0	10	4	19	0	10	4	4	0	306	4067
8:50 AM	56	83	11	0	2	70	21	0	19	3	24	0	10	6	3	0	308	4009
8:55 AM	35	64	13	1	5	92	24	0	17	4	24	0	5	1	2	0	287	3957

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	784	1112	152	0	24	1052	448	0	200	24	424	0	52	80	44	0	4396
Heavy Trucks	24	52	12		0	28	12		4	0	8		0	0	0		140
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

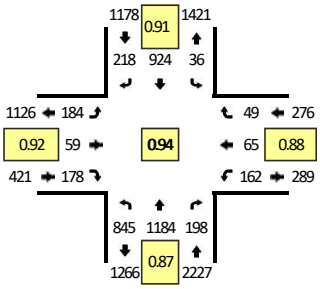
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

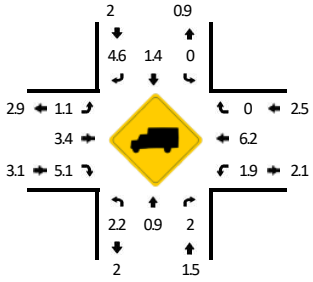
LOCATION: Latrobe Rd -- 50 FWY West On Ramp
CITY/STATE: El Dorado Hills, CA

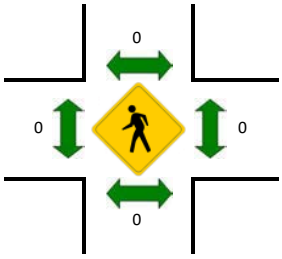
QC JOB #: 17146316
DATE: Tue, Oct 21 2025

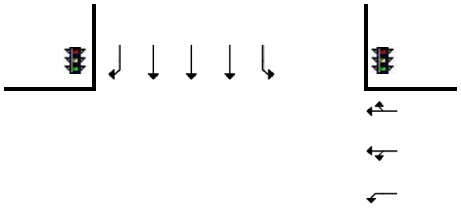
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

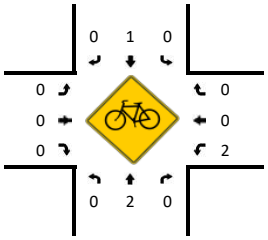


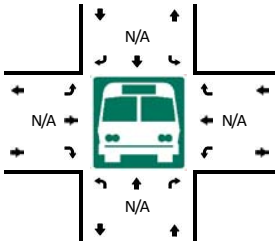


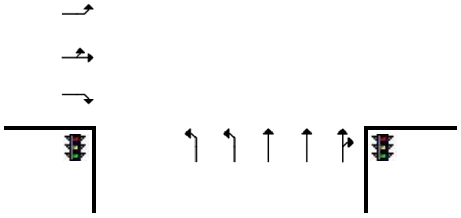


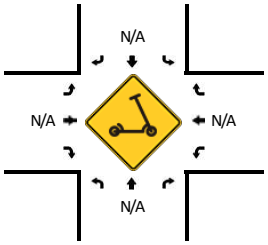












5-Min Count Period Beginning At	Latrobe Rd (Northbound)				Latrobe Rd (Southbound)				50 FWY West On Ramp (Eastbound)				50 FWY West On Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	82	83	17	0	2	61	20	0	13	3	25	0	11	4	6	0	327	
4:05 PM	82	83	22	0	2	76	27	0	19	3	12	0	15	8	6	0	355	
4:10 PM	75	72	20	1	2	61	24	0	15	6	15	0	27	5	5	0	328	
4:15 PM	70	82	12	1	0	72	15	1	21	8	17	0	13	3	6	0	321	
4:20 PM	83	82	23	0	2	95	21	0	12	3	19	0	13	1	2	0	356	
4:25 PM	41	89	12	1	2	92	26	0	17	3	17	0	6	6	5	0	317	
4:30 PM	32	87	13	0	2	68	18	1	5	1	9	0	8	2	4	0	250	
4:35 PM	102	102	21	0	2	53	13	0	19	6	20	0	15	6	2	0	361	
4:40 PM	92	112	13	0	3	88	23	0	12	6	17	0	14	5	3	0	388	
4:45 PM	78	107	14	0	2	65	22	0	14	2	11	0	16	8	3	0	342	
4:50 PM	68	103	13	0	2	81	10	1	21	8	20	0	11	6	2	0	346	
4:55 PM	50	116	16	0	3	90	14	1	14	5	13	0	8	5	4	0	339	4030
5:00 PM	49	98	19	1	4	76	15	0	10	2	16	0	21	5	7	0	323	4026
5:05 PM	68	86	10	0	2	67	34	0	16	1	17	0	16	6	3	0	326	3997
5:10 PM	85	87	13	0	1	95	19	1	10	8	14	0	10	3	7	0	353	4022
5:15 PM	90	100	17	0	4	86	15	0	15	7	13	0	10	6	3	0	366	4067
5:20 PM	55	92	19	1	3	70	16	0	16	6	16	0	17	8	3	0	322	4033
5:25 PM	51	88	16	0	0	85	24	0	24	4	14	0	11	4	7	0	328	4044
5:30 PM	55	93	27	0	6	68	13	1	13	4	7	0	13	3	5	0	308	4102
5:35 PM	48	110	8	0	0	73	20	0	6	2	5	0	11	5	6	0	294	4035
5:40 PM	59	92	19	0	3	72	23	0	7	2	14	0	12	4	3	0	310	3957
5:45 PM	63	76	18	0	3	57	19	0	16	6	12	0	11	5	4	0	290	3905
5:50 PM	33	93	8	0	4	67	22	0	8	5	11	0	12	8	5	0	276	3835
5:55 PM	61	82	13	0	5	45	18	0	12	2	14	0	11	3	4	0	270	3766
6:00 PM	41	74	9	0	6	52	26	1	11	2	10	0	13	6	9	0	260	3703
6:05 PM	79	75	11	0	4	59	12	0	15	2	12	0	11	5	3	0	288	3665
6:10 PM	69	105	8	0	1	81	31	0	12	3	15	0	11	8	7	0	351	3663
6:15 PM	74	77	9	0	1	67	31	0	8	6	12	0	13	1	5	0	304	3601
6:20 PM	64	72	11	0	2	61	28	0	3	4	16	0	9	6	5	0	281	3560
6:25 PM	49	81	12	0	3	48	12	0	13	3	14	0	5	0	9	0	249	3481
6:30 PM	30	63	7	0	0	53	18	1	9	4	10	0	11	5	1	0	212	3385
6:35 PM	55	68	12	0	1	39	16	0	13	2	18	0	17	6	5	0	252	3343
6:40 PM	34	66	3	0	2	55	14	0	11	1	7	0	4	5	3	0	205	3238
6:45 PM	53	80	5	0	4	58	18	0	10	2	16	0	7	0	0	0	253	3201
6:50 PM	26	63	15	0	0	41	15	0	14	4	12	0	3	4	6	0	203	3128
6:55 PM	29	58	15	0	2	30	15	0	5	2	15	0	8	3	2	0	184	3042

Attachment C

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	1088	1284	192	0	28	824	232	0	180	56	192	0	180	76	32	0	4364
Heavy Trucks	36	8	4		0	12	20		4	4	16		4	8	0		116
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		8	0	0		8
Scooters																	

Comments:

Report generated on 2/17/2026 7:40 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		4				4			4	
12:15 AM		6				6			6	
12:30 AM		3				3			3	
12:45 AM		3				3			3	
01:00 AM		5				5			5	
01:15 AM		3				3			3	
01:30 AM		1				1			1	
01:45 AM		1				1			1	
02:00 AM		8				8			8	
02:15 AM		3				3			3	
02:30 AM		2				2			2	
02:45 AM		4				4			4	
03:00 AM		3				3			3	
03:15 AM		2				2			2	
03:30 AM		9				9			9	
03:45 AM		11				11			11	
04:00 AM		13				13			13	
04:15 AM		16				16			16	
04:30 AM		19				19			19	
04:45 AM		26				26			26	
05:00 AM		38				38			38	
05:15 AM		36				36			36	
05:30 AM		60				60			60	
05:45 AM		61				61			61	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		144				144			144	
06:15 AM		90				90			90	
06:30 AM		102				102			102	
06:45 AM		99				99			99	
07:00 AM		166				166			166	
07:15 AM		157				157			157	
07:30 AM		233				233			233	
07:45 AM		412				412			412	
08:00 AM		**413**				**413**			**413**	
08:15 AM		344				344			344	
08:30 AM		253				253			253	
08:45 AM		201				201			201	
09:00 AM		175				175			175	
09:15 AM		135				135			135	
09:30 AM		138				138			138	
09:45 AM		185				185			185	
10:00 AM		214				214			214	
10:15 AM		163				163			163	
10:30 AM		201				201			201	
10:45 AM		239				239			239	
11:00 AM		192				192			192	
11:15 AM		216				216			216	
11:30 AM		216				216			216	
11:45 AM		233				233			233	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		235				235			235	
12:15 PM		212				212			212	
12:30 PM		177				177			177	
12:45 PM		175				175			175	
01:00 PM		167				167			167	
01:15 PM		178				178			178	
01:30 PM		151				151			151	
01:45 PM		168				168			168	
02:00 PM		187				187			187	
02:15 PM		226				226			226	
02:30 PM		213				213			213	
02:45 PM		289				289			289	
03:00 PM		**399**				**399**			**399**	
03:15 PM		373				373			373	
03:30 PM		258				258			258	
03:45 PM		300				300			300	
04:00 PM		313				313			313	
04:15 PM		216				216			216	
04:30 PM		334				334			334	
04:45 PM		246				246			246	
05:00 PM		259				259			259	
05:15 PM		221				221			221	
05:30 PM		234				234			234	
05:45 PM		186				186			186	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		234				234			234	
06:15 PM		151				151			151	
06:30 PM		154				154			154	
06:45 PM		89				89			89	
07:00 PM		93				93			93	
07:15 PM		67				67			67	
07:30 PM		76				76			76	
07:45 PM		44				44			44	
08:00 PM		64				64			64	
08:15 PM		57				57			57	
08:30 PM		44				44			44	
08:45 PM		43				43			43	
09:00 PM		73				73			73	
09:15 PM		34				34			34	
09:30 PM		29				29			29	
09:45 PM		19				19			19	
10:00 PM		23				23			23	
10:15 PM		14				14			14	
10:30 PM		16				16			16	
10:45 PM		14				14			14	
11:00 PM		13				13			13	
11:15 PM		6				6			6	
11:30 PM		9				9			9	
11:45 PM		5				5			5	
Day Total		12346				12346			12346	
% Weekday Average		100%								
% Week Average		100%				100%				
AM Peak 15-min Vol		8:00 AM 413				8:00 AM 413			8:00 AM 413	
PM Peak 15-min Vol		3:00 PM 399				3:00 PM 399			3:00 PM 399	

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		5				5			5	
12:15 AM		6				6			6	
12:30 AM		2				2			2	
12:45 AM		1				1			1	
01:00 AM		1				1			1	
01:15 AM		3				3			3	
01:30 AM		3				3			3	
01:45 AM		2				2			2	
02:00 AM		1				1			1	
02:15 AM		1				1			1	
02:30 AM		2				2			2	
02:45 AM		3				3			3	
03:00 AM		1				1			1	
03:15 AM		2				2			2	
03:30 AM		4				4			4	
03:45 AM		3				3			3	
04:00 AM		5				5			5	
04:15 AM		4				4			4	
04:30 AM		9				9			9	
04:45 AM		15				15			15	
05:00 AM		15				15			15	
05:15 AM		21				21			21	
05:30 AM		32				32			32	
05:45 AM		53				53			53	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		32				32			32	
06:15 AM		45				45			45	
06:30 AM		64				64			64	
06:45 AM		136				136			136	
07:00 AM		178				178			178	
07:15 AM		260				260			260	
07:30 AM		376				376			376	
07:45 AM		**415**				**415**			**415**	
08:00 AM		276				276			276	
08:15 AM		330				330			330	
08:30 AM		223				223			223	
08:45 AM		259				259			259	
09:00 AM		181				181			181	
09:15 AM		181				181			181	
09:30 AM		134				134			134	
09:45 AM		174				174			174	
10:00 AM		135				135			135	
10:15 AM		135				135			135	
10:30 AM		194				194			194	
10:45 AM		171				171			171	
11:00 AM		216				216			216	
11:15 AM		149				149			149	
11:30 AM		155				155			155	
11:45 AM		179				179			179	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		170				170			170	
12:15 PM		179				179			179	
12:30 PM		204				204			204	
12:45 PM		196				196			196	
01:00 PM		240				240			240	
01:15 PM		208				208			208	
01:30 PM		210				210			210	
01:45 PM		212				212			212	
02:00 PM		255				255			255	
02:15 PM		241				241			241	
02:30 PM		297				297			297	
02:45 PM		**329**				**329**			**329**	
03:00 PM		323				323			323	
03:15 PM		231				231			231	
03:30 PM		255				255			255	
03:45 PM		232				232			232	
04:00 PM		221				221			221	
04:15 PM		228				228			228	
04:30 PM		233				233			233	
04:45 PM		228				228			228	
05:00 PM		200				200			200	
05:15 PM		213				213			213	
05:30 PM		201				201			201	
05:45 PM		200				200			200	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 3 **QC JOB #:** 17146319

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		163				163			163	
06:15 PM		176				176			176	
06:30 PM		168				168			168	
06:45 PM		129				129			129	
07:00 PM		83				83			83	
07:15 PM		56				56			56	
07:30 PM		55				55			55	
07:45 PM		72				72			72	
08:00 PM		62				62			62	
08:15 PM		46				46			46	
08:30 PM		39				39			39	
08:45 PM		30				30			30	
09:00 PM		23				23			23	
09:15 PM		37				37			37	
09:30 PM		30				30			30	
09:45 PM		15				15			15	
10:00 PM		23				23			23	
10:15 PM		8				8			8	
10:30 PM		6				6			6	
10:45 PM		13				13			13	
11:00 PM		8				8			8	
11:15 PM		12				12			12	
11:30 PM		5				5			5	
11:45 PM		4				4			4	
Day Total		11561				11561			11561	
% Weekday Average		100%								
% Week Average		100%				100%				
AM Peak 15-min Vol		7:45 AM 415				7:45 AM 415			7:45 AM 415	
PM Peak 15-min Vol		2:45 PM 329				2:45 PM 329			2:45 PM 329	

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 **QC JOB #:** 17146320

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		5				5			5	
12:15 AM		7				7			7	
12:30 AM		7				7			7	
12:45 AM		4				4			4	
01:00 AM		7				7			7	
01:15 AM		8				8			8	
01:30 AM		2				2			2	
01:45 AM		1				1			1	
02:00 AM		5				5			5	
02:15 AM		1				1			1	
02:30 AM		2				2			2	
02:45 AM		4				4			4	
03:00 AM		2				2			2	
03:15 AM		3				3			3	
03:30 AM		11				11			11	
03:45 AM		15				15			15	
04:00 AM		10				10			10	
04:15 AM		13				13			13	
04:30 AM		16				16			16	
04:45 AM		32				32			32	
05:00 AM		35				35			35	
05:15 AM		35				35			35	
05:30 AM		58				58			58	
05:45 AM		66				66			66	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 **QC JOB #:** 17146320

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		151				151			151	
06:15 AM		108				108			108	
06:30 AM		126				126			126	
06:45 AM		129				129			129	
07:00 AM		194				194			194	
07:15 AM		212				212			212	
07:30 AM		302				302			302	
07:45 AM		495				495			495	
08:00 AM		495				495			495	
08:15 AM		**513**				**513**			**513**	
08:30 AM		354				354			354	
08:45 AM		278				278			278	
09:00 AM		259				259			259	
09:15 AM		196				196			196	
09:30 AM		226				226			226	
09:45 AM		260				260			260	
10:00 AM		274				274			274	
10:15 AM		236				236			236	
10:30 AM		295				295			295	
10:45 AM		330				330			330	
11:00 AM		278				278			278	
11:15 AM		336				336			336	
11:30 AM		336				336			336	
11:45 AM		411				411			411	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 — **QC JOB #:** 17146320

SPECIFIC LOCATION: — **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA — **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		363				363			363	
12:15 PM		309				309			309	
12:30 PM		270				270			270	
12:45 PM		298				298			298	
01:00 PM		281				281			281	
01:15 PM		299				299			299	
01:30 PM		239				239			239	
01:45 PM		264				264			264	
02:00 PM		322				322			322	
02:15 PM		329				329			329	
02:30 PM		395				395			395	
02:45 PM		411				411			411	
03:00 PM		565				565			565	
03:15 PM		597				597			597	
03:30 PM		470				470			470	
03:45 PM		433				433			433	
04:00 PM		553				553			553	
04:15 PM		430				430			430	
04:30 PM		**614**				**614**			**614**	
04:45 PM		441				441			441	
05:00 PM		446				446			446	
05:15 PM		363				363			363	
05:30 PM		321				321			321	
05:45 PM		277				277			277	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 **QC JOB #:** 17146320

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		348				348			348	
06:15 PM		274				274			274	
06:30 PM		260				260			260	
06:45 PM		171				171			171	
07:00 PM		164				164			164	
07:15 PM		118				118			118	
07:30 PM		111				111			111	
07:45 PM		81				81			81	
08:00 PM		125				125			125	
08:15 PM		95				95			95	
08:30 PM		70				70			70	
08:45 PM		64				64			64	
09:00 PM		87				87			87	
09:15 PM		54				54			54	
09:30 PM		40				40			40	
09:45 PM		23				23			23	
10:00 PM		29				29			29	
10:15 PM		19				19			19	
10:30 PM		20				20			20	
10:45 PM		17				17			17	
11:00 PM		15				15			15	
11:15 PM		7				7			7	
11:30 PM		13				13			13	
11:45 PM		5				5			5	
Day Total		18643				18643			18643	
% Weekday Average		100%								
% Week Average		100%				100%				
AM Peak 15-min Vol		8:15 AM 513				8:15 AM 513			8:15 AM 513	
PM Peak 15-min Vol		4:30 PM 614				4:30 PM 614			4:30 PM 614	

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 **QC JOB #:** 17146320

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		5				5			5	
12:15 AM		3				3			3	
12:30 AM		2				2			2	
12:45 AM		4				4			4	
01:00 AM		3				3			3	
01:15 AM		1				1			1	
01:30 AM		1				1			1	
01:45 AM		2				2			2	
02:00 AM		1				1			1	
02:15 AM		0				0			0	
02:30 AM		1				1			1	
02:45 AM		1				1			1	
03:00 AM		1				1			1	
03:15 AM		0				0			0	
03:30 AM		5				5			5	
03:45 AM		4				4			4	
04:00 AM		5				5			5	
04:15 AM		2				2			2	
04:30 AM		6				6			6	
04:45 AM		17				17			17	
05:00 AM		13				13			13	
05:15 AM		19				19			19	
05:30 AM		33				33			33	
05:45 AM		70				70			70	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

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Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 **QC JOB #:** 17146320

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		41				41			41	
06:15 AM		42				42			42	
06:30 AM		108				108			108	
06:45 AM		191				191			191	
07:00 AM		211				211			211	
07:15 AM		275				275			275	
07:30 AM		455				455			455	
07:45 AM		**462**				**462**			**462**	
08:00 AM		356				356			356	
08:15 AM		350				350			350	
08:30 AM		268				268			268	
08:45 AM		288				288			288	
09:00 AM		214				214			214	
09:15 AM		231				231			231	
09:30 AM		197				197			197	
09:45 AM		220				220			220	
10:00 AM		172				172			172	
10:15 AM		187				187			187	
10:30 AM		225				225			225	
10:45 AM		223				223			223	
11:00 AM		239				239			239	
11:15 AM		179				179			179	
11:30 AM		176				176			176	
11:45 AM		212				212			212	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

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Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 **QC JOB #:** 17146320

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		224				224			224	
12:15 PM		211				211			211	
12:30 PM		233				233			233	
12:45 PM		254				254			254	
01:00 PM		274				274			274	
01:15 PM		248				248			248	
01:30 PM		251				251			251	
01:45 PM		282				282			282	
02:00 PM		300				300			300	
02:15 PM		260				260			260	
02:30 PM		335				335			335	
02:45 PM		**411**				**411**			**411**	
03:00 PM		333				333			333	
03:15 PM		236				236			236	
03:30 PM		289				289			289	
03:45 PM		268				268			268	
04:00 PM		214				214			214	
04:15 PM		222				222			222	
04:30 PM		210				210			210	
04:45 PM		225				225			225	
05:00 PM		195				195			195	
05:15 PM		223				223			223	
05:30 PM		166				166			166	
05:45 PM		153				153			153	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Attachment C

Type of report: Midblock Count - Volume Data

LOCATION: Latrobe Rd Point 4 **QC JOB #:** 17146320

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: El Dorado Hills, CA **DATE:** Oct 21 2025 - Oct 21 2025

Start Time	Mon	Tue 21 Oct 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		191				191			191	
06:15 PM		162				162			162	
06:30 PM		131				131			131	
06:45 PM		132				132			132	
07:00 PM		47				47			47	
07:15 PM		53				53			53	
07:30 PM		53				53			53	
07:45 PM		63				63			63	
08:00 PM		49				49			49	
08:15 PM		38				38			38	
08:30 PM		27				27			27	
08:45 PM		27				27			27	
09:00 PM		16				16			16	
09:15 PM		24				24			24	
09:30 PM		18				18			18	
09:45 PM		8				8			8	
10:00 PM		12				12			12	
10:15 PM		8				8			8	
10:30 PM		3				3			3	
10:45 PM		11				11			11	
11:00 PM		6				6			6	
11:15 PM		9				9			9	
11:30 PM		4				4			4	
11:45 PM		1				1			1	
Day Total		12831				12831			12831	
% Weekday Average		100%								
% Week Average		100%				100%				
AM Peak 15-min Vol		7:45 AM 462				7:45 AM 462			7:45 AM 462	
PM Peak 15-min Vol		2:45 PM 411				2:45 PM 411			2:45 PM 411	

Comments:

Report generated on 10/28/2025 10:32 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

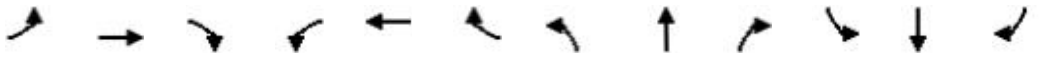
Appendix C

Analysis Worksheets for
Existing (2025) Conditions

Attachment C

Latrobe Storage — Existing (2025)

1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: AM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	33	519	63	47	31	715	883	120	20	1067	482
Future Volume (veh/h)	192	33	519	63	47	31	715	883	120	20	1067	482
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1856	1870	1811	1870	1663	1856	1811	1796	1826	1870	1870
Adj Flow Rate, veh/h	280	0	0	59	87	39	851	1051	143	22	1186	536
Peak Hour Factor	0.77	0.77	0.77	0.80	0.80	0.80	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %	4	3	2	6	2	16	3	6	7	5	2	2
Cap, veh/h	361	0		164	237	100	937	2752	847	78	1658	678
Arrive On Green	0.10	0.00	0.00	0.09	0.09	0.09	0.27	0.56	0.56	0.05	0.32	0.32
Sat Flow, veh/h	3506	0	1585	1725	2496	1055	3428	4944	1522	1739	5106	1585
Grp Volume(v), veh/h	280	0	0	59	64	62	851	1051	143	22	1186	536
Grp Sat Flow(s),veh/h/ln	1753	0	1585	1725	1870	1681	1714	1648	1522	1739	1702	1585
Q Serve(g_s), s	8.2	0.0	0.0	3.4	3.4	3.6	25.2	12.6	4.8	1.3	21.4	30.7
Cycle Q Clear(g_c), s	8.2	0.0	0.0	3.4	3.4	3.6	25.2	12.6	4.8	1.3	21.4	30.7
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	0		164	178	160	937	2752	847	78	1658	678
V/C Ratio(X)	0.77	0.00		0.36	0.36	0.39	0.91	0.38	0.17	0.28	0.72	0.79
Avail Cap(c_a), veh/h	832	0		334	362	325	1393	3027	932	176	1763	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	0.0	0.0	44.5	44.5	44.6	36.8	13.1	11.4	48.4	31.1	25.9
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.5	0.5	0.6	4.9	0.0	0.0	0.7	1.1	5.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.0	1.5	1.6	1.6	10.3	4.0	1.4	0.5	8.2	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.5	0.0	0.0	45.0	44.9	45.2	41.7	13.1	11.4	49.1	32.2	31.1
LnGrp LOS	D			D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		280			185			2045			1744	
Approach Delay, s/veh		48.5			45.0			24.9			32.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	64.2		15.9	34.5	39.9		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		24.9	42.6	* 36		20.3				
Max Q Clear Time (g_c+I1), s	3.3	14.6		10.2	27.2	32.7		5.6				
Green Ext Time (p_c), s	0.0	2.3		0.6	1.5	1.4		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh	30.3	
HCM 7th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	862	0	0	304	0	1405	289	292	1377	0
Future Volume (veh/h)	0	0	862	0	0	304	0	1405	289	292	1377	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1826	0	1870	1752	0	1841	1826	1856	1870	0
Adj Flow Rate, veh/h	0	0	1002	0	0	0	0	1579	325	352	1659	0
Peak Hour Factor	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	0	2	5	0	2	10	0	4	5	3	2	0
Cap, veh/h	0	346	504	0	346		0	2259	695	315	4414	0
Arrive On Green	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.45	0.45	0.18	0.69	0.00
Sat Flow, veh/h	0	1870	2723	0	1870	1485	0	5191	1547	1767	6696	0
Grp Volume(v), veh/h	0	0	1002	0	0	0	0	1579	325	352	1659	0
Grp Sat Flow(s),veh/h/ln	0	1870	1362	0	1870	1485	0	1675	1547	1767	1609	0
Q Serve(g_s), s	0.0	0.0	17.2	0.0	0.0	0.0	0.0	23.5	13.6	16.6	10.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.2	0.0	0.0	0.0	0.0	23.5	13.6	16.6	10.1	0.0
Prop In Lane	0.00		1.00	0.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	346	504	0	346		0	2259	695	315	4414	0
V/C Ratio(X)	0.00	0.00	1.99	0.00	0.00		0.00	0.70	0.47	1.12	0.38	0.00
Avail Cap(c_a), veh/h	0	346	504	0	362		0	2259	695	315	4414	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.72	0.72	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	37.9	0.0	0.0	0.0	0.0	20.6	17.8	38.2	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	452.3	0.0	0.0	0.0	0.0	1.3	1.6	85.6	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	37.3	0.0	0.0	0.0	0.0	8.1	4.5	14.1	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	490.2	0.0	0.0	0.0	0.0	21.9	19.5	123.8	6.4	0.0
LnGrp LOS			F					C	B	F	A	
Approach Vol, veh/h		1002			0			1904			2011	
Approach Delay, s/veh		490.2			0.0			21.5			27.0	
Approach LOS		F						C			C	

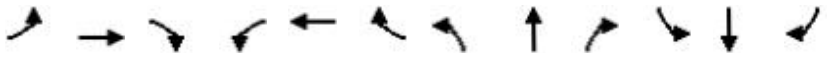
Timer - Assigned Phs	1	2	4	6	8
Phs Duration (G+Y+Rc), s	22.0	48.0	23.0	70.0	23.0
Change Period (Y+Rc), s	5.4	6.2	5.8	6.2	* 5.8
Max Green Setting (Gmax), s	16.6	41.8	17.2	27.8	* 18
Max Q Clear Time (g_c+I1), s	18.6	25.5	19.2	12.1	0.0
Green Ext Time (p_c), s	0.0	10.1	0.0	9.3	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	119.2
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



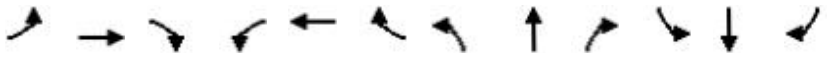
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	4	7	59	7	279	24	1390	137	328	1857	62
Future Volume (veh/h)	14	4	7	59	7	279	24	1390	137	328	1857	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1870	1693	1870	1870	1811	1841	1856	1826	1856	1856	1811
Adj Flow Rate, veh/h	27	8	13	74	0	355	27	1562	154	395	2237	75
Peak Hour Factor	0.52	0.52	0.52	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	14	2	14	2	2	6	4	3	5	3	3	6
Cap, veh/h	161	92	82	266	0	458	79	2169	662	503	2794	847
Arrive On Green	0.05	0.05	0.05	0.15	0.00	0.15	0.02	0.43	0.43	0.15	0.55	0.55
Sat Flow, veh/h	3127	1777	1585	1781	0	3070	3401	5066	1547	3428	5066	1535
Grp Volume(v), veh/h	27	8	13	74	0	355	27	1562	154	395	2237	75
Grp Sat Flow(s),veh/h/ln	1564	1777	1585	1781	0	1535	1700	1689	1547	1714	1689	1535
Q Serve(g_s), s	0.6	0.3	0.6	2.6	0.0	7.9	0.6	18.2	4.5	7.9	25.3	1.6
Cycle Q Clear(g_c), s	0.6	0.3	0.6	2.6	0.0	7.9	0.6	18.2	4.5	7.9	25.3	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	92	82	266	0	458	79	2169	662	503	2794	847
V/C Ratio(X)	0.17	0.09	0.16	0.28	0.00	0.78	0.34	0.72	0.23	0.79	0.80	0.09
Avail Cap(c_a), veh/h	1316	748	667	387	0	667	739	3588	1096	986	3588	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	32.2	32.3	26.9	0.0	29.2	34.3	16.9	12.9	29.3	12.8	7.5
Incr Delay (d2), s/veh	0.4	0.3	0.7	0.4	0.0	2.8	0.9	0.2	0.1	1.0	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.2	1.1	0.0	3.0	0.2	5.5	1.3	2.9	6.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.7	32.5	33.0	27.3	0.0	32.0	35.2	17.0	13.0	30.4	13.6	7.6
LnGrp LOS	C	C	C	C		C	D	B	B	C	B	A
Approach Vol, veh/h		48			429			1743			2707	
Approach Delay, s/veh		32.8			31.2			17.0			15.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	36.0		7.2	5.2	44.8		14.1				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		3.5				
Max Green Setting (Gmax), s	20.5	50.5		30.0	15.5	50.5		15.5				
Max Q Clear Time (g_c+I1), s	9.9	20.2		2.6	2.6	27.3		9.9				
Green Ext Time (p_c), s	0.5	8.0		0.1	0.0	12.0		0.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.8
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	137	95	278	175	135	60	1217	266	63	1369	438
Future Volume (veh/h)	162	137	95	278	175	135	60	1217	266	63	1369	438
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1781	1722	1870	1841	1811	1826	1870	1870	1796	1870	1856
Adj Flow Rate, veh/h	219	185	128	323	203	157	74	1502	328	75	1630	521
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.81	0.81	0.81	0.84	0.84	0.84
Percent Heavy Veh, %	4	8	12	2	4	6	5	2	2	7	2	3
Cap, veh/h	672	441	190	695	457	200	160	2647	652	359	2183	672
Arrive On Green	0.11	0.13	0.13	0.11	0.13	0.13	0.09	0.41	0.41	0.11	0.43	0.43
Sat Flow, veh/h	3401	3385	1459	3456	3497	1535	1739	6434	1585	3319	5106	1572
Grp Volume(v), veh/h	219	185	128	323	203	157	74	1502	328	75	1630	521
Grp Sat Flow(s),veh/h/ln	1700	1692	1459	1728	1749	1535	1739	1609	1585	1659	1702	1572
Q Serve(g_s), s	4.9	4.7	7.7	7.3	5.0	9.2	3.7	16.6	14.2	1.9	24.8	26.2
Cycle Q Clear(g_c), s	4.9	4.7	7.7	7.3	5.0	9.2	3.7	16.6	14.2	1.9	24.8	26.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	672	441	190	695	457	200	160	2647	652	359	2183	672
V/C Ratio(X)	0.33	0.42	0.67	0.47	0.44	0.78	0.46	0.57	0.50	0.21	0.75	0.77
Avail Cap(c_a), veh/h	1409	2013	868	1068	2155	946	282	3200	788	897	2501	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	37.0	38.4	29.7	37.1	38.9	39.8	20.9	20.2	37.6	22.3	22.7
Incr Delay (d2), s/veh	0.1	0.2	1.6	0.2	0.3	2.5	0.8	0.2	0.6	0.1	1.1	4.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.9	2.7	2.8	2.0	3.3	1.5	5.5	4.7	0.7	8.8	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.0	37.3	39.9	29.9	37.4	41.5	40.6	21.1	20.8	37.7	23.4	27.0
LnGrp LOS	C	D	D	C	D	D	D	C	C	D	C	C
Approach Vol, veh/h		532			683			1904			2226	
Approach Delay, s/veh		34.5			34.8			21.8			24.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	43.8	16.0	17.7	13.5	45.2	16.0	17.8
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.0	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	13.3	18.6	9.3	9.7	5.7	28.2	6.9	11.2
Green Ext Time (p_c), s	0.1	12.9	0.3	0.9	0.0	11.3	0.2	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	25.9
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	4	16	14	4	7	36	1379	10	2	1330	386
Future Volume (veh/h)	168	4	16	14	4	7	36	1379	10	2	1330	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1811	1870	1870	1870	1870	1870	1752	1870	1856	1870
Adj Flow Rate, veh/h	266	0	0	20	6	10	44	1682	12	3	1773	515
Peak Hour Factor	0.70	0.70	0.70	0.69	0.69	0.69	0.82	0.82	0.82	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	6	2	2	2	2	2	10	2	3	2
Cap, veh/h	377	198	0	34	10	17	93	1913	799	124	1959	881
Arrive On Green	0.11	0.00	0.00	0.04	0.04	0.04	0.05	0.54	0.54	0.07	0.56	0.56
Sat Flow, veh/h	3563	1870	0	964	289	482	1781	3554	1485	1781	3526	1585
Grp Volume(v), veh/h	266	0	0	36	0	0	44	1682	12	3	1773	515
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1735	0	0	1781	1777	1485	1781	1763	1585
Q Serve(g_s), s	5.2	0.0	0.0	1.5	0.0	0.0	1.7	29.8	0.3	0.1	32.3	15.3
Cycle Q Clear(g_c), s	5.2	0.0	0.0	1.5	0.0	0.0	1.7	29.8	0.3	0.1	32.3	15.3
Prop In Lane	1.00		0.00	0.56		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	377	198	0	62	0	0	93	1913	799	124	1959	881
V/C Ratio(X)	0.71	0.00	0.00	0.58	0.00	0.00	0.47	0.88	0.02	0.02	0.90	0.58
Avail Cap(c_a), veh/h	1191	625	0	483	0	0	372	1980	827	298	1964	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	0.0	0.0	34.1	0.0	0.0	33.1	14.5	7.7	31.1	14.2	10.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	8.4	0.0	0.0	1.4	5.0	0.0	0.0	6.6	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	0.7	0.0	0.0	0.7	9.6	0.1	0.0	10.5	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	0.0	0.0	42.4	0.0	0.0	34.5	19.5	7.7	31.2	20.8	11.7
LnGrp LOS	C			D			C	B	A	C	C	B
Approach Vol, veh/h		266			36			1738			2291	
Approach Delay, s/veh		31.9			42.4			19.8			18.8	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	45.9		6.6	9.0	44.7		11.6				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		24.0				
Max Q Clear Time (g_c+I1), s	3.7	34.3		3.5	2.1	31.8		7.2				
Green Ext Time (p_c), s	0.0	5.3		0.1	0.0	6.9		0.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	20.2
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	29	8	34	1369	1267	102
Future Volume (veh/h)	29	8	34	1369	1267	102
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	50	14	43	1733	1624	131
Peak Hour Factor	0.58	0.58	0.79	0.79	0.78	0.78
Percent Heavy Veh, %	3	2	2	2	3	2
Cap, veh/h	101	91	79	2684	2242	1008
Arrive On Green	0.06	0.06	0.04	0.76	0.64	0.64
Sat Flow, veh/h	1767	1585	1781	3647	3618	1585
Grp Volume(v), veh/h	50	14	43	1733	1624	131
Grp Sat Flow(s),veh/h/ln	1767	1585	1781	1777	1763	1585
Q Serve(g_s), s	1.5	0.4	1.3	12.4	16.6	1.7
Cycle Q Clear(g_c), s	1.5	0.4	1.3	12.4	16.6	1.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	101	91	79	2684	2242	1008
V/C Ratio(X)	0.49	0.15	0.55	0.65	0.72	0.13
Avail Cap(c_a), veh/h	663	594	401	2684	2643	1188
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	23.9	25.0	3.1	6.6	3.9
Incr Delay (d2), s/veh	3.7	0.8	2.2	0.6	1.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.5	0.2	2.4	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.1	24.7	27.2	3.7	7.5	3.9
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	64			1776	1755	
Approach Delay, s/veh	27.3			4.3	7.3	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	46.3		6.4	39.9	7.1
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0		12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	14.4		3.3	18.6	3.5
Green Ext Time (p_c), s	18.0		0.0	15.3	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	6.2
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	34	8	45	90	0	3	0	9	0	0	0
Future Vol, veh/h	0	34	8	45	90	0	3	0	9	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	5	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	9	51	101	0	3	0	10	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	47	0	0	245	245	43	240	249	101
Stage 1	-	-	-	-	-	-	43	43	-	202	202	-
Stage 2	-	-	-	-	-	-	202	202	-	38	47	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1491	-	-	1560	-	-	709	657	1028	714	653	954
Stage 1	-	-	-	-	-	-	972	859	-	800	734	-
Stage 2	-	-	-	-	-	-	800	734	-	977	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1491	-	-	1560	-	-	685	635	1028	682	631	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	685	635	-	682	631	-
Stage 1	-	-	-	-	-	-	972	859	-	772	709	-
Stage 2	-	-	-	-	-	-	772	709	-	967	856	-

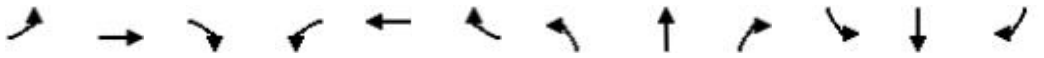
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.46	9	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	913	1491	-	-	600	-	-	-
HCM Lane V/C Ratio	0.015	-	-	-	0.032	-	-	-
HCM Ctrl Dly (s/v)	9	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	-

Attachment C

Latrobe Storage — Existing (2025)

1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	59	178	162	65	49	845	1184	198	36	924	218
Future Volume (veh/h)	184	59	178	162	65	49	845	1184	198	36	924	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1826	1870	1811	1870	1870	1870	1870	1870	1870	1841
Adj Flow Rate, veh/h	132	159	0	200	51	56	971	1361	228	40	1015	240
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	3	5	2	6	2	2	2	2	2	2	4
Cap, veh/h	205	214		387	86	94	1068	2445	759	124	1199	546
Arrive On Green	0.12	0.12	0.00	0.11	0.11	0.11	0.31	0.48	0.48	0.07	0.23	0.23
Sat Flow, veh/h	1781	1856	1547	3563	789	866	3456	5106	1585	1781	5106	1560
Grp Volume(v), veh/h	132	159	0	200	0	107	971	1361	228	40	1015	240
Grp Sat Flow(s),veh/h/ln	1781	1856	1547	1781	0	1655	1728	1702	1585	1781	1702	1560
Q Serve(g_s), s	6.5	7.6	0.0	4.9	0.0	5.7	24.9	17.5	8.1	2.0	17.5	10.9
Cycle Q Clear(g_c), s	6.5	7.6	0.0	4.9	0.0	5.7	24.9	17.5	8.1	2.0	17.5	10.9
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	214		387	0	180	1068	2445	759	124	1199	546
V/C Ratio(X)	0.64	0.74		0.52	0.00	0.60	0.91	0.56	0.30	0.32	0.85	0.44
Avail Cap(c_a), veh/h	597	622		514	0	239	1410	3558	1104	205	2062	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	39.4	0.0	38.8	0.0	39.1	30.6	17.1	14.6	40.8	33.7	23.0
Incr Delay (d2), s/veh	2.5	3.8	0.0	0.4	0.0	1.2	6.2	0.1	0.1	0.6	0.7	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.7	0.0	2.2	0.0	2.4	10.2	5.8	2.5	0.8	6.6	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.4	43.2	0.0	39.2	0.0	40.3	36.8	17.1	14.7	41.4	34.3	23.2
LnGrp LOS	D	D		D		D	D	B	B	D	C	C
Approach Vol, veh/h		291			307			2560			1295	
Approach Delay, s/veh		42.4			39.6			24.4			32.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	49.9		15.7	34.3	27.4		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		30.9	37.6	* 37		13.3				
Max Q Clear Time (g_c+I1), s	4.0	19.5		9.6	26.9	19.5		7.7				
Green Ext Time (p_c), s	0.0	3.2		1.0	1.6	2.1		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh	29.0	
HCM 7th LOS	C	

Notes

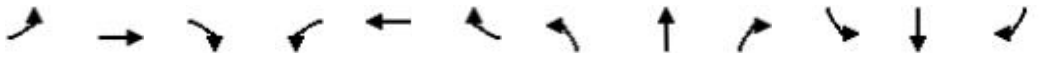
User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

Latrobe Storage — Existing (2025)
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: PM Peak-Hour



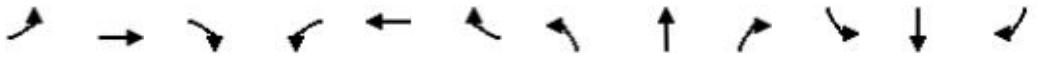
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	718	0	0	501	0	1680	378	285	996	0
Future Volume (vph)	0	0	718	0	0	501	0	1680	378	285	996	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	772	0	0	589	0	1806	406	306	1071	0
RTOR Reduction (vph)	0	0	75	0	0	0	0	0	77	0	0	0
Lane Group Flow (vph)	0	0	697	0	0	589	0	1806	329	306	1071	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			21.1			70.0		43.1	43.1	15.3	36.9	
Effective Green, g (s)			21.1			70.0		43.1	43.1	15.3	36.9	
Actuated g/C Ratio			0.30			1.00		0.62	0.62	0.22	0.53	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			840			1611		3130	974	386	3377	
v/s Ratio Prot			c0.25					c0.36		0.17	0.17	
v/s Ratio Perm						0.37			0.21			
v/c Ratio			0.83			0.37		0.58	0.34	0.79	0.32	
Uniform Delay, d1			22.8			0.0		8.0	6.5	25.9	9.4	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			6.8			0.6		0.8	0.9	10.7	0.2	
Delay (s)			29.6			0.6		8.8	7.5	36.5	9.6	
Level of Service			C			A		A	A	D	A	
Approach Delay (s/veh)		29.6			0.6			8.6			15.6	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Attachment C

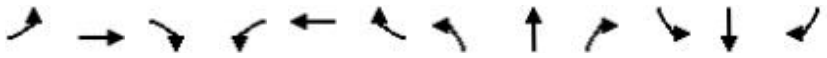
Latrobe Storage — Cumulative (2045)
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	720	0	0	505	0	1770	380	285	1000	0
Future Volume (vph)	0	0	720	0	0	505	0	1770	380	285	1000	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	774	0	0	594	0	1903	409	306	1075	0
RTOR Reduction (vph)	0	0	48	0	0	0	0	0	122	0	0	0
Lane Group Flow (vph)	0	0	726	0	0	594	0	1903	287	306	1075	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			23.0			70.0		41.6	41.6	16.8	35.0	
Effective Green, g (s)			23.0			70.0		41.6	41.6	16.8	35.0	
Actuated g/C Ratio			0.33			1.00		0.59	0.59	0.24	0.50	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			915			1611		3021	940	424	3204	
v/s Ratio Prot			c0.26					c0.37		0.17	0.17	
v/s Ratio Perm						0.37			0.18			
v/c Ratio			0.79			0.37		0.63	0.31	0.72	0.34	
Uniform Delay, d1			21.3			0.0		9.2	7.0	24.5	10.5	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			4.8			0.7		1.0	0.8	6.0	0.3	
Delay (s)			26.1			0.7		10.2	7.9	30.4	10.8	
Level of Service			C			A		B	A	C	B	
Approach Delay (s/veh)		26.1			0.7			9.8			15.1	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	8	26	98	4	612	7	1406	150	484	1215	20
Future Volume (veh/h)	49	8	26	98	4	612	7	1406	150	484	1215	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	15	47	110	0	691	9	1780	190	509	1279	21
Peak Hour Factor	0.55	0.55	0.55	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	107	95	335	0	597	31	2119	658	583	2935	911
Arrive On Green	0.06	0.06	0.06	0.19	0.00	0.19	0.01	0.42	0.42	0.17	0.57	0.57
Sat Flow, veh/h	3456	1777	1585	1781	0	3170	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	89	15	47	110	0	691	9	1780	190	509	1279	21
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	0	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	2.4	0.8	2.8	5.2	0.0	18.5	0.3	30.8	7.8	14.1	14.0	0.6
Cycle Q Clear(g_c), s	2.4	0.8	2.8	5.2	0.0	18.5	0.3	30.8	7.8	14.1	14.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	107	95	335	0	597	31	2119	658	583	2935	911
V/C Ratio(X)	0.43	0.14	0.49	0.33	0.00	1.16	0.29	0.84	0.29	0.87	0.44	0.02
Avail Cap(c_a), veh/h	1055	543	484	335	0	597	545	2624	815	721	2935	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	43.8	44.7	34.5	0.0	39.9	48.4	25.8	19.1	39.8	11.8	9.0
Incr Delay (d2), s/veh	1.0	0.4	2.9	0.6	0.0	88.7	1.9	1.8	0.1	8.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.4	1.2	2.3	0.0	14.5	0.1	11.2	2.6	6.3	4.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.6	44.2	47.6	35.1	0.0	128.6	50.3	27.6	19.2	48.3	11.9	9.0
LnGrp LOS	D	D	D	D		F	D	C	B	D	B	A
Approach Vol, veh/h		151			801			1979			1809	
Approach Delay, s/veh		46.1			115.7			26.9			22.1	
Approach LOS		D			F			C			C	

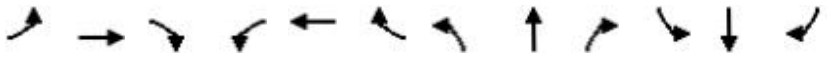
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.1	46.3		9.4	4.4	62.0		22.5				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		4.0				
Max Green Setting (Gmax), s	20.5	50.5		30.0	15.5	50.5		18.5				
Max Q Clear Time (g_c+I1), s	16.1	32.8		4.8	2.3	16.0		20.5				
Green Ext Time (p_c), s	0.5	8.0		0.5	0.0	5.9		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	40.7
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

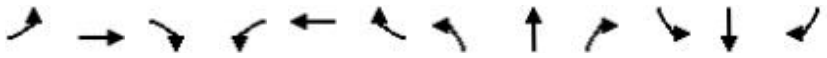
Attachment C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	245	55	129	283	157	59	1139	358	214	810	317
Future Volume (veh/h)	289	245	55	129	283	157	59	1139	358	214	810	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	295	66	140	308	171	78	1499	471	240	910	356
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.76	0.76	0.76	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	3	2	2	2	2	2	2
Cap, veh/h	636	507	226	653	499	221	165	2598	640	370	2134	662
Arrive On Green	0.11	0.14	0.14	0.11	0.14	0.14	0.09	0.40	0.40	0.11	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	3554	1572	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	348	295	66	140	308	171	78	1499	471	240	910	356
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1572	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	7.9	7.3	3.5	3.0	7.6	9.8	3.9	16.9	23.6	6.2	11.8	15.8
Cycle Q Clear(g_c), s	7.9	7.3	3.5	3.0	7.6	9.8	3.9	16.9	23.6	6.2	11.8	15.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	636	507	226	653	499	221	165	2598	640	370	2134	662
V/C Ratio(X)	0.55	0.58	0.29	0.21	0.62	0.78	0.47	0.58	0.74	0.65	0.43	0.54
Avail Cap(c_a), veh/h	1367	2091	932	1022	2167	959	286	3166	780	924	2474	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	37.5	35.8	27.9	37.8	38.8	40.2	21.7	23.6	40.1	19.3	20.4
Incr Delay (d2), s/veh	0.3	0.4	0.3	0.1	0.5	2.2	0.8	0.2	2.9	0.7	0.1	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.0	1.3	1.1	3.1	3.6	1.7	5.9	8.2	2.5	4.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.9	37.9	36.1	27.9	38.3	41.0	41.0	21.9	26.5	40.8	19.4	21.1
LnGrp LOS	C	D	D	C	D	D	D	C	C	D	B	C
Approach Vol, veh/h		709			619			2048			1506	
Approach Delay, s/veh		33.8			36.7			23.7			23.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	43.4	16.0	19.0	13.7	44.8	16.2	18.8
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.0	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	18.2	25.6	5.0	9.3	5.9	17.8	9.9	11.8
Green Ext Time (p_c), s	0.2	12.2	0.1	1.2	0.0	7.5	0.4	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	26.7
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	458	4	19	3	3	7	11	1039	9	12	870	175
Future Volume (veh/h)	458	4	19	3	3	7	11	1039	9	12	870	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	613	0	0	6	6	13	14	1349	12	14	1024	206
Peak Hour Factor	0.78	0.78	0.78	0.54	0.54	0.54	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	758	398	0	11	11	23	66	1607	717	110	1695	756
Arrive On Green	0.21	0.00	0.00	0.03	0.03	0.03	0.04	0.45	0.45	0.06	0.48	0.48
Sat Flow, veh/h	3563	1870	0	406	406	880	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	613	0	0	25	0	0	14	1349	12	14	1024	206
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1692	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.3	0.0	0.0	1.2	0.0	0.0	0.6	27.2	0.3	0.6	17.2	6.3
Cycle Q Clear(g_c), s	13.3	0.0	0.0	1.2	0.0	0.0	0.6	27.2	0.3	0.6	17.2	6.3
Prop In Lane	1.00		0.00	0.24		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	758	398	0	45	0	0	66	1607	717	110	1695	756
V/C Ratio(X)	0.81	0.00	0.00	0.56	0.00	0.00	0.21	0.84	0.02	0.13	0.60	0.27
Avail Cap(c_a), veh/h	966	507	0	417	0	0	329	1753	782	264	1753	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	0.0	0.0	39.0	0.0	0.0	37.9	19.6	12.3	36.0	15.6	12.8
Incr Delay (d2), s/veh	4.7	0.0	0.0	10.3	0.0	0.0	0.6	3.8	0.0	0.2	0.7	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	0.0	0.6	0.0	0.0	0.3	9.9	0.1	0.2	5.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.0	0.0	0.0	49.3	0.0	0.0	38.5	23.4	12.3	36.2	16.3	13.0
LnGrp LOS	D			D			D	C	B	D	B	B
Approach Vol, veh/h		613			25			1375			1244	
Approach Delay, s/veh		35.0			49.3			23.4			16.0	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	44.7		6.2	9.0	42.7		23.3				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		22.0				
Max Q Clear Time (g_c+I1), s	2.6	19.2		3.2	2.6	29.2		15.3				
Green Ext Time (p_c), s	0.0	10.0		0.1	0.0	7.5		2.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	23.0
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	113	13	2	1006	867	35
Future Volume (veh/h)	113	13	2	1006	867	35
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	16	2	1242	953	38
Peak Hour Factor	0.81	0.81	0.81	0.81	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	198	176	5	2203	1811	808
Arrive On Green	0.11	0.11	0.00	0.62	0.51	0.51
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	140	16	2	1242	953	38
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	2.8	0.3	0.0	7.6	6.7	0.4
Cycle Q Clear(g_c), s	2.8	0.3	0.0	7.6	6.7	0.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	198	176	5	2203	1811	808
V/C Ratio(X)	0.71	0.09	0.41	0.56	0.53	0.05
Avail Cap(c_a), veh/h	958	853	575	3824	3824	1706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	14.8	18.5	4.1	6.1	4.6
Incr Delay (d2), s/veh	4.6	0.2	19.0	0.3	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.0	0.1	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.5	15.1	37.5	4.5	6.5	4.6
LnGrp LOS	C	B	D	A	A	A
Approach Vol, veh/h	156			1244	991	
Approach Delay, s/veh	20.0			4.5	6.4	
Approach LOS	B			A	A	

Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	29.0			4.1	24.9	8.1
Change Period (Y+Rc), s	6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0			12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	9.6			2.0	8.7	4.8
Green Ext Time (p_c), s	13.4			0.0	9.9	0.3

Intersection Summary		
HCM 7th Control Delay, s/veh		6.3
HCM 7th LOS		A

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	86	1	4	26	0	5	0	52	0	0	0
Future Vol, veh/h	0	86	1	4	26	0	5	0	52	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	110	1	5	33	0	6	0	67	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	33	0	0	112	0	0	154	154	111	154	155	33
Stage 1	-	-	-	-	-	-	111	111	-	44	44	-
Stage 2	-	-	-	-	-	-	44	44	-	110	112	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1578	-	-	1478	-	-	812	737	942	813	737	1040
Stage 1	-	-	-	-	-	-	894	804	-	971	859	-
Stage 2	-	-	-	-	-	-	971	859	-	895	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1578	-	-	1478	-	-	809	735	942	753	734	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	809	735	-	753	734	-
Stage 1	-	-	-	-	-	-	894	804	-	967	856	-
Stage 2	-	-	-	-	-	-	967	856	-	832	803	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.99	9.21	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	929	1578	-	-	240	-	-	-
HCM Lane V/C Ratio	0.079	-	-	-	0.003	-	-	-
HCM Ctrl Dly (s/v)	9.2	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing 2025
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1817	Heavy Vehicle Adjustment Factor (f_{HV})	0.946
Peak Hour Factor	0.89	Flow Rate (V_p), pc/h/ln	1079
Total Trucks, %	2.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.49

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	18.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1623	Heavy Vehicle Adjustment Factor (f_{HV})	0.957
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	964
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.44
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	16.1
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing 2025
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1422	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.86	Flow Rate (V_p), pc/h/ln	872
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1397	Heavy Vehicle Adjustment Factor (f_{HV})	0.953
Peak Hour Factor	0.84	Flow Rate (V_p), pc/h/ln	872
Total Trucks, %	3.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing 2025
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	2038	Heavy Vehicle Adjustment Factor (f_{HV})	0.955
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	1286
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.58

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	21.4
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	871	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.97	Flow Rate (V_p), pc/h/ln	466
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.21
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	7.8
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing 2025
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1109	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	706
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.32

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	11.8
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	910	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.98	Flow Rate (V_p), pc/h/ln	484
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.22
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.1
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Appendix D

Analysis Worksheets for
Existing (2025) plus Project Conditions

Attachment C

Latrobe Storage
1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way

Existing (2025) Plus Project
Timing Plan: AM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	33	520	63	47	31	717	886	120	20	1070	482
Future Volume (veh/h)	192	33	520	63	47	31	717	886	120	20	1070	482
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1856	1870	1811	1870	1663	1856	1811	1796	1826	1870	1870
Adj Flow Rate, veh/h	280	0	0	59	87	39	854	1055	143	22	1189	536
Peak Hour Factor	0.77	0.77	0.77	0.80	0.80	0.80	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %	4	3	2	6	2	16	3	6	7	5	2	2
Cap, veh/h	361	0		163	236	100	940	2756	848	78	1657	678
Arrive On Green	0.10	0.00	0.00	0.09	0.09	0.09	0.27	0.56	0.56	0.05	0.32	0.32
Sat Flow, veh/h	3506	0	1585	1725	2496	1055	3428	4944	1522	1739	5106	1585
Grp Volume(v), veh/h	280	0	0	59	64	62	854	1055	143	22	1189	536
Grp Sat Flow(s),veh/h/ln	1753	0	1585	1725	1870	1681	1714	1648	1522	1739	1702	1585
Q Serve(g_s), s	8.2	0.0	0.0	3.4	3.4	3.7	25.3	12.6	4.8	1.3	21.5	30.7
Cycle Q Clear(g_c), s	8.2	0.0	0.0	3.4	3.4	3.7	25.3	12.6	4.8	1.3	21.5	30.7
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	0		163	177	159	940	2756	848	78	1657	678
V/C Ratio(X)	0.78	0.00		0.36	0.36	0.39	0.91	0.38	0.17	0.28	0.72	0.79
Avail Cap(c_a), veh/h	831	0		333	361	325	1390	3020	930	175	1759	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	0.0	44.6	44.6	44.7	36.9	13.1	11.4	48.5	31.3	26.0
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.5	0.5	0.6	5.0	0.0	0.0	0.7	1.1	5.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.0	1.5	1.6	1.6	10.4	4.0	1.4	0.5	8.3	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.6	0.0	0.0	45.1	45.0	45.3	41.8	13.1	11.4	49.2	32.4	31.3
LnGrp LOS	D			D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		280			185			2052			1747	
Approach Delay, s/veh		48.6			45.1			25.0			32.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	64.4		15.9	34.6	39.9		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		24.9	42.6	* 36		20.3				
Max Q Clear Time (g_c+I1), s	3.3	14.6		10.2	27.3	32.7		5.7				
Green Ext Time (p_c), s	0.0	2.3		0.6	1.5	1.4		0.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	30.4
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	864	0	0	304	0	1410	290	292	1381	0
Future Volume (veh/h)	0	0	864	0	0	304	0	1410	290	292	1381	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1826	0	1870	1752	0	1841	1826	1856	1870	0
Adj Flow Rate, veh/h	0	0	1005	0	0	0	0	1584	326	352	1664	0
Peak Hour Factor	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	0	2	5	0	2	10	0	4	5	3	2	0
Cap, veh/h	0	346	504	0	346		0	2259	695	315	4414	0
Arrive On Green	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.45	0.45	0.18	0.69	0.00
Sat Flow, veh/h	0	1870	2723	0	1870	1485	0	5191	1547	1767	6696	0
Grp Volume(v), veh/h	0	0	1005	0	0	0	0	1584	326	352	1664	0
Grp Sat Flow(s),veh/h/ln	0	1870	1362	0	1870	1485	0	1675	1547	1767	1609	0
Q Serve(g_s), s	0.0	0.0	17.2	0.0	0.0	0.0	0.0	23.6	13.7	16.6	10.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.2	0.0	0.0	0.0	0.0	23.6	13.7	16.6	10.2	0.0
Prop In Lane	0.00		1.00	0.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	346	504	0	346		0	2259	695	315	4414	0
V/C Ratio(X)	0.00	0.00	2.00	0.00	0.00		0.00	0.70	0.47	1.12	0.38	0.00
Avail Cap(c_a), veh/h	0	346	504	0	362		0	2259	695	315	4414	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.72	0.72	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	37.9	0.0	0.0	0.0	0.0	20.6	17.9	38.2	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	454.9	0.0	0.0	0.0	0.0	1.3	1.6	85.6	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	37.5	0.0	0.0	0.0	0.0	8.1	4.5	14.1	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	492.8	0.0	0.0	0.0	0.0	21.9	19.5	123.8	6.4	0.0
LnGrp LOS			F					C	B	F	A	
Approach Vol, veh/h		1005			0			1910			2016	
Approach Delay, s/veh		492.8			0.0			21.5			26.9	
Approach LOS		F						C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.0	48.0		23.0		70.0		23.0				
Change Period (Y+Rc), s	5.4	6.2		5.8		6.2		* 5.8				
Max Green Setting (Gmax), s	6.6	41.8		17.2		27.8		* 18				
Max Q Clear Time (g_c+I1), s	19.6	25.6		19.2		12.2		0.0				
Green Ext Time (p_c), s	0.0	10.1		0.0		9.3		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	119.8
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



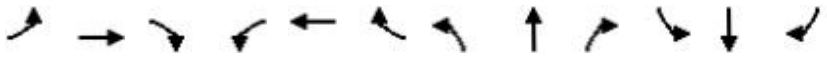
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	4	7	59	7	279	24	1396	137	328	1863	62
Future Volume (veh/h)	14	4	7	59	7	279	24	1396	137	328	1863	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1870	1693	1870	1870	1811	1841	1856	1826	1856	1856	1811
Adj Flow Rate, veh/h	27	8	13	74	0	355	27	1569	154	395	2245	75
Peak Hour Factor	0.52	0.52	0.52	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	14	2	14	2	2	6	4	3	5	3	3	6
Cap, veh/h	161	92	82	265	0	457	79	2174	664	503	2799	848
Arrive On Green	0.05	0.05	0.05	0.15	0.00	0.15	0.02	0.43	0.43	0.15	0.55	0.55
Sat Flow, veh/h	3127	1777	1585	1781	0	3070	3401	5066	1547	3428	5066	1535
Grp Volume(v), veh/h	27	8	13	74	0	355	27	1569	154	395	2245	75
Grp Sat Flow(s),veh/h/ln	1564	1777	1585	1781	0	1535	1700	1689	1547	1714	1689	1535
Q Serve(g_s), s	0.6	0.3	0.6	2.6	0.0	8.0	0.6	18.3	4.5	8.0	25.5	1.6
Cycle Q Clear(g_c), s	0.6	0.3	0.6	2.6	0.0	8.0	0.6	18.3	4.5	8.0	25.5	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	92	82	265	0	457	79	2174	664	503	2799	848
V/C Ratio(X)	0.17	0.09	0.16	0.28	0.00	0.78	0.34	0.72	0.23	0.79	0.80	0.09
Avail Cap(c_a), veh/h	1311	745	665	386	0	665	737	3576	1092	982	3576	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	32.3	32.4	27.0	0.0	29.3	34.4	16.9	12.9	29.4	12.9	7.5
Incr Delay (d2), s/veh	0.4	0.3	0.7	0.4	0.0	2.9	0.9	0.2	0.1	1.0	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.2	1.1	0.0	3.0	0.2	5.6	1.3	3.0	6.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	32.6	33.1	27.4	0.0	32.2	35.3	17.1	13.0	30.5	13.7	7.5
LnGrp LOS	C	C	C	C		C	D	B	B	C	B	A
Approach Vol, veh/h		48			429			1750			2715	
Approach Delay, s/veh		32.9			31.4			17.0			15.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	36.2		7.2	5.2	45.0		14.2				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		3.5				
Max Green Setting (Gmax), s	10.5	50.5		30.0	15.5	50.5		15.5				
Max Q Clear Time (g_c+I1), s	10.0	20.3		2.6	2.6	27.5		10.0				
Green Ext Time (p_c), s	0.5	8.0		0.1	0.0	12.1		0.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.8
HCM 7th LOS	B

Notes

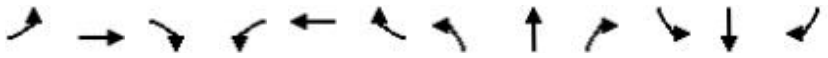
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	137	96	279	175	135	61	1223	267	63	1375	438
Future Volume (veh/h)	162	137	96	279	175	135	61	1223	267	63	1375	438
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1781	1722	1870	1841	1811	1826	1870	1870	1796	1870	1856
Adj Flow Rate, veh/h	219	185	130	324	203	157	75	1510	330	75	1637	521
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.81	0.81	0.81	0.84	0.84	0.84
Percent Heavy Veh, %	4	8	12	2	4	6	5	2	2	7	2	3
Cap, veh/h	672	441	190	694	457	200	161	2651	653	358	2184	672
Arrive On Green	0.11	0.13	0.13	0.11	0.13	0.13	0.09	0.41	0.41	0.11	0.43	0.43
Sat Flow, veh/h	3401	3385	1459	3456	3497	1535	1739	6434	1585	3319	5106	1572
Grp Volume(v), veh/h	219	185	130	324	203	157	75	1510	330	75	1637	521
Grp Sat Flow(s),veh/h/ln	1700	1692	1459	1728	1749	1535	1739	1609	1585	1659	1702	1572
Q Serve(g_s), s	4.9	4.7	7.9	7.3	5.0	9.2	3.8	16.7	14.3	1.9	25.0	26.3
Cycle Q Clear(g_c), s	4.9	4.7	7.9	7.3	5.0	9.2	3.8	16.7	14.3	1.9	25.0	26.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	672	441	190	694	457	200	161	2651	653	358	2184	672
V/C Ratio(X)	0.33	0.42	0.68	0.47	0.44	0.78	0.47	0.57	0.51	0.21	0.75	0.77
Avail Cap(c_a), veh/h	1407	2010	867	1067	2153	945	282	3196	787	896	2498	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	37.1	38.5	29.8	37.2	39.0	39.9	20.9	20.2	37.7	22.3	22.7
Incr Delay (d2), s/veh	0.1	0.2	1.6	0.2	0.3	2.5	0.8	0.2	0.6	0.1	1.1	4.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.9	2.7	2.8	2.0	3.4	1.6	5.5	4.7	0.7	8.8	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.0	37.3	40.1	30.0	37.4	41.5	40.6	21.1	20.8	37.8	23.4	27.0
LnGrp LOS	C	D	D	C	D	D	D	C	C	D	C	C
Approach Vol, veh/h		534			684			1915			2233	
Approach Delay, s/veh		34.6			34.8			21.8			24.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	43.8	16.0	17.8	13.5	45.3	16.0	17.8
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.0	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	13.3	18.7	9.3	9.9	5.8	28.3	6.9	11.2
Green Ext Time (p_c), s	0.1	12.9	0.3	0.9	0.0	11.3	0.2	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	26.0
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	4	16	14	4	7	36	1387	10	2	1338	386
Future Volume (veh/h)	168	4	16	14	4	7	36	1387	10	2	1338	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1811	1870	1870	1870	1870	1870	1752	1870	1856	1870
Adj Flow Rate, veh/h	266	0	0	20	6	10	44	1691	12	3	1784	515
Peak Hour Factor	0.70	0.70	0.70	0.69	0.69	0.69	0.82	0.82	0.82	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	6	2	2	2	2	2	10	2	3	2
Cap, veh/h	376	198	0	34	10	17	93	1915	800	124	1961	882
Arrive On Green	0.11	0.00	0.00	0.04	0.04	0.04	0.05	0.54	0.54	0.07	0.56	0.56
Sat Flow, veh/h	3563	1870	0	964	289	482	1781	3554	1485	1781	3526	1585
Grp Volume(v), veh/h	266	0	0	36	0	0	44	1691	12	3	1784	515
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1735	0	0	1781	1777	1485	1781	1763	1585
Q Serve(g_s), s	5.2	0.0	0.0	1.5	0.0	0.0	1.7	30.1	0.3	0.1	32.7	15.4
Cycle Q Clear(g_c), s	5.2	0.0	0.0	1.5	0.0	0.0	1.7	30.1	0.3	0.1	32.7	15.4
Prop In Lane	1.00		0.00	0.56		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	198	0	62	0	0	93	1915	800	124	1961	882
V/C Ratio(X)	0.71	0.00	0.00	0.58	0.00	0.00	0.47	0.88	0.02	0.02	0.91	0.58
Avail Cap(c_a), veh/h	1189	624	0	483	0	0	372	1977	826	297	1961	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	0.0	0.0	34.1	0.0	0.0	33.1	14.6	7.7	31.2	14.3	10.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	8.4	0.0	0.0	1.4	5.2	0.0	0.0	6.9	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	0.7	0.0	0.0	0.7	9.8	0.1	0.0	10.7	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.0	0.0	0.0	42.5	0.0	0.0	34.5	19.8	7.7	31.2	21.2	11.7
LnGrp LOS	C			D			C	B	A	C	C	B
Approach Vol, veh/h		266			36			1747			2302	
Approach Delay, s/veh		32.0			42.5			20.0			19.1	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	46.0		6.6	9.0	44.7		11.6				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		24.0				
Max Q Clear Time (g_c+I1), s	3.7	34.7		3.5	2.1	32.1		7.2				
Green Ext Time (p_c), s	0.0	5.0		0.1	0.0	6.6		0.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	20.5
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	37	10	36	1369	1267	110
Future Volume (veh/h)	37	10	36	1369	1267	110
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	64	17	46	1733	1624	141
Peak Hour Factor	0.58	0.58	0.79	0.79	0.78	0.78
Percent Heavy Veh, %	3	2	2	2	3	2
Cap, veh/h	115	103	82	2667	2224	1000
Arrive On Green	0.06	0.06	0.05	0.75	0.63	0.63
Sat Flow, veh/h	1767	1585	1781	3647	3618	1585
Grp Volume(v), veh/h	64	17	46	1733	1624	141
Grp Sat Flow(s),veh/h/ln	1767	1585	1781	1777	1763	1585
Q Serve(g_s), s	1.9	0.5	1.4	12.9	17.1	2.0
Cycle Q Clear(g_c), s	1.9	0.5	1.4	12.9	17.1	2.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	115	103	82	2667	2224	1000
V/C Ratio(X)	0.56	0.17	0.56	0.65	0.73	0.14
Avail Cap(c_a), veh/h	652	585	394	2667	2601	1169
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	24.0	25.3	3.3	6.9	4.1
Incr Delay (d2), s/veh	4.2	0.7	2.2	0.6	1.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.2	0.5	0.2	2.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.8	24.7	27.5	3.9	7.9	4.1
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	81			1779	1765	
Approach Delay, s/veh	27.9			4.5	7.6	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	46.7		6.5	40.2	7.5
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0		12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	14.9		3.4	19.1	3.9
Green Ext Time (p_c), s	17.7		0.0	15.1	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	6.6
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	34	8	45	90	10	3	0	9	10	0	1
Future Vol, veh/h	1	34	8	45	90	10	3	0	9	10	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	5	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	38	9	51	101	11	3	0	10	11	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	47	0	0	247	258	43	248	257	107
Stage 1	-	-	-	-	-	-	45	45	-	208	208	-
Stage 2	-	-	-	-	-	-	202	213	-	40	49	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1477	-	-	1560	-	-	706	646	1028	705	647	947
Stage 1	-	-	-	-	-	-	969	857	-	794	730	-
Stage 2	-	-	-	-	-	-	800	726	-	974	854	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1477	-	-	1560	-	-	681	623	1028	674	624	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	681	623	-	674	624	-
Stage 1	-	-	-	-	-	-	968	857	-	767	705	-
Stage 2	-	-	-	-	-	-	771	701	-	964	853	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.17	2.29	9.01	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	912	40	-	-	548	-	-	692
HCM Lane V/C Ratio	0.015	0.001	-	-	0.032	-	-	0.018
HCM Ctrl Dly (s/v)	9	7.4	0	-	7.4	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	0.1

Attachment C

Latrobe Storage
1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way

Existing (2025) Plus Project
Timing Plan: PM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	59	180	163	65	49	848	1190	198	36	929	218
Future Volume (veh/h)	184	59	180	163	65	49	848	1190	198	36	929	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1826	1870	1811	1870	1870	1870	1870	1870	1870	1841
Adj Flow Rate, veh/h	132	159	0	201	52	56	975	1368	228	40	1021	240
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	3	5	2	6	2	2	2	2	2	2	4
Cap, veh/h	205	214		384	86	93	1071	2455	762	124	1205	548
Arrive On Green	0.12	0.12	0.00	0.11	0.11	0.11	0.31	0.48	0.48	0.07	0.24	0.24
Sat Flow, veh/h	1781	1856	1547	3563	798	859	3456	5106	1585	1781	5106	1560
Grp Volume(v), veh/h	132	159	0	201	0	108	975	1368	228	40	1021	240
Grp Sat Flow(s),veh/h/ln	1781	1856	1547	1781	0	1656	1728	1702	1585	1781	1702	1560
Q Serve(g_s), s	6.6	7.7	0.0	4.9	0.0	5.8	25.1	17.6	8.1	2.0	17.7	10.9
Cycle Q Clear(g_c), s	6.6	7.7	0.0	4.9	0.0	5.8	25.1	17.6	8.1	2.0	17.7	10.9
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	214		384	0	179	1071	2455	762	124	1205	548
V/C Ratio(X)	0.64	0.74		0.52	0.00	0.60	0.91	0.56	0.30	0.32	0.85	0.44
Avail Cap(c_a), veh/h	594	619		512	0	238	1403	3539	1099	204	2051	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	39.7	0.0	39.1	0.0	39.4	30.7	17.0	14.6	41.0	33.8	23.1
Incr Delay (d2), s/veh	2.5	3.8	0.0	0.4	0.0	1.2	6.4	0.1	0.1	0.6	0.7	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.7	0.0	2.2	0.0	2.4	10.3	5.8	2.5	0.8	6.7	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.7	43.5	0.0	39.5	0.0	40.7	37.2	17.1	14.7	41.6	34.5	23.3
LnGrp LOS	D	D		D		D	D	B	B	D	C	C
Approach Vol, veh/h		291			309			2571			1301	
Approach Delay, s/veh		42.7			39.9			24.5			32.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	50.3		15.8	34.5	27.7		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		30.9	37.6	* 37		13.3				
Max Q Clear Time (g_c+I1), s	4.0	19.6		9.7	27.1	19.7		7.8				
Green Ext Time (p_c), s	0.0	3.2		1.0	1.6	2.2		0.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	29.1
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



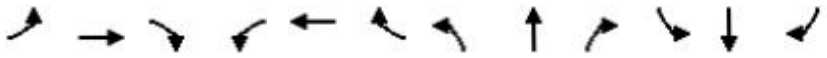
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	721	0	0	501	0	1689	380	285	1004	0
Future Volume (veh/h)	0	0	721	0	0	501	0	1689	380	285	1004	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	0	775	0	0	0	0	1816	409	306	1080	0
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	0	2	2	0	2	2	2	2	0
Cap, veh/h	0	362	540	0	362		0	2322	721	318	4448	0
Arrive On Green	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.45	0.45	0.18	0.69	0.00
Sat Flow, veh/h	0	1870	2790	0	1870	1585	0	5274	1585	1781	6696	0
Grp Volume(v), veh/h	0	0	775	0	0	0	0	1816	409	306	1080	0
Grp Sat Flow(s),veh/h/ln	0	1870	1395	0	1870	1585	0	1702	1585	1781	1609	0
Q Serve(g_s), s	0.0	0.0	18.0	0.0	0.0	0.0	0.0	28.0	17.6	15.8	5.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	18.0	0.0	0.0	0.0	0.0	28.0	17.6	15.8	5.8	0.0
Prop In Lane	0.00		1.00	0.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	362	540	0	362		0	2322	721	318	4448	0
V/C Ratio(X)	0.00	0.00	1.44	0.00	0.00		0.00	0.78	0.57	0.96	0.24	0.00
Avail Cap(c_a), veh/h	0	362	540	0	362		0	2322	721	318	4448	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.50	0.50	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	37.5	0.0	0.0	0.0	0.0	21.4	18.6	37.9	5.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	206.3	0.0	0.0	0.0	0.0	1.4	1.6	40.3	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	21.5	0.0	0.0	0.0	0.0	9.8	5.9	9.9	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	243.8	0.0	0.0	0.0	0.0	22.8	20.2	78.2	5.5	0.0
LnGrp LOS			F					C	C	E	A	
Approach Vol, veh/h		775			0			2225			1386	
Approach Delay, s/veh		243.8			0.0			22.3			21.5	
Approach LOS		F						C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.0	48.5		22.5		70.5		22.5				
Change Period (Y+Rc), s	5.4	6.2		4.5		6.2		4.5				
Max Green Setting (Gmax), s	6.6	41.8		18.0		20.8		18.0				
Max Q Clear Time (g_c+I1), s	7.8	30.0		20.0		7.8		0.0				
Green Ext Time (p_c), s	0.0	9.0		0.0		5.4		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	61.2
HCM 7th LOS	E

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	8	27	98	4	612	7	1417	150	484	1226	20
Future Volume (veh/h)	49	8	27	98	4	612	7	1417	150	484	1226	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	15	49	110	0	691	9	1794	190	509	1291	21
Peak Hour Factor	0.55	0.55	0.55	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	106	95	334	0	594	31	2130	661	582	2945	914
Arrive On Green	0.06	0.06	0.06	0.19	0.00	0.19	0.01	0.42	0.42	0.17	0.58	0.58
Sat Flow, veh/h	3456	1777	1585	1781	0	3170	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	89	15	49	110	0	691	9	1794	190	509	1291	21
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	0	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	2.5	0.8	3.0	5.3	0.0	18.5	0.3	31.2	7.8	14.2	14.1	0.6
Cycle Q Clear(g_c), s	2.5	0.8	3.0	5.3	0.0	18.5	0.3	31.2	7.8	14.2	14.1	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	106	95	334	0	594	31	2130	661	582	2945	914
V/C Ratio(X)	0.43	0.14	0.52	0.33	0.00	1.16	0.29	0.84	0.29	0.87	0.44	0.02
Avail Cap(c_a), veh/h	1050	540	482	334	0	594	543	2612	811	718	2945	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	44.0	45.0	34.7	0.0	40.1	48.6	25.9	19.1	40.0	11.8	9.0
Incr Delay (d2), s/veh	1.0	0.4	3.2	0.6	0.0	90.9	2.0	1.9	0.1	8.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.4	1.3	2.4	0.0	14.7	0.1	11.4	2.6	6.3	4.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	44.4	48.2	35.3	0.0	131.0	50.6	27.7	19.1	48.7	11.9	9.0
LnGrp LOS	D	D	D	D		F	D	C	B	D	B	A
Approach Vol, veh/h		153			801			1993			1821	
Approach Delay, s/veh		46.5			117.9			27.0			22.1	
Approach LOS		D			F			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.1	46.7		9.4	4.4	62.4		22.5				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		4.0				
Max Green Setting (Gmax), s	20.5	50.5		30.0	15.5	50.5		18.5				
Max Q Clear Time (g_c+I1), s	16.2	33.2		5.0	2.3	16.1		20.5				
Green Ext Time (p_c), s	0.5	8.0		0.5	0.0	5.9		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	41.0
HCM 7th LOS	D

Notes

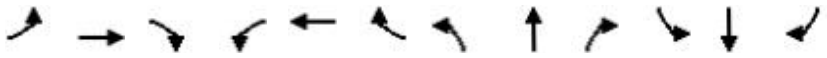
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	245	56	131	283	157	60	1150	360	214	822	317
Future Volume (veh/h)	289	245	56	131	283	157	60	1150	360	214	822	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	295	67	142	308	171	79	1513	474	240	924	356
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.76	0.76	0.76	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	3	2	2	2	2	2	2
Cap, veh/h	638	506	226	654	499	221	167	2587	637	371	2124	659
Arrive On Green	0.11	0.14	0.14	0.11	0.14	0.14	0.09	0.40	0.40	0.11	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	3554	1572	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	348	295	67	142	308	171	79	1513	474	240	924	356
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1572	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	7.8	7.2	3.5	3.0	7.6	9.8	3.9	17.1	23.7	6.2	12.0	15.7
Cycle Q Clear(g_c), s	7.8	7.2	3.5	3.0	7.6	9.8	3.9	17.1	23.7	6.2	12.0	15.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	638	506	226	654	499	221	167	2587	637	371	2124	659
V/C Ratio(X)	0.55	0.58	0.30	0.22	0.62	0.77	0.47	0.58	0.74	0.65	0.43	0.54
Avail Cap(c_a), veh/h	1373	2099	936	1025	2176	963	287	3179	783	928	2484	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	37.3	35.7	27.8	37.7	38.6	40.0	21.8	23.7	39.9	19.4	20.5
Incr Delay (d2), s/veh	0.3	0.4	0.3	0.1	0.5	2.2	0.8	0.2	3.0	0.7	0.1	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.0	1.3	1.1	3.1	3.6	1.6	5.7	8.3	2.5	4.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.8	37.7	36.0	27.8	38.1	40.8	40.8	22.0	26.8	40.6	19.5	21.2
LnGrp LOS	C	D	D	C	D	D	D	C	C	D	B	C
Approach Vol, veh/h		710			621			2066			1520	
Approach Delay, s/veh		33.7			36.5			23.8			23.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	43.1	16.0	19.0	13.7	44.4	16.2	18.8
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.0	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	11.8	25.7	5.0	9.2	5.9	17.7	9.8	11.8
Green Ext Time (p_c), s	0.2	11.7	0.1	1.2	0.0	7.6	0.4	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	26.7
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	458	4	19	3	3	7	11	1053	9	12	885	175
Future Volume (veh/h)	458	4	19	3	3	7	11	1053	9	12	885	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	613	0	0	6	6	13	14	1368	12	14	1041	206
Peak Hour Factor	0.78	0.78	0.78	0.54	0.54	0.54	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	757	397	0	11	11	23	66	1615	720	109	1702	759
Arrive On Green	0.21	0.00	0.00	0.03	0.03	0.03	0.04	0.45	0.45	0.06	0.48	0.48
Sat Flow, veh/h	3563	1870	0	406	406	880	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	613	0	0	25	0	0	14	1368	12	14	1041	206
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1692	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.3	0.0	0.0	1.2	0.0	0.0	0.6	27.8	0.3	0.6	17.6	6.3
Cycle Q Clear(g_c), s	13.3	0.0	0.0	1.2	0.0	0.0	0.6	27.8	0.3	0.6	17.6	6.3
Prop In Lane	1.00		0.00	0.24		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	757	397	0	45	0	0	66	1615	720	109	1702	759
V/C Ratio(X)	0.81	0.00	0.00	0.56	0.00	0.00	0.21	0.85	0.02	0.13	0.61	0.27
Avail Cap(c_a), veh/h	961	505	0	415	0	0	328	1743	778	262	1743	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	0.0	39.2	0.0	0.0	38.1	19.7	12.2	36.2	15.7	12.7
Incr Delay (d2), s/veh	4.8	0.0	0.0	10.4	0.0	0.0	0.6	4.1	0.0	0.2	0.7	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	0.0	0.6	0.0	0.0	0.3	10.2	0.1	0.2	5.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.3	0.0	0.0	49.6	0.0	0.0	38.7	23.8	12.2	36.4	16.4	13.0
LnGrp LOS	D			D			D	C	B	D	B	B
Approach Vol, veh/h		613			25			1394			1261	
Approach Delay, s/veh		35.3			49.6			23.9			16.1	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	45.1		6.2	9.0	43.1		23.3				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		22.0				
Max Q Clear Time (g_c+I1), s	2.6	19.6		3.2	2.6	29.8		15.3				
Green Ext Time (p_c), s	0.0	10.0		0.1	0.0	7.2		2.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	23.2
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	127	16	5	1006	867	50
Future Volume (veh/h)	127	16	5	1006	867	50
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	20	6	1242	953	55
Peak Hour Factor	0.81	0.81	0.81	0.81	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	223	198	14	2176	1774	791
Arrive On Green	0.12	0.12	0.01	0.61	0.50	0.50
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	157	20	6	1242	953	55
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	3.2	0.4	0.1	7.9	7.0	0.7
Cycle Q Clear(g_c), s	3.2	0.4	0.1	7.9	7.0	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	223	198	14	2176	1774	791
V/C Ratio(X)	0.71	0.10	0.42	0.57	0.54	0.07
Avail Cap(c_a), veh/h	936	833	562	3734	3734	1666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	14.8	18.8	4.4	6.5	4.9
Incr Delay (d2), s/veh	4.1	0.2	7.0	0.3	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.1	0.2	0.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.0	15.0	25.8	4.7	6.9	5.0
LnGrp LOS	C	B	C	A	A	A
Approach Vol, veh/h	177			1248	1008	
Approach Delay, s/veh	19.5			4.8	6.8	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	29.3		4.3	25.0	8.8
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0		12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	9.9		2.1	9.0	5.2
Green Ext Time (p_c), s	13.4		0.0	10.0	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	6.7
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	86	1	4	26	18	5	0	52	17	0	2
Future Vol, veh/h	2	86	1	4	26	18	5	0	52	17	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	110	1	5	33	23	6	0	67	22	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	112	0	0	160	183	111	171	172	45
Stage 1	-	-	-	-	-	-	116	116	-	55	55	-
Stage 2	-	-	-	-	-	-	44	67	-	115	117	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1548	-	-	1478	-	-	806	711	942	793	721	1025
Stage 1	-	-	-	-	-	-	889	800	-	957	849	-
Stage 2	-	-	-	-	-	-	971	839	-	889	799	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1548	-	-	1478	-	-	800	708	942	733	717	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	800	708	-	733	717	-
Stage 1	-	-	-	-	-	-	887	798	-	954	846	-
Stage 2	-	-	-	-	-	-	965	836	-	825	798	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.16	0.62	9.21	9.92
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	928	40	-	-	139	-	-	756
HCM Lane V/C Ratio	0.079	0.002	-	-	0.003	-	-	0.032
HCM Ctrl Dly (s/v)	9.2	7.3	0	-	7.4	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing 2025 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1825	Heavy Vehicle Adjustment Factor (f_{HV})	0.946
Peak Hour Factor	0.89	Flow Rate (V_p), pc/h/ln	1084
Total Trucks, %	2.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.49

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	18.1
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1637	Heavy Vehicle Adjustment Factor (f_{HV})	0.957
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	972
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.44
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	16.2
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing Plus Project 2025
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1430	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.86	Flow Rate (V_p), pc/h/ln	877
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.6
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1411	Heavy Vehicle Adjustment Factor (f_{HV})	0.953
Peak Hour Factor	0.84	Flow Rate (V_p), pc/h/ln	882
Total Trucks, %	3.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing 2025 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	2046	Heavy Vehicle Adjustment Factor (f_{HV})	0.955
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	1290
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.59

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	21.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	886	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.97	Flow Rate (V_p), pc/h/ln	474
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.22
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	7.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Existing 2025 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1117	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	710
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.32

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	11.8
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	925	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.98	Flow Rate (V_p), pc/h/ln	492
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.22
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.2
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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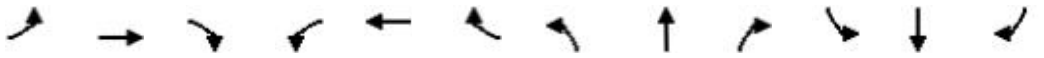
Appendix E

Analysis Worksheets for
Near-Term (2035) Conditions

Attachment C

Latrobe Storage — Near Term (2035)

1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: AM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	35	520	65	60	35	850	885	130	20	1070	565
Future Volume (veh/h)	195	35	520	65	60	35	850	885	130	20	1070	565
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1856	1870	1811	1870	1663	1856	1811	1796	1826	1870	1870
Adj Flow Rate, veh/h	285	0	0	67	95	44	1012	1054	155	22	1189	628
Peak Hour Factor	0.77	0.77	0.77	0.80	0.80	0.80	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %	4	3	2	6	2	16	3	6	7	5	2	2
Cap, veh/h	358	0		148	212	93	1084	2904	894	76	1591	656
Arrive On Green	0.10	0.00	0.00	0.09	0.09	0.09	0.32	0.59	0.59	0.04	0.31	0.31
Sat Flow, veh/h	3506	0	1585	1725	2469	1078	3428	4944	1522	1739	5106	1585
Grp Volume(v), veh/h	285	0	0	67	71	68	1012	1054	155	22	1189	628
Grp Sat Flow(s),veh/h/ln	1753	0	1585	1725	1870	1676	1714	1648	1522	1739	1702	1585
Q Serve(g_s), s	9.2	0.0	0.0	4.3	4.2	4.5	33.3	13.0	5.4	1.4	24.3	36.2
Cycle Q Clear(g_c), s	9.2	0.0	0.0	4.3	4.2	4.5	33.3	13.0	5.4	1.4	24.3	36.2
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	0		148	161	144	1084	2904	894	76	1591	656
V/C Ratio(X)	0.80	0.00		0.45	0.44	0.48	0.93	0.36	0.17	0.29	0.75	0.96
Avail Cap(c_a), veh/h	751	0		301	327	293	1257	2904	894	159	1591	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	0.0	0.0	50.5	50.4	50.6	38.5	12.6	11.0	53.8	35.9	30.6
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.8	0.7	0.9	11.0	0.0	0.0	0.8	1.8	24.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	0.0	1.9	2.0	2.0	14.6	4.2	1.6	0.6	9.7	22.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.0	0.0	0.0	51.3	51.1	51.5	49.5	12.6	11.0	54.6	37.7	55.4
LnGrp LOS	D			D	D	D	D	B	B	D	D	E
Approach Vol, veh/h		285			206			2221			1839	
Approach Delay, s/veh		54.0			51.3			29.3			43.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	74.0		17.0	42.5	42.0		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		24.9	42.6	* 36		20.3				
Max Q Clear Time (g_c+I1), s	3.4	15.0		11.2	35.3	38.2		6.5				
Green Ext Time (p_c), s	0.0	2.3		0.6	1.5	0.0		0.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	37.8
HCM 7th LOS	D

Notes

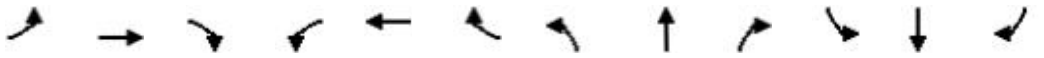
User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

Latrobe Storage — Near Term (2035)
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: AM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	940	0	0	305	0	1405	290	295	1380	0
Future Volume (vph)	0	0	940	0	0	305	0	1405	290	295	1380	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2707			1494		4988	1538	1752	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2707			1494		4988	1538	1752	6408	
Peak-hour factor, PHF	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Adj. Flow (vph)	0	0	1093	0	0	381	0	1579	326	355	1663	0
RTOR Reduction (vph)	0	0	26	0	0	0	0	0	60	0	0	0
Lane Group Flow (vph)	0	0	1067	0	0	381	0	1579	266	355	1663	0
Heavy Vehicles (%)	2%	2%	5%	2%	2%	10%	2%	4%	5%	3%	2%	2%
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			33.4			70.0		42.3	42.3	16.1	24.6	
Effective Green, g (s)			33.4			70.0		42.3	42.3	16.1	24.6	
Actuated g/C Ratio			0.48			1.00		0.60	0.60	0.23	0.35	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1291			1494		3014	929	402	2251	
v/s Ratio Prot			c0.39					0.32		0.20	c0.26	
v/s Ratio Perm						0.26			0.17			
v/c Ratio			0.83			0.26		0.52	0.29	0.88	0.74	
Uniform Delay, d1			15.8			0.0		8.0	6.6	26.0	19.9	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			4.5			0.4		0.7	0.8	19.8	2.2	
Delay (s)			20.3			0.4		8.7	7.4	45.9	22.1	
Level of Service			C			A		A	A	D	C	
Approach Delay (s/veh)		20.3			0.4			8.5			26.3	
Approach LOS		C			A			A			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	15	25	100	10	280	40	1390	145	330	1860	115
Future Volume (veh/h)	100	15	25	100	10	280	40	1390	145	330	1860	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1870	1693	1870	1870	1811	1841	1856	1826	1856	1856	1811
Adj Flow Rate, veh/h	192	29	48	125	0	358	45	1562	163	398	2241	139
Peak Hour Factor	0.52	0.52	0.52	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	14	2	14	2	2	6	4	3	5	3	3	6
Cap, veh/h	296	168	150	260	0	448	107	2117	647	493	2685	814
Arrive On Green	0.09	0.09	0.09	0.15	0.00	0.15	0.03	0.42	0.42	0.14	0.53	0.53
Sat Flow, veh/h	3127	1777	1585	1781	0	3070	3401	5066	1547	3428	5066	1535
Grp Volume(v), veh/h	192	29	48	125	0	358	45	1562	163	398	2241	139
Grp Sat Flow(s),veh/h/ln	1564	1777	1585	1781	0	1535	1700	1689	1547	1714	1689	1535
Q Serve(g_s), s	4.8	1.2	2.3	5.2	0.0	9.1	1.0	21.0	5.5	9.1	30.1	3.8
Cycle Q Clear(g_c), s	4.8	1.2	2.3	5.2	0.0	9.1	1.0	21.0	5.5	9.1	30.1	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	296	168	150	260	0	448	107	2117	647	493	2685	814
V/C Ratio(X)	0.65	0.17	0.32	0.48	0.00	0.80	0.42	0.74	0.25	0.81	0.83	0.17
Avail Cap(c_a), veh/h	1161	660	588	342	0	589	652	3166	967	870	3166	959
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	33.7	34.2	31.7	0.0	33.4	38.4	19.8	15.3	33.5	16.0	9.8
Incr Delay (d2), s/veh	1.8	0.4	0.9	1.0	0.0	5.2	1.0	0.2	0.1	1.2	1.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.5	0.9	2.3	0.0	3.7	0.4	6.8	1.7	3.5	9.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.1	34.0	35.1	32.7	0.0	38.6	39.4	20.0	15.4	34.7	17.5	9.8
LnGrp LOS	D	C	D	C		D	D	B	B	C	B	A
Approach Vol, veh/h		269			483			1770			2778	
Approach Delay, s/veh		36.4			37.1			20.1			19.6	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.1	39.3		11.1	6.0	48.3		15.3				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		3.5				
Max Green Setting (Gmax), s	20.5	50.5		30.0	15.5	50.5		15.5				
Max Q Clear Time (g_c+I1), s	11.1	23.0		6.8	3.0	32.1		11.1				
Green Ext Time (p_c), s	0.5	7.8		0.9	0.0	10.7		0.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.2
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	180	95	320	200	255	60	1220	315	145	1370	465
Future Volume (veh/h)	165	180	95	320	200	255	60	1220	315	145	1370	465
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1781	1722	1870	1841	1811	1826	1870	1870	1796	1870	1856
Adj Flow Rate, veh/h	223	243	128	372	233	297	74	1506	389	173	1631	554
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.81	0.81	0.81	0.84	0.84	0.84
Percent Heavy Veh, %	4	8	12	2	4	6	5	2	2	7	2	3
Cap, veh/h	716	694	299	776	761	334	143	2521	621	306	2051	632
Arrive On Green	0.09	0.21	0.21	0.10	0.22	0.22	0.08	0.39	0.39	0.09	0.40	0.40
Sat Flow, veh/h	3401	3385	1459	3456	3497	1535	1739	6434	1585	3319	5106	1572
Grp Volume(v), veh/h	223	243	128	372	233	297	74	1506	389	173	1631	554
Grp Sat Flow(s),veh/h/ln	1700	1692	1459	1728	1749	1535	1739	1609	1585	1659	1702	1572
Q Serve(g_s), s	5.4	6.7	8.3	9.0	6.1	20.4	4.4	20.2	21.5	5.4	30.5	35.3
Cycle Q Clear(g_c), s	5.4	6.7	8.3	9.0	6.1	20.4	4.4	20.2	21.5	5.4	30.5	35.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	716	694	299	776	761	334	143	2521	621	306	2051	632
V/C Ratio(X)	0.31	0.35	0.43	0.48	0.31	0.89	0.52	0.60	0.63	0.57	0.80	0.88
Avail Cap(c_a), veh/h	1343	1715	740	1051	1837	806	240	2727	672	765	2132	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	36.9	37.6	29.2	35.6	41.2	47.7	26.2	26.6	47.2	28.5	30.0
Incr Delay (d2), s/veh	0.1	0.1	0.4	0.2	0.1	3.3	1.1	0.3	1.6	0.6	2.1	12.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.7	2.8	3.5	2.5	7.5	1.9	7.1	7.7	2.2	11.6	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.9	37.0	37.9	29.4	35.7	44.4	48.8	26.5	28.2	47.8	30.6	42.5
LnGrp LOS	C	D	D	C	D	D	D	C	C	D	C	D
Approach Vol, veh/h		594			902			1969			2358	
Approach Delay, s/veh		34.2			36.0			27.7			34.7	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	48.2	17.3	28.0	13.9	49.3	16.0	29.3
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.0	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	7.4	23.5	11.0	10.3	6.4	37.3	7.4	22.4
Green Ext Time (p_c), s	0.2	12.0	0.3	1.1	0.0	6.3	0.2	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	32.5
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	5	25	15	5	10	55	1380	10	5	1330	390
Future Volume (veh/h)	170	5	25	15	5	10	55	1380	10	5	1330	390
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1811	1870	1870	1870	1870	1870	1752	1870	1856	1870
Adj Flow Rate, veh/h	282	0	0	22	7	14	67	1683	12	7	1773	520
Peak Hour Factor	0.70	0.70	0.70	0.69	0.69	0.69	0.82	0.82	0.82	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	6	2	2	2	2	2	10	2	3	2
Cap, veh/h	391	205	0	35	11	22	115	1910	798	121	1908	858
Arrive On Green	0.11	0.00	0.00	0.04	0.04	0.04	0.06	0.54	0.54	0.07	0.54	0.54
Sat Flow, veh/h	3563	1870	0	883	281	562	1781	3554	1485	1781	3526	1585
Grp Volume(v), veh/h	282	0	0	43	0	0	67	1683	12	7	1773	520
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1725	0	0	1781	1777	1485	1781	1763	1585
Q Serve(g_s), s	5.6	0.0	0.0	1.8	0.0	0.0	2.7	30.6	0.3	0.3	34.1	16.5
Cycle Q Clear(g_c), s	5.6	0.0	0.0	1.8	0.0	0.0	2.7	30.6	0.3	0.3	34.1	16.5
Prop In Lane	1.00		0.00	0.51		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	391	205	0	69	0	0	115	1910	798	121	1908	858
V/C Ratio(X)	0.72	0.00	0.00	0.63	0.00	0.00	0.59	0.88	0.02	0.06	0.93	0.61
Avail Cap(c_a), veh/h	1163	611	0	469	0	0	364	1934	808	291	1919	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	0.0	0.0	34.7	0.0	0.0	33.4	14.9	7.9	32.0	15.6	11.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	9.0	0.0	0.0	1.8	5.2	0.0	0.1	8.7	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	0.9	0.0	0.0	1.1	10.1	0.1	0.1	11.9	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.6	0.0	0.0	43.8	0.0	0.0	35.2	20.2	7.9	32.1	24.3	13.0
LnGrp LOS	C			D			D	C	A	C	C	B
Approach Vol, veh/h		282			43			1762			2300	
Approach Delay, s/veh		32.6			43.8			20.6			21.7	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	45.8		6.9	9.0	45.5		12.1				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		24.0				
Max Q Clear Time (g_c+I1), s	4.7	36.1		3.8	2.3	32.6		7.6				
Green Ext Time (p_c), s	0.0	3.7		0.1	0.0	6.3		0.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.2
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	10	35	1370	1270	115
Future Volume (veh/h)	35	10	35	1370	1270	115
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	60	17	44	1734	1628	147
Peak Hour Factor	0.58	0.58	0.79	0.79	0.78	0.78
Percent Heavy Veh, %	3	2	2	2	3	2
Cap, veh/h	112	100	80	2671	2232	1003
Arrive On Green	0.06	0.06	0.04	0.75	0.63	0.63
Sat Flow, veh/h	1767	1585	1781	3647	3618	1585
Grp Volume(v), veh/h	60	17	44	1734	1628	147
Grp Sat Flow(s),veh/h/ln	1767	1585	1781	1777	1763	1585
Q Serve(g_s), s	1.8	0.5	1.3	12.8	17.0	2.0
Cycle Q Clear(g_c), s	1.8	0.5	1.3	12.8	17.0	2.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	112	100	80	2671	2232	1003
V/C Ratio(X)	0.54	0.17	0.55	0.65	0.73	0.15
Avail Cap(c_a), veh/h	654	586	395	2671	2608	1173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	24.0	25.3	3.3	6.8	4.0
Incr Delay (d2), s/veh	3.9	0.8	2.2	0.6	1.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.2	0.5	0.2	2.6	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.5	24.8	27.5	3.9	7.8	4.1
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	77			1778	1775	
Approach Delay, s/veh	27.7			4.5	7.5	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	46.6		6.4	40.2	7.4
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0		12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	14.8		3.3	19.0	3.8
Green Ext Time (p_c), s	17.8		0.0	15.2	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	6.4
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	35	10	45	90	0	5	0	10	0	0	0
Future Vol, veh/h	0	35	10	45	90	0	5	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	5	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	39	11	51	101	0	6	0	11	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	51	0	0	247	247	45	242	253	101
Stage 1	-	-	-	-	-	-	45	45	-	202	202	-
Stage 2	-	-	-	-	-	-	202	202	-	39	51	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1491	-	-	1556	-	-	706	655	1025	712	651	954
Stage 1	-	-	-	-	-	-	969	857	-	800	734	-
Stage 2	-	-	-	-	-	-	800	734	-	976	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1491	-	-	1556	-	-	682	633	1025	680	628	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	682	633	-	680	628	-
Stage 1	-	-	-	-	-	-	969	857	-	772	709	-
Stage 2	-	-	-	-	-	-	772	709	-	965	853	-

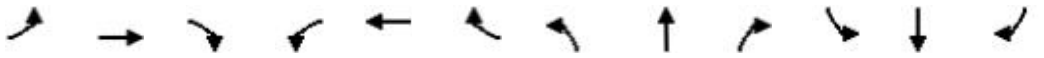
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.46	9.18	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	878	1491	-	-	600	-	-	-
HCM Lane V/C Ratio	0.019	-	-	-	0.032	-	-	-
HCM Ctrl Dly (s/v)	9.2	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-

Attachment C

Latrobe Storage — Near Term (2035)

1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	60	180	165	80	50	1075	1185	200	40	925	230
Future Volume (veh/h)	185	60	180	165	80	50	1075	1185	200	40	925	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1826	1870	1811	1870	1870	1870	1870	1870	1870	1841
Adj Flow Rate, veh/h	133	160	0	219	48	57	1236	1362	230	44	1016	253
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	3	5	2	6	2	2	2	2	2	2	4
Cap, veh/h	200	208		339	72	85	1238	2673	830	123	1176	534
Arrive On Green	0.11	0.11	0.00	0.10	0.10	0.10	0.36	0.52	0.52	0.07	0.23	0.23
Sat Flow, veh/h	1781	1856	1547	3563	754	896	3456	5106	1585	1781	5106	1560
Grp Volume(v), veh/h	133	160	0	219	0	105	1236	1362	230	44	1016	253
Grp Sat Flow(s),veh/h/ln	1781	1856	1547	1781	0	1650	1728	1702	1585	1781	1702	1560
Q Serve(g_s), s	7.5	8.8	0.0	6.2	0.0	6.5	37.5	18.2	8.5	2.5	20.1	13.4
Cycle Q Clear(g_c), s	7.5	8.8	0.0	6.2	0.0	6.5	37.5	18.2	8.5	2.5	20.1	13.4
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	208		339	0	157	1238	2673	830	123	1176	534
V/C Ratio(X)	0.67	0.77		0.65	0.00	0.67	1.00	0.51	0.28	0.36	0.86	0.47
Avail Cap(c_a), veh/h	524	546		451	0	209	1238	3124	970	180	1810	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	45.3	0.0	45.8	0.0	45.9	33.6	16.2	13.9	46.6	38.8	27.1
Incr Delay (d2), s/veh	2.8	4.4	0.0	0.8	0.0	1.9	25.1	0.1	0.1	0.7	1.8	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.3	0.0	2.8	0.0	2.7	18.5	6.1	2.7	1.1	8.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.5	49.7	0.0	46.5	0.0	47.8	58.8	16.3	14.0	47.3	40.6	27.3
LnGrp LOS	D	D		D		D	E	B	B	D	D	C
Approach Vol, veh/h		293			324			2828			1313	
Approach Delay, s/veh		48.7			46.9			34.7			38.3	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	60.7		16.9	43.4	30.0		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		30.9	37.6	* 37		13.3				
Max Q Clear Time (g_c+I1), s	4.5	20.2		10.8	39.5	22.1		8.5				
Green Ext Time (p_c), s	0.0	3.2		1.0	0.0	2.1		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh	37.4	
HCM 7th LOS	D	

Notes

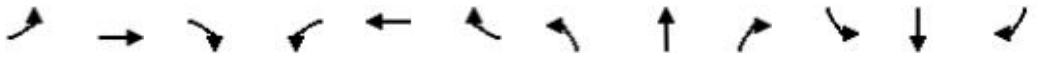
User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

Latrobe Storage — Near Term (2035)
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	720	0	0	505	0	1725	380	285	1000	0
Future Volume (vph)	0	0	720	0	0	505	0	1725	380	285	1000	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	774	0	0	594	0	1855	409	306	1075	0
RTOR Reduction (vph)	0	0	74	0	0	0	0	0	77	0	0	0
Lane Group Flow (vph)	0	0	700	0	0	594	0	1855	332	306	1075	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			21.2			70.0		43.1	43.1	15.3	36.8	
Effective Green, g (s)			21.2			70.0		43.1	43.1	15.3	36.8	
Actuated g/C Ratio			0.30			1.00		0.62	0.62	0.22	0.53	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			844			1611		3130	974	386	3368	
v/s Ratio Prot			c0.25					c0.36		0.17	0.17	
v/s Ratio Perm						0.37			0.21			
v/c Ratio			0.83			0.37		0.59	0.34	0.79	0.32	
Uniform Delay, d1			22.7			0.0		8.1	6.5	25.9	9.5	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			6.8			0.7		0.8	1.0	10.7	0.3	
Delay (s)			29.5			0.7		9.0	7.5	36.5	9.7	
Level of Service			C			A		A	A	D	A	
Approach Delay (s/veh)		29.5			0.7			8.7			15.6	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	20	45	115	20	615	30	1410	205	500	1215	105
Future Volume (veh/h)	115	20	45	115	20	615	30	1410	205	500	1215	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	36	82	129	0	706	38	1785	259	526	1279	111
Peak Hour Factor	0.55	0.55	0.55	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	305	157	140	313	0	557	88	2085	647	591	2828	878
Arrive On Green	0.09	0.09	0.09	0.18	0.00	0.18	0.03	0.41	0.41	0.17	0.55	0.55
Sat Flow, veh/h	3456	1777	1585	1781	0	3170	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	209	36	82	129	0	706	38	1785	259	526	1279	111
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	0	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	6.2	2.0	5.2	6.8	0.0	18.5	1.1	33.5	12.2	15.7	15.7	3.5
Cycle Q Clear(g_c), s	6.2	2.0	5.2	6.8	0.0	18.5	1.1	33.5	12.2	15.7	15.7	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	157	140	313	0	557	88	2085	647	591	2828	878
V/C Ratio(X)	0.68	0.23	0.59	0.41	0.00	1.27	0.43	0.86	0.40	0.89	0.45	0.13
Avail Cap(c_a), veh/h	984	506	451	313	0	557	508	2448	760	672	2828	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	44.7	46.2	38.6	0.0	43.4	50.6	28.4	22.0	42.7	14.0	11.3
Incr Delay (d2), s/veh	2.0	0.5	2.9	0.9	0.0	134.4	1.2	2.5	0.1	11.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.9	2.2	3.1	0.0	17.6	0.5	12.6	4.1	7.3	5.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.6	45.2	49.0	39.5	0.0	177.8	51.8	30.8	22.2	54.5	14.0	11.3
LnGrp LOS	D	D	D	D		F	D	C	C	D	B	B
Approach Vol, veh/h		327			835			2082			1916	
Approach Delay, s/veh		48.3			156.5			30.1			25.0	
Approach LOS		D			F			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.5	48.5		12.8	6.2	63.9		22.5				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		4.0				
Max Green Setting (Gmax), s	20.5	50.5		30.0	15.5	50.5		18.5				
Max Q Clear Time (g_c+I1), s	17.7	35.5		8.2	3.1	17.7		20.5				
Green Ext Time (p_c), s	0.4	7.5		1.1	0.0	6.0		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	49.8
HCM 7th LOS	D

Notes

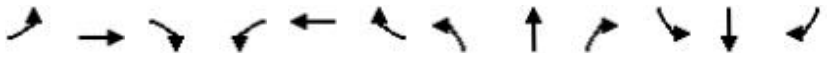
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	330	60	190	340	295	65	1140	430	345	810	320
Future Volume (veh/h)	315	330	60	190	340	295	65	1140	430	345	810	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	380	398	72	207	370	321	86	1500	566	388	910	360
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.76	0.76	0.76	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	3	2	2	2	2	2	2
Cap, veh/h	668	891	397	667	810	358	134	2343	577	445	2132	662
Arrive On Green	0.10	0.25	0.25	0.08	0.23	0.23	0.08	0.36	0.36	0.13	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	3554	1572	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	380	398	72	207	370	321	86	1500	566	388	910	360
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1572	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	10.5	11.9	4.5	5.6	11.3	25.0	5.9	24.4	44.6	13.9	16.0	21.6
Cycle Q Clear(g_c), s	10.5	11.9	4.5	5.6	11.3	25.0	5.9	24.4	44.6	13.9	16.0	21.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	668	891	397	667	810	358	134	2343	577	445	2132	662
V/C Ratio(X)	0.57	0.45	0.18	0.31	0.46	0.90	0.64	0.64	0.98	0.87	0.43	0.54
Avail Cap(c_a), veh/h	1137	1547	690	941	1604	710	212	2343	577	684	2132	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	39.9	37.2	32.6	42.0	47.3	56.7	33.3	39.7	54.0	26.1	27.7
Incr Delay (d2), s/veh	0.3	0.1	0.1	0.1	0.1	3.2	1.9	0.6	32.4	5.2	0.1	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	5.1	1.7	2.2	4.8	9.6	2.6	9.0	21.3	6.1	6.1	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	40.1	37.2	32.7	42.2	50.5	58.6	33.9	72.1	59.2	26.2	28.6
LnGrp LOS	C	D	D	C	D	D	E	C	E	E	C	C
Approach Vol, veh/h		850			898			2152			1658	
Approach Delay, s/veh		36.6			43.0			44.9			34.5	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	51.7	16.0	37.4	14.5	58.4	18.9	34.5
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.6	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	15.9	46.6	7.6	13.9	7.9	23.6	12.5	27.0
Green Ext Time (p_c), s	0.3	0.0	0.2	1.7	0.0	7.0	0.4	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	40.2
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	5	40	5	5	10	20	1040	10	15	870	175
Future Volume (veh/h)	460	5	40	5	5	10	20	1040	10	15	870	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	642	0	0	9	9	19	26	1351	13	18	1024	206
Peak Hour Factor	0.78	0.78	0.78	0.54	0.54	0.54	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	778	408	0	14	14	30	68	1587	708	107	1664	742
Arrive On Green	0.22	0.00	0.00	0.03	0.03	0.03	0.04	0.45	0.45	0.06	0.47	0.47
Sat Flow, veh/h	3563	1870	0	412	412	870	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	642	0	0	37	0	0	26	1351	13	18	1024	206
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1693	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	14.3	0.0	0.0	1.8	0.0	0.0	1.2	28.2	0.4	0.8	17.9	6.6
Cycle Q Clear(g_c), s	14.3	0.0	0.0	1.8	0.0	0.0	1.2	28.2	0.4	0.8	17.9	6.6
Prop In Lane	1.00		0.00	0.24		0.51	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	778	408	0	58	0	0	68	1587	708	107	1664	742
V/C Ratio(X)	0.83	0.00	0.00	0.63	0.00	0.00	0.38	0.85	0.02	0.17	0.62	0.28
Avail Cap(c_a), veh/h	942	495	0	407	0	0	321	1709	762	257	1709	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	0.0	0.0	39.6	0.0	0.0	39.0	20.5	12.8	37.1	16.5	13.5
Incr Delay (d2), s/veh	5.7	0.0	0.0	10.7	0.0	0.0	1.3	4.3	0.0	0.3	0.8	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	0.0	0.9	0.0	0.0	0.5	10.5	0.1	0.3	6.1	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.7	0.0	0.0	50.4	0.0	0.0	40.3	24.9	12.9	37.4	17.3	13.8
LnGrp LOS	D			D			D	C	B	D	B	B
Approach Vol, veh/h		642			37			1390			1248	
Approach Delay, s/veh		36.7			50.4			25.1			17.0	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	45.0		6.9	9.0	43.2		24.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		22.0				
Max Q Clear Time (g_c+I1), s	3.2	19.9		3.8	2.8	30.2		16.3				
Green Ext Time (p_c), s	0.0	9.8		0.1	0.0	6.9		1.9				

Intersection Summary	
HCM 7th Control Delay, s/veh	24.6
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	130	15	5	1010	870	40
Future Volume (veh/h)	130	15	5	1010	870	40
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	19	6	1247	956	44
Peak Hour Factor	0.81	0.81	0.81	0.81	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	226	201	14	2176	1776	792
Arrive On Green	0.13	0.13	0.01	0.61	0.50	0.50
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	160	19	6	1247	956	44
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	3.3	0.4	0.1	8.0	7.1	0.5
Cycle Q Clear(g_c), s	3.3	0.4	0.1	8.0	7.1	0.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	226	201	14	2176	1776	792
V/C Ratio(X)	0.71	0.09	0.42	0.57	0.54	0.06
Avail Cap(c_a), veh/h	930	827	558	3710	3710	1655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	14.8	18.9	4.4	6.6	4.9
Incr Delay (d2), s/veh	4.1	0.2	7.0	0.3	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.1	0.2	0.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.1	15.0	25.9	4.8	6.9	5.0
LnGrp LOS	C	B	C	A	A	A
Approach Vol, veh/h	179			1253	1000	
Approach Delay, s/veh	19.6			4.9	6.8	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	29.5		4.3	25.2	8.9
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0		12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	10.0		2.1	9.1	5.3
Green Ext Time (p_c), s	13.4		0.0	9.9	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	6.8
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	90	5	5	30	0	5	0	55	0	0	0
Future Vol, veh/h	0	90	5	5	30	0	5	0	55	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	115	6	6	38	0	6	0	71	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	122	0	0	170	170	119	167	173	38
Stage 1	-	-	-	-	-	-	119	119	-	51	51	-
Stage 2	-	-	-	-	-	-	51	51	-	115	122	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1572	-	-	1466	-	-	794	723	933	798	720	1033
Stage 1	-	-	-	-	-	-	886	798	-	962	852	-
Stage 2	-	-	-	-	-	-	962	852	-	889	795	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1572	-	-	1466	-	-	790	720	933	734	717	1033
Mov Cap-2 Maneuver	-	-	-	-	-	-	790	720	-	734	717	-
Stage 1	-	-	-	-	-	-	886	798	-	957	848	-
Stage 2	-	-	-	-	-	-	957	848	-	822	795	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.07	9.27	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	919	1572	-	-	257	-	-	-
HCM Lane V/C Ratio	0.084	-	-	-	0.004	-	-	-
HCM Ctrl Dly (s/v)	9.3	0	-	-	7.5	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Near-Term 2035
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1870	Heavy Vehicle Adjustment Factor (f_{HV})	0.946
Peak Hour Factor	0.89	Flow Rate (V_p), pc/h/ln	1110
Total Trucks, %	2.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.50

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	18.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1670	Heavy Vehicle Adjustment Factor (f_{HV})	0.957
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	992
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.45
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	16.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Near-Term 2035
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1440	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.86	Flow Rate (V_p), pc/h/ln	883
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1410	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.84	Flow Rate (V_p), pc/h/ln	870
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Near-Term 2035
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	2120	Heavy Vehicle Adjustment Factor (f_{HV})	0.955
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	1338
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.61

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	22.3
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	930	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.97	Flow Rate (V_p), pc/h/ln	498
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.23
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.3
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Near-Term 2035
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1130	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	719
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.33

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	12.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	930	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.98	Flow Rate (V_p), pc/h/ln	494
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.22
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.2
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Appendix F

Analysis Worksheets for
Near-Term (2035) plus Project Conditions

Attachment C

Latrobe Storage — Near Term (2035) Plus Project
1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: AM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	35	521	65	60	35	852	888	130	20	1073	565
Future Volume (veh/h)	195	35	521	65	60	35	852	888	130	20	1073	565
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1856	1870	1811	1870	1663	1856	1811	1796	1826	1870	1870
Adj Flow Rate, veh/h	285	0	0	67	95	44	1014	1057	155	22	1192	628
Peak Hour Factor	0.77	0.77	0.77	0.80	0.80	0.80	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %	4	3	2	6	2	16	3	6	7	5	2	2
Cap, veh/h	358	0		148	212	93	1086	2905	895	76	1589	655
Arrive On Green	0.10	0.00	0.00	0.09	0.09	0.09	0.32	0.59	0.59	0.04	0.31	0.31
Sat Flow, veh/h	3506	0	1585	1725	2469	1078	3428	4944	1522	1739	5106	1585
Grp Volume(v), veh/h	285	0	0	67	71	68	1014	1057	155	22	1192	628
Grp Sat Flow(s),veh/h/ln	1753	0	1585	1725	1870	1676	1714	1648	1522	1739	1702	1585
Q Serve(g_s), s	9.2	0.0	0.0	4.3	4.2	4.5	33.4	13.0	5.4	1.4	24.4	36.2
Cycle Q Clear(g_c), s	9.2	0.0	0.0	4.3	4.2	4.5	33.4	13.0	5.4	1.4	24.4	36.2
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	0		148	161	144	1086	2905	895	76	1589	655
V/C Ratio(X)	0.80	0.00		0.45	0.44	0.48	0.93	0.36	0.17	0.29	0.75	0.96
Avail Cap(c_a), veh/h	751	0		301	326	293	1256	2905	895	159	1589	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	0.0	0.0	50.6	50.5	50.7	38.6	12.6	11.0	53.9	36.0	30.6
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.8	0.7	0.9	11.0	0.0	0.0	0.8	1.8	25.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	0.0	1.9	2.0	2.0	14.7	4.2	1.6	0.6	9.7	22.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.1	0.0	0.0	51.4	51.2	51.6	49.6	12.6	11.0	54.6	37.8	55.6
LnGrp LOS	D			D	D	D	D	B	B	D	D	E
Approach Vol, veh/h		285			206			2226			1842	
Approach Delay, s/veh		54.1			51.4			29.3			44.1	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	74.1		17.0	42.6	42.0		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		24.9	42.6	* 36		20.3				
Max Q Clear Time (g_c+I1), s	3.4	15.0		11.2	35.4	38.2		6.5				
Green Ext Time (p_c), s	0.0	2.3		0.6	1.4	0.0		0.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	37.8
HCM 7th LOS	D

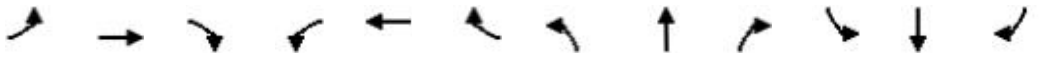
Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	942	0	0	305	0	1410	291	295	1384	0
Future Volume (vph)	0	0	942	0	0	305	0	1410	291	295	1384	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2707			1494		4988	1538	1752	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2707			1494		4988	1538	1752	6408	
Peak-hour factor, PHF	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Adj. Flow (vph)	0	0	1095	0	0	381	0	1584	327	355	1667	0
RTOR Reduction (vph)	0	0	26	0	0	0	0	0	60	0	0	0
Lane Group Flow (vph)	0	0	1069	0	0	381	0	1584	267	355	1667	0
Heavy Vehicles (%)	2%	2%	5%	2%	2%	10%	2%	4%	5%	3%	2%	2%
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			33.5			70.0		42.3	42.3	16.1	24.5	
Effective Green, g (s)			33.5			70.0		42.3	42.3	16.1	24.5	
Actuated g/C Ratio			0.48			1.00		0.60	0.60	0.23	0.35	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1295			1494		3014	929	402	2242	
v/s Ratio Prot			c0.39					0.32		0.20	c0.26	
v/s Ratio Perm						0.26			0.17			
v/c Ratio			0.83			0.26		0.53	0.29	0.88	0.74	
Uniform Delay, d1			15.7			0.0		8.0	6.6	26.0	20.0	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			4.4			0.4		0.7	0.8	19.8	2.3	
Delay (s)			20.2			0.4		8.7	7.4	45.9	22.3	
Level of Service			C			A		A	A	D	C	
Approach Delay (s/veh)		20.2			0.4			8.5			26.4	
Approach LOS		C			A			A			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	15	25	100	10	280	40	1396	145	330	1866	115
Future Volume (veh/h)	100	15	25	100	10	280	40	1396	145	330	1866	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1870	1693	1870	1870	1811	1841	1856	1826	1856	1856	1811
Adj Flow Rate, veh/h	192	29	48	125	0	358	45	1569	163	398	2248	139
Peak Hour Factor	0.52	0.52	0.52	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	14	2	14	2	2	6	4	3	5	3	3	6
Cap, veh/h	296	168	150	260	0	447	107	2121	648	492	2689	815
Arrive On Green	0.09	0.09	0.09	0.15	0.00	0.15	0.03	0.42	0.42	0.14	0.53	0.53
Sat Flow, veh/h	3127	1777	1585	1781	0	3070	3401	5066	1547	3428	5066	1535
Grp Volume(v), veh/h	192	29	48	125	0	358	45	1569	163	398	2248	139
Grp Sat Flow(s),veh/h/ln	1564	1777	1585	1781	0	1535	1700	1689	1547	1714	1689	1535
Q Serve(g_s), s	4.8	1.2	2.3	5.2	0.0	9.1	1.1	21.1	5.5	9.1	30.3	3.8
Cycle Q Clear(g_c), s	4.8	1.2	2.3	5.2	0.0	9.1	1.1	21.1	5.5	9.1	30.3	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	296	168	150	260	0	447	107	2121	648	492	2689	815
V/C Ratio(X)	0.65	0.17	0.32	0.48	0.00	0.80	0.42	0.74	0.25	0.81	0.84	0.17
Avail Cap(c_a), veh/h	1158	658	587	341	0	587	651	3158	965	867	3158	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	33.8	34.2	31.8	0.0	33.5	38.5	19.8	15.3	33.6	16.0	9.8
Incr Delay (d2), s/veh	1.8	0.4	0.9	1.0	0.0	5.3	1.0	0.2	0.1	1.2	1.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.5	0.9	2.3	0.0	3.7	0.4	6.9	1.7	3.5	9.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.2	34.1	35.1	32.8	0.0	38.7	39.5	20.0	15.4	34.8	17.6	9.8
LnGrp LOS	D	C	D	C		D	D	C	B	C	B	A
Approach Vol, veh/h		269			483			1777			2785	
Approach Delay, s/veh		36.5			37.2			20.1			19.7	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.1	39.4		11.2	6.0	48.5		15.3				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		3.5				
Max Green Setting (Gmax), s	20.5	50.5		30.0	15.5	50.5		15.5				
Max Q Clear Time (g_c+I1), s	11.1	23.1		6.8	3.1	32.3		11.1				
Green Ext Time (p_c), s	0.5	7.9		0.9	0.0	10.7		0.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.3
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	180	96	321	200	255	61	1226	316	145	1376	465
Future Volume (veh/h)	165	180	96	321	200	255	61	1226	316	145	1376	465
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1781	1722	1870	1841	1811	1826	1870	1870	1796	1870	1856
Adj Flow Rate, veh/h	223	243	130	373	233	297	75	1514	390	173	1638	554
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.81	0.81	0.81	0.84	0.84	0.84
Percent Heavy Veh, %	4	8	12	2	4	6	5	2	2	7	2	3
Cap, veh/h	715	693	299	775	761	334	143	2522	621	306	2051	632
Arrive On Green	0.09	0.20	0.20	0.10	0.22	0.22	0.08	0.39	0.39	0.09	0.40	0.40
Sat Flow, veh/h	3401	3385	1459	3456	3497	1535	1739	6434	1585	3319	5106	1572
Grp Volume(v), veh/h	223	243	130	373	233	297	75	1514	390	173	1638	554
Grp Sat Flow(s),veh/h/ln	1700	1692	1459	1728	1749	1535	1739	1609	1585	1659	1702	1572
Q Serve(g_s), s	5.4	6.7	8.4	9.1	6.1	20.4	4.5	20.3	21.5	5.4	30.7	35.3
Cycle Q Clear(g_c), s	5.4	6.7	8.4	9.1	6.1	20.4	4.5	20.3	21.5	5.4	30.7	35.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	715	693	299	775	761	334	143	2522	621	306	2051	632
V/C Ratio(X)	0.31	0.35	0.43	0.48	0.31	0.89	0.52	0.60	0.63	0.57	0.80	0.88
Avail Cap(c_a), veh/h	1342	1714	739	1050	1836	806	240	2726	671	764	2130	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	37.0	37.7	29.3	35.6	41.2	47.8	26.2	26.6	47.2	28.6	30.0
Incr Delay (d2), s/veh	0.1	0.1	0.4	0.2	0.1	3.3	1.1	0.3	1.7	0.6	2.2	12.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.7	2.9	3.5	2.5	7.5	1.9	7.2	7.7	2.2	11.7	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.9	37.1	38.1	29.4	35.7	44.5	48.9	26.6	28.3	47.8	30.8	42.6
LnGrp LOS	C	D	D	C	D	D	D	C	C	D	C	D
Approach Vol, veh/h		596			903			1979			2365	
Approach Delay, s/veh		34.3			36.0			27.7			34.8	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	48.3	17.4	27.9	14.0	49.3	16.0	29.3
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.0	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	7.4	23.5	11.1	10.4	6.5	37.3	7.4	22.4
Green Ext Time (p_c), s	0.2	12.0	0.3	1.1	0.0	6.3	0.2	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	32.5
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	5	25	15	5	10	55	1388	10	5	1338	390
Future Volume (veh/h)	170	5	25	15	5	10	55	1388	10	5	1338	390
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1811	1870	1870	1870	1870	1870	1752	1870	1856	1870
Adj Flow Rate, veh/h	282	0	0	22	7	14	67	1693	12	7	1784	520
Peak Hour Factor	0.70	0.70	0.70	0.69	0.69	0.69	0.82	0.82	0.82	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	6	2	2	2	2	2	10	2	3	2
Cap, veh/h	391	205	0	35	11	22	114	1911	798	121	1909	858
Arrive On Green	0.11	0.00	0.00	0.04	0.04	0.04	0.06	0.54	0.54	0.07	0.54	0.54
Sat Flow, veh/h	3563	1870	0	883	281	562	1781	3554	1485	1781	3526	1585
Grp Volume(v), veh/h	282	0	0	43	0	0	67	1693	12	7	1784	520
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1725	0	0	1781	1777	1485	1781	1763	1585
Q Serve(g_s), s	5.6	0.0	0.0	1.8	0.0	0.0	2.7	30.9	0.3	0.3	34.5	16.5
Cycle Q Clear(g_c), s	5.6	0.0	0.0	1.8	0.0	0.0	2.7	30.9	0.3	0.3	34.5	16.5
Prop In Lane	1.00		0.00	0.51		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	391	205	0	69	0	0	114	1911	798	121	1909	858
V/C Ratio(X)	0.72	0.00	0.00	0.63	0.00	0.00	0.59	0.89	0.02	0.06	0.93	0.61
Avail Cap(c_a), veh/h	1163	610	0	469	0	0	363	1933	808	291	1918	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	0.0	0.0	34.8	0.0	0.0	33.5	15.0	7.9	32.1	15.7	11.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	9.1	0.0	0.0	1.8	5.5	0.0	0.1	9.3	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	0.9	0.0	0.0	1.1	10.2	0.1	0.1	12.1	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.6	0.0	0.0	43.8	0.0	0.0	35.2	20.5	7.9	32.1	24.9	12.9
LnGrp LOS	C			D			D	C	A	C	C	B
Approach Vol, veh/h		282			43			1772			2311	
Approach Delay, s/veh		32.6			43.8			21.0			22.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	45.8		6.9	9.0	45.5		12.1				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		24.0				
Max Q Clear Time (g_c+I1), s	4.7	36.5		3.8	2.3	32.9		7.6				
Green Ext Time (p_c), s	0.0	3.3		0.1	0.0	6.0		0.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.6
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	12	37	1370	1270	123
Future Volume (veh/h)	43	12	37	1370	1270	123
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	74	21	47	1734	1628	158
Peak Hour Factor	0.58	0.58	0.79	0.79	0.78	0.78
Percent Heavy Veh, %	3	2	2	2	3	2
Cap, veh/h	123	111	83	2658	2216	996
Arrive On Green	0.07	0.07	0.05	0.75	0.63	0.63
Sat Flow, veh/h	1767	1585	1781	3647	3618	1585
Grp Volume(v), veh/h	74	21	47	1734	1628	158
Grp Sat Flow(s),veh/h/ln	1767	1585	1781	1777	1763	1585
Q Serve(g_s), s	2.2	0.7	1.4	13.2	17.5	2.3
Cycle Q Clear(g_c), s	2.2	0.7	1.4	13.2	17.5	2.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	123	111	83	2658	2216	996
V/C Ratio(X)	0.60	0.19	0.57	0.65	0.73	0.16
Avail Cap(c_a), veh/h	644	578	390	2658	2571	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	24.1	25.6	3.4	7.0	4.2
Incr Delay (d2), s/veh	4.6	0.8	2.2	0.7	1.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	0.6	0.2	2.8	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	29.4	24.9	27.8	4.1	8.1	4.3
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	95			1781	1786	
Approach Delay, s/veh	28.4			4.7	7.8	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	47.0		6.6	40.5	7.8
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0		12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	15.2		3.4	19.5	4.2
Green Ext Time (p_c), s	17.6		0.0	15.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	6.8
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	35	10	45	90	10	5	0	10	10	0	1
Future Vol, veh/h	1	35	10	45	90	10	5	0	10	10	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	5	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	39	11	51	101	11	6	0	11	11	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	51	0	0	249	261	45	249	261	107
Stage 1	-	-	-	-	-	-	47	47	-	208	208	-
Stage 2	-	-	-	-	-	-	202	213	-	42	53	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1477	-	-	1556	-	-	704	644	1025	704	644	947
Stage 1	-	-	-	-	-	-	966	856	-	794	730	-
Stage 2	-	-	-	-	-	-	800	726	-	973	851	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1477	-	-	1556	-	-	678	621	1025	672	621	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	678	621	-	672	621	-
Stage 1	-	-	-	-	-	-	966	855	-	767	705	-
Stage 2	-	-	-	-	-	-	771	701	-	962	850	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.16	2.29	9.19	10.31
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	876	37	-	-	548	-	-	690
HCM Lane V/C Ratio	0.019	0.001	-	-	0.032	-	-	0.018
HCM Ctrl Dly (s/v)	9.2	7.4	0	-	7.4	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Attachment C

Latrobe Storage — Near Term (2035) Plus Project
1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: PM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	60	182	166	80	50	1078	1191	200	40	930	230
Future Volume (veh/h)	185	60	182	166	80	50	1078	1191	200	40	930	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1826	1870	1811	1870	1870	1870	1870	1870	1870	1841
Adj Flow Rate, veh/h	133	160	0	220	48	57	1239	1369	230	44	1022	253
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	3	5	2	6	2	2	2	2	2	2	4
Cap, veh/h	200	208		339	72	85	1236	2677	831	123	1182	536
Arrive On Green	0.11	0.11	0.00	0.10	0.10	0.10	0.36	0.52	0.52	0.07	0.23	0.23
Sat Flow, veh/h	1781	1856	1547	3563	754	896	3456	5106	1585	1781	5106	1560
Grp Volume(v), veh/h	133	160	0	220	0	105	1239	1369	230	44	1022	253
Grp Sat Flow(s),veh/h/ln	1781	1856	1547	1781	0	1650	1728	1702	1585	1781	1702	1560
Q Serve(g_s), s	7.5	8.8	0.0	6.3	0.0	6.5	37.6	18.3	8.5	2.5	20.2	13.4
Cycle Q Clear(g_c), s	7.5	8.8	0.0	6.3	0.0	6.5	37.6	18.3	8.5	2.5	20.2	13.4
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	208		339	0	157	1236	2677	831	123	1182	536
V/C Ratio(X)	0.67	0.77		0.65	0.00	0.67	1.00	0.51	0.28	0.36	0.86	0.47
Avail Cap(c_a), veh/h	524	545		451	0	209	1236	3118	968	180	1807	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	45.3	0.0	45.9	0.0	46.0	33.8	16.3	13.9	46.7	38.8	27.0
Incr Delay (d2), s/veh	2.8	4.4	0.0	0.8	0.0	2.0	26.2	0.1	0.1	0.7	1.9	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.3	0.0	2.8	0.0	2.8	18.7	6.2	2.7	1.1	8.1	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.6	49.8	0.0	46.7	0.0	47.9	59.9	16.3	14.0	47.4	40.7	27.3
LnGrp LOS	D	D		D		D	F	B	B	D	D	C
Approach Vol, veh/h		293			325			2838			1319	
Approach Delay, s/veh		48.8			47.1			35.2			38.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	60.9		16.9	43.4	30.1		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.6	64.2		30.9	37.6	* 37		13.3				
Max Q Clear Time (g_c+I1), s	4.5	20.3		10.8	39.6	22.2		8.5				
Green Ext Time (p_c), s	0.0	3.2		1.0	0.0	2.1		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh	37.7	
HCM 7th LOS	D	

Notes

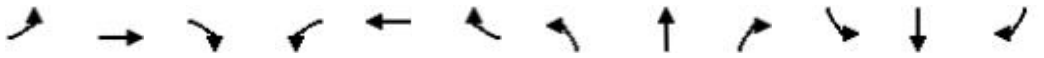
User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

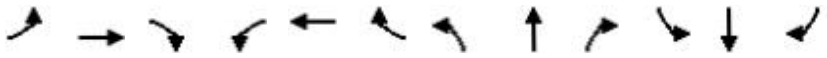
Latrobe Storage — Near Term (2035)
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	720	0	0	505	0	1725	380	285	1000	0
Future Volume (vph)	0	0	720	0	0	505	0	1725	380	285	1000	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	774	0	0	594	0	1855	409	306	1075	0
RTOR Reduction (vph)	0	0	74	0	0	0	0	0	77	0	0	0
Lane Group Flow (vph)	0	0	700	0	0	594	0	1855	332	306	1075	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			21.2			70.0		43.1	43.1	15.3	36.8	
Effective Green, g (s)			21.2			70.0		43.1	43.1	15.3	36.8	
Actuated g/C Ratio			0.30			1.00		0.62	0.62	0.22	0.53	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			844			1611		3130	974	386	3368	
v/s Ratio Prot			c0.25					c0.36		0.17	0.17	
v/s Ratio Perm						0.37			0.21			
v/c Ratio			0.83			0.37		0.59	0.34	0.79	0.32	
Uniform Delay, d1			22.7			0.0		8.1	6.5	25.9	9.5	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			6.8			0.7		0.8	1.0	10.7	0.3	
Delay (s)			29.5			0.7		9.0	7.5	36.5	9.7	
Level of Service			C			A		A	A	D	A	
Approach Delay (s/veh)		29.5			0.7			8.7			15.6	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



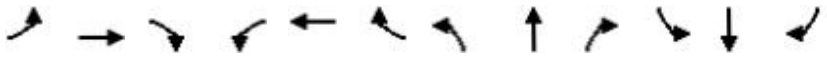
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	20	46	115	20	615	30	1421	205	500	1226	105
Future Volume (veh/h)	115	20	46	115	20	615	30	1421	205	500	1226	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	36	84	129	0	706	38	1799	259	526	1291	111
Peak Hour Factor	0.55	0.55	0.55	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	305	157	140	311	0	554	88	2094	650	591	2837	881
Arrive On Green	0.09	0.09	0.09	0.17	0.00	0.17	0.03	0.41	0.41	0.17	0.56	0.56
Sat Flow, veh/h	3456	1777	1585	1781	0	3170	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	209	36	84	129	0	706	38	1799	259	526	1291	111
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	0	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	6.2	2.0	5.4	6.8	0.0	18.5	1.1	34.0	12.2	15.8	15.9	3.5
Cycle Q Clear(g_c), s	6.2	2.0	5.4	6.8	0.0	18.5	1.1	34.0	12.2	15.8	15.9	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	157	140	311	0	554	88	2094	650	591	2837	881
V/C Ratio(X)	0.68	0.23	0.60	0.41	0.00	1.27	0.43	0.86	0.40	0.89	0.46	0.13
Avail Cap(c_a), veh/h	979	504	449	311	0	554	506	2436	756	669	2837	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	44.9	46.5	38.9	0.0	43.7	50.8	28.4	22.0	42.9	14.0	11.2
Incr Delay (d2), s/veh	2.0	0.5	3.0	0.9	0.0	137.1	1.2	2.6	0.1	12.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.9	2.3	3.1	0.0	17.8	0.5	12.9	4.1	7.3	5.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.9	45.5	49.5	39.7	0.0	180.7	52.1	31.1	22.2	54.9	14.0	11.3
LnGrp LOS	D	D	D	D		F	D	C	C	D	B	B
Approach Vol, veh/h		329			835			2096			1928	
Approach Delay, s/veh		48.6			159.0			30.3			25.0	
Approach LOS		D			F			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.6	48.9		12.8	6.2	64.3		22.5				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		4.0				
Max Green Setting (Gmax), s	20.5	50.5		30.0	15.5	50.5		18.5				
Max Q Clear Time (g_c+I1), s	17.8	36.0		8.2	3.1	17.9		20.5				
Green Ext Time (p_c), s	0.3	7.4		1.1	0.0	6.1		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	50.2
HCM 7th LOS	D

Notes

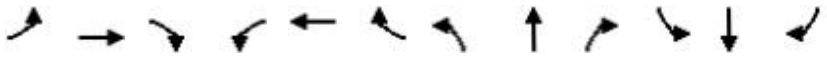
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	330	61	192	340	295	66	1151	432	345	822	320
Future Volume (veh/h)	315	330	61	192	340	295	66	1151	432	345	822	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	380	398	73	209	370	321	87	1514	568	388	924	360
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.76	0.76	0.76	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	3	2	2	2	2	2	2
Cap, veh/h	668	891	397	667	810	358	134	2343	577	445	2131	662
Arrive On Green	0.10	0.25	0.25	0.08	0.23	0.23	0.08	0.36	0.36	0.13	0.42	0.42
Sat Flow, veh/h	3456	3554	1585	3456	3554	1572	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	380	398	73	209	370	321	87	1514	568	388	924	360
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1572	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	10.5	11.9	4.6	5.6	11.3	25.0	6.0	24.7	44.8	13.9	16.3	21.6
Cycle Q Clear(g_c), s	10.5	11.9	4.6	5.6	11.3	25.0	6.0	24.7	44.8	13.9	16.3	21.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	668	891	397	667	810	358	134	2343	577	445	2131	662
V/C Ratio(X)	0.57	0.45	0.18	0.31	0.46	0.90	0.65	0.65	0.98	0.87	0.43	0.54
Avail Cap(c_a), veh/h	1137	1547	690	941	1604	710	212	2343	577	684	2131	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	39.9	37.2	32.6	42.0	47.3	56.8	33.4	39.8	54.0	26.2	27.7
Incr Delay (d2), s/veh	0.3	0.1	0.1	0.1	0.1	3.2	1.9	0.6	33.2	5.2	0.1	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	5.1	1.7	2.3	4.8	9.6	2.7	9.2	21.5	6.1	6.2	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	40.1	37.3	32.7	42.2	50.5	58.7	34.0	73.0	59.2	26.3	28.7
LnGrp LOS	C	D	D	C	D	D	E	C	E	E	C	C
Approach Vol, veh/h		851			900			2169			1672	
Approach Delay, s/veh		36.6			43.0			45.2			34.4	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	51.7	16.0	37.4	14.5	58.4	18.9	34.5
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	25.0	46.0	20.0	55.0	15.0	45.3	30.0	57.0
Max Q Clear Time (g_c+I1), s	15.3	46.8	7.6	13.9	8.0	23.6	12.5	27.0
Green Ext Time (p_c), s	0.3	0.0	0.2	1.7	0.0	7.1	0.4	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	40.3
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	5	40	5	5	10	20	1054	10	15	885	175
Future Volume (veh/h)	460	5	40	5	5	10	20	1054	10	15	885	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	642	0	0	9	9	19	26	1369	13	18	1041	206
Peak Hour Factor	0.78	0.78	0.78	0.54	0.54	0.54	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	776	408	0	14	14	30	68	1594	711	107	1670	745
Arrive On Green	0.22	0.00	0.00	0.03	0.03	0.03	0.04	0.45	0.45	0.06	0.47	0.47
Sat Flow, veh/h	3563	1870	0	412	412	870	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	642	0	0	37	0	0	26	1369	13	18	1041	206
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1693	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	14.4	0.0	0.0	1.8	0.0	0.0	1.2	28.9	0.4	0.8	18.4	6.6
Cycle Q Clear(g_c), s	14.4	0.0	0.0	1.8	0.0	0.0	1.2	28.9	0.4	0.8	18.4	6.6
Prop In Lane	1.00		0.00	0.24		0.51	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	776	408	0	58	0	0	68	1594	711	107	1670	745
V/C Ratio(X)	0.83	0.00	0.00	0.63	0.00	0.00	0.38	0.86	0.02	0.17	0.62	0.28
Avail Cap(c_a), veh/h	938	492	0	405	0	0	320	1701	759	256	1701	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	0.0	39.8	0.0	0.0	39.2	20.7	12.8	37.3	16.6	13.5
Incr Delay (d2), s/veh	5.8	0.0	0.0	10.8	0.0	0.0	1.3	4.7	0.0	0.3	0.8	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	0.0	0.9	0.0	0.0	0.5	10.8	0.1	0.3	6.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.0	0.0	0.0	50.6	0.0	0.0	40.5	25.4	12.8	37.6	17.4	13.8
LnGrp LOS	D			D			D	C	B	D	B	B
Approach Vol, veh/h		642			37			1408			1265	
Approach Delay, s/veh		37.0			50.6			25.5			17.1	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	45.3		6.9	9.0	43.5		24.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	40.0		20.0	12.0	40.0		22.0				
Max Q Clear Time (g_c+I1), s	3.2	20.4		3.8	2.8	30.9		16.4				
Green Ext Time (p_c), s	0.0	9.8		0.1	0.0	6.6		1.8				

Intersection Summary	
HCM 7th Control Delay, s/veh	24.8
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	144	18	8	1010	870	55
Future Volume (veh/h)	144	18	8	1010	870	55
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	22	10	1247	956	60
Peak Hour Factor	0.81	0.81	0.81	0.81	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	250	222	23	2154	1746	779
Arrive On Green	0.14	0.14	0.01	0.61	0.49	0.49
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	178	22	10	1247	956	60
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	3.8	0.5	0.2	8.4	7.4	0.8
Cycle Q Clear(g_c), s	3.8	0.5	0.2	8.4	7.4	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	250	222	23	2154	1746	779
V/C Ratio(X)	0.71	0.10	0.43	0.58	0.55	0.08
Avail Cap(c_a), veh/h	904	804	542	3607	3607	1609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	14.8	19.3	4.7	7.0	5.3
Incr Delay (d2), s/veh	3.8	0.2	4.5	0.4	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.2	0.1	0.4	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.9	15.0	23.8	5.1	7.4	5.4
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	200			1257	1016	
Approach Delay, s/veh	19.4			5.2	7.2	
Approach LOS	B			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	29.9		4.5	25.4	9.5
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	40.0		12.0	40.0	20.0
Max Q Clear Time (g_c+I1), s	10.4		2.2	9.4	5.8
Green Ext Time (p_c), s	13.4		0.0	10.0	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	7.2
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	90	5	5	30	18	5	0	55	17	0	2
Future Vol, veh/h	2	90	5	5	30	18	5	0	55	17	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	115	6	6	38	23	6	0	71	22	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	62	0	0	122	0	0	175	198	119	183	190	50
Stage 1	-	-	-	-	-	-	124	124	-	63	63	-
Stage 2	-	-	-	-	-	-	51	74	-	121	127	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1466	-	-	788	698	933	778	705	1018
Stage 1	-	-	-	-	-	-	880	793	-	948	843	-
Stage 2	-	-	-	-	-	-	962	833	-	884	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1466	-	-	781	693	933	714	701	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	781	693	-	714	701	-
Stage 1	-	-	-	-	-	-	879	792	-	944	839	-
Stage 2	-	-	-	-	-	-	955	829	-	816	790	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.15	0.7	9.28	10.05
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	918	37	-	-	158	-	-	738
HCM Lane V/C Ratio	0.084	0.002	-	-	0.004	-	-	0.033
HCM Ctrl Dly (s/v)	9.3	7.3	0	-	7.5	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Near-Term 2035
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1878	Heavy Vehicle Adjustment Factor (f_{HV})	0.946
Peak Hour Factor	0.89	Flow Rate (V_p), pc/h/ln	1116
Total Trucks, %	2.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.51

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	18.6
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1684	Heavy Vehicle Adjustment Factor (f_{HV})	0.957
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	1000
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.45
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	16.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1460	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.86	Flow Rate (V_p), pc/h/ln	896
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.41

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1420	Heavy Vehicle Adjustment Factor (f_{HV})	0.953
Peak Hour Factor	0.84	Flow Rate (V_p), pc/h/ln	887
Total Trucks, %	3.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.8
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Near-Term 2035 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	2128	Heavy Vehicle Adjustment Factor (f_{HV})	0.955
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	1342
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.61

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	22.4
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	945	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.97	Flow Rate (V_p), pc/h/ln	506
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.23
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.4
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Near-Term 2035 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1138	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	724
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.33

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	12.1
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	945	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.98	Flow Rate (V_p), pc/h/ln	502
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.23
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.4
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Appendix G

Analysis Worksheets for Cumulative (2045) Conditions

Attachment C

Latrobe Storage — Cumulative (2045)

1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: AM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	35	520	65	65	35	985	885	135	20	1070	640
Future Volume (veh/h)	195	35	520	65	65	35	985	885	135	20	1070	640
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1856	1870	1811	1870	1663	1856	1811	1796	1826	1870	1870
Adj Flow Rate, veh/h	285	0	0	69	98	44	1173	1054	161	22	1189	711
Peak Hour Factor	0.77	0.77	0.77	0.80	0.80	0.80	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %	4	3	2	6	2	16	3	6	7	5	2	2
Cap, veh/h	353	0		137	198	84	1236	3019	930	74	1479	619
Arrive On Green	0.10	0.00	0.00	0.08	0.08	0.08	0.36	0.61	0.61	0.04	0.29	0.29
Sat Flow, veh/h	3506	0	1585	1725	2493	1057	3428	4944	1522	1739	5106	1585
Grp Volume(v), veh/h	285	0	0	69	72	70	1173	1054	161	22	1189	711
Grp Sat Flow(s),veh/h/ln	1753	0	1585	1725	1870	1680	1714	1648	1522	1739	1702	1585
Q Serve(g_s), s	10.0	0.0	0.0	4.8	4.7	5.0	41.9	13.3	5.8	1.5	27.2	36.5
Cycle Q Clear(g_c), s	10.0	0.0	0.0	4.8	4.7	5.0	41.9	13.3	5.8	1.5	27.2	36.5
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	0		137	148	133	1236	3019	930	74	1479	619
V/C Ratio(X)	0.81	0.00		0.50	0.49	0.52	0.95	0.35	0.17	0.30	0.80	1.15
Avail Cap(c_a), veh/h	776	0		137	148	133	1349	3019	930	138	1479	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	0.0	0.0	55.6	55.6	55.7	39.2	12.1	10.7	58.5	41.5	34.5
Incr Delay (d2), s/veh	3.3	0.0	0.0	1.2	0.9	1.9	13.1	0.0	0.0	0.8	3.1	84.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.0	2.2	2.3	2.2	18.6	4.3	1.7	0.7	11.2	33.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.7	0.0	0.0	56.8	56.5	57.6	52.3	12.2	10.7	59.3	44.5	119.3
LnGrp LOS	E			E	E	E	D	B	B	E	D	F
Approach Vol, veh/h		285			211			2388			1922	
Approach Delay, s/veh		58.7			57.0			31.8			72.4	
Approach LOS		E			E			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	82.8		17.8	51.2	42.3		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.0	76.1		27.9	49.6	* 37		10.0				
Max Q Clear Time (g_c+I1), s	3.5	15.3		12.0	43.9	38.5		7.0				
Green Ext Time (p_c), s	0.0	2.3		0.7	1.5	0.0		0.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	50.7
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

Latrobe Storage — Cumulative (2045)
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: AM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	1015	0	0	305	0	1405	290	295	1380	0
Future Volume (vph)	0	0	1015	0	0	305	0	1405	290	295	1380	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2707			1494		4988	1538	1752	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2707			1494		4988	1538	1752	6408	
Peak-hour factor, PHF	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Adj. Flow (vph)	0	0	1180	0	0	381	0	1579	326	355	1663	0
RTOR Reduction (vph)	0	0	26	0	0	0	0	0	122	0	0	0
Lane Group Flow (vph)	0	0	1154	0	0	381	0	1579	204	355	1663	0
Heavy Vehicles (%)	2%	2%	5%	2%	2%	10%	2%	4%	5%	3%	2%	2%
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			33.6			70.0		39.5	39.5	18.9	24.4	
Effective Green, g (s)			33.6			70.0		39.5	39.5	18.9	24.4	
Actuated g/C Ratio			0.48			1.00		0.56	0.56	0.27	0.35	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1299			1494		2814	867	473	2233	
v/s Ratio Prot			c0.43					0.32		0.20	c0.26	
v/s Ratio Perm						0.26			0.13			
v/c Ratio			0.89			0.26		0.56	0.24	0.75	0.74	
Uniform Delay, d1			16.5			0.0		9.7	7.7	23.4	20.1	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			7.7			0.4		0.8	0.6	6.6	2.3	
Delay (s)			24.2			0.4		10.5	8.3	30.0	22.4	
Level of Service			C			A		B	A	C	C	
Approach Delay (s/veh)		24.2			0.4			10.2			23.7	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	25	45	135	15	280	50	1390	150	330	1860	165
Future Volume (veh/h)	185	25	45	135	15	280	50	1390	150	330	1860	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1870	1693	1870	1870	1811	1841	1856	1826	1856	1856	1811
Adj Flow Rate, veh/h	356	48	87	169	0	363	56	1562	169	398	2241	199
Peak Hour Factor	0.52	0.52	0.52	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	14	2	14	2	2	6	4	3	5	3	3	6
Cap, veh/h	455	258	230	250	0	431	107	2120	648	470	2656	805
Arrive On Green	0.15	0.15	0.15	0.14	0.00	0.14	0.03	0.42	0.42	0.14	0.52	0.52
Sat Flow, veh/h	3127	1777	1585	1781	0	3070	3401	5066	1547	3428	5066	1535
Grp Volume(v), veh/h	356	48	87	169	0	363	56	1562	169	398	2241	199
Grp Sat Flow(s),veh/h/ln	1564	1777	1585	1781	0	1535	1700	1689	1547	1714	1689	1535
Q Serve(g_s), s	11.1	2.4	5.0	9.1	0.0	11.6	1.6	26.2	7.2	11.4	38.1	7.2
Cycle Q Clear(g_c), s	11.1	2.4	5.0	9.1	0.0	11.6	1.6	26.2	7.2	11.4	38.1	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	455	258	230	250	0	431	107	2120	648	470	2656	805
V/C Ratio(X)	0.78	0.19	0.38	0.68	0.00	0.84	0.52	0.74	0.26	0.85	0.84	0.25
Avail Cap(c_a), veh/h	929	528	471	293	0	505	168	2554	780	645	3256	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	37.9	39.0	41.2	0.0	42.3	48.2	24.7	19.2	42.5	20.5	13.1
Incr Delay (d2), s/veh	2.2	0.3	0.8	4.2	0.0	10.2	1.5	0.7	0.1	5.8	1.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	1.1	2.0	4.3	0.0	5.0	0.7	9.4	2.3	4.9	12.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.8	38.1	39.8	45.4	0.0	52.5	49.6	25.3	19.2	48.3	22.0	13.2
LnGrp LOS	D	D	D	D		D	D	C	B	D	C	B
Approach Vol, veh/h		491			532			1787			2838	
Approach Delay, s/veh		42.6			50.3			25.5			25.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.3	47.8		18.2	6.7	58.4		17.7				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		3.5				
Max Green Setting (Gmax), s	13.8	50.9		30.0	5.0	64.9		16.6				
Max Q Clear Time (g_c+I1), s	13.4	28.2		13.1	3.6	40.1		13.6				
Green Ext Time (p_c), s	0.4	7.5		1.6	0.0	12.8		0.5				

Intersection Summary		
HCM 7th Control Delay, s/veh	29.1	
HCM 7th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	215	95	355	225	370	60	1220	360	220	1370	490
Future Volume (veh/h)	165	215	95	355	225	370	60	1220	360	220	1370	490
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1781	1722	1870	1841	1811	1826	1870	1870	1796	1870	1856
Adj Flow Rate, veh/h	223	291	128	413	262	430	74	1506	444	262	1631	583
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.81	0.81	0.81	0.84	0.84	0.84
Percent Heavy Veh, %	4	8	12	2	4	6	5	2	2	7	2	3
Cap, veh/h	657	981	423	759	1037	455	108	2584	637	305	2203	679
Arrive On Green	0.06	0.29	0.29	0.07	0.30	0.30	0.06	0.40	0.40	0.09	0.43	0.43
Sat Flow, veh/h	3401	3385	1459	3456	3497	1535	1739	6434	1585	3319	5106	1572
Grp Volume(v), veh/h	223	291	128	413	262	430	74	1506	444	262	1631	583
Grp Sat Flow(s),veh/h/ln	1700	1692	1459	1728	1749	1535	1739	1609	1585	1659	1702	1572
Q Serve(g_s), s	7.0	10.3	10.5	11.0	8.8	42.2	6.4	28.2	35.9	12.0	41.2	51.7
Cycle Q Clear(g_c), s	7.0	10.3	10.5	11.0	8.8	42.2	6.4	28.2	35.9	12.0	41.2	51.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	657	981	423	759	1037	455	108	2584	637	305	2203	679
V/C Ratio(X)	0.34	0.30	0.30	0.54	0.25	0.95	0.69	0.58	0.70	0.86	0.74	0.86
Avail Cap(c_a), veh/h	657	1279	552	759	1344	590	169	2823	696	452	2439	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	42.6	42.6	37.8	41.3	53.1	70.9	36.1	38.4	69.1	36.6	39.6
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.5	0.0	19.2	2.8	0.3	2.8	7.3	1.1	9.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	4.3	3.7	1.0	3.7	18.0	2.9	10.9	13.8	5.3	16.5	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.7	42.6	42.8	38.3	41.3	72.3	73.7	36.3	41.1	76.4	37.7	48.8
LnGrp LOS	C	D	D	D	D	E	E	D	D	E	D	D
Approach Vol, veh/h		642			1105			2024			2476	
Approach Delay, s/veh		39.9			52.2			38.7			44.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	67.7	17.0	50.4	14.6	72.3	16.0	51.4
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	21.0	67.7	11.0	58.3	15.0	73.7	10.0	59.3
Max Q Clear Time (g_c+I1), s	14.0	37.9	13.0	12.5	8.4	53.7	9.0	44.2
Green Ext Time (p_c), s	0.2	15.0	0.0	1.3	0.0	12.9	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	43.5
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	5	30	15	10	10	70	1380	10	5	1330	390
Future Volume (veh/h)	170	5	30	15	10	10	70	1380	10	5	1330	390
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1811	1870	1870	1870	1870	1870	1752	1870	1856	1870
Adj Flow Rate, veh/h	288	0	0	22	14	14	85	1683	12	7	1773	520
Peak Hour Factor	0.70	0.70	0.70	0.69	0.69	0.69	0.82	0.82	0.82	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	6	2	2	2	2	2	10	2	3	2
Cap, veh/h	380	199	0	31	20	20	101	2101	878	101	2085	937
Arrive On Green	0.11	0.00	0.00	0.04	0.04	0.04	0.06	0.59	0.59	0.06	0.59	0.59
Sat Flow, veh/h	3563	1870	0	767	488	488	1781	3554	1485	1781	3526	1585
Grp Volume(v), veh/h	288	0	0	50	0	0	85	1683	12	7	1773	520
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1744	0	0	1781	1777	1485	1781	1763	1585
Q Serve(g_s), s	6.9	0.0	0.0	2.5	0.0	0.0	4.2	32.3	0.3	0.3	36.3	17.5
Cycle Q Clear(g_c), s	6.9	0.0	0.0	2.5	0.0	0.0	4.2	32.3	0.3	0.3	36.3	17.5
Prop In Lane	1.00		0.00	0.44		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	199	0	70	0	0	101	2101	878	101	2085	937
V/C Ratio(X)	0.76	0.00	0.00	0.71	0.00	0.00	0.84	0.80	0.01	0.07	0.85	0.55
Avail Cap(c_a), veh/h	974	511	0	318	0	0	101	2185	913	101	2168	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	0.0	41.7	0.0	0.0	41.0	13.9	7.4	39.2	14.8	10.9
Incr Delay (d2), s/veh	1.2	0.0	0.0	12.7	0.0	0.0	41.2	2.3	0.0	0.1	3.5	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	1.3	0.0	0.0	2.9	10.2	0.1	0.1	11.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.3	0.0	0.0	54.3	0.0	0.0	82.2	16.2	7.4	39.3	18.2	11.8
LnGrp LOS	D			D			F	B	A	D	B	B
Approach Vol, veh/h		288			50			1780			2300	
Approach Delay, s/veh		39.3			54.3			19.3			16.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	57.9		7.5	9.0	57.9		13.4
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0
Max Green Setting (Gmax), s	5.0	54.0		16.0	5.0	54.0		24.0
Max Q Clear Time (g_c+I1), s	6.2	38.3		4.5	2.3	34.3		8.9
Green Ext Time (p_c), s	0.0	13.6		0.1	0.0	14.4		0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	19.7
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	10	35	1370	1270	125
Future Volume (veh/h)	35	10	35	1370	1270	125
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	60	17	44	1734	1628	160
Peak Hour Factor	0.58	0.58	0.79	0.79	0.78	0.78
Percent Heavy Veh, %	3	2	2	2	3	2
Cap, veh/h	106	95	77	2748	2339	1051
Arrive On Green	0.06	0.06	0.04	0.77	0.66	0.66
Sat Flow, veh/h	1767	1585	1781	3647	3618	1585
Grp Volume(v), veh/h	60	17	44	1734	1628	160
Grp Sat Flow(s),veh/h/ln	1767	1585	1781	1777	1763	1585
Q Serve(g_s), s	2.0	0.6	1.5	13.0	17.3	2.3
Cycle Q Clear(g_c), s	2.0	0.6	1.5	13.0	17.3	2.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	106	95	77	2748	2339	1051
V/C Ratio(X)	0.56	0.18	0.57	0.63	0.70	0.15
Avail Cap(c_a), veh/h	471	422	148	3551	2994	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	26.8	28.2	3.0	6.3	3.8
Incr Delay (d2), s/veh	4.6	0.9	2.5	0.3	0.6	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.2	0.6	0.1	2.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	32.1	27.7	30.6	3.4	7.0	3.9
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	77			1778	1788	
Approach Delay, s/veh	31.1			4.0	6.7	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	52.4		6.6	45.8	7.6
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	60.0		5.0	51.0	16.0
Max Q Clear Time (g_c+I1), s	15.0		3.5	19.3	4.0
Green Ext Time (p_c), s	26.0		0.0	20.5	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	5.9
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	35	10	45	90	0	5	0	10	0	0	0
Future Vol, veh/h	0	35	10	45	90	0	5	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	5	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	39	11	51	101	0	6	0	11	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	51	0	0	247	247	45	242	253	101
Stage 1	-	-	-	-	-	-	45	45	-	202	202	-
Stage 2	-	-	-	-	-	-	202	202	-	39	51	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1491	-	-	1556	-	-	706	655	1025	712	651	954
Stage 1	-	-	-	-	-	-	969	857	-	800	734	-
Stage 2	-	-	-	-	-	-	800	734	-	976	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1491	-	-	1556	-	-	682	633	1025	680	628	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	682	633	-	680	628	-
Stage 1	-	-	-	-	-	-	969	857	-	772	709	-
Stage 2	-	-	-	-	-	-	772	709	-	965	853	-

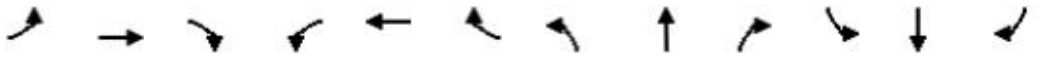
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.46	9.18	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	878	1491	-	-	600	-	-	-
HCM Lane V/C Ratio	0.019	-	-	-	0.032	-	-	-
HCM Ctrl Dly (s/v)	9.2	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-

Attachment C

Latrobe Storage — Cumulative (2045)

1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	60	180	165	90	50	1305	1185	200	40	925	235
Future Volume (veh/h)	185	60	180	165	90	50	1305	1185	200	40	925	235
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1826	1870	1811	1870	1870	1870	1870	1870	1870	1841
Adj Flow Rate, veh/h	133	160	0	116	203	57	1500	1362	230	44	1016	258
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	3	5	2	6	2	2	2	2	2	2	4
Cap, veh/h	169	176		148	227	62	1552	3108	965	106	1103	485
Arrive On Green	0.09	0.09	0.00	0.08	0.08	0.08	0.45	0.61	0.61	0.06	0.22	0.22
Sat Flow, veh/h	1781	1856	1547	1781	2739	749	3456	5106	1585	1781	5106	1560
Grp Volume(v), veh/h	133	160	0	116	132	128	1500	1362	230	44	1016	258
Grp Sat Flow(s),veh/h/ln	1781	1856	1547	1781	1811	1676	1728	1702	1585	1781	1702	1560
Q Serve(g_s), s	9.9	11.6	0.0	8.7	9.8	10.3	57.5	19.4	9.0	3.2	26.5	18.6
Cycle Q Clear(g_c), s	9.9	11.6	0.0	8.7	9.8	10.3	57.5	19.4	9.0	3.2	26.5	18.6
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	176		148	150	139	1552	3108	965	106	1103	485
V/C Ratio(X)	0.79	0.91		0.78	0.88	0.92	0.97	0.44	0.24	0.41	0.92	0.53
Avail Cap(c_a), veh/h	169	176		148	150	139	1614	3179	987	131	1170	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.3	61.1	0.0	61.3	61.8	62.0	36.5	14.2	12.2	61.8	52.2	38.8
Incr Delay (d2), s/veh	21.0	42.9	0.0	21.9	39.8	51.3	14.7	0.0	0.0	1.0	11.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	7.6	0.0	4.9	6.2	6.4	25.5	6.7	2.9	1.5	12.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.3	103.9	0.0	83.2	101.5	113.3	51.2	14.3	12.2	62.7	63.3	39.2
LnGrp LOS	F	F		F	F	F	D	B	B	E	E	D
Approach Vol, veh/h		293			376			3092			1318	
Approach Delay, s/veh		93.7			99.9			32.0			58.5	
Approach LOS		F			F			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.5	88.7		18.0	67.0	35.2		16.0				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.0	84.8		12.9	63.6	* 31		11.3				
Max Q Clear Time (g_c+I1), s	5.2	21.4		13.6	59.5	28.5		12.3				
Green Ext Time (p_c), s	0.0	3.2		0.0	1.6	0.9		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	47.5	
HCM 7th LOS	D	

Notes

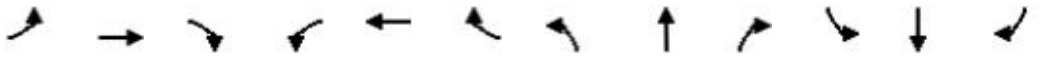
User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

Latrobe Storage — Cumulative (2045)
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	720	0	0	505	0	1770	380	285	1000	0
Future Volume (vph)	0	0	720	0	0	505	0	1770	380	285	1000	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	774	0	0	594	0	1903	409	306	1075	0
RTOR Reduction (vph)	0	0	48	0	0	0	0	0	122	0	0	0
Lane Group Flow (vph)	0	0	726	0	0	594	0	1903	287	306	1075	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			23.0			70.0		41.6	41.6	16.8	35.0	
Effective Green, g (s)			23.0			70.0		41.6	41.6	16.8	35.0	
Actuated g/C Ratio			0.33			1.00		0.59	0.59	0.24	0.50	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			915			1611		3021	940	424	3204	
v/s Ratio Prot			c0.26					c0.37		0.17	0.17	
v/s Ratio Perm						0.37			0.18			
v/c Ratio			0.79			0.37		0.63	0.31	0.72	0.34	
Uniform Delay, d1			21.3			0.0		9.2	7.0	24.5	10.5	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			4.8			0.7		1.0	0.8	6.0	0.3	
Delay (s)			26.1			0.7		10.2	7.9	30.4	10.8	
Level of Service			C			A		B	A	C	B	
Approach Delay (s/veh)		26.1			0.7			9.8			15.1	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



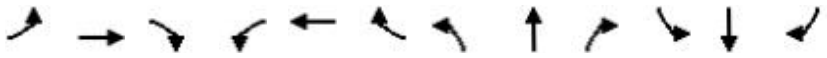
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	25	60	130	35	615	55	1410	260	515	1215	190
Future Volume (veh/h)	180	25	60	130	35	615	55	1410	260	515	1215	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	45	109	146	0	717	70	1785	329	542	1279	200
Peak Hour Factor	0.55	0.55	0.55	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	219	195	289	0	515	116	2022	628	600	2738	850
Arrive On Green	0.12	0.12	0.12	0.16	0.00	0.16	0.03	0.40	0.40	0.17	0.54	0.54
Sat Flow, veh/h	3456	1777	1585	1781	0	3170	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	327	45	109	146	0	717	70	1785	329	542	1279	200
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	0	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	10.4	2.6	7.4	8.5	0.0	18.5	2.3	37.0	18.0	17.5	17.7	7.6
Cycle Q Clear(g_c), s	10.4	2.6	7.4	8.5	0.0	18.5	2.3	37.0	18.0	17.5	17.7	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	426	219	195	289	0	515	116	2022	628	600	2738	850
V/C Ratio(X)	0.77	0.21	0.56	0.50	0.00	1.39	0.60	0.88	0.52	0.90	0.47	0.24
Avail Cap(c_a), veh/h	910	468	417	289	0	515	200	2218	688	652	2885	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	44.9	47.0	43.6	0.0	47.7	54.3	32.0	26.2	46.1	16.4	14.0
Incr Delay (d2), s/veh	2.2	0.3	1.8	1.4	0.0	188.7	1.9	4.0	0.3	14.5	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	1.2	3.0	3.9	0.0	20.8	1.0	14.6	6.3	8.3	6.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.6	45.3	48.9	45.0	0.0	236.4	56.2	36.0	26.5	60.6	16.4	14.1
LnGrp LOS	D	D	D	D		F	E	D	C	E	B	B
Approach Vol, veh/h		481			863			2184			2021	
Approach Delay, s/veh		49.7			204.0			35.2			28.0	
Approach LOS		D			F			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.3	50.6		17.5	7.3	66.6		22.5				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		4.0				
Max Green Setting (Gmax), s	21.5	49.5		30.0	6.6	64.4		18.5				
Max Q Clear Time (g_c+I1), s	19.5	39.0		12.4	4.3	19.7		20.5				
Green Ext Time (p_c), s	0.3	6.1		1.6	0.0	6.3		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	60.1
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	415	60	245	400	435	70	1140	495	470	810	320
Future Volume (veh/h)	335	415	60	245	400	435	70	1140	495	470	810	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	404	500	72	266	435	473	92	1500	651	528	910	360
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.76	0.76	0.76	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	3	2	2	2	2	2	2
Cap, veh/h	529	1105	493	596	1105	489	110	2263	558	540	2279	707
Arrive On Green	0.06	0.31	0.31	0.06	0.31	0.31	0.06	0.35	0.35	0.16	0.45	0.45
Sat Flow, veh/h	3456	3554	1585	3456	3554	1572	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	404	500	72	266	435	473	92	1500	651	528	910	360
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1572	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	10.0	20.2	5.9	9.5	17.2	53.1	9.2	35.3	63.0	27.3	21.5	29.1
Cycle Q Clear(g_c), s	10.0	20.2	5.9	9.5	17.2	53.1	9.2	35.3	63.0	27.3	21.5	29.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	529	1105	493	596	1105	489	110	2263	558	540	2279	707
V/C Ratio(X)	0.76	0.45	0.15	0.45	0.39	0.97	0.84	0.66	1.17	0.98	0.40	0.51
Avail Cap(c_a), veh/h	529	1131	504	596	1131	500	169	2263	558	540	2279	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	49.5	44.5	40.3	48.4	60.8	83.1	49.1	58.1	75.2	33.4	35.5
Incr Delay (d2), s/veh	5.9	0.1	0.1	0.2	0.1	31.3	11.6	0.7	93.6	32.7	0.1	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	8.9	2.3	4.0	7.5	24.7	4.5	14.1	38.8	14.3	8.7	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.8	49.6	44.6	40.4	48.5	92.0	94.8	49.8	151.6	108.0	33.5	36.1
LnGrp LOS	D	D	D	D	D	F	F	D	F	F	C	D
Approach Vol, veh/h		976			1174			2243			1798	
Approach Delay, s/veh		51.4			64.2			81.2			55.9	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	68.7	16.0	61.4	16.1	85.6	16.0	61.4
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	28.0	63.0	10.0	57.0	17.0	74.0	10.0	57.0
Max Q Clear Time (g_c+I1), s	29.3	65.0	11.5	22.2	11.2	31.1	12.0	55.1
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1	0.0	8.1	0.0	0.6

Intersection Summary		
HCM 7th Control Delay, s/veh	65.9	
HCM 7th LOS	E	

Attachment C

Latrobe Storage — Cumulative (2045)

5: Latrobe Road & Golden Foothill Parkway/Monte Verde Drive — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	5	60	5	5	10	25	1040	10	15	870	175
Future Volume (veh/h)	460	5	60	5	5	10	25	1040	10	15	870	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	666	0	0	9	9	19	32	1351	13	18	1024	206
Peak Hour Factor	0.78	0.78	0.78	0.54	0.54	0.54	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	812	426	0	14	14	29	70	1654	738	97	1708	762
Arrive On Green	0.23	0.00	0.00	0.03	0.03	0.03	0.04	0.47	0.47	0.05	0.48	0.48
Sat Flow, veh/h	3563	1870	0	412	412	870	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	666	0	0	37	0	0	32	1351	13	18	1024	206
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1693	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	16.2	0.0	0.0	2.0	0.0	0.0	1.6	30.0	0.4	0.9	19.2	7.1
Cycle Q Clear(g_c), s	16.2	0.0	0.0	2.0	0.0	0.0	1.6	30.0	0.4	0.9	19.2	7.1
Prop In Lane	1.00		0.00	0.24		0.51	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	812	426	0	56	0	0	70	1654	738	97	1708	762
V/C Ratio(X)	0.82	0.00	0.00	0.66	0.00	0.00	0.46	0.82	0.02	0.18	0.60	0.27
Avail Cap(c_a), veh/h	1052	552	0	296	0	0	117	1904	849	97	1865	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	0.0	0.0	43.7	0.0	0.0	43.0	21.1	13.2	41.3	17.3	14.2
Incr Delay (d2), s/veh	4.7	0.0	0.0	12.2	0.0	0.0	1.7	2.8	0.0	0.3	0.6	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	0.0	1.0	0.0	0.0	0.7	11.1	0.1	0.4	6.8	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.2	0.0	0.0	55.9	0.0	0.0	44.7	23.9	13.2	41.6	17.9	14.4
LnGrp LOS	D			E			D	C	B	D	B	B
Approach Vol, veh/h		666			37			1396			1248	
Approach Delay, s/veh		38.2			55.9			24.3			17.7	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	49.9		7.0	9.0	48.6		26.8
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		6.0
Max Green Setting (Gmax), s	5.6	48.0		16.0	5.0	49.0		27.0
Max Q Clear Time (g_c+I1), s	3.6	21.2		4.0	2.9	32.0		18.2
Green Ext Time (p_c), s	0.0	11.3		0.1	0.0	10.6		2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	24.9
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	145	15	5	1010	870	45
Future Volume (veh/h)	145	15	5	1010	870	45
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	19	6	1247	956	49
Peak Hour Factor	0.81	0.81	0.81	0.81	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	248	221	14	2214	1848	824
Arrive On Green	0.14	0.14	0.01	0.62	0.52	0.52
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	179	19	6	1247	956	49
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	4.0	0.4	0.1	8.6	7.4	0.6
Cycle Q Clear(g_c), s	4.0	0.4	0.1	8.6	7.4	0.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	248	221	14	2214	1848	824
V/C Ratio(X)	0.72	0.09	0.42	0.56	0.52	0.06
Avail Cap(c_a), veh/h	888	791	254	4642	3798	1694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	15.8	20.8	4.6	6.6	5.0
Incr Delay (d2), s/veh	3.9	0.2	7.1	0.3	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.1	0.1	0.5	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.3	15.9	27.8	4.9	7.0	5.0
LnGrp LOS	C	B	C	A	A	A
Approach Vol, veh/h	198			1253	1005	
Approach Delay, s/veh	20.7			5.0	6.9	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	32.2		4.3	27.9	9.9
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	55.0		6.0	45.0	21.0
Max Q Clear Time (g_c+I1), s	10.6		2.1	9.4	6.0
Green Ext Time (p_c), s	15.7		0.0	10.4	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	7.1
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	95	5	5	30	0	5	0	55	0	0	0
Future Vol, veh/h	0	95	5	5	30	0	5	0	55	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	122	6	6	38	0	6	0	71	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	128	0	0	176	176	125	173	179	38
Stage 1	-	-	-	-	-	-	125	125	-	51	51	-
Stage 2	-	-	-	-	-	-	51	51	-	122	128	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1572	-	-	1458	-	-	786	717	926	790	714	1033
Stage 1	-	-	-	-	-	-	879	792	-	962	852	-
Stage 2	-	-	-	-	-	-	962	852	-	882	790	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1572	-	-	1458	-	-	783	714	926	726	711	1033
Mov Cap-2 Maneuver	-	-	-	-	-	-	783	714	-	726	711	-
Stage 1	-	-	-	-	-	-	879	792	-	957	848	-
Stage 2	-	-	-	-	-	-	957	848	-	815	790	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.07	9.31	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	912	1572	-	-	257	-	-	-
HCM Lane V/C Ratio	0.084	-	-	-	0.004	-	-	-
HCM Ctrl Dly (s/v)	9.3	0	-	-	7.5	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1910	Heavy Vehicle Adjustment Factor (f_{HV})	0.946
Peak Hour Factor	0.89	Flow Rate (V_p), pc/h/ln	1134
Total Trucks, %	2.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.52

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	18.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1700	Heavy Vehicle Adjustment Factor (f_{HV})	0.957
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	1010
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.46
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	16.8
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	2/25/2026
Agency		Analysis Year	Cumulative 2045
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1460	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.86	Flow Rate (V_p), pc/h/ln	896
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.41

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1420	Heavy Vehicle Adjustment Factor (f_{HV})	0.953
Peak Hour Factor	0.84	Flow Rate (V_p), pc/h/ln	887
Total Trucks, %	3.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.40
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.8
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	2190	Heavy Vehicle Adjustment Factor (f_{HV})	0.955
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	1382
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.63

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	23.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	990	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.97	Flow Rate (V_p), pc/h/ln	530
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.24
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.8
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1150	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	732
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.33

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	12.2
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	950	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.98	Flow Rate (V_p), pc/h/ln	505
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.23
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.4
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Appendix H

Analysis Worksheets for
Cumulative (2045) Plus Project Conditions

Attachment C

Latrobe Storage — Cumulative (2045) Plus Project
1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: AM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	35	521	65	65	35	987	888	135	20	1073	640
Future Volume (veh/h)	195	35	521	65	65	35	987	888	135	20	1073	640
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1856	1870	1811	1870	1663	1856	1811	1796	1826	1870	1870
Adj Flow Rate, veh/h	285	0	0	69	98	44	1175	1057	161	22	1192	711
Peak Hour Factor	0.77	0.77	0.77	0.80	0.80	0.80	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %	4	3	2	6	2	16	3	6	7	5	2	2
Cap, veh/h	353	0		137	198	84	1238	3021	930	74	1477	618
Arrive On Green	0.10	0.00	0.00	0.08	0.08	0.08	0.36	0.61	0.61	0.04	0.29	0.29
Sat Flow, veh/h	3506	0	1585	1725	2493	1057	3428	4944	1522	1739	5106	1585
Grp Volume(v), veh/h	285	0	0	69	72	70	1175	1057	161	22	1192	711
Grp Sat Flow(s),veh/h/ln	1753	0	1585	1725	1870	1680	1714	1648	1522	1739	1702	1585
Q Serve(g_s), s	10.0	0.0	0.0	4.8	4.7	5.0	42.0	13.3	5.8	1.5	27.3	36.5
Cycle Q Clear(g_c), s	10.0	0.0	0.0	4.8	4.7	5.0	42.0	13.3	5.8	1.5	27.3	36.5
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	0		137	148	133	1238	3021	930	74	1477	618
V/C Ratio(X)	0.81	0.00		0.50	0.49	0.53	0.95	0.35	0.17	0.30	0.81	1.15
Avail Cap(c_a), veh/h	775	0		137	148	133	1348	3021	930	138	1477	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	0.0	0.0	55.7	55.6	55.8	39.2	12.1	10.7	58.6	41.6	34.6
Incr Delay (d2), s/veh	3.3	0.0	0.0	1.2	0.9	1.9	13.2	0.0	0.0	0.8	3.2	85.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.0	2.2	2.3	2.2	18.7	4.3	1.7	0.7	11.3	33.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.8	0.0	0.0	56.9	56.5	57.7	52.4	12.2	10.7	59.4	44.7	119.7
LnGrp LOS	E			E	E	E	D	B	B	E	D	F
Approach Vol, veh/h		285			211			2393			1925	
Approach Delay, s/veh		58.8			57.0			31.8			72.6	
Approach LOS		E			E			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	82.9		17.8	51.3	42.3		14.7				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.0	76.1		27.9	49.6	* 37		10.0				
Max Q Clear Time (g_c+I1), s	3.5	15.3		12.0	44.0	38.5		7.0				
Green Ext Time (p_c), s	0.0	2.3		0.7	1.5	0.0		0.2				

Intersection Summary	
HCM 7th Control Delay, s/veh	50.8
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

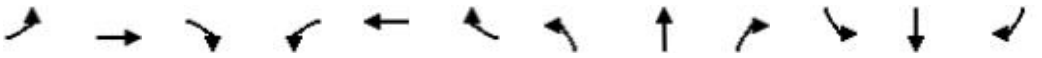
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

Latrobe Storage
2: Latrobe Road & US-50 Eastbound Ramps

Cumulative (2045) Plus Project
Timing Plan: AM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	1017	0	0	305	0	1410	291	295	1384	0
Future Volume (vph)	0	0	1017	0	0	305	0	1410	291	295	1384	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2707			1494		4988	1538	1752	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2707			1494		4988	1538	1752	6408	
Peak-hour factor, PHF	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Adj. Flow (vph)	0	0	1183	0	0	381	0	1584	327	355	1667	0
RTOR Reduction (vph)	0	0	26	0	0	0	0	0	122	0	0	0
Lane Group Flow (vph)	0	0	1157	0	0	381	0	1584	205	355	1667	0
Heavy Vehicles (%)	2%	2%	5%	2%	2%	10%	2%	4%	5%	3%	2%	2%
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			33.7			70.0		39.5	39.5	18.9	24.3	
Effective Green, g (s)			33.7			70.0		39.5	39.5	18.9	24.3	
Actuated g/C Ratio			0.48			1.00		0.56	0.56	0.27	0.35	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1303			1494		2814	867	473	2224	
v/s Ratio Prot			c0.43					0.32		0.20	c0.26	
v/s Ratio Perm						0.26			0.13			
v/c Ratio			0.89			0.26		0.56	0.24	0.75	0.75	
Uniform Delay, d1			16.4			0.0		9.7	7.7	23.4	20.2	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			7.7			0.4		0.8	0.6	6.6	2.4	
Delay (s)			24.1			0.4		10.6	8.3	30.0	22.5	
Level of Service			C			A		B	A	C	C	
Approach Delay (s/veh)		24.1			0.4			10.2			23.8	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



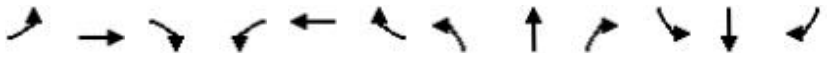
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	25	45	135	15	280	50	1396	150	330	1866	165
Future Volume (veh/h)	185	25	45	135	15	280	50	1396	150	330	1866	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1870	1693	1870	1870	1811	1841	1856	1826	1856	1856	1811
Adj Flow Rate, veh/h	356	48	87	169	0	363	56	1569	169	398	2248	199
Peak Hour Factor	0.52	0.52	0.52	0.80	0.80	0.80	0.89	0.89	0.89	0.83	0.83	0.83
Percent Heavy Veh, %	14	2	14	2	2	6	4	3	5	3	3	6
Cap, veh/h	454	258	230	250	0	431	107	2125	649	470	2660	806
Arrive On Green	0.15	0.15	0.15	0.14	0.00	0.14	0.03	0.42	0.42	0.14	0.53	0.53
Sat Flow, veh/h	3127	1777	1585	1781	0	3070	3401	5066	1547	3428	5066	1535
Grp Volume(v), veh/h	356	48	87	169	0	363	56	1569	169	398	2248	199
Grp Sat Flow(s),veh/h/ln	1564	1777	1585	1781	0	1535	1700	1689	1547	1714	1689	1535
Q Serve(g_s), s	11.1	2.4	5.0	9.1	0.0	11.7	1.6	26.4	7.2	11.5	38.4	7.2
Cycle Q Clear(g_c), s	11.1	2.4	5.0	9.1	0.0	11.7	1.6	26.4	7.2	11.5	38.4	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	454	258	230	250	0	431	107	2125	649	470	2660	806
V/C Ratio(X)	0.78	0.19	0.38	0.68	0.00	0.84	0.53	0.74	0.26	0.85	0.85	0.25
Avail Cap(c_a), veh/h	926	526	469	292	0	503	168	2546	778	643	3246	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	38.0	39.1	41.3	0.0	42.4	48.3	24.7	19.2	42.7	20.5	13.1
Incr Delay (d2), s/veh	2.2	0.3	0.8	4.3	0.0	10.4	1.5	0.7	0.1	5.9	1.6	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	1.1	2.0	4.3	0.0	5.0	0.7	9.5	2.4	5.0	13.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.0	38.3	39.9	45.6	0.0	52.8	49.8	25.4	19.2	48.5	22.1	13.2
LnGrp LOS	D	D	D	D		D	D	C	B	D	C	B
Approach Vol, veh/h		491			532			1794			2845	
Approach Delay, s/veh		42.7			50.5			25.6			25.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.4	48.0		18.2	6.7	58.7		17.7				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		3.5				
Max Green Setting (Gmax), s	13.9	50.9		30.0	5.0	64.9		16.6				
Max Q Clear Time (g_c+I1), s	13.5	28.4		13.1	3.6	40.4		13.7				
Green Ext Time (p_c), s	0.4	7.5		1.6	0.0	12.8		0.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	29.2
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	215	96	356	225	370	61	1226	361	220	1376	490
Future Volume (veh/h)	165	215	96	356	225	370	61	1226	361	220	1376	490
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1781	1722	1870	1841	1811	1826	1870	1870	1796	1870	1856
Adj Flow Rate, veh/h	223	291	130	414	262	430	75	1514	446	262	1638	583
Peak Hour Factor	0.74	0.74	0.74	0.86	0.86	0.86	0.81	0.81	0.81	0.84	0.84	0.84
Percent Heavy Veh, %	4	8	12	2	4	6	5	2	2	7	2	3
Cap, veh/h	657	981	423	758	1036	455	108	2585	637	305	2204	679
Arrive On Green	0.06	0.29	0.29	0.07	0.30	0.30	0.06	0.40	0.40	0.09	0.43	0.43
Sat Flow, veh/h	3401	3385	1459	3456	3497	1535	1739	6434	1585	3319	5106	1572
Grp Volume(v), veh/h	223	291	130	414	262	430	75	1514	446	262	1638	583
Grp Sat Flow(s),veh/h/ln	1700	1692	1459	1728	1749	1535	1739	1609	1585	1659	1702	1572
Q Serve(g_s), s	7.0	10.3	10.7	11.0	8.8	42.3	6.5	28.4	36.2	12.0	41.4	51.7
Cycle Q Clear(g_c), s	7.0	10.3	10.7	11.0	8.8	42.3	6.5	28.4	36.2	12.0	41.4	51.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	657	981	423	758	1036	455	108	2585	637	305	2204	679
V/C Ratio(X)	0.34	0.30	0.31	0.55	0.25	0.95	0.69	0.59	0.70	0.86	0.74	0.86
Avail Cap(c_a), veh/h	657	1278	551	758	1343	590	169	2821	695	451	2438	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	42.6	42.7	37.9	41.3	53.1	71.0	36.1	38.4	69.1	36.7	39.6
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.5	0.0	19.3	3.0	0.3	2.8	7.3	1.1	9.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	4.3	3.8	1.1	3.7	18.1	3.0	11.0	13.9	5.3	16.6	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.8	42.6	42.9	38.4	41.4	72.4	73.9	36.4	41.3	76.4	37.9	48.8
LnGrp LOS	C	D	D	D	D	E	E	D	D	E	D	D
Approach Vol, veh/h		644			1106			2035			2483	
Approach Delay, s/veh		40.0			52.3			38.8			44.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	67.7	17.0	50.5	14.6	72.3	16.0	51.5
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	21.0	67.7	11.0	58.3	15.0	73.7	10.0	59.3
Max Q Clear Time (g_c+I1), s	14.0	38.2	13.0	12.7	8.5	53.7	9.0	44.3
Green Ext Time (p_c), s	0.2	15.0	0.0	1.3	0.0	12.9	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	43.6
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	5	30	15	10	10	70	1388	10	5	1338	390
Future Volume (veh/h)	170	5	30	15	10	10	70	1388	10	5	1338	390
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1811	1870	1870	1870	1870	1870	1752	1870	1856	1870
Adj Flow Rate, veh/h	288	0	0	22	14	14	85	1693	12	7	1784	520
Peak Hour Factor	0.70	0.70	0.70	0.69	0.69	0.69	0.82	0.82	0.82	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	6	2	2	2	2	2	10	2	3	2
Cap, veh/h	380	199	0	31	20	20	101	2103	879	101	2087	938
Arrive On Green	0.11	0.00	0.00	0.04	0.04	0.04	0.06	0.59	0.59	0.06	0.59	0.59
Sat Flow, veh/h	3563	1870	0	767	488	488	1781	3554	1485	1781	3526	1585
Grp Volume(v), veh/h	288	0	0	50	0	0	85	1693	12	7	1784	520
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1744	0	0	1781	1777	1485	1781	1763	1585
Q Serve(g_s), s	6.9	0.0	0.0	2.5	0.0	0.0	4.2	32.7	0.3	0.3	36.8	17.5
Cycle Q Clear(g_c), s	6.9	0.0	0.0	2.5	0.0	0.0	4.2	32.7	0.3	0.3	36.8	17.5
Prop In Lane	1.00		0.00	0.44		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	199	0	70	0	0	101	2103	879	101	2087	938
V/C Ratio(X)	0.76	0.00	0.00	0.72	0.00	0.00	0.84	0.80	0.01	0.07	0.85	0.55
Avail Cap(c_a), veh/h	972	510	0	317	0	0	101	2181	911	101	2164	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	0.0	0.0	41.7	0.0	0.0	41.1	14.0	7.4	39.3	14.8	10.9
Incr Delay (d2), s/veh	1.2	0.0	0.0	12.7	0.0	0.0	41.6	2.4	0.0	0.1	3.6	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	1.3	0.0	0.0	2.9	10.4	0.1	0.1	11.9	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.4	0.0	0.0	54.4	0.0	0.0	82.7	16.4	7.4	39.4	18.5	11.7
LnGrp LOS	D			D			F	B	A	D	B	B
Approach Vol, veh/h		288			50			1790			2311	
Approach Delay, s/veh		39.4			54.4			19.5			17.0	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	58.1		7.5	9.0	58.1		13.4
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0
Max Green Setting (Gmax), s	5.0	54.0		16.0	5.0	54.0		24.0
Max Q Clear Time (g_c+I1), s	6.2	38.8		4.5	2.3	34.7		8.9
Green Ext Time (p_c), s	0.0	13.3		0.1	0.0	14.3		0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	19.9
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	12	37	1370	1270	133
Future Volume (veh/h)	43	12	37	1370	1270	133
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	74	21	47	1734	1628	171
Peak Hour Factor	0.58	0.58	0.79	0.79	0.78	0.78
Percent Heavy Veh, %	3	2	2	2	3	2
Cap, veh/h	116	104	80	2737	2325	1045
Arrive On Green	0.07	0.07	0.05	0.77	0.66	0.66
Sat Flow, veh/h	1767	1585	1781	3647	3618	1585
Grp Volume(v), veh/h	74	21	47	1734	1628	171
Grp Sat Flow(s),veh/h/ln	1767	1585	1781	1777	1763	1585
Q Serve(g_s), s	2.5	0.8	1.6	13.3	17.8	2.5
Cycle Q Clear(g_c), s	2.5	0.8	1.6	13.3	17.8	2.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	116	104	80	2737	2325	1045
V/C Ratio(X)	0.64	0.20	0.59	0.63	0.70	0.16
Avail Cap(c_a), veh/h	464	416	146	3501	2952	1327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	26.9	28.5	3.1	6.6	4.0
Incr Delay (d2), s/veh	5.7	0.9	2.5	0.3	0.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.3	0.6	0.1	2.9	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	33.5	27.9	31.0	3.5	7.2	4.1
LnGrp LOS	C	C	C	A	A	A
Approach Vol, veh/h	95			1781	1799	
Approach Delay, s/veh	32.2			4.2	6.9	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	52.9		6.7	46.2	8.0
Change Period (Y+Rc), s	6.0		4.0	6.0	4.0
Max Green Setting (Gmax), s	60.0		5.0	51.0	16.0
Max Q Clear Time (g_c+I1), s	15.3		3.6	19.8	4.5
Green Ext Time (p_c), s	25.9		0.0	20.4	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	6.3
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	35	10	45	90	10	5	0	10	10	0	1
Future Vol, veh/h	1	35	10	45	90	10	5	0	10	10	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	5	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	39	11	51	101	11	6	0	11	11	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	51	0	0	249	261	45	249	261	107
Stage 1	-	-	-	-	-	-	47	47	-	208	208	-
Stage 2	-	-	-	-	-	-	202	213	-	42	53	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1477	-	-	1556	-	-	704	644	1025	704	644	947
Stage 1	-	-	-	-	-	-	966	856	-	794	730	-
Stage 2	-	-	-	-	-	-	800	726	-	973	851	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1477	-	-	1556	-	-	678	621	1025	672	621	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	678	621	-	672	621	-
Stage 1	-	-	-	-	-	-	966	855	-	767	705	-
Stage 2	-	-	-	-	-	-	771	701	-	962	850	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.16	2.29	9.19	10.31
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	876	37	-	-	548	-	-	690
HCM Lane V/C Ratio	0.019	0.001	-	-	0.032	-	-	0.018
HCM Ctrl Dly (s/v)	9.2	7.4	0	-	7.4	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Attachment C

Latrobe Storage — Cumulative (2045) Plus Project
1: Latrobe Road & US-50 Westbound Ramps/Saratoga Way — Timing Plan: PM Peak-Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	60	182	166	90	50	1308	1191	200	40	930	235
Future Volume (veh/h)	185	60	182	166	90	50	1308	1191	200	40	930	235
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1826	1870	1811	1870	1870	1870	1870	1870	1870	1841
Adj Flow Rate, veh/h	133	160	0	116	204	57	1503	1369	230	44	1022	258
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	3	5	2	6	2	2	2	2	2	2	4
Cap, veh/h	168	175		147	227	62	1553	3114	967	106	1107	485
Arrive On Green	0.09	0.09	0.00	0.08	0.08	0.08	0.45	0.61	0.61	0.06	0.22	0.22
Sat Flow, veh/h	1781	1856	1547	1781	2742	746	3456	5106	1585	1781	5106	1560
Grp Volume(v), veh/h	133	160	0	116	133	128	1503	1369	230	44	1022	258
Grp Sat Flow(s),veh/h/ln	1781	1856	1547	1781	1811	1677	1728	1702	1585	1781	1702	1560
Q Serve(g_s), s	10.0	11.7	0.0	8.7	9.9	10.4	57.9	19.5	9.0	3.3	26.8	18.7
Cycle Q Clear(g_c), s	10.0	11.7	0.0	8.7	9.9	10.4	57.9	19.5	9.0	3.3	26.8	18.7
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	175		147	150	139	1553	3114	967	106	1107	485
V/C Ratio(X)	0.79	0.91		0.79	0.89	0.92	0.97	0.44	0.24	0.42	0.92	0.53
Avail Cap(c_a), veh/h	168	175		147	150	139	1608	3169	984	130	1166	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	61.3	0.0	61.5	62.0	62.2	36.6	14.2	12.2	62.0	52.4	38.8
Incr Delay (d2), s/veh	21.4	43.7	0.0	22.4	41.3	53.1	15.0	0.0	0.0	1.0	11.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	7.7	0.0	4.9	6.3	6.5	25.7	6.7	2.9	1.5	12.1	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.0	105.0	0.0	83.9	103.4	115.4	51.6	14.2	12.2	62.9	63.8	39.3
LnGrp LOS	F	F		F	F	F	D	B	B	E	E	D
Approach Vol, veh/h		293			377			3102			1324	
Approach Delay, s/veh		94.5			101.5			32.2			59.0	
Approach LOS		F			F			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.5	89.1		18.0	67.2	35.4		16.0				
Change Period (Y+Rc), s	5.4	5.8		5.1	5.8	* 5.8		4.7				
Max Green Setting (Gmax), s	10.0	84.8		12.9	63.6	* 31		11.3				
Max Q Clear Time (g_c+I1), s	5.3	21.5		13.7	59.9	28.8		12.4				
Green Ext Time (p_c), s	0.0	3.2		0.0	1.5	0.8		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	47.9	
HCM 7th LOS	D	

Notes

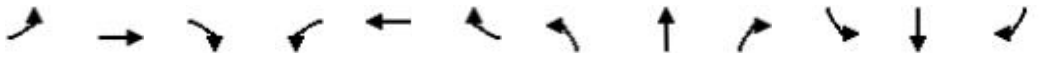
User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Attachment C

Latrobe Storage — Cumulative (2045) Plus Project
2: Latrobe Road & US-50 Eastbound Ramps — Timing Plan: PM Peak-Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	723	0	0	505	0	1779	382	285	1008	0
Future Volume (vph)	0	0	723	0	0	505	0	1779	382	285	1008	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.8			4.0		6.2	6.2	5.4	6.2	
Lane Util. Factor			0.88			1.00		0.91	1.00	1.00	0.86	
Frt			0.85			0.87		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	1770	6408	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	1770	6408	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	777	0	0	594	0	1913	411	306	1084	0
RTOR Reduction (vph)	0	0	47	0	0	0	0	0	122	0	0	0
Lane Group Flow (vph)	0	0	730	0	0	594	0	1913	289	306	1084	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			23.1			70.0		41.6	41.6	16.8	34.9	
Effective Green, g (s)			23.1			70.0		41.6	41.6	16.8	34.9	
Actuated g/C Ratio			0.33			1.00		0.59	0.59	0.24	0.50	
Clearance Time (s)			5.8					6.2	6.2	5.4	6.2	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			919			1611		3021	940	424	3194	
v/s Ratio Prot			c0.26					c0.38		0.17	0.17	
v/s Ratio Perm						0.37			0.18			
v/c Ratio			0.79			0.37		0.63	0.31	0.72	0.34	
Uniform Delay, d1			21.3			0.0		9.2	7.0	24.5	10.6	
Progression Factor			1.00			1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2			4.8			0.7		1.0	0.8	6.0	0.3	
Delay (s)			26.1			0.7		10.3	7.9	30.4	10.9	
Level of Service			C			A		B	A	C	B	
Approach Delay (s/veh)		26.1			0.7			9.8			15.2	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



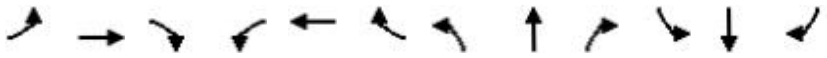
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	25	61	130	35	615	55	1421	260	515	1226	190
Future Volume (veh/h)	180	25	61	130	35	615	55	1421	260	515	1226	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	45	111	146	0	717	70	1799	329	542	1291	200
Peak Hour Factor	0.55	0.55	0.55	0.89	0.89	0.89	0.79	0.79	0.79	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	219	195	288	0	512	116	2029	630	600	2744	852
Arrive On Green	0.12	0.12	0.12	0.16	0.00	0.16	0.03	0.40	0.40	0.17	0.54	0.54
Sat Flow, veh/h	3456	1777	1585	1781	0	3170	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	327	45	111	146	0	717	70	1799	329	542	1291	200
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	0	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	10.5	2.6	7.6	8.6	0.0	18.5	2.3	37.5	18.1	17.6	17.9	7.6
Cycle Q Clear(g_c), s	10.5	2.6	7.6	8.6	0.0	18.5	2.3	37.5	18.1	17.6	17.9	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	426	219	195	288	0	512	116	2029	630	600	2744	852
V/C Ratio(X)	0.77	0.21	0.57	0.51	0.00	1.40	0.60	0.89	0.52	0.90	0.47	0.23
Avail Cap(c_a), veh/h	906	466	416	288	0	512	199	2209	686	649	2873	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	45.1	47.3	43.8	0.0	48.0	54.6	32.1	26.2	46.4	16.4	14.0
Incr Delay (d2), s/veh	2.2	0.3	1.9	1.5	0.0	191.2	1.9	4.2	0.3	14.7	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	1.2	3.1	3.9	0.0	20.9	1.0	14.8	6.3	8.4	6.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.8	45.5	49.2	45.3	0.0	239.1	56.4	36.3	26.5	61.0	16.4	14.1
LnGrp LOS	D	D	D	D		F	E	D	C	E	B	B
Approach Vol, veh/h		483			863			2198			2033	
Approach Delay, s/veh		49.9			206.3			35.5			28.1	
Approach LOS		D			F			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.4	51.0		17.6	7.3	67.0		22.5				
Change Period (Y+Rc), s	3.5	5.5		3.5	3.5	5.5		4.0				
Max Green Setting (Gmax), s	21.5	49.5		30.0	6.6	64.4		18.5				
Max Q Clear Time (g_c+I1), s	19.9	39.5		12.5	4.3	19.9		20.5				
Green Ext Time (p_c), s	0.3	6.0		1.6	0.0	6.4		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	60.5
HCM 7th LOS	E

Notes

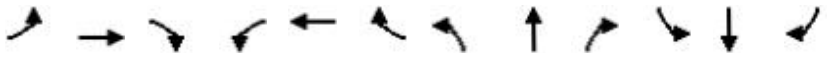
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	415	61	247	400	435	71	1151	497	470	822	320
Future Volume (veh/h)	335	415	61	247	400	435	71	1151	497	470	822	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	404	500	73	268	435	473	93	1514	654	528	924	360
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.76	0.76	0.76	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	3	2	2	2	2	2	2
Cap, veh/h	529	1105	493	596	1105	489	111	2263	558	540	2276	706
Arrive On Green	0.06	0.31	0.31	0.06	0.31	0.31	0.06	0.35	0.35	0.16	0.45	0.45
Sat Flow, veh/h	3456	3554	1585	3456	3554	1572	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	404	500	73	268	435	473	93	1514	654	528	924	360
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1572	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	10.0	20.2	6.0	9.5	17.2	53.1	9.3	35.7	63.0	27.3	21.9	29.2
Cycle Q Clear(g_c), s	10.0	20.2	6.0	9.5	17.2	53.1	9.3	35.7	63.0	27.3	21.9	29.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	529	1105	493	596	1105	489	111	2263	558	540	2276	706
V/C Ratio(X)	0.76	0.45	0.15	0.45	0.39	0.97	0.84	0.67	1.17	0.98	0.41	0.51
Avail Cap(c_a), veh/h	529	1131	504	596	1131	500	169	2263	558	540	2276	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	49.5	44.6	40.3	48.4	60.8	83.1	49.2	58.1	75.2	33.6	35.6
Incr Delay (d2), s/veh	5.9	0.1	0.1	0.2	0.1	31.3	12.3	0.8	95.7	32.7	0.1	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	8.9	2.3	4.0	7.5	24.7	4.6	14.3	39.1	14.3	8.9	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.8	49.6	44.6	40.5	48.5	92.0	95.4	50.0	153.7	108.0	33.7	36.2
LnGrp LOS	D	D	D	D	D	F	F	D	F	F	C	D
Approach Vol, veh/h		977			1176			2261			1812	
Approach Delay, s/veh		51.4			64.2			81.9			55.8	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	68.7	16.0	61.4	16.2	85.5	16.0	61.4
Change Period (Y+Rc), s	5.0	5.7	6.0	5.7	5.0	5.7	6.0	5.7
Max Green Setting (Gmax), s	28.0	63.0	10.0	57.0	17.0	74.0	10.0	57.0
Max Q Clear Time (g_c+I1), s	29.3	65.0	11.5	22.2	11.3	31.2	12.0	55.1
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1	0.0	8.3	0.0	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	66.2
HCM 7th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	5	60	5	5	10	25	1054	10	15	885	175
Future Volume (veh/h)	460	5	60	5	5	10	25	1054	10	15	885	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	666	0	0	9	9	19	32	1369	13	18	1041	206
Peak Hour Factor	0.78	0.78	0.78	0.54	0.54	0.54	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	810	425	0	14	14	29	70	1663	742	97	1716	765
Arrive On Green	0.23	0.00	0.00	0.03	0.03	0.03	0.04	0.47	0.47	0.05	0.48	0.48
Sat Flow, veh/h	3563	1870	0	412	412	870	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	666	0	0	37	0	0	32	1369	13	18	1041	206
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1693	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	16.4	0.0	0.0	2.0	0.0	0.0	1.6	30.7	0.4	0.9	19.7	7.1
Cycle Q Clear(g_c), s	16.4	0.0	0.0	2.0	0.0	0.0	1.6	30.7	0.4	0.9	19.7	7.1
Prop In Lane	1.00		0.00	0.24		0.51	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	810	425	0	56	0	0	70	1663	742	97	1716	765
V/C Ratio(X)	0.82	0.00	0.00	0.66	0.00	0.00	0.46	0.82	0.02	0.19	0.61	0.27
Avail Cap(c_a), veh/h	1045	548	0	294	0	0	116	1891	843	97	1852	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	0.0	0.0	44.0	0.0	0.0	43.3	21.2	13.1	41.6	17.4	14.2
Incr Delay (d2), s/veh	4.8	0.0	0.0	12.3	0.0	0.0	1.7	3.0	0.0	0.3	0.6	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	0.0	1.0	0.0	0.0	0.7	11.4	0.1	0.4	6.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.6	0.0	0.0	56.3	0.0	0.0	45.0	24.2	13.2	41.9	18.1	14.4
LnGrp LOS	D			E			D	C	B	D	B	B
Approach Vol, veh/h		666			37			1414			1265	
Approach Delay, s/veh		38.6			56.3			24.6			17.8	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	50.5		7.1	9.0	49.1		26.9				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		6.0				
Max Green Setting (Gmax), s	5.6	48.0		16.0	5.0	49.0		27.0				
Max Q Clear Time (g_c+I1), s	3.6	21.7		4.0	2.9	32.7		18.4				
Green Ext Time (p_c), s	0.0	11.4		0.1	0.0	10.4		2.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	25.2
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	159	18	8	1010	870	60
Future Volume (veh/h)	159	18	8	1010	870	60
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	196	22	10	1247	956	66
Peak Hour Factor	0.81	0.81	0.81	0.81	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	270	240	23	2191	1814	809
Arrive On Green	0.15	0.15	0.01	0.62	0.51	0.51
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	196	22	10	1247	956	66
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	4.5	0.5	0.2	8.9	7.8	0.9
Cycle Q Clear(g_c), s	4.5	0.5	0.2	8.9	7.8	0.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	270	240	23	2191	1814	809
V/C Ratio(X)	0.73	0.09	0.43	0.57	0.53	0.08
Avail Cap(c_a), veh/h	869	773	248	4539	3714	1656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	15.7	21.1	4.9	7.1	5.4
Incr Delay (d2), s/veh	3.7	0.2	4.6	0.3	0.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.2	0.1	0.7	1.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.2	15.9	25.7	5.2	7.4	5.4
LnGrp LOS	C	B	C	A	A	A
Approach Vol, veh/h	218			1257	1022	
Approach Delay, s/veh	20.6			5.4	7.3	
Approach LOS	C			A	A	

Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	32.5			4.6	28.0	10.5
Change Period (Y+Rc), s	6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s	55.0			6.0	45.0	21.0
Max Q Clear Time (g_c+I1), s	10.9			2.2	9.8	6.5
Green Ext Time (p_c), s	15.6			0.0	10.5	0.5

Intersection Summary		
HCM 7th Control Delay, s/veh	7.5	
HCM 7th LOS	A	

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	95	5	5	30	18	5	0	55	17	0	2
Future Vol, veh/h	2	95	5	5	30	18	5	0	55	17	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	122	6	6	38	23	6	0	71	22	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	62	0	0	128	0	0	181	204	125	190	196	50
Stage 1	-	-	-	-	-	-	130	130	-	63	63	-
Stage 2	-	-	-	-	-	-	51	74	-	127	133	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1458	-	-	780	692	926	770	699	1018
Stage 1	-	-	-	-	-	-	873	788	-	948	843	-
Stage 2	-	-	-	-	-	-	962	833	-	877	786	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1458	-	-	773	688	926	707	695	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	773	688	-	707	695	-
Stage 1	-	-	-	-	-	-	872	787	-	944	839	-
Stage 2	-	-	-	-	-	-	955	829	-	809	785	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.14	0.71	9.32	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	911	35	-	-	158	-	-	731
HCM Lane V/C Ratio	0.084	0.002	-	-	0.004	-	-	0.033
HCM Ctrl Dly (s/v)	9.3	7.3	0	-	7.5	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1918	Heavy Vehicle Adjustment Factor (f_{HV})	0.946
Peak Hour Factor	0.89	Flow Rate (V_p), pc/h/ln	1139
Total Trucks, %	2.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.52

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	19.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1714	Heavy Vehicle Adjustment Factor (f_{HV})	0.957
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	1018
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.46
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	17.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	AM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1468	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.86	Flow Rate (V_p), pc/h/ln	900
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.41

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	15.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1434	Heavy Vehicle Adjustment Factor (f_{HV})	0.953
Peak Hour Factor	0.84	Flow Rate (V_p), pc/h/ln	896
Total Trucks, %	3.60	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.41
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	14.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from White Rock Road to Golden Foothill Parkway	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	2198	Heavy Vehicle Adjustment Factor (f_{HV})	0.955
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	1386
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.63

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	23.1
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	C
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.30
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.38
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	1005	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.97	Flow Rate (V_p), pc/h/ln	538
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.24
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	9.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Attachment C

HCS Multilane Highway Report

Project Information			
Analyst	Kimley-Horn	Date	03/17/2026
Agency		Analysis Year	Cumulative 2045 Plus Project
Jurisdiction	El Dorado County	Time Analyzed	PM Peak Hour
Project Description	Latrobe Road from Golden Foothill Parkway to Suncast Lane	Units	U.S. Customary

Direction 1 Geometric Data			
Direction 1	Northbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12

Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity			
Volume (V) veh/h	1158	Heavy Vehicle Adjustment Factor (f_{HV})	0.947
Peak Hour Factor	0.83	Flow Rate (V_p), pc/h/ln	736
Total Trucks, %	2.30	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.33

Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	12.3
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	0.0		

Attachment C

Direction 2 Geometric Data			
Direction 2	Southbound		
Number of Lanes (N), ln	2	Terrain Type	Specific Grade
Measured or Base Free-Flow Speed	Base	Percent Grade, %	-1.90
Base Free-Flow Speed (BFFS), mi/h	60.0	Grade Length, mi	0.34
Lane Width, ft	12.0	Access Point Density, pts/mi	0.0
Median Type	Divided	Left-Side Lateral Clearance (LC_R), ft	20
Free-Flow Speed (FFS), mi/h	60.0	Total Lateral Clearance (TLC), ft	12
Direction 2 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 2 Demand and Capacity			
Volume (V) veh/h	965	Heavy Vehicle Adjustment Factor (f_{HV})	0.964
Peak Hour Factor	0.98	Flow Rate (V_p), pc/h/ln	513
Total Trucks, %	2.40	Capacity (c), pc/h/ln	2200
Single-Unit Trucks (SUT), %	30	Adjusted Capacity (c_{adj}), pc/h/ln	2200
Tractor-Trailers (TT), %	70	Volume-to-Capacity Ratio (v/c)	0.23
Direction 2 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	8.6
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.0		

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Appendix I

Truck Turning Radius Exhibit

Attachment C

LATROBE ROAD

SUNCAST LANE

TRIBUTARY OF CARSON CREEK

EXIST 24" STORM DRAIN

EXIST 24" CULVERT OUTFALL WITH RIP RAP, TO BE RE-ROUTED

!! CAUTION !! EXIST OVERHEAD ELEC LINES

EXIST OVERHEAD POLE

CONNECT TO EXIST. 12" WATER MAIN

8"DCDA & PIV

EXIST RECLAIMED WATER MAIN

EXIST 12" WATER MAIN

EXIST 24" WATER MAIN

(E) 20' LANDSCAPE ESMT

(E) 1' NO ACCESS ESMT

EXIST MONUMENT SIGN

Δ=90°00'00"
R=30.00'
L=47.12'
T=30.00'
CH=42.43'
CB=N13°57'16"E

EMERGENCY ACCESS ONLY PATH

S32°02'58"E 381.77'

S31°02'44"E 742.69'

(E) 35' LANDSCAPE ESMT

EXIST IRRIGATION BACKFLOW

PROPOSED HYDRANT SPACING R=150'

DUAL SWINGING EMERGENCY VEHICLE ACCESS ONLY GATE WITH FIRE APPROVED KNOX DEVICE

PRIVATE FIRE HYDRANT

BUILDING B

BUILDING C

BUILDING D

BUILDING E

PARCEL
12 / 32 PM 127
± 12.0AC

BUILDING A
THREE-STORY

OFFICE

EXIST 12" WATER MAIN

N58°57'16"E 170.00'

8"DCDA
CONNECT TO EXIST. 8" WATER STUB

S31°02'44"E 15.00'

EXIST PUBLIC FIRE HYDRANT

2" IRRIGATION WATER SERVICE

1" DOMESTIC WATER SERVICE AND RP

25' SECURITY GATE WITH APPROVED KNOX DEVICE

EXIST GAS SERVICE STUB, TO BE ABANDONED

FDC & PIV

HVAC EQUIPMENT

DOMESTIC WATER POINT OF CONNECTION

SEWER POINT OF CONNECTION

FIRE SPRINKLER LINE TO FIRE RISER ROOM

4' PEDESTRIAN GATE

25' SECURITY GATE WITH APPROVED KNOX DEVICE

TRASH ENCLOSURE

HVAC EQUIPMENT

R=56'

R=40'

4' EMERGENCY ACCESS ONLY GATE

EMERGENCY ACCESS ONLY

EMERGENCY ACCESS ONLY PATH

BASIN

6.5' EMERGENCY ACCESS ONLY

PROPOSED HYDRANT SPACING R=150'

EXIST 8" SEWER STUB, TO BE ABANDONED AT MAIN

EXIST 10" SEWER MAIN

(E) 40' DRAINAGE ESMT

S10°52'26"E 203.59'

S37°57'07"E 804.04'

S57°57'02"W 423.15'

S06°36'45"E 189.66'

N58°57'16"E 281.74'

48" SEWER MANHOLE

SEWER CLEANOUT CONNECT TO EXIST 6" PVC SDR SEWER STUB

EXIST. SEWER MANHOLE 9

EXIST JOINT TRENCH

EXIST PUBLIC FIRE HYDRANT

EXIST ROADWAY CULVERTS

PROPOSED HYDRANT SPACING R=150'

FIRE HYDRANT SPACING DETAIL

R=40.0'
R=56.0'

FIRE ACCESS ROUTE DETAIL

SCALE 1"=40'

40 20 0 40 80 120
SCALE: 1"=40'

GATE VALVE, PIV AND FDC, SIZE PER LINE

8" RPDA

REMOVE 2" BO AND CONNECT TO 8" WATER STUB

CONNECT TO EXISTING 12" MAIN FOR DOMESTIC WATER

CONNECT TO EXISTING 12" MAIN FOR IRRIGATION

2" IRRIGATION METER, RP AND POC

1" DOMESTIC METER & RP

EXIST PUBLIC FH

WATER CONNECTION DETAIL

2' HIGH LETTERS

INSTALL 12"X18" SIGN "FIRE LANE NO PARKING" HAWKINS No. 388-1 OR EQUIV

FIRE LANE

HEAVY DUTY AC PAVEMENT

PERIMETER FENCING

DUAL SWINGING FIRE ACCESS GATE WITH APPROVED KNOX DEVICE

HEAVY DUTY PCC PAVEMENT

EMERGENCY VEHICLE ACCESS DETAIL

No	DESCRIPTION	DATE
	CUP SUBMITTAL	08/04/2025
	CUP REV. 1	10/10/2025
	CUP REV. 2	03/17/2026

JOB NUMBER: 10.034
DRAWN BY: FNB
DESIGNED BY: BNB
CHECKED BY: BNB
3/9/2025

CUP25-0011

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WEST SACRAMENTO, CA 95691

REGISTERED PROFESSIONAL ENGINEER
BRIAN J. NEWMAN
No. 87537
CIVIL
STATE OF CALIFORNIA

PREPARED FOR:
EL DORADO HILLS OWNER, LLC.
FOSTER COURT, LAKE FOREST, CA
PHONE: (970) 669-8220
EMAIL: BARRY@63.PARTNERS
CONTACT: BARRY SHERMAN

811 Know what's below. Call before you dig.

CONCEPTUAL IMPROVEMENT PLANS FOR
LATROBE STORAGE
LATROBE ROAD, EL DORADO HILLS, CA 95762
APN: 117-060-012

WATER AND SEWER PLAN

COUNTY OF EL DORADO, CALIFORNIA

SHEET
C4

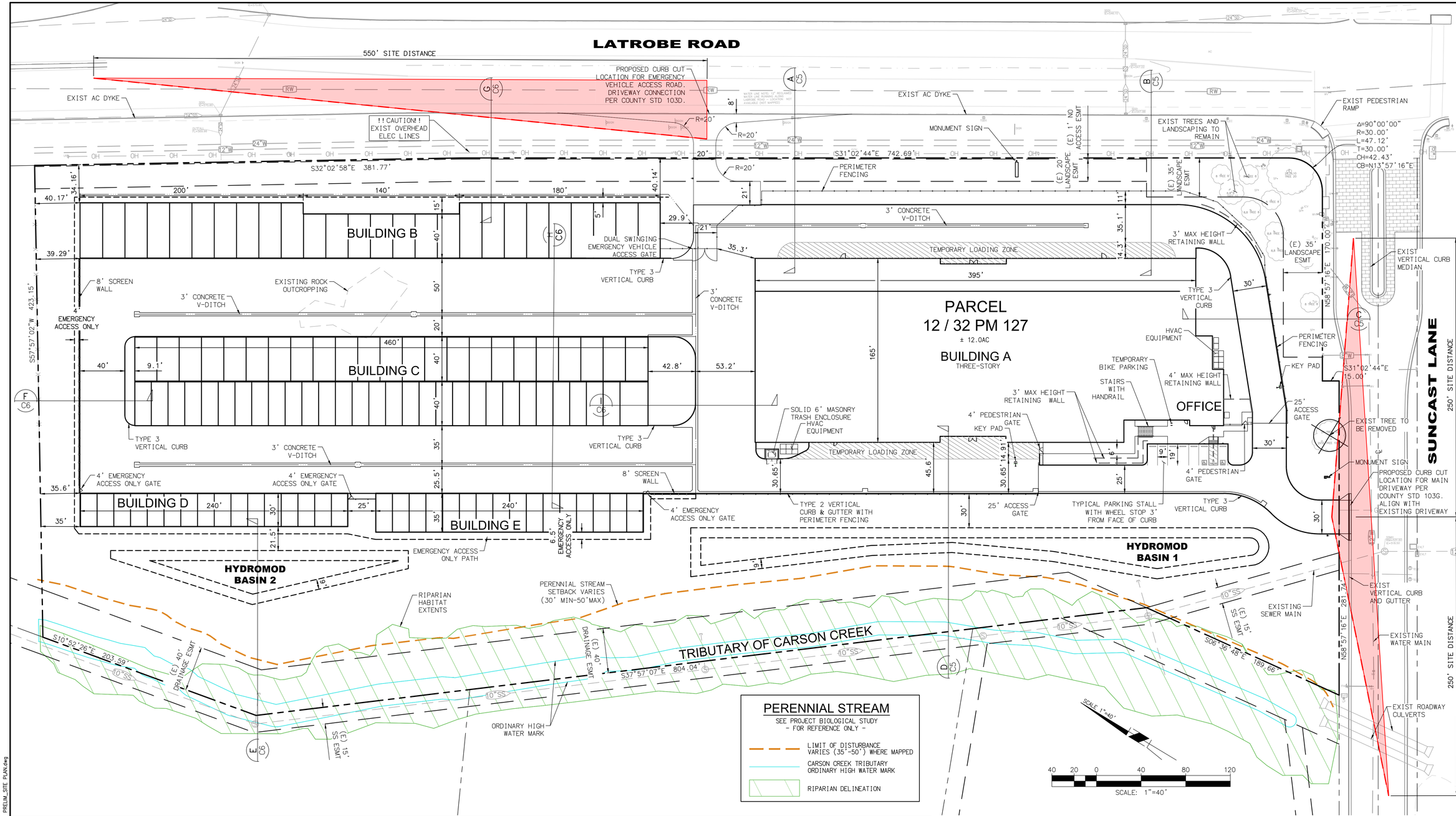
PRELIMINARY - NOT FOR CONSTRUCTION

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Appendix J

Sight Distance Exhibit

Attachment C



PERENNIAL STREAM

SEE PROJECT BIOLOGICAL STUDY
- FOR REFERENCE ONLY -

- LIMIT OF DISTURBANCE VARIES (35'-50') WHERE MAPPED
- CARSON CREEK TRIBUTARY ORDINARY HIGH WATER MARK
- RIPARIAN DELINEATION

LEGEND

EXISTING SYMBOL:	DESCRIPTION:
(200.0)	ELEVATION
	CURB & GUTTER
	PROPERTY LINE
	EASEMENT
90	CONTOURS
	STREET LIGHT
OH	OVERHEAD ELECTRICAL LINE
54"SD	STORM DRAIN
8"SS	SANITARY SEWER
24"W	DOMESTIC WATER
RW	RECLAIMED WATER
JT	JOINT TRENCH
X X	FENCE

EXISTING SYMBOL:	DESCRIPTION:
	REMOVE OR DEMOLISH
	LANDSCAPING
	TRAFFIC RATED INLET
	POWER POLE
S	SANITARY SEWER MANHOLE
T	TELECOM MANHOLE
	FIRE HYDRANT R FOR RESTRAINED
	GATE VALVE
	BUTTERFLY VALVE
2"BO	BLOWOFF WITH SIZE
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY

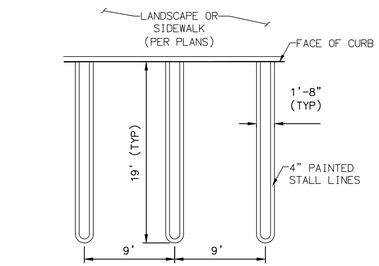
PROPOSED SYMBOL:	DESCRIPTION:
200.00 FS	DESIGN ELEVATION
	CURB & GUTTER
	RIGHT-OF-WAY LINE
	PROPERTY LINE
	EASEMENT
310	CONTOURS (MAJOR)
	CONTOURS (MINOR)
24"SD	STORM DRAIN
6"SS	SANITARY SEWER
1"W	DOMESTIC WATER
8"FW	PRIVATE HYDRANT LINE
8"FS	FIRE SPRINKLER LINE
X X	FENCE
	SAWCUT LINE

PROPOSED SYMBOL:	DESCRIPTION:
	FLOW LINE
GB	GRADE BREAK
	ACCESSIBLE PATH
D	STORM DRAIN MANHOLE
S	SEWER MANHOLE
	DROP INLET
R	FIRE HYDRANT R FOR RESTRAINED
	GATE VALVE
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY

PROPOSED SYMBOL:	DESCRIPTION:
	FIRE DEPARTMENT CONNECTION
	FITTING
	FUTURE CONNECTION
	POST INDICATOR VALVE
	CONCRETE PAVEMENT
	CONCRETE WALK
1 C-10	SECTION NUMBER SHEET FOR SECTION
	CROSS VISIBILITY AREA

SITE INFORMATION

APN:	117-060-012
ONSITE AREA:	12.0 ACRES
DISTURBED AREA:	9.45 ACRES
SOIL GROUP:	D
PROP. % IMPERVIOUS:	56%
EXIST. % IMPERVIOUS:	2%
RAW EARTHWORK	
CUT:	34,983 CU. YDS.
FILL:	34,535 CU. YDS.
NET:	448 CU. YDS. (CUT)
FLOOD PLAIN DATA REFERENCED FROM	
FEMA PANEL:	06017C0725E
DATED:	SEPTEMBER 26, 2008
FLOOD HAZARD ZONE:	X
TREE REMOVAL:	1 (NON-OAK)



TYPICAL PARKING STALL DETAIL
NO SCALE

No	DESCRIPTION	DATE
	CUP SUBMITTAL	08/04/2025
	CUP REV. 1	10/10/2025
	CUP REV. 2	03/17/2026

JOB NUMBER: 10.034
DRAWN BY: FNB
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COUNTY OF EL DORADO, CALIFORNIA

PRELIMINARY - NOT FOR CONSTRUCTION

SHEET
C1

Drawing Name: C:\Users\BRITTA~1\AppData\Local\Temp\AcPublish_18532\10.034 PRELIM_SITE PLAN.dwg