ATTACHMENT E
CEQA DOCUMENTATION

County of San Diego

VINCE NICOLETTI
INTERIM DIRECTOR

PLANNING & DEVELOPMENT SERVICES
5510 OVERLAND AVENUE, SUITE 210, SAN DIEGO, CA 92123
(858) 505-6445 General ▪ (858) 694-2705 Code Compliance
(858) 565-5920 Building Services

December 6, 2024

AN ADDENDUM TO THE PREVIOUSLY CERTIFIED ENVIRONMENTAL IMPACT REPORT FOR THE COUNTY OF SAN DIEGO GENERAL PLAN UPDATE (SCH 2002111067) FOR THE PURPOSES OF CONSIDERATION OF THE VALLEY CENTER ROAD CORRIDOR CONCEPT PLAN PDS2023-POD-23-003, PDS2023-ER-23-00-003

CEQA Guidelines Section 15164(a) states that an Addendum to a previously certified Environmental Impact Report (EIR) may be prepared if some changes or additions are necessary but none of the conditions described in Section 15162 or 15163 calling for the preparation of a subsequent or supplemental EIR have occurred.

California Environmental Quality Act (CEQA) Guidelines Section 15164 applies to the Valley Center Road Corridor Concept Plan (VCRCCP; project). There are some changes and additions which need to be included in an Addendum to the previously certified Program EIR for the County of San Diego (County) General Plan Update (GPU) in accordance with CEQA Guidelines Section 15164. These modifications would not involve a substantial increase in the severity of previously identified significant effects identified in the Program EIR for the County GPU and would not create new potentially significant impacts that would require new mitigation.

Location

The VCRCCP area includes Valley Center Road from the Woods Valley Road intersection to the Cole Grade Road intersection, in the Valley Center Community Plan Area.

Background

On August 3, 2011, the County Board of Supervisors adopted a comprehensive update to the County General Plan. The General Plan provides a framework for land use and development decisions in the unincorporated County, including a Mobility Element Network for the entire unincorporated County, and for each individual Community and Subregional Plan Area in the unincorporated County. The Mobility Element Network for Valley Center addresses planned road improvements to accommodate the GPU Land Use Map; including road classifications correlating to the number of lanes, typical right-of-way width, medians, and, in some cases, special circumstance requirements such as turn lanes and passing lanes. In addition, the Mobility Element Network identifies bicycle network classifications. A Program EIR for the County's GPU, Environmental Review Number 02-ZA-001, State Clearinghouse Number 2002111067, was certified by the County Board of Supervisors on August 3, 2011.

Project Changes

The project is a comprehensive road corridor plan for Valley Center Road in the area of the two General Plan Villages of Valley Center, from the Woods Valley Road intersection to the Cole Grade Road intersection. The project addresses corridor access management, safety, and overall operations for all road user types. The project includes adoption of the corridor plan and no physical improvements are proposed at this time. Future implementation of the VCRCCP would be implemented as conditions of private development and/or through public projects. While no physical improvements are proposed as part of this effort, the environmental analysis discloses the potential impacts that may occur from future implementing projects.

The project is within the scope of the GPU EIR because it would implement the General Plan Mobility Element Network for Valley Center. The Mobility Element Network identifies Valley Center Road within the Village boundaries for Valley Center's South Village and North Village as a 4.2A Boulevard with Raised Median classification (four lanes). Valley Center Road between Lilac Road and Miller Road, located between the two Village boundaries, is classified as a 4.1A Major Road with Raised Median (four lanes; higher design speed than a Boulevard classification). The plan identifies a Class IV bikeway (physical separation from driving lanes) along the corridor to implement the Mobility Element Network for Valley Center. While remaining consistent with Mobility Element Network requirements, the project includes plans for additional improvements by including components that are not dictated by the Mobility Element Network. The project includes plans for the following components:

- A two-lane roundabout at the Miller Road intersection with a multi-use path outside of the vehicle travel lanes.
    - The conceptual design is for a 2x1 roundabout, with two entry and exit lanes on the Valley Center Road approaches and one entry and exit lane on the Miller Road approaches.
    - The roundabout would include two circulating lanes, wide entry lanes, a truck apron and other features to ensure large vehicles–including hook and ladder trucks, fire trucks and large commercial vehicles–can navigate the roundabout along with passenger vehicles.
    - Some minor property acquisitions would be required to implement the roundabout.
- Newly proposed traffic signals at the intersections of Old Road and Sunday Drive.
    - The plan identifies signals at the intersections of Mirar de Valle Road and Indian Creek Road that are associated with conditions (requirements) of private development projects. Therefore, these two signals are tied to the implementation of the private projects.
- A controlled pedestrian crossing (also referred to as a pedestrian signal) at Rinehart Lane.
    - The type of controlled pedestrian crossing would be determined during the engineering phase of implementation.
- Curb extensions (also referred to as bulb outs) at all existing or planned signalized intersections.

- A Class IV bikeway on both sides of the road throughout the corridor, including a minimum 2-foot buffer with a type of physical separation in the buffer.
    - The type of physical separation will be determined at the engineering phase of implementation.
- Extending the raised median throughout the corridor, with median openings limited to signal or roundabout-controlled intersections (existing or planned in the project).
- No left turn restrictions at stop sign-controlled side streets.
- A 25-foot-long mountable median in the South Village for public safety personnel use only.
- Reduction in travel lane widths (outside the roundabout) from 12 feet to 11 feet.
- Extending the 5-foot-wide sidewalk on the east and south sides of the corridor, to fill in existing gaps.
- Maintaining the 8-foot-wide Heritage Trail pathway on the west and north sides of the corridor, with minor modifications at the proposed roundabout to accommodate the planned multi-use path on the outside of the roundabout, and at the proposed curb extensions.
- Converting standard crosswalks to continental crosswalks at all intersections that don't already have continental crosswalks except for intersections with private roads that are 2-way stop controlled. Continental crosswalks are high visibility longitudinal markings that provide a visual cue for people who drive and bike of where to expect crossing pedestrians.
- While not a requirement of the VCRCCP, the project addresses a potential need for bus stop relocations to accommodate planned safety improvements, with conceptual bus stop relocations shown on Figures 5.1 through 5.6. The North County Transit District (NCTD) operates a bus route along the corridor. The project team coordinated with NCTD during the process of developing the project and additional NCTD coordination would be required prior to implementation phases.

The project would supplement and supersede the County's Public Road Standards as applied within the project's geographic scope. As a result, with adoption of the VCRCCP, the requirements of this plan would, in combination with the Public Road Standards and other adopted regulations, dictate requirements for mobility improvements within the plan area.

In addition to being consistent with the General Plan's Valley Center Mobility Element Network, the project would serve to implement several of the General Plan's goals and policies in the Land Use and Mobility Elements that call for Village-specific regulations for roads, prioritizing infrastructure improvements for Villages, pedestrian-oriented road/right-of-way design, Village roads addressing safety and accommodations for active transportation, and context sensitive road design. These include General Plan Goals LU-9 and M-4; and Policies LU-9.1, LU-9.3, LU-9.4, LU-9.7, LU-9.10, M-4.1, M-4.2, and M-4.5.

Though future projects along the subject corridor would have to be consistent with the VCRCCP (unless granted an exception per applicable processes discussed in the Final VCRCCP), in terms of component type by location, the VCRCCP would not involve construction of any of the

components. The designs of components shown on the plan sheets for the VCRCCP are conceptual. Development footprints beyond the existing improvements on the corridor would not be determined until the engineering design phase of implementation, when funded, as one implementing project, or (more likely) incremental projects. Future implementing projects would be subject to additional CEQA review, as necessary.

Finding

It is the finding of Planning & Development Services that the previous environmental document as herein amended may be used to fulfill the environmental review requirements of the current project. Because the current project meets the conditions for the application of State CEQA Guidelines Section 15164, preparation of a new EIR or Negative Declaration is not required.

Attachment

Environmental Review Checklist Form (CEQA Section 15162 Findings)

County of San Diego

VINCE NICOLETTI
INTERIM DIRECTOR

PLANNING & DEVELOPMENT SERVICES
5510 OVERLAND AVENUE, SUITE 210, SAN DIEGO, CA 92123
(858) 505-6445 General ▪ (858) 694-2705 Code Compliance
(858) 565-5920 Building Services

December 6, 2024

Environmental Review Update Checklist Form
For Projects with Previously Approved Environmental Documents

FOR PURPOSES OF CONSIDERATION OF THE VALLEY CENTER ROAD CORRIDOR CONCEPT PLAN PDS2023-POD-23-003, PDS2023-ER-23-00-003

The California Environmental Quality Act (CEQA) Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when there is a previously adopted Negative Declaration (ND) or a previously certified environmental impact report (EIR) covering the project for which a subsequent discretionary action is required. This Environmental Review Update Checklist Form has been prepared in accordance with CEQA Guidelines Section 15164(e) to explain the rationale for determining whether any additional environmental documentation is needed for the subject discretionary action.

1. Background on the previously certified EIR:

   A Program EIR for the County of San Diego (County) General Plan Update (GPU EIR; Environmental Review Number 02-ZA-001; State Clearinghouse Number 2002111067) was certified by the County Board of Supervisors on August 3, 2011. The certified GPU EIR evaluated potentially significant effects for the following environmental areas of potential concern: (1) Aesthetics; (2) Agricultural Resources; (3) Air Quality; (4) Biological Resources; (5) Cultural and Paleontological Resources; (6) Geology and Soils; (7) Hazards and Hazardous Materials; (8) Hydrology and Water Quality; (9) Land Use; (10) Mineral Resources; (11) Noise; (12) Population and Housing; (13) Public Services; (14) Recreation; (15) Transportation and Traffic; (16) Utilities and Service Systems; and (17) Global Climate Change.

   Of these environmental subject areas, it was determined that only Geology and Soils and Population and Housing would not involve potentially significant impacts. The certified Final Program EIR found that the GPU would cause significant effects which could be mitigated to a level below significance for the following areas: Cultural and Paleontological Resources, Land Use and Planning, Recreation, and Global Climate Change. Effects to Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Noise, Public Services, Transportation and Traffic, and

Utilities and Service Systems remained significant and unavoidable. A Statement of Overriding Considerations was made in approving the General Plan Update. The previously certified GPU EIR is available at www.sdcounty.ca.gov/pds/gpupdate/environmental.html.

The Valley Center Road Widening EIR (State Clearinghouse Number 1999021081) was certified by the County Board of Supervisors on June 14, 2000. The certified Valley Center Road Widening EIR evaluated potentially significant effects for the following environmental areas of potential concern: (1) Visual Quality/Community Character; (2) Noise; (3) Biological Resources; and (4) Cultural Resources; and (5) Public Health and Safety. As addressed in Section 6.2 of the Valley Center Road Widening EIR, the following environmental areas were found to not result in significant impacts: (1) Air Quality; (2) Geology; (3) Water Resources; (4) Land Use; (5) Traffic; and (6) Utilities and Public Services.

Of the environmental subject areas evaluated in the Valley Center Road Widening EIR, it was determined that Public Health and Safety would not involve potentially significant impacts. The certified Valley Center Road Widening EIR found that the project would cause significant effects which could be mitigated to a level below significance for the following areas: Noise (future noise levels in excess of 67 A-weighted decibels average hourly noise level dB(A) L_{eq} at two residences), Biological Resources, and Cultural Resources. Effects to Visual Quality/Community Character and Noise (future noise increases of five dB(A) and in excess of 58 dB(A) L_{eq} at one additional residence and increases in traffic from cumulative projects) remained significant and unavoidable. A Statement of Overriding Considerations was made in approving the Valley Center Road Widening EIR. While this environmental document tiers from the GPU EIR, the findings from the Valley Center Road Widening EIR are hereby incorporated by reference and analysis is referenced in this document where applicable to provide additional context and comparison of impacts as they relate to the previously analyzed road widening project. The previously certified Valley Center Road Widening EIR is available to the public upon public request.

2. Lead agency name and address:
   County of San Diego
   Planning & Development Services
   5510 Overland Avenue, Suite 210
   San Diego, CA 92123

   a. Contact Kevin Johnston, Project Manager
   b. Phone number: (619) 458-2473
   c. E-mail: kevin.johnston@sdcounty.ca.gov

3. Project applicant's name and address:

   County of San Diego
   Planning & Development Services
   5510 Overland Avenue, Suite 210
   San Diego, CA 92123

4. Summary of the activities authorized by present permit/entitlement application(s):

Location

The Valley Center Road Corridor Concept Plan (VCRCCP; project) is located in the Valley Center Community Plan Area in San Diego County, California (Figure 1). The project boundary lies within the Valley Center quadrangle, Township 11 South, Range 01/02 West, on the U.S. Geological Survey (USGS) 7.5-minute topographic map series (USGS 1996; Figure 2). The segment of Valley Center Road that is part of the VCRCCP begins at the intersection with Woods Valley Road and continues north until it terminates at the intersection with Cole Grade Road (Figure 3).

Background

On August 3, 2011, the County Board of Supervisors adopted a comprehensive update to the County General Plan. The General Plan provides a framework for land use and development decisions in the unincorporated County, including a Mobility Element Network for the entire unincorporated County, and for each individual Community and Subregional Plan Area in the unincorporated County. The Mobility Element Network addresses planned road improvements to accommodate the GPU Land Use Map; including road classifications correlating to the number of lanes, typical right-of-way width, medians, and, in some cases, special circumstance requirements such as turn lanes and passing lanes. In addition, the Mobility Element Network identifies bicycle network classifications. A Program EIR for the County's GPU, Environmental Review Number 02-ZA-001, State Clearinghouse Number 2002111067, was certified by the County Board of Supervisors on August 3, 2011.

On June 14, 2000, the County Board of Supervisors adopted the Valley Center Road Widening EIR. The Valley Center Road Widening EIR consisted of the widening of Valley Center Road, specifically from 0.51 miles south of the Escondido municipal boundary, and 0.12 miles east of the Valley Center Road intersection with Cole Grade Road, a distance of 5.96 miles. The objectives of the project were to improve traffic circulation on Valley Center Road by improving Level of Service (LOS) to LOS C or better for motorists, to improve safety, and to accommodate expected buildout volume. The Valley Center Road Widening EIR, State Clearinghouse Number 1999021081, was certified by the County Board of Supervisors on June 14, 2000. While this environmental document tiers from the GPU EIR, the Valley Center Road Widening EIR also addressed the widening of Valley Center Road, and the findings of that EIR are incorporated by reference and cited within the analysis where relevant. The VCRCCP components are proposed within the same project footprint as the Valley Center Road Widening EIR (e.g., all improvements are anticipated to stay within existing right-of-way), with the exception that additional right-of-way would be needed for implementation of the Miller Road intersection roundabout.

Project Changes

The project is a comprehensive road corridor plan for Valley Center Road in the area of the two General Plan Villages of Valley Center, from the Woods Valley Road intersection to the Cole Grade Road intersection (Figure 4). The project addresses corridor access management, safety, and overall operations for all road user types. The project includes adoption of the corridor plan, and no physical improvements are proposed at this time. Future implementation of the VCRCCP would be implemented as conditions of private development and/or public projects. While no physical improvements are proposed as part of this effort, the environmental analysis discloses the potential impacts that may occur from future project actions to implement components of the VCRCCP. Specific development footprints of implementing projects and certain corresponding physical impacts would be determined at the engineering design phase of implementing projects. No funding is committed at this time for any implementing projects.

The project is within the scope of the GPU EIR because it would implement the General Plan Mobility Element Network for Valley Center and many of the goals and policies of the General Plan. The Mobility Element Network identifies Valley Center Road within the Village boundaries for Valley Center's South Village and North Village as a 4.2A Boulevard with Raised Median classification (four lanes). Valley Center Road between Lilac Road and Miller Road, located between the two Village boundaries, is classified as a 4.1A Major Road with Raised Median (four lanes; higher design speed than a Boulevard classification). The VCRCCP identifies a Class IV bikeway (physical separation from driving lanes) along the corridor to implement the Mobility Element Network. Future planned improvements include the addition of 1.4 miles of sidewalks along the 2.5-mile corridor to complete gaps on the south and east sides, the conversion of a Class II bikeway to a Class IV bikeway along the length of the 2.5-mile corridor, and curb extensions (bulb outs) to improve pedestrian safety. Corridor improvements identified in the plan are depicted in Figures 5.1 through 5.6 and detailed below:

- A two-lane roundabout at the Miller Road intersection with a multi-use path outside of the vehicle travel lanes (Figure 5.5).
    - The conceptual design is for a 2x1 roundabout, with two entry and exit lanes on the Valley Center Road approaches and one entry and exit lane on the Miller Road approaches.
    - The roundabout would include two circulating lanes, wide entry lanes, a truck apron and other features to ensure large vehicles – including hook and ladder trucks, fire trucks and large commercial vehicles – can navigate the roundabout along with passenger vehicles.
    - Some minor right-of-way acquisitions would be required to implement the roundabout.

- Newly proposed traffic signals at the intersections of Old Road and Sunday Drive (Figures 5.2 and 5.3).
    - The plan identifies signals at the intersections of Mirar De Valle Road and Indian Creek Road that are associated with conditions (requirements) of private development projects. Therefore, these two signals are tied to the implementation of the private projects.
- A controlled pedestrian crossing (also referred to as a pedestrian signal) at Rinehart Lane (Figure 5.1).
    - The type of controlled pedestrian crossing would be determined during the engineering phase of implementation.
- Curb extensions (also referred to as bulb outs) at all existing or planned signalized intersections.
- A Class IV bikeway on both sides of the road throughout the corridor, including a minimum 2-foot buffer with a type of physical separation in the buffer.
    - The type of physical separation will be determined at the engineering phase of implementation.
- Extending the raised median throughout the corridor, with median openings limited to signal or roundabout-controlled intersections (existing or planned in the project).
- No left turn restrictions at stop sign-controlled side streets.
- A 25-foot-long mountable median in the South Village for public safety personnel use only.
- Reduction in travel lane widths (outside the roundabout) from 12 feet to 11 feet.
- Extending the 5-foot-wide sidewalk on the east and south sides of the corridor, to fill in existing gaps.
- Maintaining the 8-foot-wide Heritage Trail pathway on the west and north sides of the corridor, with minor modifications at the planned roundabout to accommodate the planned multi-use path on the outside of the roundabout, and at the planned curb extensions.
- Converting existing crosswalks to continental crosswalks at all intersections that don't already have continental crosswalks, except for intersections with private roads that are 2-way stop controlled. Continental crosswalks are high visibility longitudinal markings that provide a visual cue for people who drive and bike of where to expect crossing pedestrians.

- While not a requirement of the VCRCCP, the project anticipates a potential need for bus stop relocations to accommodate planned safety improvements, with conceptual bus stop relocations shown on Figures 5.1 through 5.6. The North County Transit District (NCTD) operates a bus route along the corridor. The project team coordinated with NCTD during the process of developing the project and additional NCTD coordination would be required prior to implementation phases.

The project would supplement and supersede the County's Public Road Standards as applied within the project's geographic scope. As a result, with adoption of the VCRCCP, the requirements of this plan would, in combination with the Public Road Standards and other adopted regulations, dictate requirements for mobility improvements within the plan area.

In addition to being consistent with the General Plan's Valley Center Mobility Element Network, the project would serve to implement several of the General Plan's goals and policies in the Land Use and Mobility Elements that call for Village-specific regulations for roads, prioritizing infrastructure improvements for Villages, pedestrian-oriented road/right-of-way design, Village roads addressing safety and accommodations for active transportation, and context sensitive road design. These include General Plan Goals LU-9 and M-4; and Policies LU-9.1, LU-9.3, LU-9.4, LU-9.7, LU-9.10, M-4.1, M-4.2, and M-4.5.

Future projects located within the VCRCCP project area would be required to be consistent with the project (unless granted an exception per applicable processes discussed in the Final VCRCCP). The designs of components shown on the plan sheets for the VCRCCP are conceptual, but the component types by location are not conceptual. Development footprints beyond the existing improvements on the corridor would not be determined until the engineering design phase of implementation, when funded, as one implementing project, or (more likely) incremental projects. No funding is committed at this time for any implementing projects. Future implementing projects would be subject to additional CEQA review, as necessary.

5. Does the project for which a subsequent discretionary action is now proposed differ in any way from the previously approved project?

YES	NO
☒	☐

The project would be consistent with the General Plan Mobility Element Network for Valley Center by establishing a roadway corridor concept plan to guide implementation of the Mobility Element Network and applicable General Plan policies. Consistent with the Mobility Element Network for Valley Center, the 4.2A Boulevard with Raised Median classification (four lanes) is planned within the Valley Center Village boundaries and a 4.1A Major Road with Raised Median (four lanes; higher design speed than a Boulevard classification) is planned for the segment of Valley Center Road between the two Village boundaries. The VCRCCP plans for a Class IV bikeway with physical separation from driving lanes to be implemented within the project boundary, consistent with the Valley Center Mobility Element Network. Additional improvements throughout the corridor are identified that would support implementation of General Plan policies including General Plan Goals LU-9 and M-4; and Policies LU-9.1, LU-9.3, LU-9.4, LU-9.7, LU-9.10, M-4.1, M-4.2, and M-4.5. These improvements would provide additional opportunities

for alternative modes of transportation and connectivity, address safety and accommodations for active transportation, and context sensitive road design without adversely affecting surrounding land uses.

6. **SUBJECT AREAS DETERMINED TO HAVE NEW OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT ENVIRONMENTAL EFFECTS COMPARED TO THOSE** Identified **IN THE PREVIOUS ND OR EIR**. The subject areas checked below were determined to be new significant environmental effects or to be previously identified effects that have a substantial increase in severity either due to a change in project, change in circumstances or new information of substantial importance, as indicated by the checklist and discussion on the following pages. It should be noted that the GPU EIR was adopted in 2011 prior to the addition of energy, tribal cultural resources, and wildfire to the CEQA Appendix G Guidelines in 2018. Revisions to the CEQA Guidelines do not constitute new information of substantial importance or changes in circumstance pursuant to CEQA Guidelines Section 15162(a)(3). Although these new CEQA Guidelines questions are not required to be incorporated into this analysis, the analysis addresses these issues in the context of other environmental topics. Specifically, the air quality and greenhouse gas (GHG) sections evaluate the effects of energy consumption. The cultural resources section evaluates tribal cultural resources and incorporates the findings of Native American consultation. The hazards/hazardous materials section evaluates impacts related to wildfire.

☒ NONE

☐ Aesthetics	☐ Agriculture & Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Hazards/Hazardous Materials
☐ Geology, Soils & Seismicity	☐ Greenhouse Gas Emissions	☐ Mineral Resources
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Public Services
☐ Noise	☐ Population/Housing	☐ Mandatory Findings of Significance
☐ Recreation	☐ Transportation	
☐ Utilities/Service Systems		

DETERMINATION:

On the basis of this analysis, Planning & Development Services has determined that:

☒ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous EIR or ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND or previously certified EIR is adequate upon completion of an ADDENDUM without modification.

☐ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous EIR or ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, because the project is a residential project in conformance with, and pursuant to, a Specific Plan with a EIR completed after January 1, 1980, the project is exempt pursuant to CEQA Guidelines Section 15182.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, all new significant environmental effects or a substantial increase in severity of previously identified significant effects are clearly avoidable through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT ND is required.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, a SUBSEQUENT or SUPPLEMENTAL EIR is required.

Signature	December 6, 2024 Date
Kevin Johnston Printed Name	Land Use/Environmental Planner III Title

INTRODUCTION

CEQA Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when there is a previously adopted ND or a previously certified EIR for the project.

CEQA Guidelines, Section 15162(a) and 15163 state that when an ND has been adopted or an EIR certified for a project, no Subsequent or Supplemental EIR or Subsequent Negative Declaration shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole public record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration; or
    b. Significant effects previously examined will be substantially more severe than shown in the previously adopted Negative Declaration or previously certified EIR; or
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous Negative Declaration or EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

CEQA Guidelines, Section 15164(a) states that an Addendum to a previously certified EIR may be prepared if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a Subsequent or Supplemental EIR have occurred.

CEQA Guidelines, Section 15164(b) states that an Addendum to a previously adopted Negative Declaration may be prepared if only minor technical changes or additions are necessary.

If the factors listed in CEQA Guidelines Sections 15162, 15163, or 15164 have not occurred or are not met, no changes to the previously certified EIR or previously adopted ND are necessary.

The following responses detail any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that may cause one or more effects to environmental resources. The responses support the "Determination," above, as to the type of environmental documentation required, if any.

ENVIRONMENTAL REVIEW UPDATE CHECKLIST

I. AESTHETICS -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to aesthetic resources including: scenic vistas; scenic resources including, but not limited to, trees, rock outcroppings, or historic buildings within a state scenic highway; in non-urbanized areas, substantially degrade existing visual character or quality of the site and its surroundings; if project is in urbanized area, conflict with applicable zoning or other regulations governing scenic quality; and/or create a new source of light or glare which would adversely affect day or nighttime views in the area?

YES	NO
☐	☒

The GPU EIR determined that impacts to aesthetic resources would be less than significant for scenic vistas and scenic resources with the incorporation of mitigation measures. However, impacts to visual character/quality and light/glare were determined to be significant and unavoidable, even with the implementation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for aesthetic resources pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to aesthetic resources that may result from future implementing projects.

The project segment of Valley Center Road is not designated as a State Scenic Highway. However, some of the areas surrounding the project segment of Valley Center Road contain viewsheds and visual resources important to the community. The Lancaster Mountain – Keys Canyon – Lilac Creek Resource Conservation Area (RCA), as defined by the Valley Center Community Plan, crosses Valley Center Road and is a visual resource within the project vicinity. The County has used the RCA designation to preserve significant natural resources, including areas of aesthetic quality including viewsheds within a scenic vista. While this RCA is present within and surrounding the project area, implementation of the VCRCCP would not result in an adverse effect on a scenic vista and would not detract from scenic resources associated with the Lancaster Mountain – Keys Canyon – Lilac Creek RCA because the project consists of roadway improvements that lack the potential to block or alter views of surrounding resources. Furthermore, the project would not conflict with any of the Valley Center Community Plan policies and recommendations related to development near RCAs. Implementation of the VCRCCP would ultimately improve pedestrian and bicycle safety and accessibility along Valley Center Road, improving accessibility to the surrounding

views. Therefore, the project would not result in a new significant environmental effect or substantial increase in the severity of previously identified significant effects relative to scenic vistas.

As described in greater detail in Section V below, several historic resources are located within proximity of the project segment of Valley Center Road. However, actions of future projects to implement VCRCCP components would be limited to road/right-of-way improvements and would not impact any historic resources and no structures would be altered. All improvements, with the exception of the roundabout at the intersection of Valley Center Road and Miller Road, are planned with the existing right-of-way of Valley Center Road. At the Valley Center Road and Miller Road roundabout a total of 0.18 acres of coast live oak woodland has the potential to be impacted. The Valley Center Road widening EIR approved on April 12, 2000, stated that the removal of more than 300 coast live oak trees would have a significant and unavoidable impact on community character. Compared to the Valley Center Road Widening project which incorporated substantially more grading of surrounding slopes and vegetated areas, the project impact footprint would stay within the exiting right-of-way and would avoid the majority of sensitive habitats and oak woodlands. The minimal grading and limited oak tree removals potentially required at the Miller Road Roundabout (subject to final engineering design, to determine the development footprint of the roundabout) would ensure adverse impacts related to visual character would be less than significant. Therefore, the project would not result in a substantial adverse change to one or more features that contribute to visual character including, but not limited to, landmarks (designated), historic resources, trees, and rock outcroppings.

Actions of future projects to implement VCRCCP components would be limited to road/right-of-way improvements and would not introduce any structures that would alter the existing rural character surrounding the existing project segment of Valley Center Road. Proposed roadway improvements would be limited to a roundabout, traffic signals, crosswalks, curb extensions, median extensions, and other features with minimal profiles that would not obstruct views nor affect the surrounding rural character. Therefore, the project would not substantially degrade the existing visual character or quality of the site and its surroundings.

The rural character of Valley Center has retained a dark nighttime sky which is considered an important resource due to the proximity of the Palomar Observatory. The project segment of Valley Center Road is located within Zone A of the County Light Pollution Code, which covers a 15-mile radius surrounding the Palomar Observatory. Land within Zone A is subject to more restrictive requirements for lighting. While lighting details have not been identified as part of the VCRCCP, any new or altered lighting would be installed consistent with the County Public Road Standards and County Light Pollution Code. Any changes to lighting or additional lighting associated with planned roadway improvements would be specified in the engineering design phase of implementing projects. Future roadway improvements would be subject to compliance with the following mitigation measure and applicable policy from the GPU EIR which were found to reduce impacts associated with light and glare to a level less than significant.

- **Aes-4.2:** Maintain light and glare regulations that minimize impacts to adjacent properties, sensitive areas, community character, observatories, and dark skies. These regulations are currently found in the Light Pollution Code and Zoning Ordinance. Additional reviews are implemented on discretionary projects in accordance with CEQA and the County's CEQA guidelines.

- **Policy COS-13.2**: Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.

All future lighting would require compliance with the County Light Pollution Code and Zoning Ordinance.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to aesthetics. Project implementation would not result in impacts (direct or indirect) related to aesthetics beyond those analyzed in the GPU EIR. Additionally, consistent with the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards for the protection of aesthetics as deemed applicable. Therefore, impacts relative to aesthetics would be consistent with those previously identified in the GPU EIR.

II. AGRICULTURE AND FORESTRY RESOURCES -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to agriculture or forestry resources including: conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use; conflicts with existing zoning for agricultural use or Williamson Act contract; conflict with 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)); result in the loss or conversion of forest land; and/or involve other changes which could result in the conversion of Farmland to a non-agricultural use or conversion of forest land to a non-forest use?

YES	NO
☐	☒

The GPU EIR determined that impacts to agricultural resources would be less than significant for land use conflicts relative to Williamson Act contract lands with incorporation of mitigation measures. However, direct and indirect impacts from the conversion of agricultural land to non-agricultural uses were determined to be significant and unavoidable, even with the implementation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for agricultural resources pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to agricultural resources that may result from future implementing projects.

Figure 6 presents classification of lands along the corridor in the California Department of Conservation's Farmland Mapping and Monitoring Program. As shown in Figure 6, land within a 0.25-mile buffer from the project area includes land designated as Prime Farmland, Farmland of

Statewide Importance, Farmland of Local Importance, Other Land, and Urban and Built Up Land. Within the project footprint, a majority of the land is designated as Other Land and Urban and Built Up Land with the exception that land west of the project segment of Valley Center Road between Mirar De Valle Road and Sunday Drive is designated as Prime Farmland and portions of Farmland of Local Importance are mapped within the roadway.

The mapped location of Prime Farmland is an area that has been developed with residential, commercial, and park uses; the small remaining amount of undeveloped land is not used for agricultural cultivation. Similarly, areas mapped as Farmland of Local Importance are developed with roadway uses or located within right-of-way areas. Therefore, although these areas are mapped by the Farmland Mapping and Monitoring Program as farmland categories, they do not function as farmland. In addition, the project would not change existing land use types along the corridor. Therefore, the project would not convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance to non-agricultural uses. There are no Williamson Act Contracts or agricultural preserves adjacent to the project segment of Valley Center Road. While existing open fields located adjacent to the corridor may be subject to agricultural use, such as dryland farming, these uses would continue to be compatible with the project as mobility improvements would not introduce any land use incompatibility issues in relation to agricultural land use. Project implementation is not anticipated to result in conflicts with existing zoning for agricultural use, or a Williamson Act Contract, nor result in conversion of an agricultural resource to non-agricultural use.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects on agricultural resources. Adoption of the project would not result in impacts (direct or indirect) to agricultural resources beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future project actions to implement components of the VCRCCP would be subject to project-specific development and planning review, including adherence to standards for the protection of agricultural resources as deemed applicable. Therefore, impacts relative to agricultural resources would be consistent with those previously identified in the GPU EIR.

III. AIR QUALITY -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to air quality including: conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP); violation of any air quality standard or substantial contribution to an existing or projected air quality violation; 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; exposure of sensitive receptors to substantial pollutant concentrations; and/or creation of objectionable odors affecting a substantial number of people?

YES	NO
☐	☒

The GPU EIR determined that air quality impacts would be less than significant relative to conflicts with air quality plans and objectionable odors. However, impacts associated with air quality violations, non-attainment criteria pollutants, and impacts to sensitive receptors were determined to be significant and unavoidable even with the incorporation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for air quality pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential air quality impacts that may result from future implementing projects.

Air Quality Plans

Air districts are tasked with regulating emissions such that air quality in the basin does not exceed national or California ambient air quality standards (NAAQS and CAAQS, respectively); where NAAQS and CAAQS represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. NAAQS and CAAQS have been established for six common pollutants of concern known as criteria pollutants, which include ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and respirable particulate matter (particulate matter less than 10 microns [PM_{10}] and less than 2.5 microns [$PM_{2.5}$]). The San Diego Air Basin (SDAB) is currently classified as a federal and state non-attainment area for ozone, and as a state non-attainment area for PM_{10}, and $PM_{2.5}$. The San Diego Air Pollution Control Board (SDAPCD) prepared an air quality plan, the Regional Air Quality Strategy (RAQS), to identify feasible emission control measures intended to progress toward attaining NAAQS and CAAQS for ozone. Reducing ozone concentrations is achieved by reducing the precursors to the photochemical formation of ozone (volatile organic compounds [VOC] and oxides of nitrogen [NO_X]). The RAQS was most recently updated in 2022. The growth projections used by the SDAPCD to develop the RAQS emissions budgets are based on the population, vehicle trends, and land use plans developed in general plans and used by the San Diego Association of Governments (SANDAG) in the development of the regional transportation plans and sustainable communities strategy. As such, projects that propose development that is consistent with the growth anticipated by SANDAG and/or the General Plan would not conflict with the RAQS. If a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the RAQS. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the project would exceed the growth projections used in the RAQS for the specific subregional area. The project addresses corridor access management, safety, and overall operations for all road user types. The project does not include changes to existing land uses and would be consistent with the regional growth projections. In addition, the project does not include plans for new or changed land uses that would add vehicle trips to the corridor. Therefore, the project would not result in an increase in emissions that are not already accounted for in the RAQS. Impacts would be consistent with those previously identified in the GPU EIR.

Criteria Pollutant Emissions

As detailed in the following sections, the project would not result in emissions that exceed the County's screening level thresholds (SLTs). Actions of future projects to implement components of the VCRCCP would result in short-term emissions from construction of the roundabout at the intersection of Valley Center Road and Miller Road, construction of mobility improvements such as bicycle lanes and sidewalks, and emissions from the use of utility trucks and other equipment required to install signals at the intersections with Sunday Drive and Old Road. Once operational, these future projects would not result in an increase in mobile emissions since additional trips would not be generated. Furthermore, the project would result in an overall decrease in mobile emissions due to the improvement of traffic flow through the project segment of Valley Center Road. Emissions due to construction activities and the change in operational emissions were calculated as described below.

Construction Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include fugitive dust from demolition and grading activities; construction equipment exhaust; trips by workers, delivery trucks, and material-hauling trucks; and power consumption. Primary inputs are the numbers of each piece of equipment and the length of each construction stage. The planned roundabout at the intersection of Valley Center Road and Miller Road would involve the greatest amount of construction and would result in the greatest intensity of air emissions. Construction of all other roadway improvements including sidewalks, bicycle lanes, raised medians, curb bump outs, and signal installation would be less intensive, and therefore generate fewer emissions. Estimated emissions associated with construction of the roundabout and other proposed improvements were modeled using California Emissions Estimator Model (CalEEMod) version 2022.1 (Attachment A-1). Specific construction phasing and equipment parameters are not known at this time; therefore, modeled construction equipment is based on industry experience with similar roundabout and mobility improvement projects within the County. This representative project included the simultaneous construction of two roundabouts, roadway/lane configuration changes, sidewalks, bicycle lanes, and other mobility improvements. The equipment list and phasing are therefore representative of the future construction activities that could occur simultaneously with implementing projects. The construction emissions calculated in this analysis, therefore, represent a conservative worst-case estimate of construction emissions along the entire corridor due to the corridor improvements planned to be implemented over time through a combination of privately and publicly initiated efforts. Modeled construction equipment and phase durations associated with this conservative estimate are summarized in Table 1 with model outputs provided in Attachment A-1.

Table 1 Construction Parameters Assumed		
Construction Phase	Phase Duration (Months)	Equipment
Asphalt/Pavement Removal	1	1 Crawler Tractor
		2 Excavators
		1 Dump Truck
		1 Bore/Drill Rig
		2 Signal Boards
Earthwork/Excavation	5	1 Bore/Drill Rig
		1 Crane
		1 Crawler Tractor
		3 Excavators
		1 Grader
		3 Dump Trucks
		1 Roller
		1 Rubber Tired Loader
		1 Scraper
		4 Tractors/Loaders/Backhoes
		1 Hydraulic Splitter (modeled as Bore/Drill Rig)
		2 Signal Boards
Roundabout/Mobility Improvements Construction	5	1 Air Compressor
		2 Cement and Mortar Mixers
		1 Crane
		1 Generator Set
		1 Plate Compactor
		1 Rough Terrain Forklift
		3 Tractors/Loaders/Backhoes
		1 Bore/Drill Rig
		1 Excavator
		2 Signal Boards
Paving	1	3 Dump Trucks
		1 Paver
		1 Paving Equipment
		3 Rollers
		3 Tractors/Loaders/Backhoes
		2 Signal Boards
SOURCE: CalEEMod Output, Attachment A-1.		

Table 2 shows the total projected construction maximum daily emission levels for each criteria pollutant associated with estimates for implementing projects. Table 2 also provides the summation of all phases of a scenario where multiple construction activities throughout the corridor occur simultaneously (e.g., roundabout earthwork occurs at the same time as curb removal, sidewalk construction, and bikeway paving). The CalEEMod output files are contained in Attachment A-1.

Table 2
Summary of Estimated Maximum Daily Construction Emissions
(pounds per day)

Phase	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Asphalt/Pavement Removal	1	14	12	<1	7	2
Earthwork/Excavation	4	38	41	<1	5	3
Roundabout/Mobility Improvements Construction	2	16	21	<1	1	1
Paving	2	12	17	<1	1	1
Single Phase Maximum Daily Emissions	**4**	**38**	**41**	**<1**	**7**	**3**
Simultaneous Phase Maximum Daily Emissions	**9**	**80**	**91**	**<1**	**14**	**7**
County SLTs	*250*	*250*	*550*	*250*	*100*	*67*

ROG = reactive organic gases; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxide; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns; SLT = screening level thresholds
Source: CalEEMod Output, Attachment A-1

Standard dust control measures would be implemented as a part of project construction in accordance with mandatory SDAPCD rules and regulations. Furthermore, all construction equipment is subject to the California Air Resources Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation. Engines are required to meet certain emission standards, and groups of standards are referred to as Tiers. A Tier 0 engine is unregulated with no emission controls, and each progression of standard level (i.e., Tier 1, Tier 2, Tier 3, Tier 4 etc.) generates lower emissions, uses less energy, and is more advanced technologically than the previous tier. The In-Use Off-Road Diesel-Fueled Fleets Regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to five minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with CARB's Best Available Control Technology requirements. As shown in Table 2 above, construction emissions would be less than the County's SLTs for all criteria pollutants. Therefore, as estimated construction emissions associated with implementing projects would be below these limits, even when multiple construction activities are occurring simultaneously, and future implementing projects would implement standard construction measures in order to comply with SDAPCD rules and regulations and CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation, construction emissions would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Additionally, General Plan Policy COS-14.10, Low-Emission Construction Vehicles and Equipment, would be appliable to actions of future projects to implement components of the VCRCCP. The policy "[requires] County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions." Therefore, construction associated with implementing projects would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. Impacts would be consistent with those previously identified in the GPU EIR.

Operational Emissions

The project would not result in an increase in vehicle trips. Rather, it is anticipated that the project would reduce emissions by improving traffic flow along this segment of Valley Center Road. The Federal Highway Administration Office of Natural Environment developed a series of tools to provide technical support and resources for the implementation of the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. The purpose of the CMAQ Toolkit is to provide users a standardized approach to estimating emission reductions from projects that would reduce

roadway congestion such as the VCRCCP. The CMAQ Toolkit uses emission rates for highway vehicles based on a series of project-scale and national-scale runs of the Motor Vehicle Emission Simulator (MOVES) as well as other data sources. The project calls for converting the intersections of Valley Center Road with Sunday Drive and Old Road from two-way stop-controlled intersections to signalized intersections, and calls for converting the intersection of Valley Center Road with Miller Road from a two-way stop controlled intersection to a roundabout. Changes in mobile source emissions resulting from these planned intersection changes were calculated using intersection and roundabout modules of the Congestion Reduction and Traffic Flow Improvements CMAQ tool. For the conversion of intersections from unsignalized to signalized control, the primary inputs include the average daily traffic volumes, peak hour intersection turning volumes, truck percentage, and existing delay per vehicle for each affected roadway. For the construction of roundabouts, the primary inputs include this data as well as the percentage of left and right turns for each segment approaching the planned roundabout. Turning volumes and vehicle delay were obtained from the Draft Final VCRCCP (available at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/draft-final-ccp%20(final).pdf), and included with the air quality and GHG calculation information in Attachment A. Modeling compared the intersection performance of the existing and proposed intersection controls (see Attachments A-2 and A-3). The reduction in emissions due to intersection improvements were calculated for the anticipated buildout year of 2035. CMAQ calculations are provided in Attachment A and the results are summarized in Table 3.

Table 3
Estimated Criteria Pollutant Emission Reductions due to Intersection Improvements (pounds per day)

Intersection	VOC	NO_X	CO	SO_X[1]	PM_{10}	$PM_{2.5}$
Sunday Drive	-0.41	-1.01	-0.89	--	-0.02	-0.02
Old Road	-1.49	-3.64	-3.19	--	-0.07	-0.06
Miller Road	-0.11	-0.26	-0.23	--	-0.004	-0.004
Total Reductions	**-2.01**	**-4.91**	**-4.31**	**--**	**-0.9**	**-0.8**

VOC = volatile organic compounds; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxide; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns
Source: CMAQ Output, Attachments A-4, A-5, and A-6
[1]The CMAQ tool does not calculate SO_X emission reductions, however, these emissions are negligible.

As shown in Table 3 above, upon buildout through implementing projects, the improvements would be anticipated to result in a decrease in mobile emissions at all intersections. The greatest reductions would occur at the intersection of Valley Center Road and Old Road. This is because the existing intersection control method (two-way stop) is projected to have an average delay of 1,338.7 seconds per vehicle in the AM peak hour and 214.2 seconds per vehicle in the PM peak hour in year 2035, which are the greatest anticipated delays among the three intersections.

Active transportation improvements associated with implementing projects would also include the addition of 1.4 miles of sidewalks along the 2.5-mile corridor to complete gaps on the south and east sides, the conversion of a Class II bikeway to a Class IV bikeway along the length of the 2.5-mile corridor, and curb extensions (bulb outs) to improve pedestrian safety. Providing sidewalks and an enhanced pedestrian network encourages people to walk instead of drive. Providing bicycle infrastructure helps to improve biking conditions within an area and encourages a mode shift on the roadway parallel to the bicycle facility from vehicles to bicycles. These mode shifts result in a reduction in Vehicle Miles Traveled (VMT) and associated emissions. Based on the California Air Pollution Control Officers Association's *Handbook for*

Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (2021), the pedestrian improvements may provide up to a 6.4 percent reduction in VMT and associated emissions and the bicycle facility improvements may provide up to a 0.8 percent reduction in VMT and associated emissions. For informational purposes, using the Valley Center Road segment volumes and the CARB EMission FACtor Model (EMFAC2022) emission factors for the buildout year of 2035, the range in emission reductions due to these improvements were calculated and are summarized in Table 4. The emissions are presented as a range of reductions because it cannot be known with certainty how many trips would be reduced through implementation of these measures. Calculations are provided in Attachment A-7. Attachment A-7 also includes California Air Pollution Control Officers Association (CAPCOA) factsheets for bicycle and sidewalk improvements that provide additional information about the range of effectiveness.

Table 4
Estimated Criteria Pollutant Emission Reductions due to Pedestrian and Bikeway Improvements (pounds per day)

Improvements	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Sidewalk Improvements	0 – -0.14	0 – -0.85	0 – -6.88	0 – -0.03	0 – -0.02	0 – -0.02
Bikeway Improvements	0 – -0.02	0 – -0.11	0 – -0.86	0 – -<0.01	0 – -<0.01	0 – -<0.01
Total Reductions	**0 – -0.16**	**0 – -0.95**	**0 – -7.74**	**0 – -0.04**	**0 – -0.02**	**0 – -0.02**

VOC = volatile organic compounds; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxide; PM_{10} = particulate matter less than 10 microns; $PM_{2.5}$ = particulate matter less than 2.5 microns
Source: CMAQ Output, Attachment A-7

In summary, construction emissions associated with actions of future projects to implement components of the VCRCCP are anticipated to be less than the applicable SLTs for all criteria pollutants, and operational emissions would be reduced compared to the existing conditions due to the improvement in traffic flow. The GPU identifies mitigation measures AQ-2.1 through AQ-2.12 to reduce impacts associated with criteria pollutant emissions. However, these would not be applicable if, as anticipated from this analysis, implementing projects would not exceed applicable significance thresholds.

Sensitive Receptors

A sensitive receptor is a person in the population who is more susceptible to health effects due to exposure to an air contaminant than is the population at large. Examples of sensitive receptor locations in the community include residences, schools, playgrounds, childcare centers, churches, athletic facilities, retirement homes, and long-term health care facilities. The project corridor is surrounded by open space, residential, and non-residential uses. Residential, day care, and other uses are present along the corridor that represent sensitive receptors. The two primary emissions of concern regarding health effects are diesel particulate matter (DPM) and CO.

Diesel Particulate Matter

Actions of future projects to implement components of the VCRCCP would result in the generation of diesel exhaust DPM emissions from the use of off-road diesel equipment required for roundabout construction and the construction of other improvements. Generation of DPM from construction projects typically occurs in a single area for a short period. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which

determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (California Office of Environmental Health Hazard Assessment 2015). Thus, if the duration of proposed construction activities near any specific sensitive receptor were one year during an analyzed 30-year period, the total exposure would only be 3 percent (1 year ÷ 30 years) of the total exposure period used for health risk calculation. Furthermore, actions of future projects to implement components of the VCRCCP would include implementing construction best management practices and would be conducted in accordance with CARB regulations including the In-Use Off-Road Diesel-Fueled Fleets Regulation and the Airborne Toxic Control Measure 13 (California Code of Regulations Chapter 10 Section 2485), which prohibits idling time to exceed 5 minutes unless more time is required per engine manufacturers' specifications or for safety reasons. At the time of this analysis, there is no dedicated implementation funding for the VCRCCP, and therefore construction timelines are unknown and dependent on funding opportunities. However, construction of proposed improvements would occur throughout the entire VCRCCP area and would not be located near any given sensitive receptor during all construction activities. Thus, sensitive receptors would not be exposed to DPM for the entire construction duration. Given the highly diffusive properties of diesel exhaust and the fact that construction activities would be dispersed throughout the entire VCRCCP area, future implementing projects would not expose sensitive receptors to substantial construction toxic air contaminant concentrations.

Carbon Monoxide

Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions, CO concentrations may reach unhealthy levels with respect to local sensitive land uses. Projects that would site sensitive receptors near potential CO hotspots or would contribute vehicle traffic to local intersections where a CO hotspot could occur would be considered as having a potentially significant impact. The VCRCCP does not include land use changes that would site new sensitive receptors in the area. The VCRCCP would not add vehicle traffic to intersections and future implementing projects would improve traffic flow along the project segment of Valley Center Road. Therefore, actions of future projects to implement components of the VCRCCP would not result in a CO hot spot.

The GPU EIR identifies mitigation measure Air-4.1 which refers to CARB recommendations when siting new sensitive land uses. However, the project does not include the construction of new sensitive land uses. Therefore, this measure is not applicable.

Odors

SDAPCD Rule 51 (Public Nuisance) and California Health & Safety Code, Division 26, Part 4, Chapter 3, Section 41700 prohibit the emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of the public. Projects required to obtain permits from SDAPCD, which are typically industrial and sometimes commercial projects, are evaluated by SDAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

The project does not include the construction or operation of heavy industrial or agricultural uses that are typically associated with odor complaints. The objectionable odors that may be produced during the construction process are short-term in nature, and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. Due to the short-term nature and limited amounts of odor-producing materials being utilized, odor impacts would be minimized during construction of implementing projects. There would be no permanent or operational source of odors associated with the project. Therefore, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and impacts would be less than significant. Impacts would be consistent with those previously identified in the GPU EIR.

In addition, the following mitigation measures identified in the GPU EIR were found to partially mitigate the significant impacts to air quality violations and would apply to future implementing projects, as follows:

- Air-2.6 – Use County Guidelines for Determining Significance for Air Quality to identify and mitigate adverse environmental effects on air quality.

- Air-2.7 – Implement County Air Pollution Control District (APCD) regulations for air emissions from all sources under its jurisdiction.

  The application of these guidelines and enforcement of SDAPCD regulations provide assurances that development pursuant to the General Plan will not violate air quality standards.

- Air-2.9 – Implement the Grading, Clearing, and Watercourses Ordinance by requiring all clearing and grading to be conducted with dust control measures.

  Measures outlined in this Ordinance serve to minimize particulate matter emissions from construction

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects on air quality. Adoption of the project would not result in impacts (direct or indirect) to air quality beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards for the protection of air quality as deemed applicable. Impacts relative to air quality would be consistent with those previously identified in the GPU EIR.

IV. BIOLOGICAL RESOURCES -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to biological resources including: substantial adverse effect on any species identified as a candidate, sensitive, or special status species in a local or regional plan, policy, or regulation, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; substantial adverse effects on any sensitive natural community (including riparian habitat); adverse effects to federally protected wetlands as defined by Section 404 of the Clean Water Act; interference with the movement of any native resident or migratory fish or wildlife species or with wildlife corridors, or impeding the use of

native wildlife nursery sites; conflict with any local policies or ordinances protecting biological resources; and/or conflicts with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional or state habitat conservation plan?

YES	NO
☐	☒

The GPU EIR determined that impacts relative to conflicts with applicable habitat conservation plans or natural community conservation plans would be less than significant without mitigation incorporated. Impacts associated with federally protected wetlands and conflicts with local biological resources related policies and ordinances would be less than significant with incorporation of mitigation measures. However, impacts to special-status species, riparian habitats, and wildlife movement corridors and nursery sites were determined to be significant and unavoidable, even with the incorporation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for biological resources pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to biological resources that may result from future implementing projects.

The land area that would be affected by the VCRCCP is largely developed with an existing roadway and is located within existing County right-of-way. Improvements would largely be contained within the existing developed and disturbed footprint of Valley Center Road, with the exception of the planned roundabout improvements at the at Valley Center Road and Miller Road intersection. At the Valley Center Road and Miller Road intersection, improvements may go beyond the existing right-of-way, potentially impacting sensitive habitats. The specific development footprint of the roundabout will not be known until engineering design for an implementing project is funded and completed.

RECON Environmental, Inc. (RECON) completed a Biological Constraints Memo to address potential impacts associated with the planned roundabout at the Valley Center Road and Miller Road intersection (Attachment B). A general biological survey was conducted within a 250-foot radius from the center of the Valley Center Road and Miller Road intersection. The survey was conducted on foot within areas where access was available, with inaccessible areas (due to lack of access permissions) evaluated with binoculars and through a desktop review (i.e., review of Google Earth imagery and previous photographs taken of the area). The 250-foot radius survey area includes the anticipated maximum development footprint extent of a future roundabout at the Valley Center Road and Miller Road intersection, including the edge of a planned multi-use path surrounding the planned roundabout.

Vegetation Communities

The following four vegetation communities/land cover types were observed within the biological survey area for the Miller Road roundabout: coast live oak woodland, Diegan coastal sage scrub,

disturbed habitat, and urban/developed land. The acreages of each vegetation community/land cover type within the biological survey area are presented in Table 5 and depicted in Figure 7.

For projects outside of approved Multiple Species Conservation Program (MSCP) plans, mitigation is required consistent with Table 5 of the County's Guidelines for Determining Significance (County Guidelines; County of San Diego 2010). Of the four vegetation communities/land cover types identified within the survey area, two sensitive vegetation communities were documented: coast live oak woodland and Diegan coastal sage scrub.

Per the County's Guidelines, an impact to native or naturalized upland habitat under 0.1 acre in an existing urban setting may be considered less than significant, depending on a number of factors, such as the type of habitat, relative presence of habitat type in project vicinity, its condition and size, presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Within the survey area, a total of 0.18 acre of coast live oak woodland and 0.51 acre of Diegan coastal sage scrub was identified. These acreages represent the greatest potential impact associated with implementation of the roundabout, but actual impact acreages and mitigation would be finalized with the final engineering design for an implementing project. Anticipated mitigation requirements are shown in Table 5, if a future project to construct the roundabout were to develop the entirety of the 250-foot radius analyzed. Mitigation ratios are not assigned to disturbed habitat and urban/developed land cover as these habitats/land cover types are not considered sensitive.

Table 5
Vegetation Communities/Land Cover Types and Mitigation Ratios for Potential Impacts to Sensitive Vegetation Communities within the Survey Area[1]

Vegetation Community	Survey Area (acres)	Mitigation Ratio[2]
Coast Live Oak Woodland (71160)	0.18	3:1
Diegan Coastal Sage Scrub (32500)	0.51	To Be Determined[3,4]
Disturbed Habitat (11300)	1.84	–
Urban/Developed (12000)	1.96	–
Total	**4.50[5]**	–

[1]Impact acreages would be determined based on the final engineering design associated with future implementing projects. These future projects would be subject to the mitigation requirements.
[2]Based on Table 5 of the County's Guidelines for Determining Significance, as the project area does not occur within an approved MSCP.
[3]Mitigation ratios for coastal sage scrub habitat types are subject to Natural Community Conservation Plan Process Guidelines and are typically 1:1, 2:1 or 3:1 depending on habitat value for long-term conservation. Habitat value is defined in the Natural Community Conservation Plan Conservation Guidelines. The mitigation ratio will need to be approved by the Wildlife Agencies.
[4]Impacts to coastal sage scrub require a Habitat Loss Permit. If impacts are less than one acre, the project could qualify for a *de minimus* Habitat Loss Permit. Coordination with and review by the Wildlife Agencies will be required.
[5]Any discrepancy in the total is due to rounding.

Sensitive Plant Species

Sensitive plant species impacts are not anticipated due to the majority of improvements being located within the roadway and/or disturbed areas.

For the Miller Road roundabout, as detailed in Attachment B, no sensitive plant species were observed during the general biological survey. No sensitive plant species were determined to

have a moderate to high potential to occur within the survey area. Prior to implementation of future projects, additional environmental review would be required including compliance with the County Guidelines for Determining Significance for Biological Resources, which would ensure any applicable surveys would be conducted to identify and mitigate impacts to sensitive plant species, if applicable. Future project implementation of GPU policies and mitigation measures, in addition to compliance with applicable regulations, would reduce project impacts, consistent with the findings of the GPU EIR.

Sensitive Wildlife Species

No sensitive wildlife species are anticipated to occur within the anticipated project footprint with the exception of in the vicinity the Miller Road roundabout.

Three sensitive wildlife species were determined to have low to high potential to occur within the survey area for the Valley Center Road and Miller Road intersection: Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi* [=*Cnemidophorus hyperythrus*]), coast horned lizard (*Phrynosoma blainvillii* [= *P. coronatum* coastal population]), and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*). None of these species are state or federally listed as endangered or threatened. Coastal California gnatcatcher (*Polioptila californica californica*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) are not expected to occur because the Diegan coastal sage scrub within and adjacent to the survey area appeared to be isolated, with the land directly adjacent to the north showing signs of disturbance by mowing, and beyond that the habitat appeared to be an isolated patch of chaparral. The coastal sage scrub and chaparral habitat northwest of the Miller Road intersection are surrounded by roads and residences and do not contain the habitat structure preferred by coastal California gnatcatcher, and southern California rufous-crowned sparrow.

A summary of the species with low to high potential to occur is provided below:

- Belding's orange-throated whiptail (California Department of Fish and Wildlife [CDFW] watch list species, County Group 2 species, Draft North County MSCP [NCMSCP] proposed covered species) – high potential to occur within the Diegan coastal sage scrub and disturbed habitat adjacent to the Diegan coastal sage scrub within the survey area.

- Coast horned lizard (CDFW species of special concern, County Group 2 species, Draft NCMSCP proposed covered species) – Low potential to occur within the Diegan coastal sage scrub of the survey area due to the presence of harvester ants (*Pogonomyrmex* sp.) for food, open vegetation, and sandy soils; however, the potentially suitable habitat is isolated by roads and disturbance such as mowing.

- San Diegan tiger whiptail (CDFW species of special concern, County Group 2 species) – Moderate potential to occur due to the presence of sparsely-distributed plants within the Diegan coastal sage scrub and disturbed habitat within the survey area.

In addition to the species listed above, the potential for Crotch's bumble bee *(Bombus crotchii)* to occur was assessed. Crotch's bumble bee is a state candidate for listing as endangered. The Diegan coastal sage scrub at the Miller Road intersection is considered moderate quality habitat for the species, but the potential for it to occur is low due to the small and isolated nature of the

vegetation and disturbed and developed land in the vicinity. It is anticipated future implementing projects would require protocol surveys to demonstrate the low likelihood of occurrence and avoidance measures would be required prior to construction to ensure avoidance.

Direct impacts to Belding's orange-throated whiptail, San Diegan tiger whiptail, and coast horned lizard have the potential to result if vegetation clearing, grubbing, grading, and construction activities occur within Diegan coastal sage scrub and adjacent disturbed habitat.

Direct impacts to migratory and nesting birds, including raptors, have the potential to result from the accidental destruction of nests through removal of vegetation if construction were to occur during the general bird breeding season (between January 15 and September 15). Unless avoided or minimized, impacts to migratory and nesting birds as a result of future implementing project actions could be considered significant. If construction were to occur during the general bird breeding season, the following avoidance measures would be required to minimize and/or prevent indirect impacts to migratory and nesting birds:

- If the project proposes impacts to sensitive vegetation communities (coast live oak woodland and Diegan coastal sage scrub) and habitat for special-status wildlife species, mitigation consistent with the County Guidelines would be required.

- If the project proposes to trim oak trees, overhanging trees should be trimmed in accordance with American National Standards Institute (ANSI) standards for tree trimming (ANSI 1994). Branches should be chipped and left in place if possible. Mature trees can tolerate root loss less than 25 percent, and most fine absorbing roots are located within 6 inches of the soil surface and can be destroyed by cutting, burial, or compaction. The destruction of the absorbing roots can lead to the decline of the tree, which may not be apparent for several months. If root loss or compaction is unavoidable, a qualified arborist should perform a pre-construction survey to identify opportunities to avoid more than 25 percent root loss in oak trees.

- Direct impacts to migratory and nesting birds, including raptors, could result from the accidental destruction of nests through removal of vegetation if construction were to occur during the general bird breeding season (between January 15 and September 15). If construction initiation occurs during the breeding season, a pre-construction nesting bird survey of the project impact area should be completed by a qualified biologist. The pre-construction survey shall be conducted within 3 calendar days prior to the start of construction activities (including removal of vegetation). If any active nests are detected, the area will be flagged and mapped along with a buffer as recommended by the qualified biologist. The buffer area(s) established by the qualified biologist will be avoided until the nesting cycle is complete or it is determined that the nest is no longer active. The qualified biologist shall be a person familiar with bird breeding behavior and capable of identifying the bird species of San Diego County by sight and sound and determining alterations of behavior as a result of human interaction. Buffers will be based on species-appropriate buffers and/or local topography and line of sight, species behavior and tolerance to disturbance, and existing disturbance levels, as determined appropriate by the qualified biologist.

At the time future implementing projects are proposed, following completion of engineering design for an implementing project to construct the Miller Road roundabout, a detailed

assessment of impacts consistent with the County Guidelines for Determining Significance for Biological Resources, GPU policies and mitigation measures, in addition to other applicable federal, state, and local regulations protecting biological resources would be completed evaluating potential impacts associated with biological resources.

Additional roadway improvements are anticipated to be located within the existing right-of-way and are not anticipated to result in impacts to biological resources beyond those described above for the Miller Road roundabout. Nonetheless, as final engineering proceeds for future implementing projects, the final designs would be subject to additional environmental analysis to identify applicable avoidance, and mitigation measures consistent with mitigation presented in the GPU EIR or other measures necessary to avoid new significant impacts. Future project actions to implement components of the VCRCCP would not result in any new or substantially more severe adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species, compared to what was evaluated in the GPU EIR.

Riparian Habitats

No riparian habitats were documented within the biological survey area associated with the Miller Road roundabout. Therefore, substantial adverse effects on any riparian habitats are not anticipated.

Jurisdictional Resources

Figure 8 depicts potentially non-jurisdictional erosional features within the biological survey area for the Miller Road roundabout. The erosional features include ditches mapped north of and south of the intersection of Valley Center Road with Miller Road. The ditch to the south is armored with riprap in some sections and could warrant additional field review. The ditches were viewed from a distance and from Google Earth imagery as they fall outside of County right-of-way. If these ditches cannot be avoided, a formal jurisdictional wetland delineation and wetland permitting may be required.

If after a formal jurisdictional wetland delineation, the resource is determined to be a jurisdictional aquatic resource, indirect impacts associated with future implementing construction activities have the potential to occur. If determined jurisdictional, the following avoidance measures are recommended to minimize and/or prevent indirect impacts to potentially jurisdictional resources:

- A formal jurisdictional wetland delineation and wetland permitting may be required if the ditches cannot be avoided.

- If the ditch is determined to be a potentially jurisdictional aquatic resource, the project has the potential to result in indirect impacts to a potentially jurisdictional aquatic resource as a result of runoff, erosion, siltation, or chemical and particulate pollution during construction. To avoid indirect impacts to potentially jurisdictional aquatic resources, best management practices, such as the use of silt fences, fiber rolls, and/or gravel bags, should be implemented. No equipment maintenance or fueling should be performed within or near potentially jurisdictional aquatic resources where petroleum products or other pollutants from the equipment may enter this area.

These avoidance measures would be consistent with both County requirements and mitigation presented in the GPU EIR.

Additional roadway improvements are anticipated to be located within the existing right-of-way and are not anticipated to result in impacts to biological resources beyond those described above for the Miller Road roundabout. Nonetheless, future implementing projects would be subject to additional environmental analysis and would implement avoidance and/or mitigation measures as described in the GPU EIR.

North County Multiple Species Conservation Program

The project segment of Valley Center Road is located within the boundaries of the County's Draft North County MSCP (County of San Diego 2009). The northern portion of the biological survey area for the Miller Road roundabout occurs outside of the Draft Pre-Approved Mitigation Area (PAMA) and the southern portion has been mapped as Draft PAMA under the Draft NCMSCP (Figure 9; County of San Diego 2009). However, the portion of the biological survey area that falls within PAMA at Miller Road appears to be continually mowed. Therefore, impacts associated with construction of the Miller Road roundabout would not conflict with the Draft NCMSCP.

Additional roadway improvements would be located within the existing right-of-way and are not anticipated to result in impacts to biological resources beyond those potential impacts associated with future implementing projects, described above for the Miller Road roundabout. Nonetheless, future implementing projects would be subject to additional environmental analysis, including an evaluation of consistency with the latest Draft NCMSCP or adopted NCMSCP, and would implement avoidance measures or consistent with mitigation presented in the GPU EIR if deemed necessary. Future roadway improvements would be subject to compliance with the following applicable mitigation measures from the GPU EIR, which were found to reduce impacts associated with biological resources to a level less than significant:

- Bio-1.5: Utilize County Guidelines for Determining Significance for Biological Resources to identify adverse impacts to biological resources. Also utilize the County's Geographic Information System (GIS) records and the Comprehensive Matrix of Sensitive Species to locate special status species populations on or near project sites. This information will be used to avoid or mitigate impacts as appropriate.

- Bio-1.6: Implement the RPO (Resource Protection Ordinance), BMO (Biological Mitigation Ordinance), and HLP (Habitat Loss Permit) Ordinance to protect wetlands, wetland buffers, sensitive habitat lands, biological resource core areas, linkages, corridors, high-value habitat areas, subregional coastal sage scrub focus areas, and populations of rare, or endangered plant or animal species.

- Bio-1.7: Minimize edge effects from development projects located near sensitive resources by implementing the County Noise Ordinance, the County Groundwater Ordinance, the County's Landscaping Regulations (currently part of the Zoning Ordinance), and the County Watershed Protection, Storm Water Management, and Discharge Control Ordinance

- Bio-2.2: Require that development projects obtain CWA (Clean Water Act) Section 401/404 permits issued by the California Regional Water Quality Control Board and U.S. Army Corps of Engineers for all project-related disturbances of waters of the U.S. and/or associated wetlands. Also continue to require that projects obtain Fish and Game Code Section 1602 Streambed Alteration Agreements from the California Department of Fish and Game for all project-related disturbances of streambeds.

- Bio-2.4: Implement the Watershed Protection, Storm Water Management, and Discharge Control Ordinance to protect wetlands.

Therefore, the project would not conflict with the provisions of the Draft NCMSCP.

Compared to the Valley Center Road Widening Project adopted on April 12, 2000, the project's potential impacts to sensitive biological resources have been substantially reduced. Impacts to riparian and wetland habitats, Englemann oaks, least Bell's vireo, and other sensitive resources would be completely avoided and impacts to other sensitive resource would be substantially reduced with the planned roadway design.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects on biological resources. Adoption of the project would not result in impacts (direct or indirect) on biological resources beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards for the protection of biological resources as deemed applicable. Impacts relative to biological resources would be consistent with those previously identified in the GPU EIR.

V. CULTURAL RESOURCES -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to cultural resources including: causing a change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5; causing a change in the significance of an archaeological resource as defined in State CEQA Guidelines Section 15064.5; and/or disturbing any human remains, including those interred outside of formal cemeteries?

YES	NO
☐	☒

The GPU EIR determined that impacts relative to cultural resources, including historical resources, archaeological resources, paleontological resources, and human remains, would be less than significant with the incorporation of mitigation measures.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to cultural resources that may result from future implementing projects.

The project area is primarily located within existing disturbed or developed lands within the County right-of-way of Valley Center Road. Improvements within these areas would involve surface level construction including repaving, installation of raised medians, and installation of bike lanes which would be located within existing disturbed areas. A majority of the project area was disturbed during previous grading and earthwork activities associated with construction of Valley Center Road. Therefore, the potential for construction of future roadway improvements to unearth unknown cultural and paleontological resources is considered low. Nonetheless, future implementing projects would be subject to additional environmental analysis and would implement avoidance and mitigation measures consistent with mitigation presented in the GPU EIR if deemed necessary. For example, due to the extent of resources known to occur in the area, cultural resources monitoring during ground disturbance associated with the planned roundabout would be required to avoid impacts to historical or cultural resources pursuant to State CEQA Guidelines Section 15064.5.

Ground disturbance would be required for the construction of the roundabout at the intersection of Valey Center Road and Miller Road by a future project. A cultural resources records and literature search was conducted by the South Coastal Information Center for the area of potential effect (APE), which included a 250-foot radius surrounding the center of the intersection. Beyond the APE, a one-mile search radius was covered as standard practice for a cultural resources records search. The purpose of the archival investigation is to identify previously recorded cultural resources and archaeological investigations that have been conducted and are present within the APE and one-mile search radius. The records search included previous archaeological investigations, recorded historic and prehistoric archaeological resources, and built-environment resources.

The records search results from the South Coastal Information Center indicated that 89 cultural resource investigations have been conducted within one mile of the APE, nine of which include the project APE. The records search results also indicated that 81 cultural resources have been recorded within one mile of the project APE (Table 6). A portion of one of these cultural resources (P-37-000278) overlaps with the project APE (Attachment C: Confidential). The recorded cultural resources consist of 47 prehistoric sites, five prehistoric isolates, 14 historic-era sites, four historic-era isolates, and seven multicomponent sites (comprising both prehistoric and historic-era resources). The prehistoric sites include lithic scatters with ground stone, ceramic scatters, bedrock milling features, petroglyphs, pictographs, habitation debris, and faunal remains, while the prehistoric isolates include flakes, a mano, and a metate. The historic-era resources include single-family properties, a one-to-three-story commercial property, a public utility building, a government building, farms, bridge abutments, a well, walls, and trash scatters, as well as isolated glass bottles and metal cans (Table 6). A discussion of the cultural resource (P-37-000278) that partially overlaps with the APE is provided below.

Table 6 Cultural Resources within One Mile of the Valley Center Road and Miller Road Intersection APE				
Primary Number	Trinomial	Resource Type	Period	Recording Events
P-37-000030	CA-SDI-000030	Lithic scatter; Bedrock milling feature; Petroglyphs	Prehistoric	1986 (P. Chace and D. Collins)
P-37-000265	CA-SDI-000265	Bedrock milling feature	Prehistoric	1954 (D.L. True)
P-37-000278	**CA-SDI-000278**	**Bedrock milling feature**	**Prehistoric**	**1935 (D.L. True); 1985 (P. Chace); 2008 (McGinnis); 2021 (J. Conroy; Brian F. Smith & Associates)**
P-37-000289	CA-SDI-000289	Lithic scatter, ground stone; Bedrock milling feature	Prehistoric	1955 (D.L. True); 1993 (P. Chace); 1996 (R. Case; Mooney & Associates); 2016 (R. Carrico)
P-37-000291	CA-SDI-000291	Lithic scatter, ground stone; Bedrock milling feature	Prehistoric	1955 (D.L. True); 1999 (J. Underwood; KEA Environmental); 2018 (ICF)
P-37-000294	CA-SDI-000294	Lithic scatter, ground stone	Prehistoric	1955 (D.L. True)
P-37-000595	CA-SDI-000595	Lithic scatter, ground stone; Bedrock milling feature	Prehistoric	1960 (D.L. True)
P-37-000596	CA-SDI-000596	Ceramic scatter; Bedrock milling feature; Habitation debris	Prehistoric	1960 (D.L. True)
P-37-000759	CA-SDI-000759	Lithic scatter, ground stone; Ceramic scatter; Bedrock milling feature; Faunal remains	Prehistoric	1980 (D.L. True); 1985, 1986 (P. Chace); 1993 (RMW Paleo Associates); 1998 (KEA Environmental); 2009 (ASM Affiliates); 2016 (AECOM); 2021 (Chambers Inc.)
P-37-004572	CA-SDI-004572	Lithic scatter; Bedrock milling feature	Prehistoric	1975 (R. Carrico)
P-37-004672	CA-SDI-004672	Lithic scatter, ground stone; Ceramic scatter; Bedrock milling feature; Dam	Multi-component	1975 (D. Hanna); 1978 (Beach); 1986 (P. Chace and D. Collins)
P-37-005579	CA-SDI-005579	Lithic scatter; Bedrock milling feature	Prehistoric	1977 (S. Fulmer); 2016 (R. Carrico)
P-37-005812	CA-SDI-005812	Lithic scatter, ground stone; Bedrock milling feature; Trash scatter	Multi-component	1978 (M. Sutton); 1980 (J. Hightower); 1985, 1986 (D. Collins and P. Chace); 1993 (R. Bissell, C. Morgan, and B. Giacomini); 2006 (M. Robbins-Wade and S. Van Wormer); 2010 (B.F. Smith and C. Hoff); 2017 (K. McPeek)
P-37-007209	CA-SDI-007209	Lithic scatter, ground stone; Bedrock milling feature; Habitation debris	Prehistoric	1979 (J. Hightower)
P-37-007210	CA-SDI-007210	Lithic scatter, ground stone; Bedrock milling feature	Prehistoric	1979 (J. Hightower); 1979 (P. Chace)
P-37-007987	CA-SDI-007987	Lithic scatter, ground stone; Bedrock milling feature	Prehistoric	1979 (B. Hunter); 2000 (Brian F. Smith and Associates); 2006 (P. McGinnis)
P-37-010447	CA-SDI-010447	Bedrock milling feature	Prehistoric	1985 (D. Collins)

Table 6 Cultural Resources within One Mile of the Valley Center Road and Miller Road Intersection APE				
Primary Number	Trinomial	Resource Type	Period	Recording Events
P-37-010448	CA-SDI-010448	Bedrock milling feature	Prehistoric	1986 (P. Chace and D. Collins); 1994 (R. Bissell, C. Bissell, K. Bissell, J. Phillips, R. Bark, F. Beecher)
P-37-010453	CA-SDI-010453	Lithic scatter, ground stone; Bedrock milling feature	Prehistoric	1985, 1986 (P. Chace and D. Collins)
P-37-010456	CA-SDI-010456	Bedrock milling feature	Prehistoric	1985 (P. Chace and D. Collins); 1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-010457	CA-SDI-010457	Bedrock milling feature; Trash scatter	Multi-component	1986 (P. Chace and D. Collins); 1993 (R. Bissell, K. Becker, and K. Victorino)
P-37-010459	CA-SDI-010459	Bedrock milling feature	Prehistoric	1986 (P. Chace and D. Collins)
P-37-010461	CA-SDI-010461	Bedrock milling feature	Prehistoric	1985 (P. Chace and D. Collins)
P-37-010462	CA-SDI-010462	Bedrock milling feature	Prehistoric	1977 (C. Bull)
P-37-010555	CA-SDI-010555	Bedrock milling feature	Prehistoric	1986 (P. Chace and D. Collins)
P-37-010556	CA-SDI-010556	Bedrock milling feature	Prehistoric	1986 (P. Chace); 1993 (R. Bissell, K. Becker, and K. Victorino); 2014 (J. Whitaker)
P-37-010557	CA-SDI-010557	Bedrock milling feature	Prehistoric	1986 (P. Chace and D. Collins); 1993 (R. Bissell, K. Becker, and K. Victorino)
P-37-010624	CA-SDI-010624	Bedrock milling feature	Prehistoric	1986 (P. Chace and D. Collins)
P-37-010891	CA-SDI-010891	Bedrock milling feature; Pictographs	Prehistoric	1987 (P. Chace and D. Collins)
P-37-010892	CA-SDI-010892	Lithic scatter; Bedrock milling feature	Prehistoric	1987 (P. Chace and D. Collins)
P-37-011078	CA-SDI-011078	Bedrock milling feature	Prehistoric	1989 (J. Berryman); 1990 (K. Joyner, M. Loy, and D. Smith); 2017 (ICF International); 2017 (M. Connolly); 2018 (J. Whitaker)
P-37-012636	CA-SDI-012636	Bedrock milling feature	Prehistoric	1992 (Gallegos and Associates); 1993 (J. Brown); 2014 (J. Whitaker); 2017 (R. Carrico)
P-37-012637	CA-SDI-012637	Lithic scatter (1 flake); Bedrock milling feature	Prehistoric	1992 (Gallegos and Associates); 1993 (J. Brown)
P-37-012638	CA-SDI-012638	Lithic scatter (1 mano fragment); Bedrock milling feature	Prehistoric	1992 (Gallegos and Associates); 1993 (J. Brown)
P-37-013579	CA-SDI-013579	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-013580	CA-SDI-013580	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini); 2018 (ICF International)
P-37-013582	CA-SDI-013582	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini); 2018 (ICF International)
P-37-013583	CA-SDI-013583	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)

Table 6 Cultural Resources within One Mile of the Valley Center Road and Miller Road Intersection APE				
Primary Number	Trinomial	Resource Type	Period	Recording Events
P-37-013586	CA-SDI-013586	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-013588	CA-SDI-013588	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-013589	CA-SDI-013589	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-013590	CA-SDI-013590	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-013591	CA-SDI-013591	Bedrock milling feature	Prehistoric	1993 (R. Bissel, K. Becker, and K. Victorino)
P-37-013594	CA-SDI-013594	Bedrock milling feature	Prehistoric	1993 (R. Bissel, K. Becker, and K. Victorino)
P-37-013595	CA-SDI-013595	Trash scatter	Historic	1993 (R. Bissel, C. Morgan, B. Giacomini, and K. Victorino)
P-37-013597	CA-SDI-013597	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-013598	CA-SDI-013598	Bedrock milling feature	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-013601	CA-SDI-013601	Lithic scatter; Bedrock milling feature; Trash scatter	Multi-component	1993 (R. Bissel, C. Morgan, and B. Giacomini); 2016 (R. Carrico)
P-37-013732	CA-SDI-013755	Bridge (abutments)	Historic	1992 (A. Noah and R. Beck); 2014 (J. Whitaker)
P-37-013733	CA-SDI-013756	Well	Historic	1992 (A. Noah, D. Hanna, and R. Beck)
P-37-013737	CA-SDI-013759	Trash scatter	Historic	1994 (R. Bissell); 2018 (J. Whitaker)
P-37-014080	--	Public utility building	Historic	1994 (M. Thornton)
P-37-015150	--	Isolate - flake	Prehistoric	1992 (Gallegos and Associates)
P-37-015414	--	Bedrock milling feature; Isolate - flake	Prehistoric	1993 (R. Bissel, C. Morgan, and B. Giacomini)
P-37-017525	--	Isolate - metal can	Historic	1999 (KEA & Associates); 2018 (ICF International)
P-37-017526	--	Isolate - flake	Prehistoric	1999 (KEA & Associates); 2018 (ICF International)
P-37-017527	CA-SDI-015358	Lithic scatter; Bedrock milling feature	Prehistoric	1999 (KEA & Associates); 2009 (ASM Affiliates); 2018 (ICF International)
P-37-019030	CA-SDI-013727	Lithic scatter; Bedrock milling feature; trash scatter	Multi-component	1991 (County of San Diego, Department of Public Works)
P-37-023870	CA-SDI-013728	Trash scatter	Historic	1992 (County of San Diego, Dept of Public Works); 2014 (J. Whitaker)
P-37-023871	CA-SDI-013729	1-3 story commercial building	Historic	1992 (County of San Diego, Dept of Public Works); 2014 (J. Whitaker)
P-37-030999	CA-SDI-019674	Subsumed by P-37-000759	Not Applicable	2010 (ASM Affiliates, Inc.)
P-37-031002	CA-SDI-019677	Bedrock milling feature	Prehistoric	2010 (ASM Affiliates, Inc.); 2020 (Chambers Group, Inc.)

Table 6 Cultural Resources within One Mile of the Valley Center Road and Miller Road Intersection APE				
Primary Number	Trinomial	Resource Type	Period	Recording Events
P-37-033119	CA-SDI-020856	Lithic scatter; Other - Marine shell scatter; Trash scatter; Wall	Multi-component	2013 (Affinis); 2014 (M. Robbins-Wade and S. Van Wormer)
P-37-033120	CA-SDI-020858	Bedrock milling feature	Prehistoric	2013 (Affinis)
P-37-033523	CA-SDI-021073	Bedrock milling feature	Prehistoric	2013, 2014 (Affinis)
P-37-033524	CA-SDI-021074	Lithic scatter; Bedrock milling feature	Multi-component	2014 (Affinis)
P-37-033525	CA-SDI-021075	Trash scatter	Historic	2014 (Affinis)
P-37-033602	CA-SDI-021114	Lithic scatter; Bedrock milling feature; Trash scatter	Prehistoric, Historic	2014 (Affinis)
P-37-033810		Single family property	Historic	2014, 2016 (Affinis); 2015 (R. Carrico)
P-37-034246	CA-SDI-021446	Bedrock milling feature	Prehistoric	2014 (Brian F. Smith & Associates)
P-37-034566		Isolate - metal can	Historic	2015 (PanGis, Inc.)
P-37-035928	CA-SDI-021887	Subsumed by P-37-000759	Not Applicable	2016 (Julie Roy, AECOM)
P-37-038747	CA-SDI-022818	Trash scatter	Historic	2019 (ESA)
P-37-038748		Single family property	Historic	2019 (ESA)
P-37-038752		Farm/ranch	Historic	2019 (PaleoWest)
P-37-039419		Isolate - bottles	Historic	2021 (ASM Affiliates)
P-37-040194	CA-SDI-023330	Trash scatter	Historic	2021 (Chambers Group, Inc.)
P-37-040252	CA-SDI-023349	Single family property; Government building; Tree/vegetation; Farm/ Ranch; Walls/gates/ fences; Landscaping/ orchard	Historic	2022 (ASM Affiliates)
P-37-040253		Isolate - bottle	Historic	2022 (ASM Affiliates)
P-37-040659		Isolate - mano	Prehistoric	2017 (ICF International)
P-37-040660		Isolate - metate	Prehistoric	2017 (ICF International)
Bold = resource occurs within project area				

P-37-000278 is a bedrock milling site originally recorded by D.L. True in 1955 containing milling elements over a 50-by-50-meter site area. P-37-000278 was updated in 1985 by Paul G. Chace & Associates as comprising three bedrock milling features exhibiting three milling slicks over a 50-by-70-meter area. In 2008 Tierra Environmental recorded two additional milling features during a study for the Miller Road Plaza Project. P-37-000278 was subsequently tested in 2008 by Tierra Environmental and was recommended not significant because no subsurface component was located during testing and due to a high level of ground disturbance occurring within the site area. Brian F. Smith and Associates performed mitigation monitoring for the Miller Road Plaza project in 2014 and observed 14 prehistoric artifacts dispersed across the project area which included one debitage, one hammerstone, three manos, seven metate fragments, and two Tizon Brown Ware pottery. Brian F. Smith and Associates determined that the 2014 monitoring recovery was associated with P-37-000278 but was dispersed due to past disturbance to the site area and concurred with the Tierra Environmental recommendation that P-37-000278 is not significant (Jillian L.H. Conroy 2021).

During environmental processing of the 6 Carat Car Wash (PDS2022-MUP-22-003), the Rincon and San Pasqual tribes identified that CA-SDI-278/P-37-000278 is a tribal cultural resource. Tribal monitoring would be implemented as part of that project. Additional CEQA analysis will be required for construction of the roundabout at the Valley Center Road and Miller Road intersection, when engineering and grading plans are prepared. If impacts to CA-SDI-278 are identified, archaeological and tribal monitoring would be required as identified by the General Plan EIR, as well as other measures, if required. Therefore, construction of the planned roundabout at the intersection of Valley Center Road and Miller Road would not adversely affect a previously recorded significant archaeological resource. However, there is a potential for resources to be encountered during ground disturbance. Future environmental analysis would be conducted to ensure compliance with the County Guidelines for Determining Significance for Cultural Resources and applicable GPU policies and mitigation measures.

There are no known tribal burial sites or cemeteries located near the project segment of Valley Center Road. Additionally, the project site was disturbed during previous grading and earthwork activities associated with construction of Valley Center Road. Therefore, the potential for construction of future roadway improvements to unearth unknown human remains is considered low. In the unlikely event that human remains are encountered during construction, all projects would be required to adhere to Public Resources Code §5097.98 and California Health and Safety Code Section 7050.5.

Subsequent to adoption of the GPU EIR, the State of California passed Assembly Bill (AB) 52, became effective on July 1, 2015. AB 52 requires lead agencies to consult with any California Native American Tribe that is traditionally and culturally affiliated with the geographic area of a project that requests consultation upon noticing, prior to release of a CEQA Negative Declaration (ND), Mitigated Negative Declaration (MND), or EIR. Additionally, the previously applicable Senate Bill (SB) 18 requires Tribal consultation on General Plan Amendments. As the project does not involve a General Plan Amendment or a CEQA ND, MND, or EIR, the requirements of AB 52 and SB 18 do not apply. However, the County consulted with Tribal Nations during regularly scheduled quarterly consultations while the project was in process from 2019 through 2024. These consultations involved representatives from the Pala Band of Mission Indians, the Pechanga Band of Indians, the Rincon Band of Luiseño Indians, the San Luis Rey Band of Mission Indians, and the San Pasqual Band of Mission Indians.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects on cultural resources. Adoption of the project would not result in impacts (direct or indirect) on cultural resources beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards for the protection of cultural resources as deemed applicable. Impacts relative to cultural resources would be consistent with those previously identified in the GPU EIR.

VI. GEOLOGY AND SOILS -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from geology and soils including: exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides; result in substantial soil erosion or the loss of topsoil; produce unstable geological conditions that will result in adverse impacts resulting from landslides, lateral spreading, subsidence, liquefaction or collapse; being located on expansive soil creating substantial risks to life or property; having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; and/or destroy a paleontological resources or site or unique geologic feature?

YES	NO
☐	☒

The GPU EIR determined that impacts to geology and soils would be less than significant. No mitigation measures were required.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to geology and soils that may result from future implementing projects.

Actions of future projects to implement components of the VCRCCP would involve road/right-of-way improvements and the VCRCCP doesn't involve planning for any structures that would expose people to the risk of loss, injury, or death associated with seismic or geologic hazards. Future implementing projects would be subject to additional environmental analysis, including applicable requirements of the Grading Ordinance for a soils investigation report where deemed necessary by the County Official (Grading Ordinance Section 87.210). Where warranted by site conditions, a soils investigation report would identify design parameters necessary to ensure seismic and geologic stability. Future implementing projects would also be required to prepare a Storm Water Pollution and Prevention Program and Storm Water Quality Management Plan to identify best management practices (BMPs) in conformance with the County's BMP Design Manual in order to minimize erosion during construction.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects to geology and soils. Adoption of the project would not result in impacts (direct or indirect) related to geology and soils beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to geology and soils as deemed applicable. Impacts to geology and soils would be consistent with those previously identified in the GPU EIR.

VII. GLOBAL CLIMATE CHANGE -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects associated with greenhouse gas emissions including: generation of greenhouse gas emissions that may have a significant impact on the environment; and/or conflict with applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions?

YES	NO
☐	☒

The GPU EIR determined that impacts associated with greenhouse gas (GHG) emissions would be less than significant with incorporation of the mitigation measures identified. The GPU EIR was determined to be in compliance with the requirements of AB 32 and to result in less than significant impacts relative to potential effects of global climate change, in particular with regard to effects on water supply, wildfires, energy needs, and public health.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to GHG emissions resources that may result from future implementing projects.

The GPU contains goals and policies specific to reducing GHG emissions, including efficient and compact growth and development; increasing energy efficiency and use of renewable energy sources; increasing recycling; and improving access to sustainable transportation. The GPU incorporates smart growth and land planning principles intended to reduce VMT, and thereby reduce GHG emissions. Specifically, the GPU directed preparation of a County Climate Action Plan (CAP) with reduction targets; development of regulations to encourage energy-efficient building design and construction; and development of regulations that encourage energy recovery and renewable energy facilities, among other actions. These planning and regulatory efforts are intended to ensure that actions of the County do not impede AB 32 and SB 375 mandates.

On February 14, 2018, the County Board of Supervisors adopted a CAP, which identified specific strategies and measures to reduce GHG emissions in the largely rural, unincorporated areas of San Diego County, as well as County government operations (County of San Diego 2018). On September 30, 2020, the County Board of Supervisors voted to set aside its approval of the County's 2018 CAP and related actions because the Final Supplemental Environmental Impact Report (2018 CAP SEIR) was found to be out of compliance with CEQA. In response to this County Board of Supervisors action, the County prepared a CAP Update to revise the 2018 CAP and correct the items identified by the 4th District Court of Appeal in San Diego within the Final 2018 CAP SEIR that were not compliant. The CAP Update was adopted by the County Board of Supervisors on September 11, 2024. The CAP Update outlines actions the County will take to meet state targets and achieve a goal of net zero carbon emissions by 2045. Implementation of the CAP Update includes a combination of regulations, programs, incentives, and outreach and educational activities to reduce GHG emissions.

As discussed in Section III, Air Quality, actions of future projects to implement VCRCCP components would result in short-term emissions from construction of the roundabout at the intersection of Valley Center Road and Miller Road, construction of mobility improvements such as bicycle lanes and sidewalks, raised medians, curb bump outs, and minimal emissions from the use of utility trucks and other equipment required to install signals at the intersections with Sunday Drive and Old Road. Once operational, the completed improvements associated with implementing projects would not result in an increase in mobile emissions since additional trips would not be generated as a result of the improvements called for in the VCRCCP; however, the corridor would experience an overall decrease in mobile emissions due to the improvement of traffic flow through the project segment of Valley Center Road. Anticipated GHG emissions due to construction activities associated with implementing projects and GHG emission reductions due to VCRCCP planned improvements were calculated using the same methodology discussed in Section III above.

Construction Emissions

At the time of this analysis, there is no dedicated implementation funding for the VCRCCP; therefore, construction timelines for multiple future projects to implement VCRCCP components are unknown and dependent on funding opportunities. Construction activities associated with the VCRCCP are not anticipated to begin until at least 2030. Based on the high-level estimates on construction equipment and schedule shown in Table 1 above, and further discussed in the Air Quality Section, representative annual emissions from construction of a project component (roundabout at the intersection of Valley Center Road and Miller Road) were modeled. It was estimated that construction associated with implementing projects would result in a total of 672 metric tons of CO_2 equivalent (MT CO_2E) over a one-year construction period (see Attachment A-1). Multiple implementing projects are anticipated to be constructed over a number of years; however, these activities would be temporary. Based on guidance from the South Coast Air Quality Management District, total construction GHG emissions resulting from a project (or multiple future projects to implement VCRCCP components in this case) should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (South Coast Air Quality Management District 2009). Although temporary construction-related GHG emissions would occur, the GHG benefits that would occur due to roadway improvements would far outweigh the construction-related GHG emissions, resulting in a net decrease in GHG emissions even when considering the GHGs that would be emitted during construction activities.

Operational Emission Reductions

The estimated reduction in GHG emissions due to intersection improvements are summarized in Table 7, and the estimated reduction in GHG emissions due to pedestrian and bikeway improvements are summarized in Table 8. Calculations details for the estimates are provided in Attachment A.

Table 7 Estimated GHG Emission Reductions due to Intersection Improvements (metric tons per year)	
Intersection	GHG Emission Reductions
Sunday Drive	-228
Old Road	-3,587
Miller Road	-128
Total Reductions	**-3,944**
Source: CMAQ Output, Attachments A-4, A-5, and A-6 Note: Total may vary due to independent rounding.	

Table 8 Estimated GHG Emission Reductions due to Pedestrian and Bikeway Improvements (metric tons per year)	
Improvements	GHG Emission Reductions
Sidewalk Improvements	0 to -592
Bikeway Improvements	0 to -74
Total Reductions	**0 to -666**
Source: CMAQ Output, Attachment A-7 Note: The emissions are presented as a range of reductions because it cannot be known with certainty how many trips would be reduced through implementation of these measures. Attachment A-7 includes CAPCOA factsheets for bicycle and sidewalk improvements that provide additional information about the range of effectiveness.	

As shown in Tables 7 and 8 above, by improving traffic flow and encouraging a mode shift from vehicles to bicycling and walking, the project is anticipated to result in a reduction in GHG emissions. It is reasonably anticipated that new GHG reduction goals, policies, and regulations adopted since the time of certification of the GPU EIR would contribute to further GHG reductions for current and future development within the County as compared to conditions as originally evaluated in the GPU EIR. Therefore, project impacts associated with global climate change are not anticipated to increase in severity as compared to the GPU EIR significance findings. Although new regulations relative to GHG emissions have been adopted since the time of certification of the GPU EIR, such information is not considered to be of “substantial importance" that would result in one or more effects related to environmental effects associated with GHG emissions or compliance with applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions. Impacts would be consistent with those previously identified in the GPU EIR.

In addition, the construction-related air quality mitigation measure Air-2.7 identified in the GPU EIR (see Section III) would also serve to reduce GHG emissions during construction activities.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to global climate change. Adoption of the project would not result in impacts (direct or indirect) related to global climate change beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to global climate change as deemed applicable. Impacts related to global climate change would be consistent with those previously identified in the GPU EIR.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from hazards and hazardous materials including: creation of a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes; creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 creating a hazard to the public or the environment; location 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 result in a safety hazard or excessive noise for people residing or working in the project area; impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or exposure of people or structures to a significant risk of loss, injury or death involving wildland fires?

YES	NO
☐	☒

The GPU EIR determined that impacts related to the transport, use, or disposal of hazardous materials, accidental release of hazardous materials, use of hazardous materials within proximity to schools, location on a site that may create hazard to the public or the environment, or the potential for increased human exposure to vectors would be less than significant without the requirement for mitigation measures. Impacts associated with public and private airport operations and interference with emergency evacuation and response plans were determined to be less than significant with the incorporation of mitigation measures. Impacts relative to wildland fires were determined to be significant and unavoidable, even with the implementation of mitigation measures. As such, a Statement of Overriding Considerations was adopted relative to wildland fires pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts related to hazards and hazardous materials that may result from future implementing projects.

Construction of planned roadway improvements by future projects may involve the use of small amounts of solvents, cleaners, paint, oils, and fuel for equipment. However, use of these common hazardous materials in small quantities would not represent a significant hazard to the public or environment and would not involve the routine transport or disposal of hazardous materials. Similarly, construction of future roadway improvements would be conducted consistent with applicable local, State, and federal regulations. Furthermore, California Government Code Section 65850.2 requires verification that the owner or authorized agent has met, or will meet, applicable requirements provided in the California Health and Safety Code, Division 20, Chapter 6.95, Hazardous Materials Release Response Plans and Inventory. Additionally, compliance with these regulations would ensure that construction emissions would not affect nearby schools. Therefore, the project would not create a significant hazard to the public or the environment

through the routine transport, storage, use, or disposal of hazardous materials or wastes, upset and accident conditions, or emit hazardous emissions within one-quarter mile of an existing or proposed school.

Review of the State Water Resources Control Board Geotracker database determined that there is one active hazardous materials site at the northwest corner of the intersection of Valley Center Road and Cole Road consisting of a Leaking Underground Storage Tank cleanup at the Pala Vista Gas Station that is currently listed as inactive (State Water Resources Control Board 2024). However, the project does not propose any change to the intersection control at the intersection of Valley Center Road and Cole Road, and therefore would not risk exposure to the existing contamination associated with the Pala Vista Gas Station cleanup site. Review of the California Department of Toxic Substances Control Envirostor database determined that there are no contaminated sites on or adjacent to the project segment of Valley Center Road (California Department of Toxic Substances Control 2024). Therefore, the project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The closest airports to the project are Blackinton Airport, located approximately 4.52 miles northwest, and Lake Wohlford Resort Airport, located approximately 4.04 miles southeast. Blackinton Airport and Lake Wohlford Resort Airport are both independent, personal use airports, and do not have Airport Land Use Compatibility Plans. Therefore, the project would not result in development within two miles of a public or private airport and would not result in a safety hazard or excessive noise for people residing or working in the project area.

The project addresses corridor access management, safety, and overall operations for all road user types. The project is limited to roadway improvements and would not introduce any new land uses and corresponding structures that would increase the number of vehicle trips utilizing Valley Center Road. Rather, conversion of the intersections with Sunday Drive and Old Road from two-way stop-controlled intersections to signalized intersections, and the intersection with Miller Road from a two-way, stop-controlled intersection to a roundabout, would improve traffic flow through the project segment of Valley Center Road, and thereby improve emergency access. Additionally, the planned roundabout includes two circulating lanes, wide entry lanes, a truck apron and other features that will ensure large vehicles–including hook and ladder trucks, fire trucks and large commercial vehicles–can easily navigate the roundabout with the passenger vehicles. In 2023, Citygate Associates completed a report reviewing emergency response and evacuation considerations for the VCRCCP Options considered then, and a supplement to the report in 2024, to address the Draft Final VCRCCP addressed in this document. The analysis found that the VCRCCP planned improvements would not hamper emergency response or evacuation operations, and that modeling showed the planned roundabout would have less impact on response times than a traffic signal. The 2023 Citygate Report can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/cg-report.pdf and the 2023 Citygate Report Exhibits can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/cg-exhibits.pdf. The 2024 Citygate Report Supplement can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/ccp-appx_a-e.pdf (Appendix C within the link of multiple appendices to the Draft Final VCRCCP). These include turn templates showing how large emergency vehicles (e.g., largest fire trucks using the corridor) will be able to navigate the planned roundabout. Additional analysis of emergency vehicle

access and circulation, including lane and entry widths, will be conducted during final engineering design of the roundabouts. Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The portion of Valley Center Road covered by the VCRCCP is located within the Very High Fire Hazard Severity Zone. However, the project is limited to adoption of a plan calling for future roadway improvements and would not introduce any structures that would expose people to wildland fires. Proposed roadway improvements would not include flammable materials that could combust during a wildland fire. Therefore, the project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

The project would not introduce any vector breeding sources. Any plans for drainage/stormwater management associated with future improvements within the right-of-way would be developed during the engineering process of implementation and would be subject to requirements in place to avoid pooling water for vector breeding.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that cause one or more effects from hazards and hazardous materials. Adoption of the project would not result in impacts relative to hazards and hazardous materials beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to hazards and hazardous materials as deemed applicable. Impacts related to hazards and hazardous materials would be consistent with those previously identified in the GPU EIR.

IX. HYDROLOGY AND WATER QUALITY -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to hydrology and water quality including: violation of any water quality or waste discharge requirements or otherwise substantially degrade surface or groundwater quality; substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion, siltation or flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems; provide substantial additional sources of polluted runoff; impede or redirect flood flows; in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and/or conflict with or obstruct implementation of a water quality plan or sustainable groundwater management plan?

YES	NO
☐	☒

The GPU EIR determined that impacts associated with hydrology and water quality would be less than significant with the incorporation of mitigation measures, with the exception of impacts relative to the degradation of water quality and conformance with water quality standards requirements, and groundwater supplies and recharge, which were determined to be significant and unavoidable, even with the incorporation of mitigation measures. As such, a Statement of

Overriding Considerations was adopted for hydrology and water quality pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to hydrology and water quality that may result from future implementing projects.

Subsequent to certification of the GPU EIR, the County adopted the updated Watershed Protection, Stormwater Management, and Discharge Control Ordinance No. 10410 (N.S.) on February 26, 2016. Additionally, a Municipal Stormwater Permit was reissued by the San Diego Regional Water Quality Control Board under the National Pollutant Discharge Elimination System (Order No. R9-2013-0001). The revisions made to these planning documents do not affect or increase the severity of potential impacts as previously analyzed in the GPU EIR.

Future implementing projects would implement roadway improvements within an existing paved segment of Valley Center Road, with the exception of the Miller Road intersection roundabout, anticipated to extend beyond the existing right-of-way. Grading of natural soil would be limited to the development of the roundabout at the intersection of Valley Center Road and Miller Road. Implementing projects for future roadway improvements would include development of drainage and stormwater management measures to control runoff and prevent pollution. Future implementing projects would also be required to prepare a Storm Water Pollution and Prevention Program and/or Storm Water Quality Management Plan to identify BMPs in conformance with the County's BMP Design Manual and San Diego municipal separate storm sewer system permit requirements to prevent erosion and preserve water quality.

None of the implementing elements of the project would require groundwater supplies and there would be minimal change in the amount of impervious surfaces after project implementation. Therefore, future implementation is not anticipated to interfere with groundwater recharge.

Figure 10 presents the location of the project in relation to mapping of the 100-year floodplain and floodways as mapped by the Federal Emergency Management Agency. As shown in Figure 10, the project crosses portions of the 100-year floodplain associated with Keys Canyon Creek and Moosa Canyon Creek. However, actions of future projects to implement components of the VCRCCP would be limited to road/right-of-way improvements and would not introduce any new structures that would be subject to flood risk. Furthermore, the project segment of Valley Center Road crosses these segments of the 100-year floodplain with bridges and culverts, and includes storm drain facilities that have been sized to accommodate the 100-year storm event. The project is not located within an area subject to inundation due to dam failure or potential effects of seiche, tsunami, or mudflow hazards. Future roadway improvements would be subject to compliance with the following applicable mitigation measures from the GPU EIR which were found to reduce impacts associated with hydrology and water quality to a level less than significant.

- Hyd-1.1: Update and implement the County of San Diego's Jurisdictional Urban Runoff Management Program (JURMP).

- Hyd-1.2: Implement and revise as necessary the Watershed Protection Ordinance to reduce the adverse effects of polluted runoff discharges on waters and to encourage the removal of invasive species and restore natural drainage systems.

- Hyd-1.4: Revise and implement the Stormwater Standards Manual requiring appropriate measures for land use with a high potential to contaminate surface water or groundwater resources.

- Hyd-1.5: Utilize the County Guidelines for Determining Significance for Surface Water Quality, Hydrology, and Groundwater Resources to identify adverse environmental effects.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to hydrology and water quality. Adoption of the project would not result in impacts (direct or indirect) related to hydrology and water quality beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to hydrology and water quality as deemed applicable. Impacts related to hydrology and water quality would be consistent with those previously identified in the GPU EIR.

X. LAND USE AND PLANNING -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more associated with land use and planning including: physically dividing an established community; and/or conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?

YES	NO
☐	☒

The GPU EIR determined that impacts associated with the physical division of an established community would be less than significant with the incorporation of mitigation measures. Further, impacts resulting from conflict with applicable land use plans, policies, or regulations, or a Habitat Conservation Plan or Natural Community Conservation Plan, were determined to be less than significant with no mitigation required.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to land use and planning that may result from future implementing projects.

Actions of future projects to implement VCRCCP components would include road/right-of-way improvements along the existing Valley Center Road. No new land uses, changes to zoning designations, or new roadways are proposed. Additionally, the project would be consistent with the General Plan Mobility Element Network for Valley Center, which identifies the project segment of Valley Center Road within the Village boundaries for Valley Center's South Village and North Village as a 4.2A Boulevard with Raised Median classification (four lanes). The segment of Valley Center

Road between the intersection with Lilac Road and intersection with Miller Road located between the two Village boundaries is classified as a 4.1A Major Road with Raised Median in the General Plan Mobility Element Network. The project would be consistent with these designations and proposed improvements would not adversely affect land uses within the surrounding South Village and North Village. Minor property acquisitions required to develop the roundabout at the intersection of Valley Center Road and Miller Road would not adversely affect existing land uses in the vicinity.

In addition to the consistency with the Mobility Element Network roadway classifications described above, the General Plan Mobility Element Network also calls for a Class IV bikeway (physical separation from driving lanes) along the project segment of Valley Center Road, which is planned as part of this project. Additional improvements would implement the General Plan policy framework by providing additional opportunities for alternative modes of transportation and connectivity. Specifically, the project would serve to implement several of the General Plan's goals and policies in the Land Use and Mobility Elements that call for Village-specific regulations for roads, prioritizing infrastructure improvements for Villages, pedestrian-oriented road/right-of-way design, Village roads addressing safety and accommodations for active transportation, and context sensitive road design. These include General Plan Goals LU-9 and M-4; and Policies LU-9.1, LU-9.3, LU-9.4, LU-9.7, LU-9.10, M-4.1, M-4.2, and M-4.5. General Plan Policy M-2.1 requires development projects to provide associated road improvements necessary to achieve a LOS of "D" or higher on all Mobility Element Network roads except for those where a failing LOS has been accepted by the County per the General Plan criteria. As the VCRCCP would not add trips to the corridor, the planned improvements do not pose any inconsistency issues with that policy. As described in Section IV above, the project would not conflict with the provisions of the Draft NCMSCP.

As noted in the Ordinance for adoption, the VCRCCP would supplement and supersede the County's Public Road Standards (https://www.sandiegocounty.gov/content/dam/sdc/dpw/COUNTY_ROADS/roadspdf/pbrdstds.pdf) as applied within the corridor. In developing the plan, the project team and stakeholders considered guidance in the Public Road Standards on criteria for median openings, pathways, sidewalks, and specifications associated with Mobility Element Network classifications, among other considerations. VCRCCP development also considered guidance in the County's Active Transportation Plan (ATP; https://www.sandiegocounty.gov/content/sdc/pds/advance/ActiveTransportationPlan.html) on travel lane widths, Class IV bikeway design, pedestrian accommodations and methodology for analyzing pedestrian and bicycle conditions.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to land use and planning. Adoption of the project would not result in impacts (direct or indirect) related to land use beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to land use and planning as deemed applicable. Impacts relative to land use and planning would be consistent with those previously identified in the GPU EIR.

XI. MINERAL RESOURCES -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to mineral resources including: the loss of availability of a known mineral resource that would be of

value to the region and the residents of the state; and/or loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

YES	NO
☐	☒

The GPU EIR determined that impacts to mineral resources would be significant and unavoidable, even with incorporation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for mineral resources pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts to mineral resources that may result from future implementing projects.

The California Geological Survey classifies the regional significance of mineral resources through the use of Mineral Resource Zones (MRZs). Figure 11 presents the distribution of MRZs that have been designated on land surrounding the project, including MRZ-3 and MRZ-4. Land shown in Figure 11 that is not classified as an MRZ has not been evaluated by the California Geological Survey. The MRZ-3 designation covers areas that contain known mineral deposits, the significance of which cannot be evaluated from available data. The MRZ-4 designation covers areas where available information is inadequate for assignment to an MRZ zone. Neither of these MRZ categories are considered significant mineral resources. Therefore, the VCRCCP is not within land documented as a known mineral resource. Actions of future projects to implement components of the VCRCCP would be limited to road/right-of-way improvements to an existing roadway, and conversion of natural soil would be limited to an approximately 250-foot radius from the center of the Valley Center Road and Miller Road intersection. Furthermore, there are no existing mineral resource recovery sites adjacent to the project segment of Valley Center Road, and existing uses within Valley Center's South Village and North Village adjacent to the project are incompatible with mineral resource extraction. Therefore, project implementation is not anticipated to result in the loss of availability of a known mineral resource or locally important mineral resources recovery site as delineated in the General Plan or other land use plan.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects to mineral resources. Adoption of the project would not result in impacts (direct or indirect) on mineral resources beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to mineral resources as deemed applicable. Impacts to mineral resources would be consistent with those previously identified in the GPU EIR.

XII. NOISE -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from noise including: generation of a substantial temporary or permanent increase in ambient noise levels in excess of

standards established in the local general plan or noise ordinance, or applicable standards of other agencies; generation of excessive groundborne vibration or groundborne noise levels; and/or for a project within the vicinity of a private airstrip or airport land use plan or within two miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels?

YES	NO
☐	☒

The GPU EIR determined that noise impacts would be less than significant with incorporation of mitigation measures, with exception of impacts resulting from the permanent increase in ambient noise levels, which were determined to be significant and unavoidable, even with the incorporation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for noise impacts pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts related to noise that may result from future implementing projects.

Traffic Noise

Actions of future projects to implement road/right-of-way improvements called for in the VCRCCP would not result in an increase in traffic volumes within the VCRCCP area; however, noise levels would be affected by the change in intersection control methods (stop sign-controlled, signalized, or roundabout). A Valley Center Road Corridor Concept Plan Noise Research Memorandum has been prepared for the project (Attachment D) which summarizes the potential noise impacts associated with various traffic control methods. Each intersection control method would result in a different set of noise impact advantages and disadvantages from the perspective of sensitive receptors by the intersection. Noise at each intersection would vary based on intersection control type, traffic volume, and distance to the nearest sensitive receptors. Stop sign-controlled intersections generate more noise from braking and accelerating vehicles when compared to other intersection controls. Well-designed approaches to roundabouts would maintain a controlled speed and reduce noise associated with vehicle stop-and-go movements. Noise would also be reduced because vehicles would be required to slow down to navigate the roundabout. In order to compare the noise generated at each intersection type, noise contour mapping for a representative intersection was developed for a stop-controlled intersection, a signalized intersection, and a roundabout. With vehicle traffic volumes held constant, the signalized intersection would result in slightly reduced noise levels compared to the stop-controlled intersection due to fewer stop-and-go movements. The roundabout would result in reduced noise levels compared to both stop-controlled and signalized intersections due to the speed reduction required to navigate the roundabout. Therefore, by converting unsignalized intersections to signalized intersections or roundabouts, the project would result in a reduction in ambient noise levels.

The project would directly implement General Plan Policy N-4.2, Traffic Calming, which requires “traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise in development that may impact noise sensitive land uses.” As

implementing projects are anticipated to result in noise reductions associated with intersection improvements, GPU mitigation measures Noi-1.1 through Noi-1.9 and Noi-3.1 through Noi-3.2 would not be applicable.

Construction Noise

Future project actions to implement VCRCCP components would result in temporary construction noise from construction of the roundabout at the intersection of Valley Center Road and Miller Road, construction of mobility improvements such as bicycle lanes and sidewalks, and minimal noise from the use of utility trucks and other equipment required to install signals at the intersections with Sunday Drive and Old Road. Construction equipment with a diesel engine typically generates maximum noise levels from 70 to 95 [dB(A) L_{eq}] at a distance of 50 feet (Federal Highway Administration 2006 and 2008; Federal Transit Authority 2018). During construction, equipment moves to different locations and goes through varying load cycles, and there are breaks for the operators and for non-equipment tasks, such as measurement. Table 9 summarizes typical construction equipment noise levels and duty cycles.

Table 9
Typical Construction Equipment Noise Levels

Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 kilovolt amps or less)	70	50%
Generator (more than 25 kilovolt amps)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
Impact Pile Driver (diesel or drop)	95	20%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Roller	74	40%
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%
Vibratory Pile Driver	95	20%

dB(A) L_{eq} = A-weighted decibels average noise level
SOURCE**:** Federal Highway Administration 2006 and 2008; Federal Transit Authority 2018**.**

The planned roundabout at the intersection of Valley Center Road and Miller Road would involve the greatest amount of construction. Therefore, noise associated with construction of this roundabout was calculated using the SoundPLAN model (Navcon 2018). Construction of all other roadway improvements would be less intensive, and therefore generate less noise.

Noise levels were calculated assuming the simultaneous use of two large pieces of construction equipment including an excavator and grader. Together this equipment generates an average hourly noise level of 85.8 dB(A) L_{eq} which is equivalent to a sound power level of 117.4 dB(A) L_{pw}. This noise level was modeled over the footprint of the planned roundabout. Construction noise contours are shown in Figure 12 and noise levels at nearby modeled receivers are summarized in Table 10. Receiver numbers in Table 10 correspond to locations in Figure 12. SoundPLAN data is provided in Attachment D.

Table 10
Construction Noise Levels

Receiver	Use (Zone)	Construction Noise Level [dB(A) L_{eq}]
1	C36 General Commercial	62
2	RR Rural Residential	60
3	C40 Rural Commercial	62
4	RR Rural Residential	64
5	C36 General Commercial	75
6	C40 Rural Commercial	62

dB(A) L_{eq} = A-weighted decibels equivalent noise level

As shown in Table 10 above, construction noise levels are not anticipated to exceed the County's Noise Ordinance limit of 75 dB(A) L_{eq} as specified in Noise Ordinance Section 36.409. Although the existing adjacent residents would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary. Future construction activities would be subject to regulations identified in the County Noise Ordinance (Sections 36-404, Operational Noise; Section 36-410, Construction Noise). Per such regulations, construction would be limited to the daytime hours of 7:00 a.m. to 7:00 p.m., thereby reducing potential noise disturbances. Construction activities associated with implementing projects would comply with noise level limits from the County's Noise Ordinance. Impacts would be consistent with those previously identified in the GPU EIR.

Groundborne Vibration

Construction activities produce varying degrees of ground vibration, depending on the equipment and methods employed. While ground vibrations from typical construction activities very rarely reach levels high enough to cause damage to structures, special consideration must be made when sensitive or historic land uses are near the construction site (California Department of Transportation 2013). Vibration impacts from project construction would be significant if the level exceeds 0.1 at the nearest noise sensitive land uses. The construction activities that typically generate the highest levels of vibration are blasting and impact pile driving. However, future project actions to construct road/right-of-way improvements called for in the VCRCCP would not be anticipated to require blasting or pile driving. On-site construction equipment that would cause the most noise and vibration would be associated with intersection grading equipment. According to the California Department of Transportation, vibration levels associated with the use of bulldozers range from approximately 0.003 to 0.089 inch per second

(in/sec) peak particle velocity (PPV) at 25 feet. The nearest structure is located approximately 30 feet from the roundabout impact area at the intersection of Valley Center Road and Miller Road. A vibration level of 0.089 in/sec PPV at 25 feet would be 0.073 in/sec PPV at 30 feet which would be less than the threshold of 0.1 in/sec PPV. Construction of road/right-of-way improvements by future implementing projects would not include stationary sources of vibration, such as heavy equipment operations. Operational vibration in the project vicinity would be generated by vehicular travel on the local roadways. According to the Federal Transit Authority Transit Noise and Vibration Impact Assessment guidance document, vibration from traffic is rarely perceptible (Federal Transit Authority 2018). Project-related traffic vibration levels would not be perceptible by sensitive receptors. Impacts would be consistent with those previously identified in the GPU EIR.

Airport Noise

The VCRCCP area is not located within the boundaries of an airport land use plan. No potential noise impacts would result in regard to airport noise.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to noise. Adoption of the project would not result in impacts (direct or indirect) related to noise beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to noise as deemed applicable. Impacts related to noise would be consistent with those previously identified in the GPU EIR.

XIII. POPULATION AND HOUSING -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects associated with population and housing including: induce substantial unplanned population growth either directly or indirectly; and/or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

YES	NO
☐	☒

As indicated in the GPU EIR, buildout of the General Plan would not result in a substantial increase in population. The development and infrastructure proposed under the GPU would directly and indirectly induce population growth; however, such growth is considered to be consistent with forecasted growth for the unincorporated County. As stated in the GPU EIR, the GPU is a comprehensive plan to guide future growth and includes a framework for land use and development, as well as goals and policies, to prevent unanticipated or inappropriate population growth in the unincorporated County (County of San Diego 2011). Therefore, the GPU EIR concluded that buildout of the General Plan would not result in the direct or indirect inducement of unplanned population growth and a significant impact would not occur.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the

analysis below discloses the potential impacts related to population and housing that may result from future implementing projects.

Actions of future projects to implement components of the VCRCCP would be limited to roadway/right-of-way improvements and would not introduce any residential uses that would induce substantial unplanned population growth either directly or indirectly. The transportation infrastructure improvements called for in the VCRCCP would not add additional capacity to the road and are consistent with the current General Plan Mobility Element Network, the County Active Transportation Plan, and General Plan goals and policies on Village-specific regulations for roads, prioritizing infrastructure improvements for Villages, pedestrian-oriented road/right-of-way design, Village roads addressing safety and accommodations for active transportation, and context sensitive road design. Therefore, future infrastructure improvements for consistency with the VCRCCP would also not induce population growth beyond the analysis of the GPU EIR.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or “new information of substantial importance” that would cause one or more effects related to population and housing. Adoption of the project would not result in impacts (direct or indirect) related to population and housing beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to population and housing as deemed applicable. Impacts related to population and housing would be consistent with those previously identified in the GPU EIR.

XIV. PUBLIC SERVICES -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects associated substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or 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 following public services: fire protection, police protection, schools, parks, and/or other public facilities?

YES	NO
☐	☒

The GPU EIR determined that impacts to public services (fire, police, and other public services) would be less than significant with incorporation of mitigation measures, with the exception of impacts to school services, which were determined to be significant and unavoidable even with incorporation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for public services pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts related to public services that may result from future implementing projects.

Actions of future projects to implement components of the VCRCCP would be limited to road/right-of-way improvements and the VCRCCP does not include plans for any new residential structures or non-residential structures that would require fire protection or police protection services, or that would add unplanned population growth that could strain local parks, schools, libraries, public safety services, or other public services and facilities.

In 2023, Citygate Associates completed a report reviewing emergency response and evacuation considerations for the VCRCCP Options considered then, and a supplement to the report in 2024, to address the Draft Final VCRCCP addressed in this document. The analysis found that the VCRCCP planned improvements would not hamper emergency response or evacuation operations, and that modeling showed the planned roundabout would have less impact on response times than a traffic signal. The 2023 Citygate Report can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/cg-report.pdf and the 2023 Citygate Report Exhibits can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/cg-exhibits.pdf. The 2024 Citygate Report Supplement can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/ccp-appx_a-e.pdf (Appendix C within the link of multiple appendices to the Draft Final VCRCCP). These include turn templates showing how large emergency vehicles (e.g., largest fire trucks using the corridor) will be able to navigate the planned roundabout. The traffic modeling demonstrated that the main impact on future emergency response times would be the additional traffic added to the corridor with buildout of the Villages and other growth, and corresponding need for additional intersection controls. The VCRCCP would not add traffic capacity to the corridor and projects adding vehicle trips to the corridor would address impacts accordingly.

Development projects that include habitable structures are required to demonstrate fire services can be provided that meet the minimum travel times identified General Plan Table S-1 (General Plan Policy S-6.4), and to contribute fair share toward funding the provision of appropriate fire and emergency medical services as necessary to adequately serve the project (General Plan Policy S-6.3). One of the main goals in development of the VCRCCP was prioritization of optimal response times as traffic continues to be added to the corridor in the coming years.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to public services. Adoption of the project would not result in impacts (direct or indirect) related to public services beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to public services as deemed applicable. Impacts related to public services would be consistent with those previously identified in the GPU EIR.

XV. RECREATION -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to recreation including: result in an increase in 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; and/or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

YES	NO
☐	☒

The GPU EIR determined that impacts relative to recreation would be less than significant with the incorporation of mitigation measures.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts related to recreation that may result from future implementing projects.

Actions of future projects to implement components of the VCRCCP would be limited to road/right-of-way improvements and the VCRCCP does not include any residential uses that would increase use of existing park and recreation facilities. Furthermore, proposed roadway improvements would not include development of any new park and recreation facilities that would result in adverse impacts to environmental resources.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to recreation. Adoption of the project would not result in impacts (direct or indirect) related to recreation beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to recreation as deemed applicable. Impacts related to recreation would be consistent with those previously identified in the GPU EIR.

XVI. TRANSPORTATION -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to transportation including: conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b); substantially increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and/or result in inadequate emergency access?

YES	NO
☐	☒

The GPU EIR determined that impacts to transportation and traffic would be less than significant with incorporation of mitigation measures, with the exception of impacts relative to the degradation in LOS for roadways in unincorporated San Diego County and adjacent cities, and to rural road safety, which were determined to be significant and unavoidable even with mitigation measures incorporated. As such, a Statement of Overriding Considerations was adopted for transportation and traffic pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the analysis below discloses the potential impacts related to transportation that may result from future implementing projects.

The VCRCCP project plans for multi-modal roadway improvements along Valley Center Road from Woods Valley Road to Cole Grade Road. The improvements include the following along the corridor: installation of two new traffic signals, one two-lane roundabout, a new pedestrian signal, high-visibility crosswalks and curb extensions, a Class IV bikeway in each direction of travel, extension of the sidewalk on the east and south sides of the road corridor, median extensions, a 25-long mountable median for public safety personnel use, and potential improved bus transit stops. The proposed roadway classifications along the VCRCCP corridor (4.2A Boulevard with Raised Median within the Villages, and 4.1A Major Road between the Villages) and Class IV bikeway would remain consistent with the General Plan Mobility Element Network for Valley Center.

The VCRCCP project is limited to roadway improvements and would not result in any changes to land uses or vehicle trips and would not result in any changes to roadway LOS.

The VCRCCP plans for the following pedestrian facilities improvements along the corridor:

- A new controlled pedestrian crossing (pedestrian signal or high-intensity activated crosswalk [HAWK]) at Rinehart Lane with a high-visibility continental crosswalk across Valley Center Road

- Curb extensions (also referred to as bulb outs) and high-visibility continental crosswalks at all existing or planned signalized intersections

- High-visibility continental crosswalks at the planned roundabout at Miller Road

- Extending the existing 5-foot-wide sidewalks on the south and east sides of the corridor to fill in existing gaps

- Maintaining the 8-foot-wide Heritage Trail pathway on the west and north sides of the corridor, with minor modifications at the planned roundabout and planned curb extensions

Existing pedestrian facilities along the VCRCCP corridor are currently limited to the following:

- Sidewalk along the east side of Valley Center Road from Woods Valley Road to 200 feet south of Park Circle Way (0.43 miles)
- Sidewalk along the south side of Valley Center Road from Cole Grade Road to 700 feet west of Cole Grade Road
- The Heritage Trail pathway on the west and north sides of the corridor
- High-visibility crosswalks at the signalized intersections of Valley Center Road/Park Circle Way, Valley Center Road/Lilac Road and Valley Center Road/Cole Grade Road

The Final VCRCCP document (available at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/draft-final-ccp%20(final).pdf) includes a pedestrian gap analysis for the VCRCCP corridor that was conducted using the methodology outlined in the County's ATP. The pedestrian gap analysis results show that under 2019 existing conditions along the corridor, nine segments were rated as very good, nine segments as good, seven segments as average, and three segments as poor.

The pedestrian gap analysis results had also showed that with the proposed VCRCCP improvements, eleven segments were rated as very good, eight segments as good, and nine segments as average. Zero segments were rated as poor.

The Final VCRCCP document also includes an intersection crosswalk evaluation for the VCRCCP corridor that was conducted using the methodology outlined in the County's ATP. The intersection crosswalk evaluation results show that under 2019 existing conditions, the three existing signalized study intersections were rated as "Strong" and the existing two-way, stop-controlled intersections were rated as "Needs Improvement."

The intersection crosswalk evaluation results had also showed that with the proposed VCRCCP improvements, all study intersections with roundabout or signal control were rated as "Strong."

The VCRCCP plans for the following bicycle facilities improvements along the corridor:

- A Class IV bikeway on both sides of the road throughout the corridor, including a minimum 2-foot buffer with a type of physical separation in the buffer. The type of physical separation will be determined at the engineering design phase of implementation.
- A multi-use path around the planned roundabout at the Miller Road intersection to provide option for bicyclists to navigate the perimeter of roundabout without entering vehicular travel lanes

Existing bicycle facilities along the VCRCCP corridor are currently limited to the following:

- Standard width (5 feet) Class II bike lane without buffer in each direction of travel

The Final VCRCCP document includes a bicycle Level of Stress (LTS) analysis for the VCRCCP corridor that was conducted using the methodology outlined in the County's ATP. The bicycle LTS analysis results show that under 2019 existing conditions along the corridor, all study segments along the corridor had an LTS score of 4 with the existing Class II bike lanes, which is the highest level of bicycle stress due to the 45-miles-per-hour posted speed limit along the corridor. LTS 4 indicates that only the most experienced bicyclists would feel comfortable on the existing Class II bike lanes along the corridor.

The bicycle LTS analysis results also showed that with the proposed VCRCCP improvements, all study segments along the corridor had an LTS score of 1 with the proposed Class IV bikeway, which is the lowest level of bicycle stress. LTS 1 indicates that less experienced bicyclists would feel comfortable and confident on the proposed Class IV bikeway along the corridor.

The results of the pedestrian and bicycle analysis indicate that pedestrian and bicycle safety would be improved with the planned VCRCCP improvements. It is anticipated that with improved safety conditions, higher numbers of pedestrians and bicyclists are likely to use the VCRCCP corridor.

A VMT screening assessment was conducted for the VCRCCP based on the County's Transportation Study Guidelines (TSG) dated September 2022.

Appendix F of the County's TSG contains a list of transportation projects that are not likely to result in induced vehicle travel and would not require a VMT analysis. The VCRCCP plans for the following improvements that are included in the list of transportation projects that are screened out from a VMT analysis per the County's TSG:

- Installation of roundabouts or traffic circles
- Installation, removal, or reconfiguration of traffic control devices (includes traffic signals)
- Roadway safety devices or hardware installation such as median barriers and guardrails
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets; two-way left-turn lanes; or emergency breakdown lanes that are not utilized as through lanes
- Addition of new or enhanced pedestrian facilities on existing streets/highways or within existing public right-of-way
- Addition of a Class IV bikeways or other off-road facilities that serve non-motorized travel

In addition, the VCRCCP plans for reducing through lane widths from 12 feet to 11 feet, and recommendations for potentially relocating (as a result of implementing certain VCRCCP components) and improving bus stops, both of which would not increase motor vehicle capacity.

The findings of this VMT screening assessment show that the proposed improvements associated with the VCRCCP are not expected to increase motor vehicle capacity nor result in

induced vehicle travel. Therefore, the VCRCCP is not anticipated to increase VMT and is screened out from further VMT analysis.

Since the previous General Plan Update EIR (August 2011) was certified, SB 743 went into effect on July 1, 2020, which changed the performance measure from LOS to VMT to determine significant transportation impacts under CEQA. As previously discussed, the proposed transportation improvements associated with the VCRCCP would not add vehicle trips to the corridor and therefore would not result in a significant VMT impact under CEQA.

The VCRCCP does not call for modifying the geometric design of the roadway outside of the planned roundabout, and plans for the following improvements and modifications along the corridor to improve vehicular safety at intersections (in addition to pedestrians and bicyclists) and slow vehicular speeds:

- New traffic signals at the existing intersections at Sunday Drive and at Old Road, which are currently stop-controlled on the minor street approaches
- One new roundabout at the intersection with Miller Road, which is currently stop-controlled on the minor street approach
- Prohibiting left turns at all other existing minor-street stop controlled intersections
- Reduction in travel lane widths (outside the planned roundabout) from 12 feet to 11 feet
- Extending the existing raised median through the corridor and limiting median openings to roundabout and signal-controlled intersections

Implementation of the VCRCCP would not result in any incompatible uses that would impact safety and operations along the corridor. The VCRCCP would not result in any changes in vehicular traffic volumes but is expected to result in an increase in pedestrian and bicycle users, considering the proposed protected facilities along the corridor.

The VCRCCP would not facilitate incompatible uses along the road corridor or result in inadequate emergency access. In 2023, Citygate Associates completed a report reviewing emergency response and evacuation considerations for the VCRCCP Options considered then, and a supplement to the report in 2024, to address the Draft Final VCRCCP addressed in this document. The analysis found that the VCRCCP planned improvements would not hamper emergency response or evacuation operations, and that modeling showed the planned roundabout would have less impact on response times than a traffic signal. The 2023 Citygate Report can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/cg-report.pdf and the 2023 Citygate Report Exhibits can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/cg-exhibits.pdf. The 2024 Citygate Report Supplement can be found at https://www.sandiegocounty.gov/content/dam/sdc/pds/Groups/valleycenter/ccp-appx_a-e.pdf (Appendix C within the link of multiple appendices to the Draft Final VCRCCP). These include turn templates showing how large emergency vehicles (e.g., largest fire trucks using the corridor) will be able to navigate the planned roundabout. The traffic modeling demonstrated that the main

impact on future emergency response times would be the additional traffic added to the corridor with buildout of the Villages and other growth, and corresponding need for additional intersection controls The VCRCCP would not add traffic capacity to the corridor and projects adding vehicle trips to the corridor would address impacts accordingly. Development projects that include habitable structures are required to demonstrate fire services can be provided that meet the minimum travel times identified General Plan Table S-1 (General Plan Policy S-6.4), and to contribute fair share toward funding the provision of appropriate fire and emergency medical services as necessary to adequately serve the project (General Plan Policy S-6.3). One of the main goals in development of the VCRCCP was prioritization of optimal response times as traffic continues to be added to the corridor in the coming years.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to transportation. Adoption of the project would not result in impacts (direct or indirect) related to transportation beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to transportation as deemed applicable. Impacts related to transportation would be consistent with those previously identified in the GPU EIR.

XVII. UTILITIES AND SERVICE SYSTEMS -- Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to utilities and service systems including: require or result in the relocation or construction of new or expanded water, wastewater treatment for storm water drainage, electrical power, natural gas or telecommunication facilities; have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years; result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; generate solid waste in excess if State or local standards, in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals; and/or comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

YES	NO
☐	☒

The GPU EIR determined that impacts to utilities and service systems would be less than significant with mitigation measures incorporated with exception of impacts relative to the provision of adequate water supplies and sufficient landfill capacity, which were determined to be significant and unavoidable, even with the incorporation of mitigation measures. As such, a Statement of Overriding Considerations was adopted for utilities and service systems pursuant to CEQA Guidelines Sections 15091 and 15093.

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. Although physical improvements are not proposed as part of the proposed action, the

analysis below discloses the potential impacts related to utilities and service systems that may result from future implementing projects.

Actions of future projects to implement components of the VCRCCP would be limited to road/right-of-way improvements and the VCRCCP does not include plans for any structures that would require water, wastewater treatment, electric power, natural gas, or telecommunications services. Future roadway improvements may involve new or modified stormwater drainage facilities associated with roadway improvements. As identified in the GPU EIR, policies and mitigation measures would reduce stormwater drainage facilities impacts to below a level of significance. Future development would be subject to conformance with applicable goals and policies identified in the General Plan Land Use Element and Conservation and Open Space Element such as LU-6.5, LU-6.9, and COS-4.3. These policies ensure development minimizes the use of impervious surfaces, conforms to the natural topography, and maximizes stormwater filtration and/or infiltration. Additionally, future roadway improvements would be subject to the following mitigation measures from the GPU EIR which were found to reduce impacts associated with sufficient stormwater drainage facilities to below a level of significance.

- **USS-3.3** – Use the County Guidelines for Determining Significance for Surface Water Quality and Hydrology to identify adverse environmental effects on water quality.

- **USS-3.4** – Implement the Low Impact Development handbook and establish Low Impact Development standards for new development to minimize runoff and maximize infiltration.

- **USS-3.5** – Evaluate the environmental effects of all proposed stormwater drainage facilities and ensure that significant adverse effects are minimized and mitigated.

Construction of future roadway improvements would generate small amounts of waste. However, waste generated during construction of future roadway improvements is anticipated to be minimal. All solid waste facilities, including landfills require solid waste facility permits to operate. There are five permitted active landfills in San Diego County with remaining capacity to adequately serve the solid waste disposal needs associated with construction of components planned for in the VCRCCP by future implementing projects. Operation of future roadway improvements would not generate solid waste. The project is limited to roadway improvements and would not develop any new structures that would consume energy. Construction of roadway improvements and operation of future facilities such as stop lights would consume minimal amounts of energy.

Since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would cause one or more effects related to utilities and service systems. Adoption of the project would not result in impacts (direct or indirect) related to utilities and service systems beyond those analyzed in the GPU EIR. Additionally, as noted in the GPU EIR, future implementing projects would be subject to project-specific development and planning review, including adherence to standards related to utilities and service systems as deemed applicable. Impacts related to utilities and service systems would be consistent with those previously identified in the GPU EIR.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE: Since the previous EIR was certified or previous ND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in any mandatory finding of significance listed below?

Does the project 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

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)?

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

YES	NO
☐	☒

The project includes adoption of a corridor plan for road improvements and other right-of-way improvements, to guide future development projects and County capital improvement projects along the corridor. No physical impacts are proposed. Actions of future projects to implement components of the VCRCCP would be limited to road/right-of-way improvements and would not introduce any residential uses or expand existing infrastructure that would exceed development as originally anticipated in the General Plan for Valley Center. As described throughout this Checklist, since the GPU EIR was certified, there are no changes in the project, changes in circumstances under which the project is undertaken, and/or "new information of substantial importance" that would result in any new or more severe impacts related to biological resources, cultural resources, or adverse effects on human beings. As described in Section IV and Section V above, the project would not result in any new or more severe impacts to biological resources or cultural/tribal cultural or historical resources, nor would the project result in any previously unidentified impact that would be cumulatively considerable. Furthermore, as described throughout this Checklist, the project would not result in any new or more severe direct or indirect environmental impacts to human beings. All impacts associated with the project would be consistent with those previously identified in the GPU EIR.

XIX. ATTACHMENTS

Figures

1: Regional Location
2: Project Location on USGS Map
3: Project Location on Aerial Photograph
4: Valley Center Road Corridor Concept Plan Map
5: Valley Center Road Corridor Concept Plan Detail Sheets
6: Agricultural Resources
7: Existing Biological Resources within Biological Survey Area
8: Existing Potentially Jurisdictional Resources within Biological Survey Area
9: Miller Road Roundabout in Relation to MSCP Preserve Area
10: Flood Zones
11: Mineral Resource Zones
12: Miller Road Roundabout Construction Noise Contours

Attachments

A: Air Quality and Greenhouse Gas Calculations
B: Valley Center Road Corridor Concept Plan Project Biological Constraints Memo
C: Cultural Resources Records Search Results (Confidential, Not for Public Review)
D: Valley Center Road Corridor Concept Plan Noise Research

XX. REFERENCES USED IN THE COMPLETION OF THE ENVIRONMENTAL REVIEW UPDATE CHECKLIST FORM

American National Standards Institute (ANSI). 1994. Tree care operations-Pruning, trimming, repairing, maintaining, and removing trees, and cutting brush-Safety requirements. ANSI Z133. 1 New York: American National Standards Institute.

California Air Pollution Control Officers Association (CAPCOA). 2021. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Final Draft December 2021.

California Department of Forestry and Fire Protection (CalFire). 2024. Fire Hazard Severity Zones in State Responsibility Area. https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones.

California Department of Toxic Substances Control (DTSC). EnviroStor Database. 2024. https://www.envirostor.dtsc.ca.gov/public/.

California Department of Transportation (Caltrans). 2013. Technical Noise Supplement. November.

California Environmental Quality Act, CEQA Guidelines.

California Environmental Quality Act. California Code of Regulations, Title 14, Chapter 3, Section 15382.

Conroy, Jillian L.H. Site Form for P-37-000278 on file at the South Coastal Information Center at San Diego State University. 2021.

County of San Diego. 1991. Resource Protection Ordinance, Article II (16-17). October 10, 1991

County of San Diego. 2009. Draft Multiple Species Conservation Program North County Plan. February 19.

County of San Diego. 2010. Guidelines for Determining Significance. Biological Resources, Land Use and Environment Group. Department of Planning and Land Use. Department of Public Works. Fourth Revision. September 15.

County of San Diego. 2011. San Diego County General Plan. Adopted August 3, 2011.

County of San Diego. 2018. County of San Diego Climate Action Plan. SCH # 2016101055. February.

Federal Highway Administration (FHWA). 2006. Roadway Construction Noise Model User's Guide. FHWA-HEP-05-054, SOT-VNTSC-FHWA-05-01. Final Report. January.

Federal Highway Administration (FHWA). 2008. Roadway Construction Noise Mode, V1.1. Washington, DC.

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September.

Navcon Engineering, Inc. 2018. SoundPLAN Essential version 4.1.

Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (Guidance Manual), February.

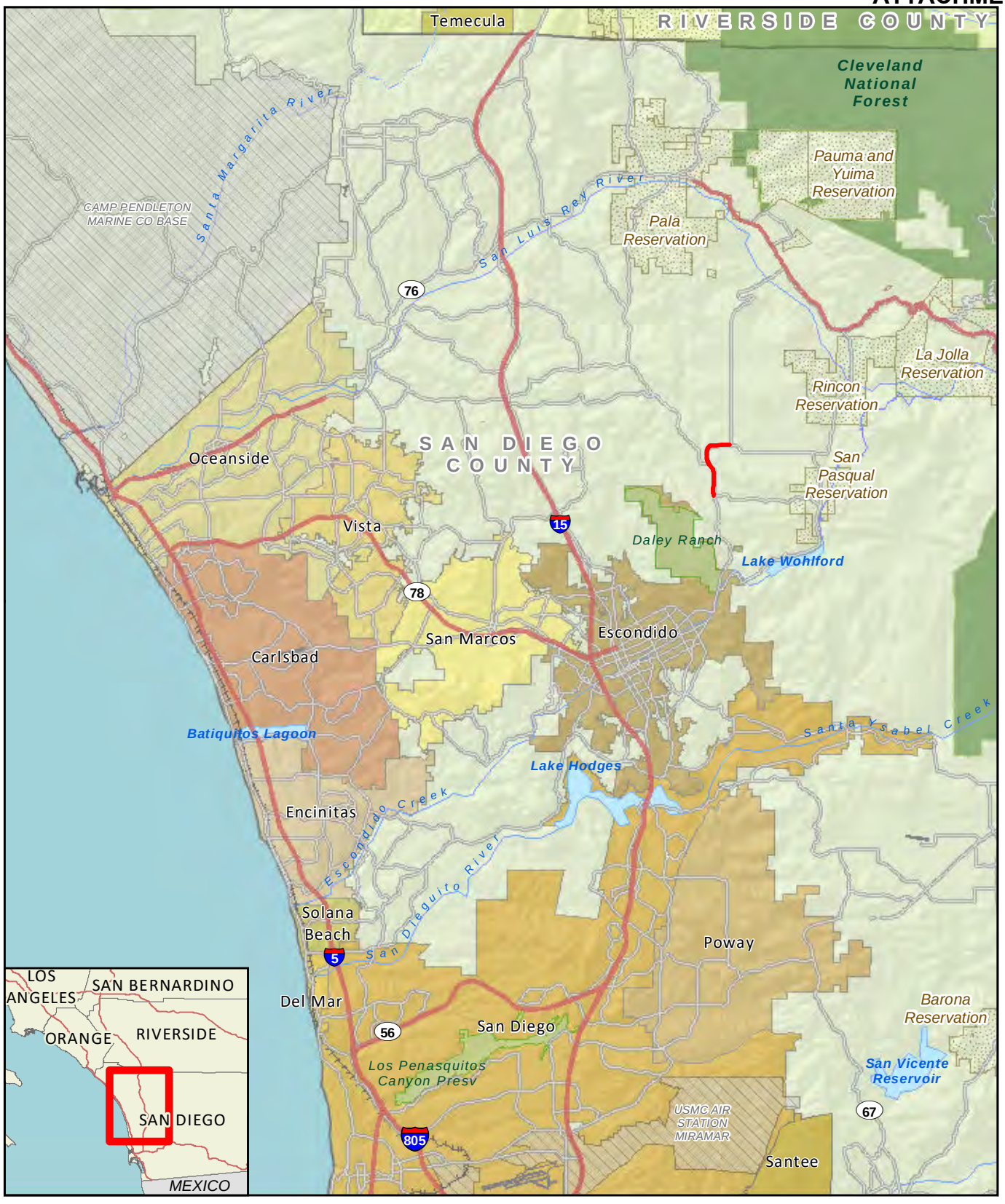
San Diego County Light Pollution Code (San Diego County Code Section 59.101).

South Coast Air Quality Management District (SCAQMD). 2009. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group 14. November 19.

State of California Department of Conservation, 2022, California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/.

State Water Resources Control Board–Geotracker Database. 2024. http://geotracker.waterboards.ca.gov/.

U.S. Geological Survey (USGS). 1996. Valley Center Quadrangle 7.5-Minute Topographic Map.

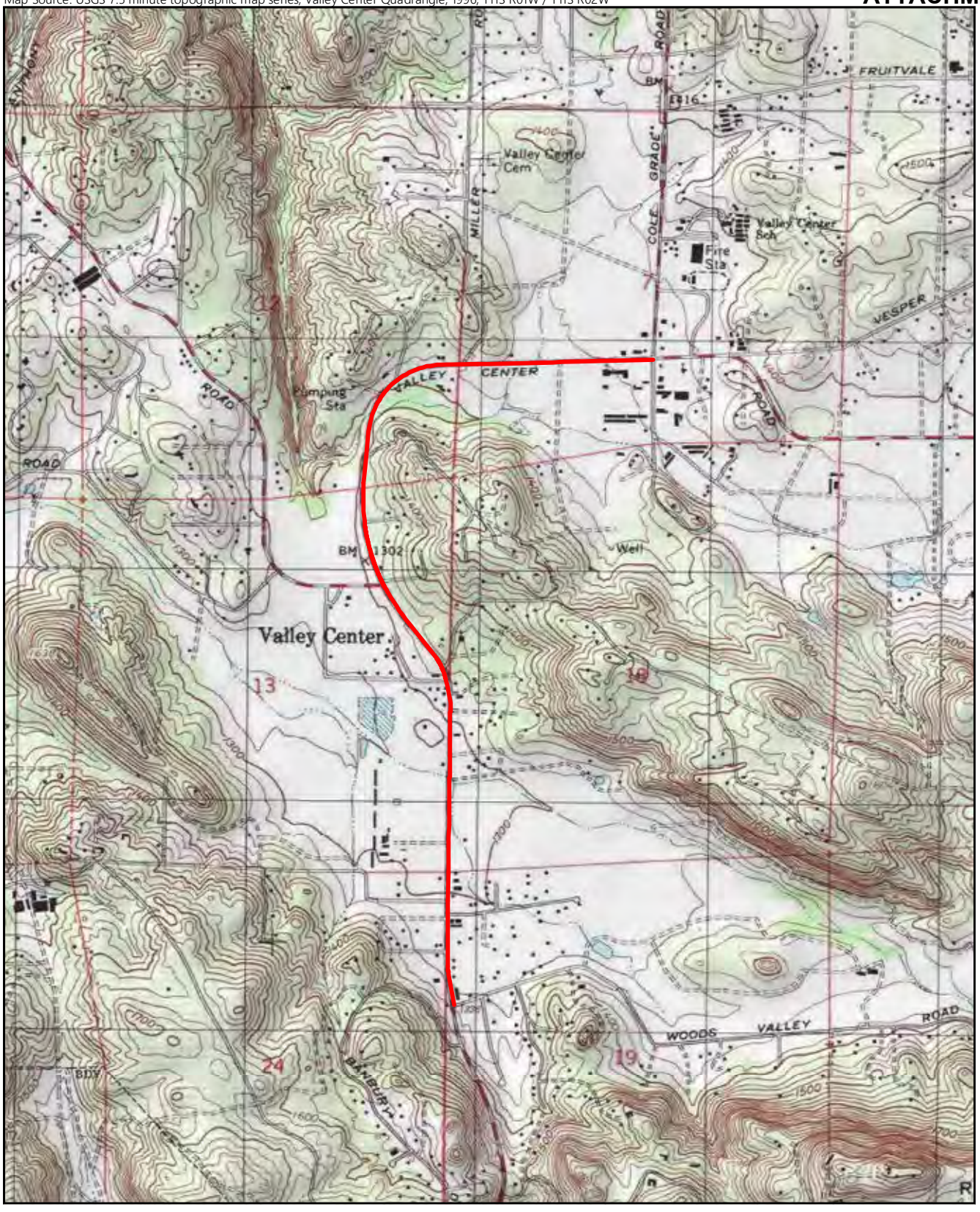


RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig1.mxd 06/11/2024 bma

FIGURE 1
Regional Location

Map Source: USGS 7.5 minute topographic map series, Valley Center Quadrangle, 1996, T11S R01W / T11S R02W



RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig2.mxd 06/11/2024 bma

FIGURE 2
Project Location on USGS Map

Image Source: NearMap (flown May 2024)

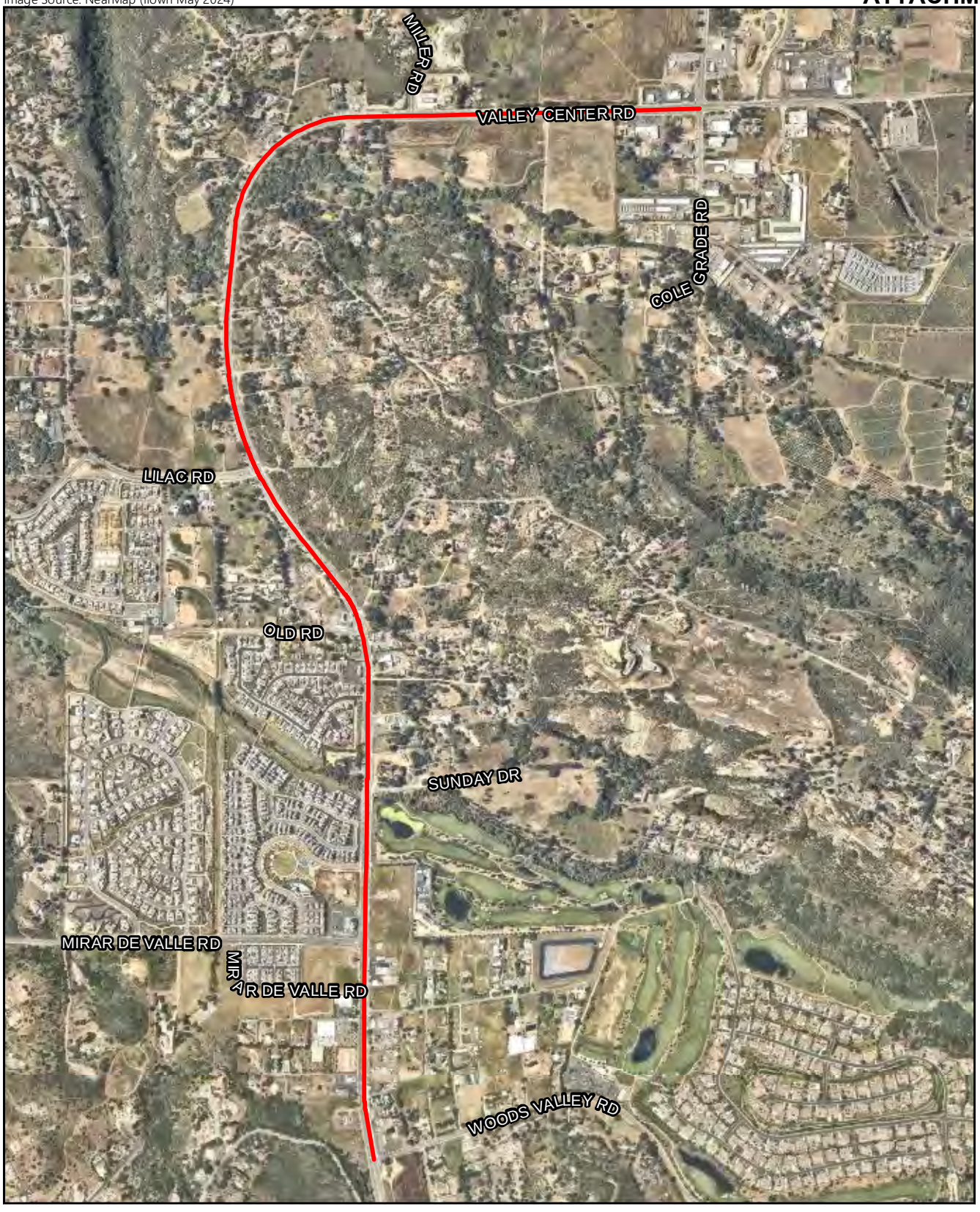
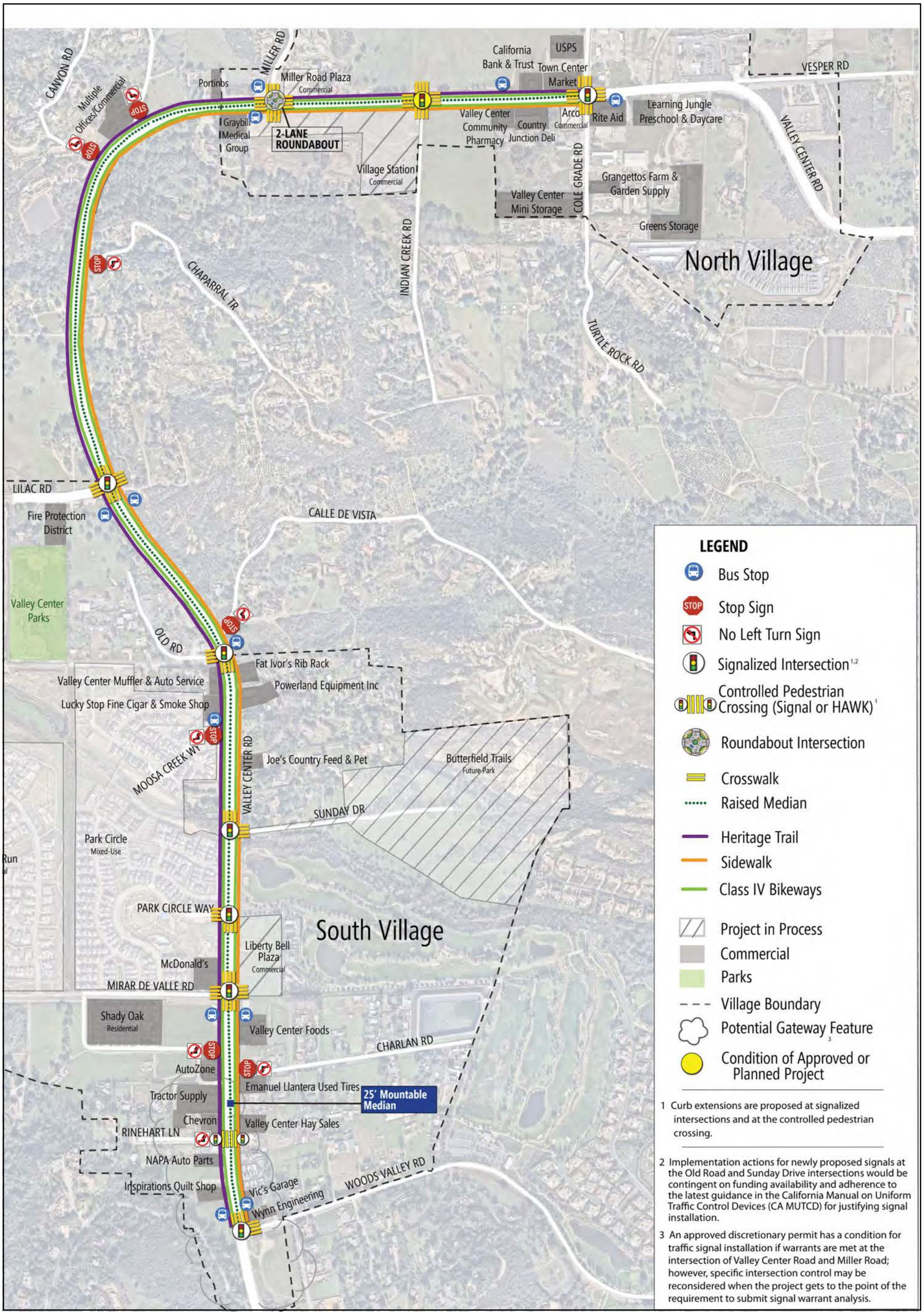


FIGURE 3
Project Location on Aerial Photograph

RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig3.mxd 06/11/2024 bma

Map Source: County of San Diego



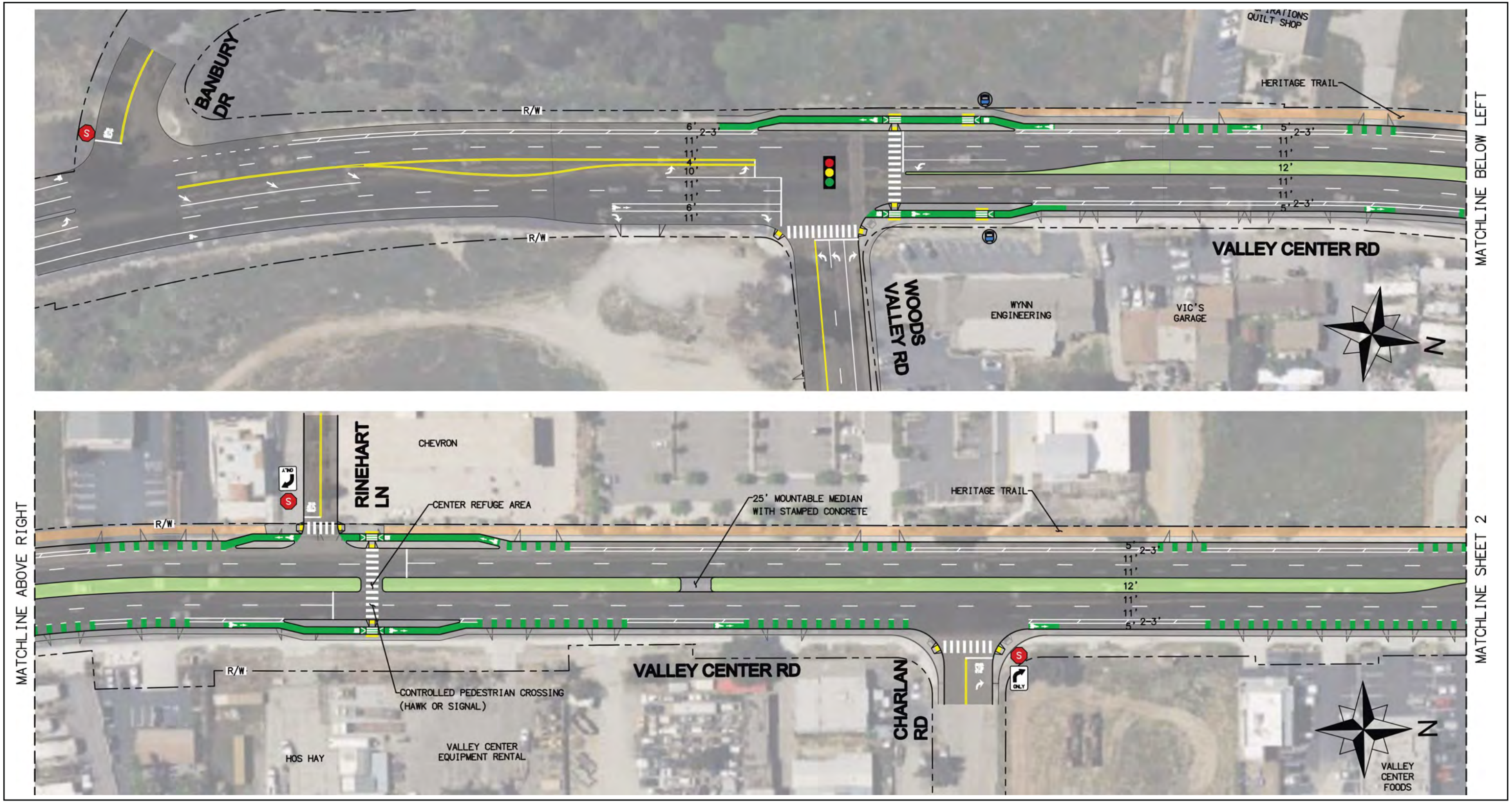
RECON

M:\JOBS5\9518\env\graphics\15162_Checklist\Fig4.afdesign 06/12/24 bma

FIGURE 4
Valley Center Road Corridor Concept Plan Map

Map Source: County of San Diego

ATTACHMENT E



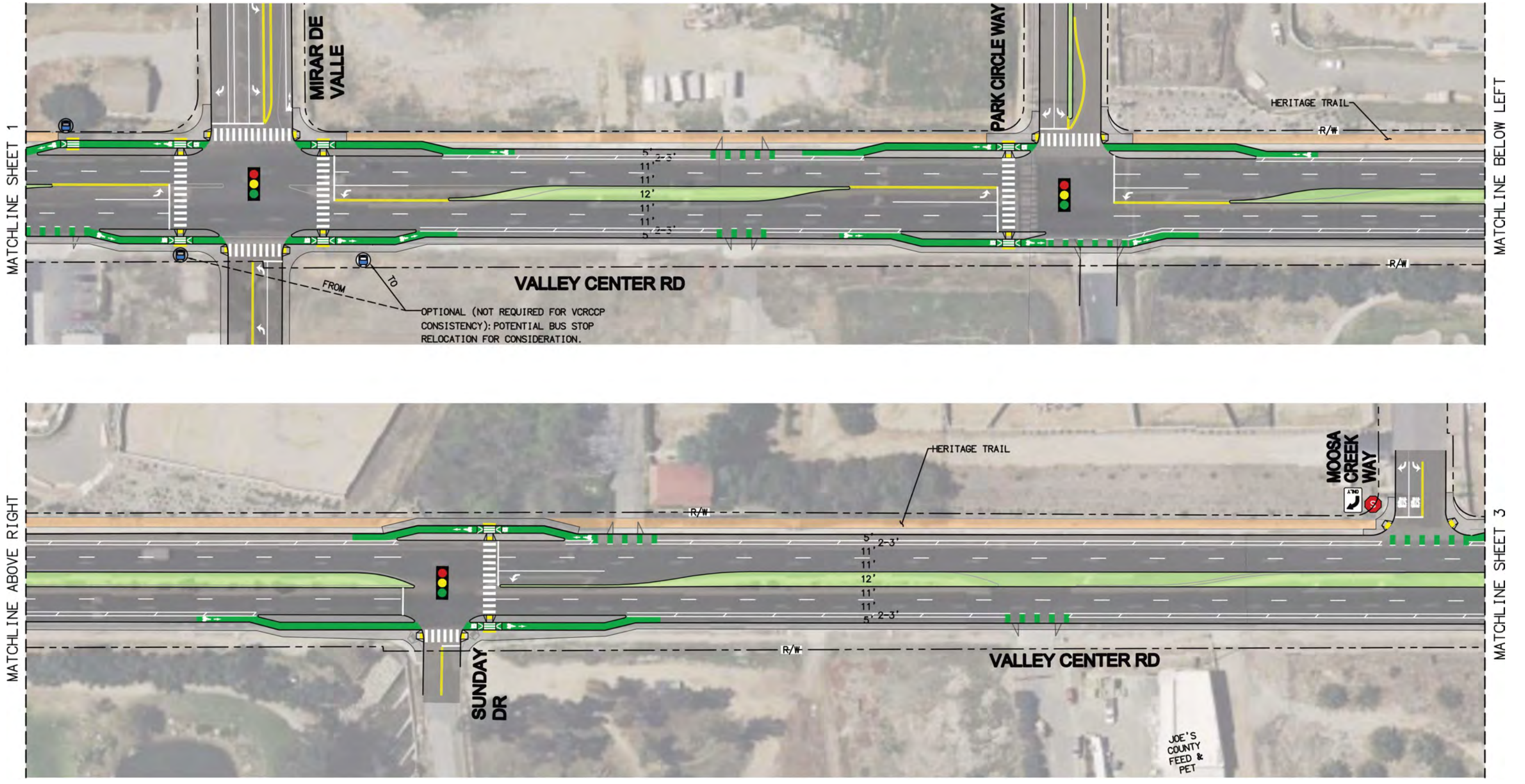
RECON

M:\JOBS5\9518\env\graphics\15162_Checklist\Fig5.1.afdesign 06/12/24 bma

FIGURE 5.1
Valley Center Road Corridor Concept Plan Detail Sheets

Map Source: County of San Diego

ATTACHMENT E



SIDEWALK
RAISED MEDIAN
HERITAGE TRAIL
BIKE LANE TRANSITION AREA
BIKE LANE CONFLICT AREA

CURB
BIKE LANE LINE
ROAD STRIPE
BUFFER (WITH PHYSICAL SEPARATION - TYPE TO BE DETERMINED WITH ENGINEERING DESIGN)
RIGHT-OF-WAY

CROSSWALK
TRAFFIC SIGNAL
STOP SIGN
RIGHT TURN ONLY SIGN

BUS STOP
CURB RAMP
RAISED BIKE CROSSING
EXISTING DRIVEWAY
BIKE RAMP TRANSITION

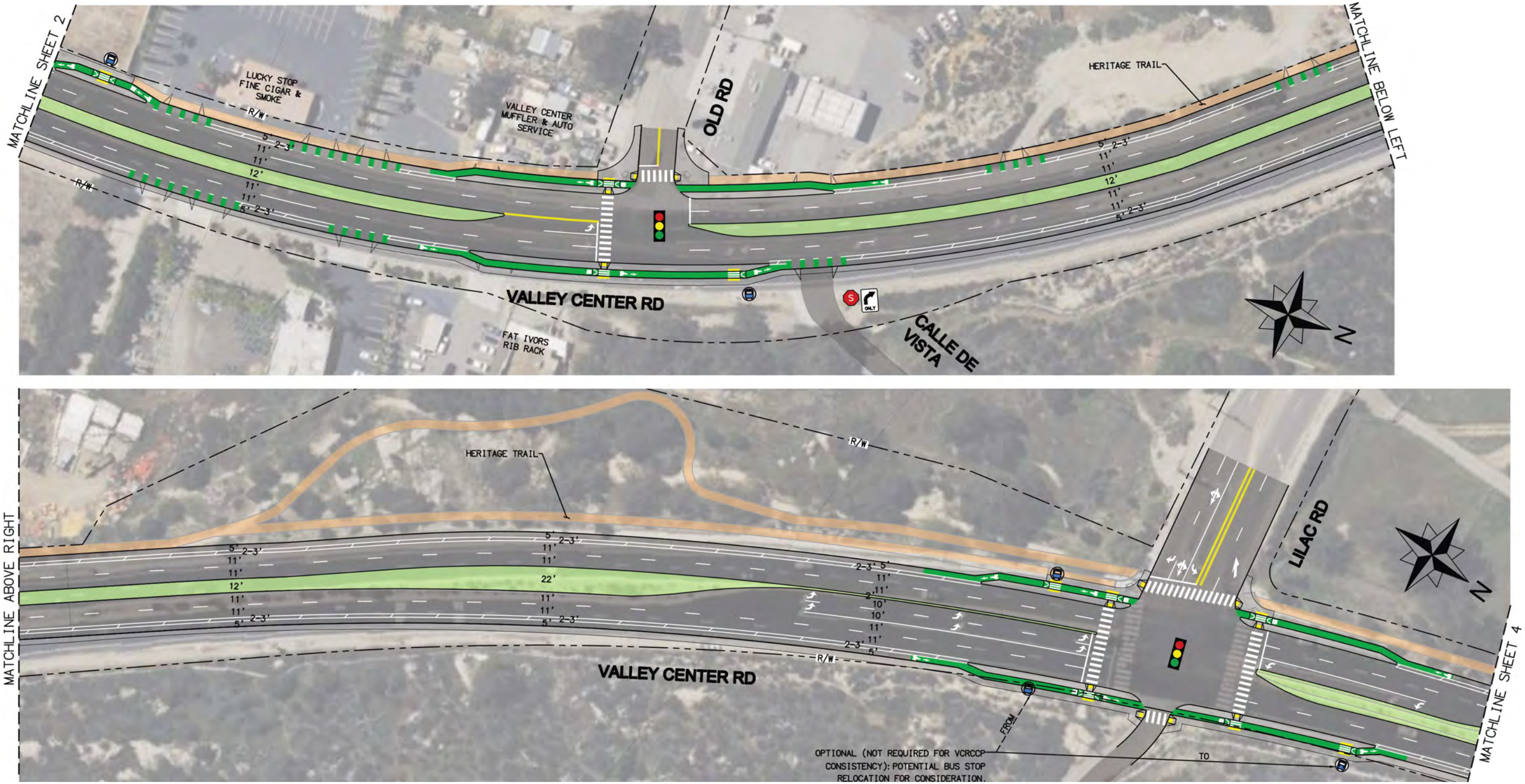
0 Feet 80

FIGURE 5.2
Valley Center Road Corridor Concept Plan Detail Sheets

RECON
M:\JOBS5\9518\env\graphics\15162_Checklist\Fig5.2.afdesign 06/12/24 bma

Map Source: County of San Diego

ATTACHMENT E



SIDEWALK
RAISED MEDIAN
HERITAGE TRAIL
BIKE LANE TRANSITION AREA
BIKE LANE CONFLICT AREA

CURB
BIKE LANE LINE
ROAD STRIPE
BUFFER (WITH PHYSICAL SEPARATION - TYPE TO BE DETERMINED WITH ENGINEERING DESIGN)
RIGHT-OF-WAY

CROSSWALK
TRAFFIC SIGNAL
STOP SIGN
RIGHT TURN ONLY SIGN

BUS STOP
CURB RAMP
RAISED BIKE CROSSING
EXISTING DRIVEWAY
BIKE RAMP TRANSITION

0 Feet 80

RECON

M:\JOBS5\9518\env\graphics\15162_Checklist\Fig5.3.afdesign 06/12/24 bma

FIGURE 5.3
Valley Center Road Corridor Concept Plan Detail Sheets

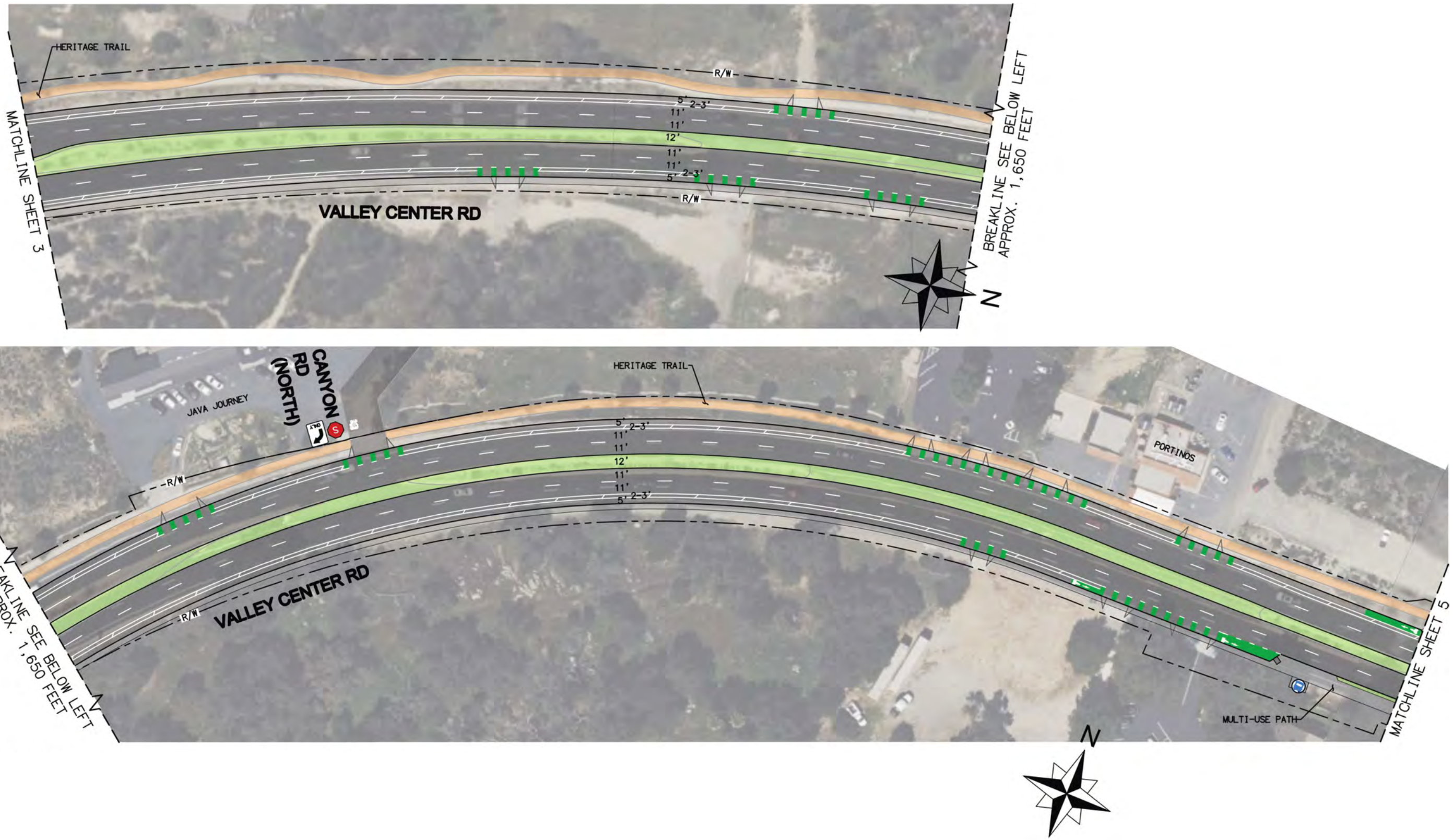
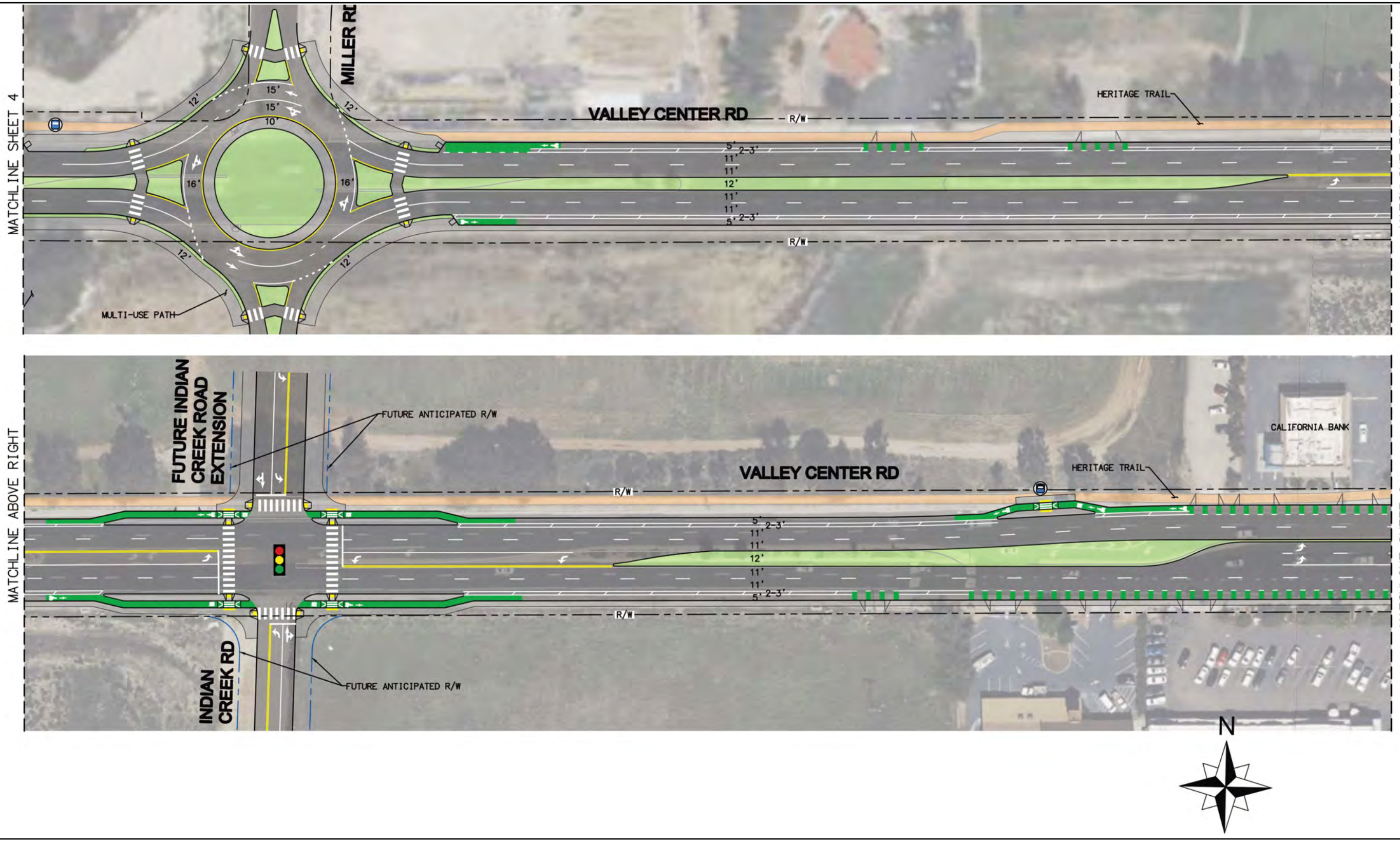


FIGURE 5.4
Valley Center Road Corridor Concept Plan Detail Sheets

Map Source: County of San Diego

ATTACHMENT E



SIDEWALK
RAISED MEDIAN
HERITAGE TRAIL
BIKE LANE TRANSITION AREA
BIKE LANE CONFLICT AREA

CURB
BIKE LANE LINE
ROAD STRIPE
BUFFER (WITH PHYSICAL SEPARATION - TYPE TO BE DETERMINED WITH ENGINEERING DESIGN)
RIGHT-OF-WAY

CROSSWALK
TRAFFIC SIGNAL
STOP SIGN
RIGHT TURN ONLY SIGN

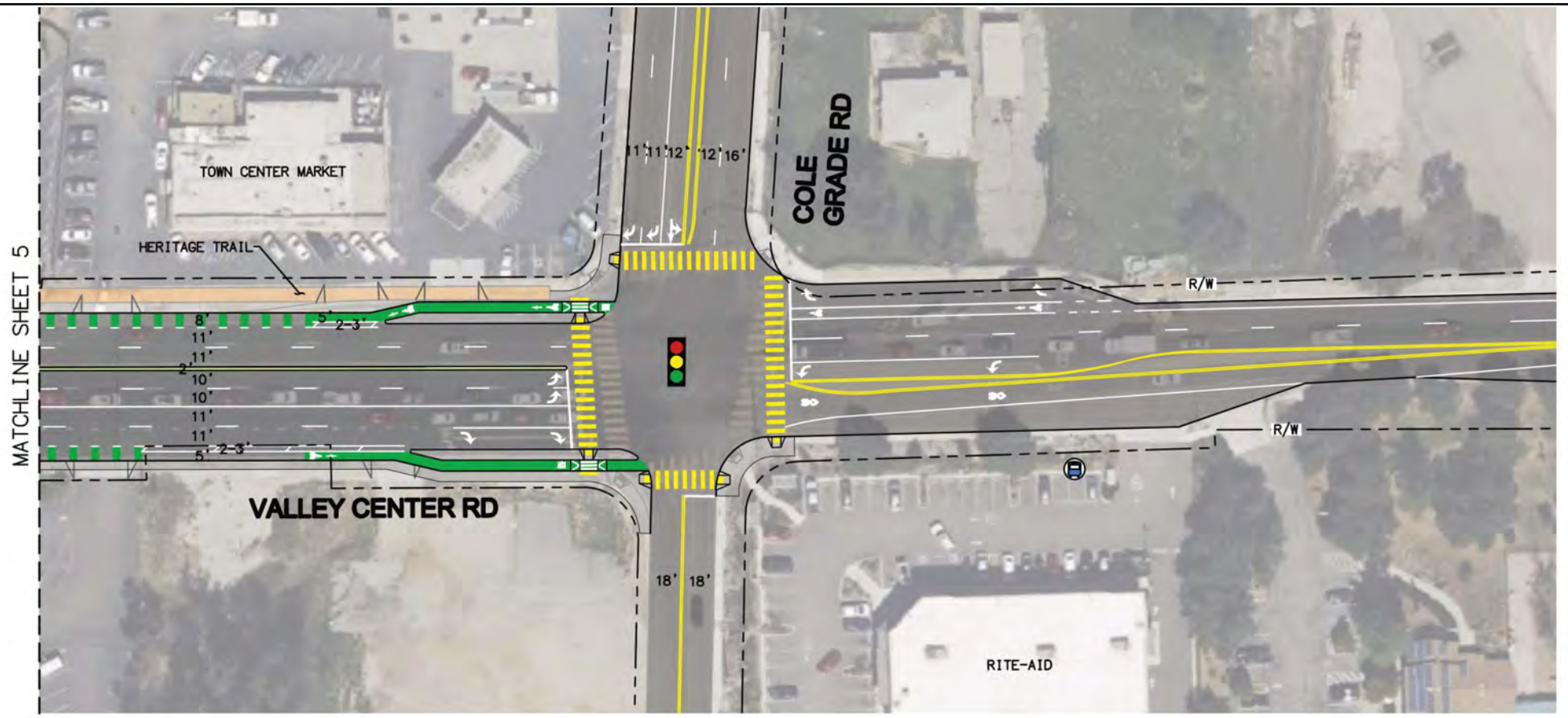
BUS STOP
CURB RAMP
RAISED BIKE CROSSING
EXISTING DRIVEWAY
BIKE RAMP TRANSITION

0 Feet 80

FIGURE 5.5
Valley Center Road Corridor Concept Plan Detail Sheets

RECON
M:\JOBS5\9518\env\graphics\15162_Checklist\Fig5.5.afdesign 06/12/24 bma

Map Source: County of San Diego



SIDEWALK
RAISED MEDIAN
HERITAGE TRAIL
BIKE LANE TRANSITION AREA
BIKE LANE CONFLICT AREA

CURB
BIKE LANE LINE
ROAD STRIPE
BUFFER (WITH PHYSICAL SEPARATION - TYPE TO BE DETERMINED WITH ENGINEERING DESIGN)
RIGHT-OF-WAY

CROSSWALK
TRAFFIC SIGNAL
STOP SIGN
RIGHT TURN ONLY SIGN

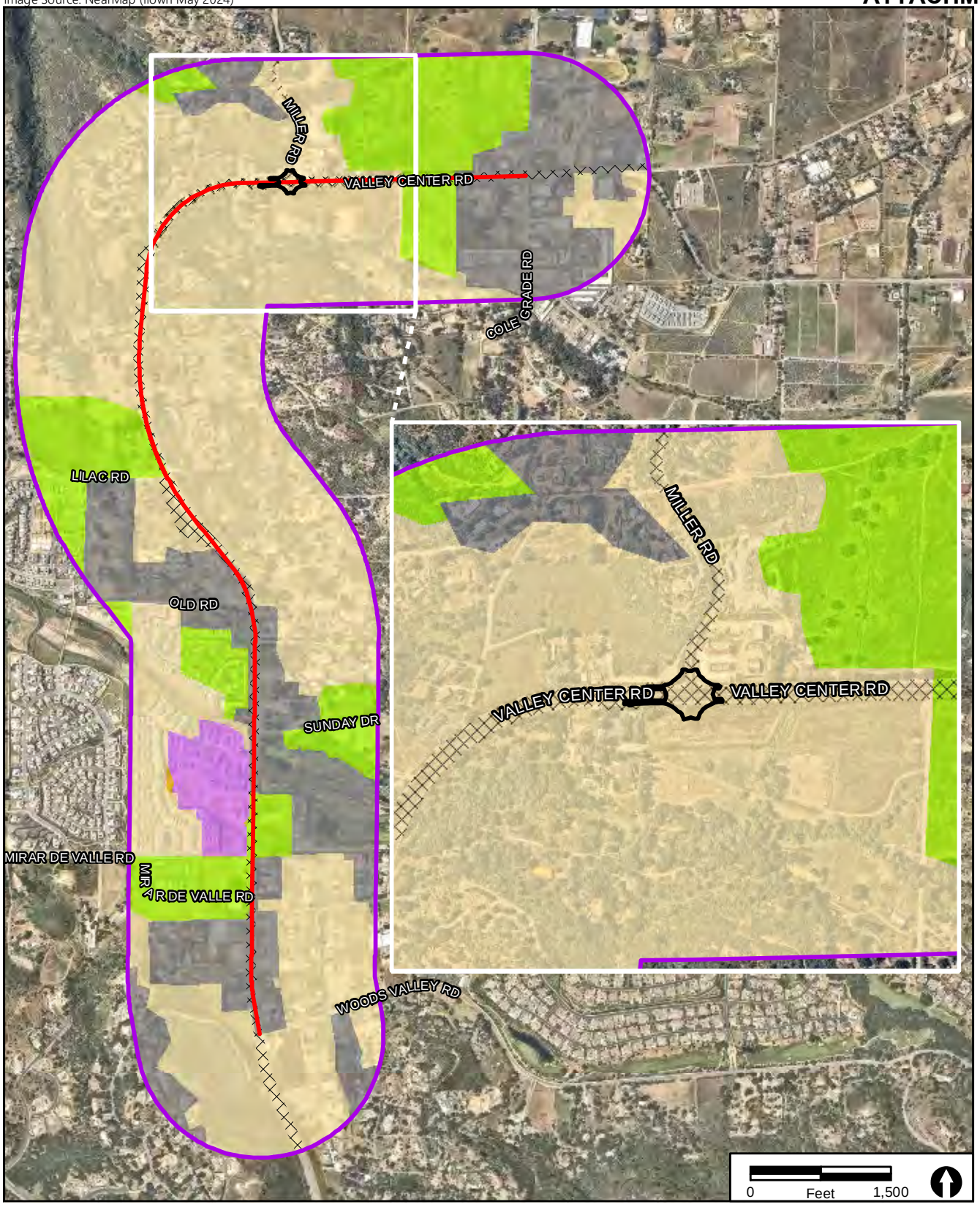
BUS STOP
CURB RAMP
RAISED BIKE CROSSING
EXISTING DRIVEWAY
BIKE RAMP TRANSITION

0 Feet 80

FIGURE 5.6
Valley Center Road Corridor Concept Plan Detail Sheets

RECON
M:\JOBS5\9518\env\graphics\15162_Checklist\Fig5.6.afdesign 06/12/24 bma

Image Source: NearMap (flown May 2024)



Project Location
Roundabout Footprint
Right-of-Way
0.25 mile Buffer

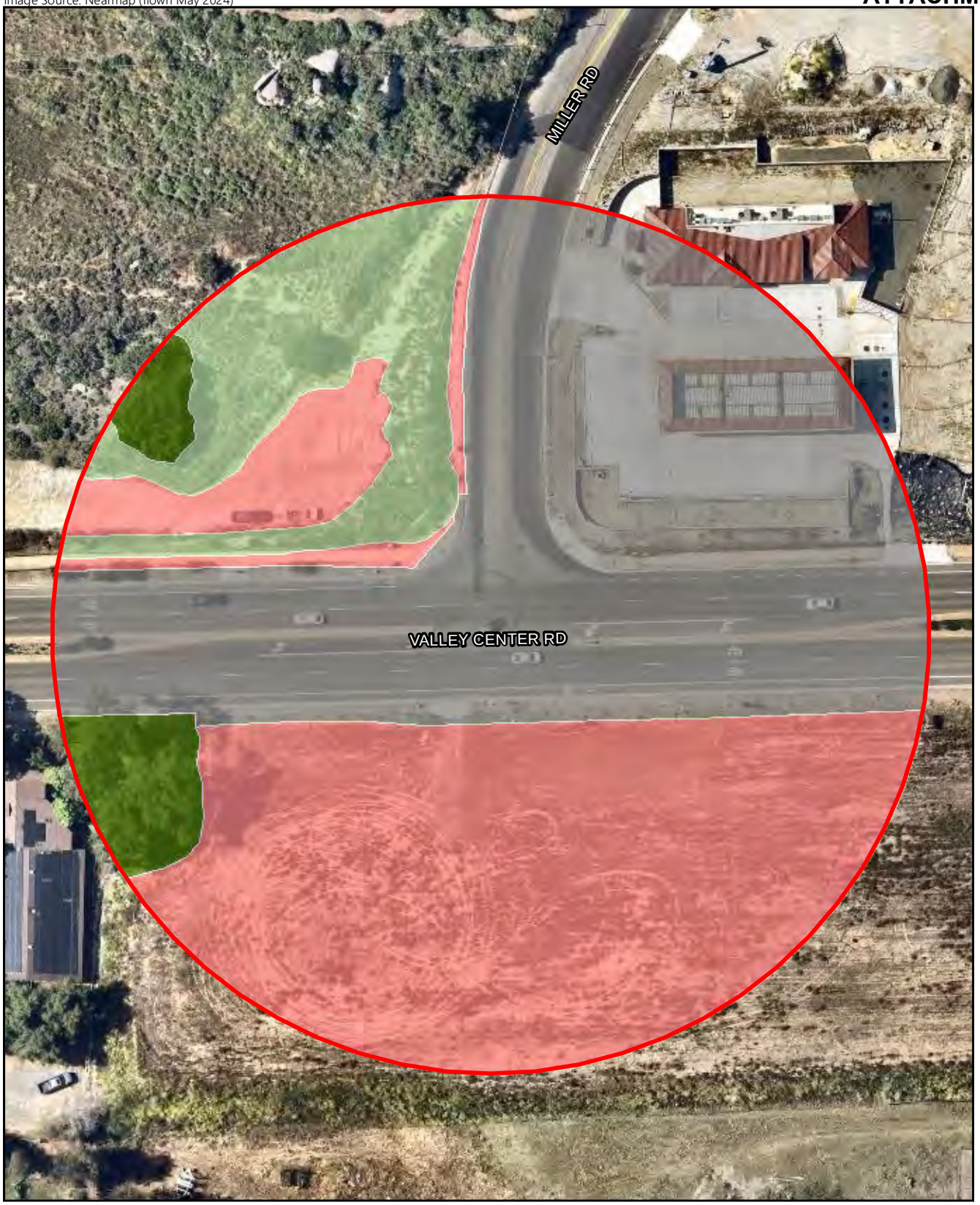
Farmland Mapping and Monitoring Program (FMMP)
Prime Farmland
Farmland of Local Importance
Farmland of Statewide Importance
Other Land
Urban and Built Up Land

RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig6.mxd 06/25/2024 bma

FIGURE 6
Agricultural Resources

Image Source: Nearmap (flown May 2024)



Biological Survey Area

Vegetation Community

- Coast Live Oak Woodland
- Diegan Coastal Sage Scrub
- Disturbed Habitat
- Urban/Developed

0 Feet 80

FIGURE 7
Existing Biological Resources
within Biological Survey Area

RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig7.mxd 06/21/2024 bma

Image Source: Nearmap (flown May 2024)

Biological Survey Area

Potentially Non-jurisdictional Erosional Feature

Ditch

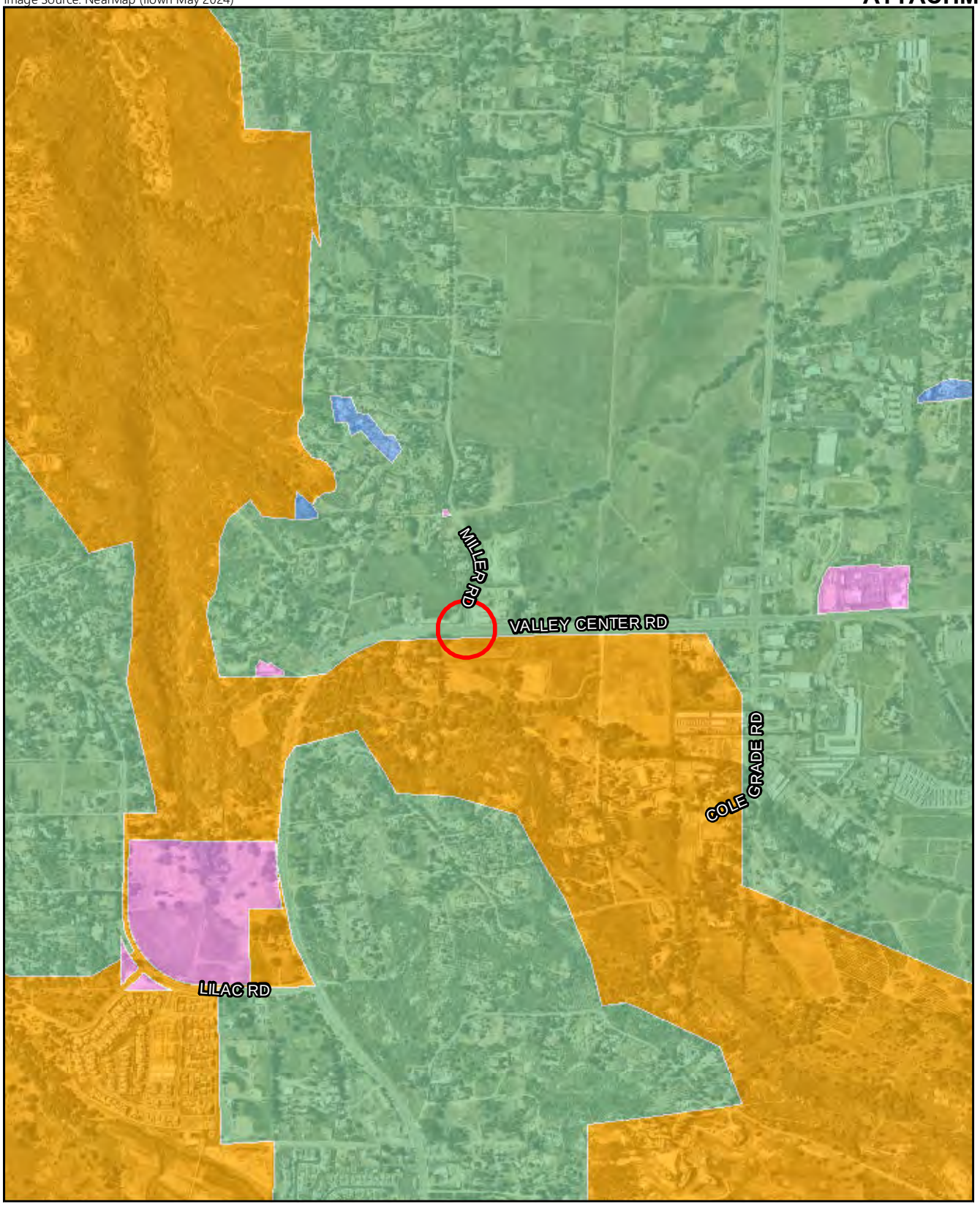
0 Feet 80

FIGURE 8
Existing Potentially Jurisdictional Resources
within Biological Survey Area

RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig8.mxd 06/21/2024 bma

Image Source: NearMap (flown May 2024)



Biological Survey Area

North SD County Draft MSCP

- Outside Pre-Approved Mitigation Area (PAMA)
- Pre-Approved Mitigation Area (PAMA)
- Preserve Area
- Special Districts

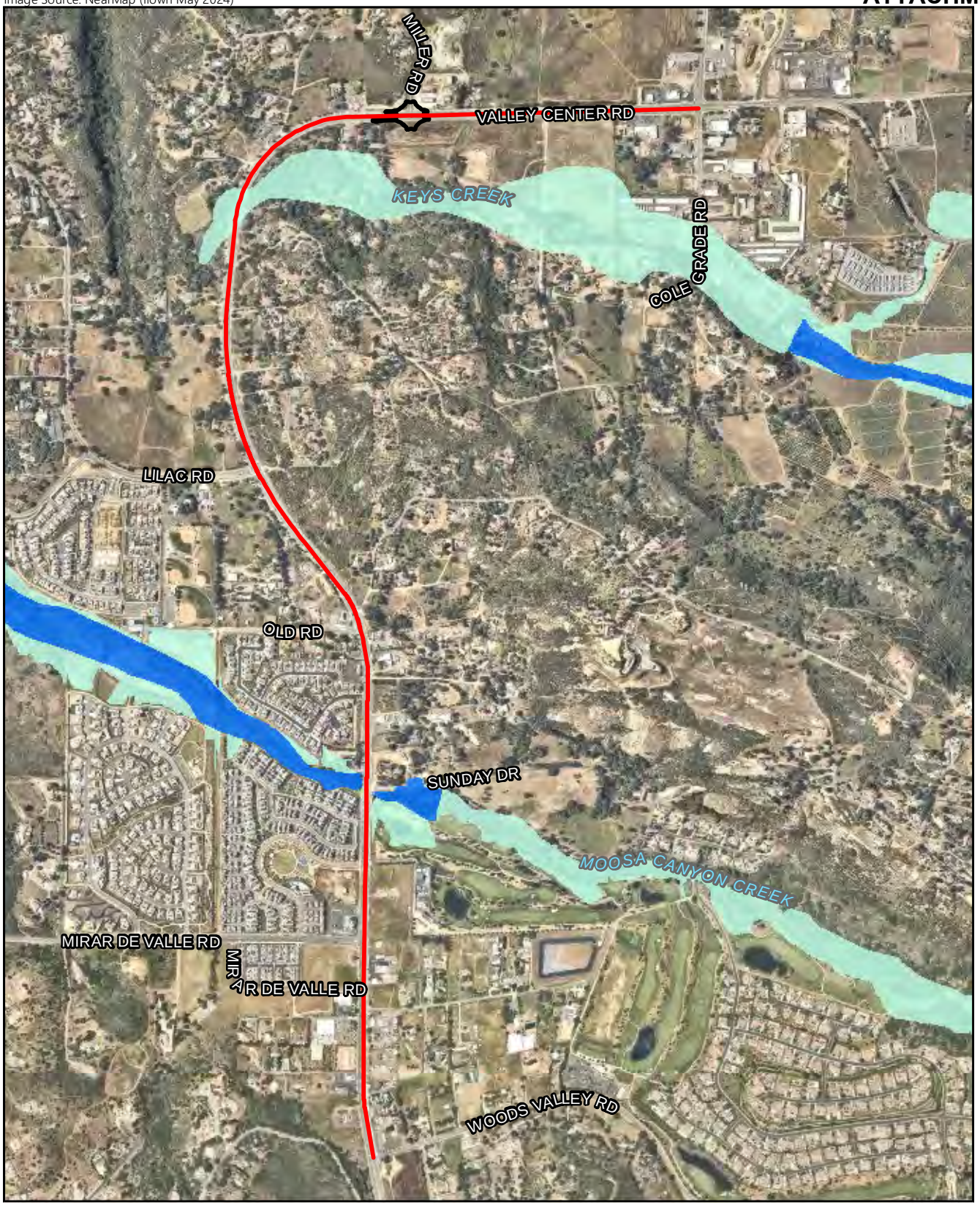
0 Feet 1,200

FIGURE 9
Miller Road Roundabout
in Relation to MSCP Preserve Area

RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig9.mxd 06/21/2024 bma

Image Source: NearMap (flown May 2024)

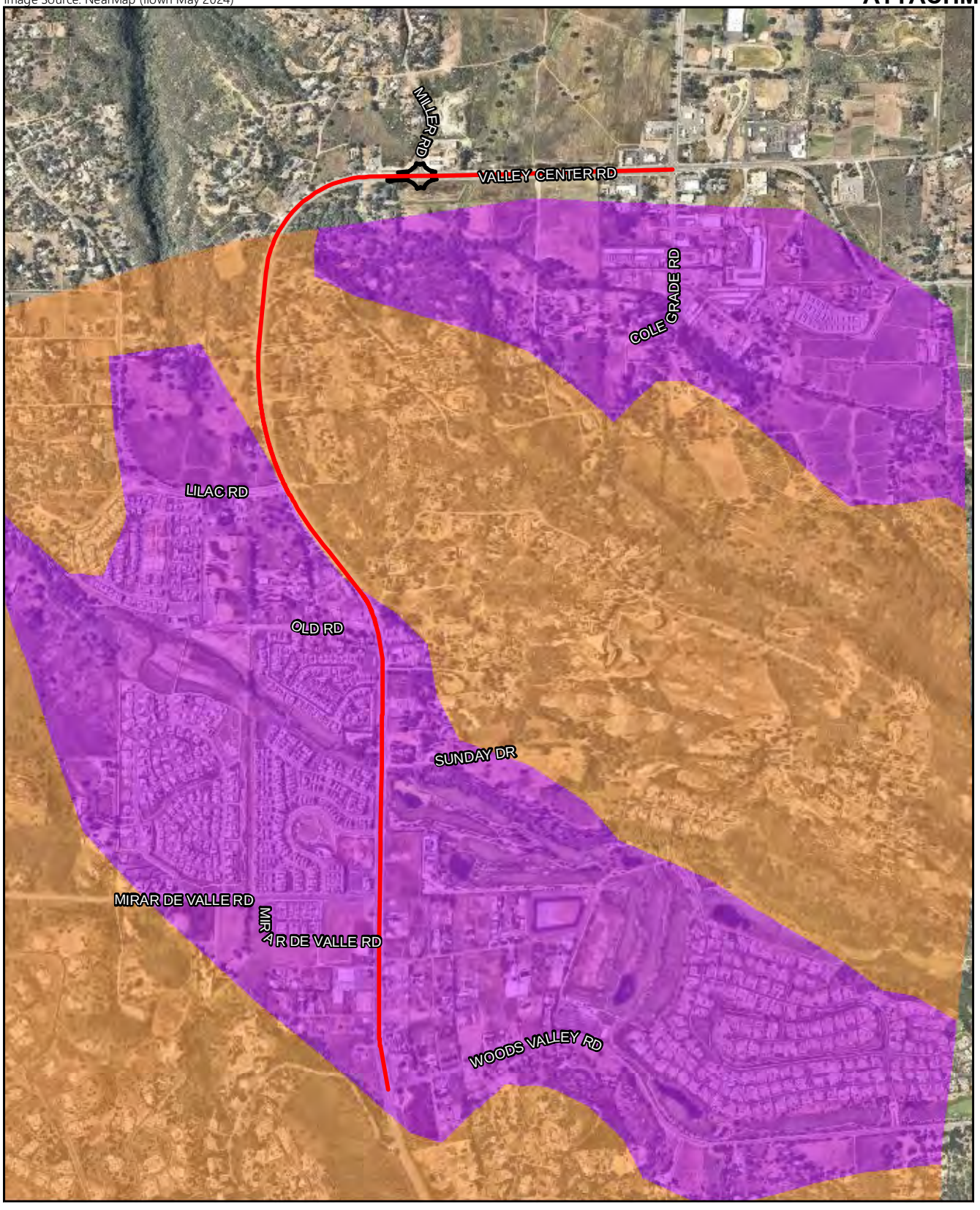


RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig10.mxd 06/25/2024 bma

FIGURE 10
Flood Zones

Image Source: NearMap (flown May 2024)

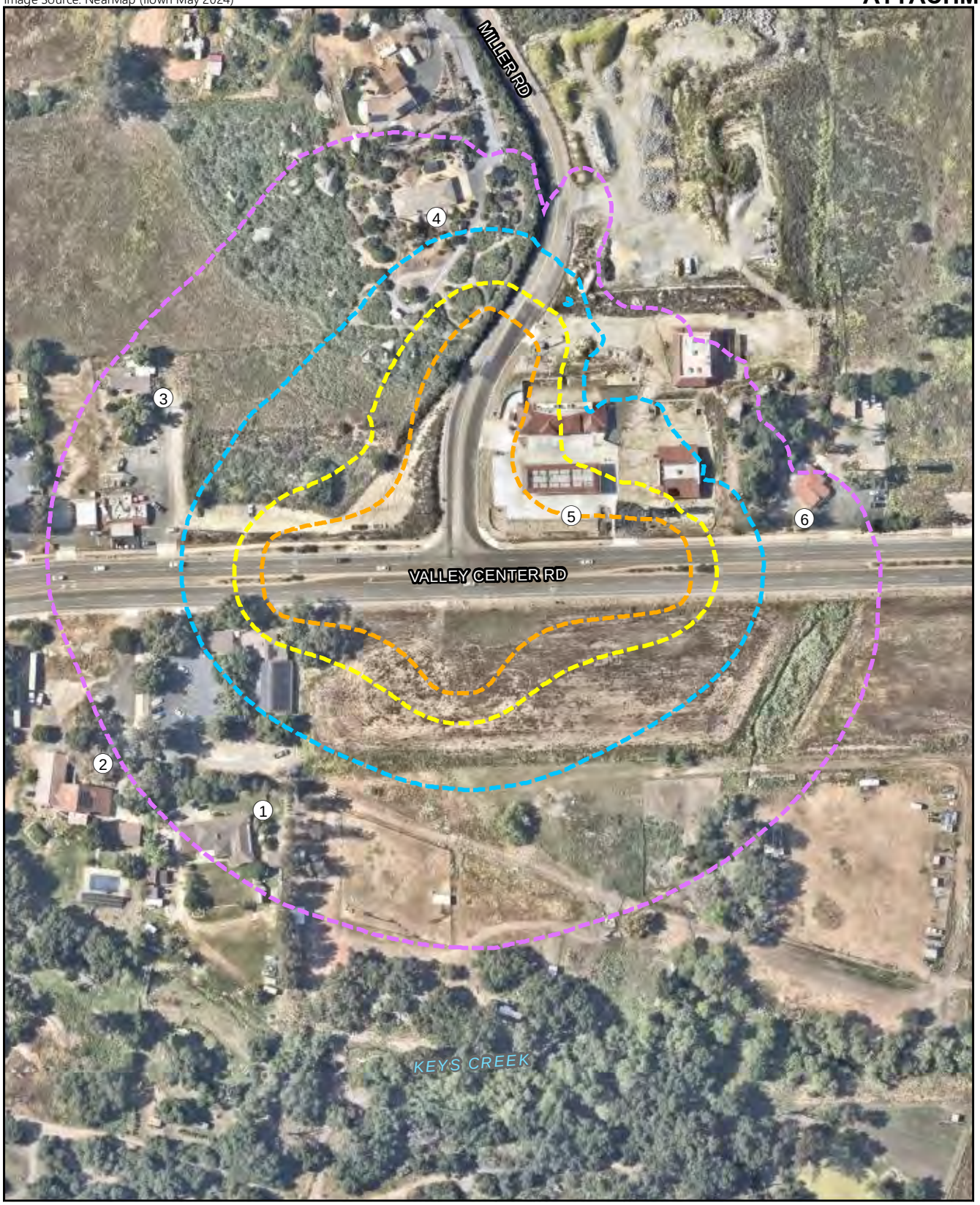


RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig11.mxd 06/25/2024 bma

FIGURE 11
Mineral Resource Zones

Image Source: NearMap (flown May 2024)



Receivers

Construction Noise

- 60 dB(A) L_{eq}
- 65 dB(A) L_{eq}
- 70 dB(A) L_{eq}
- 75 dB(A) L_{eq}

0 Feet 200

FIGURE 12
Miller Road Roundabout
Construction Noise Contours

RECON

M:\JOBS5\9518\common_gis\reports\15162_Checklist\fig12.mxd 06/25/2024 bma

ATTACHMENTS

ATTACHMENT A

Air Quality and Greenhouse Gas Calculations

ATTACHMENT A-1

CalEEMod Output – Construction Emissions

CalEEMod Methodology and Assumptions

Modeling Scenario: Combined construction emission estimates for future project to implement components of the Valley Center Road Corridor Concept Plan (VCRCCP).

Specific construction phasing and equipment parameters are not known at this time; therefore, modeled construction equipment is based on industry experience with similar roundabout and mobility improvement projects within the County of San Diego. This representative project included the simultaneous construction of two roundabouts, roadway/lane configuration changes, sidewalks, bicycle lanes, and other mobility improvements. The equipment list and phasing are therefore representative of the future construction activities that could occur simultaneously with implementing projects. The construction emissions calculated in this analysis, therefore, represent a conservative worst-case estimate of construction emissions along the entire corridor due to the corridor improvements planned to be implemented over time through a combination of privately and publicly initiated efforts.

Construction Start Date Assumption Used: January 1, 2025

At the time of this analysis, there is no dedicated implementation funding for the VCRCCP; therefore, construction timelines are unknown and dependent on funding opportunities. Construction activities associated with the VCRCCP are not anticipated to begin until at least 2030. Modeling a construction start date of January 1, 2025, is conservative since there are statewide regulations implemented by the California Air Resources Board that result in construction fleets that are cleaner over time. Therefore, construction emissions modeled in year 2025 are greater than those that would be modeled in year 2030.

Modeled Land Use: Other Asphalt Surfaces

Modeled Construction Phases and Equipment:

Table A-1.1
Construction Parameters Assumed

Construction Phase	Phase Duration (Months)	Equipment
Asphalt/Pavement Removal	1	1 Crawler Tractor
		2 Excavators
		1 Dump Truck
		1 Bore/Drill Rig
		2 Signal Boards
Earthwork/Excavation	5	1 Bore/Drill Rig
		1 Crane
		1 Crawler Tractor
		3 Excavators
		1 Grader
		3 Dump Trucks
		1 Roller

Table A-1.1 Construction Parameters Assumed		
Construction Phase	Phase Duration (Months)	Equipment
		1 Rubber Tired Loader
		1 Scraper
		4 Tractors/Loaders/Backhoes
		1 Hydraulic Splitter (modeled as Bore/Drill Rig)
		2 Signal Boards
Roundabout/Mobility Improvements Construction	5	1 Air Compressor
		2 Cement and Mortar Mixers
		1 Crane
		1 Generator Set
		1 Plate Compactor
		1 Rough Terrain Forklift
		3 Tractors/Loaders/Backhoes
		1 Bore/Drill Rig
		1 Excavator
		2 Signal Boards
Paving	1	3 Dump Trucks
		1 Paver
		1 Paving Equipment
		3 Rollers
		3 Tractors/Loaders/Backhoes
		2 Signal Boards

Dust Suppression: Standard dust control measures would be implemented as a part of project construction in accordance with mandatory San Diego Air Pollution Control District rules and regulations. Emissions were modeled assuming the construction area would be watered two times per day resulting in a 61 percent reduction in particulate matter less than 10 microns (PM_{10}) and particulate matter less than 2.5 microns ($PM_{2.5}$) emissions. This is the standard CalEEMod default reduction associated with watering.

Asphalt/Pavement Removal: Assumes the removal of 5,400 tons of existing asphalt/pavement from the project area. This is based on approximately 2 acres of asphalt with a 10-inch depth and a weight of 2 tons per cubic yard.

Table A-1.2 Asphalt Hauling Parameters Assumed	
Amount	Units
2	Acres
43,560	Square Feet per Acre
87,120	Square Feet
0.4	Foot Depth
72,600	Cubic Feet
27	Cubic Feet per Cubic Yard
2,689	Cubic Yards
2	Tons per Cubic Yard
5,378	Tons

Worker and Hauling Trip Length: Modeled using CalEEMod defaults.

Table A-1.3 Worker and Hauling Trip Parameters Assumed		
	Trips	Trip Length (miles)
Asphalt/Pavement Removal		
Worker	18	11.97
Hauling	59	20.00
Earthwork/Excavation		
Worker	48	11.97
Hauling	0	20.00
Roundabout Construction		
Worker	30	11.97
Hauling	0	20.00
Paving		
Worker	33	11.97
Hauling	0	20.00

VCRCCP Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	VCRCCP
Construction Start Date	1/1/2025
Lead Agency	County of San Diego
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	15.4
Location	33.23139866689509, -117.03284418421327
County	San Diego
City	Unincorporated
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6119
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.24

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
Other Asphalt Surfaces	2.00	Acre	2.00	0.00	20,000	—	—	—

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.	5.16	4.35	38.0	41.2	0.07	1.63	3.78	5.41	1.50	1.50	2.99	—	8,221	8,221	0.34	0.08	1.69	8,255
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.16	4.34	38.0	41.0	0.07	1.63	6.26	6.71	1.50	1.50	2.99	—	8,196	8,196	0.34	0.68	0.25	8,228
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.37	1.98	17.3	19.8	0.04	0.70	1.58	2.28	0.64	0.52	1.17	—	4,030	4,030	0.17	0.08	0.65	4,058
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.43	0.36	3.16	3.61	0.01	0.13	0.29	0.42	0.12	0.10	0.21	—	667	667	0.03	0.01	0.11	672
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshol	—	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	5.16	4.35	38.0	41.2	0.07	1.63	3.78	5.41	1.50	1.50	2.99	—	8,221	8,221	0.34	0.08	1.69	8,255
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	5.16	4.34	38.0	41.0	0.07	1.63	6.26	6.71	1.50	1.50	2.99	—	8,196	8,196	0.34	0.68	0.25	8,228
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.37	1.98	17.3	19.8	0.04	0.70	1.58	2.28	0.64	0.52	1.17	—	4,030	4,030	0.17	0.08	0.65	4,058
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.43	0.36	3.16	3.61	0.01	0.13	0.29	0.42	0.12	0.10	0.21	—	667	667	0.03	0.01	0.11	672

3. Construction Emissions Details

3.1. Asphalt/Pavement Removal (2025) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.12	8.94	0.01	0.37	—	0.37	0.34	—	0.34	—	1,372	1,372	0.06	0.01	—	1,377
Demolition	—	—	—	—	—	—	5.02	5.02	—	0.76	0.76	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.51	0.56	< 0.005	0.02	—	0.02	0.02	—	0.02	—	86.4	86.4	< 0.005	< 0.005	—	86.7
Demolition	—	—	—	—	—	—	0.32	0.32	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.3	14.3	< 0.005	< 0.005	—	14.4
Demolition	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.71	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	157	157	0.01	0.01	0.02	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.32	0.09	5.73	2.09	0.03	0.08	1.09	1.17	0.08	0.30	0.38	—	4,219	4,219	0.23	0.66	0.24	4,423
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.97	9.97	< 0.005	< 0.005	0.02	10.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.01	0.36	0.13	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	266	266	0.01	0.04	0.25	279
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.65	1.65	< 0.005	< 0.005	< 0.005	1.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	< 0.005	0.01	0.04	46.2

3.3. Earthwork/Excavation (2025) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.95	4.16	37.8	39.0	0.07	1.63	—	1.63	1.50	—	1.50	—	7,771	7,771	0.32	0.06	—	7,797
Dust From Material Movemen	—	—	—	—	—	—	3.38	3.38	—	1.40	1.40	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.95	4.16	37.8	39.0	0.07	1.63	—	1.63	1.50	—	1.50	—	7,771	7,771	0.32	0.06	—	7,797

Dust From Material Movemen	—	—	—	—	—	—	3.38	3.38	—	1.40	1.40	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.21	11.0	11.3	0.02	0.47	—	0.47	0.43	—	0.43	—	2,257	2,257	0.09	0.02	—	2,264
Dust From Material Movemen	—	—	—	—	—	—	0.98	0.98	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	2.00	2.07	< 0.005	0.09	—	0.09	0.08	—	0.08	—	374	374	0.02	< 0.005	—	375
Dust From Material Movemen	—	—	—	—	—	—	0.18	0.18	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.15	2.20	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	451	451	0.02	0.02	1.69	458
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.21	0.19	0.16	1.93	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	426	426	0.02	0.02	0.04	431
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.57	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	125	125	0.01	< 0.005	0.21	127
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	20.6	20.6	< 0.005	< 0.005	0.04	20.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Roundabout Construction (2025) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.01	1.68	15.4	19.1	0.04	0.56	—	0.56	0.51	—	0.51	—	3,469	3,469	0.14	0.03	—	3,481
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.01	1.68	15.4	19.1	0.04	0.56	—	0.56	0.51	—	0.51	—	3,469	3,469	0.14	0.03	—	3,481

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	4.61	5.71	0.01	0.17	—	0.17	0.15	—	0.15	—	1,036	1,036	0.04	0.01	—	1,039
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.84	1.04	< 0.005	0.03	—	0.03	0.03	—	0.03	—	172	172	0.01	< 0.005	—	172
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.39	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	285	285	0.01	0.01	1.07	289
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.10	1.22	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	269	269	0.01	0.01	0.03	272
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.37	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.0	81.0	< 0.005	< 0.005	0.14	82.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2025) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.75	1.46	12.4	15.3	0.02	0.52	—	0.52	0.48	—	0.48	—	2,390	2,390	0.10	0.02	—	2,399
Paving	0.23	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.78	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	151	151	0.01	< 0.005	—	151
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.9	24.9	< 0.005	< 0.005	—	25.0
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.11	1.32	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	291	291	0.02	0.01	0.03	295
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.5	18.5	< 0.005	< 0.005	0.03	18.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	0.01	3.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Asphalt/Pavement Removal	Demolition	1/1/2025	1/31/2025	5.00	23.0	—
Earthwork/Excavation	Grading	2/1/2025	6/30/2025	5.00	106	—
Roundabout Construction	Building Construction	7/1/2025	11/28/2025	5.00	109	—
Paving	Paving	12/1/2025	12/31/2025	5.00	23.0	—

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
Asphalt/Pavement Removal	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Asphalt/Pavement Removal	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Asphalt/Pavement Removal	Dumpers/Tenders	Diesel	Average	1.00	8.00	16.0	0.38
Asphalt/Pavement Removal	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Asphalt/Pavement Removal	Signal Boards	Diesel	Average	2.00	24.0	6.00	0.82
Earthwork/Excavation	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50

Earthwork/Excavation	Cranes	Diesel	Average	1.00	8.00	367	0.29
Earthwork/Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Earthwork/Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Earthwork/Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Earthwork/Excavation	Dumpers/Tenders	Diesel	Average	3.00	8.00	16.0	0.38
Earthwork/Excavation	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Earthwork/Excavation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Earthwork/Excavation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Earthwork/Excavation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Earthwork/Excavation	Signal Boards	Diesel	Average	2.00	24.0	6.00	0.82
Roundabout Construction	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Roundabout Construction	Cement and Mortar Mixers	Diesel	Average	2.00	8.00	10.0	0.56
Roundabout Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Roundabout Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Roundabout Construction	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Roundabout Construction	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Roundabout Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Roundabout Construction	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Roundabout Construction	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Roundabout Construction	Signal Boards	Diesel	Average	2.00	24.0	6.00	0.82
Paving	Dumpers/Tenders	Diesel	Average	3.00	8.00	16.0	0.38

Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Paving	Signal Boards	Diesel	Average	2.00	24.0	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Asphalt/Pavement Removal	—	—	—	—
Asphalt/Pavement Removal	Worker	17.5	12.0	LDA,LDT1,LDT2
Asphalt/Pavement Removal	Vendor	—	7.63	HHDT,MHDT
Asphalt/Pavement Removal	Hauling	58.7	20.0	HHDT
Asphalt/Pavement Removal	Onsite truck	—	—	HHDT
Earthwork/Excavation	—	—	—	—
Earthwork/Excavation	Worker	47.5	12.0	LDA,LDT1,LDT2
Earthwork/Excavation	Vendor	—	7.63	HHDT,MHDT
Earthwork/Excavation	Hauling	0.00	20.0	HHDT
Earthwork/Excavation	Onsite truck	—	—	HHDT
Roundabout Construction	—	—	—	—
Roundabout Construction	Worker	30.0	12.0	LDA,LDT1,LDT2
Roundabout Construction	Vendor	0.00	7.63	HHDT,MHDT
Roundabout Construction	Hauling	0.00	20.0	HHDT
Roundabout Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	32.5	12.0	LDA,LDT1,LDT2

Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	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)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Asphalt/Pavement Removal	0.00	0.00	0.00	5,400	—
Earthwork/Excavation	—	—	265	0.00	—
Paving	0.00	0.00	0.00	0.00	2.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt

Other Asphalt Surfaces	2.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	0.03	< 0.005

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	20.3	annual days of extreme heat
Extreme Precipitation	6.15	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	30.5	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	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	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 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	58.3
AQ-PM	10.8
AQ-DPM	22.5

Drinking Water	25.0
Lead Risk Housing	8.02
Pesticides	67.7
Toxic Releases	8.75
Traffic	34.5
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	27.8
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	43.8
Solid Waste	0.00
Sensitive Population	—
Asthma	18.2
Cardio-vascular	20.9
Low Birth Weights	2.84
Socioeconomic Factor Indicators	—
Education	10.3
Housing	35.3
Linguistic	0.00
Poverty	7.24
Unemployment	—

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	60.91364045

Employed	13.29398178
Median HI	69.85756448
Education	—
Bachelor's or higher	64.6862569
High school enrollment	5.787244963
Preschool enrollment	40.06159374
Transportation	—
Auto Access	84.51174131
Active commuting	22.66136276
Social	—
2-parent households	75.91428205
Voting	85.87193635
Neighborhood	—
Alcohol availability	88.96445528
Park access	5.440780187
Retail density	5.915565251
Supermarket access	20.15911716
Tree canopy	70.60182215
Housing	—
Homeownership	92.00564609
Housing habitability	91.53086103
Low-inc homeowner severe housing cost burden	40.25407417
Low-inc renter severe housing cost burden	93.44283331
Uncrowded housing	54.63877839
Health Outcomes	—
Insured adults	64.90440139
Arthritis	0.0

Asthma ER Admissions	95.6
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	29.0
Cognitively Disabled	23.2
Physically Disabled	26.6
Heart Attack ER Admissions	93.2
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	65.1
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	53.5
SLR Inundation Area	0.0
Children	75.0
Elderly	18.9
English Speaking	43.3

Foreign-born	28.0
Outdoor Workers	12.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.8
Traffic Density	42.2
Traffic Access	23.0
Other Indices	—
Hardship	36.1
Other Decision Support	—
2016 Voting	87.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	2.00
Healthy Places Index Score for Project Location (b)	52.0
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

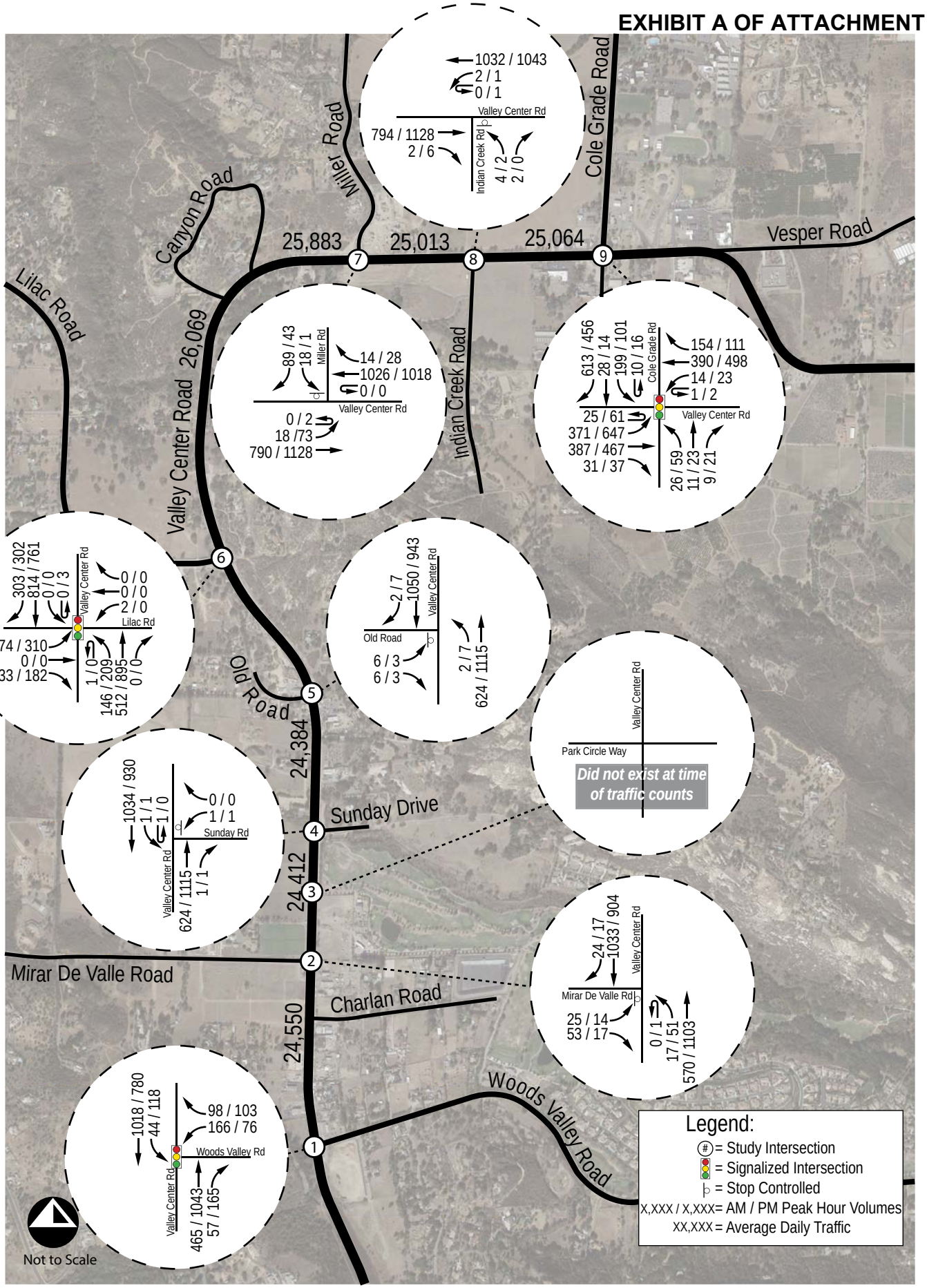
No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	1 year modeled construction phase
Construction: Off-Road Equipment	Equipment based on similar experience with roundabout and mobility improvement projects
Construction: Trips and VMT	Construction default of 0 workers changed to 30

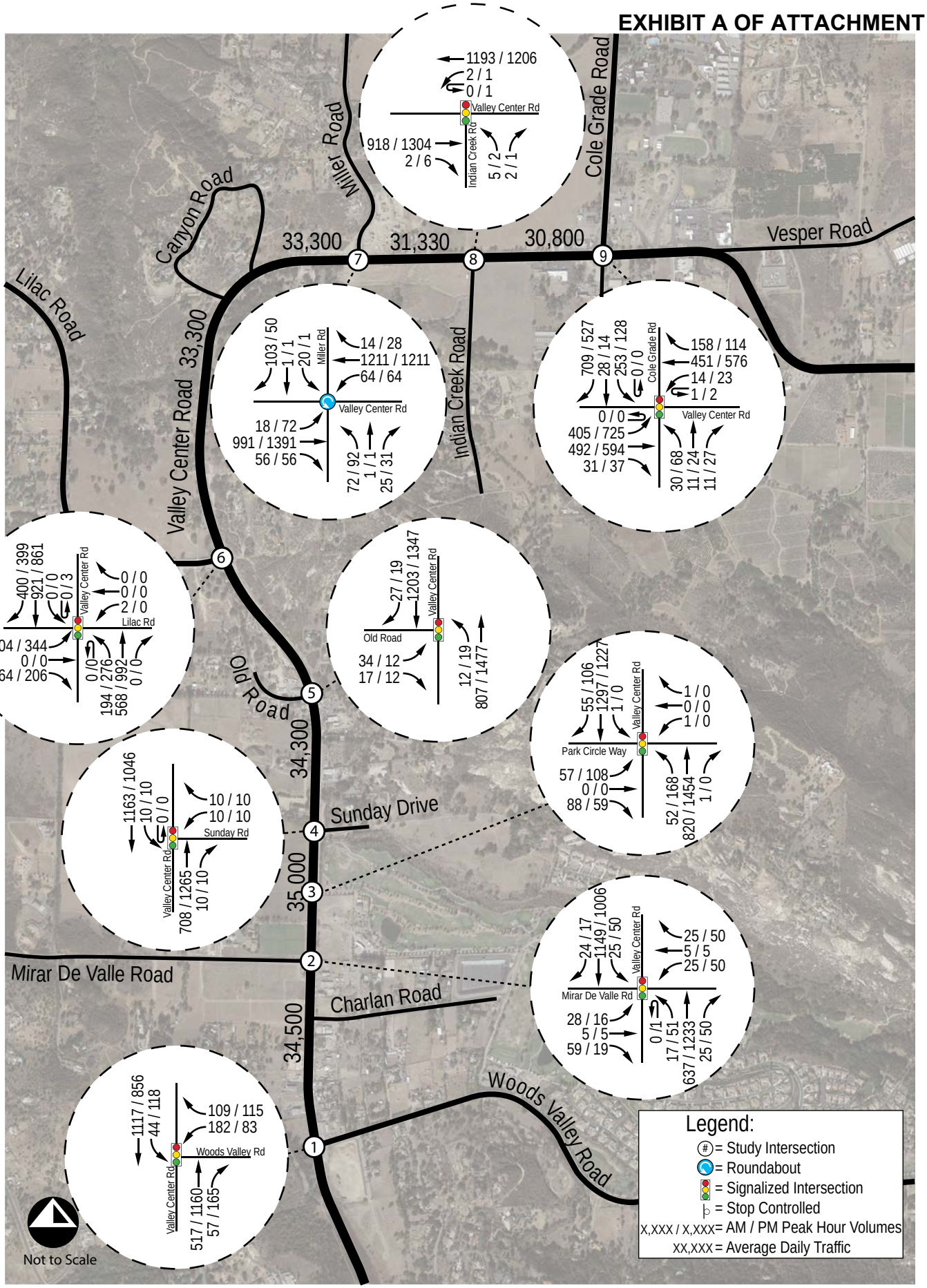
ATTACHMENT A-2

Draft Corridor Concept Plan Traffic Data



Existing AM/PM Peak Hour Volumes, Daily Traffic Volumes with Existing Geometry and Traffic Control

Figure 1



Future Forecast 2035 AM/PM Peak Hour Volumes, Daily Traffic Volumes with VCRCCP Geometry and Traffic Control

Figure 2

1.2 ROADWAY SEGMENT ANALYSIS

Improvements proposed as part of the VCRCCP can primarily be constructed within the existing right-of-way. The existing curb-to-curb width of Valley Center Road will not be changed with the exception the additional right-of-way that would be obtained to construct the roundabout. Adding a raised median to the roadway segments that are currently constructed with a striped center median, would support the anticipated future capacity needs of the corridor. The addition of the raised median would change the "as constructed" classification from Boulevard with Intermittent Turn Lanes (2.4B) to Boulevard with Raised Median (4.2A), with an increased capacity from 27,000 vehicles per day to 30,000 vehicles per day. **Table 3** summarizes the roadway segment level of service for existing and future forecast year 2035 without and with the improvements proposed in the VCRCCP.

Table 3: Roadway Segment Level of Service Summary

Roadway	Segment	No. Lanes	Median Type	Roadway Classification [1]	LOS E Capacity	Existing		Future Year 2035	
						ADT	LOS	ADT	LOS
Existing Roadway Classification									
Valley Center Road	Woods Valley Road to Mirar de Valle Road	4	Undivided	Boulevard - 4.2B (w/ intermittent turn lanes)	28,000	24,550	D	34,500	F
	Mirar De Valle Road to Sunday Drive	4	Divided	Boulevard - 4.2B (w/ intermittent turn lanes)	28,000	24,412	D	35,000	F
	Sunday Drive to Lilac Road	4	Divided	Boulevard - 4.2B (w/ intermittent turn lanes)	28,000	24,384	D	34,300	F
	Lilac Road to Canyon Road	4	Divided	Major Road - 4.1A (w/ raised median)	37,000	26,069	C	33,300	D
	Canyon Road to Miller Road	4	Divided	Major Road - 4.1A (w/ raised median)	37,000	25,883	C	33,300	D
	Miller Road to Indian Creek Road	4	Divided	Boulevard - 4.2A (w/ raised median)	30,000	25,013	D	31,300	F
	Indian Creek Road to Cole Grade Road	4	Divided	Boulevard - 4.2A (w/ raised median)	30,000	25,064	D	30,800	F
With VCRCCP									
Valley Center Road	Woods Valley Road to Mirar de Valle Road	4	Undivided	Boulevard - 4.2A (w/ raised median)	30,000	24,550	D	34,500	F
	Mirar De Valle Road to Sunday Drive	4	Divided	Boulevard - 4.2A (w/ raised median)	30,000	24,412	D	35,000	F
	Sunday Drive to Lilac Road	4	Divided	Boulevard - 4.2A (w/ raised median)	30,000	24,384	D	34,300	F
	Lilac Road to Canyon Road	4	Divided	Major Road - 4.1A (w/ raised median)	37,000	26,069	C	33,300	D
	Canyon Road to Miller Road	4	Divided	Major Road - 4.1A (w/ raised median)	37,000	25,883	C	33,300	D
	Miller Road to Indian Creek Road	4	Divided	Boulevard - 4.2A (w/ raised median)	30,000	25,013	D	31,300	F
	Indian Creek Road to Cole Grade Road	4	Divided	Boulevard - 4.2A (w/ raised median)	30,000	25,064	D	30,800	F

Notes:
[1]Based on San Diego County General Plan, Valley Center Mobility Element Network Appendix. The Woods Valley Road to Mirar De Valle Road segment and the Sunday Drive to Lilac Road segment are currently built as Boulevard with intermittent turn lanes (4.2B), but the VCRCCP would bring these segments in line with the current Mobility Element Network planned classification of Boulevard with raised median (4.2A).
ADT = Average Daily Traffic
LOS = Level of Service

ATTACHMENT A-3

Intersection Delay Tables

Exhibit 9
Modeled Intersection Performance Comparison of Existing Traffic Control and Final Valley Center Road Corridor Concept Plan - Based on Existing Traffic

Study Intersection		With Existing Geometry and Traffic Control [1]			With Draft Final CCP		
		Traffic Control	AM Delay[2] - LOS	PM Delay[2] - LOS	Traffic Control	AM Delay[2] - LOS	PM Delay[2] - LOS
1-	Valley Center Road / Woods Valley Road	Signal	7.5 - A	9.0 - A	Signal	7.5 - A	9.0 - A
2-	Valley Center Road / Mirar De Valle Road	STOP	29.7 - D	**45.2 - E**	Signal	11.4 - B	13.2 - B
3-	Valley Center Road / Park Circle Way [3]	Signal	3.4 - A	3.7 - A	Signal	3.4 A	3.7 A
4-	Valley Center Road / Sunday Drive	STOP	26.7 - D	**51.7 - F**	Signal	4.2 - A	4.7 - A
5-	Valley Center Road / Old Road	STOP	26.1 - D	30.1 - D	Signal	5.4 - A	5.6 - A
6-	Valley Center Road / Lilac Road	Signal	17.5 - B	13.5 - B	Signal	18.2 - B	14.0 - B
7-	Valley Center Road / Miller Road	STOP	27.3 - D	15.2 - C	Roundabout	7.8 - A	10.0 - A
8-	Valley Center Road / Indian Creek Road	STOP	16.9 - C	26.1 - D	Signal	6.4 - A	6.6 - B
9-	Valley Center Road / Cole Grade Road	Signal	31.3 - C	33.5 - C	Signal	27.1 - C	34.5 - C

Note: Deficient intersection operation indicated in **bold**.

[1] Existing conditions data was collected for the corridor prior to the buildout of Park Circle and Liberty Bell Plaza developments.

[2] Average seconds of delay per vehicle. *The lower the number, the better the anticipated intersection performance.*

[3] The Park Circle Way intersection did not exist at the time of the 2019 analysis of existing conditions.

Traffic Signal (existing or proposed with CCP)

Traffic Signal (condition of private development)

Signal warrants will be conducted at the time signals are considered for installation. Signal warrants should be met prior to installation.

Roundabout

Minor Street Stop Control, worst approach delay and LOS reported. Traffic along Valley Center Road does not stop.

Exhibit 10
Modeled Intersection Performance Comparison of Existing Traffic Control and Final Valley Center Road Corridor Concept Plan - Based on Future Year 2035 Traffic

Study Intersection		With Existing Geometry and Traffic Control [1]			With Draft Final CCP		
		Traffic Control	AM Delay[2] - LOS	PM Delay[2] - LOS	Traffic Control	AM Delay[2] - LOS	PM Delay[2] - LOS
1-	Valley Center Road / Woods Valley Road	Signal	7.8 - A	10.0 - A	Signal	7.8 - A	10.0 - A
2-	Valley Center Road / Mirar De Valle Road	STOP	**42.5 - E**	**70.8 - F**	Signal	15.1 - B	15.2 - B
3-	Valley Center Road / Park Circle Way [3]	Signal	12.8 - B	18.4 - B	Signal	12.8 - B	6.7 - A
4-	Valley Center Road / Sunday Drive	STOP	32.7 - D	**72.9 - F**	Signal	5.6 - A	5.1 - A
5-	Valley Center Road / Old Road	STOP	**1338.7 - F**	**214.2 - F**	Signal	8.6 - A	6.3 - A
6-	Valley Center Road / Lilac Road	Signal	26.7 - C	20.5 - C	Signal	26.7 - C	19.4 - B
7-	Valley Center Road / Miller Road	STOP	**45.3 - E**	17.4 - C	Roundabout	9.0 - A	11.6 - B
8-	Valley Center Road / Indian Creek Road	STOP	19.8 - C	32.0 - D	Signal	6.5 - A	8.5 - A
9-	Valley Center Road / Cole Grade Road	Signal	42.2 - C	47.7 - D	Signal	40.2 - D	47.3 - D

Note: Deficient intersection operation indicated in **bold**.

[1] Existing conditions data was collected for the corridor prior to the buildout of Park Circle and Liberty Bell Plaza developments.

[2] Average seconds of delay per vehicle. *The lower the number, the better the anticipated intersection performance.*

[3] The Park Circle Way intersection did not exist at the time of the 2019 analysis of existing conditions.

Traffic Signal (existing or proposed with CCP)

Traffic Signal (condition of private development)

Signal warrants will be conducted at the time signals are considered for installation. Signal warrants should be met prior to installation.

Roundabout

Minor Street Stop Control, worst approach delay and LOS reported. Traffic along Valley Center Road does not stop.

ATTACHMENT A-4

CMAQ Congestion Reduction and Traffic Flow Improvements Tool – Valley Center Road and Miller Road Roundabout

Valley Center Road and Miller Road Roundabout Methodology and Assumptions

The analysis uses available data from the Final Valley Center Road Corridor Concept Plan (VCRCCP). In situations where a data point wasn't available from the Final VCRCCP, an estimate was used as described below.

Modeling Scenario: Year 2035, PM Peak Hour

Note: The input page states "Existing Conditions" by default and cannot be modified. This implies the performance of the intersection should it remain in its existing configuration without a roundabout.

Evaluation Year: 2035

Area Type: Rural

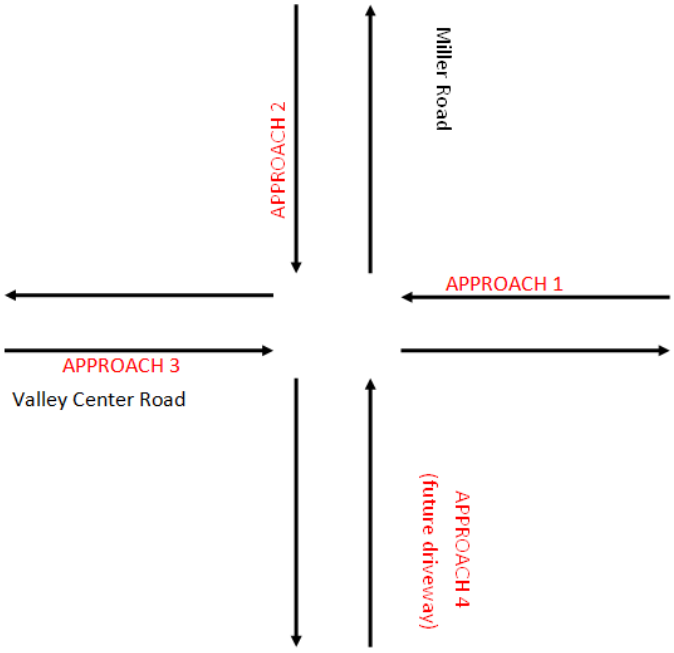
Business District: No – The user's guide defines this as a "central business district." Although there are businesses in the project area, it is more rural in nature.

Total Peak Hours per Day: 4 (default) – 2 AM and 2 PM

Peak Hour Evaluated: The modeling provided represents the PM peak hour since traffic volumes are greater in the PM peak hour. Note that both AM and PM peak hour traffic data is provided in Table A-4.1 below for informational purposes.

Existing intersection is: Un-signalized

Intersection Diagram:



AADT:

Approach 1 – 31,330 ÷ 2 (half EB, half WB) = 15,665 (Source: Final VCRCCP)

Approach 2 – 1,900 ÷ 2 (half NB, half, SB) = 950 (Source: San Diego Association of Governments Traffic Forecast Information Center ABM2+2021 RP Year 2035 data, accessed at https://experience.arcgis.com/experience/81b2daca1827470ca8beeb4708139f79/page/Main/)

Approach 3 – 33,300 ÷ 2 (half EB, half WB) = 16,650 (Source: Final VCRCCP)

Approach 4 – Does not currently exist. ADT determined by adding turning volumes and assuming that the peak hour is approximately 10 percent of the ADT:
124 PM Peak Hour (Source: Final VCRCCP, see Table A-4.1) ÷ 10% = 1,240

Peak-Hour Volume:

Table A-4.1
Valley Center Road and Miller Road Intersection Turning Volumes

Direction	AM	PM
SBR	103	50
SBT	1	1
SBL	20	1
WBR	14	28
WBT	1,211	1,211
WBL	64	64
EBL	18	72
EBT	991	1,391
EBR	56	56
NBL	72	92
NBT	1	1
NBR	25	31

Segment	AM	PM
SB Approach (Approach 2)	124	52
SB Departure	121	121
WB Approach (Approach 1)	1,289	1,303
WB Departure	1,386	1,353
EB Approach (Approach 3)	1,065	1,519
EB Departure	1,036	1,423
NB Approach (Approach 4)	98	124
NB Departure	33	101

Total AM Volume	2,576
Total PM Volume	2,998

NOTE: Both AM and PM peak hour volumes are provided here for informational purposes. Modeling is based on the PM peak hour since traffic volumes are greater during the PM peak hour.

Truck Percentage:

Approach 1 – 6%, default value per model user's guide

Approach 2 – 1%, reduced from default value because Miller Road is not a truck route and leads to rural residential neighborhoods.

Approach 3 – 6%

Approach 4 – 6%

Existing Delay per Vehicle (i.e., delay without roundabout improvement):

All Approaches – 17.4 second per vehicle (Source: Final VCRCCP)

Number of Lanes:

Approach 1 – 2

Approach 2 – 1

Approach 3 – 2

Approach 4 – 1

Existing Intersection % of Left Turns: See Table A-4.1 for turning volumes

Approach 1 – 64 ÷ 1,303 = 4.9%

Approach 2 – 1 ÷ 52 = 1.9%

Approach 3 – 18 ÷ 1,519 = 1.2%

Approach 4 – 92 ÷ 124 = 74.2%

Existing Intersection % of Right Turns:

Approach 1 – 28 ÷ 1,303 = 2.1%

Approach 2 – 50 ÷ 52 = 96.2%

Approach 3 – 56 ÷ 1,519 = 3.7%

Approach 4 – 31 ÷ 124 = 25.0%

Number of Circling Roundabout Lanes: 2

CMAQ Emissions Calculator Toolkit

Roundabouts

This calculator will estimate the emission reductions resulting from building a roundabout at an intersection

Navigator

Intersection Improvements

Traffic Signal Synchronization

Roundabouts

Two Way Left Turn Lanes

INPUT

EXISTING CONDITIONS

Evaluation Year	2035
Area Type	Rural
Business District	No
Total peak hours per day(AM+PM)	4 hours
Existing intersection is	Un-signalized

Please input approaches in COUNTERCLOCKWISE direction for existing intersection. If the intersection only has three approaches, put '0' for 'Average Annual Daily Traffic (AADT)' for Approach 4

	Approach 1	Approach 2	Approach 3	Approach 4	
Average Annual Daily Traffic volume (AADT)	15,665	950	16,650	1,240	
Peak-hour Volume	1,303	52	1,519	124	veh/hr
Truck Percentage	6%	1%	6%	6%	
Existing Delay per Vehicle	17.4	17.4	17.4	17.4	sec/veh
Number of Lanes	2	1	2	1	
Existing Intersection % Left Turns	5%	2%	1%	74%	
Existing Intersection % Right Turns	2%	96%	4%	25%	

Use the table below to estimate delay (HCM 2010, Exhibits 18-4, 19-1)

Level of Service Reference Table

LOS	Delay (s/veh)	
	Unsignalized Intersection	Signalized Intersection
A	0 - 10	0 - 10
B	>10 - 15	>10 - 20
C	>15 - 25	>20 - 35
D	>25 - 35	>35 - 55
E	>35 - 50	>55-80
F*	>50	>80

*LOS F typically indicates that traffic demand has exceeded capacity

Number of Circulating Roundabout Lanes	2

OUTPUT

Calculate Output

PERFORMANCE

	PEAK-HOUR				OFF-PEAK				
Approach	1	2	3	4	1	2	3	4	
Proposed Capacity	1,957	406	2,027	360	2,077	750	2,088	730	veh/hr
Volume	1,303	52	1,519	124	523	37	529	37	veh/hr
Delay Reduction per vehicle	9	7	7	1	4	5	4	5	sec/veh

Approach	1	2	3	4	
Approach Delay Reduction per day	23.4	1.4	22.4	1.0	hours
Total Roundabout Delay Reduction per day	48.2				hours

EMISSION REDUCTIONS

Pollutant	Peak-hour Kilograms/day	Off-Peak Kilograms/day	Total Kilograms/day
Carbon Monoxide (CO)	0.052	0.050	0.103
Particulate Matter <2.5 µm ($PM_{2.5}$)	0.001	0.001	0.002
Particulate Matter <10 µm (PM_{10})	0.001	0.001	0.002
Nitrogen Oxide (NOx)	0.059	0.057	0.116
Volatile Organic Compounds (VOC)	0.024	0.024	0.048
Atmospheric Carbon Dioxide (CO2)	68.505	66.547	135.052
Carbon Dioxide Equivalent (CO2e)	69.036	67.060	136.096
Total Energy Consumption (MMBTU)	0.901	0.875	1.775

ATTACHMENT A-5

CMAQ Congestion Reduction and Traffic Flow Improvements Tool – Valley Center Road and Sunday Drive Signal

Valley Center Road and Sunday Drive Signalization Methodology and Assumptions

The analysis uses available data from the Final Valley Center Road Corridor Concept Plan (VCRCCP). In situations where a data point wasn't available from the Final VCRCCP, an estimate was used as described below.

Modeling Scenario: Year 2035, PM Peak Hour

Note: The input page states "Existing Conditions" by default and cannot be modified. This implies the performance of the intersection should it remain in its existing configuration without a roundabout.

Evaluation Year: 2035

Area Type: Rural

Business District: No – The user's guide defines this as a "central business district." Although there are businesses in the project area, it is more rural in nature.

Total Peak Hours per Day: 4 (default) – 2 AM and 2 PM

Peak Hour Evaluated: The modeling provided represents the PM peak hour since traffic volumes are greater in the PM peak hour. Note that both AM and PM peak hour traffic data is provided in Table A-5.1 below for informational purposes.

Existing intersection is: Un-signalized

Roadway 1: Valley Center Road

Roadway 2: Sunday Drive

AADT:

Roadway 1 – 35,000 ADT (Source: Final VCRCCP)

Roadway 2 – 700 ADT (Source: San Diego Association of Governments Traffic Forecast Information Center ABM2+2021 RP Year 2035 data, accessed at https://experience.arcgis.com/experience/81b2daca1827470ca8beeb4708139f79/page/Main/)

Peak-Hour Volume:

Table A-5.1
Valley Center Road and Sunday Drive Intersection Turning Volumes

Direction	AM	PM
SBR	0	0
SBT	1,163	1,046
SBL	10	10
WBR	10	10
WBT	0	0
WBL	10	10
EBL	0	0
EBT	0	0
EBR	0	0
NBL	0	0
NBT	708	1,265
NBR	10	10

Segment	AM	PM
SB Approach	1,173	1,056
SB Departure	1,173	1,056
WB Approach	20	20
WB Departure	0	0
EB Approach	0	0
EB Departure	20	20
NB Approach	718	1,275
NB Departure	718	1,275

Total AM Volume	1,911
Total PM Volume	2,351

NOTE: Both AM and PM peak hour volumes are provided here for informational purposes. Modeling is based on the PM peak hour since traffic volumes are greater during the PM peak hour.

PM peak-hour volume (both directions) = the weekday peak average hourly volume of traffic for both approach directions and across all lanes.

Roadway 1 – SBR + SBT + SBR + NBL + NBT + NBR = 0 + 1,046 + 10 + 0 + 1,265 + 10 = 2,331

Roadway 2 – WBR + WBT + WBL + EBL + EBT + EBR = 10 + 0 + 10 + 0 + 0 + 0 = 20

Number of Lanes (one direction):

Roadway 1 – 2

Roadway 2 – 1

Truck Percentage:

Roadway 1 – 6%, default value per model user's guide

Roadway 2 – 1%, reduced from default value because Sunday Drive is not a truck route and leads to rural residential neighborhoods.

Existing Delay per Vehicle (i.e., delay without roundabout improvement):

All Roadways – 72.9 second per vehicle during PM peak hour (Source: Final VCRCCP)

Existing Left-turn Phase (i.e., protected left-turn signal):

Roadway 1 – No

Roadway 2 – No

Existing Right-turn Phase (i.e., protected right-turn signal):

Roadway 1 – No

Roadway 2 – No

PROPOSED CONDITIONS

Cycle Length: 90 seconds, default value per model user's guide

Number of Left-turn Lanes to Add (one direction):

Roadway 1 – 1

Roadway 2 – 1

Left-turn Phase (i.e., protected left-turn signal):

Roadway 1 – No

Roadway 2 – No

Right-turn Phase (i.e., protected right-turn signal):

Roadway 1 – No

Roadway 2 – No

Ratio of Green Time per Cycle Time: Standard assumption based on anticipated traffic volumes on Valley Center Road versus Sunday Drive.

Roadway 1 – 90%

Roadway 2 – 10%

CMAQ Emissions Calculator Toolkit

Intersection Improvements

This calculator will estimate the emission reductions resulting from improving traffic signals at a four-way intersection

Navigator

Intersection Improvements

Traffic Signal Synchronization

Roundabouts

Two Way Left Turn Lanes

INPUT

EXISTING CONDITIONS

Evaluation Year	2035
Area Type	Rural
Business District	No
Total peak hours per day(AM+PM)	4
Existing Intersection is	Un -signal iz ed

	Roadway 1	Roadway 2	
Average Annual Daily Traffic volume (AADT) (both directions)	35,000	700	veh/day
Peak-hour Volume (both directions)	2,331	20	veh/hr
Number of Lanes (one direction)	2	1	
Truck Percentage	6%	1%	
Existing Delay per Vehicle	72.9	72.9	sec/veh
Existing Left-turn Phase	No	No	
Existing Right-turn Phase	No	No	

Use the table below to estimate delay (HCM 2010, Exhibit 21-1)

Level of Service Reference Table

LOS	Delay (s/veh)	
	Unsignalized Intersection	Signalized Intersections
A	0 - 10	0 - 10
B	>10 - 15	>10 - 20
C	>15 - 25	>20 - 35
D	>25 - 35	>35 - 55
E	>35 - 50	>55 - 80
F*	>50	>80

*LOS F typically indicates that traffic demand has exceeded capacity

PROPOSED CONDITIONS

Cycle Length	90 seconds

	Roadway 1	Roadway 2
Number of Left-Turn Lanes to Add (one direction)	1	1
Left-turn Phase	No	No
Right-turn Phase	No	No
Ratio of Green Time per Cycle Time	0.9	0.1

OUTPUT

PERFORMANCE

	PEAK-HOUR		OFF-PEAK		
Roadway	1	2	1	2	
Existing Capacity (both directions)	6,113	356	6,113	356	veh/hr
Proposed Capacity (both directions)	7,642	535	7,642	535	veh/hr
Volume (both directions)	2,331	20	1,284	31	veh/hr
Delay Reduction per vehicle	72.3	36.3	5.2	-20.6	sec/veh

Roadway	1	2	
Roadway Intersection Delay Reduction per day	224.4	-2.7	hours
Total Intersection Delay Reduction per day	221.7		hours

EMISSION REDUCTIONS

Pollutant	Peak Hours Kilograms/day	Off-Peak Hours Kilograms/day	Daily Total Kilograms/day
Carbon Monoxide (CO)	0.404	0.000	0.404
Particulate Matter <2.5 µm ($PM_{2.5}$)	0.008	0.000	0.008
Particulate Matter <10 µm (PM_{10})	0.008	0.000	0.008
Nitrogen Oxide (NOx)	0.460	0.000	0.461
Volatile Organic Compounds (VOC)	0.188	0.000	0.188
Atmospheric Carbon Dioxide (CO2)	527.150	0.095	527.245
Carbon Dioxide Equivalent (CO2e)	531.246	0.096	531.342
Total Energy Consumption (MMBTU)	6.930	0.001	6.931

ATTACHMENT A-6

CMAQ Congestion Reduction and Traffic Flow Improvements Tool – Valley Center Road and Old Road Signal

Valley Center Road and Old Road Signalization Methodology and Assumptions

The analysis uses available data from the Final Valley Center Road Corridor Concept Plan (VCRCCP). In situations where a data point wasn't available from the Final VCRCCP, an estimate was used as described below.

Modeling Scenario: Year 2035, PM Peak Hour

Note: The input page states "Existing Conditions" by default and cannot be modified. This implies the performance of the intersection should it remain in its existing configuration without a roundabout.

Evaluation Year: 2035

Area Type: Rural

Business District: No – The user's guide defines this as a "central business district". Although there are businesses in the project area, it is more rural in nature.

Total Peak Hours per Day: 4 (default) – 2 AM and 2 PM

Peak Hour Evaluated: The modeling provided represents the PM peak hour since traffic volumes are greater in the PM peak hour. Note that both AM and PM peak hour traffic data is provided in Table A-6.1 below for informational purposes.

Existing intersection is: Un-signalized

Roadway 1: Valley Center Road

Roadway 2: Old Road

AADT:

Roadway 1 – 34,300 ADT (Source: Final VCRCCP)

Roadway 2 – 900 ADT (Source: San Diego Association of Governments Traffic Forecast Information Center ABM2+2021 RP Year 2035 data, accessed at https://experience.arcgis.com/experience/81b2daca1827470ca8beeb4708139f79/page/Main/)

Peak-Hour Volume:

Table A-6.1
Valley Center Road and Old Road Intersection Turning Volumes

Direction	AM	PM
SBR	27	19
SBT	1,203	1,347
SBL	0	0
WBR	0	0
WBT	0	0
WBL	0	0
EBL	34	12
EBT	0	0
EBR	17	12
NBL	12	19
NBT	807	1,477
NBR	0	0

Segment	AM	PM
SB Approach	1,230	1,366
SB Departure	1,220	1,359
WB Approach	0	0
WB Departure	39	38
EB Approach	51	24
EB Departure	0	0
NB Approach	819	1,496
NB Departure	841	1,489

Total AM Volume	2,100
Total PM Volume	2,886

NOTE: Both AM and PM peak hour volumes are provided here for informational purposes. Modeling is based on the PM peak hour since traffic volumes are greater during the PM peak hour.

PM peak-hour volume (both directions) = the weekday peak average hourly volume of traffic for both approach directions and across all lanes.

Roadway 1 – SBR + SBT + SBR + NBL + NBT + NBR = 19 + 1,347 + 0 + 19 + 1,477 + 0 = 2,862

Roadway 2 – WBR + WBT + WBL + EBL + EBT + EBR = 0 + 0 + 0 + 12 + 0 + 12 = 24

Number of Lanes (one direction):

Roadway 1 – 2

Roadway 2 – 1

Truck Percentage:

Roadway 1 – 6%, default value per model user's guide

Roadway 2 – 1%, reduced from default value because Old Road is not a truck route and leads to rural residential neighborhoods.

Existing Delay per Vehicle (i.e., delay without roundabout improvement):

All Roadways – 214.2 second per vehicle during PM peak hour (Source: Final VCRCCP)

Existing Left-turn Phase (i.e., protected left-turn signal):

Roadway 1 – No

Roadway 2 – No

Existing Right-turn Phase (i.e., protected right-turn signal):

Roadway 1 – No

Roadway 2 – No

PROPOSED CONDITIONS

Cycle Length: 90 seconds, default value per model user's guide

Number of Left-turn Lanes to Add (one direction):

Roadway 1 – 0

Roadway 2 – 0

Left-turn Phase (i.e., protected left-turn signal):

Roadway 1 – No

Roadway 2 – No

Right-turn Phase (i.e., protected right-turn signal):

Roadway 1 – No

Roadway 2 – No

Ratio of Green Time per Cycle Time: Standard assumption based on anticipated traffic volumes on Valley Center Road versus Old Road.

Roadway 1 – 90%

Roadway 2 – 10%

CMAQ Emissions Calculator Toolkit

Intersection Improvements

Navigator

- Intersection Improvements
- Traffic Signal Synchronization
- Roundabouts
- Two Way Left Turn Lanes

This calculator will estimate the emission reductions resulting from improving traffic signals at a four-way intersection

INPUT

EXISTING CONDITIONS

Evaluation Year	2035
Area Type	Rural
Business District	No
Total peak hours per day(AM+PM)	4
Existing Intersection is	Un-signalized

	Roadway 1	Roadway 2	
Average Annual Daily Traffic volume (AADT) (both directions)	3,4300	900	veh/day
Peak-hour Volume (both directions)	2,826	24	veh/hr
Number of Lanes (one direction)	2	1	
Truck Percentage	6%	1%	
Existing Delay per Vehicle	214.2	214.2	sec/veh
Existing Left-turn Phase	No	No	
Existing Right-turn Phase	No	No	

Use the table below to estimate delay (HCM 2010, Exhibit 21-1)

Level of Service Reference Table

LOS	Delay (s/veh)	
	Unsignalized Intersection	Signalized Intersections
A	0 - 10	0 - 10
B	>10 - 15	>10 - 20
C	>15 - 25	>20 - 35
D	>25 - 35	>35 - 55
E	>35 - 50	>55 - 80
F*	>50	>80

*LOS F typically indicates that traffic demand has exceeded capacity

PROPOSED CONDITIONS

Cycle Length	90 seconds

	Roadway 1	Roadway 2
Number of Left-Turn Lanes to Add (one direction)	0	0
Left-turn Phase	No	No
Right-turn Phase	No	No
Ratio of Green Time per Cycle Time	0.9	0.1

OUTPUT

PERFORMANCE

	PEAK-HOUR		OFF-PEAK		
Roadway	1	2	1	2	
Existing Capacity (both directions)	6,113	356	6,113	356	veh/hr
Proposed Capacity (both directions)	6,113	356	6,113	356	veh/hr
Volume (both directions)	2,826	24	1,150	40	veh/hr
Delay Reduction per vehicle	213.4	177.5	5.2	-20.5	sec/veh

Roadway	1	2	
Roadway Intersection Delay Reduction per day	703.3	0.2	hours
Total Intersection Delay Reduction per day	703.4		hours

EMISSION REDUCTIONS

Pollutant	Peak Hours Kilograms/day	Off-Peak Hours Kilograms/day	Daily Total Kilograms/day
Carbon Monoxide (CO)	1.447	0.000	1.447
Particulate Matter <2.5 µm ($PM_{2.5}$)	0.028	0.000	0.028
Particulate Matter <10 µm (PM_{10})	0.030	0.000	0.030
Nitrogen Oxide (NOx)	1.649	0.000	1.649
Volatile Organic Compounds (VOC)	0.675	0.000	0.675
Atmospheric Carbon Dioxide (CO2)	1,891.961	0.081	1,892.042
Carbon Dioxide Equivalent (CO2e)	1,906.654	0.082	1,906.735
Total Energy Consumption (MMBTU)	24.872	0.001	24.873

ATTACHMENT A-7

EMFAC Emission Factors and VMT Reduction Calculations

ATTACHMENT A-7

EMFAC Emission Factors and VMT Reduction Calculations

T-18. Provide Pedestrian Network Improvement

GHG Mitigation Potential

Up to 6.4% of GHG emissions from vehicle travel in the plan/community

Co-Benefits (icon key on pg. 34)

Climate Resilience

Improving pedestrian networks increases accessibility of outdoor spaces, which can provide health benefits and thus improve community resilience. This can also improve connectivity between residents and resources that may be needed in an extreme weather event.

Health and Equity Considerations

Ensure that the improvements also include accessibility features to allow for people of all abilities to use the network safely and conveniently. Ensure that sidewalks connect to nearby community assets, such as schools, retail, and healthcare.

Measure Description

This measure will increase the sidewalk coverage to improve pedestrian access. Providing sidewalks and an enhanced pedestrian network encourages people to walk instead of drive. This mode shift results in a reduction in VMT and GHG emissions.

Subsector

Neighborhood Design

Locational Context

Urban, suburban, rural

Scale of Application

Plan/Community

Implementation Requirements

The GHG reduction of this measure is based on the VMT reduction associated with expansion of sidewalk coverage expansion, which includes not only building of new sidewalks but also improving degraded or substandard sidewalk (e.g., damaged from street tree roots). However, pedestrian network enhancements with non-quantifiable GHG reductions are encouraged to be implemented, as discussed under *Expanded Mitigation Options*.

Cost Considerations

Depending on the improvement, capital and infrastructure costs may be high. However, improvements to the pedestrian network will increase pedestrian activity, which can increase businesses patronage and provide a local economic benefit. The local municipality may achieve cost savings through a reduction of cars on the road leading to lower infrastructure and roadway maintenance costs.

Expanded Mitigation Options

When improving sidewalks, a best practice is to ensure they are contiguous and link externally with existing and planned pedestrian facilities. Barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings should be minimized. Other best practice features could include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety (see Measure T-35, *Provide Traffic Calming Measures*).

T-19-A. Construct or Improve Bike Facility

GHG Mitigation Potential

Up to 0.8% of GHG emissions from vehicles parallel roadways

Co-Benefits (icon key on pg. 34)

Climate Resilience

Constructing and improving bike facilities can incentivize more bicycle use and decrease vehicle use, which have health benefits and can thus improve community resilience. This can also improve connectivity between residents and resources that may be needed in an extreme weather event.

Health and Equity Considerations

Prioritize low-income and underserved areas and communities with lower rates of vehicle ownership or fewer transit options. Make sure that the bicycle facility connects to a larger existing bikeway network that accesses destinations visited by low-income or underserved communities.

Measure Description

This measure will construct or improve a single bicycle lane facility (only Class I, II, or IV) that connects to a larger existing bikeway network. Providing bicycle infrastructure helps to improve biking conditions within an area. This encourages a mode shift on the roadway parallel to the bicycle facility from vehicles to bicycles, displacing VMT and thus reducing GHG emissions. When constructing or improving a bicycle facility, a best practice is to consider local or state bike lane width standards. A variation of this measure is provided as T-19-B, *Construct or Improve Bike Boulevard*.

Subsector

Neighborhood Design

Locational Context

Urban, suburban

Scale of Application

Plan/Community. This measure reduces VMT on the roadway segment parallel to the bicycle facility (i.e., the corridor). An adjustment factor is included in the formula to scale the VMT reduction from the corridor level to the plan/community level.

Implementation Requirements

The bicycle lane facility must be either Class I, II, or IV. Class I bike paths are physically separated from motor vehicle traffic. Class IV bikeways are protected on-street bikeways, also called cycle tracks. Class II bike lanes are striped bicycle lanes that provide exclusive use to bicycles on a roadway.

Cost Considerations

Capital and infrastructure costs for new bike facilities may be high. The local municipality may achieve cost savings through a reduction of cars on the road leading to lower infrastructure and roadway maintenance costs.

Expanded Mitigation Options

Implement alongside Measures T-22-A, T-22-B, and/or T-22-C to ensure that micromobility users can ride safely along bicycle lane facilities and not have to ride along pedestrian infrastructure, which is a risk to pedestrian safety.

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	ROG_RUNEX	ROG_grams	ROG_pounds	NOx_RUNEX	NOx_grams	NOx_pounds	CO_RUNEX	CO_grams	CO_pounds	SOx_RUNEX	SOx_grams	SOx_pounds	PM10_RUNEX	PM10_grams	PM10_pounds	PM2.5_RUNEX	PM2.5_grams	PM2.5_pounds
San Diego	2035	All Other Buses	Aggregate	Aggregate	Diesel	500.9105	26,445.7210	26,445.7210	0.0000	4,458.1038	0.0787	2,080.0797	4.5858	1.2611	33,351.5583	73.5277	0.2450	6,478.4243	14.2825	0.0099	262.9420	0.5797	0.0256	678.2179	1.4952	0.0245	648.8785	1.4305
San Diego	2035	All Other Buses	Aggregate	Aggregate	Natural Gas	101.4503	5,213.3935	5,213.3935	0.0000	902.9080	0.0118	61.5290	0.1356	0.1241	646.9093	1.4262	3.3519	17,474.7748	38.5253	0.0000	0.0000	0.0000	0.0015	7.7998	0.0172	0.0014	7.1716	0.0158
San Diego	2035	LDA	Aggregate	Aggregate	Gasoline	1,110,759.1840	46,347,911.8908	46,347,911.8908	0.0000	5,164,618.8291	0.0048	220,347.4937	485.7835	0.0227	1,053,333.3952	2,322.2045	0.5206	24,127,665.1962	53,192.4399	0.0025	114,070.4455	251.4825	0.0009	41,749.0005	92.0409	0.0008	38,386.6649	84.6282
San Diego	2035	LDA	Aggregate	Aggregate	Diesel	1,519.3065	45,149.6377	45,149.6377	0.0000	6,406.1233	0.0189	852.1113	1.8786	0.0614	2,772.5479	6.1124	0.4154	18,757.2255	41.3526	0.0021	94.9303	0.2093	0.0047	213.5510	0.4708	0.0045	204.3128	0.4504
San Diego	2035	LDA	Aggregate	Aggregate	Electricity	130,716.1320	6,138,023.8080	0.0000	6,138,023.8080	626,679.2465	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LDA	Aggregate	Aggregate	Plug-in Hybrid	49,294.4956	2,183,801.7747	922,631.4992	1,261,170.2755	203,832.7393	0.0016	3,493.2008	7.7012	0.0031	6,697.9025	14.7664	0.2099	458,360.0895	1,010.5118	0.0013	2,779.5657	6.1279	0.0004	833.5197	1.8376	0.0004	766.3906	1.6896
San Diego	2035	LDT1	Aggregate	Aggregate	Gasoline	93,857.6854	3,390,000.6257	3,390,000.6257	0.0000	407,965.6148	0.0145	49,092.7936	108.2312	0.0550	186,557.6340	411.2895	0.8408	2,850,158.5118	6,283.5291	0.0030	10,218.3861	22.5277	0.0013	4,361.6178	9.6157	0.0012	4,010.3466	8.8413
San Diego	2035	LDT1	Aggregate	Aggregate	Diesel	0.6477	29.0600	29.0600	0.0000	3.1059	0.0257	0.7461	0.0016	0.0398	1.1579	0.0026	0.2516	7.3122	0.0161	0.0035	0.1020	0.0002	0.0048	0.1382	0.0003	0.0046	0.1322	0.0003
San Diego	2035	LDT1	Aggregate	Aggregate	Electricity	1,344.6947	67,210.1552	0.0000	67,210.1552	6,574.1673	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1,036.8531	49,528.7965	20,266.5107	29,262.2858	4,287.3876	0.0015	76.7316	0.1692	0.0030	147.1260	0.3244	0.2034	10,074.8368	22.2112	0.0012	61.0679	0.1346	0.0003	14.0105	0.0309	0.0003	12.8821	0.0284
San Diego	2035	LDT2	Aggregate	Aggregate	Gasoline	564,854.8326	23,373,410.6719	23,373,410.6719	0.0000	2,615,349.3057	0.0072	168,210.2928	370.8405	0.0337	787,271.0804	1,735.6370	0.6297	14,718,872.9081	32,449.5867	0.0030	70,436.0823	155.2851	0.0010	22,787.3427	50.2375	0.0009	20,952.1205	46.1916
San Diego	2035	LDT2	Aggregate	Aggregate	Diesel	2,124.4569	88,897.5151	88,897.5151	0.0000	9,911.9450	0.0256	2,272.0942	5.0091	0.0368	3,273.8168	7.2175	0.2664	23,683.3754	52.2129	0.0027	239.7455	0.5285	0.0046	405.6877	0.8944	0.0044	388.1378	0.8557
San Diego	2035	LDT2	Aggregate	Aggregate	Electricity	15,409.8375	531,116.4945	0.0000	531,116.4945	75,330.9818	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LDT2	Aggregate	Aggregate	Plug-in Hybrid	11,787.5600	534,718.9128	222,062.8091	312,656.1037	48,741.5606	0.0016	840.7582	1.8536	0.0030	1,612.0792	3.5540	0.2064	110,353.4541	243.2879	0.0013	669.0591	1.4750	0.0003	174.7986	0.3854	0.0003	160.7209	0.3543
San Diego	2035	LHD1	Aggregate	Aggregate	Gasoline	34,320.5996	1,382,832.6061	1,382,832.6061	0.0000	511,325.7963	0.0095	13,143.9973	28.9776	0.0558	77,203.2515	170.2042	0.6626	916,217.9698	2,019.9165	0.0077	10,629.0658	23.4331	0.0013	1,851.0826	4.0809	0.0012	1,702.0021	3.7523
San Diego	2035	LHD1	Aggregate	Aggregate	Diesel	26,680.7503	1,039,152.4287	1,039,152.4287	0.0000	335,610.2747	0.1191	123,742.3050	272.8053	0.7046	732,202.0308	1,614.2305	0.3181	330,589.2173	728.8251	0.0058	6,005.4029	13.2397	0.0258	26,833.0053	59.1567	0.0247	25,672.2214	56.5976
San Diego	2035	LHD1	Aggregate	Aggregate	Electricity	12,327.9834	735,137.5642	0.0000	735,137.5642	172,166.1928	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LHD2	Aggregate	Aggregate	Gasoline	4,925.0193	188,890.3519	188,890.3519	0.0000	73,375.4495	0.0064	1,203.8903	2.6541	0.0479	9,040.6548	19.9312	0.6064	114,537.2541	252.5116	0.0087	1,650.3780	3.6385	0.0012	231.7730	0.5110	0.0011	213.1067	0.4698
San Diego	2035	LHD2	Aggregate	Aggregate	Diesel	12,150.4903	468,652.3681	468,652.3681	0.0000	152,837.8831	0.1246	58,387.1785	128.7218	0.6717	314,805.3816	694.0276	0.3261	152,808.7675	336.8859	0.0068	3,177.5799	7.0054	0.0266	12,486.1914	27.5274	0.0255	11,946.0443	26.3365
San Diego	2035	LHD2	Aggregate	Aggregate	Electricity	3,263.8802	185,714.7364	0.0000	185,714.7364	43,252.0323	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	MCY	Aggregate	Aggregate	Gasoline	67,054.2107	400,554.5443	400,554.5443	0.0000	134,108.4213	1.1177	447,712.4712	987.0378	0.5167	206,977.3234	456.3073	11.6204	4,654,592.0015	10,261.6272	0.0020	797.0587	1.7572	0.0026	1,050.6244	2.3162	0.0024	980.0414	2.1606
San Diego	2035	MDV	Aggregate	Aggregate	Gasoline	327,359.1965	13,492,450.1773	13,492,450.1773	0.0000	1,503,880.3986	0.0080	107,385.1044	236.7438	0.0369	498,263.3103	1,098.4835	0.6496	8,764,041.1348	19,321.4191	0.0037	49,282.6449	108.6497	0.0010	12,984.0998	28.6251	0.0009	11,938.4005	26.3197
San Diego	2035	MDV	Aggregate	Aggregate	Diesel	4,387.3134	168,660.2634	168,660.2634	0.0000	19,765.1834	0.0141	2,371.0702	5.2273	0.0309	5,209.2599	11.4845	0.3533	59,582.1045	131.3562	0.0036	608.7845	1.3421	0.0028	478.4633	1.0548	0.0027	457.7651	1.0092
San Diego	2035	MDV	Aggregate	Aggregate	Electricity	14,481.7277	495,120.2713	0.0000	495,120.2713	70,609.9122	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	MDV	Aggregate	Aggregate	Plug-in Hybrid	7,296.1039	337,826.5912	140,300.5042	197,526.0869	30,169.3897	0.0016	531.1956	1.1711	0.0030	1,018.5205	2.2455	0.2064	69,725.5498	153.7186	0.0013	422.7219	0.9319	0.0003	113.4261	0.2501	0.0003	104.2911	0.2299
San Diego	2035	MH	Aggregate	Aggregate	Gasoline	5,736.2940	58,799.1371	58,799.1371	0.0000	573.8589	0.0171	1,002.7160	2.2106	0.1592	9,360.2578	20.6359	0.2681	15,765.0040	34.7559	0.0193	1,132.1567	2.4960	0.0014	81.0063	0.1786	0.0013	74.4823	0.1642
San Diego	2035	MH	Aggregate	Aggregate	Diesel	3,571.2912	33,466.8088	33,466.8088	0.0000	357.1291	0.1126	3,769.3054	8.3099	3.5019	117,197.9319	258.3774	0.3633	12,159.0100	26.8061	0.0103	344.2067	0.7588	0.0725	2,427.3839	5.3515	0.0694	2,322.3763	5.1200
San Diego	2035	Motor Coach	Aggregate	Aggregate	Diesel	201.7087	24,395.2478	24,395.2478	0.0000	4,635.2659	0.0117	284.9055	0.6281	1.1918	29,075.0302	64.0995	0.0468	1,140.5155	2.5144	0.0151	368.9055	0.8133	0.0269	655.1526	1.4444	0.0257	626.8110	1.3819
San Diego	2035	OBUS	Aggregate	Aggregate	Gasoline	756.7053	30,803.7903	30,803.7903	0.0000	15,140.1589	0.0433	1,332.6720	2.9380	0.3018	9,297.1473	20.4967	0.9476	29,189.0265	64.3508	0.0160	493.9322	1.0889	0.0013	39.6354	0.0874	0.0012	36.4433	0.0803
San Diego	2035	OBUS	Aggregate	Aggregate	Electricity	132.5180	11,904.7212	0.0000	11,904.7212	2,651.4192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	PTO	Aggregate	Aggregate	Diesel	0.0000	31,790.1151	31,790.1151	0.0000	0.0000	0.0168	532.5214	1.1740	2.7352	86,952.1146	191.6968	0.2018	6,413.8702	14.1402	0.0175	555.4020	1.2245	0.0043	136.9917	0.3020	0.0041	131.0655	0.2890
San Diego	2035	PTO	Aggregate	Aggregate	Electricity	0.0000	11,053.8171	0.0000	11,053.8171	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	SBUS	Aggregate	Aggregate	Gasoline	276.7596	16,522.8023	16,522.8023	0.0000	1,107.0386	0.0121	200.0257	0.4410	0.1483	2,450.0495	5.4014	0.2746	4,536.3663	10.0010	0.0075	123.1468	0.2715	0.0010	16.7572	0.0369	0.0009	15.4076	0.0340
San Diego	2035	SBUS	Aggregate	Aggregate	Diesel	1,621.5962	35,557.7510	35,557.7510	0.0000	23,480.7135	0.0302	1,075.6206	2.3713	1.5511	55,155.1998	121.5965	0.1110	3,948.4681	8.7049	0.0101	360.8143	0.7955	0.0101	359.8841	0.7934	0.0097	344.3157	0.7591
San Diego	2035	SBUS	Aggregate	Aggregate	Electricity	435.4153	13,718.9354	0.0000	13,718.9354	5,605.3634	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	SBUS	Aggregate	Aggregate	Natural Gas	28.3570	659.1719	659.1719	0.0000	410.6095	0.0368	24.2592	0.0535	0.2544	167.6876	0.3697	7.5977	5,008.1655	11.0411	0.0000	0.0000	0.0000	0.0037	2.4220	0.0053	0.0034	2.2269	0.0049
San Diego	2035	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	6.4941	429.1453	429.1453	0.0000	149.2340	0.0060	2.5886	0.0057	0.2198	94.3165	0.2079	0.0297	12.7310	0.0281	0.0099	4.2676	0.0094	0.0060	2.5630	0.0057	0.0057	2.4521	0.0054
San Diego	2035	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	2.8913	233.5943	0.0000	233.5943	66.4427	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	8.1353	593.4600	593.4600	0.0000	186.9494	0.0058	3.4315	0.0076	0.2209	131.1238	0.2891	0.0292	17.3067	0.0382	0.0100	5.9131	0.0130	0.0059	3.4899	0.0077	0.0056	3.3389	0.0074
San Diego	2035	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	3.5173	315.6997	0.0000	315.6997	80.8277	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	34.7073	1,512.0634	1,512.0634	0.0000	797.5738	0.0057	8.6558	0.0191	0.2034	307.5088	0.6779	0.0287	43.4119	0.0957	0.0099	14.9413	0.0329	0.0058	8.6980	0.0192	0.0055	8.3218	0.0183
San Diego	2035	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	16.4801	863.5967	0.0000	863.5967	378.7120	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	63.2548	12,298.2282	12,298.2282	0.0000	1,453.5952	0.0059	72.8233	0.1605	0.2258	2,777.1808	6.1226	0.0304	373.4826	0.8234	0.0088	107.8299	0.2377	0.0060	74.1474	0.1635	0.0058	70.9398	0.1564
San Diego	2035	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	12.1618	2,603.1126	0.0000	2,603.1126	279.4793	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	817.4687	26,557.4738	26,557.4738	0.0000	11,665.2782	0.0114	302.2065	0.6663	0.5653	15,012.4077	33.0967	0.0723	1,920.3134	4.2336	0.0104	276.8841	0.6104	0.0041	108.2549	0.2387	0.0039	103.5719	0.2283
San Diego	2035	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	254.9537	9,848.8422	0.0000	9,848.8422	3,638.1894	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	15.5993	501.8479	501.8479	0.0000	222.6019	0.0123	6.1482	0.0136	0.0860	43.1504	0.0951	3.7656	1,889.7543	4.1662	0.0000	0.0000	0.0000	0.0019	0.9389	0.0021	0.0017	0.8633	0.0019
San Diego	2035	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	623.2766	20,177.3620	20,177.3620	0.0000	8,894.1577	0.0085	171.3981	0.3779	0.4890	9,867.1332	21.7533	0.0629	1,269.8497	2.7995	0.0105	211.2513	0.4657	0.0030	60.6292	0.1337	0.0029	58.0064	0.1279
San Diego	2035	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	190.7068	7,384.5412	0.0000	7,384.5412	2,721.3859	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	14.0270	442.3381	442.3381	0.0000	200.1649	0.0123	5.4243	0.0120	0.0847	37.4439	0.0825	3.7689	1,667.1150	3.6754	0.0000	0.0000	0.0000	0.0019	0.8310	0.0018	0.0017	0.7640	0.0017
San Diego	2035	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	1,855.4376	60,173.8701	60,173.8701	0.0000	26,477.0939	0.0095	573.6134	1.2646	0.5265	31,684.0922	69.8515	0.0666	4,010.1422	8.8409	0.0104	627.9113	1.3843	0.0033	199.0154	0.4388	0.0032	190.4061	0.4198
San Diego	2035	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	573.2585	22,118.1325	0.0000	22,118.1325	8,180.3990	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	38.7890	1,233.9535	1,233.9535	0.0000	553.5193	0.0122	15.0876	0.0333	0.0888	109.6167	0.2417	3.7602	4,639.9468	10.2293	0.0000	0.0000	0.0000	0.0019	2.2893	0.0050	0.0017	2.1049	0.0046
San Diego	2035	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	578.3290	28,084.0829	28,084.0829	0.0000	8,252.7555	0.0092	259.1401	0.5713	0.7703	21,633.8368	47.6945	0.0791	2,222.5309	4.8998	0.0109	306.0619	0.6748	0.0028	79.3846	0.1750	0.0027	75.9505	0.1674
San Diego	2035	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	80.3240	4,263.5605	0.0000	4,263.5605	1,146.2231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	5.6512	272.3199	272.3199	0.0000	80.6432	0.0124	3.3692	0.0074	0.0718	19.5390	0.0431	3.7951	1,033.4681	2.2784	0.0000	0.0000	0.0000	0.0020	0.5311	0.0012	0.0018	0.4884	0.0011
San Diego	2035	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1,764.8150	67,417.9558	67,417.9558	0.0000	20,401.2617	0.0092	622.1258	1.3716	0.4267	28,765.8902	63.4180	0.0547	3,684.8481	8.1237	0.0100	676.1871	1.4907	0.0050	334.5164	0.7375	0.0047	320.0454	0.7056
San Diego	2035	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	578.5402	27,482.6553	0.0000	27,482.6553	6,687.9242	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	34.0948	1,294.3388	1,294.3388	0.0000	394.1358	0.0098	12.6676	0.0279	0.0687	88.9168	0.1960	2.6982	3,492.3852	7.6994	0.0000	0.0000	0.0000	0.0015	1.8977	0.0042	0.0013	1.7449	0.0038
San Diego	2035	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	3,340.5536	127,068.4785	127,068.4785	0.0000	38,616.8001	0.0064	811.8939	1.7899	0.3491	44,365.4990	97.8093	0.0460	5,850.3701	12.8979	0.0101	1,280.4237	2.8229	0.0036	462.7055	1.0201	0.0035	442.6891	0.9760
San Diego	2035	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	1,087.6349	51,840.3169	0.0000	51,840.3169	12,573.0595	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	77.6893	2,819.0129	2,819.0129	0.0000	898.0885	0.0098	27.4927	0.0606	0.0721	203.1411	0.4478	2.7044	7,623.6469	16.8073	0.0000	0.0000	0.0000	0.0014	4.0839	0.0090	0.0013	3.7550	0.0083
San Diego	2035	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	3,285.1039	125,398.8982	125,398.8982	0.0000	37,975.8009	0.0074	923.0755	2.0350	0.3719	46,639.8710	102.8234	0.0490	6,142.2964	13.5415	0.0101	1,261.5242	2.7812	0.0041	511.7737	1.1283	0.0039	489.6346	1.0795
San Diego	2035	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	1,067.6353	50,765.9360	0.0000	50,765.9360	12,341.8638	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	80.0355	2,892.6369	2,892.6369	0.0000	925.2099	0.0098	28.3235	0.0624	0.0683	197.5617	0.4355	2.6979	7,804.1444	17.2052	0.0000	0.0000	0.0000	0.0015	4.2482	0.0094	0.0014	3.9061	0.0086
San Diego	2035	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	1,885.3654	67,568.2215	67,568.2215	0.0000	21,794.8242	0.0089	600.6901	1.3243	0.6451	43,589.8115	96.0992	0.0616	4,165.3673	9.1831	0.0102	687.9505	1.5167	0.0048	327.1698	0.7213	0.0046	313.0166	0.6901
San Diego	2035	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	295.6225	19,298.5726	0.0000	19,298.5726	3,417.3958	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	14.1897	538.5638	538.5638	0.0000	164.0325	0.0099	5.3089	0.0117	0.0621	33.4635	0.0738	2.6889	1,448.1640	3.1927	0.0000	0.0000	0.0000	0.0015	0.8092	0.0018	0.0014	0.7441	0.0016
San Diego	2035	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	16.6799	741.0431	741.0431	0.0000	192.8197	0.0098	7.2975	0.0161	0.4632	343.2800	0.7568	0.0570	42.2293	0.0931	0.0100	7.3817	0.0163	0.0051	3.8052	0.0084	0.0049	3.6406	0.0080
San Diego	2035	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	5.1796	311.9692	0.0000	311.9692	59.8763	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	0.3562	15.0271	15.0271	0.0000	4.1172	0.0098	0.1470	0.0003	0.0693	1.0407	0.0023	2.6993	40.5623	0.0894	0.0000	0.0000	0.0000	0.0015	0.0220	0.0000	0.0013	0.0202	0.0000
San Diego	2035	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	563.8221	29,004.9339	29,004.9339	0.0000	6,517.7830	0.0090	261.0821	0.5756	0.7540	21,870.9526	48.2172	0.0655	1,900.7537	4.1904	0.0095	276.5754	0.6097	0.0051	148.7385	0.3279	0.0049	142.3041	0.3137
San Diego	2035	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	40.5130	3,245.7685	0.0000	3,245.7685	468.3301	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	3.4502	185.5455	185.5455	0.0000	39.8842	0.0098	1.8250	0.0040	0.0642	11.9097	0.0263	2.6924	499.5551	1.1013	0.0000	0.0000	0.0000	0.0015	0.2768	0.0006	0.0014	0.2545	0.0006

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on totalVMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	TotalVMT	CVMT	EVMT	Trips	ROG_RUNEX	ROG_grams	ROG_pounds	NOx_RUNEX	NOx_grams	NOx_pounds	CO_RUNEX	CO_grams	CO_pounds	SOx_RUNEX	SOx_grams	SOx_pounds	PM10_RUNEX	PM10_grams	PM10_pounds	PM2.5_RUNEX	PM2.5_grams	PM2.5_pounds
San Diego	2035	T6 OOS Class 4	Aggregate	Aggregate	Diesel	5.4079	377.7427	377.7427	0.0000	124.2732	0.0071	2.6879	0.0059	0.2768	104.5613	0.2305	0.0316	11.9477	0.0263	0.0093	3.4967	0.0077	0.0066	2.4767	0.0055	0.0063	2.3696	0.0052
San Diego	2035	T6 OOS Class 5	Aggregate	Aggregate	Diesel	6.7127	518.1951	518.1951	0.0000	154.2575	0.0059	3.0632	0.0068	0.2545	131.7661	0.2905	0.0287	14.8822	0.0328	0.0093	4.8080	0.0106	0.0060	3.0967	0.0068	0.0057	2.9627	0.0065
San Diego	2035	T6 OOS Class 6	Aggregate	Aggregate	Diesel	29.3863	1,354.0587	1,354.0587	0.0000	675.2982	0.0062	8.3952	0.0185	0.2477	335.4666	0.7396	0.0292	39.5798	0.0873	0.0092	12.4450	0.0274	0.0061	8.2421	0.0182	0.0058	7.8856	0.0174
San Diego	2035	T6 OOS Class 7	Aggregate	Aggregate	Diesel	37.1372	9,845.6904	9,845.6904	0.0000	853.4136	0.0058	56.8348	0.1253	0.2514	2,475.4421	5.4574	0.0296	291.7591	0.6432	0.0084	83.0113	0.1830	0.0060	59.5580	0.1313	0.0058	56.9815	0.1256
San Diego	2035	T6 Public Class 4	Aggregate	Aggregate	Diesel	230.8586	8,216.6046	8,216.6046	0.0000	1,184.2022	0.0336	276.1498	0.6088	1.8543	15,234.5741	33.5865	0.1008	828.3453	1.8262	0.0108	88.9357	0.1961	0.0100	82.1874	0.1812	0.0096	78.6320	0.1734
San Diego	2035	T6 Public Class 4	Aggregate	Aggregate	Electricity	53.5237	2,262.9758	0.0000	2,262.9758	274.5767	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 4	Aggregate	Aggregate	Natural Gas	2.4303	90.9376	90.9376	0.0000	12.4674	0.0125	1.1409	0.0025	0.0705	6.4083	0.0141	3.0572	278.0173	0.6129	0.0000	0.0000	0.0000	0.0017	0.1578	0.0003	0.0016	0.1451	0.0003
San Diego	2035	T6 Public Class 5	Aggregate	Aggregate	Diesel	524.0969	18,100.3685	18,100.3685	0.0000	2,688.8169	0.0202	365.4401	0.8057	0.9768	17,680.9669	38.9799	0.0776	1,404.5459	3.0965	0.0109	196.5964	0.4334	0.0056	101.3761	0.2235	0.0054	96.9906	0.2138
San Diego	2035	T6 Public Class 5	Aggregate	Aggregate	Electricity	123.4182	5,226.6457	0.0000	5,226.6457	633.1353	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 5	Aggregate	Aggregate	Natural Gas	7.5243	256.0098	256.0098	0.0000	38.5098	0.0125	3.1423	0.0069	0.1152	29.4882	0.0650	3.0737	786.8660	1.7348	0.0000	0.0000	0.0000	0.0015	0.3899	0.0009	0.0014	0.3585	0.0008
San Diego	2035	T6 Public Class 6	Aggregate	Aggregate	Diesel	346.0854	12,284.7768	12,284.7768	0.0000	1,775.4179	0.0254	311.7592	0.6873	1.5352	18,859.8776	41.5789	0.0849	1,043.5361	2.3006	0.0108	132.1854	0.2914	0.0082	100.8184	0.2223	0.0079	96.4570	0.2127
San Diego	2035	T6 Public Class 6	Aggregate	Aggregate	Electricity	81.8241	3,420.7466	0.0000	3,420.7466	419.7575	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 6	Aggregate	Aggregate	Natural Gas	3.7553	138.5807	138.5807	0.0000	19.2645	0.0125	1.7315	0.0038	0.0789	10.9364	0.0241	3.0623	424.3764	0.9356	0.0000	0.0000	0.0000	0.0017	0.2349	0.0005	0.0016	0.2160	0.0005
San Diego	2035	T6 Public Class 7	Aggregate	Aggregate	Diesel	638.1319	27,037.9591	27,037.9591	0.0000	3,273.7192	0.0228	616.1258	1.3583	1.2727	34,410.4084	75.8620	0.0782	2,113.3442	4.6605	0.0106	287.8788	0.6347	0.0074	200.3823	0.4418	0.0071	191.7139	0.4227
San Diego	2035	T6 Public Class 7	Aggregate	Aggregate	Electricity	139.5908	7,894.0794	0.0000	7,894.0794	716.1009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 7	Aggregate	Aggregate	Natural Gas	7.8972	337.5456	337.5456	0.0000	40.5127	0.0125	4.2113	0.0093	0.0819	27.6317	0.0609	3.0605	1,033.0434	2.2775	0.0000	0.0000	0.0000	0.0017	0.5675	0.0013	0.0015	0.5218	0.0012
San Diego	2035	T6 Utility Class 5	Aggregate	Aggregate	Diesel	141.5480	5,596.3090	5,596.3090	0.0000	1,811.8145	0.0053	29.4766	0.0650	0.2274	1,272.4879	2.8054	0.0368	206.0391	0.4542	0.0099	55.5369	0.1224	0.0024	13.5130	0.0298	0.0023	12.9285	0.0285
San Diego	2035	T6 Utility Class 5	Aggregate	Aggregate	Electricity	74.4839	3,175.7562	0.0000	3,175.7562	953.3944	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Utility Class 6	Aggregate	Aggregate	Diesel	33.9402	1,344.6070	1,344.6070	0.0000	434.4343	0.0052	7.0259	0.0155	0.2208	296.9274	0.6546	0.0368	49.5224	0.1092	0.0099	13.3256	0.0294	0.0024	3.1960	0.0070	0.0023	3.0577	0.0067
San Diego	2035	T6 Utility Class 6	Aggregate	Aggregate	Electricity	17.8650	761.6092	0.0000	761.6092	228.6722	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Utility Class 7	Aggregate	Aggregate	Diesel	32.7752	1,559.6562	1,559.6562	0.0000	418.5223	0.0052	8.0440	0.0177	0.2158	336.5164	0.7419	0.0366	57.0273	0.1257	0.0099	15.4461	0.0341	0.0024	3.6968	0.0081	0.0023	3.5254	0.0078
San Diego	2035	T6 Utility Class 7	Aggregate	Aggregate	Electricity	17.4335	995.9962	0.0000	995.9962	223.1486	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6TS	Aggregate	Aggregate	Gasoline	2,684.4115	154,914.0761	154,914.0761	0.0000	53,709.7058	0.0190	2,940.3736	6.4824	0.1230	19,052.4912	42.0036	0.3294	51,038.5863	112.5209	0.0160	2,482.2849	5.4725	0.0015	225.6444	0.4975	0.0013	207.4717	0.4574
San Diego	2035	T6TS	Aggregate	Aggregate	Electricity	706.2990	63,565.1901	0.0000	63,565.1901	14,131.6301	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 CARP Class 8	Aggregate	Aggregate	Diesel	2,202.4833	456,145.8311	456,145.8311	0.0000	58,613.0674	0.0116	5,293.3748	11.6699	1.2499	570,123.5815	1,256.9083	0.0398	18,168.0602	40.0537	0.0124	5,669.9683	12.5002	0.0309	14,091.1176	31.0656	0.0296	13,481.5421	29.7217
San Diego	2035	T7 CARP Class 8	Aggregate	Aggregate	Electricity	437.0250	97,203.9940	0.0000	97,203.9940	10,042.8338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 CARP Class 8	Aggregate	Aggregate	Natural Gas	1.9197	395.7141	395.7141	0.0000	44.1144	0.0134	5.2879	0.0117	0.1523	60.2862	0.1329	2.8812	1,140.1395	2.5136	0.0000	0.0000	0.0000	0.0020	0.7782	0.0017	0.0018	0.7155	0.0016
San Diego	2035	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	2,284.1469	654,697.9466	654,697.9466	0.0000	52,489.6946	0.0112	7,364.5212	16.2360	1.3396	877,007.9415	1,933.4731	0.0387	25,320.9334	55.8231	0.0119	7,762.0271	17.1124	0.0297	19,431.2080	42.8385	0.0284	18,590.6226	40.9853
San Diego	2035	T7 NOOS Class 8	Aggregate	Aggregate	Diesel	987.2666	237,840.1346	237,840.1346	0.0000	22,687.2869	0.0116	2,754.2774	6.0721	1.3750	327,088.5462	721.0972	0.0397	9,437.0694	20.8052	0.0119	2,832.2686	6.2441	0.0314	7,471.2523	16.4713	0.0301	7,148.0492	15.7588
San Diego	2035	T7 Other Port Class 8	Aggregate	Aggregate	Diesel	475.4040	126,582.1890	126,582.1890	0.0000	7,779.0824	0.0100	1,265.7033	2.7904	1.2518	158,457.2539	349.3387	0.0633	8,008.2237	17.6551	0.0133	1,685.0786	3.7150	0.0166	2,107.5134	4.6463	0.0159	2,016.3433	4.4453
San Diego	2035	T7 Other Port Class 8	Aggregate	Aggregate	Electricity	70.8213	23,051.9908	0.0000	23,051.9908	1,158.6368	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 POLA Class 8	Aggregate	Aggregate	Diesel	240.4628	45,017.4476	45,017.4476	0.0000	3,833.8778	0.0113	510.8937	1.1263	1.5873	69,296.0881	152.7534	0.0839	3,776.9853	8.3268	0.0146	657.1946	1.4488	0.0208	936.9759	2.0657	0.0199	896.4428	1.9763
San Diego	2035	T7 POLA Class 8	Aggregate	Aggregate	Electricity	17.6806	3,206.8122	0.0000	3,206.8122	289.2550	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Public Class 8	Aggregate	Aggregate	Diesel	1,349.1779	54,669.6102	54,669.6102	0.0000	6,921.2825	0.0550	3,005.3281	6.6256	3.4769	190,079.0120	419.0528	0.2106	11,515.3777	25.3871	0.0163	889.5094	1.9610	0.0158	861.8811	1.9001	0.0151	824.5965	1.8179
San Diego	2035	T7 Public Class 8	Aggregate	Aggregate	Electricity	250.1510	14,223.5105	0.0000	14,223.5105	1,283.2746	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Public Class 8	Aggregate	Aggregate	Natural Gas	10.6039	439.1700	439.1700	0.0000	54.3980	0.0244	10.7309	0.0237	0.2817	123.7275	0.2728	8.1638	3,584.9637	7.9035	0.0000	0.0000	0.0000	0.0033	1.4335	0.0032	0.0030	1.3180	0.0029
San Diego	2035	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Diesel	261.4696	16,781.7487	16,781.7487	0.0000	2,463.0433	0.0088	147.1093	0.3243	0.8599	14,429.8215	31.8126	0.0453	759.8529	1.6751	0.0142	238.5189	0.5258	0.0143	240.2030	0.5296	0.0137	229.8119	0.5066
San Diego	2035	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Electricity	132.6048	10,525.2557	0.0000	10,525.2557	1,249.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Natural Gas	20.6326	1,299.4774	1,299.4774	0.0000	194.3591	0.0152	19.8067	0.0437	0.1737	225.7741	0.4977	4.1765	5,427.2508	11.9650	0.0000	0.0000	0.0000	0.0022	2.9022	0.0064	0.0021	2.6684	0.0059
San Diego	2035	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	837.4194	41,010.1145	41,010.1145	0.0000	7,888.4910	0.0128	525.1827	1.1578	1.3131	53,862.8940	118.7475	0.0723	2,964.8766	6.5364	0.0148	605.7136	1.3354	0.0185	758.5752	1.6724	0.0177	725.7596	1.6000
San Diego	2035	T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	167.4292	12,793.1661	0.0000	12,793.1661	1,577.1890	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	66.1881	3,200.7427	3,200.7427	0.0000	623.4916	0.0152	48.6419	0.1072	0.2778	889.2654	1.9605	5.6028	17,933.1032	39.5358	0.0000	0.0000	0.0000	0.0020	6.4047	0.0141	0.0018	5.8889	0.0130
San Diego	2035	T7 Single Other Class 8	Aggregate	Aggregate	Diesel	2,041.0548	90,766.2519	90,766.2519	0.0000	19,226.7360	0.0105	957.3974	2.1107	1.1264	102,237.3428	225.3449	0.0582	5,278.7661	11.6377	0.0146	1,324.2682	2.9195	0.0172	1,556.8409	3.4322	0.0164	1,489.4926	3.2838
San Diego	2035	T7 Single Other Class 8	Aggregate	Aggregate	Electricity	463.0018	32,358.8156	0.0000	32,358.8156	4,644.0679	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	160.0856	7,034.0445	7,034.0445	0.0000	1,508.8060	0.0152	107.0327	0.2360	0.2333	1,641.0743	3.6180	4.9322	35,115.5586	77.4166	0.0000	0.0000	0.0000	0.0021	14.7746	0.0326	0.0019	13.5847	0.0299
San Diego	2035	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	194.8508	12,651.9028	12,651.9028	0.0000	896.3137	0.0233	294.7987	0.6499	10.3066	130,397.9137	287.4384	0.0630	797.1631	1.7574	0.0391	494.2202	1.0896	0.0129	162.6856	0.3587	0.0123	155.6479	0.3431
San Diego	2035	T7 SWCV Class 8	Aggregate	Aggregate	Electricity	238.1486	15,266.1512	0.0000	15,266.1512	1,095.4835	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	987.6303	64,032.4251	64,032.4251	0.0000	4,543.0991	0.0390	2,495.7734	5.5022	0.7892	50,534.9826	111.4107	11.2908	722,978.7857	1,593.8967	0.0000	0.0000	0.0000	0.0119	118.8622	0.2620	0.0017	109.2894	0.2409
San Diego	2035	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	5,897.4436	375,121.0727	375,121.0727	0.0000	85,689.8557	0.0110	4,114.3011	9.0705	1.2820	480,902.2563	1,060.2089	0.0544	20,410.1131	44.9966	0.0130	4,880.9680	10.7607	0.0228	8,556.2210	18.8633	0.0218	8,186.0827	18.0472
San Diego	2035	T7 Tractor Class 8	Aggregate	Aggregate	Electricity	546.8080	42,371.0873	0.0000	42,371.0873	7,945.5205	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	82.5587	5,223.4809	5,223.4809	0.0000	1,193.5778	0.0145	75.9978	0.1675	0.2034	1,062.4762	2.3424	4.3283	22,628.6271	49.8935	0.0000	0.0000	0.0000	0.0021	10.7825	0.0238	0.0019	9.9142	0.0219
San Diego	2035	T7 Utility Class 8	Aggregate	Aggregate	Diesel	131.4577	5,404.2082	5,404.2082	0.0000	1,682.6588	0.0117	63.1060	0.1391	1.1543	6,237.9249	13.7523	0.1124	607.2277	1.3387	0.0153	82.8636	0.1827	0.0074	39.7238	0.0876	0.0070	38.0054	0.0838
San Diego	2035	T7 Utility Class 8	Aggregate	Aggregate	Electricity	27.0411	1,522.3230	0.0000	1,522.3230	346.1256	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7TS	Aggregate	Aggregate	Gasoline	3.2333	480.1027	480.1027	0.0000	64.6923	0.4494	215.7435	0.4756	2.5555	1,226.8831	2.7048	29.9674	14,387.4095	31.7198	0.0187	8.9701	0.0198	0.0015	0.7374	0.0016	0.0014	0.6781	0.0015
San Diego	2035	T7TS	Aggregate	Aggregate	Electricity	0.7428	185.9512	0.0000	185.9512	14.8621	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	UBUS	Aggregate	Aggregate	Gasoline	179.2514	18,446.7573	18,446.7573	0.0000	717.8058	0.0034	63.4207	0.1398	0.0233	430.5872	0.9493	0.5860	10,810.2938	23.8326	0.0085	157.6605	0.3476	0.0013	23.8464	0.0526	0.0012	21.9259	0.0483
San Diego	2035	UBUS	Aggregate	Aggregate	Electricity	740.4327	90,624.4418	0.0000	90,624.4418	2,961.7307	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	UBUS	Aggregate	Aggregate	Natural Gas	536.8489	65,734.8260	65,734.8260	0.0000	2,147.3956	0.0642	4,219.9530	9.3034	0.0645	4,239.6276	9.3468	53.3612	3,507,690.9956	7,733.1412	0.0000	0.0000	0.0000	0.0003	20.5563	0.0453	0.0003	19.6670	0.0434
							105,678,540.3637				2,762.2773		6.0905	16,862.1809			136,801.9680			686.0677			420.0586			394.7909	
										Pounds per Mile	0.00002614			0.00015956			0.00129451			0.00000649			0.00000397			0.00000374	

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSt

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO2_RUNEX	CO2_grams	CO2_pounds	CH4_RUNEX	CH4_grams	CH4_pounds	N2O_RUNEX	N2O_grams	N2O_pounds
San Diego	2035	All Other Buses	Aggregate	Aggregate	Diesel	1,049.9825	27,767,544.0464	61,217.0057	0.0037	96.6143	0.2130	0.1654	4,374.7879	9.6448
San Diego	2035	All Other Buses	Aggregate	Aggregate	Natural Gas	974.5810	5,080,874.1477	11,201.4192	0.8260	4,306.3333	9.4938	0.1987	1,035.7694	2.2835
San Diego	2035	LDA	Aggregate	Aggregate	Gasoline	248.9314	11,538,163,308.3054	25,438,198.4433	0.0015	69,528.2220	153.2836	0.0035	160,839.9825	354.5898
San Diego	2035	LDA	Aggregate	Aggregate	Diesel	221.8952	10,018,487.6360	22,087.0025	0.0009	39.5789	0.0873	0.0350	1,578.4158	3.4798
San Diego	2035	LDA	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LDA	Aggregate	Aggregate	Plug-in Hybrid	128.7485	281,961,304.2374	621,615.0773	0.0005	1,081.8623	2.3851	0.0005	1,163.4520	2.5650
San Diego	2035	LDT1	Aggregate	Aggregate	Gasoline	304.9026	1,033,621,012.4140	2,278,743.9206	0.0036	12,158.6434	26.8052	0.0055	18,751.1390	41.3392
San Diego	2035	LDT1	Aggregate	Aggregate	Diesel	370.5214	10,767.3401	23.7379	0.0012	0.0347	0.0001	0.0584	1.6964	0.0037
San Diego	2035	LDT1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LDT1	Aggregate	Aggregate	Plug-in Hybrid	124.7193	6,177,917.1697	13,618.4006	0.0005	23.8679	0.0526	0.0055	25.7741	0.0568
San Diego	2035	LDT2	Aggregate	Aggregate	Gasoline	304.8258	7,124,818,275.4637	15,707,348.3595	0.0021	49,640.3112	109.4382	0.0041	96,729.4501	213.2521
San Diego	2035	LDT2	Aggregate	Aggregate	Diesel	284.6153	25,301,595.5031	55,780.5153	0.0012	105.5344	0.2327	0.0448	3,986.2767	8.7882
San Diego	2035	LDT2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LDT2	Aggregate	Aggregate	Plug-in Hybrid	126.5661	67,677,308.4700	149,203.0469	0.0005	260.3999	0.5741	0.0055	280.0484	0.6174
San Diego	2035	LHD1	Aggregate	Aggregate	Gasoline	777.5066	1,075,161,478.6269	2,370,327.2514	0.0024	3,270.5965	7.2104	0.0036	4,954.7777	10.9234
San Diego	2035	LHD1	Aggregate	Aggregate	Diesel	609.8025	633,781,612.3952	1,397,250.4197	0.0055	5,747.5935	12.6713	0.0961	99,852.5511	220.1374
San Diego	2035	LHD1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	LHD2	Aggregate	Aggregate	Gasoline	883.7965	166,940,622.7167	368,041.3736	0.0017	328.7904	0.7249	0.0037	698.3275	1.5395
San Diego	2035	LHD2	Aggregate	Aggregate	Diesel	715.5552	333,346,643.3184	735,113.3991	0.0058	2,711.9728	5.9789	0.1127	52,834.0002	116.4791
San Diego	2035	LHD2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	MCY	Aggregate	Aggregate	Gasoline	201.2831	80,624,849.5994	177,747.3123	0.1779	71,242.1979	157.0623	0.0375	15,036.7395	33.1505
San Diego	2035	MDV	Aggregate	Aggregate	Gasoline	369.4722	4,985,085,450.9902	10,990,241.1220	0.0023	30,714.3542	67.7136	0.0043	58,383.8241	128.7144
San Diego	2035	MDV	Aggregate	Aggregate	Diesel	380.9327	64,248,213.9074	141,643.1813	0.0007	110.1317	0.2428	0.0600	10,122.3323	22.3159
San Diego	2035	MDV	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	MDV	Aggregate	Aggregate	Plug-in Hybrid	126.5725	42,759,572.2890	94,268.7972	0.0005	164.9770	0.3637	0.0055	177.8926	0.3922
San Diego	2035	MH	Aggregate	Aggregate	Gasoline	1,947.6647	114,521,002.8184	252,475.7994	0.0053	309.8971	0.6832	0.0149	878.3530	1.9364
San Diego	2035	MH	Aggregate	Aggregate	Diesel	1,085.4316	36,325,931.2074	80,085.0358	0.0052	175.0770	0.3860	0.1710	5,723.1653	12.6174
San Diego	2035	Motor Coach	Aggregate	Aggregate	Diesel	1,596.9354	38,957,633.9394	85,886.9511	0.0005	13.2331	0.0292	0.2516	6,137.7911	13.5315
San Diego	2035	OBUS	Aggregate	Aggregate	Gasoline	1,621.9861	49,962,755.0306	110,148.8996	0.0091	279.7742	0.6168	0.0157	484.0703	1.0672
San Diego	2035	OBUS	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	PTO	Aggregate	Aggregate	Diesel	1,844.8849	58,652,282.0094	129,306.2532	0.0008	24.7342	0.0545	0.2907	9,240.6909	20.3723
San Diego	2035	PTO	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	SBUS	Aggregate	Aggregate	Gasoline	753.9076	12,456,665.8360	27,462.2697	0.0028	46.1896	0.1018	0.0139	213.6335	0.4710
San Diego	2035	SBUS	Aggregate	Aggregate	Diesel	1,071.5857	38,103,177.5800	84,003.1958	0.0014	49.9598	0.1101	0.1688	6,003.1711	13.2347
San Diego	2035	SBUS	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	SBUS	Aggregate	Aggregate	Natural Gas	1,107.7290	730,183.7837	1,609.7810	2.5758	1,697.8706	3.7432	0.2258	148.8527	0.3282
San Diego	2035	T6 CARP Class 4	Aggregate	Aggregate	Diesel	1,050.1564	450,669.7044	993.5574	0.0003	0.1202	0.0003	0.1655	71.0032	0.1565
San Diego	2035	T6 CARP Class 4	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 CARP Class 5	Aggregate	Aggregate	Diesel	1,052.2057	624,441.9588	1,376.6600	0.0003	0.1594	0.0004	0.1658	98.3811	0.2169
San Diego	2035	T6 CARP Class 5	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 CARP Class 6	Aggregate	Aggregate	Diesel	1,043.5066	1,577,848.1534	3,478.5626	0.0003	0.4620	0.0009	0.1644	248.5906	0.5480
San Diego	2035	T6 CARP Class 6	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 CARP Class 7	Aggregate	Aggregate	Diesel	925.9212	11,387,189.6452	25,104.4764	0.0003	3.3825	0.0075	0.1459	1,794.0564	3.9552
San Diego	2035	T6 CARP Class 7	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1,101.0035	29,239,872.5504	64,462.9371	0.0005	14.0367	0.0309	0.1735	4,696.7538	10.3562
San Diego	2035	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 4	Aggregate	Aggregate	Natural Gas	1,036.7210	520,297.2811	1,147.0468	0.8574	430.3096	0.9487	0.2113	106.0648	0.2338
San Diego	2035	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1,105.6365	22,308,827.4607	49,182.5858	0.0004	7.9610	0.0176	0.1742	3,514.7649	7.7487
San Diego	2035	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 5	Aggregate	Aggregate	Natural Gas	1,046.5772	462,940.9481	1,020.6109	0.8583	379.6376	0.8370	0.2134	94.3735	0.2081
San Diego	2035	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	1,101.9651	66,309,582.7537	146,187.5491	0.0004	26.6429	0.0587	0.1736	10,447.0892	23.0319
San Diego	2035	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 6	Aggregate	Aggregate	Natural Gas	1,040.5824	1,284,030.3188	2,830.8046	0.8558	1,055.9636	2.3280	0.2121	261.7580	0.5771
San Diego	2035	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	1,150.8704	32,321,138.5229	71,255.9713	0.0004	12.0364	0.0265	0.1813	5,092.2085	11.2264
San Diego	2035	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	1,082.8229	294,874.2536	650.0870	0.8659	235.8092	0.5199	0.2207	60.1120	0.1325
San Diego	2035	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1,059.1776	71,407,589.2247	157,429.9062	0.0004	28.8961	0.0637	0.1669	11,250.2941	24.8027
San Diego	2035	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 4	Aggregate	Aggregate	Natural Gas	902.7798	1,168,302.9728	2,576.1102	0.6850	886.5897	1.9546	0.1840	238.2070	0.5252
San Diego	2035	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	1,064.1266	135,216,951.5026	298,102.5933	0.0003	37.7104	0.0831	0.1677	21,303.4858	46.9662
San Diego	2035	T6 Instate Other Class 5	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 5	Aggregate	Aggregate	Natural Gas	908.6694	2,361,561.6819	5,647.2572	0.6826	1,924.1787	4.2421	0.1852	522.1889	1.1512
San Diego	2035	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	1,062.3786	133,221,109.5200	293,702.5113	0.0003	42.8745	0.0945	0.1674	20,989.0401	46.2730
San Diego	2035	T6 Instate Other Class 6	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 6	Aggregate	Aggregate	Natural Gas	912.7747	2,640,325.8357	5,820.9268	0.6853	1,982.3276	4.3703	0.1861	538.2477	1.1866
San Diego	2035	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	1,075.2071	72,649,831.3259	160,165.5923	0.0004	27.9805	0.0615	0.1694	11,446.0105	25.2342
San Diego	2035	T6 Instate Other Class 7	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	923.9170	497,588.2042	1,096.9951	0.6899	371.5602	0.8192	0.1883	101.4366	0.2236
San Diego	2035	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	1,051.9415	779,134.0745	1,718.1799	0.0005	0.3390	0.0007	0.1657	122.8159	0.2708
San Diego	2035	T6 Instate Tractor Class 6	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Tractor Class 6	Aggregate	Aggregate	Natural Gas	904.2630	13,588.4869	29.9575	0.6846	10.2873	0.0227	0.1843	2.7701	0.0061
San Diego	2035	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	1,006.9759	29,207,269.0862	64,391.0587	0.0004	12.1266	0.0267	0.1586	4,601.6171	10.1448
San Diego	2035	T6 Instate Tractor Class 7	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	908.4962	168,567.3907	371.6278	0.6884	127.7319	0.2816	0.1852	34.3636	0.0758

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSt

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO2_RUNEX	CO2_grams	CO2_pounds	CH4_RUNEX	CH4_grams	CH4_pounds	N2O_RUNEX	N2O_grams	N2O_pounds
San Diego	2035	T6 OOS Class 4	Aggregate	Aggregate	Diesel	977.5553	369,264.4392	814.0894	0.0003	0.1248	0.0003	0.1540	58.1778	0.1283
San Diego	2035	T6 OOS Class 5	Aggregate	Aggregate	Diesel	979.8321	507,744.2115	1,119.3853	0.0003	0.1423	0.0003	0.1544	79.9953	0.1764
San Diego	2035	T6 OOS Class 6	Aggregate	Aggregate	Diesel	970.1886	1,314,233.8253	2,897.3922	0.0003	0.3899	0.0009	0.1529	207.0581	0.4565
San Diego	2035	T6 OOS Class 7	Aggregate	Aggregate	Diesel	890.3654	8,766,262.2098	19,326.3157	0.0003	2.6398	0.0058	0.1403	1,381.1282	3.0449
San Diego	2035	T6 Public Class 4	Aggregate	Aggregate	Diesel	1,143.1222	9,391,897.6034	20,705.6068	0.0016	12.8264	0.0283	0.1801	1,479.6973	3.2622
San Diego	2035	T6 Public Class 4	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 4	Aggregate	Aggregate	Natural Gas	987.7696	89,825.3687	198.0312	0.8780	79.8468	0.1760	0.2014	18.3115	0.0404
San Diego	2035	T6 Public Class 5	Aggregate	Aggregate	Diesel	1,147.0058	20,761,226.9541	45,770.7079	0.0009	16.9737	0.0374	0.1807	3,270.9398	7.2112
San Diego	2035	T6 Public Class 5	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 5	Aggregate	Aggregate	Natural Gas	1,002.7404	256,711.3836	565.9522	0.8591	219.9255	0.4849	0.2044	52.3323	0.1154
San Diego	2035	T6 Public Class 6	Aggregate	Aggregate	Diesel	1,136.3014	13,959,209.5206	30,774.8142	0.0012	14.4804	0.0319	0.1790	2,199.2791	4.8486
San Diego	2035	T6 Public Class 6	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 6	Aggregate	Aggregate	Natural Gas	988.2773	136,936.1858	301.9370	0.8745	121.1853	0.2672	0.2015	27.9194	0.0616
San Diego	2035	T6 Public Class 7	Aggregate	Aggregate	Diesel	1,124.3804	30,400,950.4691	67,022.6778	0.0011	28.6174	0.0631	0.1771	4,789.6821	10.5595
San Diego	2035	T6 Public Class 7	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Public Class 7	Aggregate	Aggregate	Natural Gas	992.2825	334,940.5801	738.4182	0.8732	294.7419	0.6498	0.2023	68.2798	0.1505
San Diego	2035	T6 Utility Class 5	Aggregate	Aggregate	Diesel	1,048.0469	5,865,194.1721	12,930.5503	0.0002	1.3691	0.0030	0.1651	924.0657	2.0372
San Diego	2035	T6 Utility Class 5	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Utility Class 6	Aggregate	Aggregate	Diesel	1,046.1689	1,407,223.9388	3,102.4003	0.0002	0.3263	0.0007	0.1649	221.7087	0.4888
San Diego	2035	T6 Utility Class 6	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6 Utility Class 7	Aggregate	Aggregate	Diesel	1,045.8463	1,631,165.7442	3,596.0968	0.0002	0.3736	0.0008	0.1648	256.9900	0.5666
San Diego	2035	T6 Utility Class 7	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T6TS	Aggregate	Aggregate	Gasoline	1,620.4186	251,090,469.2653	553,560.1802	0.0046	707.8794	1.5606	0.0094	1,460.3234	3.2195
San Diego	2035	T6TS	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	1,312.6664	598,767,206.6330	1,320,057.0262	0.0005	245.8636	0.5420	0.2068	94,336.0330	207.9755
San Diego	2035	T7 CAIRP Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 CAIRP Class 8	Aggregate	Aggregate	Natural Gas	1,034.2032	409,248.7271	902.2397	0.9352	370.0912	0.8159	0.2108	83.4280	0.1839
San Diego	2035	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	1,212.0210	819,695,588.1044	1,807,120.8907	0.0005	342.0629	0.7541	0.1973	129,143.3737	284.7126
San Diego	2035	T7 NOOS Class 8	Aggregate	Aggregate	Diesel	1,257.5343	299,096,880.0153	659,396.2857	0.0005	127.9290	0.2820	0.1981	47,122.8353	103.8882
San Diego	2035	T7 Other Port Class 8	Aggregate	Aggregate	Diesel	1,405.8048	177,949,843.9074	392,312.5714	0.0005	58.7886	0.1296	0.2215	28,036.0704	61.8090
San Diego	2035	T7 Other Port Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 POLA Class 8	Aggregate	Aggregate	Diesel	1,441.4436	69,400,859.9701	153,002.8307	0.0005	23.7297	0.0523	0.2429	10,844.1338	24.1057
San Diego	2035	T7 POLA Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Public Class 8	Aggregate	Aggregate	Diesel	1,718.2329	93,933,123.0979	207,091.6663	0.0026	139.5897	0.3077	0.2707	14,799.5159	32.6274
San Diego	2035	T7 Public Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Public Class 8	Aggregate	Aggregate	Natural Gas	1,510.0357	663,162.3890	1,462.0240	1.7101	751.0426	1.6558	0.3078	135.1900	0.2980
San Diego	2035	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Diesel	1,500.9387	25,188,375.9729	55,530.9088	0.0004	6.8328	0.0151	0.2365	3,968.4389	8.7489
San Diego	2035	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Single Concrete/Transit Mix Class 8	Aggregate	Aggregate	Natural Gas	1,139.6018	1,480,880.0156	3,264.7842	1.0668	1,386.2479	3.0562	0.2323	301.8871	0.6655
San Diego	2035	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	1,559.4034	63,961,345.5413	141,019.5628	0.0006	24.3834	0.0538	0.2457	10,077.7662	22.2177
San Diego	2035	T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	1,190.7070	3,811,146.9093	8,402.1475	1.0636	3,404.3801	7.5054	0.2427	776.9272	1.7128
San Diego	2035	T7 Single Other Class 8	Aggregate	Aggregate	Diesel	1,540.7387	139,847,075.1031	308,310.2769	0.0005	44.4686	0.0980	0.2427	22,032.9636	48.5744
San Diego	2035	T7 Single Other Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	1,163.8465	8,187,251.4474	18,049.8145	1.0650	7,491.0777	16.5150	0.2373	1,668.0248	3.6796
San Diego	2035	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	4,125.1723	52,191,279.3624	115,062.1690	0.0011	13.6926	0.0302	0.6499	8,222.7573	18.1281
San Diego	2035	T7 SWCV Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	1,394.0982	89,267,490.0815	196,801.2886	0.9761	62,499.6523	137.7883	0.2842	18,197.7618	40.1192
San Diego	2035	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	1,374.0798	515,446,272.9934	1,136,361.4467	0.0005	191.0886	0.4213	0.2165	81,208.7702	179.0348
San Diego	2035	T7 Tractor Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	1,123.0096	5,866,019.3945	12,932.3696	1.0183	5,318.9823	11.7264	0.2289	1,195.8264	2.6363
San Diego	2035	T7 Utility Class 8	Aggregate	Aggregate	Diesel	1,619.2326	8,750,670.2604	19,291.9413	0.0005	2.9311	0.0065	0.2551	1,378.6717	3.0395
San Diego	2035	T7 Utility Class 8	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	T7IS	Aggregate	Aggregate	Gasoline	1,889.9146	907,353.1057	2,000.3728	0.0966	46.3649	0.1022	0.1146	55.0412	0.1213
San Diego	2035	T7IS	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	UBUS	Aggregate	Aggregate	Gasoline	864.5328	15,947,827.0614	35,158.9690	0.0013	24.1046	0.0531	0.0039	71.6590	0.1580
San Diego	2035	UBUS	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
San Diego	2035	UBUS	Aggregate	Aggregate	Natural Gas	1,361.2343	89,480,496.9365	197,270.8887	4.4890	295,348.9001	651.1334	0.2775	18,241.1847	40.2159
								78,320,260.2802			1,413.4107			2,569.9038
								0.6654161659			0.00001337			0.00002432

VMT Redutions - Sidewalks

	ADT	Length	VMT	VMT Reduction	VMT Reduction	Resulting VMT
Woods Valley Road to Mirar De Valle Road	34,500	0.4	12,552	-6.4%	-803	11,749
Mirar De Valle Road to Sunday Drive	35,000	0.3	8,869	-6.4%	-568	8,302
Sunday Drive to Lilac Road	34,300	0.6	20,067	-6.4%	-1,284	18,783
Lilac Road to Canyon Road	33,300	0.5	17,369	-6.4%	-1,112	16,257
Canyon Road to Miller Road	33,300	0.3	9,340	-6.4%	-598	8,743
Miller Road to Indian Creek Road	31,300	0.2	7,084	-6.4%	-453	6,631
Indian Creek Road to Cole Grade Road	30,800	0.3	7,782	-6.4%	-498	7,284
		2.5	83,063		-5,316	77,747

	Pounds	
VOC	-0.13895	
Nox	-0.84823	
CO	-6.88167	
Sox	-0.03451	
PM10	-0.02113	
PM2.5	-0.01986	
		MT
CO2	-3537.38	-1.60453
CH4	-0.0711	-3.2E-05
N2O	-0.12928	-5.9E-05
MT CO2E per Day		-1.62097
MT CO2E per Year		-591.655

	GWP
CO2	1
CH4	28
N2O	265

VMT Redutions - Bicycle

	ADT	Length	VMT	VMT Reduction	VMT Reduction	Resulting VMT
Woods Valley Road to Mirar De Valle Road	34,500	0.4	12,552	-0.8%	-100	12,452
Mirar De Valle Road to Sunday Drive	35,000	0.3	8,869	-0.8%	-71	8,798
Sunday Drive to Lilac Road	34,300	0.6	20,067	-0.8%	-161	19,906
Lilac Road to Canyon Road	33,300	0.5	17,369	-0.8%	-139	17,230
Canyon Road to Miller Road	33,300	0.3	9,340	-0.8%	-75	9,266
Miller Road to Indian Creek Road	31,300	0.2	7,084	-0.8%	-57	7,027
Indian Creek Road to Cole Grade Road	30,800	0.3	7,782	-0.8%	-62	7,719
		2.5	83,063		-665	82,399

	Pounds
VOC	-0.01737
Nox	-0.10603
CO	-0.86021
Sox	-0.00431
PM10	-0.00264
PM2.5	-0.00248

		MT
CO2	-442.173	-0.20057
CH4	-0.00889	-4E-06
N2O	-0.01616	-7.3E-06
MT CO2E per Day		-0.20262
MT CO2E per Year		-73.9569

	GWP
CO2	1
CH4	28
N2O	265

ATTACHMENT B

Valley Center Road Corridor Concept Plan Project
Biological Constraints Memo

RECON

An Employee-Owned Company

September 16, 2024

Kevin Johnston
Land Use/Environmental Planner
County of San Diego, Planning and Development Services
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Reference: Valley Center Road Corridor Concept Plan Project Biological Constraints Memo (RECON Number 9518-1)

Dear Kevin:

RECON Environmental, Inc. (RECON) conducted a general biological resources survey of the Valley Center Road Corridor Concept Plan Project (project) to determine the extent of existing biological and jurisdictional resources and to document potential biological constraints associated with future implementing projects.

1.0 PROJECT LOCATION AND DESCRIPTION

The Valley Center Road Corridor Concept Plan (VCRCCP) project is located in the Valley Center community planning area in San Diego County, California (Figure 1). The project boundary lies within the Valley Center quadrangle, Township 11 South, Range 01/02 West, on the U.S. Geological Survey (USGS) 7.5-minute topographic map series (USGS 1996; Figure 2). The project involves the development of a comprehensive corridor access management plan for Valley Center Road in the area of the Valley Center Villages, from the Woods Valley Road intersection to the Cole Grade Road intersection. The project is addressing safety and overall operations for all road user types. This memo addresses the VCRCCP component that would extend beyond the existing right-of-way and development footprint for the road, the proposed roundabout at the Miller Road intersection (Figure 3).

The Final VCRCCP will call out types of components for the corridor by general locations (e.g., intersection control types) but would not build any of the components. Following the VCRCCP adoption, it is anticipated the plan would be built out through a combination of County-initiated projects dependent on securing funding, and conditioning of private development projects along the corridor. Specific development footprints would be determined through the engineering design phase of implementation for future projects. As appropriate, future projects within the boundaries of the VCRCCP would be subject to site-specific study to evaluate effects on biological resources; however, the VCRCCP would not directly result in physical development that could cause impacts. The purpose of this memo is to disclose the best available information on potential future impacts associated with implementing projects.

2.0 REGIONAL CONTEXT

The project is located within the boundaries of the County's draft North County Multiple Species Conservation Program (NCMSCP; County of San Diego 2009). The northern portion of the survey area occurs outside of the Pre-Approved Mitigation Area (PAMA) and the southern portion has been mapped as PAMA under the draft NCMSCP (Figure 4; County of San Diego 2009). However, the portion of the survey area that falls within PAMA at Miller Road appears to be continually mowed.

3.0 BIOLOGICAL SURVEY AND METHODS

RECON biologist Kayo Valenti conducted a general biological survey and desktop review within the survey area which includes a 250-foot radius from the center of the intersection (see Figure 3). On August 23, 2023, between 1:00 p.m. and 1:30 p.m., a general biological survey was conducted within a 100-foot radius from the center of the intersection. Following the survey, the survey area was updated to a 250-foot radius from the center of the intersection. A desktop review (i.e., review of google earth imagery and previous photographs taken of the area) was conducted to include the additional buffer outside of the initial survey area. The 250-foot radius survey area includes the anticipated maximum development footprint extent of a future roundabout at the Miller intersection, including the edge of a planned multi-use path surrounding the proposed roundabout. The area around Miller Road and Valley Center Road were surveyed on foot; however, the majority of the survey area was not accessible due to private property restrictions. Such areas were surveyed visually with the aid of binoculars from the nearest accessible location. As part of the initial survey , the biologist mapped vegetation communities, recorded vegetation and habitat characteristics, documented plant species, and documented wildlife species observed directly or detected from calls within and adjacent to the survey area. Results from the general biological survey were extrapolated as necessary to cover the entire 250-foot area.

The survey and desktop review focused on documenting and mapping biological resources and noting suitable habitat for rare, listed threatened and endangered, and County narrow endemic wildlife and plant species. This included an assessment of the potential for sensitive species known to occur within one mile of the survey area according to searches of the California Natural Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW] 2023), the SanBIOS database (County of San Diego 2023), and the U.S. Fish and Wildlife Service (USFWS) All Species Occurrences Database (USFWS 2023).

4.0 RESULTS AND BIOLOGICAL CONSTRAINTS

This section describes the vegetation communities and plant and animal species observed during the biological survey. Acreages are provided for vegetation communities within the survey area. In addition, this section describes the sensitive vegetation communities observed and the sensitive plant and animal species determined to have a low to high potential to occur within the survey area.

The survey area supports or has low to high potential to support sensitive biological resources. These resources represent project constraints, as impacts may require avoidance, minimization, and/or mitigation measures in accordance with the County's Guidelines for Determining Significance for Biological Resources (County of San Diego 2010). Potential constraints are discussed below and typical avoidance and mitigation requirements are described in Section 5.0.

4.1 Vegetation Communities

The following four vegetation communities/land cover types were observed within the survey area: coast live oak woodland, Diegan coastal sage scrub, disturbed habitat, and urban/developed land. The acreages of each vegetation community/land cover type within the survey area is presented in Table 1 and depicted in Figure 5.

Sensitive Vegetation Communities

For projects outside of approved MSCP plans, mitigation is required consistent with Table 5 of the County's Guidelines for Determining Significance (County Guidelines; County of San Diego 2010). Of the four vegetation

communities/land cover types identified within the survey area, two sensitive vegetation communities were documented: coast live oak woodland and Diegan coastal sage scrub.

Per the County's Guidelines, an impact to native or naturalized upland habitat under 0.1 acre in an existing urban setting may be considered less than significant, depending on a number of factors, such as the type of habitat, relative presence of habitat type in project vicinity, its condition and size, presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Mitigation requirements are shown in Table 1. Mitigation ratios are not assigned to disturbed habitat and urban/developed land cover as these habitats/land cover types are not considered sensitive.

Table 1
Vegetation Communities/Land Cover Types and Mitigation Ratios for Potential Impacts to Sensitive Vegetation Communities within the Survey Area[1]

Vegetation Community	Survey Area (acres)	Mitigation Ratio[2]
Coast Live Oak Woodland (71160)	0.18	3:1
Diegan Coastal Sage Scrub (32500)	0.51	TBD[3,4]
Disturbed Habitat (11300)	1.84	–
Urban/Developed (12000)	1.96	–
Total	**4.50[5]**	–

[1]Impact acreages would be determined based on the final engineering design associated with future implementing projects. These future projects would be subject to the mitigation requirements.
[2]Based on Table 5 of the County's Guidelines for Determining Significance, as the project area does not occur within an approved MSCP.
[3]Mitigation ratios for coastal sage scrub habitat types are subject to NCCP Process Guidelines and are typically 1:1, 2:1 or 3:1 depending on habitat value for long-term conservation. Habitat value is defined in the NCCP Conservation Guidelines. The mitigation ratio will need to be approved by the Wildlife Agencies.
[4]Impacts to coastal sage scrub require a Habitat Loss Permit (HLP). If impacts are less than one acre, the project could qualify for a *de minimus* HLP. Coordination with and review by the Wildlife Agencies will be required.
[5]Any discrepancy in the total is due to rounding.

4.2 Sensitive Plant and Wildlife Species

Sensitive Plant Species

No sensitive plant species were observed during the general biological survey. No sensitive plant species were determined to have a moderate to high potential to occur within the survey area.

Sensitive Wildlife Species

Three sensitive wildlife species were determined to have low to high potential to occur within the survey area: Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi* [=*Cnemidophorus hyperythrus*]), coast horned lizard (*Phrynosoma blainvillii* [= *P. coronatum* coastal population]), and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*). None of these species are state or federally listed as endangered or threatened. Two additional species were assessed. Coastal California gnatcatcher (*Polioptila californica californica*) and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) are not expected to occur. The vegetation outside of the survey area connected to the Diegan coastal sage scrub at the Miller Road intersection was difficult to view due to

site topography. However, the Diegan coastal sage scrub within and adjacent to the survey area appeared to be isolated, with the land directly adjacent to the north showing signs of disturbance by mowing, and beyond that the habitat appeared to be an isolated patch of chaparral. The coastal sage scrub and chaparral habitat northwest of the Miller intersection are surrounded by roads and residences and do not contain the habitat structure preferred by coastal California gnatcatcher and southern California rufous -crowned sparrow.

A summary of the species with low to high potential to occur is provided below:

- Belding's orange-throated whiptail (CDFW watch list species, County of San Diego Group 2 species, Draft NCMSCP proposed covered species) – high potential to occur within the Diegan coastal sage scrub and disturbed habitat adjacent to the Diegan coastal sage scrub within the survey area.

- Coast horned lizard (CDFW species of special concern, County of San Diego Group 2 species, Draft NCMSCP proposed covered species) – low potential to occur within the Diegan coastal sage scrub of the survey area due to the presence of harvester ants (*Pogonomyrmex* sp.) for food, open vegetation, and sandy soils; however, the potentially suitable habitat is isolated by roads and disturbance such as mowing.

- San Diegan tiger whiptail (CDFW species of special concern, County of San Diego Group 2 species) – moderate potential to occur due to the presence of moderately-distributed plants within the Diegan coastal sage scrub and disturbed habitat within the survey area.

Direct impacts to Belding's orange-throated whiptail, San Diegan tiger whiptail, and coast horned lizard have the potential to result if vegetation clearing, grubbing, grading, and construction activities occur within Diegan coastal sage scrub and adjacent disturbed habitat. The disturbance of this habitat is not anticipated to impact the local or regional long-term survival of these species as the survey area occurs along a road intersection and the habitat is generally isolated. However, direct impacts to these species would be considered significant. Habitat-based mitigation may reduce the level of direct impact to less than significant.

Direct impacts to migratory and nesting birds, including raptors, have the potential to result from the accidental destruction of nests through removal of vegetation if construction were to occur during the general bird breeding season (between January 15 and September 15). Unless avoided or minimized, impacts to migratory and nesting birds as a result of project activities could be considered significant.

4.3 Potentially Jurisdictional Aquatic Resources

Figure 6 depicts potentially non-jurisdictional erosional features. The erosional features include ditches mapped north of and south of the intersection of Valley Center Road with Miller Road. The ditch to the south is armored with riprap in some sections and could warrant additional field review. The ditches were viewed from a distance and from google earth imagery as they fall outside of County right-of-way property. If these ditches cannot be avoided, a formal jurisdictional wetland delineation and wetland permitting may be required.

If after a formal jurisdictional wetland delineation, the resource is determined to be a jurisdictional aquatic resource, indirect impacts associated with future potential implementing construction activities may occur. If determined jurisdictional, avoidance measures, described in Section 5.0, are recommended to minimize and/or prevent indirect impacts to potentially jurisdictional resources.

5.0 POTENTIAL MITIGATION MEASURES AND AVOIDANCE RECOMMENDATIONS FOR FUTURE IMPLEMENTING PROJECTS

As discussed earlier in this memo, the VCRCCP would not involve construction of any components, and specific development footprints would not be determined until the engineering design phase for implementing projects. The following includes potential mitigation measures and avoidance measures recommended for future implementing projects, to avoid, minimize, or compensate for impacts to sensitive biological resources. The measures will be refined as the project footprint is further defined.

1. If the project proposes impacts to sensitive vegetation communities (coast live oak woodland and Diegan coastal sage scrub) and habitat for special-status wildlife species, mitigation consistent with the County Guidelines would be required.

2. If the project proposes to trim oak trees, overhanging trees should be trimmed in accordance with American National Standards Institute (ANSI) standards for tree trimming (ANSI 1994). Branches should be chipped and left in place if possible. Mature trees can tolerate root loss less than 25 percent, and most fine absorbing roots are located within 6 inches of the soil surface and can be destroyed by cutting, burial, or compaction. The destruction of the absorbing roots can lead to the decline of the tree, which may not be apparent for several months. If root loss or compaction is unavoidable, a qualified arborist should perform a pre-construction survey to identify opportunities to avoid more than 25 percent root loss in oak trees.

3. A formal jurisdictional wetland delineation and wetland permitting may be required if the ditches cannot be avoided.

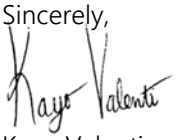
4. If the ditch is determined to be a potentially jurisdictional aquatic resource, the project has the potential to result in indirect impacts to a potentially jurisdictional aquatic resource as a result of runoff, erosion, siltation, or chemical and particulate pollution during project construction. To avoid indirect impacts to potentially jurisdictional aquatic resources, best management practices, such as the use of silt fences, fiber rolls, and/or gravel bags, should be implemented. No equipment maintenance or fueling should be performed within or near potentially jurisdictional aquatic resources where petroleum products or other pollutants from the equipment may enter this area.

5. Direct impacts to migratory and nesting birds, including raptors, could result from the accidental destruction of nests through removal of vegetation if construction were to occur during the general bird breeding season (between January 15 and September 15). If construction initiation occurs during the breeding season, a pre-construction nesting bird survey of the project impact area should be completed by a qualified biologist. The pre-construction survey shall be conducted within 3 calendar days prior to the start of construction activities (including removal of vegetation). If any active nests are detected, the area will be flagged and mapped along with a buffer as recommended by the qualified biologist. The buffer area(s) established by the qualified biologist will be avoided until the nesting cycle is complete or it is determined that the nest is no longer active. The qualified biologist shall be a person familiar with bird breeding behavior and capable of identifying the bird species of San Diego County by sight and sound and determining alterations of behavior as a result of human interaction. Buffers will be based on species-appropriate buffers and/or local topography and line of sight, species behavior and tolerance to disturbance, and existing disturbance levels, as determined appropriate by the qualified biologist.

Through compliance with federal, state, and County codes and regulations, impacts (associated with final engineering design for future implementing projects) from construction activities to sensitive biological resources would be avoided or reduced to below a level of significance.

If you have any questions on this constraints memo or require additional information, please contact me at kvalenti@reconenvironmental.com.

Sincerely,



Kayo Valenti
Associate Biologist

KOV:sh:jg

6.0 REFERENCES CITED

American National Standards Institute (ANSI)
1994 Tree care operations-Pruning, trimming, repairing, maintaining, and removing trees, and cutting brush-Safety requirements. ANSI Z133. 1 New York: American National Standards Institute.

California Department of Fish and Wildlife (CDFW)
2023 California Natural Diversity Database, a Natural Heritage Program. Biogeographic Data Branch, Sacramento. https://www.wildlife.ca.gov/Data/CNDDB.

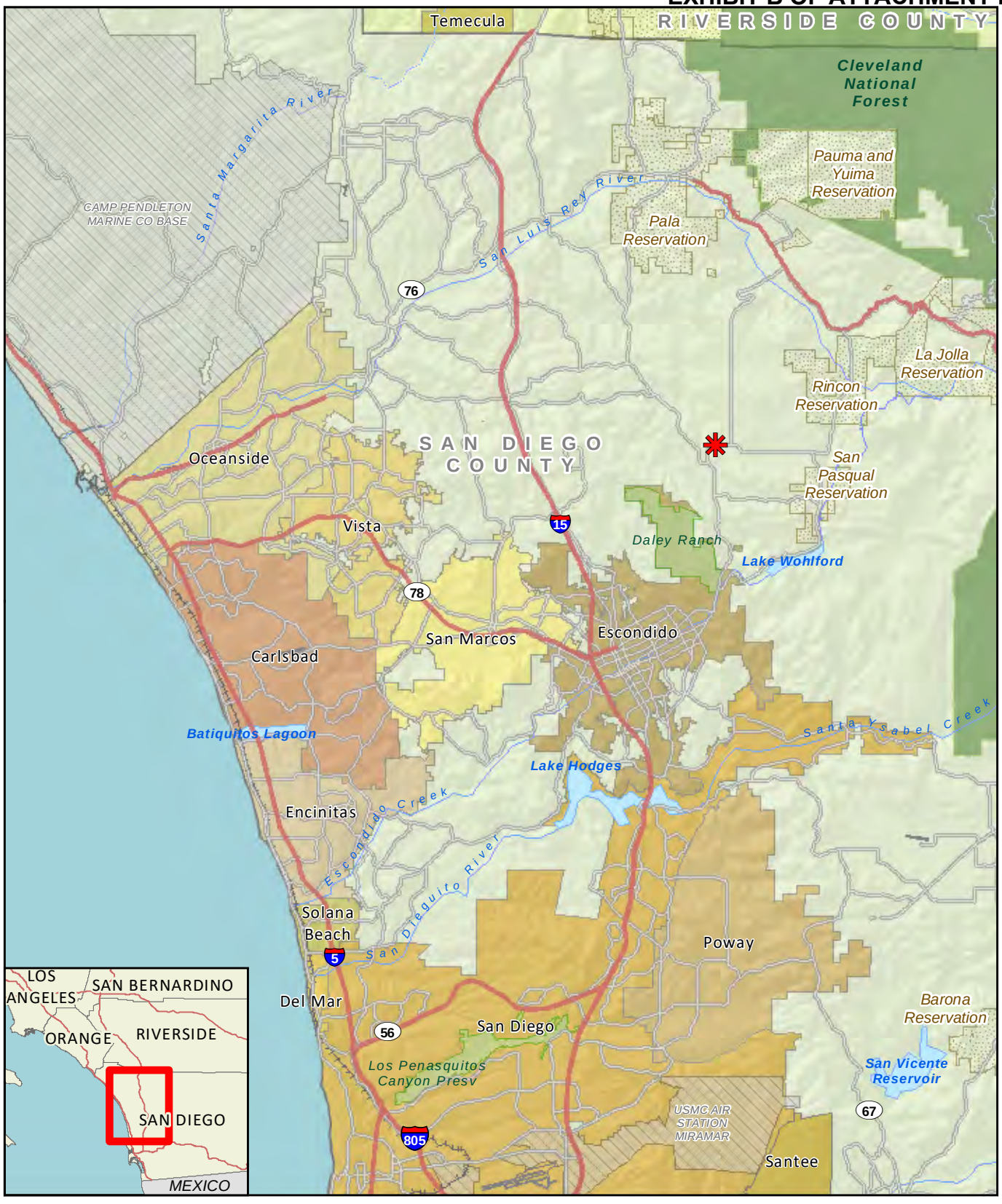
San Diego, County of
2009 Draft Multiple Species Conservation Program North County Plan. February 19.

2010 Guidelines for Determining Significance. Biological Resources, Land Use and Environment Group. Department of Planning and Land Use. Department of Public Works. Fourth Revision. September 15.

2023 SanBIOS points. SanGIS Data Warehouse. San Diego Geographic Information Source – JPA. Modified from the Biological Observation Database. Department of Planning and Land Use. http://www.sangis.org/download/index.html.

U.S. Fish and Wildlife Service (USFWS)
2023 All Species Occurrences Database. Accessed at https://www.fws.gov/carlsbad/GIS/CFWOGIS.html.

U.S. Geological Survey (USGS)
1996 Valley Center Quadrangle 7.5-Minute Topographic Map.



Project Location

RECON

M:\JOBS5\9518\common_gis\reports\Bio_memo\fig1.mxd 5/23/2024 fmm

FIGURE 1
Regional Location

Map Source: USGS 7.5 minute topographic map series, Valley Center Quadrangle, 1996, T11S R01W / T11S R02W

Survey Area

RECON

M:\JOBS5\9518\common_gis\reports\Bio_memo\fig2.mxd 5/23/2024 fmm

FIGURE 2
Project Location on USGS Map

Image Source: NearMap (flown January 2024)

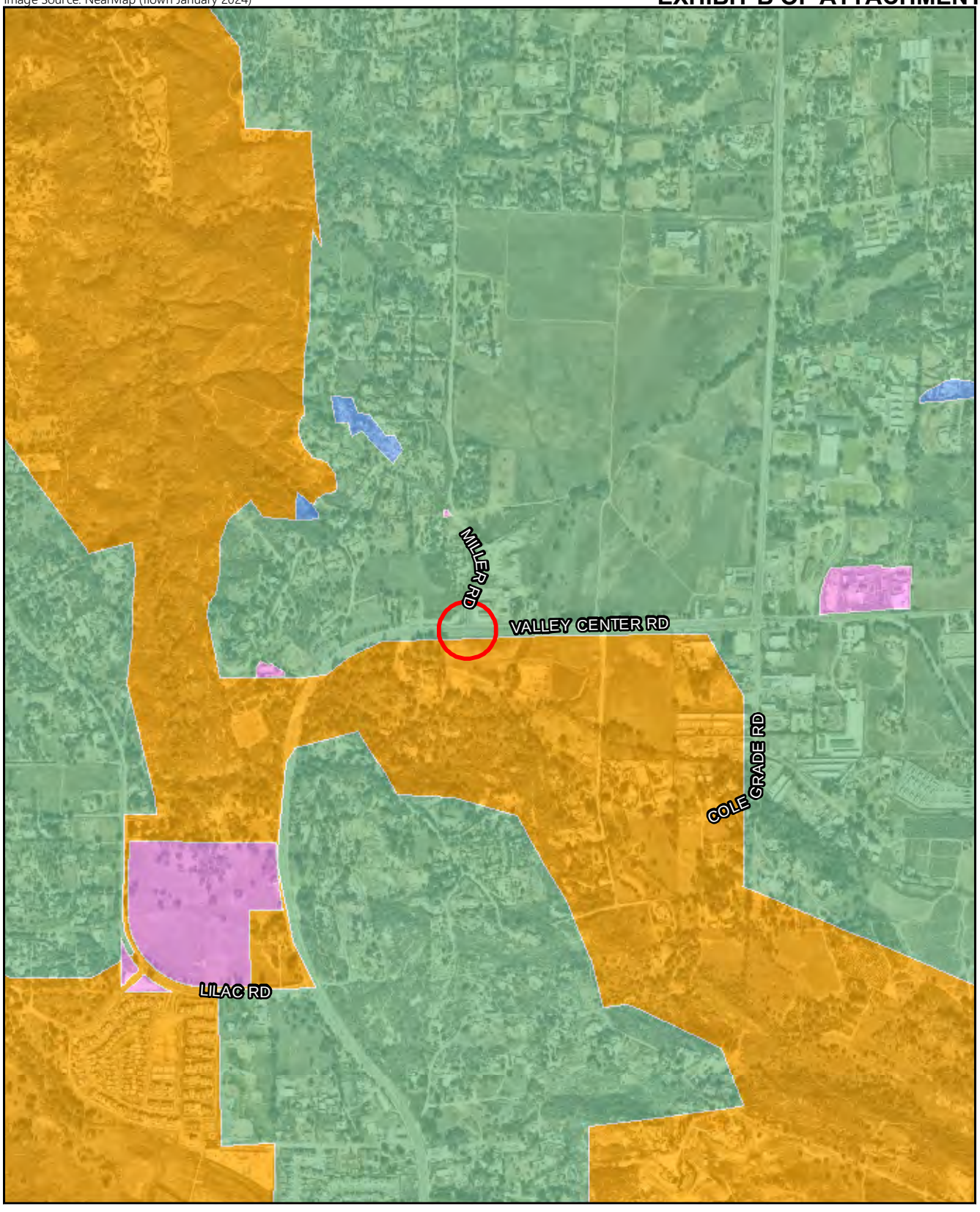
Survey Area

FIGURE 3
Project Location on Aerial Photograph

RECON

M:\JOBS5\9518\common_gis\reports\Bio_memo\fig3.mxd 5/23/2024 fmm

Image Source: NearMap (flown January 2024)



Survey Area

North SD County Draft MSCP

- Outside Pre-Approved Mitigation Area (PAMA)
- Pre-Approved Mitigation Area (PAMA)
- Preserve Area
- Special Districts

0 Feet 1,200

FIGURE 4

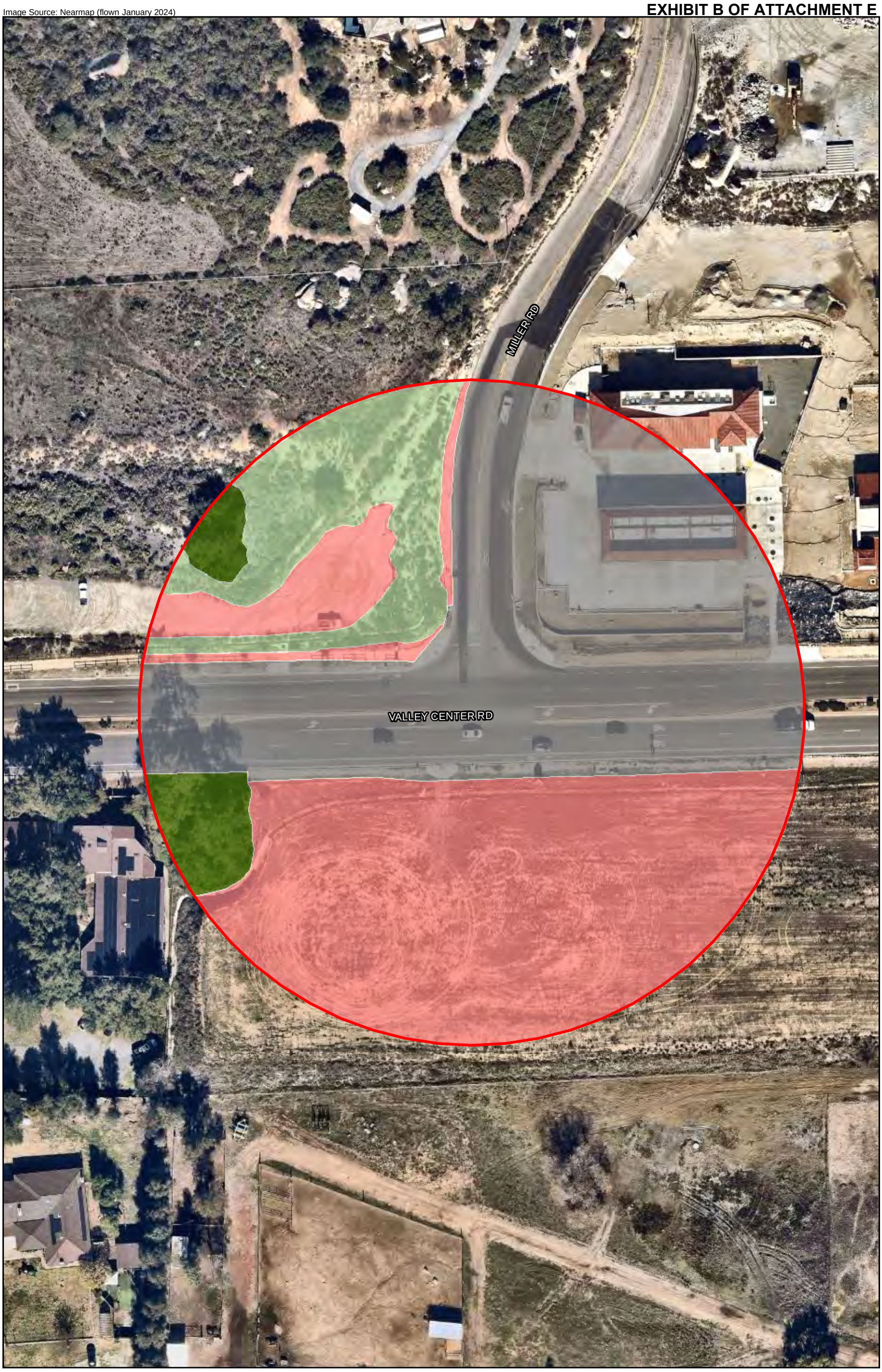
Project in Relation to MSCP Preserve Area

RECON

M:\JOBS5\9518\common_gis\reports\Bio_memo\fig4.mxd 5/23/2024 fmm

Image Source: Nearmap (flown January 2024)

EXHIBIT B OF ATTACHMENT E



Survey Area

Vegetation Community

- Coast Live Oak Woodland
- Diegan Coastal Sage Scrub
- Disturbed Habitat
- Urban/Developed

0 Feet 70

RECON

M:\JOBS5\9518\common_gis\reports\Bio_memo\fig5.mxd 5/23/2024 fmm

FIGURE 5
Existing Biological Resources

Image Source: Nearmap (flown January 2024)

Survey Area

Potentially Non-jurisdictional Erosional Feature

Ditch

RECON

M:\JOBS5\9518\common_gis\reports\Bio_memo\fig6.mxd 5/23/2024 fmm

FIGURE 6.
Existing Potentially Jurisdictional Resources

ATTACHMENT C

Cultural Resources Records Search Results

(Confidential, Not for Public Review)

ATTACHMENT D

Valley Center Road Corridor Concept Plan
Noise Research

RECON

An Employee-Owned Company

June 24, 2024

Kevin Johnston
Land Use/Environmental Planner
County of San Diego, Planning and Development Services
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Reference: Valley Center Road Corridor Concept Plan Noise Research (RECON Number 9518-1)

Dear Kevin:

RECON Environmental, Inc. (RECON) has provided this memorandum as a reference to the potential noise impacts of various traffic control methods. The County of San Diego (County) is considering various intersection control methods and has requested this memorandum to address potential noise impacts associated with changes in intersection control types proposed with the Valley Center Road Corridor Concept Plan (VCRCCP; project).

1.0 PROJECT LOCATION AND DESCRIPTION

The project is located in the Valley Center community planning area in San Diego County, California (Figure 1). The project involves the development of a comprehensive corridor access management strategy for Valley Center Road in the area of the Valley Center Villages, from the Woods Valley Road intersection to the Cole Grade Road intersection. The project is addressing safety and overall operations for all road user types. The Draft Final VCRCCP includes planned changes to intersection control types at three intersections. These include the Sunday Drive intersection changing from two-way stop-controlled to signalized, the Old Road intersection changing from two-way stop-controlled to signalized, and the Miller Road intersection changing from two-way stop controlled to a roundabout. As discussed/shown in the Draft Final VCRCCP (document and plan sheets), additional new signals are shown in the plan sheets based on conditions (requirements) associated with private development projects, not as newly proposed with the VCRCCP (Figure 2). Existing conditions at each of the three intersections proposed for intersection control changes with the VCRCCP are presented in Figure 3.1 through Figure 3.3.

2.0 EXISTING CONDITIONS

Table 1 describes the existing conditions surrounding each intersection proposed for a change in intersection control with the VCRCCP, including the existing traffic signal control and surrounding sensitive receptors. Residential and institutional areas, such as hospitals, nursing facilities, schools, and places of worship, are examples of noise-sensitive land uses. The locations of sensitive receptors surrounding each intersection are presented in Figure 4.1 through 4.3.

Table 1 Sensitive Receptors and Traffic Control Method			
Intersection	Traffic Control Method	Surrounding Land Uses	Sensitive Receptors Adjacent to the Intersection
Valley Center Drive & Sunday Drive	Two-way stop controlled	Residential, Commercial, Golf Course	Single-Family Residential
Valley Center Drive & Old Road	Two-way stop controlled	Residential, Commercial	Single-Family Residential
Valley Center Road & Miller Road	Two-way stop controlled	Commercial, Vacant, Residential	Medical Offices, Single-Family Residential

3.0 LITERATURE ON NOISE IMPACTS ASSOCIATED WITH INTERSECTION CONTROL METHODS

RECON reviewed publicly available, free to access literature for studies completed on noise impacts associated with different types of intersection control methods. Most of the reviewed literature focused on assessing noise impacts of roundabouts, unsignalized (not clarified whether these are stopped controlled), and signalized intersections as compared to segments without intersections. A majority of the reviewed studies utilized a specialized noise prediction software to assess unsignalized intersections, roundabouts, and traffic light-controlled intersections, often in comparison to each other or a segment of roadway with no intersection. The studies acknowledged that the parameters modeled may not account for such factors as vehicle volumes, vehicle mix type, and the complexity of the geometry and materials surrounding structures (which impacts noise propagation) that would reflect real life conditions of any particular roadway. However, the general consensus among all studies was that under modeled conditions, all intersection types had a very low range of differences in noise impacts in comparison to one another.

Among various studies, "noise prediction results showed that differences in predicted traffic noise levels between examined intersection types [e.g., four leg intersection, with traffic lights, without traffic lights, mini-roundabout] are not significant (*they vary from 0 to 0.4 dB(A)*)" (Dzambas 2014). It is generally accepted that "vehicles under stop-and-go conditions produce more noise compared to traffic at a constant speed," approximately 2.4 A-weighted decibels [dB(A)] higher (Dzambas 2014; Covacio 2015). These small differences in noise levels can be attributed to deceleration and acceleration, as well as the volume of vehicles traversing the intersection. Results of some studies note that "signalized intersections can be a better option than roundabouts from a traffic noise perspective when traffic volume is expected to be high" (Abdur-Rouf 2022). However, it is largely accepted that the conversion of a four-way intersection, whether signalized or stop controlled, into a roundabout will decrease the noise level by approximately 1 to 2 dB(A), even if the average speed is the same (Distefano and Salvatore 2019). It is noted that "reductions at roundabout and intersection without traffic lights compared to intersections with traffic lights are likely to depend upon the traffic flow conditions and the intersection layout" (Dzambas 2014).

This is not to say that roundabouts have the optimum noise reduction potential, as the reduction in noise levels from an optimized traffic light controlled intersection can reduce noise by 2 dB(A), which may vary according to vehicle speed (favoring the vehicles rolling near the speed limit) (Covacio 2015). In addition, noise at roundabouts can be attributed to the acceleration and deacceleration of vehicles; vehicles approaching the roundabout by slowing down can result in a −5 to −10 dB(A) reduction and would be compensated by the noise increase of those that accelerate by leaving it [+3 to +8 dB(A)] (Covacio 2015).

4.0 IMPLICATIONS

As generally understood, "effects of traffic noise on human health can be either physiological (e.g., a long term exposure to road traffic noise is detrimental to hearing, thus causing cardiovascular, nervous and endocrine problems) or psychological (e.g., prompting intense feelings such as disappointment, anxiety, anger and annoyance)" (Fernandes 2020).

Each intersection control method would result in a different set of noise impact advantages and disadvantages from the perspective of sensitive receptors by the intersection. Noise at each intersection would vary based on intersection control type, traffic volume, and distance to the nearest sensitive receptors. Stop-sign controlled intersections generate more noise from braking and accelerating vehicles when compared to other intersection controls. Signalized intersections would result in lower noise impacts when traffic volumes are expected to be high.

Well-designed approaches to roundabouts would maintain a controlled speed and reduce noise associated with vehicle stop-and-go movements. Noise would also be reduced because vehicles would be required to slow down to navigate the roundabout. However, the larger footprint of roundabouts as compared to a standard intersection would bring vehicles closer to adjacent sensitive receptors reducing the distance for noise to dissipate or be reflected by an obstructing barrier, such as landscaping. Noise reductions would be dependent on vehicle speed, vehicle type, traffic volumes, and roundabout design.

In order to compare the noise generated at each intersection type, noise contour mapping for a representative intersection was developed for a stop-controlled intersection, a signalized intersection, and a roundabout. A sample traffic volume of 1,000 vehicles per hour and a speed of 45 miles per hour were modeled. For the stop-controlled intersection, 100 percent of the vehicles would decelerate, stop, and accelerate. For the signalized intersection, it was assumed that 50 percent of the vehicles at the intersection would be required to decelerate, stop, and accelerate while the other 50 percent would have the green light. For the roundabout, it was assumed that vehicles would have to slow down to 25 miles per hour while navigating the roundabout. Representative noise contours for each type of intersection are shown in Figures 5.1 through 5.3. As shown by this representative intersection, with vehicle traffic volumes held constant, the signalized intersection would result in slightly reduced noise levels compared to the stop-controlled intersection due to fewer stop-and-go movements. The roundabout would result in reduced noise levels compared to both stop-controlled and signalized intersections due to the speed reduction required to navigate the roundabout.

If you have any questions about the information presented in this memorandum, please contact me at jfleming@reconenvironmental.com or (619) 308-9333 extension 177.

Sincerely,

Jessica Fleming

Jessica Fleming
Senior Environmental Specialist
Noise, Air Quality, and Greenhouse Gas

JLF:AL:sh

5.0 REFERENCES CITED

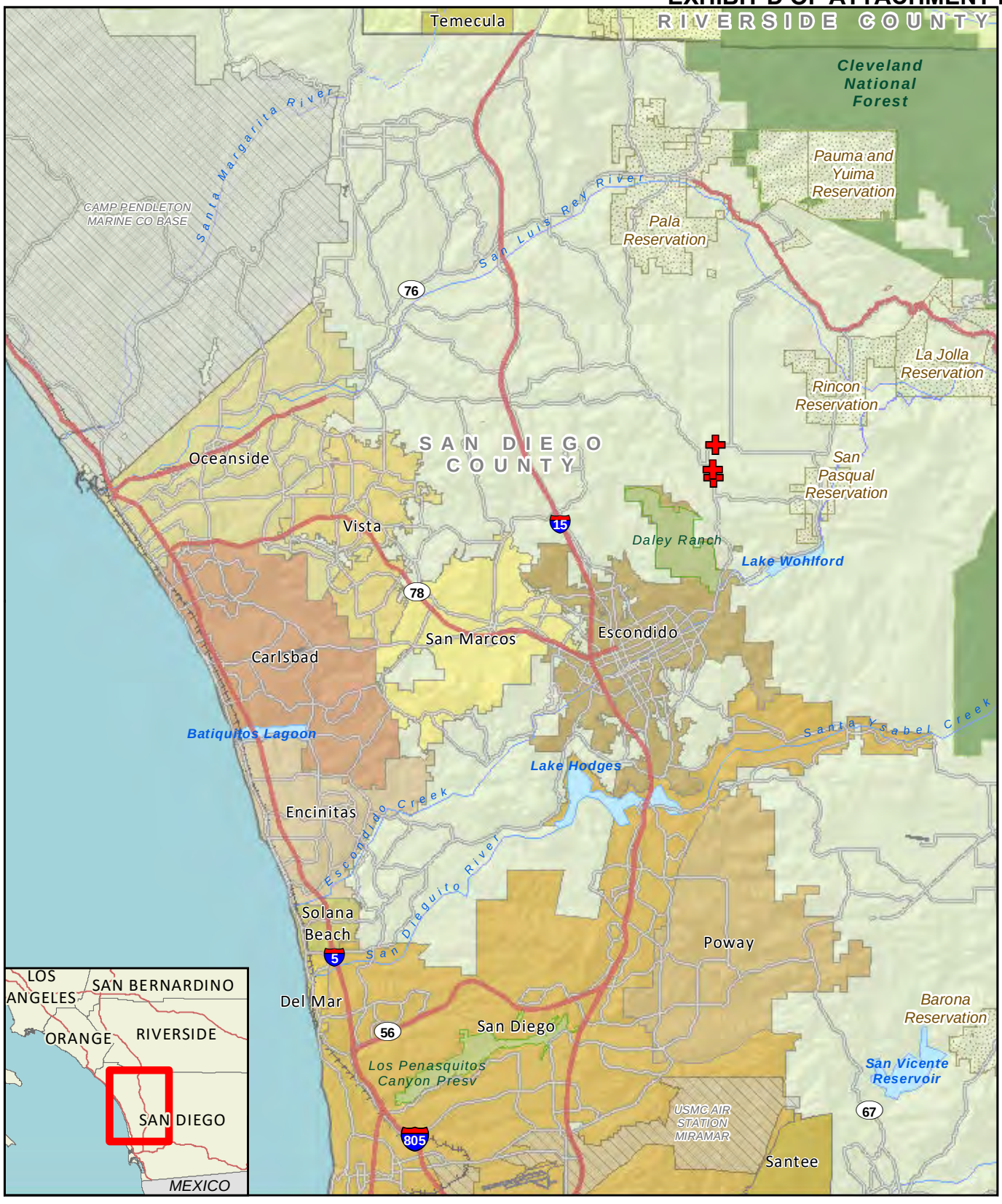
Abdur-Rouf, Khadija
2022 Comparing Traffic Noise Levels between Signalized Intersections and Roundabouts in an Urban Environment. https://journals.sagepub.com/doi/abs/10.1177/03611981221088219?journalCode=trra.

Covacio, Dinu
2015 Estimation of the noise level produced by road traffic in roundabouts. Applied Acoustics, Volume 98:43-51. November. https://www.sciencedirect.com/science/article/abs/pii/S0003682X15001334.

Distefano, Natalia, and Salvatore Leonardi
2019 Experimental investigation of the effect of roundabouts on noise emission level from motor vehicles. July. Accessed August 8, 2023. https://www.researchgate.net/profile/Natalia-Distefano/publication/335520103_Experimental_investigation_of_the_effect_of_roundabouts_on_noise_emission_level_from_motor_vehicles/links/5dc137bba6fdcc21280515b1/Experimental-investigation-of-the-effect-of-roundabouts-on-noise-emission-level-from-motor-vehicles.pdf.

Dzambas, Tamara
2014 The impact of intersection type on traffic noise levels in residential areas. April 2014. https://www.researchgate.net/publication/262452064_The_impact_of_intersection_type_on_traffic_noise_levels_in_residential_areas

San Diego Association of Governments
2023 Transportation Forecast Information Center. ABM2+/2021 RP Traffic Data. Accessed September 6.



Project Intersection

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig1.mxd 06/11/2024 bma

FIGURE 1
Regional Location

Image Source: NearMap (flown May 2024)

FIGURE 2
Project Location on Aerial Photograph

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig2.mxd 06/11/2024 bma

Image Source: Nearmap (flown May 2024)

FIGURE 3.1
Existing Intersections -
Valley Center Road & Sunday Drive

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig3.mxd 06/11/2024 bma

Image Source: Nearmap (flown May 2024)

FIGURE 3.2
Existing Intersections -
Valley Center Road & Old Road

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig3.mxd 06/11/2024 bma

Image Source: Nearmap (flown May 2024)

FIGURE 3.3
Existing Intersections -
Valley Center Road & Miller Road

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig3.mxd 06/11/2024 bma

Image Source: Nearmap (flown May 2024)

0 Feet 100

Sensitive Receptors

FIGURE 4.1
Sensitive Receptors -
Valley Center Road & Sunday Drive

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig4.mxd 06/11/2024 bma

Image Source: Nearmap (flown May 2024)

0 Feet 100

Sensitive Receptors

FIGURE 4.2
Sensitive Receptors -
Valley Center Road & Old Road

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig4.mxd 06/11/2024 bma

Image Source: Nearmap (flown May 2024)

FIGURE 4.3
Sensitive Receptors -
Valley Center Road & Miller Road

RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig4.mxd 06/11/2024 bma

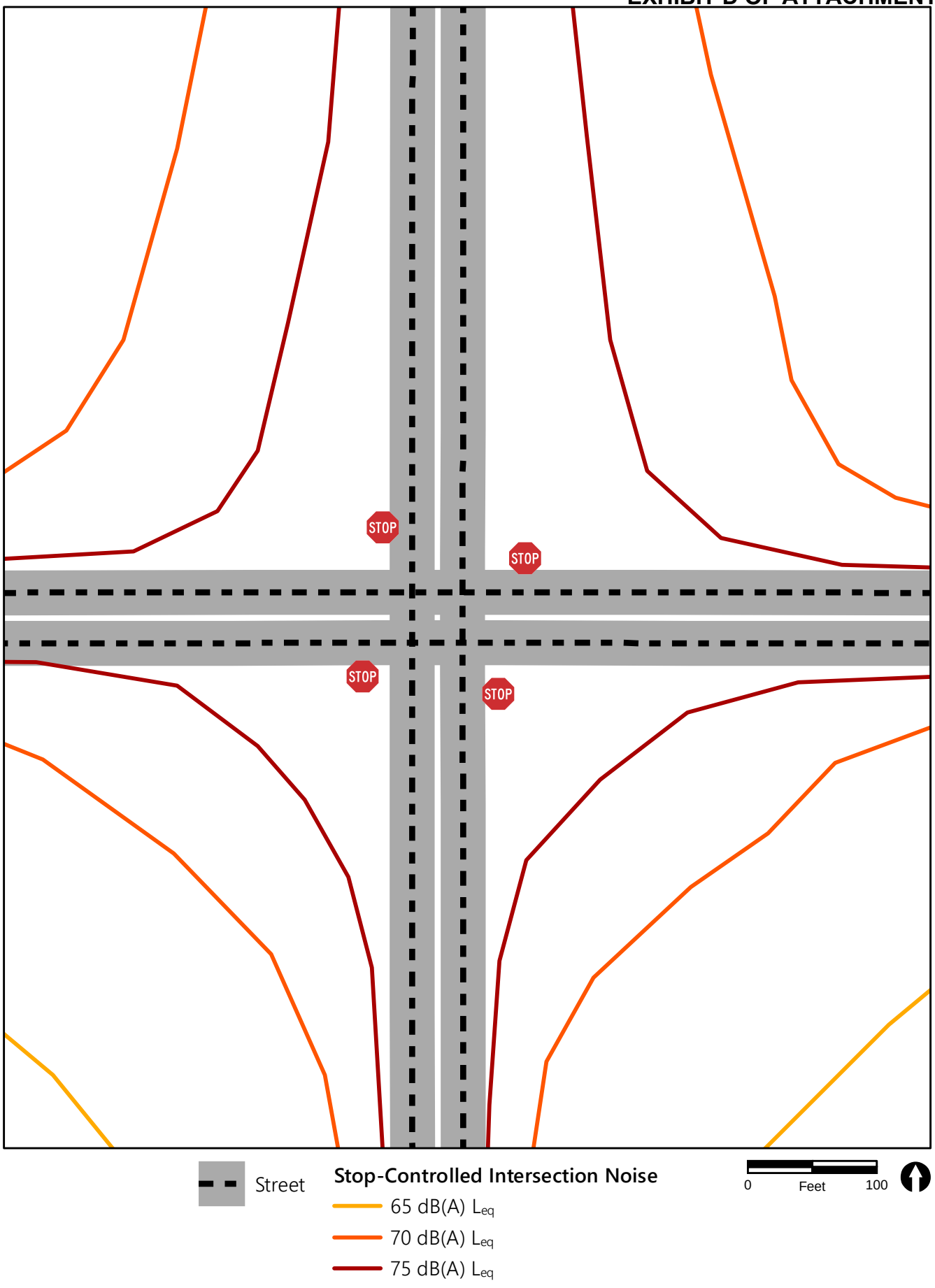
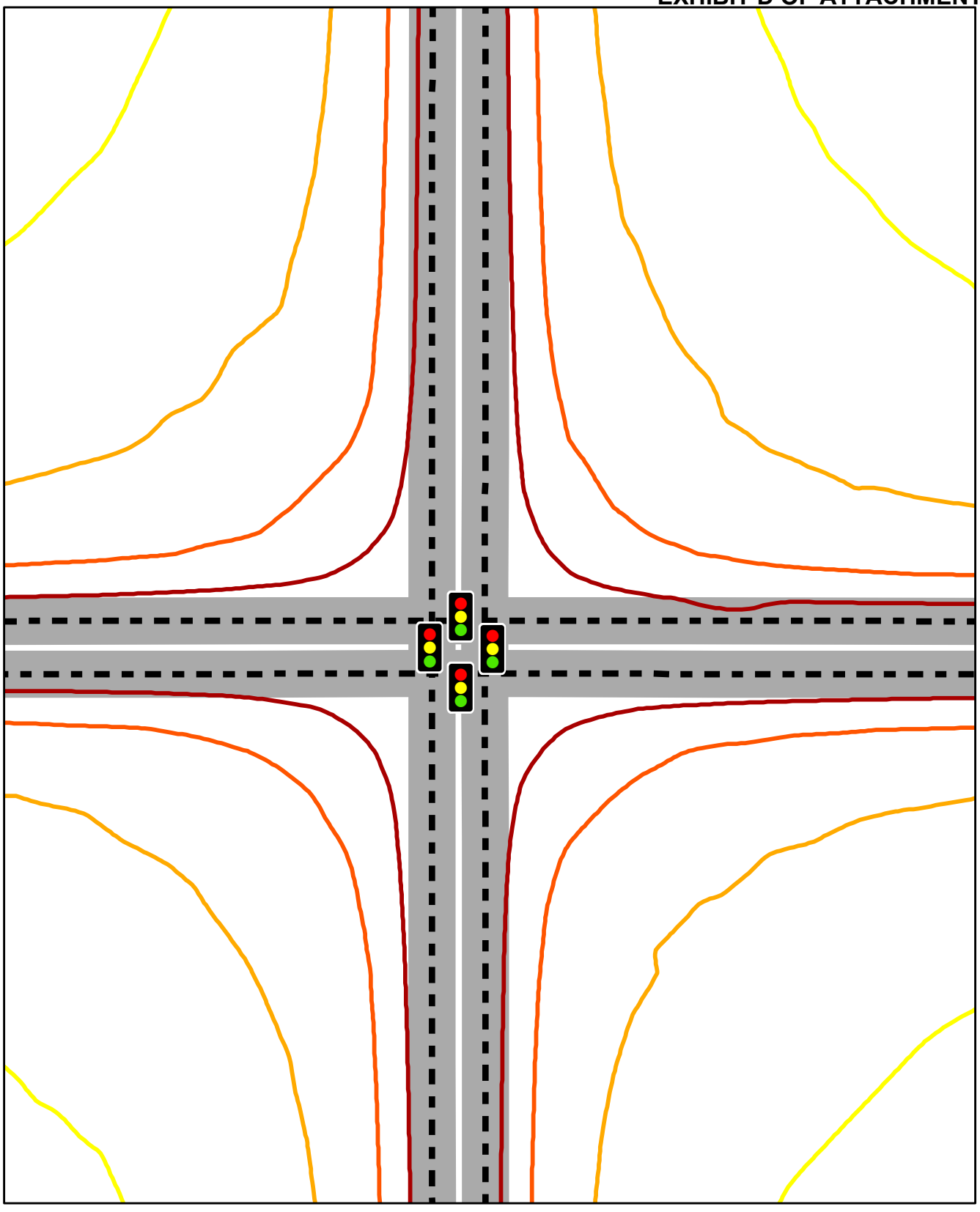


FIGURE 5.1
Stop-Controlled Intersection Noise Contours

RECON

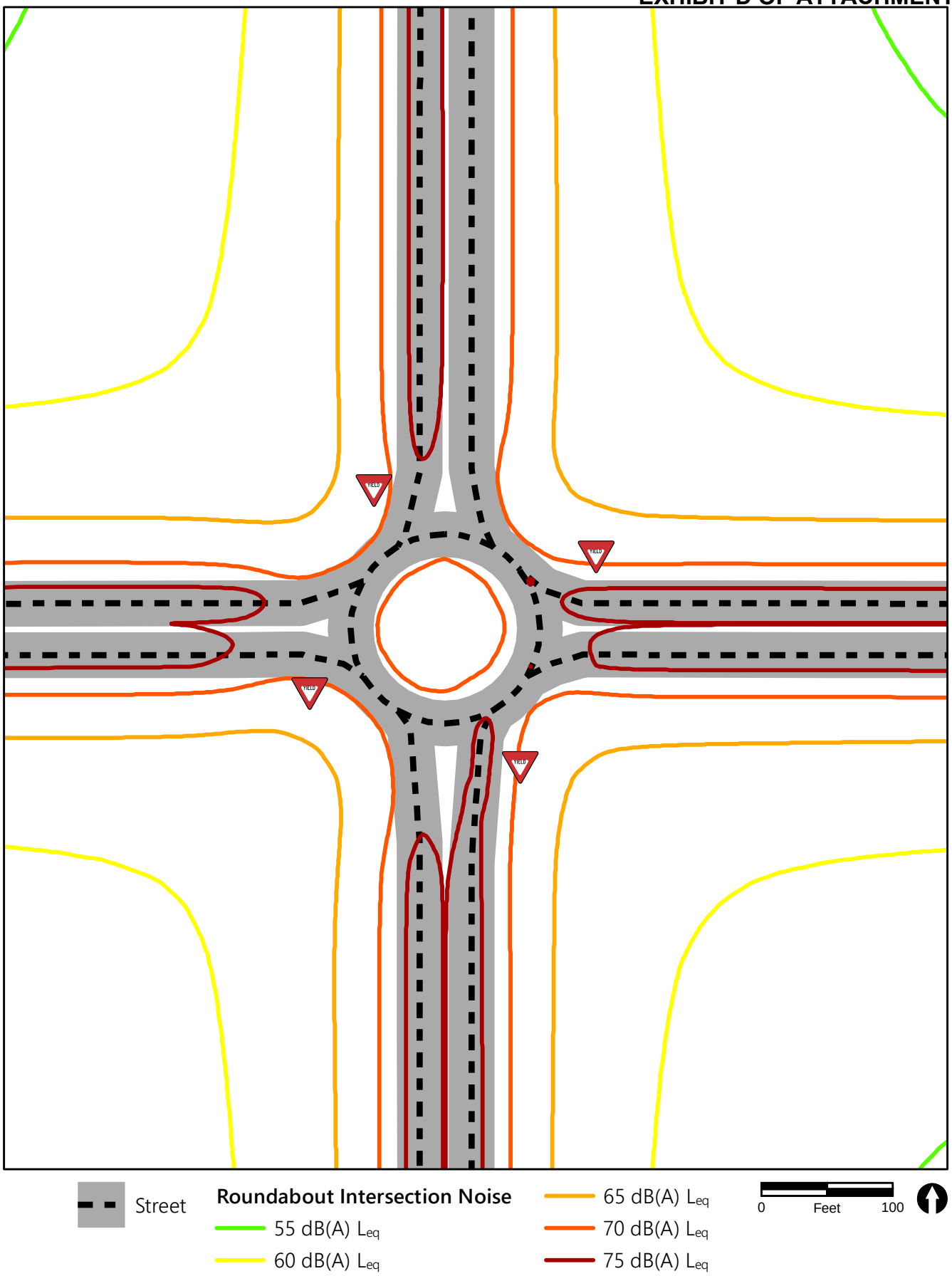
M:\JOBS5\9518\common_gis\reports\Nos_research\fig5.1.mxd 09/07/2023 bma



RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig5.2.mxd 09/07/2023 bma

FIGURE 5.2
Signalized Intersection Noise Contours



RECON

M:\JOBS5\9518\common_gis\reports\Nos_research\fig5.3.mxd 09/07/2023 bma

FIGURE 5.3
Roundabout Intersection Noise Contours