# DRAFT

## Litton Bostick Residential Project

*Prepared for:*

**City of Colton**
659 North La Cadena Drive
Colton, California 92324
*Contact: Andréa Urbas, AICP CEP CUD, Senior Planner*

*Prepared by:*

DUDEK
3544 University Avenue
Riverside, California 92501
*Contact: Collin Ramsey, Senior Project Manager*

# APRIL 2020

Printed on 30% post-consumer recycled material.

# TABLE OF CONTENTS

# TABLE OF CONTENTS (CONTINUED)

**Page No.**



## APPENDICES



## FIGURES

# TABLE OF CONTENTS (CONTINUED)

**Page No.**



## TABLES

# TABLE OF CONTENTS (CONTINUED)

**Page No.**

# ACRONYMS AND ABBREVIATIONS

| Acronym/Abbreviation | Definition |
|---|---|
| AB | Assembly Bill |
| ACM | asbestos-containing materials |
| AF | acre-feet |
| APN | Assessor's Parcel Numbers |
| BMPs | best management practices |
| BNSF | Burlington Northern Santa Fe |
| BUOW | burrowing owl |
| CAAQS | California Ambient Air Quality Standards |
| CAGN | Coastal California Gnatcatcher |
| Caltrans | California Department of Transportation |
| CAP | Climate Action Plan |
| CARB | California Air Resource Board |
| CBC | California Building Code |
| CCR | California Code of Regulations |
| CED | Colton Electric Department |
| CEQA | California Environmental Quality Act |
| $CH_4$ | methane |
| CHRIS | California Historical Resources Information System |
| City | City of Colton |
| CJUSD | Colton Joint Unified School District |
| CNEL | Community Noise Equivalent Level |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| CPUC | California Public Utilities Commission |
| CRHR | California Register of Historical Resources |
| CWRF | City's water reclamation plant |
| dB | decibels |
| DIF | development impact fee |
| EIR | environmental impact report |
| EO | Executive Order |
| EOP | Emergency Operations Plan |
| EPI | Extended Phase I Investigation |
| ESA | Environmental Site Assessment |
| FHWA | Federal Highway Administration |
| GHGs | Greenhouse gas |
| GWP | global warming potential |
| HFC | hydrofluorocarbon |
| I- | Interstate |
| IPCC | Intergovernmental Panel on Climate Change |

| Acronym/Abbreviation | Definition |
|---|---|
| IRP | Integrated Resource Plan |
| IS/MND | Initial Study/Mitigated Negative Declaration |
| LDR | Low Density Residential |
| LOS | Level of Service |
| MBMI | Morongo Band of Mission Indians |
| MGD | million gallons per day |
| MT $CO_2e$ | metric tons of $CO_2$ equivalent |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| $NF_3$ | nitrogen trifluoride |
| $N_2O$ | nitrous oxide |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | oxides of nitrogen |
| NPDES | National Pollutant Discharge Elimination System |
| NRHP | National Register of Historic Places |
| $O_3$ | ozone |
| OBCF | octave band center frequencies |
| OCP | organochlorine pesticides |
| OEHHA | Office of Environmental Health Hazard Assessment |
| OHSA | California Occupational Safety and Health Administration |
| PAH | polyaromatic hydrocarbons |
| PFC | perfluorocarbons |
| $PM_{2.5}$ | particulate matter with an aerodynamic diameter less than or equal to 2.5 microns |
| $PM_{10}$ | particulate matter with an aerodynamic diameter less than or equal to 10 microns |
| PPV | peak particle velocity |
| PRC | California Public Resources Code |
| project | Litton Bostick Residential Project |
| project applicant | Modern Pacific Homes, LLC |
| R-1 | Low Density Residential |
| RCNM | Roadway Construction Noise Model |
| REC | recognized environmental condition |
| RTP/SCS | Regional Transportation Plan/Sustainable Communities Strategy |
| RWQCB | Santa Ana Regional Water Quality Control Board |
| SB | Senate Bill |
| SBTAM | San Bernardino Transportation Analysis Model |
| SCAB | South Coast Air Basin |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCCIC | South Central Coastal Information Center |
| $SF_6$ | sulfur hexafluoride |
| SLF | Sacred Lands File |

| Acronym/Abbreviation | Definition |
|---|---|
| SMBMI | San Manual Band of Mission Indians |
| $SO_x$ | sulfur oxides |
| $SO_2$ | sulfur dioxide |
| SoCalGas | Southern California Gas |
| SRA | Source Receptor Area |
| STP | shovel test pits |
| SWRCB | State Water Resources Control Board |
| SWPPP | Stormwater Pollutant Prevention Plan |
| TACs | Toxic air contaminants |
| TIA | Traffic Impact Analysis |
| TPHs | total petroleum hydrocarbons |
| USFWS | U.S. Fish and Wildlife Service |
| VHFHSZ | Very High Fire Hazard Severity Zone |
| V-L | Very Low Density Residential |
| VLDR | Very Low Density Residential |
| VOCs | volatile organic compounds |

INTENTIONALLY LEFT BLANK

# 1 INTRODUCTION

## 1.1 Project Overview

The City of Colton (City) received a development application from Modern Pacific Homes, LLC (project applicant) requesting approval of the following discretionary actions for the proposed Litton Bostick Residential Project (project):

- Tentative Tract Map (TTM No. 18233) for the proposed development
- Lot Line Adjustment to adjust the lot lines of three properties;
- Architectural and Site Plan Review for the development of property with an average slope grade greater than 20 percent consistent with the City's Hillside Ordinance (Colton Municipal Code Section 18.41);
- Variances to development standards of the City's Hillside Ordinance (Colton Municipal Code Section 18.41);
- Conditional Use Permit for a cluster development (pursuant to Colton Municipal Code Section 18.10.050 and 18.12.050) within hillside property, with reduced lot area, lot dimensions, building setbacks, and other deviations to required development standards to allow for preservation of steep hillsides as open space.

## 1.2 California Environmental Quality Act Compliance

The project is subject to analysis pursuant to the California Environmental Quality Act (CEQA). In accordance with CEQA Guidelines Section 15367, the City is the lead agency with principal responsibility for considering the project for approval (14 California Code of Regulations [CCR] 1500 et seq.).

CEQA, a statewide environmental law contained in California Public Resources Code (PRC) Sections 21000–21177, applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to adversely affect the environment (PRC Section 21000 et seq.). The overarching goal of CEQA is to protect the physical environment. To achieve that goal, CEQA requires that public agencies identify the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant adverse impacts when avoidance or reduction is feasible. It also gives other public agencies and the public an opportunity to comment on the project. If significant adverse impacts cannot be avoided, reduced, or mitigated to below a level of significance, the public agency is required to prepare an environmental impact report (EIR) and balance the project's environmental concerns with other goals and benefits in a statement of overriding considerations.

## 1.3 Preparation and Processing of this Initial Study/Mitigated Negative Declaration

The City directed and supervised preparation of this Initial Study/Mitigated Negative Declaration (IS/MND). Although prepared with assistance from the consulting firm Dudek, the content contained and the conclusions drawn within this IS/MND reflect the independent judgment of the City.

## 1.4 Initial Study Checklist

Dudek, under the City's guidance, prepared the project's Environmental Checklist (i.e., Initial Study) per CEQA Guidelines Sections 15063–15065. The CEQA Guidelines include a suggested checklist to indicate whether a project would have an adverse impact on the environment. The checklist is found in Section 3, Initial Study, of this document. Following the Environmental Checklist, Sections 3.1 through 3.21 include an explanation and discussion of each significance determination made in the checklist for the project.

For this IS/MND, one of the following four responses is possible for each environmental issue area:

1. Potentially Significant Impact
2. Less-Than-Significant Impact with Mitigation Incorporated
3. Less-Than-Significant Impact
4. No Impact

The checklist and accompanying explanation of checklist responses provide the information and analysis necessary to assess relative environmental impacts of the project. In doing so, the City will determine the extent of additional environmental review, if any, for the project.

## 1.5 Public Review Process

Public participation is an essential part of the CEQA process. As required by CEQA, the City shall provide adequate time for other public agencies and members of the public to review and comment on a CEQA document that has been prepared. This MND has been made available to members of the public, agencies, and interested parties for a 30-day public review period in accordance with CEQA Guidelines Section 15105. Public review of the MND is intended to focus "on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should: (1) identify the specific effect, (2) explain why they believe the effect would occur, and (3) explain why they believe the effect would be significant" (14 CCR 15204).

This MND is available for review during the 30-day public review period at:

**Online**

https://www.ci.colton.ca.us/779/Environmental-Documents

Once the 30-day public review period has concluded, any advisory body of a public agency shall consider the MND together with any comments received during the public review process. The decision-making body shall adopt the proposed MND if it finds there is no substantial evidence that the project will have a significant effect on the environment and that the MND reflects the lead agency's independent judgment and analysis. After approval of the project, the City shall file a Notice of Determination at the San Bernardino County Recorder-Clerk's office within five working days after deciding to carry out or approve the project.

## 1.6 Points of Contact

The City of Colton is the lead agency for this environmental document. Any questions about the preparation of this IS/MND, its assumptions, or its conclusions should be referred to the following:

Andréa Urbas, AICP CEP CUD, Senior Planner
City of Colton
Development Services Department
659 North La Cadena Drive
Colton, California 92324
909.370.5596
aurbas@coltonca.gov

INTENTIONALLY LEFT BLANK

# 2 PROJECT DESCRIPTION

## 2.1 Project Location

The project site is located in the southwest portion of the City of Colton, which is in San Bernardino County. The project site is generally bounded by the La Loma Hills to the south and west, the Santa Ana River to the north and west, and Interstate (I-) 215 to the east (Figure 1, Project Location). Specifically, the project is located west of South Bostick Avenue between West Litton Avenue to the north and Palm Avenue to the south. The addresses associated with the project site are 300 West Litton Avenue and 2001 South Bostick Avenue and the Assessor's Parcel Numbers (APNs) associated with the project site are 0163-351-25, 0275-081-01, 0275-081-02, and 0613-351-25.

## 2.2 Environmental Setting

**City of Colton**

The City of Colton is an approximately 16 square-mile City in the West Valley region of San Bernardino County. It is surrounded by the cities of Rialto, Grand Terrace, Loma Linda, San Bernardino, and Riverside. Major transportation facilities include I-10, I-215, Union Pacific Railroad, and Burlington Northern Santa Fe (BNSF) Railway.

The City's history in the citrus processing industry and railroad enterprises are reflected in the development patterns of the City. Industrial land uses developed along major freeways and railroads where there was a concentration of goods movements. As the population has increased, nonindustrial development grew outward from these industrial clusters. Commercial uses are located primarily along the major roadway corridors of Mount Vernon Avenue and Valley Boulevard, and along I-215. Local commercial areas have been established primarily near residential neighborhoods and consist of low-scale, stand-alone commercial centers. Residential uses are located throughout the City at varying development densities. The higher densities are generally found in the area northwest of downtown, and the lowest densities can be found in the hillside developments of Reche Canyon in the southeastern portion of the City (City of Colton 2013a).

Additionally, the physical conditions in the City affect land use planning and land use decisions. The Santa Ana River and hillsides area in southern Colton present challenges concerning access and grading. Another unique geologic feature of the City is the Colton Sand Dune System, considered one of the largest inland sand dune formations in Southern California. The dunes provide habitat for a federally protected species, the Delhi Sands flower-loving fly, and have constrained development activity within the City (City of Colton 2013a).

**Project Site and Surrounding Land Uses**

The project site is comprised of two nearby yet physically separate areas connected by a multipurpose trail. The project site is located in the La Loma Hills area, which is generally defined as the area west of La Cadena Drive, south and east of the Santa Ana River, and north of the Riverside County Line. Both parts of the project site are vacant. On the larger portion of the project site (located on the southwest corner of West Litton Avenue and South Bostick Avenue; comprised of lots 1 – 82), the western and southern areas steeply slope towards the center of the project site, and are terraced due to the former use of the project site as an orchard. A drainage is located in the southwestern corner of the project site and slopes towards the northeast away from the La Loma Hills. The smaller part of the project site (located on the northwest corner of Palm Avenue and South Bostick Avenue; comprised of lots 83 – 88) is bound by the La Loma Hills to north and west and is relatively flat, sloping gently to the southeast.

The project site is bordered by residential development to the north, east, and south. Undeveloped land in La Loma Hills is located to the west of the project site. South Bostick Avenue, a paved road, is located along the project site's western boundary. West Litton Avenue runs east-west along the northern border of the project site and is paved until the intersection of West Litton Avenue and Terrace View Drive (Figure 2, Existing Site Conditions). Palm Avenue runs east-west along the project site's southwestern boundary and is paved along the project frontage.

In addition to the 49-acre project site, the project applicant also controls an approximately 25-acre (gross) portion of vacant land located north of Litton Road just northwest of the project site (Figure 2). No development of this vacant property is being proposed by the applicant. However, because this vacant land would now be accessible via the extension of Litton Road occuring as part of the project, potential impacts related to this vacant property are discussed in Section 3.14, Population and Housing. No development application has been submitted for this vacant property and the project applicant has no current plans to develop this area. Due to the speculative and uncertain nature of future development, the environmental analysis conducted within this IS/MND considers only the development of the 49-acre project site.

**Existing Land Use and Zoning**

The generally vacant project site is identified by the City General Plan's Land Use Map as Very Low Density Residential (VLDR) (0.1 to 2 dwelling units per acre) and Low Density Residential (LDR) (2.1 to 8 dwelling units per acre) (Figure 3, Zoning) (City of Colton 2013a). Similarly, the project site is zoned Very Low Density Residential (V-L) and Low Density Residential (R-1) (Figure 4, General Plan Land Use) (City of Colton 2018).

## 2.3 Proposed Project

**Residential Uses**

The proposed subdivision of the 49-acre project site would include 88 residential lots ranging in size from approximately 5,000 square feet to roughly 12,000 square feet (Figure 5, Site Plan). According to the Colton Municipal Code Sections 18.10 and 18.12, each one- and two-story home must be a minimum of 20,000 square feet for V-L Zone and 7,200 square feet for the R-1 Zone; however, in the case of the project, the lot size may be reduced when clustering homes for hillside development per Section 18.41, Hillside Standards, of the Zoning Code (City of Colton 2018).

**Design and Architecture**

The homes would be designed and ultimately constructed to comply with the design requirements set forth in the Colton Zoning Code. The Zoning Code establishes standards related to height, floor area, setbacks, lot coverage, building materials, landscaping, and other requirements that would govern the general layout of the residential community.

Design and plot plan reviews and approvals are not included on the list of project entitlements considered and evaluated at this time. As such, while the project applicant has provided conceptual architectural elevations (Figures 6a and Figures 6b, Architectural Elevations), design and architecture is not currently proposed as part of the tentative tract map. Architectural design guidelines to be used in designing the homes would be subject to Architectural and Site Plan Review as a part of the requested entitlements prior to issuance of building permits to construct the homes.

**Open Space and Recreation**

An approximately 850-foot long multipurpose trail would be constructed along with the proposed residences to connect to the two residential area on the project site. This trail would be accessible to both residents living on the project site and the public. Additionally, as discussed in Section 3.4, the project will be required to set aside a portion of their property as an open space/conservation land.

**On Site Improvements**

***Site Access and Internal Circulation***

Access to the project site would be provide by private streets from West Litton Avenue to the north, South Bostick Avenue to the east, and Palm Avenue to the south. From external roadways, the project proposes an internal road network to access single-family residences. Public streets would allow for

vehicular circulation on the project site. Pedestrian walkways would also be provided, and would be separated from the vehicle traffic on the private streets by landscaped parkways.

***Stormwater Drainage***

As part of the project, a retention basin would be constructed on the northeast corner of the project site. The retention basin serves the purpose of controlling the outlet volume of water to the same or less water than the existing conditions, slowing the velocity of the runoff, and cleaning the runoff from the site by allowing the sediment to settle out of the water in the retention basin. The project would also implement best management practices (BMPs) and other features described in a site-specific Water Quality Management Plan,

***Utilities***

Domestic Water

The City currently provides domestic water service to the project area, and would serve the project site. All on-site and off-site water delivery improvements would be public.

Sanitary Sewer

Sanitary sewer service in the project area is currently provided by the City. All on-site and off-site sewer conveyance improvements would be public. Effluent generated by the project would be conveyed the City's municipal sewer system and treated at the City's water reclamation plant (CWRF).

Electricity and Natural Gas

Colton Electric Utility and Southern California Gas (SoCalGas) provides energy service to the project area under the existing conditions, and would serve the project site following development of the project.

***Landscaping***

In accordance with Section 18.10.190 and 18.12.190 of the City's Zoning Code, the project would include drought-resistant landscaping, including a mixture of 24-inch and 15-gallon box trees, 5- and 1-gallon shrubs, vines, groundcover, flowers, and lawns throughout the project site. Additionally, two 24-inch box trees would be provided. The landscaped area would provide, wherever possible, a watering system that utilizes the least amount of water. Further, pursuant to standards requirements set forth by the HOA, all private yards would have to be landscaped pursuant to defined criteria in order to maintain a consistent aesthetic throughout the residential community.

***Lighting***

Similar to other residential areas in the City, the project would include interior and exterior lighting sources that could be visible to single-family residences in the surrounding area. However, in accordance with the City's Zoning Code Section 18.42.090, exterior lighting would be arranged as to reflect away from and to not cause a nuisance at surrounding land uses, adjoining property, and the public right-of-way. Further, per Section 18.42.100, direct or reflected glare from light sources originating on a property are prohibited from being visible from the property line[1] (City of Colton 2018). This would be accomplished on the project site by utilizing exterior light fixtures that are shielded with hoods, filtering louvers, glare reducers, or other means to maintain adequate lighting without undue nighttime glare impacts on adjoining areas.

***Soundwall***

Because of the proximity of several of the proposed residential lots to local streets, the project would include an approximately 6-foot tall block noise wall along Litton Avenue and Bostick Avenue.

**Off Site Improvements**

The project driveway at Litton Avenue would install a northbound stop control and construct the northbound approach to consist of one shared left-turn/right-turn lane. The project driveway at Bostick Avenue would install an eastbound stop control and construct the eastbound approach to consist of one shared left-turn/right-turn lane. Additionally, West Litton Avenue would be improved with curb and gutter that will channelize the runoff and prevent erosion in these areas.

## 2.4 Construction and Phasing

The project would be constructed in two, potentially overlapping, phases. Although a construction start date is still unknown, for the purpose of this environmental analysis, a start date of January 2020 was assumed[2]. The construction equipment mix (including both the type and number of equipment expected to be used during project construction) and tentative construction schedule is provide in Appendix A.

Grading will be generally limited to the flat area south of West Litton Avenue, but extends to the base of the hills west of the major development portion of the project site. In addition, the flat area

[1] Property line is considered the start of the public right-of-way from Litton Avenue and Bostick Avenue.

[2] The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.

north of Palm Avenue and west of South Bostick Avenue will be graded. The surrounding foothills areas would not be graded, but rather are proposed as open space.

## 2.4 Project Approvals

The project applicant is requesting approval of the following discretionary actions:

- Tentative Tract Map (TTM No. 18233) for the proposed development
- Lot Line Adjustment to adjust the lot lines of three properties;
- Architectural and Site Plan Review for the development of property with an average slope grade greater than 20 percent consistent with the City's Hillside Ordinance (Colton Municipal Code Section 18.41);
- Variances to development standards of the City's Hillside Ordinance (Colton Municipal Code Section 18.41);
- Conditional Use Permit for a cluster development (pursuant to Colton Municipal Code Section 18.10.050 and 18.12.050) within hillside property, with reduced lot area, lot dimensions, building setbacks, and other deviations to required development standards to allow for preservation of steep hillsides as open space.

# 3 INITIAL STUDY CHECKLIST

**1. Project title:**

Litton Bostick Residential Project

**2. Lead agency name and address:**

City of Colton
Development Services Department
659 North La Cadena Drive
Colton, California 92324

**3. Contact person and phone number:**

Andréa Urbas, AICP CEP CUD, Senior Planner
909.370.5596

**4. Project location:**

The project is located west of South Bostick Avenue between West Litton Avenue to the north and Palm Avenue to the south. The addresses associated with the project site are 300 West Litton Avenue and 2001 South Bostick Avenue and the APNs associated with the project site are 0163-351-25, 0275-081-01, and 0275-081-02.

**5. Project sponsor's name and address:**

Scott McKhann
Modern Pacific Homes, LLC
P.O. Box 7538
Capistrano Beach, California 92624
949.295.7757

**6. General plan designation:**

Very Low Density Residential (VLDR) and Low Density Residential (LDR)

**7. Zoning:**

Very Low Density Residential (V-L) and Low Density Residential (R-1)

**8. Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

The project would involve the construction of 88-detached single-family residences and associated on-site improvements. See Section 2, Project Description, for further details.

**9. Surrounding land uses and setting (Briefly describe the project's surroundings):**

The project site is bordered by residential development to the north, east, and south. Undeveloped land in La Loma Hills is located to the west of the project site. South Bostick Avenue, a paved road, is located along the project site's western boundary. West Litton Avenue runs east-west along the northern border of the project site and is paved until the intersection of West Litton Avenue and Terrace View Drive. Palm Avenue runs east-west along the project site's southwestern boundary and is paved along the project frontage.

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

None known at this time.

**11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?**

Yes. See Section 3.18, Tribal Cultural Resources, for more information.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

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

**DETERMINATION:** (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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

Signature

4-16-20
Date

## EVALUATION OF ENVIRONMENTAL IMPACTS:

| | | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| **I.** | **AESTHETICS –** Except as provided in Public Resources Code Section 21099, would the project**:** | | | | |
| a) | Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☒ | ☐ |
| b) | Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☒ | ☐ |
| c) | In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☐ | ☒ | ☐ |
| d) | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

# 3.1 Aesthetics

***a) Would the project have a substantial adverse effect on a scenic vista?***

***Less-Than-Significant Impact.*** Scenic vistas and other important visual resources can be generally defined as natural landscapes that form views of unique flora, geologic, or other natural features that are free from urban intrusions. Typical scenic vistas include views of mountains and hills, large, uninterrupted open spaces, and waterbodies. Scenic vistas generally play a large role in the way a community defines itself and effects development patterns as projects are designed to take advantage of viewsheds.

Views of the La Loma Hills is considered an important scenic vista within the project area. The La Loma Hills form a scenic backdrop for the existing residential uses in the project area and to pedestrians and motorists traveling along South Bostick Avenue. The project would not result in a substantially adverse effect on the La Loma Hills because development of the project would result in single-family residences, a use which is consistent with the surrounding area. As such, the construction of the proposed single-family uses would not introduce an incompatible visual element within a field of view containing a scenic vista.

Further, the City has included regulations within their General Plan and Zoning Code to ensure proposed development would not result in substantial adverse effects on a scenic vista. Specifically, the General Plan and Zoning Code have set forth development regulations within the La Loma Hills areas to allow cluster development and transfer of development rights to preserve the hillsides and ridgelines, and create opportunities for publically accessible open space areas. The City's General Plan Residential Principle 1 sets forth that concentrated residential development resulting in attractive neighborhoods should be promoted through the use of effective neighborhood design guidelines (City of Colton 2013a). Additionally, the City's Zoning Code Section 18.10.050 allows the V-L zone development standards to be reduced when clustering homes for hillside development.

Similarly, Section 18.12.050 allows the R-1 zone development standards to be reduced when clustering homes for hillside development. Cluster development allows concentration of buildings in specific areas to allow the remaining land to be used for recreation, common open space, and preservation of sensitive areas (City of Colton 2018). By clustering residential uses, the extent to which pedestrians and motorists traveling along South Bostick Avenue would have uninterrupted views of the La Loma Hills increases. Additionally, clustering residential uses within areas zoned for residential uses, preserves scenic vistas through reducing the overall footprint of development.

Approval of the project would allow cluster development within an area zoned V-L and R-1, and require the project to undergo an Architectural and Site Plan Review. Additionally, the project would preserve open space areas of the western and southern portions of the project site. Through compliance with existing principles of the General Plan and the Zoning Code, scenic vistas would be preserved and protected. Therefore, impacts associated with scenic vistas would be less than significant.

***b) Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?***

***No Impact.*** The planned development footprint does not contain trees, rock outcroppings, or other naturally occurring scenic resources. In addition, there are no scenic highways within the vicinity of the project. The nearest, and only, officially designated scenic highway in San Bernardino County is the segment of State Route 38 from east of South Fork Campground to State Lane (Caltrans 2011). This segment of roadway is located more than 30 miles northeast of the project site. Because of this considerable distance, and due to the intervening natural topography and manmade structures between this roadway and the project site, the project would be located well outside of the viewshed of this scenic highway. Therefore, the project would have no impact on scenic highways.

***c) Would the project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

***Less-Than-Significant Impact.*** The project site is located in the La Loma Hills area in the southern edge of the City. The project area is considered developed; however, since the area adjacent to the project site consists of undeveloped land, the following analysis discusses both the project's ability to degrade visual character or quality and potential conflict with applicable zoning and other regulations governing scenic quality.

According to the City's General Plan, this area is envisioned as a containing low-density and medium-density housing, schools and parks, trails, community facilities, and a commercial area serving the neighborhood. This area is generally characterized by the single-family detached homes. Additionally, cluster development approaches and transfer of development rights are encouraged to preserve the hillsides and ridgelines, and to create opportunities for publically accessible open space areas (City of Colton 2013a).

The project consists of 88-detached single-family homes within the V-L and R-1 zoning in the La Loma Hills area. The Architectural and Site Plan Review associated with the project approval would ensure the project is consistent with the visual character and quality of the surrounding area, and the land use designation and zoning of the project site.

The homes would be designed and ultimately constructed to comply with the design requirements set forth in the Colton Zoning Code. The Zoning Code establishes standards related to height, floor area, setbacks, lot coverage, building materials, landscaping, and other requirements that would govern the general layout of the residential community.

Design and plot plan reviews and approvals are not included on the list of project entitlements considered and evaluated at this time. As such, while the project applicant has provided conceptual architectural elevations (Figures 6a and 6b, design and architecture is not currently proposed as part of the tentative tract map. Architectural design guidelines to be used in designing the homes would be subject to Architectural and Site Plan Review as a part of the requested entitlements prior to issuance of building permits to construct the homes.

Additionally, in an effort to ensure any future changes to visual character and quality do not result in adverse impacts, and to ensure the project would be aesthetically compatible with surrounding land uses, the project would follow the Goals and Policies for Pellissier

Ranch/La Loma Hills in the City's General Plan. Specifically, the project would help meet Goal LU-21 to "create a residential neighborhood in the Pellissier Ranch/La Loma Hills area that consists largely of low-density or clustered residential development, with support neighborhood commercial uses, open space, and compatible uses that complement the natural landscape, the Santa Ana River, and the La Loma Hills" (City of Colton 2013a). The project would maintain the single-family residential use that is dominant in the surrounding area, and is consistent with the land use designation and zoning. Additionally, through cluster development, the project would limit the footprint of development within hillside areas. Further, as stated in Section 18.12.010 of the City's Municipal Code for the R-1 zone, new development must be compatible and similar in character to the surrounding residential neighborhoods within this designation (City of Colton 2018).

Further, the project is subject to Section 18.41, Hillside Standards, of the Colton Zoning Code, which would require an Architectural and Site Approval by the Planning Commission. The project requests variance to the City's Hillside Ordinance include private property driveway steepness greater than the maximum 5% within 20 feet of garage doors. Nonetheless, the project would comply with Section 18.41.025 of the Zoning Code, which states the maximum allowable height for the proposed homes is 28 feet with a roof pitch of 3:12, and is 24 feet if the roof pitch is less than 3:12. The height limitations prohibits structures from being placed so that they appear silhouetted against the sky when viewed from a public street. Further, the Hillside Standards requires structures to be located so that a vertical separation of at least fifty feet is provided between the top of the structure and the top of the ridge. As such, the architectural elevations would incorporate design that is sensitive to the hillside terrain. The homes would be constructed with a gradual downslope form in accordance with the existing terracing and downslopes.

Overall, the project plans require approval during the Architectural and Site Plan Review, and thus, implementation of the project would not occur should any inconsistencies with applicable zoning and other regulations occur. Compliance with both the City's General Plan Goals and Policies and development standards relative to the V-L and R-1 zone would be addressed during the Architectural and Site Plan Review, all in an effort to minimize impacts related to change in visual character or quality. Therefore, impacts associated with degrading existing visual character or quality and conflict with applicable zoning and other regulations governing scenic quality would be less than significant.

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

***Less-Than-Significant Impact.*** The project site presently does not contain any sources of light or glare, as the site is currently vacant. Sources of light in the surrounding area include the street lighting along South Bostick Avenue, and residential lighting to the north, east, and south of the project site. Glare occurs during the day from light reflecting off metal or glass surfaces in the surrounding area.

Development of the project would create unique sources of light and glare on the project site, compared to the existing conditions. At night, the project's interior and exterior lights and landscape lighting would be visible from single-family residential uses to the north, east, and south. However, these lighting sources would not have a significant impact on the night sky, as they would be similar to the background levels of light associated with single-family residential uses in the surrounding area.

Existing residential uses and future development projects are subject to the City's Zoning Code Section 18.42.090, which mandates that exterior lighting be arranged as to reflect away from and to not cause a nuisance at surrounding land uses, adjoining property, and the public right-of-way. This requires lighting from the project to be directed away from the public right-of-way along West Litton Avenue and South Bostick Avenue. Thus, the project and future development projects would be constructed and approved in a manner that would limit light and glare impacts within public right-of-ways through consistency with the City's Zoning Code. Further, per Section 18.42.100, direct or reflected glare from light sources originating on a property are prohibited from being visible from the property line (City of Colton 2018). This would be accomplished on the project site by utilizing exterior light fixtures that are shielded with hoods, filtering louvers, glare reducers, or other means to maintain adequate lighting without undue nighttime glare impacts on adjoining areas. The lighting for future development projects is also reasonably expected to include limiting lighting and glare impacts in compliance with Section 18.42.100. As, the project's incremental contribution to a cumulative impact on new lighting would not be considerable. Therefore, impacts associated with light and glare are less than significant.

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

## 3.2 Agriculture and Forestry Resources

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

***No Impact.*** According to the California Department of Conservation's California Important Farmland Finder, under the Farmland Mapping and Monitoring Program, the project site is designated as Grazing Land, which is land with existing vegetation suited to grazing of livestock. As such, the project site does not contain Prime Farmland, Unique

Farmland, or Farmland of State Importance (collectively "Important Farmland") (DOC 2016a). The nearest such land to the project site is Prime Farmland located approximately 2.6 miles northwest of the project site. Due to the relatively considerable distance between the project site and this Farmland of Statewide Importance and the intervening La Loma Hills, the project would not impede, interfere with, convert, or otherwise affect this piece of agricultural land. Additionally, the City of Colton has no agriculturally zone parcels. Therefore, no impacts associated with conversion of Important Farmland would occur.

***b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

***No Impact.*** The project site is zoned Very Low Density Residential (V-L) and Low Density Residential (R-1), and thus, would not conflict with existing zoning for agricultural use (City of Colton 2018). Pursuant the California Department of Conservation's Williamson Act Map for the project area, no parcels identified under a Williamson Act contract are located on the project site (DOC 2016b). The nearest such parcels to the project site are located several miles from the project site near the Cities of Loma Linda and Redlands. Therefore, no impacts associated with conflict with an existing Williamson Act parcel would occur.

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

***No Impact.*** The project is located in an area zoned Very Low Density Residential (V-L) and Low Density Residential (R-1) (City of Colton 2018). Although the project site was previously used as an orchard, the trees have been removed. According to the City's General Plan EIR, the project site does not contain at least 10% tree cover, and thus, is not considered forestland. Additionally, the only area within the City qualifying as a timberland resource is the Christmas tree farm in Reche Canyon, located approximately 3 miles to the east of the project site(City of Colton 2013b). As such, the project site is not located on a parcel zoned for forest land, timberland, or timberland zoned Timberland Production. Therefore, no impacts associated with forest land, timberland, or timberland zoned Timberland Production would occur.

***d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?***

***No Impact.*** Refer to response provided in Section 3.2(c).

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

***No Impact.*** As discussed in Sections 3.2(a) through 3.2(d), the project site is currently vacant and is not utilized for agricultural production or as forest land. Additionally, the project site is zoned Very Low Density Residential (V-L) and Low Density Residential (R-1) (City of Colton 2018). According to the City's General Plan EIR, the project site does not contain at least 10% tree cover, and thus, is not considered forest land (City of Colton 2013b). Therefore, no impacts associated with the conversion of Farmland to non-agricultural use or forest land to non-forest use would occur.

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

## 3.3 Air Quality

***a) Would the project conflict with or obstruct implementation of the applicable air quality plan?***

***Less-Than-Significant Impact.*** The project site is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San

Bernardino Counties, and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

The SCAQMD administers the Air Quality Management Plan (AQMP) for the SCAB, which is a comprehensive document outlining an air pollution control program for attaining all California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recent adopted AQMP is the 2016 AQMP (SCAQMD 2017), which was adopted by the SCAQMD Governing Board in March 2017. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases (GHGs) and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and, thus, if it would interfere with the region's ability to comply with federal and state air quality standards. The SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3, in the SCAQMD CEQA Air Quality Handbook. The criteria are as follows (SCAQMD 1993):

- Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion regarding the project's potential to result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP, project-generated criteria air pollutant emissions were estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A. As presented in Section 3.3(b), project construction would not generate criteria air pollutant emissions that would exceed the SCAQMD thresholds, and the project is not anticipated to generate operational criteria air pollutant emissions.

The second criterion regarding the project's potential to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed

by determining consistency between the project's land use designations and potential to generate population growth. In general, projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook). The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016), which is based on general plans for cities and counties in the SCAB, for the development of the AQMP emissions inventory (SCAQMD 2017).[3] The SCAG 2016 RTP/SCS, and associated Regional Growth Forecast, are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans.

The project site is identified by the City General Plan's Land Use Map as VLDR (0.1 to 2 dwelling units per acre) and LDR (2.1 to 8 dwelling units per acre) (City of Colton 2013a). Similarly, the project site is zoned V-L and R-1 (City of Colton 2018). Since the project would not change the site land use or zoning designations, the project would result in population growth that is consistent with the City's General Plan and zoning, as well as the anticipated SCAG's growth projections assumed in the 2016 Final AQMP. Additionally, vehicle trip generation and planned development for the site are concluded to have been anticipated in the SCAG growth projections because the land use designation and zoning would remain the same.

In summary, based on the considerations presented for the two criteria, the project would not conflict with or obstruct implementation of the applicable AQMP. Therefore, impacts associated with the applicable air quality plan would be less than significant.

[3] Information necessary to produce the emission inventory for the SCAB is obtained from the SCAQMD and other governmental agencies, including the California Air Resources Board, Caltrans, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

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

***Less-Than-Significant Impact.*** Quantitative analysis was conducted to determine whether proposed construction activities would result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS, or contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone ($O_3$), nitrogen dioxide ($NO_2$), carbon monoxide (CO), sulfur dioxide ($SO_2$), particulate matter with an aerodynamic diameter less than or equal to 10 microns ($PM_{10}$), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen ($NO_x$), which are important because they are precursors to $O_3$, as well as CO, sulfur oxides ($SO_x$), $PM_{10}$, and $PM_{2.5}$.

Regarding NAAQS and CAAQS attainment status,[4] the SCAB is designated as a nonattainment area for federal and state $O_3$ standards and federal and state $PM_{2.5}$ standards (CARB 2017a; EPA 2017a). The SCAB is designated as a nonattainment area for state $PM_{10}$ standards; however, it is designated as an attainment area for federal $PM_{10}$ standards. The SCAB is designated as an attainment area for federal and state CO standards, federal and state $NO_2$ standards, and state $SO_2$ standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.[5]

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air district may be relied upon to determine whether a project would have a significant impact on air quality. The SCAQMD has established Air Quality Significance Thresholds, as revised in March 2015, which set forth quantitative emissions significance thresholds below which a project would not have a significant impact on ambient air quality under project-level and cumulative conditions (SCAQMD 2015). The quantitative air quality analysis provided herein applies the SCAQMD thresholds to determine the potential for the project to result in a significant impact under CEQA. The SCAQMD mass daily construction thresholds are as follows: 75 pounds per

[4] An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards are set by the Environmental Protection Agency (EPA) and California Air Resources Board (CARB), respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. Attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards.

[5] The phase out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

day for VOC, 100 pounds per day for $NO_x$, 550 pounds per day for CO, 150 pounds per day for $SO_x$, 150 pounds per day for $PM_{10}$, and 55 pounds per day for $PM_{2.5}$.

The following discussion quantitatively evaluates project-generated construction impacts and qualitatively evaluates operational impacts that would result from implementation of the project.

**Construction Emissions**

Construction of the project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

Criteria air pollutant emissions associated with temporary construction activity were quantified using CalEEMod. Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during construction. Construction schedule assumptions, including phase type, duration, and sequencing, were based on CalEEMod default values, where detailed project information was not available, and are intended to represent a reasonable scenario based on the best information available.

Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of VOCs, $NO_x$, CO, $PM_{10}$, and $PM_{2.5}$. $PM_{10}$ and $PM_{2.5}$ emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. The project would be required to comply with SCAQMD Rule 403 to control dust emissions during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active grading areas, with additional watering depending on weather conditions. The application of architectural coatings, such as exterior application/interior paint and other finishes, and asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).

Table 1 presents the estimated maximum daily construction emissions generated during construction of the project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix A.

**Table 1**
**Estimated Maximum Daily Construction Emissions**

| Year | VOC | $NO_x$ | CO | $SO_x$ | $PM_{10}$[a] | $PM_{2.5}$[a] |
|---|---|---|---|---|---|---|
| | *pounds per day* | | | | | |
| 2020 | 4.55 | 50.26 | 32.78 | 0.06 | 8.39 | 5.37 |
| 2021 | 6.86 | 22.95 | 24.04 | 0.05 | 2.73 | 1.46 |
| 2022 | 6.61 | 20.79 | 23.41 | 0.05 | 2.57 | 1.30 |
| **Maximum daily emissions** | **6.86** | **50.26** | **24.04** | **0.06** | **8.39** | **5.37** |
| *SCAQMD threshold* | *75* | *100* | *550* | *150* | *150* | *55* |
| **Threshold exceeded?** | **No** | **No** | **No** | **No** | **No** | **No** |

**Source:** SCAQMD 2015.
**Notes:** VOC = volatile organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District.
See Appendix A for detailed results.
[a] These estimates reflect control of fugitive dust (watering three times daily) and replace ground cover on disturbed areas required by SCAQMD Rule 403 (SCAQMD 2005).

As shown in Table 1, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$ during project construction. Therefore, impacts associated with construction emissions would be less than significant.

**Operational Emissions**

The project involves development of 88-detached single-family residences. Operation of the project would generate VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$ emissions from mobile sources, including vehicle trips from future residents; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; and energy sources. Operation, pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on project-specific trip rates. CalEEMod default values were used to estimate emissions from the project area and energy sources.

Table 2 presents the maximum daily area, energy, and mobile source emissions associated with operation (year 2023) of the project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix A.

**Table 2**
**Estimated Maximum Daily Operational Criteria Air Pollutant Emissions**

| Emission Source | VOC | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| | *pounds per day* | | | | | |
| Area | 3.92 | 1.56 | 7.97 | 0.01 | 0.16 | 0.16 |
| Energy | 0.08 | 0.69 | 0.29 | <0.01 | 0.06 | 0.06 |
| Mobile | 1.40 | 6.27 | 17.77 | 0.07 | 6.46 | 1.76 |
| **Total** | **5.40** | **8.52** | **26.03** | **0.08** | **6.68** | **1.98** |
| *SCAQMD Threshold* | *75* | *100* | *550* | *150* | *150* | *55* |
| **Threshold Exceeded?** | **No** | **No** | **No** | **No** | **No** | **No** |

**Notes:** VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District
See Appendix A for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. These emissions reflect CalEEMod "mitigated" output, which accounts for compliance with SCAQMD Rule 1113 (Architectural Coatings).

As shown in Table 2, the combined daily area, energy, and mobile source emissions would not exceed the SCAQMD operational thresholds for VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$. Impacts associated with project-generated operational criteria air pollutant emissions would be less than significant.

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present air emission sources. Pursuant to the federal and California Clean Air Acts, the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used to help determine whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

The SCAB has been designated as a federal nonattainment area for $O_3$ and $PM_{2.5}$ and a state nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within SCAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction and operation of the project would generate VOC and $NO_x$ emissions (which are precursors to $O_3$) and emissions of $PM_{10}$ and $PM_{2.5}$. However, as indicated in Tables 1 and 2, project-generated construction and operational emissions,

respectively, would not exceed the SCAQMD emission-based significance thresholds for VOCs, $NO_x$, $PM_{10}$, or $PM_{2.5}$.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative.[6] However, future projects would be subject to CEQA and would require air quality analysis, and where necessary, mitigation if the project would exceed SCAQMD thresholds. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative $PM_{10}$ and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD. Therefore, impacts associated with operational emissions would be less than significant.

***c) Would the project expose sensitive receptors to substantial pollutant concentrations?***

***Less-Than-Significant Impact.*** Localized project impacts associated with construction criteria air pollutants emissions are assessed below.

**Sensitive Receptors**

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest sensitive receptor land uses are single-family residences located adjacent to the project site located to the north, east, and south.

**Localized Significance Thresholds**

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project site as a result of construction activities. The impacts were analyzed using methods

[6] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145). This discussion is nonetheless provided in an effort to show good-faith analysis and comply with CEQA's information disclosure requirements.

consistent with those in the SCAQMD's Final Localized Significance Threshold Methodology (SCAQMD 2009). The project is located in Source Receptor Area (SRA) 34 (Central San Bernardino Valley). Emissions thresholds based on a disturbance area of three acres per day were utilized. The closest sensitive receptors are single-family homes located adjacent to the project, located to the north, east, and south. The shortest receptor distance available in the SCAQMD LST Methodology is 25 meters (82 feet) and is what was conservatively assumed for this analysis.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with construction equipment exhaust and dust-generating activities. Off-site emissions from trucks and worker vehicle trips are not included in the LST analysis because they occur off site. The maximum daily on-site construction emissions generated during construction of the project is presented in Table 3, and compared to the SCAQMD localized significance criteria for SRA 34 to determine whether project-generated on-site construction emissions would result in potential LST impacts.

**Table 3**
**Construction Localized Significance Thresholds Analysis**

| Year | $NO_2$ | CO | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|
| | *pounds per day (on site)* | | | |
| Construction Emissions | 4.45 | 50.20 | 5.05 | 3.19 |
| *SCAQMD LST Criteria* | *203* | *1,230* | *9* | *5* |
| **Threshold Exceeded?** | **No** | **No** | **No** | **No** |

**Source:** SCAQMD 2009.
**Notes:** $NO_2$ = nitrogen dioxide; CO = carbon monoxide; $PM_{10}$ = particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.
See Appendix A for detailed results.
Localized significance thresholds are shown for a 3-acre project site corresponding to a distance to a sensitive receptor of 25 meters.

As shown in Table 3, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized project construction impacts would be less than significant.

### CO Hotspots

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. The project would not generate a substantial amount of traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. Additionally, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in SCAB is steadily decreasing and would be

expected to improve further due to reductions in motor vehicle emissions. Therefore, further analysis is not required and impacts would be less than significant.

**Toxic Air Contaminants**

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under the LST analysis, the nearest sensitive receptors to the project are residences located adjacent to the project site.

"Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology (OEHHA 2015). Additionally, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be diesel particulate matter, emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB air toxic control measures to reduce diesel particulate matter emissions. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). However, based on the minimal duration of proposed construction activities (approximately 32-months, which equates to about 9% of the total 30-year analysis exposure period) and that the project would not require the extensive use of heavy-duty construction equipment, the project would result in minimal TACs during construction and would result in less than significant health risk impacts.

**Health Impacts of Criteria Air Pollutants**

Construction and operation of the project would generate criteria air pollutant emissions; however, the project would not exceed the SCAQMD emission thresholds, as shown in Tables 1 and 2.

The SCAB is designated as nonattainment for $O_3$ for the NAAQS and CAAQS. Thus, existing $O_3$ levels in the SCAB are at unhealthy levels during certain periods. The health effects associated with $O_3$ are generally associated with reduced lung function. Because the project would not involve construction or operational activities that would result in $O_3$ precursor emissions (VOC or $NO_x$) in excess of the SCAQMD thresholds, the project is

not anticipated to substantially contribute to regional $O_3$ concentrations and the associated health impacts.

In addition to $O_3$, $NO_x$ emissions contribute to potential exceedances of the NAAQS and CAAQS for $NO_2$. Exposure to $NO_2$ and $NO_x$ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Project construction would not exceed the SCAQMD $NO_x$ threshold, and existing ambient $NO_2$ concentrations are below the NAAQS and CAAQS. Thus, project construction is not expected to exceed the $NO_2$ standards or contribute to associated health effects.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. CO hotspots were discussed as a less than significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

The SCAB is designated as nonattainment for $PM_{10}$ under the CAAQS and nonattainment for $PM_{2.5}$ under the NAAQS and CAAQS. Particulate matter contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (EPA 2016b). As with $O_3$ and $NO_x$, the project would not generate emissions of $PM_{10}$ or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Additionally, the project would be required to comply with SCAQMD Rule 403, which limits the amount of fugitive dust generated during construction. Accordingly, the project's $PM_{10}$ and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, the project would not result in a potentially significant contribution to regional concentrations of non-attainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Therefore, impacts associated with exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

***d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

***Less-Than-Significant Impact.*** The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

During project construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and asphalt pavement application. However, such odors typically disperse rapidly from the project site, given that there are no natural topographic features (e.g., canyon walls) or manmade structures (e.g., tall buildings) that would potential trap such emissions, and these odors generally occur at magnitudes that would not affect substantial numbers of people. Accordingly, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). Operation of the project would not entail any of these potentially odor-causing land uses. Therefore, impacts associated with odors would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **IV. BIOLOGICAL RESOURCES** – Would the project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☒ | ☐ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☒ |

## 3.4 Biological Resources

The following analysis is based on the Biological Resources Assessment prepared by M.J. Klinefelter and included as Appendix B-1. Additionally, the following analysis includes the results of the 2016 and 2019 Rare Plant Surveys (Appendix B-2 and B-3) and the 2016 and 2019 Focused Coastal California Gnatcatcher Surveys (Appendix B-4 and B-5).

***a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

***Less-Than-Significant Impact With Mitigation Incorporated.*** A field investigation conducted as part of the biological resources assessment report prepared for the project (Appendix B-1) originally took place in July 2014. During this field visit, no special status plant or wildlife species were detected at the Site. However, based on the biological resources assessment, the project site was determined to contain habitat that is suitable to support several special status species.

As such, special status plant surveys were originally conducted between April and June 2016 (Appendix B-2). No special status plants were observed on the project site during the 2016 surveys. Updated special status plant surveys conducted in July 2019 similarly concluded that special status plants are not present on the project site (Appendix B-3).

The property is located within U.S. Fish and Wildlife Service (USFWS) designated critical habitat for the Coastal California Gnatcatcher (CAGN), a federally threatened species. USFWS-protocol focused surveys were originally conducted in May and June 2014 to document the presence or absence of CAGN on-site (Appendix B-4). No CAGN were detected during these surveys. In addition, updated CAGN protocol survey conducted in March and April 2019 similarly concluded that CAGN is not present on the project site (Appendix B-5).

The project site was determined to contain suitable nesting habitat for burrowing owl (BUOW); the areas of open ground and low-growing vegetation, as well as numerous California ground squirrel burrows and scattered debris piles, provide suitable nesting habitat. The project site was evaluated for the presence of BUOW nesting and foraging habitat. All potential BUOW nesting habitat, including any existing burrows; earthen berms or banks; cement culverts; cement, asphalt, rock, or wood debris piles; openings beneath cement or asphalt pavement; and other man-made structures were carefully inspected for BUOW sign such as feces, pellets and feathers. Although no BUOW was observed on the project site during the field investigated, given that suitable BUOW nesting and foraging habitat is present, and a pre-construction survey for BUOW is required prior to initiation of any construction activities (MM-BIO-1) to ensure that potential impacts to BUOW are reduced to less than significant.

In addition, because the project site is currently undeveloped and contains vegetation that could support nesting activities, the project site is considered to support suitable habitat for migratory nesting bird species. Nesting migratory birds are protected under the Migratory Bird Treaty Act and California Fish and Game Code Section 3500. Compliance with these regulations is required. Direct and indirect impacts to migratory nesting birds must be avoided to comply with the Migratory Bird Treaty Act and California Fish and Game Code. Removal of trees, shrubs, vegetation, or other nesting habitat would occur as a result of project implementation. Thus, direct impacts to nesting birds could occur if conducted during the breeding and nesting season (i.e., February through August). Additionally, indirect impacts to nesting birds from short-term, construction-related noise could result in decreased reproductive success or abandonment of an area as nesting habitat if conducted during the breeding/nesting season. To avoid potential direct and indirect impacts to nesting birds in conformance with the Migratory Bird Treaty Act and California Fish and

Game Code, MM-BIO-2 would be required to minimize potential impacts to nesting birds to less than significant.

**MM-BIO-1** A pre-construction survey for resident BUOW should be conducted by the qualified biologist (biologist) within 30 days prior to construction activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the project site should be re-surveyed for owls. Pre-construction survey methodology should be based on Appendix D (Breeding and Non-breeding Season Surveys and Reports) of the March 2012 Staff Report on Burrowing Owl Mitigation issued by the California Department of Fish and Game [now CDFW]. Results of the pre-construction survey will be provided to CDFW and the City.

During the burrowing owl (BUOW) breeding season (February 1 through August 30), if BUOW are not detected on the project site during the pre-construction survey, then no further mitigation would be required. However, if BUOW are found to be using the project site during the pre-construction survey, measures should be developed by the biologist in coordination with CDFW and the City to avoid impacting owls and occupied burrows during the nesting period. These measures shall be based on the most current CDFW protocols and would minimally include establishment of buffer setbacks from occupied burrows as well as owl monitoring.

During the non-breeding season (September 1 through January 31), if burrows occupied by migratory or non-migratory BUOW are detected during the pre-construction survey, then burrow exclusion and/or closure may be used to exclude owls from those burrows. Burrow exclusion and/or closure should only be conducted by a qualified biologist in coordination with CDFW using the most current CDFW guidelines.

**MM-BIO-2** If construction activities must commence during the breeding and nesting season (i.e., February through August), a qualified biologist shall conduct a nesting bird survey within one calendar week prior to vegetation clearing, cutting, or removal activities during the breeding/nesting season for native birds. The nesting bird survey shall consist of full coverage of the project footprint and an appropriate buffer, as determined by the biologist. If no occupied nests are found, no additional steps shall be required.

If nests are found being used for breeding or rearing young by a native bird, the nest locations shall be mapped by the biologist using GPS equipment. The species of the nesting bird and, to the degree feasible, the nesting stage (e.g., incubation of eggs, feeding of young, near fledging) shall be documented. The biologist may establish an avoidance buffer around occupied nests if there is a significant potential for take of the species or potential for inadvertent destruction of the nest. The buffer size shall be determined by the biologist based on the species present, surrounding habitat, and existing environmental setting/level of disturbance. No construction or ground-disturbing activities shall be conducted within the buffer until the biologist has determined that the nest is no longer being used for breeding or rearing and has informed the construction supervisor that activities may resume.

***b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

***Less-Than-Significant Impact With Mitigation Incorporated.*** The vegetation/land cover types that exist on-site include California sagebrush scrub, disturbed-ruderal, disturbed-agricultural, and disturbed-road. None of the disturbed land covers are considered natural communities. Additionally, California sagebrush scrub is not considered a sensitive vegetation community because it is common, widespread, abundant, and lacks major threats (Sawyer et al. 2009). One sensitive natural community has been recorded within 5 miles of the Site (along the Santa Ana River) - Southern Cottonwood Willow Riparian Forest (CDFW 2014). Southern Riparian Scrub is present along the river as well. These sensitive natural communities are not present at the project site and no direct impacts to these communities will occur. Additionally, there are no riparian, riverine, or vernal pool habitats on the project site and therefore no impacts to these habitats or their associated plant or wildlife species would occur.

Construction of the project would result in the direct loss of on-site vegetation. However, most of the intact stands of California sagebrush scrub on the project site are located on the western and southern portions of the project, which would not be directly impacted by the project. The stands of California sagebrush scrub proposed for removal are of relatively low quality, and have been subject to high levels of disturbance from current and past human-related activities. Notwithstanding, the approximately 3.46 acres of California sagebrush scrub found on the project site represents one of few remaining areas of coastal sage scrub in the City. This habitat is suitable to support several special status plant and

wildlife species, although no special status species were detected during the biological assessment and focused surveys.

To compensate for the removal of 3.46 acres, a conservation easement or deed restriction may be placed over a portion of the approximately 18-acre open space (Lot C), which contains approximately 14 acres of California sagebrush scrub. As previously stated, the California sagebrush scrub that would be removed as part of the project is of lower quality than that found in the western and south-central portions of the project site. Thus, preservation of approximately 14 acres of California sagebrush scrub within the open space Lot C would preserve in perpetuity higher quality California sagebrush scrub habitat at a 4:1 mitigation ratio.

Further, indirect impacts to adjacent vegetation communities in the vicinity could result from adverse edge effects, which can occur along development edges. Construction and grading activities increase airborne dust particulates, which may diminish the vitality of native vegetation to the west and south of the project site; areas to the north and east are developed and vegetation consists of non-native horticultural species. The introduction of invasive non-native plant species from the development to adjacent open areas can adversely affect native plant cover and diversity, as well as adversely modify habitat for wildlife. Therefore, MM-BIO-3 and MM-BIO-4 are required to minimize indirect impacts to vegetation communities in the vicinity of the project.

**MM-BIO-3** The following measures are recommended to minimize indirect impacts to vegetation communities in the vicinity of the project site:

- Dust control measures designed to minimize effects to vegetation in the vicinity should be implemented.
- Native plants should be used to the greatest extent feasible in landscaped areas. Many invasive non-native horticultural species can spread readily into natural areas and the local watershed. Landscaping should not include invasive plants identified by the California Invasive Plant Council (Cal-IPC).

**MM-BIO-4** Prior to issuance of a grading permit, a conservation easement or deed restriction shall be placed over a portion of the approximately 18-acre open space (Lot C), which contains approximately 14 acres of California sagebrush scrub. Proof of that the conservation easement or deed restriction has been implemented shall be provided to the City of Colton.

With incorporation of mitigation, impacts associated with sensitive vegetation communities would be less than significant.

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

***No Impact.*** According to the Biological Resources Assessment (Appendix B), no jurisdictional waters of the U.S. or state, including both wetland and non-wetland waters, would be impacted by the project. Therefore, no impacts to jurisdictional waters would occur.

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

***Less-Than-Significant Impact With Mitigation Incorporated.*** Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping stones for wildlife dispersal.

Most of the land within the City of Colton has been converted from open space to commercial, industrial, residential, and recreational uses. Regional wildlife movement is severely restricted due to the highly urbanized nature of the City and greater San Bernardino and Riverside Counties. The South Coast Wildlands, in collaboration with the US Forest Service, the National Park Service, and numerous conservation groups, have designed the South Coast Ecoregion wildland network as part of the South Coast Missing Linkages project. The South Coast Missing Linkages project is designed to maintain and restore connections between wildlands by identifying and prioritizing linkages that conserve essential biological and ecological processes. There are no linkage designs within or near the Colton planning area (City of Colton 2013).

The project site is one of the few remaining undeveloped properties in the City planning area. However, it is located in an area where habitat has been highly fragmented by urban development and historic agricultural operations. The La Loma Hills are present to the northwest, west, and southwest of the project site. The La Loma Hills contain numerous roads and native habitats have been fragmented. Although the habitats within the vacant undeveloped hills are of significantly reduced quality than that of intact natural areas, they

nonetheless contain stands of native vegetation and support native wildlife, and provide potential habitat for special status species.

Residential development is present immediately to the north, east, and southeast of the project site, and developed areas are present approximately one mile southwest of the project site. Additionally, north and west of the Santa Ana River, lands are developed within 1-2 miles of the project site. Due to the presence of these highly urbanized surrounding areas, the project site does not serve as a regional wildlife corridor. In addition, although the project site contains suitable nesting and foraging habitat for a number of wildlife species, given the patchwork of development in the surrounding area, the project site is not part of a larger regional linear feature that connects large patches of open space.

The San Bernardino County General Plan Open Space Element identifies the Santa Ana River as a wildlife corridor. The river is approximately 0.5 mile north, and 0.8 mile west of the project site. The river corridor is relatively wide and supports natural vegetation communities; therefore, it likely serves as a movement corridor for both terrestrial and aquatic species, and provides stop-over areas for migratory birds on the Pacific Flyway. The river corridor is an important and valuable regional resource with relatively high levels of native biodiversity. Due to the distance between the river and the project site and the intervening topography, the project would not impact the river's ability to serve as a wildlife corridor. Therefore, impacts associated with wildlife movement would be less than significant.

In terms of wildlife nursery site, because the project site is currently undeveloped and contains vegetation that could support nesting activities, the project site is considered to support suitable habitat for migratory nesting bird species. Nesting migratory birds are protected under the Migratory Bird Treaty Act and California Fish and Game Code Section 3500. Compliance with these regulations is mandatory. Direct and indirect impacts to migratory nesting birds must be avoided to comply with the Migratory Bird Treaty Act and California Fish and Game Code. Removal of trees, shrubs, vegetation, or other nesting habitat would occur as a result of project implementation. Thus, direct impacts to nesting birds could occur if conducted during the breeding and nesting season (i.e., February through August).

Additionally, indirect impacts to nesting birds from short-term, construction-related noise could result in decreased reproductive success or abandonment of an area as nesting habitat if conducted during the breeding/nesting season. To avoid potential direct and indirect impacts to nesting birds in conformance with the Migratory Bird Treaty Act and California Fish and Game Code, MM-BIO-2 would be required to minimize potential impacts to nesting birds to less than significant. Therefore, impacts associated with the movement of

any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors would be less than significant.

***e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

***No Impact.*** Consistent with Colton Municipal Code Section 12.20.040, no person, shall trim, prune, plant, injure or interfere with any tree, shrub or plant within the public ROW without first obtaining approval from the City. The project will not require removal of any tree, shrub, or plant from the public ROW, and given that the project site is largely void of trees or shrubs, will also not require removal of trees or shrubs on private property. Therefore, impacts associated with any local policies or ordinances protecting biological resources would be less than significant.

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

***No Impact.*** According to the Biological Resources Assessment (Appendix B), the project site is not located within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other approved local, regional, or State habitat conservation plan. Implementation of the project would not conflict with the provisions of any such adopted plan. Therefore, no impacts associated with an applicable conservation plan would occur.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **V. CULTURAL RESOURCES** – Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | ☐ | ☐ | ☐ | ☒ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ☒ | ☐ | ☐ |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☐ | ☐ | ☒ |

## 3.5 Cultural Resources

The following analysis is based on the Extended Phase I Archaeological Inventory Report prepared by Dudek and included as Appendix C.

***a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?***

***No Impact.*** The Extended Phase I Archaeological Inventory Report (Appendix C) was conducted involved a California Historical Resources Information System (CHRIS) records search covering the project site plus a 1-mile radius at the South Central Coastal Information Center (SCCIC). The SCCIC records search included a review of all recorded historic and prehistoric archaeological sites within a 1-mile radius of the project site (referred to as "the study area"). Additionally, the California State Historic Property Data File was reviewed, which includes the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historical Landmarks, and California Points of Historical Interest.

The SCCIC records indicate that 51 previous cultural resources technical investigations have been conducted within the record search area between 1973 and 2014. Of these, two previous studies overlap portions of the project site and/or are adjacent to the site, and the remaining 49 are within the records search buffer.

The SCCIC records also indicated 35 historic resources and 28 prehistoric resources have been recorded within the record search area, for a total of 64 cultural resources in the study area. The 35 historic resources include 30 historic building or structures, two historic sites

containing structural remnants, two historic trash scatters, and one historic isolate. The 28 prehistoric resources include 15 bedrock milling features, six rock shelters and/or features, two Yoni features, three lithic scatters with associated bedrock milling features, two isolated manos, and one pictograph site. One resource (CA-SBR-000792) is mapped within the parcel where the project site is located; however it is not within the development footprint of the project. This resource is a prehistoric site containing a lithic scatter and a bedrock milling feature.

The entire project site is vacant with the exception of 20 concrete features present within the northeast portion of the site. The features are of unknown origin/function and are aligned in a roughly east-west orientation. These concrete features do not contain any dateable marks or components, limiting their ability or be dated. However, they can be discerned on the 1980 aerial photograph (NETR 2018), but are not present on earlier photos. Therefore, they can be confirmed to be less than 45 years old and do not qualify as cultural resources.

Typically, researchers in California use a 50-year age threshold, following State Historic Preservation Office recommendations. Pursuant to CEQA Guidelines, Section 15064.5(a)(3), a resource may be considered to be "historically significant" by the lead agency if the resource meets the criteria for listing, including the following, on the California Register of Historical Resources (PRC Section SS5024.1; 14 CCR 4852):

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
B. Is associated with the lives of persons important in our past
C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
D. Has yielded, or may be likely to yield, information important in prehistory or history

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (14 CCR 4852(d)(2)).

Due to the lack of structures on the project site and since the on-site concrete features do not meet the age criteria for significant historic resources, the project site does not support

any historical resources. Therefore, no impacts associated with potential impacts to historical resources would occur.

***b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?***

***Less-Than-Significant Impact with Mitigation Incorporated.*** The SCCIC indicated that 64 cultural resources have been previously recorded within a 1-miles radius of the project site. One resource (CA-SBR-000792) is mapped within the parcel where the project site is located; however it is not within the development footprint of the project. This resource is a prehistoric site containing a lithic scatter and a bedrock milling feature.

In addition to the SCCIC records search, the Native American Heritage Commission (NAHC) conducted a Sacred Lands File (SLF) search. The SLF stated that the search was positive for the presence of Native American cultural resources, but did not provide details on said resources. Letters were mailed on December 6, 2019 to four Native American individuals and/or tribal organizations who may have direct knowledge of cultural resources in or near the project. To date, one response was received via email from Cultural Resources Analyst, Jessica Mauck, from the San Manual Band of Mission Indians (SMBMI) on January 3, 2019. Ms. Mauck stated in her response that the village of *Jurupet*, which is associated with is located the Serrano people, is in the vicinity of the project area. Additionally, Ms. Mauck stated that there was a Gabrieleno name for the village, but did not provide that name. Ms. Mauck further stated that both the Serrano and Gabrieleno people inhabited the area and they co-existed, but remained separate despite missionary attempts to merge the two tribes. No information pertaining to known cultural resources within the project site itself was provided. This outreach was conducted for informational purposes only and did not constitute formal government-to-government consultation as specified by AB 52, which is discussed in Section 3.18.

All NAHC-listed California Native American Tribal representatives that have requested project notification pursuant to AB 52 were sent letters by the City in December 2017. The City received responses from the SMBMI and the Morongo Band of Mission Indians (MBMI). The AB 52 consultation between the City and interested Native American groups and/or individuals resulted in discourse related the project's location within Native American traditional use areas. As such, the MBMI requested that a tribal representative be present during the pedestrian survey and the SMBMI requested that the project include subsurface exploratory testing. The City acknowledged these concerns and contacted the MBMI to have a representative participate in the pedestrian survey. An intensive pedestrian

survey was conducted of the project area by Dudek on January 9, 2019. The survey was negative for surficial cultural resources.

Based on the results of the pedestrian survey and the AB 52 consultation project with the SMBMI, an Extended Phase I Investigation (EP1) was conducted on January 22, 2019. The intent of this EP1 was to identify the extent of previous disturbance within the project site and to assess the potential for subsurface cultural resources. The EP1 involved subsurface probing of the project site through excavation 15 shovel test pits (STPs). All of the 15 STPs excavated were negative for cultural resources. Based on these results, the likelihood of the project impacting any prehistoric or protohistoric age deposits is considered moderate to low. Because the project site was never developed or settled during the historic period, with exception to an orchard, the likelihood of encountering historic-age archaeological deposits (i.e., trash deposits; foundations; privies) within the project site is considered low. However, it is impossible to completely rule out the presence of archaeological resources within the project site. For this reason, the project site should be treated as potentially sensitive for archaeological resources. As such, MM-CUL-1 is required to reduce potential impacts to unanticipated archaeological resources.

**MM-CUL-1** If archaeological resources (sites, features, or artifacts) or tribal cultural resources are exposed during construction activities, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted.

Construction activities may continue on other parts of the project site while evaluation and, if necessary, mitigation, occurs. If the find is determined by the archaeologist to constitute a historic resource or unique archaeological resource, time allotment sufficient to allow for implementation of avoidance measures shall be made available. If the discovery proves significant under CEQA, a treatment plan shall be prepared by a qualified archaeologist for the resource(s) in accordance with CEQA Guidelines Section 15064.5(f) and/or Public Resources Code Sections 21083.2(b).

Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation or archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall

be curated at a public, non-profit institution with a research interest in the material. If no institution accepts the archaeological material, the material shall be offered to a local school or historical society.

If the find is Native American in origin, the Tribes consulted during the AB 52 consultation process shall be contacted by the City to coordinate treatment and curation.

With the incorporation of the mitigation, impacts associated with archaeological resources would be less than significant.

***c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?***

***Less-Than-Significant Impact.*** As discussed in Section 3.5(b), no cultural resources were identified as a result on the EP1. Because the project site was never developed or settled during the historic period, with exception of an orchard, the likelihood of encountering human remains within the project area is considered low. However, in accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains. Therefore, based on compliance with state requirements, impacts associated with the discovery of human remains would be less than significant.

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

## 3.6 Energy

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

**Short-Term Construction Impacts**

***Less-Than-Significant Impact.*** Construction of the project would require the use of electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers and heating, ventilation, and air conditioning). The amount of electricity used during construction would be minimal because typical energy demand stems from the use of several construction trailers in addition to electrically powered hand tools. The majority of the energy used during construction would be from petroleum. The electricity used for construction activities would be temporary and minimal.

Petroleum would be consumed throughout construction of the project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and vehicle miles traveled associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. However, the project would be required to comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes. Additionally, the petroleum used during construction would be temporary and minimal, and would not be wasteful or inefficient. Therefore, short-term construction impacts associated with energy consumption would be less than significant.

**Long-Term Operational Impacts**

***Less-Than-Significant Impact.*** The project would require electricity, natural gas, and petroleum during operations. For the reasons discussed below, the project not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

***Electricity***

Colton Electric Utility owns and operates its own power plant, five substations, and the entire electric infrastructure including the transmission and distribution lines within the City. The Colton Electric Department (CED) developed the 2017 Integrated Resource Plan (IRP), which presents a strategy for dealing with some of the power supply issues that the CED faces and presents alternative scenarios for resources procurement that are consistent with current legislative and regulatory constraints. The CED is required to comply with regulation imposed that require electric utilities to minimize GHG emissions, and increase conservation activities. As such, the CED has implemented conservation programs, such as rebates, to meet reduction goals (Colton Electric Department 2017).

At full build-out, the project's operational phase would require electricity for building operation (appliances, lighting, etc.). The project would also be required to comply with the 2016 Title 24 standards or the most recent standards at the time of building issuance. The energy-using fixtures within the project would likely be newer technologies, utilizing less electricity power. Additionally, rebate programs and incentives utilized by occupants would reduce electric power use. Therefore, long-term operational impacts associated with electricity consumption would be less than significant.

***Natural Gas***

The California Public Utilities Commission (CPUC) regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins (CPUC 2017).

The City is served by Southern California Gas (SoCalGas), which owns and operates several natural gas storage fields in Southern California. Demand for natural gas can vary depending on factors such as weather, price of electricity, the health of the economy, environmental regulations, energy efficiency programs, and the availability of alternative renewable energy sources. Natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand.

Although the project would require natural gas for building heating, the project would comply 2016 Title 24 building energy efficiency standards, reducing energy used in the state. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards (CEC 2015). Based on compliance with Title 24 and CPUC regulations, the project would generate a need for natural gas that is consistent with single-family homes, and due to the newer technology would require less energy than single-family homes in the surrounding project area. Therefore, long-term operational impacts associated with natural gas consumption would be less than significant.

***Petroleum***

During operation of the project, the majority of fuel consumption would involve the use of motor vehicles traveling to and from the project site. Over the lifetime of the project, the fuel efficiency of the vehicles being used by residents is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project area during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emissions vehicles in California (CARB 2017b). As such, operation of the project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy. Given these considerations, petroleum consumption associated with the project would not be considered inefficient or wasteful. Therefore, long-term operational impacts associated with petroleum consumption would be less than significant.

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

***Less-Than-Significant Impact.*** As discussed in Section 3.6(a), the project would not result in wasteful, inefficient, and unnecessary consumption of energy during construction or operation. During construction, the project would comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes. Additionally, energy use during construction would be minimal and temporary. Upon operations, the project would comply with 2016 Title 24 standards to reduce energy-use in new single-family homes. Therefore, impacts associated with conflict with a state or local renewable energy or energy efficiency plan would be less than significant.

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

## 3.7 Geology and Soils

The following analysis is based on the Preliminary Geotechnical Investigation, and Report of Infiltration Testing and Updated Geotechnical Recommendations, prepared by Leighton and Associated, Inc., both included as Appendix D.

***a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***

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

***No Impact.*** According to the California Division of Mines and Geology's Special Studies Zones – South San Bernardino Quadrangle map, the project site is not located within an Alquist-Priolo Zone or any other seismic hazard zone (CGS 1977). The closest known active or potentially active fault is the Chino-Elsinore fault, located approximately 3 miles southwest of the project site. There are no active faults traversing the project site. Therefore, no impacts associated with earthquake fault faulting would occur.

***ii) Strong seismic ground shaking?***

***Less-Than-Significant Impact.*** Like most of Southern California, the project site is located within a seismically active area. Numerous faults considered active or potentially active have been mapped in Southern California, including in the vicinity of the City. Thus, the project's future residents and their visitors could be exposed to strong seismic ground shaking in the event of an earthquake.

The intensity of ground shaking at a given location depends on several factors, but primarily on the earthquake magnitude, the distance from the epicenter to the site of interest, and the response characteristics of the soils or bedrock units underlying the site. The known regional active and potentially active faults that could produce the most significant ground shaking at the site include the Chino-Elsinore, San Jose, Cucamonga, Sierra Madre, Whittier, Elsinore-Glen Ivy, and Elysian Park Thrust faults.

Based on the study conducted for the project, seismic parameters to reduce the effects of ground shaking produced by regional seismic levels were determined in accordance with the California Building Code (CBC) (Appendix D). The project would incorporate all applicable geotechnical recommendations, including those related to seismic guidelines, into the project's design and engineering. Application of these recommendations would reduce the potential to expose people or structures to substantial risk of loss or injury during an earthquake. Additionally, adherence to the CBC would minimize the adverse effects of strong

ground shaking to the greatest degree feasible during an earthquake. Therefore, based on compliance with applicable local and state requirements related to seismic hazards, impacts associated with strong seismic ground shaking would be less than significant impact.

***iii) Seismic-related ground failure, including liquefaction?***

***No Impact.*** Soil liquefaction is a seismically induced form of ground failure that has been a major cause of earthquake damage in Southern California. Liquefaction is a process by which water-saturated granular soils transform from a solid to a liquid state because of a sudden shock or strain, such as an earthquake. Liquefaction potential within the City is primarily associated with areas near the Santa Ana River and the Reche Canyon area where groundwater levels are anticipated to be within 50 feet of the surface. This area is generally located to the northeast of the project site.

The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type, and intensity and duration of ground shaking. The on-site alluvial soil consists generally of silty sand to sandy silt with varying amounts of clay. The Preliminary Geotechnical Investigation (Appendix D) determined granite bedrock is located approximately 1 to 27 feet below ground surface and groundwater was not encountered during the site investigation to a maximum depth of 41 feet. Based on the absence of shall groundwater, the potential for liquefaction is low. Additionally, the project site was not identified on within the California Division of Mines and Geology's Special Studies Zones – South San Bernardino Quadrangle map as being located within a liquefaction zone (CGS 1977). Therefore, no impacts associated with liquefaction would occur.

***iv) Landslides?***

***Less-Than-Significant Impact.*** According to the Geotechnical Investigation (Appendix D), the project site is underlain by either very dense, massive granite bedrock, or decomposed bedrock. No landslides or evidence of slope instability was observed during the site-specific investigation. Therefore, impacts associated with landslides would be less than significant.

***b) Would the project result in substantial soil erosion or the loss of topsoil?***

***Less-Than-Significant Impact.*** The project would involve earthwork and other construction activities that would disturb surface soils and temporarily leave exposed soil on the ground's surface. Common causes of soil erosion from construction sites include

stormwater, wind, and soil being tracked off site by vehicles. To help curb erosion, project construction activities must comply with all applicable federal, state, and local regulations for erosion control. The project would be required to comply with standard regulations, including SCAQMD Rules 402 and 403, which would reduce construction erosion impacts. Rule 402 requires that dust suppression techniques be implemented to prevent dust and soil erosion from creating a nuisance off site (SCAQMD 1976). Rule 403 requires that fugitive dust be controlled with best available control measures so that it does not remain visible in the atmosphere beyond the property line of the emissions source (SCAQMD 2005b).

In accordance with the State Water Resources Control Board's (SWRCB's) National Pollutant Discharge Elimination System (NPDES) Construction General Permit, construction activities resulting in the disturbance of 1 acre or more, such as the project, are required to prepare a Stormwater Pollutant Prevention Plan (SWPPP). Since project construction activities would disturb 1 or more acres, the project must adhere to the provisions of the NPDES Construction General Permit. Construction activities subject to this permit include clearing, grading, and ground disturbances such as stockpiling and excavating. The SWPPP would include construction features for the project (i.e., best management practices [BMPs]) designed to prevent erosion and protect the quality of stormwater runoff. Sediment-control BMPs may include stabilized construction entrances, straw wattles on earthen embankments, sediment filters on existing inlets, or the equivalent. Additionally, the project would be required to submit a WQMP, which includes construction BMPs to be implemented and managed during the lifetime of the proposed to ensure compliance with the RWQCB. Therefore, impacts associated with erosion or loss of topsoil would be less than significant.

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

***Less-Than-Significant Impact.*** A site-specific geotechnical study (Appendix D) was performed to better understand the specific development constraints as a result of the characteristics of the underlying soils. Based on the analysis and existing site conditions, the natural slopes and planned manufactured slopes would be stable and slope stability is not a concern at the project site. As such, landslides are not anticipated. No severe geologic or soil-related hazards or constraints that would preclude development of the project site were observed. The project would incorporate all applicable geotechnical recommendations made in the study, including those related to common geotechnical concerns, into the design and engineering of the project. Application of these recommendations would further reduce the potential to expose people or structures to

substantial risk of loss or injury due to unstable geologic units or soils. Therefore, impacts associated with unstable geologic units or soils would be less than significant.

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

***Less-Than-Significant Impact.*** Expansive soils are characterized by their potential shrink/swell behavior. Shrink/swell is the change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the cycle of wetting and drying. Clay minerals are known to expand with changes in moisture content. The higher the percentage of expansive minerals present in near-surface soils, the higher the potential for substantial expansion. On-site alluvial soil consists generally of silty sand to sandy silt with varying amounts of clay. However, the Geotechnical Investigation tested the subsurface soils for expansion potential and determined the on-site soil exhibited very low expansion potential (Appendix D). Notwithstanding, the project would incorporate all applicable geotechnical recommendations made in the site-specific geotechnical study (Appendix D), including those related to expansive soils, into the design and engineering of the project. Application of these recommendations would further reduce the potential to expose people or structures to substantial risk of loss or injury due to expansive soils. Therefore, impacts associated with expansive soils would be less than significant.

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

***No Impact.*** The project would be served by the municipal sanitary sewer system and would not require septic tanks or other alternative wastewater disposal systems. Therefore, no impacts associated with the ability of soils to support septic tanks would occur.

***f) Would the project directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?***

***Less-Than-Significant Impact with Mitigation Incorporated.*** Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. There is a direct correlation between fossils and the geologic formation in which they are preserved; therefore, paleontological sensitivity is determined by rock type, past history of the geologic unit producing significant fossils, and fossil localities that are recorded from that unit. Paleontological resources are mostly found in sedimentary rock. Previous geologic mapping of the City indicates that the City contains surface exposures of several

sedimentary rock units including (from oldest to youngest): older fan deposits of middle to late Pleistocene age (Qof); old eolian deposits (Qoed, Qoes); young eolian deposits (Qyes); young alluvial fan deposits (Qyf); young axial channel deposits (Qya); and recent wash deposits (Qw, Qyw). Of these sedimentary units, the Pleistocene sediments mapped at the surface have high potential to contain significant nonrenewable paleontological resources, and so are assigned high paleontological sensitivity (City of Colton 2013b).

According to the records search results received from the Natural History Museum of Los Angeles County (LACM), no fossils are recorded within the project area. Their closest locality is located west of Mira Loma and west-southwest of the project area. Additionally, no paleontological resources were identified within the project area as a result of the institutional records search or desktop geological review. As such, the project area is not anticipated to be underlain by unique geologic features. If intact paleontological resources are located onsite, ground-disturbing activities associated with construction of the project, such as grading during site preparation, have the potential to destroy a unique paleontological resource or site. However, if paleontological resources are encountered during earth-moving activity, work shall be halted in that area until a qualified paleontologist can assess the significance of the find. As such, implementation of MM-GEO-1 would be required to ensure that subsurface construction activity complies with the standard procedures for treatment of unanticipated discoveries of paleontological resources.

**MM-GEO-1** In the event that paleontological resources (fossil remains) are exposed during construction activities for the project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified paleontologist, as defined by the Society of Vertebrate Paleontology's 2010 guidelines, can assess the nature and importance of the find. Depending on the significance of the find, the qualified paleontologist may record the find and allow work to continue, or may recommend salvage and recovery of the resource. All recommendations will be made in accordance with the Society of Vertebrate Paleontology's 2010 guidelines, and shall be subject to review and approval by the City of La Mirada. Work in the area of the find may only resume upon approval of a qualified paleontologist.

With incorporation of MM-GEO-1, impacts associated with paleontological resources would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **VIII. GREENHOUSE GAS EMISSIONS** – Would the project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☒ | ☐ |

## 3.8 Greenhouse Gas Emissions

***a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

***Less-Than-Significant Impact.*** Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride ($SF_6$), and nitrogen trifluoride ($NF_3$) (see also 14 CCR 15364.5). The three GHGs evaluated herein are $CO_2$, $CH_4$, and $N_2O$. HFCs, PFCs, $SF_6$, and $NF_3$ were not evaluated or estimated in this analysis because the project would not generate them in measurable quantities.

Gases in the atmosphere can contribute to climate change both directly and indirectly.[7] The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is $CO_2$; therefore, GWP-weighted emissions are measured in metric tons of $CO_2$ equivalent (MT $CO_2e$). Consistent with CalEEMod Version 2016.3.2, this GHG emissions analysis assumed the GWP for $CH_4$ is 25 (emissions of 1 MT of $CH_4$ are equivalent to emissions of 25 MT of $CO_2$), and the GWP for $N_2O$ is 298, based on the IPCC Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3 of this IS/MND, the project is located within the jurisdictional boundaries of the SCAQMD. In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008). This document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT $CO_2e$ per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008).

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

**Tier 1.** Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

[7] Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017b).

**Tier 2.** Consider whether or not the project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

**Tier 3.** Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT $CO_2e$ per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT $CO_2e$ per year), commercial projects (1,400 MT $CO_2e$ per year), and mixed-use projects (3,000 MT $CO_2e$ per year). Under option 2, a single numerical screening threshold of 3,000 MT $CO_2e$ per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

**Tier 4.** Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT $CO_2e$ per-service population for project-level analyses and 6.6 MT $CO_2e$ per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

**Tier 5.** Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

To determine the project's potential to generate GHG emissions that would have a significant impact on the environment, the project's GHG emissions were compared to the residential land project quantitative threshold of 3,500 MT $CO_2e$ per year.

### Construction Emissions

Construction of the project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road trucks, and worker vehicles. A depiction of expected construction schedules (including information regarding phasing, equipment used during each phase, truck trips, and worker vehicle trips) assumed for the purposes of emissions estimation is provided in Appendix A. On-site sources of GHG emissions include off-road equipment; off-site sources include trucks and worker vehicles. Table 4 presents construction GHG emissions for the project from on-site and off-site emissions sources.

**Table 4**
**Estimated Annual Construction GHG Emissions**

| Year | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| | *metric tons per year* | | | |
| 2020 | 542.87 | 0.13 | 0.00 | 546.22 |
| 2021 | 579.04 | 0.09 | 0.00 | 581.17 |
| 2022 | 365.99 | 0.05 | 0.00 | 367.28 |
| **Total** | **1,487.90** | **0.27** | **0.00** | **1,494.67** |
| | | | **Amortized Construction Emissions** | **49.82** |

**Source:** See Appendix A for complete results.
**Notes:** GHG = greenhouse gas; $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$= carbon dioxide equivalent.

As shown in Table 4, the estimated total GHG emissions would be approximately 1,495 MT $CO_2e$. Amortized over 30 years, construction GHG emissions would be approximately 50 MT $CO_2e$ per year.

### Operational Emissions

Long-term operational emissions would occur over the life of the project. CalEEMod was used to estimate GHG emissions from motor vehicle trips, grid electricity usage, solid waste, and other sources (including area sources and water/wastewater conveyance).

CalEEMod default mobile source data, including temperature, trip characteristics, variable start information, emission factors, and trip distances, were used for the model inputs. However, the project's trip generation was based on information presented in the Traffic Impact Analysis. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the model defaults for industrial land use traffic. It is assumed that the first full year of project operation would be in the year 2023.

CalEEMod was also used to estimate emissions from the project's area sources, which includes operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions.

The estimation of operational energy emissions was based on CalEEMod land use defaults and total area (i.e., square footage) of the project. Annual natural gas and electricity emissions were estimated in CalEEMod using the emissions factors for Southern California Edison and adjusted to account for 33% renewable portfolio standard by 2020. The 2019 Title 24 standards were approved and adopted by the California Building Standards Commission in December 2018. The 2019 standards will become effective January 1, 2020. However, the most recent amendments to Title 24, Part 6, referred to as the 2016 standards are incorporated in the latest version of CalEEMod were used to estimate project emissions.

Supply, conveyance, treatment, and distribution of water for the project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod default values.

The project would generate solid waste and would therefore result in CO2e emissions associated with landfill off-gassing. The project was assumed to comply with the 75% diversion rate consistent with AB 341.

The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water supply, and wastewater treatment are shown in Table 5.

**Table 5**
**Estimated Annual Operational Greenhouse Gas Emissions**

| Emission Source | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| | *metric tons per year* | | | |
| Area | 22.87 | <0.01 | <0.01 | 23.03 |
| Energy | 353.89 | 0.01 | <0.01 | 355.64 |
| Mobile | 1,155.21 | 0.05 | 0.00 | 1,156.51 |
| Solid Waste | 5.31 | 0.31 | 0.00 | 13.14 |
| Water Supply and Wastewater | 26.45 | 0.15 | <0.01 | 31.40 |
| **Total** | **1,563.72** | **0.53** | **0.01** | **1,579.72** |
| | | | *Amortized Construction Emissions* | *49.82* |
| | | | **Operation + Amortized Construction Total** | **1,629.54** |

**Notes:** See Appendix A for detailed results.
MT = metric tons; $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent

As shown in Table 5, estimated annual project-generated GHG emissions would be approximately 1,580 MT $CO_2e$ per year as a result of project operation. Estimated annual project-generated operational emissions in 2023 and amortized project construction emissions would be approximately 1,630 MT $CO_2e$ per year. As such, annual operational GHG emissions with amortized construction emissions would not exceed the SCAQMD threshold of 3,500 MT $CO_2e$ per year. Therefore, impacts associated with GHG emissions would be less than significant.

***b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

***Less-Than-Significant Impact.*** The City of Colton has a Climate Action Plan (CAP) that has a goal to reduce its community GHG emissions to a level that is 15% below its 2008 GHG emissions level by 2020 (City of Colton 2015). The City has exceeded this goal through a combination of State and County reduction measures, but the CAP also includes various local measures to further reduce GHG emissions. The CAP identifies a series of local measures to help guide the City in the areas of building energy, transportation, solid waste management, wastewater treatment, and water conveyance to further reduce community wide GHG emissions. Measures that are applicable to the project include meeting the City's waste diversion goal consistent with CALGreen, reducing the amount of water, energy, and fuels consumed, and demonstrating energy efficiency in new development. Consistent with State and City regulatory requirements, the project would comply with the current Title 24 standards, be required to meet Tier 1 CALGreen Standards, and would install rooftop solar panels.

The Scoping Plan, approved by CARB on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Relatedly, in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the CNRA observed that "[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among

others. To the extent that these regulations are applicable to the project, the project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

Regarding consistency with Senate Bill (SB) 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and Executive Order (EO) S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future-year analysis. However, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the *First Update to the Climate Change Scoping Plan* that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the *First Update to the Climate Change Scoping Plan* states the following (CARB 2014):

> "This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under Assembly Bill 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions."

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in *California's 2017 Climate Change Scoping Plan* (*2017 Scoping Plan*), which states, "This Plan draws from the experiences in developing and implementing previous plans to present a path to reaching California's 2030 GHG reduction target. The Plan is a package of economically viable and technologically feasible actions to not just keep California on track to achieve its 2030 target, but stay on track for a low- to zero-carbon economy by involving every part of the state" (CARB 2017c). The *2017 Scoping Plan* also states that although "the Scoping Plan charts the path to achieving the 2030 GHG emissions reduction target, we also need momentum to propel us to the 2050 statewide GHG target (80% below 1990 levels). In developing this Scoping Plan, we considered what policies are needed to meet our mid-term and long-term goals" (CARB 2017c).

The project would not interfere with implementation of any of the above-described GHG reduction goals for 2030 or 2050 because the project would not exceed the SCAQMD's GHG threshold of 3,500 MT $CO_2e$ per year, which was established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. Because the project would not exceed the threshold, this analysis provides support for the conclusion that the project would not impede the state's trajectory toward the above-described statewide GHG reduction goals for 2030 or 2050.

Additionally, as discussed, the project is consistent with the GHG emission reduction measures in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. Since the specific path to compliance for the state in regards to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the project would be speculative and cannot be identified at this time. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

Based on the above considerations, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, impacts associated with applicable GHG plans, policies, and regulations would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **IX. HAZARDS AND HAZARDOUS MATERIALS** – Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☒ | ☐ | ☐ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☒ | ☐ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ☒ |

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ☒ | ☐ |

## 3.9 Hazards and Hazardous Materials

The following analysis is based on the Phase I Environmental Site Assessment (ESA) and Limited Phase II Soil Sampling Report, both prepared by Leighton and Associates and included as Appendix E.

***a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

**Short-Term Construction Impacts**

***Less-Than-Significant Impact with Mitigation Incorporated.*** During construction of the project, potentially hazardous materials would likely be handled on the project site. These materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products used to operate and maintain construction equipment. Handling these potentially hazardous materials would be temporary and would coincide with the short-term construction phase of the project.

Although these materials would likely be stored on the project site, storage would be required to comply with the guidelines set forth by each product's manufacturer, as well as in accordance with all applicable federal, state, and local regulations pertaining to the

storage of hazardous materials. Consistent with federal, state, and local requirements, the transport of hazardous materials to and from the project site would be conducted by a licensed contractor. Any handling, transport, use, or disposal of hazardous materials would comply with all relevant federal, state, and local agencies and regulations, including the EPA, the California Department of Toxic Substances Control, the California Occupational Safety and Health Administration (OSHA), Caltrans, the Resource Conservation and Recovery Act, the SCAQMD, and the San Bernardino County Fire Department Hazardous Materials Division (the Certified Unified Program Agency for San Bernardino County). Additionally, as mandated by the U.S. Occupational Safety and Health Administration, all hazardous materials stored on site would be accompanied by a Material Safety Data Sheet, which would inform on-site personnel about the necessary remediation procedures in the case of accidental release.

A Phase I ESA (Appendix E) prepared for the project determined that the project site revealed no evidence of recognized environmental conditions (RECs) with the exception of the historical use of the project site for orchards, and the potential presence of asbestos-containing materials (ACMs) in the concrete irrigation pipes. As a result, the Phase I ESA recommends soil sampling should be conducted to evaluate the project site for the presence of organochlorine pesticides (OCPs), total petroleum hydrocarbons (TPHs), polyaromatic hydrocarbons (PAHs), and California Code of Regulations Title 22 Metals. The Phase I ESA also recommends conducting an asbestos survey to evaluate the potential for ACMs on-site.

The Phase II Soil Sampling Report was conducted to evaluate the soils at the project site for OCPs, TPHs, and PAHs. Based on the results of the sampling, the Phase II indicates that the project site has not been significantly impacted by the use of pesticides. The presence of trace amounts of heavy-end hydrocarbons appear to indicate that smudge pots were utilized on the project site. However, based on the low detectable amounts of hydrocarbons, the absence of detectable PAHs, the potential for significant impacts from smudge pots is considered to be low. Nonetheless, to minimize risk to construction workers who would handle subsurface soils, MM-HAZ-1 and MM-HAZ-2 would be required.

**MM-HAZ-1** Prior to the issuance of a grading permit, the property owner/developer shall include the following instructions to its construction contractor on all plans pertaining to subsurface construction activities for the project: "The construction contractor shall regularly inspect the exposed soil for visual evidence of any contamination or volatilization of contaminants (odors). If visual or odor contamination indicators are identified during construction activities, all work shall stop in the vicinity of the potential contamination, and an investigation shall be designed and performed by a qualified

environmental consultant to verify the presence and extent of contamination on the project site. Results of the investigation shall be reviewed and approved by the San Bernardino County Fire Department Hazardous Materials Division, or its representative prior to resuming construction activities in the vicinity of the contamination."

The investigation shall include collecting samples for laboratory analysis and quantification of contaminant levels within the disturbance areas. Subsurface investigation shall determine appropriate worker protection and hazardous material and disposal procedures appropriate for the project site. Contaminated soil or groundwater determined to be hazardous shall be removed by personnel who have been trained through the Occupational Safety and Health Administration–recommended 40-hour safety program with an approved plan for groundwater extractions, soil excavation, control of contaminant releases to the air, and off-site transport or on-site treatment.

**MM-HAZ-2** Prior to grading that could potentially disturb asbestos-containing materials (ACMs) on-site, an asbestos survey shall be conducted by a California Occupational Safety and Health Administration-certified asbestos consultant and/or certified site surveillance technician. A report documenting material types, conditions, and general quantities shall be provided, along with photos of positive materials and diagrams. Demolition plans and contract specifications shall incorporate any abatement procedures for the removal of material containing asbestos. All abatement work shall be done in accordance with federal, state, and local regulations.

With the incorporation of mitigation, short-term construction impacts associated with the use, transport, and disposal of hazardous materials would be less than significant.

**Long-Term Operational Impacts**

***Less-Than-Significant Impact.*** As a residential land use, potentially hazardous materials associated with operation of the project would include those materials typically associated with cleaning and maintenance activities. Although these materials would vary, they would generally include household cleaning products, solvents, paints, fertilizers, and herbicides and pesticides. Many of these materials are considered household hazardous wastes, common wastes, and universal wastes by the EPA, which considers these types of wastes common to businesses and households and to pose a lower risk to people and the environment than other hazardous wastes when properly handled, transported, used, and

disposed of (EPA 2019). Federal, state, and local regulations typically allow these types of wastes to be handled and disposed of under less-stringent standards than other hazardous wastes, and many of these wastes do not need to be managed as hazardous waste.

Additionally, any potentially hazardous material handled on the project site would be limited in quantity and concentration, consistent with other similar residential uses located in the City, and any handling, transport, use, and disposal of such material would comply with applicable federal, state, and local agencies and regulations. Additionally, as mandated by the Occupational Safety and Health Administration, all hazardous materials stored on the project site would be accompanied by a Materials Safety Data Sheet, which would inform on-site personnel and residents of the necessary remediation procedures in the case of accidental release (OSHA 2019). Therefore, long-term operational impacts associated with the use, transport, and disposal of hazardous materials would be less than significant.

***b) Would the project create 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?***

***Less-Than-Significant Impact with Mitigation Incorporated.*** Refer to response provided in Section 3.9(a).

***c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

***No Impact.*** Land uses or activities typically associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste include heavy commercial, manufacturing, research, and industrial uses. The project would not include any such uses or activities. Additionally, the nearest school to the project site is Grand Terrance Elementary School (12066 Vivienda Avenue), located approximately 0.9 miles from the project site. No known school are located within 0.25 miles of the project site. Therefore, impacts associated with emissions or handling of hazardous materials within 0.25 miles of a school would not occur.

***d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

***No Impact***. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the state, local agencies, and developers to comply with the CEQA requirements in providing information about the locations of hazardous materials release sites. California Government Code Section 65962.5 requires the California EPA to develop, at least annually, an updated Cortese List. The Department of Toxic Substances Control is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

As part of the Phase I ESA (Appendix E), a search of select federal and state regulatory agency databases was conducted, including a review of the Cortese List. The project site was not identified on the Cortese List or any other list of hazardous materials sites that was reviewed during this regulatory agency database records search. Therefore, no impacts associated with inclusion on the Cortese List would occur.

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

***No Impact.*** The Flabob Airport is located approximately 5 miles southwest of the project site. The project site is located outside of any designated airport influence areas or fly zones for the Flabob Airport (Riverside County ALUC 2004). Therefore, no impacts associated with public airport hazards would occur.

***f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

***Less-Than-Significant Impact.*** The County of San Bernardino has prepared an Emergency Operations Plan (EOP) to provide guidance for the County's response to emergencies. The EOP provides a source of guidance and procedures for the County to prepare for and respond to emergencies. The EOP provides guidance to the most likely natural and man-made emergencies. Responsible organizations are identified within the EOP to ensure that communication and emergency management is maintained in the event of an emergency (County of San Bernardino Fire Department 2013). The project would not interfere with these responsible organizations' ability to implement the EOP and to respond to emergencies.

According to the City of Colton's General Plan Safety Element, specific evacuation routes have not been identified; however, the freeways and major arterials would be used as a first source (City of Colton 1987a). Thus, the roadways surrounding the project site, I-215 and South La Cadena Drive, are considered emergency evacuation routes. Due to this local and regional connectivity, in the unlikely event of an emergency, the project-adjacent roadway facilities would be expected to serve as emergency evacuation routes for first responders and residents. Therefore, impacts associated with an emergency response plan or emergency evacuation plan would be less than significant.

***g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

***Less-Than-Significant Impact.*** According to Cal Fire's Fire Hazard Severity Zone Viewer, the project site and surrounding La Loma Hills area is within a Very High Fire Hazard Severity Zone (VHFHSZ) (Cal Fire 2019). There is existing development located to the north, east, and south of the project site, and as such, there are existing roads to provide access to residences at the project site in the unlikely event of a wildland fire. The Building Division of the Development Services department is responsible for the enforcement of City standards governing fire safety. The Building Division completes plan check services to ensure new developments comply with the City's building code, such as requiring automatic sprinkler systems and fire standards so that fire personnel may reach upper floors during emergencies (City of Colton 2014). Further, the proposed cluster development creates a greater setback between the proposed housing units and the undeveloped hillside to reduce potential exposure of people or structures to fire risks. Therefore, impacts associated with wildland fires would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **X. HYDROLOGY AND WATER QUALITY** – Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | ☐ | ☐ | ☒ | ☐ |
| i) result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ☐ | ☐ | ☒ | ☐ |
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | ☐ | ☐ | ☒ | ☐ |
| iv) impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundations? | ☐ | ☐ | ☒ | ☐ |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☒ | ☐ |

## 3.10 Hydrology and Water Quality

The following analysis is based on the Hydrology and Hydraulic Analysis prepared under the supervision of Gary A. Martin, R.C.E., and included as Appendix F.

***a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?***

**Short-Term Construction Impacts**

***Less-Than-Significant Impact.*** The grading phase of the project will require the disturbance of surface soils and removal of vegetative cover that could result in erosion and sedimentation, which could subsequently degrade downstream receiving waters and violate water quality standards. In accordance with the SWRCB's NPDES Construction General Permit, construction activities resulting in the disturbance of 1 acre or more, such as the project, are required to prepare a SWPPP. The purpose of the SWPPP is to identify and implement BMPs during construction activities to reduce impacts to surface waters

from contaminated stormwater discharges. Typical BMPs include maintaining or creating drainages to convey and direct surface runoff from bare areas and installing physical barriers such as berms, silt fencing, wattles, straw bales, and gabions. Implementation of Construction General Permit requirements, including preparation of a SWPPP and incorporation of BMPs, would ensure that the proper measures are in place to prevent stormwater runoff from conveying sediments and other constituents off site to downstream receiving waters. Compliance with NPDES's Construction General Permit contains limits of what can be discharged to ensure that the discharge does not degrade water quality.

Additionally, per Section 14.05.040 of the City's Municipal Code, contractors and owners constructing new development project that are subject to the SWRCB's Construction General Permit, shall develop and implement the SWPPP prior to disturbing the proposed construction site (City of Colton 2018). Violation of water quality impacts during construction can be minimized through the implementation of the existing SWRCB's regulations and through local water quality control standards. Therefore, short-term construction impacts associated with water quality would be less than significant.

**Long-Term Operational Impacts**

***Less-Than-Significant Impact.*** In accordance with the City's Municipal Code Section 14.03.040, the project is required to implement BMPs to prevent the discharge of pollutants into receiving waters, which would impact water quality during the operations of the project (City of Colton 2018). Additionally, the City is a co-permittee under the Santa Ana Regional Water Quality Control Board (RWQCB) Order NO. R8-2010-0036 that establishes the Municipal Separate Storm Sewer System Permit (MS4 Permit) (RWQCB 2010). The MS4 Permit requires all new development and significant redevelopment projects to incorporate low-impact development BMPs to the maximum extent practicable. Additionally, development of a standard design and post-development guidance is required for incorporation, where feasible and applicable, into site design/low-impact development, source control, and treatment control BMPs. Further, the MS4 Permit requires the review and approval of a Water Quality Management Plan for the project.

As part of the project, a retention basin is proposed in the northeast corner of the project site. The retention basin serves the purpose of controlling the outlet volume of water to the same or less water than the existing conditions, slowing the velocity of the runoff, and cleaning the runoff from the site by allowing the sediment to settle out of the water in the retention basin. Further, the project would implement BMPs and other features described in a site-specific Water Quality Management Plan, in compliance with existing regulations.

An Infiltration Testing and Updated Geotechnical Recommendations Report (Appendix D) was prepared for the project site. Based on the field measurements of soil infiltration rates, infiltration rates are generally considered to be very low and not suitable infiltration. Therefore, long-term operational impacts associated with water quality, including groundwater quality, would be less than significant.

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

**Groundwater Supplies**

***Less-Than-Significant Impact.*** The City of Colton Water Department provides water service to the majority of residents and businesses located within the City's corporate boundary, including the project area. Colton's existing potable water system facilities consist of 15 wells, 5 main booster pumping plants, 9 water storage reservoirs, 2 pressure reducing facilities, and 120 miles of water transmission lines. The City's water supply is all local groundwater pumped from the San Bernardino Basin Area (Bunker Hill Basin portion), the Rialto–Colton Subbasin, and the Riverside North Subbasin. Colton currently does not import water in order to meet the demands of its service area (City of Colton 2013).

According to the 2015 San Bernardino Valley Regional Urban Water Management Plan, available groundwater supply is not expected to change as groundwater is less vulnerable to seasonal and climatic changes than surface water supplies. Nonetheless, to provide long-term water management, the Integrated Regional Water Management Plan (IRWMP) serves to ensure reliable water supply for the San Bernardino Valley Region, including the City of Colton. IRWMP stakeholders formed a Basin Technical Advisory Committee to facilitate implementation of the IRWMP, largely emphasizing groundwater management (Water Systems Consulting 2016). Thus, although the project would rely on water supplies composed of groundwater, the active management of the San Bernardino Basin Area ensures that existing and future development does not adversely affect groundwater levels and supplies. Therefore, impacts associated with groundwater supplies would be less than significant.

**Groundwater Recharge**

***Less-Than-Significant Impact.*** An Infiltration Testing and Updated Geotechnical Recommendations Report (Appendix D) was prepared for the project site. Based on the field measurements of soil infiltration rates, infiltration rates are generally considered to be

very low and not suitable infiltration. Additionally, the Preliminary Geotechnical Investigation (Appendix D) determined granite bedrock is located approximately 1 to 27 feet below ground surface and groundwater was not encountered during the site investigation to a maximum depth of 41 feet. As such, groundwater is not expected to pose a constraint for the project. Because the project site is considered not suitable for infiltration and no groundwater has been encountered within the project area, the project site is not considered a significant groundwater recharge area. Therefore, impacts associated with groundwater recharge would be less than significant.

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

***i) result in substantial erosion or siltation on- or off-site?***

***ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?***

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

***Less-Than-Significant Impact.*** Under the existing condition, the project site is vacant. The project would result in the construction of impervious surfaces throughout the project site. The stormwater runoff from the 49-acre project site currently drains west towards South Bostick Street, where it then flows either north towards West Litton Avenue or south towards Palm Avenue. There is currently erosion caused by runoff from the project site and the undeveloped nature of the land. The majority of the runoff currently comes off the slopes along the west side of the project site and runs across the site.

Upon completion of the project, the existing field area would be developed and terraced for house pads. To ensure the increase in impervious areas on the project site does not alter the existing drainage pattern, the project would implement BMPs during construction and an on-site stormwater capture system to ensure the current drainage pattern off-site would not be affected upon implementation. The flow from the steeper hills towards the west would be captured and channelized in drainage ditches routed away from the field area. The drainage would be controlled and routed through the proposed retention basin. The retention basin has been sized to

handle calculated flows from all the tributary areas, taking into consideration soils testing. The retention basin serves the purpose of controlling the outlet volume of water to the same or less water than the existing conditions, slowing the velocity of the runoff, and cleaning the runoff from the project site by allowing the sediment to settle out of the water in the retention basin (Appendix F).

Additionally, West Litton Avenue would be improved with curb and gutter that will channelize the runoff and prevent erosion in these areas. South Bostick Avenue, adjacent to the field area would be fully improved and would channelize runoff. As such, the volume and rate of water leaving the project would be the same or lesser than what leaves the site under the existing conditions. The project would install a retention basin in the northeast corner to capture stormwater flows and minimize on- and off-site erosion and sedimentation impacts. The stormwater runoff leaving the project site would be controlled via improvements to the curb and cutter on West Litton Avenue.

Further, the City has adopted floodplain management regulations in Title 14 of the City's Municipal Code. Development of storm drainage facilities, such as the proposed water quality basin, are subject to standard designs of the City's Engineering Division. Further, the City has adopted the CBC, which details standards for adequate construction of storm drain facilities including catch basins. Implementation of these standards ensures that drainage facilities are designed effectively to minimize on- or off-site erosion or sedimentation impacts, and potential flooding impacts. Therefore, impacts associated with altering of the existing drainage patterns, erosion, and flooding would be less than significant.

***iv) impede or redirect flood flows?***

***Less-Than-Significant Impact.*** Under the existing condition, there are no streams or rivers located on the project site. Although the Santa Ana River is located approximately 0.5-miles to the north and 0.75-miles to the east of the project, the project would not interfere with floodway flows. Additionally, the project site is located outside of the 100-year floodplain (FEMA 2016). Therefore, impacts associated with impeding or redirecting flood flows would be less than significant.

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

***Less-Than-Significant Impact.*** The project site is located outside of the 100-year floodplain, and thus, is not located in a flood hazard zone (FEMA 2016). Due to the project site's distance from the Pacific Ocean, the project site is not subject to tsunami hazards. Additionally, there are no open reservoirs or large bodies of water near the project site, which could expose development to seiche hazards. Therefore, impacts associated with flood hazard, tsunami, or seiche would be less than significant.

***e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

***Less-Than-Significant Impact.*** The project would comply with regional and local regulations requiring preparation of a water quality control plan, and would not obstruct existing plans. The City's Engineering Department requires hydrology and stormwater discharge review during the City's standard development review process and would ensure there is not conflict with existing water quality control plans. Additionally, as discussed in Section 3.10(b), the project is not considered a suitable site for groundwater recharge and would not introduce impervious areas over a significant groundwater recharge zone. Therefore, impacts associated with a water quality control plan or sustainable groundwater management plan would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XI. LAND USE AND PLANNING** – Would the project: | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☒ | ☐ |

## 3.11 Land Use and Planning

***a) Would the project physically divide an established community?***

***No Impact.*** The physical division of an established community typically refers to the construction of a linear feature (such as a major highway or railroad tracks) or removal of

access (such as a local road or bridge) that would impair mobility within an existing community and outlying area. Under the existing conditions, the project site is vacant and surrounded by single-family residential uses to the north, east, and south. The project site is not used as a connection between established communities. Instead, connectivity within the area surrounding the project site is facilitated via local roadways. Therefore, no impacts associated with physical division of an established community would occur.

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

***Less-Than-Significant Impact.*** The project site is identified by the City General Plan's Land Use Map as VLDR (0.1 to 2 dwelling units per acre) and LDR (2.1 to 8 dwelling units per acre) (City of Colton 2013a). Similarly, the project site is zoned V-L and R-1 (City of Colton 2018).

The VLDR designation and V-L zone applies generally to hillside areas, such as the La Loma Hills, where terrain, access, and the presence of natural resources may limit the extent to which development can occur. Within this designation, clustering of dwelling units may be allowed through a discretionary permit process to limit grading and provide opportunities to preserve natural open space. The LDR designation and R-L zone also allows clustering of dwelling units to provide additional opportunity for a diversity of housing types and architectural styles and common open space areas. New development must be compatible and similar in character to the surrounding residential neighborhoods within this designation (City of Colton 2013a; City of Colton 2018).

Approval of the project would allow cluster development within an area zoned V-L and R-1, and require the project to undergo an Architectural and Site Plan Review. The cluster development would minimize the footprint of potential project impacts. Additionally, the project would preserve open space areas of the western and southern portions of the project site. The Architectural and Site Plan Review associated with the project approval would ensure the project would not conflict with any applicable land use plan, policy, or regulation. Since no conflict with a policy or regulation would occur, the project would not result in a significant environmental impact due to a conflict with a land use plan. Therefore, impacts associated with applicable land use plans, policies, or regulations would be less than significant.

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

## 3.12 Mineral Resources

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

***No Impact.*** According to the Department of Conservation's Division of Mine Reclamation maps, there are no mines located on the project site, and thus, no mineral extraction activities occur on or adjacent to the project site (DOC 2016c). Additionally, the California Geologic Survey designates the project site as Urban Area and not as containing known mineral resources. The northwest corner of West Litton Avenue and South Bostick Avenue is identified as MRZ-3, which is defined as areas containing known or inferred mineral occurrences of undetermined mineral resources significance; however, implementation of the project would not impact this area (CGS 2008). Therefore, no impacts associated with the loss of known mineral resources would occur.

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

***No Impact.*** Refer to response provide in Section 3.12(a).

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

## 3.13 Noise

### Existing Setting

A brief background on the fundamentals of environmental acoustics is helpful in understanding how humans perceive various sound levels. Although extremely loud noises can cause temporary or permanent damage, the primary environmental impact of noise is annoyance. The objectionable characteristic of noise often refers to its loudness. Loudness represents the intensity of the sound wave, or the amplitude of the sound wave height measured in decibels (dB). Decibels are calculated with respect to the human threshold of hearing and presented by way of a logarithmic scale; thus, a 10 dB increase represents a 10-fold increase in acoustic energy or intensity, while a 20 dB increase represents a 100-fold increase in intensity. Decibels are the preferred measurement of environmental sound because it helps succinctly quantify a huge range of sound pressure levels audible to the human ear, while highlighting a correlation between a sound's intensity and the subjective "noisiness" of it. The A-weighting system of decibel adjustments weights the sound levels at low and high octave band center frequencies (OBCF) in a manner that generally replicates average healthy human hearing response; hence, A-weighted sound levels are indicated with "dBA" rather than merely "dB".

In general, human sound perception is such that a change in sound level of three (3) dB in a normal setting (i.e., outdoors or in a structure, but not in an acoustics laboratory without background noise

levels) is just noticeable, while a change of 5 dB is clearly noticeable (Caltrans 2013). A change of 10 dB is perceived as a doubling (if an increase) of sound level.

Outdoor ambient environmental noise levels can be quantified by several different descriptors. Energy Equivalent or Energy Average Level ($L_{eq}$) describes the level of a continuous sound source equivalent to the actual varying sound level over a specified period of time; for instance, usage of a twelve-hour averaging period would be noted as "$L_{eq12h}$". Note that this is not an arithmetic average of, by way of example, twelve successive one-hour measurements of Leq; instead, $L_{eq12h}$ is the logarithmic summation of sound energy for the twelve hours averaged over the entire 12-hour period. Other descriptors of noise incorporate upward adjustments to sound levels during specific periods of time that are intended to reflect human sensitivity or susceptibility to noise irritations at night. Community Noise Equivalent Level (CNEL) is a measure of cumulative noise exposure over a 24-hour period, but different from an $L_{eq24h}$ value in that it adds a 5 dB "penalty" to evening hours (7:00 p.m. to 10:00 p.m.) and a 10 dB penalty added to night hours (10:00 p.m. to 7:00 a.m.). Since CNEL represents this penalty-adjusted 24-hour sound level, a measurement location could exhibit sporadically elevated noise levels above 65 dBA, yet result in a lower CNEL value if most of the measured sound during the 24-hour period was, on average, quieter.

**Existing Noise Conditions**

Noise measurements were conducted on and near the project site on December 12, 2018, to characterize the existing noise levels. Table 6 provides the location, date, and time the noise measurements were taken. The noise measurements were taken using a Soft-dB Piccolo sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute standard for a Type 2 (General Use) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

**Table 6**
**Measured Noise Levels**

| Receptor | Location/Address | Date | Time | $L_{eq}$ (dBA) | $L_{max}$ (dBA) |
|---|---|---|---|---|---|
| ST1 | South of Litton Ave, vacant lot on Bostick Ave | 12-Dec-18 | 10:14 AM to 10:29 AM | 56.2 | 70.9 |
| ST2 | 279 W Litton Ave Colton, CA 92324 | 12-Dec-18 | 11:06 AM to 11:21 PM | 57.9 | 72.9 |
| ST3 | 21342 W Litton Ave Colton, CA 92324 | 12-Dec-18 | 10:46 AM to 11:02 AM | 58.4 | 73.9 |

**Table 6**
**Measured Noise Levels**

| Receptor | Location/Address | Date | Time | $L_{eq}$ (dBA) | $L_{max}$ (dBA) |
|---|---|---|---|---|---|
| ST4 | 1902 Bostick Ave Colton, CA 92324 | 12-Dec-18 | 11:33 AM to 11:48 AM | 55.7 | 73.1 |
| ST5 | 318 Palm Ave Colton, CA 92324 | 12-Dec-18 | 11:53 AM to 12:08 PM | 52.8 | 64.6 |

**Source**: Appendix G
Leq = equivalent continuous sound level (time-averaged sound level); Lmax = maximum sound level during the measurement interval; dBA = A-weighted decibels

Five short-term noise measurement locations (ST) that represent existing sensitive receivers were selected on and near the project site. These locations are depicted as receivers ST1–ST5 on Figure 7, Noise Measurement Locations. The measured energy-averaged ($L_{eq}$) and maximum ($L_{max}$) noise levels are provided in Table 6. The primary noise sources at the sites identified in Table 6 consisted of traffic along adjacent roadways; and the sounds of leaves rustling, and birdsong. As shown in Table 6, the measured sound levels ranged from approximately 52.8 dBA $L_{eq}$ at ST5 to 58.4 dBA $L_{eq}$ at ST3.

## Regulatory Setting

Residences adjacent to Litton Bostick Residential Project are within the City of Colton, and therefore, the City of Colton Noise Element and Noise Ordinance govern noise levels at these residential properties. The City has an exterior noise level standard of 65 dB CNEL for noise-sensitive uses. The City noise ordinance has not adopted time periods in which exterior construction activities would not be permitted nor any maximum noise level associated specifically with construction noise and therefore, this noise study uses the permitted hours found in the County of San Bernardino Development Code standards for project construction. The County of San Bernardino Development Code, Section 83.01.080 indicates that construction noise levels are considered exempt if they occur between the hours of 7:00 a.m. to 7:00 p.m. Mondays to Fridays, with no activity allowed on Sundays and Federal holidays. Like the City of Colton, the County of San Bernardino does not establish a numeric maximum acceptable construction source noise level for nearby potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a substantial temporary or periodic noise increase. Therefore, applicable standards are discussed below for the project-related construction noise level threshold.

To evaluate whether the project would generate a substantial periodic increase in short-term noise levels at off-site sensitive receiver locations, the following guidelines from the Federal Transit Administration (FTA) can be reasonable criteria for assessing construction-related noise level

impacts. A one-hour $L_{eq}$ of 90 dBA is identified as a noise level threshold for construction noise at nearby sensitive receptors in residential areas.

***a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

**Short-Term Construction**

***Less-Than-Significant Impact.*** Construction activities generated by construction equipment would vary depending upon factors such as the type and specific model of the equipment, the operation being performed and the condition of the equipment. The average sound level of the construction activity also depends upon the amount of time that the equipment operates and the intensity of the construction during the time period. Construction would involve several phases including site preparation, grading, paving, building construction, and architectural coating. Construction equipment would include standard equipment such as graders, backhoes, loaders, dozers, water trucks, air-compressors, cement trucks, pavers, rollers, and miscellaneous trucks. The highest noise levels from construction are predicted to occur during grading activities when noise levels from construction would be as high as 84 dBA $L_{eq}$ at the nearest existing residences, approximately 50 feet away. At typical distances (which includes equipment operation distributed across the site, not just at the closest point to adjacent residences), construction noise would be approximately 72 dBA $L_{eq}$.

The Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest adjacent residential property. Although the model was developed by the FHWA, RCNM is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are also used for other project types. Input variables for RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of time the equipment typically operates within a given time period), and the distance from the noise-sensitive receiver. No topographical or structural shielding was assumed in the modeling (i.e., buildings, walls, and berms can block a portion of the sound from reaching adjacent receptors; such features were not included in the modelling). The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

Using the FHWA's RCNM construction noise model and construction information (types and number of construction equipment by phase), the estimated noise levels from construction were calculated for a representative range of distances, as presented in Table 7, Construction Noise Modeling Summary Results.

**Table 7**
**Construction Noise Modeling Summary Results**

| Construction Phase | $L_{eq}$ (dBA) | |
|---|---|---|
| | *Nearest Receiver 50"* | *Acoustical Center 300"* |
| Site Preparation | 83 | 70 |
| Grading | 84 | 72 |
| Paving | 83 | 71 |
| Building Construction | 79 | 69 |
| Architectural Coating | 74 | 58 |

Short-term construction noise impacts would be associated with on-site construction activities at the project site. Construction work would be intermittent and temporary, and it would require minimal ground disturbance. The closest noise-sensitive receptors are residences on South Bostick Avenue. The noise level would not exceed the FTA's guidance for general assessment of 90 dBA $L_{eq}$ 1-hr noise level criterion. Therefore, short-term construction impacts associated with a temporary increase in ambient noise levels would be less than significant.

**Long-Term Operational**

***Less-Than-Significant Impact.*** The project would result in the creation of additional vehicle trips on local arterial roadways (i.e., West Litton Avenue, Palm Avenue and La Cadena Drive), which could result in increased traffic noise levels at adjacent noise-sensitive land uses.

***Off-Site Traffic Noise.*** The project would create additional traffic along adjacent roadways, in particular Litton Avenue and. According to the Traffic Impact Assessment (Appendix H), the project would add 790 ADT to the segment of Litton Avenue adjacent to the project site.

Potential noise effects from vehicular traffic were assessed using the Federal Highway Administration's Traffic Noise Model version 2.5 (FHWA 2008). Information used in the model included the roadway geometry, existing (year 2018), existing plus project, general plan build-out without project, and general plan build-out plus project (year 2040) traffic

volumes and posted traffic speeds. Noise levels were modeled at representative noise-sensitive receivers ST1 through ST5, as shown in Figure 7. ST1, ST2, and ST3 are generally representative of average setback distance for residences along Litton Avenue, ST4 is generally representative of average setback distance for residences along Bostick Avenue, and ST5 is generally representative of average setback distance for residences along the Palm Avenue.

The City does not have a specific noise criterion for evaluating off-site noise impacts to residences or noise-sensitive areas from project-related traffic. For the purposes of this noise analysis, such impacts are considered significant when they cause an increase of 3 dB from existing noise levels or cause an exceedance of the 60 dBA CNEL noise threshold. An increase or decrease in noise level of at least 3 dB is required before any noticeable change in community response would be expected (Caltrans 2013). The receivers were modeled to be 5 feet above the local ground elevation. The noise model results are summarized in Table 8, Off-Site Traffic Noise Modeling.

**Table 8**
**Off-Site Traffic Noise Modeling Results**

| Modeled Receiver # – Description | Existing (2018) Noise Level (dBA CNEL) | Existing (2018) Plus Project Noise Level (dBA CNEL) | General Plan Buildout without Project Noise Level (dBA CNEL) | General Plan Buildout with Project Noise Level (dBA CNEL) | Maximum Project-Related Noise Level Increase (dB) |
|---|---|---|---|---|---|
| ST1 – Typical residential setback north side of Litton Avenue | 47.1 | 47.7 | 48.1 | 48.7 | 1.6 |
| ST2 – Typical residential setback south side of Litton Street | 57.1 | 58.3 | 57.7 | 59 | 1.9 |
| ST3 – Typical residential setback south side of Litton Street | 54.5 | 55.8 | 55.1 | 56.4 | 1.9 |
| ST4 – Typical residential setback south side of Bostick Avenue | 45.3 | 45.5 | 46.7 | 46.8 | 1.5 |
| ST5 – Typical residential setback south side of Palm Avenue | 49.2 | 49.4 | 50.1 | 50.2 | 1 |

Table 8 shows that the maximum noise level increase attributed to project-generated traffic would be 2 dB (when rounded to a whole number). Consequently, there would be no noticeable change in community response associated with the addition of project-generated traffic to the area roadway network. Therefore, long-term construction impacts associated with a permanent increase in ambient noise levels would be less than significant.

***b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?***

***Less-Than-Significant Impact.*** Construction activities that might expose persons to excessive groundborne vibration or groundborne noise have the potential to cause a significant impact. Groundborne vibration information related to construction/ heavy equipment activities has been collected by Caltrans. Information from Caltrans indicates that transient vibrations (such as from demolition activity) with a peak particle velocity (PPV) of approximately 0.035 inches per second may be characterized as barely perceptible, and vibration levels of 0.24 inches per second may be characterized as distinctly perceptible (Caltrans 2013). The heavier pieces of construction equipment, such as large bulldozers or hoe rams, would have PPVs of up to approximately 0.089 inches per second at a distance of 25 feet (DOT 2006).

Groundborne vibration is typically attenuated over relatively short distances. At the nearest distance from an existing residence to the construction area (approximately 50 feet) and with the anticipated construction equipment, construction-related vibration levels would be approximately 0.032 inches per second PPV. This vibration would be below the threshold of "barely perceptible" level of 0.035 inches per second PPV and well below the threshold for distinctly perceptible level of 0.24 inches per second PPV (DOT 2006). Therefore, impacts associated with groundborne vibration would be less than significant.

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

***No Impact.*** The project is not located within the vicinity of a private airstrip or private use airport (Airnav.com 2019). Additionally, the project site is not located within the vicinity of a public airport. The closest airport is San Bernardino International Airport, which is approximately 5.5 miles northeast of the project site. The project site is subject to occasional overflights by helicopters, as well as commercial and general aviation aircraft. However, the project site is not located within the 60 dBA CNEL noise contour of any airport and is not subject to aircraft noise in excess of regulatory limits. Therefore, no impacts associated with airport or air traffic noise would occur.

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

## 3.14 Population and Housing

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

***Less-Than-Significant Impact.*** The project involves the construction of 88-deatched single family residences within an area designated and zoned for residential by the City's General Plan and Zoning Code. As such, the project would directly induce population growth. Based on SCAG's local profile for 2016, the City had an estimated 53,351 residents, and the average household size was 3.5 persons (SCAG 2017). Using this factor of 3.5 persons per household, the project could support a residential population of approximately 308 persons. [8]

SCAG, along with local jurisdictions, developed a reasonable forecast growth for its 2016 RTP/SCS. Under the Jurisdictional Forecast 2040, the 2012 population for the City of Colton is 52,800 and the projected 2040 population is 69,100 (SCAG 2016). The additional 308 represents less than 2% of the 16,300 new residents expected in the City over the forecasting period.

Additionally, the City's General Plan Housing Element includes the Regional Housing Needs Assessment, or RHNA, developed through a process directed by SAG to calculate Colton's "fair share" of the regional housing need. By law, the City is required to show in

[8] The 308 persons represents a conservative estimate and assumes that all residents of the proposed project would be new transplants to the City. Under a more realistic scenario, it is probable that a portion of the proposed project's residential population will have already been living within the City prior to moving to the project site.

the Housing Element that adequate sites are available in Colton to accommodate the construction of new housing units consistent with the RHNA. Recognizing that development is often constrained by the market and environmental and other factors, the law does not mandate that these units actually be built. Rather, housing law merely requires that the City do its part to facilitate housing construction by designating and zoning land for residential use at appropriate densities, and by eliminating impediments to housing development (City of Colton 2013a).

Colton's RHNA for the 2013-2021 planning period was determined by SCAG to be 1,923 housing units, including 443 units for very-low-income households 1,302 units for low-income households, 347 units for moderate-income households, and 831 units for above-moderate-income households. The proposed 88 residential units would assist the City in meetings its housing needs by building housing units within an area zoned for residential. As discussed in Section 3.19, Utilities and Service Systems, utilities and infrastructure are already in place for the project site to support the project and its new residents.

Further, the project would result in the extension of West Litton Avenue, which would provide access to an approximately 25-acre (gross) portion of vacant land located north of Litton Road just northwest of the project site (Figure 2), which the project applicant also controls. No development application has been submitted for this vacant property and the project applicant has no current plans to develop this area. However, because this vacant land would now be accessible via the extension of Litton Road occurring as part of the project, it is theoretical – albeit speculative, at this time – that the street extension could remove a barrier to developing this vacant property in the future.

Pragmatically, this portion of vacant land currently offers limited opportunities for residential development. First, the existing topography lends itself to substantial earthwork being required to prepare the vacant property for development. Secondly, because this site is zoned very low density development (0.1-2 dwelling units per area), and due to the fact that portion of the site that could realistically be developed would be substantially smaller compared with the site's 25 gross acres, the number of single-family dwellings that could be constructed upon this land under the current zoning is limited.

As such, the proposed street extension would not provide opportunity for substantial unplanned population growth in this area. Therefore, impacts associated with substantial unplanned population growth would be less than significant.

***b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

***No Impact.*** Under the existing condition, the project site is vacant. No residential land uses currently exist on the Project Site. Therefore, no impacts associated with the displacement of existing people or housing would occur.

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

## 3.15 Public Services

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

***Fire protection?***

***Less-Than-Significant Impact.*** The Colton Fire Department provides fire suppression and emergency medical services to the project site. The Colton Fire Department is staffed by 32 uniformed personnel including the Fire Chief, Battalion Chiefs, Fire Captains, Engineers, and Firefighter/Paramedics. The Emergency Medical Services division staffed by 17 paramedics and 9 emergency medical technicians provides emergency medical service. There are four stations that provide fire and emergency medical services to the City. The nearest station is Fire Station 213 located at 1100 South La Cadena Drive,

approximately 1.3 miles northeast of the project site via East Litton Avenue and South La Cadena Drive.

Based on the proximity of the project site to the existing Colton Fire Department Station, because the surrounding project area is already services by fire protection and medical emergency response services, and since the project site is easily accessible via local roads, it is anticipated the project could be served by the Colton Fire Department without adversely affecting personnel-to-resident rations, response times, or other performance objectives. Additionally, the City collects development impact fees for projects to offset incremental increases in service demand on fire protection services and facilities. Therefore, impacts associated with Colton Fire Department facilities would be less than significant.

***Police protection?***

***Less-Than-Significant Impact.*** The Colton Police Department provides police protection services to the project site and surrounding area. The Colton Police Department headquarters is in the City's civic center located 650 North Cadena Drive, approximately 2.5 miles northeast of the project site. In 2018, 1,477 crimes were reported (City of Colton Police 2019).

The project would introduce new residents to the project site, which could result in an increase in police protections services. However, based on the proximity to the Colton Police Department headquarters, and due to the fact that surrounding project area is already services by police protection services, it is anticipated the project could be served without adversely affecting personnel-to-resident-rations. Further, the City collects development impact fees for projects to offset incremental increases in service demand on police protection services and facilities. Therefore, impacts associated with Colton Police Department facilities would be less than significant.

***Schools?***

***Less-Than-Significant Impact.*** The Colton Joint Unified School District (CJUSD) would provide education services for students who live at the project site. The project site would be served by Wilson Elementary School (grades K-6), Terrace Hills Middle School (grades 7 and 8), and Grand Terrace High School (grades 9-12) (CJUSD 2019).

According to the California Department of Education, during the 2017/2018 school year, Wilson Elementary School had 618 students, Terrace Middle School had 985 students, and Grand Terrace High School had 2,114 students (CDE 2018). Using the student generation rates used in the City's General Plan EIR (City of Colton 2012), residential uses

generate 0.46 elementary school students, 0.13 middle school students, and 0.22 high school students per unit. At 88 dwelling units, the project would generate approximately 41 elementary school students, 12 middle school students, and 20 high school students.

The project would be subject to Senate Bill (SB) 50, which requires the payment of mandatory impact fees to offset any impact to school facilities. In accordance with SB 50, the property owner/developer would pay its fair share of school impact fees based on the number of proposed dwelling units and square footage per Government Code Section 65995(h). Specifically, California Government Code Section 65995 (The Leroy F. Green School Facilities Act of 1998) sets base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. Pursuant to state law, collection of fees by school districts is sufficient in mitigating potential impacts related to the increase in 41 elementary school students, 12 middle school students, and 20 high school students. Therefore, impacts associated with school facilities would be less than significant.

***Parks?***

***Less-Than-Significant Impact.*** The project would include 88 residential units that would house approximately 308 residents. At least a portion of these residents are anticipated to patronize the various public parks and recreation facilities located in proximity to the project site. However, the project would include new recreational opportunities for residents and the public, including a multipurpose trail. Since the project provides recreational opportunities on-site, there is likely to be an incrementally reduced impact to off-site public parks and recreational facilities.

Additionally, the project is subject to the Quimby Act, which authorizes jurisdictions to adopt ordinances that require parkland dedication or payment of in-lieu fees as a condition of approval of residential subdivisions. The City of Colton has adopted a local ordinance implementing the provisions of the Quimby Act. Pursuant to the Quimby Act, the property owner/developer would pay its fair share of in-lieu fees based on the number and type of dwelling units. Therefore, impacts associated with park facilities would be less than significant.

***Other public facilities?***

***Less-Than-Significant Impact.*** It is reasonable to assume that at least a portion of the approximately 308 residents generated by the project would patronize public facilities, such as

local library branches, operated by the City. The Colton Library System consists of the Colton Public Library-Main Branch, Luque Branch Library, and the Advance to Literary Center. Although the project would introduce new residents that would utilize the existing facilities, the property owner/developer would be required to pay DIF for library facilities. The DIF would offset any incremental increase in demand for other public facilities. Therefore, impacts associated with other public facilities would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVI. RECREATION** | | | | |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☒ | ☐ |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☒ | ☐ |

## 3.16 Recreation

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

***Less-Than-Significant Impact.*** The project would include 88 residential units that would house approximately 308 residents. At least a portion of these residents are anticipated to patronize the various public parks and recreation facilities located in proximity to the project site. However, the project would include new recreational opportunities for residents and the public, including a multipurpose trail. The approximately 850-foot long multipurpose trail would be constructed along with the proposed residences to connect to the two residential area on the project site. This trail would be accessible to both residents living on the project site and the public. Additionally, as discussed in Section 3.4, the project will be required to set aside a portion of their property as an open space/conservation land. Since the project provides recreational opportunities on-site, there is likely to be an incrementally reduced impact to off-site public parks and recreational facilities.

Additionally, the project is subject to the Quimby Act, which authorizes jurisdictions to adopt ordinances that require parkland dedication or payment of in-lieu fees as a condition of approval of residential subdivisions. The City of Colton has adopted a local ordinance implementing the provisions of the Quimby Act. Pursuant to the Quimby Act, the property owner/developer would pay its fair share of in-lieu fees based on the number and type of dwelling units. Therefore, impacts associated with the increased use of existing recreational facilities would be less than significant.

***b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?***

***Less-Than-Significant Impact.*** The project would include a multipurpose trail, and will be required to set aside an approximately 18-acre portion of their property as an open space/conservation easement. These project components would be fully contained within the project site and are part of the project. As such, any potential environmental impacts related to the construction and operation of these on-site recreational amenities are already accounted for in this IS/MND as part of the impact assessment conducted for the entirety of the project. No adverse physical impacts beyond those already disclosed in this document would occur as a result of implementation of the project's on-site recreational facilities. Therefore, impacts associated with the construction or expansion of recreational facilities would be less than significant.

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

## 3.17 Transportation

The following analysis is based on a Traffic Impact Analysis (TIA) prepared by Ganddini Group, Inc., and included as Appendix H.

The TIA evaluates traffic impacts for the anticipated opening year in Year 2020 and for Buildout Year 2040 traffic conditions. The intersections identified for analysis consist of the following intersections within the City of Colton and the California Department of Transportation (Caltrans) jurisdictions:

City of Colton

1. La Cadena Drive (NS) at Tropica Rancho Road (EW)
2. La Cadena Drive (NS) at Litton Avenue (EW)
3. La Cadena Drive (NS) at Palm Avenue (EW)
4. La Cadena Drive (NS) at Barton Road (EW)
5. La Cadena Drive (NS) at Iowa Avenue (EW)
6. La Cadena Drive (NS) at Maryknoll Drive (EW)

Caltrans

7. La Cadena (NS) at I-215 Southbound On-Ramp (EW)
8. Iowa Avenue (NS) at I-215 Southbound Off-Ramp (EW)
9. Iowa Avenue (NS) at I-215 Northbound Ramps (EW)
10. I-215 Southbound Ramps (NS) at Barton Road (EW)
11. I-215 Northbound Ramps (NS) at Barton Road (EW)

**Methodology**

The technique used to assess the operation of an intersection is known as intersection delay methodology, based on the procedures contained in the Highway Capacity Manual (Transportation Research Board 2016). Traffic volumes and distribution of movements, traffic composition, geometric characteristics, and signalization details were utilized to calculate the average control delay per vehicle and the corresponding Level of Service (LOS). Control delay is defined as the portion of delay attributed to the intersection traffic control (i.e., traffic signal or stop sign), and is correlated to LO. LOS is used to qualitatively describe the performance of a roadway facility, ranging from LOS A (free-flow conditions) to LOS F (extreme congestion and system failure).

## Existing Traffic Conditions

### *Existing Roadway System*

Regional access to the project area is provided by I-215, located approximately 0.6 miles east of the project site. Key roadways providing local circulations include La Cadena Drive, Barton Road, and Iowa Avenue. Figure 8, Existing Lane Geometry identifies the existing lane geometry and intersection traffic controls within the study area for the project. Additionally, local intersections providing access to the project site include Litton Avenue/Bostick Avenue, Bostick Avenue/Palm Avenue, and Litton Avenue/Terrace View.

The I-215 Barton Road Interchange project, which included a roundabout constructed at the intersection of I-215 Southbound Ramps and La Crosse Avenue at Barton Road (Intersection No. 10), has been completed. These interchange improvements were under construction during preparation of the TIA, but because the interchange project was scheduled to be completed prior to implementation of the proposed residential project, the analysis included within the TIA is based on the ultimate configuration at this intersection.

### *Alternative Transportation Facilities*

The project site is currently served by the Omnitrans transit Route 325 along Barton Road. Additionally, the City's General Plan identifies an existing Class II bicycle facility along La Cadena Drive, located north of West Litton Avenue. Just south of West Litton Avenue, a Class III bicycle facility is proposed to continue southbound along La Cadena Drive to connect to an existing Class II facility at the intersection of La Cadena Drive and Palm Avenue (City of Colton 2013c).

### *Existing Traffic Volumes*

Figure 9 shows the Existing Average Daily Traffic Volumes. The existing average daily traffic volumes were determined by using the peak hour intersection turning movement volumes. Existing peak hour volumes are based upon morning peak period and evening peak period intersection turning movement counts obtained in December 2018 during typical weekday conditions. The weekday morning peak period was counted between 7:00 AM and 9:00 AM, and the weekday evening peak period was counted between 4:00 PM and 6:00 PM. The intersection turning movement count worksheets are provided in the TIA (Appendix H).

Figures 10 and 11 show the Existing AM Peak Hour and PM Peak Hour Intersection Turning Movement Volumes.

### *Existing Level of Service*

The intersection LOS for the existing conditions are shown in Table 9.

**Table 9**
**Existing Intersection Levels of Service**

| Study Intersection | Traffic Control[1] | Peak Hour | | | |
|---|---|---|---|---|---|
| | | *Morning* | | *Evening* | |
| | | *Delay*[2] | *LOS*[3] | *Delay*[2] | *LOS*[3] |
| 1. La Cadena Drive (NS) at Tropica Rancho Road (EW) | CSS | 14.3 | B | 14.4 | B |
| 2. La Cadena Drive (NS) at Litton Avenue (EW) | TS | 7.1 | A | 5.5 | A |
| 3. La Cadena Drive (NS) at Palm Avenue (EW) | CSS | 14.7 | B | 14.9 | B |
| 4. La Cadena Drive (NS) at Barton Road (EW) | TS | 11.8 | B | 12.9 | B |
| 5. La Cadena Drive (NS) at Iowa Avenue (EW) | TS | 9.8 | A | 14.5 | B |
| 6. La Cadena Drive (NS) at Maryknoll Drive (EW) | CSS | 30.0 | D | 41.2 | E |
| 7. La Cadena (NS) at I-215 Southbound On-Ramp (EW) | AWS | 29.8 | D | 34.1 | D |
| 8. Iowa Avenue (NS) at I-215 Southbound Off-Ramp (EW) | TS | 21.6 | C | 16.5 | B |
| 9. Iowa Avenue (NS) at I-215 Northbound Ramps (EW) | TS | 118.9 | F | 62.1 | E |
| 10. I-215 Southbound Ramps (NS) at Barton Road (EW) | RBT | 5.2 | A | 5.2 | A |
| 11. I-215 Northbound Ramps (NS) at Barton Road (EW) | TS | 11.9 | B | 12.6 | B |

**Source:** Appendix H
1 TS = Traffic Signal; CSS = Cross Street Stop; AWS = All-Way Stop; RBT = Roundabout.
2 Delay is shown in seconds/vehicle. For intersections with traffic signal, all way stop control or roundabout, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
3 LOS = Level of Service

As shown in Table 9, the study intersections currently operate within acceptable LOS during the peak hours for existing condition except the following study intersections are projected to operate at unacceptable LOS:

- La Cadena Drive (NS) at Maryknoll Drive (EW)- No. 6 (PM peak hour)
- Iowa Avenue (NS) at I-215 Northbound Ramps (EW) – No. 9 (AM and PM peak hour)

### *Existing Traffic Signal Warrant Analysis*

Based on the existing conditions, a traffic signal appears to be warranted at La Cadena Drive (NS) at I-215 Southbound On-Ramp (EW) (Intersection No. 7).

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

***Less-Than-Significant Impact With Mitigation Incorporated.*** As discussed below, with mitigation measures, the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

**Transportation Facilities**

The project would conflict the City's General Plan if the project both (1) contributes measureable traffic to and (2) substantially and adversely changes the LOS at any off-site location projected to experience deficient operations (LOS E or F) under foreseeable cumulative conditions, where feasible improvements consistent with the City's General Plan cannot be constructed. Any roadway improvements within the City that are consistent with the City's General Plan are not considered a significant impact, so long as the project contributes to its "fair share" funding for improvements.

**Project Trip Forecast**

***Project Trip Generation***

Table 10 shows the project trip generation based upon trip generation rates obtained from the *Trip Generation Manual*, 10th Edition (ITE 2017), for single-family detached housing.

**Table 10**
**Project Trip Generation**

| | | | Peak Hour | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | *Morning* | | | *Evening* | | | |
| | **Code** | **Units**[1] | *Inbound* | *Outbound* | *Total* | *Inbound* | *Outbound* | *Total* | **Daily** |
| *Trip Generation Rates* | | | | | | | | | |
| Single-Family Detached Residential | ITE | DU | 25% | 75% | 0.74 | 63% | 37% | 0.99 | 9.44 |
| *Proposed Trips Generated* | | | | | | | | | |
| Single-Family Detached Residential | ITE | 88 DU | 17 | 49 | 66 | 55 | 33 | 88 | 831 |

**Source**: ITE 2012.
[1] DU = Dwelling Units

As shown in Table 10, the project is forecasted to generate a total of approximately 831 daily vehicle trips, including 66 vehicle trips during the morning peak hour and 88 vehicle trips during the evening peak hour.

### *Project Trip Distribution and Assignment*

Figure 12 shows the forecast directional outbound and inbound distribution patterns for the project generated trips. The project trip distribution patterns are based on review of existing volume data, surrounding land uses, designated truck routes, and the local and regional roadway facilities in the project vicinity.

Based on the identified project trip generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 13. Project morning and evening peak hour intersection turning movement volumes expected from the project are depicted on Figure 14 and Figure 15, respectively.

### *Project Design Features*

The following analysis assumes the following improvements will be constructed by the project to provide site access:

Project Driveway at Litton Avenue (Opposite Terrace View Drive)

- Install northbound stop control
- Construct the northbound approach to consist of one shared left-turn/right-turn lane

Project Driveway at Bostick Avenue

- Install eastbound stop control
- Construct the eastbound approach to consist of one shared left-turn/right-turn lane

## Future Volume Forecasts

### *Cumulative Trips*

To forecast future volumes in the study area and account for ambient growth, existing traffic volumes were increased by a growth rate of 1% per year over two years for Opening Year (2020) conditions. To account for future development, trips generated by pending or approved other development projects in the City were added to the study area. The trips generated by these projects are shown in Table 11.

## Table 11
## Other Development Trip Generation

| Trip Generation Rates | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | AM | Peak | Hour | PM | Peak | Hour | Daily |
| Land Use | Source1 | Units2 | % In | % Out | Rate | % In | % Out | Rate | Rate |
| General Light Industrial | TSF | ITE 110 | 88% | 12% | 0.70 | 13% | 87% | 0.63 | 4.96 |
| Industrial Park | TSF | ITE 130 | 81% | 19% | 0.40 | 21% | 79% | 0.4 | 3.37 |
| Warehousing | TSF | ITE 150 | 77% | 23% | 0.17 | 27% | 73% | 0.19 | 1.74 |
| Mini Warehousing | TSF | ITE 151 | 60% | 40% | 0.10 | 47% | 53% | 0.17 | 1.51 |
| Single Family Detached Residential | DU | ITE 210 | 25% | 75% | 0.74 | 69% | 31% | 0.99 | 9.44 |
| Multifamily Housing (Low Rise) | DU | ITE 220 | 23% | 77% | 0.46 | 63% | 37% | 0.56 | 7.32 |
| Assisted Living | Beds | ITE 254 | 63% | 37% | 0.19 | 38% | 62% | 0.26 | 2.60 |
| Hotel | Rooms | ITE 310 | 59% | 41% | 0.47 | 51% | 49% | 0.6 | 8.36 |
| Junior/Community College | ST | ITE 540 | 62% | 38% | 0.11 | 48% | 52% | 0.11 | 1.15 |
| Church | Seats | ITE 560 | 50% | 50% | 0.01 | 40% | 60% | 0.03 | 0.44 |
| General Office | TSF | ITE 710 | 86% | 14% | 1.16 | 16% | 84% | 1.15 | 9.74 |
| Medical/Dental Office | TSF | ITE 720 | 78% | 22% | 2.78 | 28% | 72% | 3.46 | 34.80 |
| Shopping Center | TSF | ITE 820 | 62% | 38% | 0.94 | 48% | 52% | 3.81 | 37.75 |
| Tire Store | TSF | ITE 848 | 64% | 36% | 2.72 | 43% | 57% | 3.98 | 28.52 |
| Supermarket | TSF | ITE 850 | 60% | 40% | 3.82 | 51% | 49% | 9.24 | 106.78 |
| High Turnover (Sit Down) Restaurant | TSF | ITE 932 | 55% | 45% | 9.94 | 62% | 38% | 9.77 | 112.18 |
| Fast Food Restaurant With Drive Thru | TSF | ITE 934 | 51% | 49% | 40.19 | 52% | 48% | 32.67 | 470.95 |
| Automobile Care Center | TSF | ITE 942 | 66% | 34% | 2.25 | 48% | 52% | 3.11 | 23.72 |
| Gasoline Service Station | FP | ITE945 | 50% | 50% | 10.28 | 50% | 50% | 14.03 | 172.01 |
| Truck Terminal | TSF | | 40% | 60% | 0.09 | 50% | 50% | 0.08 | 10.00 |
| **Trips Generated** | | | | | | | | | |
| | | | AM | Peak Hour | | PM | Peak Hour | | |
| Land Use | Quantity | Units2 | In | Out | Total | In | Out | Total | Daily |
| *City of Colton* | | | | | | | | | |
| Roquet Ranch Specific Plan | | | 238 | 581 | 819 | 617 | 374 | 991 | 10,021 |
| Hillwood | 236.512 | TSF | 31 | 9 | 40 | 12 | 33 | 45 | 412 |
| Tropica Warehouse | 266.030 | TSF | 35 | 11 | 46 | 13 | 37 | 50 | 463 |
| CUSM (300 N. Pepper Av.) | 150 | ST | 14 | 3 | 17 | 9 | 8 | 17 | 173 |
| 1601 W. Valley Blvd. | NA<br>NA | Rooms<br>FP | | | | | | | |
| 1600 Agua Mansa Road | 805.500 | TSF | 105 | 32 | 137 | 40 | 113 | 153 | 1,402 |
| Cal-Med Surgery Center (1281 W. C St.) | NA | TSF | | | | | | | |
| Valley Orange Ent. (1600 W. Valley Blvd.) | 8 | FP | 41 | 41 | 82 | 56 | 56 | 112 | 1,376 |
| Diesel Injection (1610 Fairway Dr.) | 1.350 | TSF | 2 | 1 | 3 | 2 | 2 | 4 | 32 |
| New Juan Colorado Family Restaurant (195 W. Valley Bl.) | NA | TSF | | | | | | | |

## Table 11
## Other Development Trip Generation

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1175 S. Mt. Vernon Av. | 104.000 | TSF | 104 | 17 | 121 | 19 | 101 | 120 | 1,013 |
| 495 W. Valley Bl. | NA | Seats | | | | | | | |
| **Trips Generated** | | | | | | | | | |
| | | | *AM* | *Peak Hour* | | *PM* | *Peak Hour* | | |
| *Land Use* | *Quantity* | *Units*[2] | *In* | *Out* | *Total* | *In* | *Out* | *Total* | *Daily* |
| Smart and Final Extra (1023 N. Mt. Vernon) | 27.870 | TSF | 64 | 43 | 107 | 131 | 126 | 257 | 2,976 |
| | 4.400 | TSF | 90 | 87 | 177 | 75 | 69 | 144 | 2,072 |
| 839 Fairway Dr. | 103 | Beds | 12 | 7 | 19 | 10 | 16 | 26 | 268 |
| 1601 Fairway Dr. | 178.980 | TSF | 57 | 14 | 71 | 14 | 57 | 71 | 603 |
| 1550 E. Washington St. | 120 | Seats | 1 | | 1 | 1 | 2 | 3 | 53 |
| 1559 Steel Rd. | 60.000 | TSF | 19 | 5 | 24 | 5 | 19 | 24 | 202 |
| 1603 Steel Rd. | 159.271 | TSF | 51 | 13 | 64 | 13 | 51 | 64 | 537 |
| 785 E. M Street | 20.600 | TSF | 13 | 2 | 15 | 2 | 11 | 13 | 102 |
| Colton Iron Metal (790 E. M St.) | 156.816 | TSF | 97 | 13 | 110 | 13 | 86 | 99 | 778 |
| 644-660 Laurel Lane | 7 | DU | 1 | 4 | 5 | 4 | 3 | 7 | 66 |
| 1200 Jefferson Ln. | NA | TSF | | | | | | | |
| 602 Agua Mansa Rd. | 19.919 | TSF | 1 | 1 | 2 | 1 | 1 | 2 | 199 |
| 1395 Washington St. | NA | TSF | | | | | | | |
| *County of Riverside* | | | | | | | | | |
| TR28957 | 36 | DU | 7 | 20 | 27 | 22 | 13 | 35 | 340 |
| TR32989 | 29 | DU | 6 | 16 | 22 | 18 | 11 | 29 | 274 |
| TR32291 | 69 | DU | 13 | 38 | 51 | 43 | 26 | 69 | 651 |
| CUP03718 | 19.988 | TSF | 12 | 2 | 14 | 2 | 11 | 13 | 99 |
| | 2.400 | TSF | 1 | 1 | 2 | 4 | 5 | 9 | 91 |
| PP24798 | 3.405 | TSF | 3 | 1 | 4 | 1 | 3 | 4 | 33 |
| | 2.961 | TSF | 2 | 1 | 3 | 5 | 6 | 11 | 112 |
| PP25482 | 2.632 | TSF | 3 | | 3 | | 3 | 3 | 26 |
| Trucks Sales Facility (PP25505) | 1.952 | TSF | 2 | | 2 | | 2 | 2 | 19 |
| | 6.000 | TSF | | | | | 1 | 1 | 9 |
| TR36668 (Bixby Highgrove) | 201 | DU | 38 | 111 | 149 | 125 | 74 | 199 | 1,897 |
| *City of Grand Terrance* | | | | | | | | | |
| SA-14-03 | 1 | DU | | 1 | 1 | 1 | | 1 | 9 |
| TT18071 (Karger Pico Tract) | 18 | DU | 3 | 10 | 13 | 11 | 7 | 18 | 170 |
| SA 13-05 | 1 | DU | | 1 | 1 | 1 | | 1 | 9 |
| Site and Architectural Review 1204 | 12 | DU | 1 | 4 | 5 | 4 | 3 | 7 | 88 |
| Grand Terrace Town Square Master Plan | 209.611 | TSF | 122 | 75 | 197 | 384 | 415 | 799 | 7,913 |
| SA-07-07 | 65.730 | TSF | 38 | 24 | 62 | 120 | 130 | 250 | 2,481 |
| SA 14-05; SA 14-07 | 1 | DU | | 1 | 1 | 1 | | 1 | 9 |
| SA 14-06 | 1 | DU | | 1 | 1 | 1 | | 1 | 9 |

**Table 11**
**Other Development Trip Generation**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Barton Plaza Commercial Center (Phase 2) | 16.251 | TSF | 16 | 3 | 19 | 3 | 16 | 19 | 158 |
| SA 15-01 | 1.800 | TSF | 2 | | 2 | | 2 | 2 | 18 |
| SA 15-06 ACUP15-07 E15-08 | 2.870 | TSF | 6 | 2 | 8 | 3 | 7 | 10 | 100 |
| SA 15-07 E15-09 | 1.800 | TSF | 1 | 1 | 2 | 3 | 4 | 7 | 68 |
| SA 15-04 E15-07 | 8.800 | TSF | 9 | 1 | 10 | 2 | 9 | 11 | 86 |
| | | | *AM* | *Peak Hour* | | *PM* | *Peak Hour* | | |
| *Land Use* | *Quantity* | *Units2* | *In* | *Out* | *Total* | *In* | *Out* | *Total* | *Daily* |
| SA 15-05; ACUP15-06; V15-02 | 1 | TSF | 1 | | 1 | | 1 | 1 | 14 |
| TTM 15-01; SA 15-03; E15-05 | 12 | DU | 2 | 7 | 9 | 7 | 4 | 11 | 113 |
| SA05-19-A1; E15-06 | 35 | DU | 4 | 12 | 16 | 12 | 7 | 19 | 256 |
| *City of Riverside* | | | | | | | | | |
| R31 P15-0812 | 61 | DU | 7 | 21 | 28 | 21 | 13 | 34 | 447 |
| P13-0956; P13;0959; P13-0960; P13-0963; | | | | | | | | | |
| P13-0964 P13-0965; P13-0966 | 1461.449 | TSF | 468 | 117 | 585 | 117 | 468 | 585 | 4,925 |
| R38 P14-1033; P14-1034 | 308.000 | TSF | 40 | 12 | 52 | 15 | 43 | 58 | 536 |
| **Total Other Development Trips Generated** | | | **1,783** | **1,367** | **3,150** | **1,963** | **2,449** | **4,412** | **43,708** |

**Notes**:
ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code.
DU = Dwelling Units; TSF = Thousand Square Feet; ST = Students; FP = Vehicle Fueling Positions.

Figure 16 shows the forecast average daily traffic volumes for the other development. Figure 17 and Figure 18 show the forecast morning and evening peak hour intersection turning movement volumes for trips generated by other developments.

### *Buildout 2040 Projections*

The average daily traffic volume forecasts have been determined using the growth increment approach on the San Bernardino Transportation Analysis Model (SBTAM) Year 2012 and Year 2040 average daily traffic volume forecasts. To derive morning and evening peak hour intersection turning movement volumes, the traffic volume growth forecasts were further refined using a spreadsheet program developed by the Federal Highway Administration and consistent with traffic volume forecasting procedures outlined in the National Cooperative Highway Research Program Report 255.

***Analysis Scenario Volume Forecasts***

Existing Plus Project

Existing Plus Project volume forecasts were derived by adding the project generated trips to Existing volumes. Existing Plus Project average daily traffic volumes are shown on Figure 19. Existing Plus Project morning and evening peak hour intersection turning movement volumes are shown on Figure 20 and Figure 21.

Opening Year (2020) Without Project

To develop Opening Year (2020) Without Project volume forecasts, Existing volumes were combined with ambient growth and trips generated by other developments. Opening Year (2020) Without Project average daily traffic volumes are shown on Figure 22. Opening Year (2020) Without Project morning and evening peak hour intersection turning movement volumes are shown Figure 23 and Figure 24.

Opening Year (2020) With Project

Opening Year (2020) With Project volume forecasts were developed by adding project generated trips to the Opening Year (2020) Without Project forecast. Opening Year (2020) With Project average daily traffic volumes are shown on Figure 25. Opening Year (2020) With Project morning and evening peak hour intersection turning movement volumes are shown on Figure 26 and Figure 27.

Buildout Year (2040) Without Project

Buildout Year (2040) Without Project volume forecasts were derived from the SBTAM travel demand model and post-processing procedures previously described in this section. Buildout Year (2040) Without Project average daily traffic volumes are shown on Figure 28. Buildout Year (2040) Without Project morning and evening peak hour intersection turning movement volumes are shown Figure 29 and Figure 30.

Buildout Year (2040) With Project

Buildout Year (2040) With Project volume forecasts were developed by adding project generated trips to the Buildout Year (2040) Without Project forecast. Buildout Year (2040) With Project average daily traffic volumes are shown on Figure 31. Buildout Year (2040) With Project morning and evening peak hour intersection turning movement volumes are shown on Figure 32 and Figure 33.

## Operational Analysis

### *Existing Plus Project*

Intersection Level of Service

The average delay and LOS for Existing Plus Project conditions are shown in Table 12.

**Table 12**
**Existing Plus Project Intersection Levels of Service and Significant Impact Evaluation**

| Study Intersection | Traffic Control1 | AM Peak Hour | | | | | PM Peak Hour | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Without Project* | | *With Project* | | *Significant Impact Prior to Mitigation?* | *Without Project* | | *With Project* | | *Significant Impact Prior to Mitigation?* |
| | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | |
| 1. La Cadena Dr at Tropica Rancho Rd | CSS | 14.3 | B | 14.4 | B | No | 14.4 | B | 14.5 | B | No |
| 2. La Cadena Dr at Litton Ave | TS | 7.1 | A | 9.3 | A | No | 5.5 | A | 7.7 | A | No |
| 3. La Cadena Dr at Palm Ave | CSS | 14.7 | B | 15.1 | C | No | 14.9 | B | 15.2 | C | No |
| 4. La Cadena Dr at Barton Rd | TS | 11.8 | B | 12.0 | B | No | 12.9 | B | 13.3 | B | No |
| 5. La Cadena Dr at Iowa Ave | TS | 9.8 | A | 9.8 | A | No | 14.5 | B | 14.6 | B | No |
| 6. La Cadena Dr at Maryknoll Dr | CSS | 30.0 | D | 31.0 | D | No | 41.2 | E | 42.0 | E | **Yes** |
| • Install TS, add NB Left, add SB Left | TS | | | 3.9 | A | No | | | 2.4 | A | No |
| 7. La Cadena Dr at I 215 SB On Ramp | AWS | 29.8 | D | 32.9 | D | No | 34.1 | D | 36.2 | E | **Yes** |
| • Install Traffic Signal | TS | | | 17.2 | B | No | | | 16.5 | B | No |
| 8. Iowa Ave at I 215 SB Off Ramp | TS | 21.6 | C | 21.7 | C | No | 16.5 | B | 16.9 | B | No |
| 9. Iowa Ave at I 215 NB Ramps | TS | 118.9 | F | 120.6 | F | **Yes** | 62.1 | E | 65.5 | E | **Yes** |
| •Add WB Right Turn Overlap | TS | | | 15.4 | B | No | | | 12.3 | B | No |
| 10. I 215 SB Ramps at Barton Rd | RBT | 5.2 | A | 5.2 | A | No | 5.2 | A | 5.2 | A | No |
| 11. I 215 NB Ramps at Barton Rd | TS | 11.9 | B | 12.1 | B | No | 12.6 | B | 12.7 | B | No |

**Notes**:
TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop; RBT = Roundabout
Delay is shown in seconds/vehicle. For intersections with traffic signal, all way stop control or roundabout, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
LOS = Level ofService

As shown in Table 12, the study intersections are forecast to operate within acceptable LOS during the peak hours for Existing Plus Project traffic conditions, except for La Cadena Drive at Maryknoll Drive (No. 6) during PM peak hour; La Cadena Drive at I-215 Southbound On-Ramp (No. 7) during PM peak hour; and Iowa Avenue at I-215 Northbound Ramps (No. 9) during AM and PM peak hour.

Impacts Evaluation

For Existing Plus Project conditions, the project is forecast to result in significant traffic impacts at study intersections No. 6, 7, and 9 without improvements. Table 12 shows installation of the following improvements are needed to address impacts to these intersections:

- La Cadena Drive/Maryknoll Drive – No. 6
  - Install traffic signal
  - Add northbound left turn lane
  - Add southbound left turn lane
- La Cadena Drive/I-215 Southbound On-Ramp – No. 7
  - Install traffic signal
- Iowa Avenue/I-215 Northbound Ramps – No. 9
  - Add westbound right turn overlap phasing

***Opening Year (2020) Without Project***

The average delay and Levels of Service for Opening Year (2020) Without Project conditions are shown in Table 13.

**Table 13**
**Opening Year (2020) Without Project Intersection Levels of Service**

| Study Intersection | Traffic Control1 | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|
| | | *Delay*[2] | *LOS*[3] | *Delay*[2] | *LOS*[3] |
| 1. La Cadena Dr at Tropica Rancho Rd | CSS | 16.0 | C | 17.4 | C |
| 2. La Cadena Dr at Litton Ave | TS | 7.3 | A | 6.0 | A |
| 3. La Cadena Dr at Palm Ave | CSS | 16.5 | C | 18.4 | C |
| 4. La Cadena Dr at Barton Rd | TS | 15.1 | B | 24.5 | C |
| 5. La Cadena Dr at Iowa Ave | TS | 20.1 | C | 27.0 | C |
| 6. La Cadena Dr at Maryknoll Dr | CSS | 1229.3 | F | 1932.6 | F |
| 7. La Cadena Dr at I-215 SB On-Ramp | AWS | 55.9 | F | 74.3 | F |
| 8. Iowa Ave at I-215 SB Off-Ramp | TS | 29.8 | C | 20.4 | C |
| 9. Iowa Ave at I-215 NB Ramps | TS | 156.7 | F | 102.0 | F |
| 10. I-215 SB Ramps at Barton Rd | RBT | 6.3 | A | 6.7 | A |
| 11. I-215 NB Ramps at Barton Rd | TS | 12.5 | B | 12.9 | B |

**Notes**:
TS = Traffic Signal; CSS = Cross Street Stop; AWS = All-Way Stop; RBT = Roundabout
Delay is shown in seconds/vehicle. For intersections with traffic signal, all way stop control or roundabout, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).

LOS = Level ofService

As shown in Table 13, the study intersections are forecast to operate within acceptable LOS during the peak hours for Opening Year (2020) Without Project conditions, except for La Cadena Drive at Maryknoll Drive (No. 6) during AM and PM peak hour; La Cadena Drive at I-215 Southbound On-Ramp (No. 7) during AM and PM peak hour; and Iowa Avenue at I-215 Northbound Ramps (No. 9) during AM and PM peak hour.

***Opening Year (2020) With Project***

Intersection Level of Service

The average delay and LOS for Opening Year (2020) With Project conditions are shown in Table 14.

**Table 14**
**Opening Year (2020) With Project**
**Intersection Levels of Service and Significant Impact Evaluation**

| Study Intersection | Traffic Control1 | AM Peak Hour | | | | | PM Peak Hour | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Without Project* | | *With Project* | | *Significant Impact Prior to* | *Without Project* | | *With Project* | | *Significant Impact Prior to* |
| | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | |
| 1. La Cadena Dr at Tropica Rancho Rd | CSS | 16.0 | C | 16.0 | C | No | 17.4 | C | 17.6 | C | No |
| 2. La Cadena Dr at Litton Ave | TS | 7.3 | A | 9.8 | A | No | 6.0 | A | 8.4 | A | No |
| 3. La Cadena Dr at Palm Ave | CSS | 16.5 | C | 17.0 | C | No | 18.4 | C | 18.9 | C | No |
| 4. La Cadena Dr at Barton Rd | TS | 15.1 | B | 15.4 | B | No | 24.5 | C | 25.6 | C | No |
| 5. La Cadena Dr at Iowa Ave | TS | 20.1 | C | 20.2 | C | No | 27.0 | C | 28.1 | C | No |
| 6. La Cadena Dr at Maryknoll Dr<br>•Install TS, add NB Left, add SB Left | CSS<br>TS | 1229.3 | F | 1287.1<br>19.7 | F<br>B | **Yes**<br>No | 1932.6 | F | 1992.0<br>10.6 | F<br>B | **Yes**<br>No |
| 7. La Cadena Dr at I 215 SB On Ramp<br>•Install Traffic Signal | AWS<br>TS | 55.9 | F | 60.1<br>18.1 | F<br>B | **Yes**<br>No | 74.3 | F | 76.6<br>17.3 | F<br>B | **Yes**<br>No |
| 8. Iowa Ave at I 215 SB Off Ramp | TS | 29.8 | C | 30.0 | C | No | 20.4 | C | 21.1 | C | No |
| 9. Iowa Ave at I 215 NB Ramps<br>•Add WB Right Turn Overlap | TS<br>TS | 156.7 | F | 158.4<br>19.0 | F<br>B | **Yes**<br>No | 102.0 | F | 106.2<br>13.9 | F<br>B | **Yes**<br>No |
| 10. I 215 SB Ramps at Barton Rd | RBT | 6.3 | A | 6.3 | A | No | 6.7 | A | 6.8 | A | No |
| 11. I 215 NB Ramps at Barton Rd | TS | 12.5 | B | 12.7 | B | No | 12.9 | B | 13.0 | B | No |

**Notes**:
TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop; RBT = Roundabout
Delay is shown in seconds/vehicle. For intersections with traffic signal, all way stop control or roundabout, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
LOS = Level ofService

As shown in Table 14, the study intersections are forecast to operate within acceptable LOS during the peak hours for Opening Year (2020) With Project conditions except for La Cadena Drive at Maryknoll Drive (No. 6) during AM and PM peak hour; La Cadena Drive at I-215 Southbound On-Ramp (No. 7) during AM and PM peak hour; and Iowa Avenue at I-215 Northbound Ramps (No. 9) during AM and PM peak hour.

Impacts Evaluation

For Opening Year (2020) Plus Project conditions, the project is forecast to result in significant traffic impacts at study intersections No. 6, 7, and 9 without improvements. Table 14 shows the following improvements are needed to address impacts to these intersections:

- La Cadena Drive (NS) at Maryknoll Drive (EW) – No. 6
  - Install traffic signal
  - Add northbound left turn lane
  - Add southbound left turn lane
- La Cadena Drive (NS) at I-215 Southbound On-Ramp (EW) – No. 7
  - Install traffic signal
- Iowa Avenue (NS) at I-215 Northbound Ramps (EW) – No. 9
  - Add westbound right turn overlap phasing

***Buildout Year (2040) Without Project***

The average delay and LOS for Buildout Year (2040) Without Project conditions are shown in Table 15.

**Table 15**
**Buildout Year (2040) Without Project Intersection Levels of Service**

| Study Intersection | Traffic Control1 | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|
| | | *Delay2* | *LOS3* | *Delay2* | *LOS3* |
| 1. La Cadena Dr at Tropica Rancho Rd | CSS | 19.4 | C | 19.3 | C |
| 2. La Cadena Dr at Litton Ave | TS | 8.3 | A | 6.4 | A |
| 3. La Cadena Dr at Palm Ave | CSS | 21.6 | C | 20.9 | C |
| 4. La Cadena Dr at Barton Rd | TS | 18.0 | B | 45.7 | D |
| 5. La Cadena Dr at Iowa Ave | TS | 33.1 | C | 80.6 | F |
| 6. La Cadena Dr at Maryknoll Dr | CSS | 1947.8 | F | 4029.5 | F |
| 7. La Cadena Dr at I-215 SB On-Ramp | AWS | 113.1 | F | 163.3 | F |
| 8. Iowa Ave at I-215 SB Off-Ramp | TS | 69.0 | E | 34.9 | C |

**Table 15**
**Buildout Year (2040) Without Project Intersection Levels of Service**

| Study Intersection | Traffic Control1 | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|
| | | *Delay2* | *LOS3* | *Delay2* | *LOS3* |
| 9. Iowa Ave at I-215 NB Ramps | TS | 179.5 | F | 157.9 | F |
| 10. I-215 SB Ramps at Barton Rd | RBT | 11.4 | B | 11.8 | B |
| 11. I-215 NB Ramps at Barton Rd | TS | 14.2 | B | 17.7 | B |

**Notes**:
TS = Traffic Signal; CSS = Cross Street Stop; AWS = All-Way Stop; RBT = Roundabout
Delay is shown in seconds/vehicle. For intersections with traffic signal, all way stop control or roundabout, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
LOS = Level of Service

As shown in Table 15, the study intersections are forecast to operate within acceptable LOS during the peak hours for Buildout Year (2020) Without Project conditions, except for La Cadena Drive at Iowa Avenue (No. 5) during PM peak hour; La Cadena Drive at Maryknoll Drive (No. 6) during AM and PM peak hour; La Cadena Drive at I-215 Southbound On-Ramp (No. 7) during AM and PM peak hour; Iowa Avenue at I-215 Southbound Off-Ramp (No. 8) during AM and PM peak hour; and Iowa Avenue at I-215 Northbound Ramps (No. 9) during AM and PM peak hour.

***Buildout Year (2040) With Project***

Intersection Level of Service

The average delay and LOS for Buildout Year (2040) With Project conditions are shown in Table 16.

**Table 16**
**Buildout Year (2040) With Project Intersection Levels of Service and Significant Impact Evaluation**

| Study Intersection | Traffic Control1 | AM Peak Hour | | | | | PM Peak Hour | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Without Project* | | *With Project* | | *Significant Impact Prior to Mitigation?* | *Without Project* | | *With Project* | | *Significant Impact Prior to Mitigation?* |
| | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | |
| 1. La Cadena Dr at Tropica Rancho Rd | CSS | 19.4 | C | 19.5 | C | No | 19.3 | C | 19.5 | C | No |
| 2. La Cadena Dr at Litton Ave | TS | 8.3 | A | 11.0 | B | No | 6.4 | A | 8.6 | A | No |
| 3. La Cadena Dr at Palm Ave | CSS | 21.6 | C | 22.5 | C | No | 20.9 | C | 21.6 | C | No |
| 4. La Cadena Dr at Barton Rd | TS | 18.0 | B | 18.5 | B | No | 45.7 | D | 48.5 | D | No |

**Table 16**
**Buildout Year (2040) With Project Intersection Levels of Service and Significant Impact Evaluation**

| Study Intersection | Traffic Control1 | AM Peak Hour | | | | | PM Peak Hour | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Without Project* | | *With Project* | | *Significant Impact Prior to Mitigation?* | *Without Project* | | *With Project* | | *Significant Impact Prior to Mitigation?* |
| | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | | *Delay2* | *LOS3* | *Delay2* | *LOS3* | |
| 5. La Cadena Dr at Iowa Ave | TS | 33.1 | C | 35.6 | D | No | 80.6 | F | 82.6 | F | **Yes** |
| •Add 2nd NB Thru | TS | | | 28.8 | C | No | | | 42.1 | D | No |
| 6. La Cadena Dr at Maryknoll Dr | CSS | 1947.8 | F | 2032.5 | F | **Yes** | 4029.5 | F | 4151.6 | F | **Yes** |
| •Install TS, add NB Left, add SB Left | TS | | | 20.6 | C | No | | | 10.1 | B | No |
| 7. La Cadena Dr at I 215 SB On Ramp | AWS | 113.1 | F | 119.7 | F | **Yes** | 163.3 | F | 167.1 | F | **Yes** |
| •Install Traffic Signal | TS | | | 18.8 | B | No | | | 47.0 | D | No |
| 8. Iowa Ave at I 215 SB Off Ramp | TS | 69.0 | E | 69.8 | E | **Yes** | 34.9 | C | 36.9 | D | No |
| •Add 2nd EB Right | TS | | | 22.4 | C | No | | | 32.3 | C | No |
| 9. Iowa Ave at I 215 NB Ramps | TS | 179.5 | F | 181.4 | F | **Yes** | 157.9 | F | 162.5 | F | **Yes** |
| •Add WB Right Turn Overlap | TS | | | 23.7 | C | No | | | 29.9 | C | No |
| 10. I 215 SB Ramps at Barton Rd | RBT | 11.4 | B | 11.5 | B | No | 11.8 | B | 12.0 | B | No |
| 11. I 215 NB Ramps at Barton Rd | TS | 14.2 | B | 14.4 | B | No | 17.7 | B | 17.9 | B | No |

**Notes**:
TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop; RBT = Roundabout
Delay is shown in seconds/vehicle. For intersections with traffic signal, all way stop control or roundabout, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).
LOS = Level of Service

As shown in Table 16, the study intersections are projected to operate within acceptable LOS (D or better) during the peak hours for Buildout year (2040) With Project conditions, except for La Cadena Drive at Iowa Avenue (No. 5) during PM peak hour; La Cadena Drive at Maryknoll Drive (No. 6) during AM and PM peak hour; La Cadena Drive at I-215 Southbound On-Ramp (No. 7) during AM and PM peak hour; Iowa Avenue at I-215 Southbound Off-Ramp (No. 8) during AM and PM peak hour; and Iowa Avenue at I-215 Northbound Ramps (No. 9) during AM and PM peak hour.

Impact Evaluation

For the Buildout Year (2040) With Project conditions, the project would result in significant traffic impacts at Intersections No. 5, 6, 7, 8, and 9 without improvements. Table 16 shows following improvements are needed to address the impacted intersections:

- La Cadena Drive (NS) at Iowa Avenue (EW) – No. 5

- Add second northbound through lane

- La Cadena Drive (NS) at Maryknoll Drive (EW)- No. 6
  - Install traffic signal
  - Add northbound left turn lane
  - Add southbound left turn lane
- La Cadena Drive (NS) at I-215 Southbound On-Ramp (EW) – No. 7
  - Install traffic signal
- Iowa Avenue (NS) at I-215 Southbound Off-Ramp (EW) – No. 8
  - Add second eastbound right turn lane
- Iowa Avenue (NS) at I-215 Northbound Ramps (EW) – No. 9
  - Add westbound right turn overlap phasing

**Summary of Impacts and Improvements**

Roadway operational deficiencies were identified throughout the study area for Existing Plus Project, Opening Year (2020) and Buildout Year (2040) traffic conditions. Since roadway operational deficiencies were identified under Opening Year (2020) and Buildout Year (2040) Without Project conditions, the project applicant should pay its fair share of the estimated cost to construct the identified mitigation measure improvements, either through an applicable Development Impact Fee program or through payment of in lieu fees.

The following off-site improvements are recommended to address the LOS deficiency for Existing Plus Project conditions and Opening Year (2020) With Project conditions:

- La Cadena Drive (NS) at Maryknoll Drive (EW) – No. 6
  - Install traffic signal
  - Add northbound left turn lane
  - Add southbound left turn lane
- La Cadena Drive (NS) at I-215 Southbound On-Ramp (EW) – No. 7
  - Install traffic signal
- Iowa Avenue (NS) at I-215 Northbound Ramps (EW) – No. 9
  - Add westbound right turn overlap phasing

The following additional off-site improvements are recommended to address the LOS deficiency for Buildout Year (2040) With Project conditions:

- La Cadena Drive (NS) at Iowa Avenue (EW) – No. 5
  - Add second northbound through lane
- Iowa Avenue (NS) at I-215 Southbound Off-Ramp (EW) – No. 8
  - Add second eastbound right turn lane

The needed intersection improvements and fair share percentages are summarized in Table 17 for the study intersections. The project's fair share percentages have been calculated based on the project's percentage of trips to compare to the overall number of trips at the particular intersection/roadway facility.

Once the improvements identified in MM-TRA-1 through MM-TRA-5 are constructed, the potentially significantly impacted intersections above would operate with satisfactory LOS (LOS D or better), and the project's impact would be reduced to a level of less than significant.

**Table 17**
**Project Fair Share Intersection Traffic Contribution**

| Intersection | Required Improvements | Estimated Cost | Peak Hour | Intersection Turning Movement Volumes | | | | Project % of New Traffic | Estimated Project Fair Share Cost |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *Existing* | *Buildout Year (2040) With Project* | *Project* | *Total New* | | |
| 5. La Cadena Dr at Iowa Ave | 2nd NB Thru Lane | $180,000 | AM | 2,107 | 3,620 | 27 | 1,513 | 1.8% | **$3,212** |
| | | | PM | 2,346 | 4,510 | 35 | 2,164 | 1.6% | |
| 6. La Cadena Dr at Maryknoll Dr | Install Traffic Signal<br><br>Add NB Left Turn Lane<br><br>Add SB Left Turn Lane | $500,000 | AM | 1,174 | 2,214 | 19 | 1,040 | 1.8% | **$9,135** |
| | | | PM | 1,476 | 2,827 | 13 | 1,351 | 1.0% | |
| 7. La Cadena Dr at I-215 SB On-Ramp | Install Traffic Signal | $400,000 | AM | 1,171 | 1,774 | 19 | 603 | 3.2% | **$12,604** |
| | | | PM | 1,505 | 2,284 | 13 | 779 | 1.7% | |
| 8. Iowa Ave at I-215 SB Off-Ramp | Add 2nd EB Right Turn Lane | $50,000 | AM | 1,708 | 2,638 | 8 | 930 | 0.9% | **$870** |
| | | | PM | 1,603 | 2,867 | 22 | 1,264 | 1.7% | |
| 9. Iowa Ave at I-215 NB Ramps | Add WB Right Turn Overlap Phasing | $10,000 | AM | 2,244 | 3,190 | 8 | 946 | 0.8% | **$239** |
| | | | PM | 2,244 | 3,164 | 22 | 920 | 2.4% | |

| | | | |
|---|---|---|---|
| **Overall Estimated Total Cost** | **$1,140,000** | **Estimated Project Fair Share** | **$26,060** |

The improvements to Intersections No. 5, 6, 7, 8, and 9 identified above and required as part of MM-TRA-1 through MM-TRA-5 would eliminate all anticipated roadway operational deficiencies throughout the study area for Existing Plus Project, Opening Year (2020) and Buildout Year (2040) traffic conditions.

**MM-TRA-1** Prior to the issuance of the first building permits, the project applicant shall participate in the City of Colton's development impact fee (DIF) program by paying the requisite DIF fees. In addition to the DIF program, prior to the issuance of the first building permits, for the required improvements identified for Intersection No. 5 -- La Cadena Drive at Iowa Avenue (see Table 9 and Table 10 of the January 2019 Traffic Impact Analysis report), the project applicant shall post a bond for full improvements, which includes:

- Add second northbound through lane

The required improvement shall be installed and operational, prior to issuance of the first Certificate of Occupancy. The project applicant shall be refunded the cost of the improvements, less the applicant's fair share contribution, at such time as City of Colton funds levied through the City's DIF program or similar funding mechanism, are sufficient to offset the cost of the improvement.

**MM-TRA-2** Prior to the issuance of the first building permits, the project applicant shall participate in the City of Colton's development impact fee (DIF) program by paying the requisite DIF fees. In addition to the DIF program, prior to the issuance of the first building permits, for the required improvements identified for Intersection No. 6 -- La Cadena Drive at Maryknoll Drive (see Table 9 and Table 10 of the January 2019 Traffic Impact Analysis report), the project applicant shall post a bond for full improvements, which includes:

- Install traffic signal
- Add northbound left turn lane
- Add southbound left turn lane

The required improvements shall be installed and operational, prior to issuance of the first Certificate of Occupancy. The project applicant shall

be refunded the cost of the improvements, less the applicant's fair share contribution, at such time as City of Colton funds levied through the City's DIF program or similar funding mechanism, are sufficient to offset the cost of the improvement.

**MM-TRA-3** Prior to the issuance of the first building permits, the project applicant shall participate in the City of Colton's development impact fee (DIF) program by paying the requisite DIF fees. In addition to the DIF program, prior to the issuance of the first building permits, for the required improvements identified for Intersection No. 7 -- La Cadena Drive at I-215 SB On-Ramp (see Table 9 and Table 10 of the January 2019 Traffic Impact Analysis report), the project applicant shall post a bond for full improvements, which includes:

- Install traffic signal

The required improvement shall be installed and operational, prior to issuance of the first Certificate of Occupancy. The project applicant shall be refunded the cost of the improvements, less the applicant's fair share contribution, at such time as City of Colton funds levied through the City's DIF program or similar funding mechanism, are sufficient to offset the cost of the improvement.

**MM-TRA-4** Prior to the issuance of the first building permits, the project applicant shall participate in the City of Colton's development impact fee (DIF) program by paying the requisite DIF fees. In addition to the DIF program, prior to the issuance of the first building permits, for the required improvements identified for Intersection No. 8 -- Iowa Avenue at I-215 Southbound Off-Ramp (see Table 9 and Table 10 of the January 2019 Traffic Impact Analysis report), the project applicant shall post a bond for full improvements, which includes:

- Add second eastbound right turn lane

The required improvement shall be installed and operational, prior to issuance of the first Certificate of Occupancy. The project applicant shall be refunded the cost of the improvements, less the applicant's fair share contribution, at such time as City of Colton funds levied through the City's DIF program or similar funding mechanism, are sufficient to offset the cost of the improvement.

**MM-TRA-5** Prior to the issuance of the first building permits, the project applicant shall participate in the City of Colton's development impact fee (DIF) program by paying the requisite DIF fees. In addition to the DIF program, prior to the issuance of the first building permits, for the required improvements identified for Intersection No. 9 -- Iowa Avenue at I-215 Northbound Off-Ramp (see Table 9 and Table 10 of the January 2019 Traffic Impact Analysis report), the project applicant shall post a bond for full improvements, which includes:

- Add westbound right turn overlap phasing

The required improvement shall be installed and operational, prior to issuance of the first Certificate of Occupancy. The project applicant shall be refunded the cost of the improvements, less the applicant's fair share contribution, at such time as City of Colton funds levied through the City's DIF program or similar funding mechanism, are sufficient to offset the cost of the improvement.

Once the improvements outlined in MM-TRA-1 through MM-TRA-5 are constructed, the potentially significantly impacted intersections above would operate with satisfactory LOS (LOS D or better), and the project's impact would be reduced to a level of less than significant. The project's fair share intersection traffic contribution is summarized in Table 18.

**Alternative Transportation Facilities**

***Transit System***

Omnitrans is the transit provider in the City, and within the project area. Currently, one Omnitrans bus route, Route 325 along Barton Road, provides service to the project site. The nearest Route 325 bus stop to the project site is located on Barton Road near its intersection with Michigan Street, approximately 1.3 miles southeast of the West Litton Avenue/South Bostick Avenue intersection. Due to the distance and intervening access routes, the project would not interfere with the existing transit routes. Therefore, impacts related to the transit routes would be less than significant.

***Bicycle and Pedestrian Facilities***

The City's General Plan identifies a proposed Class III bicycle facility along La Cadena Drive. The project is located approximately 0.3 miles from a proposed bicycle facility, and thus, the construction of the project would not impede development of such. Additionally, there are

currently no sidewalks located along West Litton Avenue and South Bostick Avenue. The project would construct internal sidewalks, which could be used by pedestrians and bicycles. The construction of which would not conflict with any plans regarding pedestrian facilities. Therefore, no impacts associated with bicycle or pedestrian facilities would occur.

***b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?***

***Less-Than-Significant Impact With Mitigation Incorporated.*** In accordance with CEQA Guidelines Section 15064.3(c), the lead agency may elect to not include the provisions of CEQA Guidelines Section 15064.3(b) of the CEQA Guidelines prior to July 1, 2020, and thus, impacts related to transportation were analyzed utilizing the LOS thresholds previously described in Section 3.17(a).

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

***Less-Than-Significant Impact.*** All roadway design, traffic signing and striping, and traffic control improvements relating to the project would be constructed in accordance with applicable engineering standards and to the satisfaction of the City. All on-site and adjacent off-site improvements, such as parking and landscape setbacks, would be designed in accordance with all applicable design standards set forth by the City, which were established to ensure safe and efficient vehicular circulation on City roadway facilities. Additionally, the City reviews all site plans to ensure that adequate line-of-sight is provided at all driveways, making sure that no structures or landscaping blocks the views of vehicles entering and exiting a site. As such, no sharp curves, dangerous intersections, or incompatible uses would be introduced by the project. Therefore, impacts associated with hazardous design features would be less than significant.

***d) Would the project result in inadequate emergency access?***

***Less-Than-Significant With Mitigation Incorporated.*** The following analysis discusses the project's on- and off-site emergency access impacts.

**On-Site Circulation**

Per the project site plan, internal drive aisles would be provided along the northern and eastern portions of the project site. The project driveway at Litton Avenue would install a northbound stop control and construct the northbound approach to consist of one shared left-turn/right-turn lane. The project driveway at Bostick Avenue would install an

eastbound stop control and construct the eastbound approach to consist of one shared left-turn/right-turn lane. The project's internal driveway aisles would be designed and constructed to City standards and comply with City width, clearance, and turning-radius requirements. The project site would be accessible to emergency responders during construction and operation of the project. Additionally, the project would require with the City's Fire Code (Chapter 15.16), which addresses provisions of emergency access. As a result of the project's multiple access driveways, and compliance with applicable local requirements related to emergency access, the project's on-site circulation would not result in inadequate emergency access.

**Off-Site Circulation**

***Traffic Signal Warrant Analysis***

Based upon the California Manual on Uniform Traffic Control Devices, a traffic signal is projected to be warranted at the intersection of La Cadena Drive at I-215 Northbound On-Ramp (No. 7) for Existing Plus Project conditions. An additional traffic signal is projected to be warranted at La Cadena Drive at Maryknoll Drive (No. 6) for Opening Year (2020) Without Project conditions. As discussed, since the traffic signals are warranted under the "without project conditions," the project applicant would be pay its fair share of the estimated cost to construct a traffic signal at Intersections No. 6 and 7. Implementation of MM-TRA-1, MM-TRA-3, and MM-TRA-4 would reduce the project's impact to these intersections to less than significant levels.

***Off-Site Intersections***

According to the City of Colton's performance standards, a significant project access impact would occur if an intersection is projected to operate below LOS D, which is the minimum acceptable LOS. Based on Tables 12, 14, and 16, the project would contribute to existing operational deficiencies at Intersections No. 5, 6, 7, 8, and 9 upon buildout Year 2040 conditions, without improvements. Thus, MM-TRA-1 through MM-TRA-5 are required to mitigate impacts to these intersections by requiring the project applicant pay its fair share towards improvements required for them to operate at an acceptable LOS. The payment of the project's fair-share cost to construct the mitigation measure would offset the traffic delays contributed by the project. Therefore, with mitigation measures, impacts related to off-site emergency access would be less than significant.

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

## 3.18 Tribal Cultural Resources

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

***i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

***No Impact.*** As discussed in Section 3.5, Cultural Resources, the entire project site is vacant with the exception of 20 concrete features present within the northeast portion of the site. The features are of unknown origin/function and are aligned in a roughly east-west orientation. These concrete features do not contain any dateable marks or components, limiting their ability or be dated. However, they can be discerned on the 1980 aerial photograph (NETR 2018), but are not present on earlier photos. Therefore, they can be confirmed to be less than 45 years old and do not qualify as cultural resources.

Due to the lack of structures on the project site and since the on-site concrete features do not meet the age criteria for significant historic resources, the project site does not support any historical resources. Therefore, no impacts associated with historical resources listed or eligible for listing in the California Register of Historical Resources would occur.

***ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?***

***Less-Than-Significant Impact with Mitigation Incorporated.*** The project is subject to compliance with AB 52 (PRC Section 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process, and requires the City, as the lead agency, to notify any groups that are traditionally or culturally affiliated with the geographic area of the project and who have requested notification.

All NAHC-listed California Native American Tribal representatives that have requested project notification pursuant to AB 52 were sent letters by the City in December 2017. The City received responses from the SMBMI and the Morongo Band of Mission Indians (MBMI). The AB 52 consultation between the City and interested Native American groups and/or individuals resulted in discourse related the project's location within Native American traditional use areas. As such, the MBMI requested that a tribal representative be present during the pedestrian survey and the SMBMI requested that the project include subsurface exploratory testing. The City acknowledged these concerns and contacted the MBMI to have a representative participate in the pedestrian survey. An intensive pedestrian survey was conducted of the project area by Dudek on January 9, 2019. The survey was negative for surficial cultural resources.

Based on the results of the pedestrian survey and the AB 52 consultation project with the SMBMI, an Extended Phase I Investigation (EP1) was conducted on January 22, 2019. The intent of this EP1 was to identify the extent of previous disturbance within the project site and to assess the potential for subsurface cultural resources. The EP1 involved subsurface probing of the project site through excavation 15 shovel test pits (STPs). All of the 15 STPs excavated were negative for cultural resources. Based on these results, the likelihood of the project impacting

any prehistoric or protohistoric age deposits is considered moderate to low. Because the project site was never developed or settled during the historic period, with exception to an orchard, the likelihood of encountering historic-age archaeological deposits (i.e., trash deposits; foundations; privies) within the project site is considered low. However, it is impossible to completely rule out the presence of archaeological resources within the project site. For this reason, the project site should be treated as potentially sensitive for archaeological resources. Therefore, MM-CUL-1 is required to reduce potential impacts to unanticipated archaeological resources. With the incorporation of the mitigation, impacts associated with archaeological resources would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIX. UTILITIES AND SERVICE SYSTEMS** – Would the project: | | | | |
| a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | ☐ | ☐ | ☒ | ☐ |
| c) Result in a determination by the wastewater treatment provider, 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? | ☐ | ☐ | ☒ | ☐ |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ☒ | ☐ |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☒ | ☐ |

## 3.19 Utilities and Service Systems

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

***Less-Than-Significant Impact.*** The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities for the reasons discussed below.

**Water Facilities**

The Colton Water Department provides water services to the City, including domestic consumption, fire protection, and irrigation. Colton's existing potable water system facilities consist of 15 wells, 5 main booster pumping plants, 9 water storage reservoirs, 2 pressure reducing facilities, and 120 miles of water transmission lines. The project site is currently vacant; however, is surrounded by existing single-family residential uses. As such, existing water facilities exist within the project area.

According to the 2015 San Bernardino Valley Regional Urban Water Management Plan, the total water demand in 2015 was 9,008 acre-feet (AF) for all uses, and 4,603 AF for residential (Water Systems Consulting 2016).[9] Based on SCAG's local profile for 2016, the City had an estimated 53,351 residents, and the average household size was 3.5 persons (SCAG 2017). Assuming the 2016 population and 3.5 persons per household, the project would generate approximately 26.8 AF additional water use per year (0.6% of the total water demand for residential).[10] The project's nominal contribution to the total water demand could be served by existing water facilities serving the project area without requiring new or expanded facilities. Therefore, impacts associated with the construction or expansion of water facilities would be less than significant.

**Wastewater Treatment Facilities**

The City of Colton owns and operates a secondary wastewater treatment plant. The water reclamation plant (CWRF) accepts domestic, commercial, and industrial wastewater generated within the Cities of Colton, Grand Terrace, and some unincorporated areas of San Bernardino County. The facility treats an average daily flow of 5.6 million gallons

[9] Assuming 4,603 AF per resident, then each resident would require approximately 0.09 AF of water per year.
[10] This conservatively assumes the proposed project would generate 308 persons and assumes that all residents of the proposed project would be new transplants to the City.

per day (MGD). The CWRF is designed to treat a maximum of 10.4 MGD. Wastewater treatment requirements for the CWRF are established by the Santa Ana RWQCB, which issues the NPDES Permit. The CWRF is required to comply with the discharge requirements to ensure that effluent discharges are within acceptable water quality perimeters. The secondary treated wastewater is directed to a rapid infiltration-extraction facility, jointly owned by the Cities of Colton and San Bernardino, where wastewater goes for tertiary treatment before being discharged to the Santa Ana River. Wastewater treatment for this facility is also established through the RWQCB's NPDES Permit (City of Colton 2019).

The project would generate the same types of municipal wastewater that are currently generated throughout the City. Effluent produced by the project would not require special treatment prior to entering the municipal sewer system, and no atypical measures would be required to treat the project's wastewater. Additionally, the City's Municipal Code requires incremental expansion of wastewater treatment facilities based on new development through the collection of Public Improvement Fees (Section 12.32). This ensures adequate funding is available to meet future facility's needs, should expansion be necessary (City of Colton 2018). Based on the existing capacity, the future anticipated demand for wastewater treatment services, along with the collection of Development Impact Fees, would not result in significant impacts to wastewater treatment facilities. Therefore, impacts associated with the construction or expansion of wastewater treatment facilities would be less than significant.

**Stormwater Drainage Facilities**

Upon completion of the project, the existing field area would be developed and terraced for house pads. To ensure the increase in impervious areas on the project site does not alter the existing drainage pattern, the project would implement BMPs during construction and an on-site stormwater capture system to ensure the current drainage pattern off-site would not be affected upon implementation. The flow from the steeper hills towards the west would be captured and channelized in drainage ditches routed away from the field area. The drainage would be controlled and routed through the proposed retention basin. The retention basin has been sized to handle calculated flows from all the tributary areas, taking into consideration soils testing. The retention basin serves the purpose of controlling the outlet volume of water to the same or less water than the existing conditions, slowing the velocity of the runoff, and cleaning the runoff from the site by allowing the sediment to settle out of the water in the retention basin (Appendix F).

Although new stormwater drainage facilities would be constructed, these improvements are part of the project analyzed herein, and as such, any potential environmental impacts

related to these components of the project are already accounted for in this IS/MND as part of the impact assessment conducted for the entirety of the project. No adverse physical effects beyond those already disclosed in this IS/MND would occur as a result of implementation of the project's stormwater drainage system improvements. Therefore, impacts associated with the construction or expansion of storm drain facilities would be less than significant.

**Electric Power Facilities**

Colton Electric Utility owns and operates its own power plant, five substations, and the entire electric infrastructure including the transmission and distribution lines within the City. The CED developed the 2017 Integrated Resource Plan (IRP), which presents a strategy for dealing with some of the power supply issues that the CED faces and presents alternative scenarios for resources procurement that are consistent with current legislative and regulatory constraints. The CED is required to comply with regulation imposed that require electric utilities to minimize GHG emissions, and increase conservation activities. As such, the CED has implemented conservation programs, such as rebates, to meet reduction goals (Colton Electric Department 2017).

At full build-out, the project's operational phase would require electricity for building operation (appliances, lighting, etc.). The project would also be required to comply with the 2016 Title 24 standards or the most recent standards at the time of building issuance. The energy-using fixtures within the project would likely be newer technologies, utilizing less electricity power. Additionally, rebate programs and incentives utilized by occupants would reduce electric power use. Therefore, impacts associated with the expansion or construction of new electric power facilities would be less than significant.

**Natural Gas Facilities**

The CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins (CPUC 2017).

The City is served by Southern California Gas (SoCalGas), which owns and operates several natural gas storage fields in Southern California. Demand for natural gas can vary depending on factors such as weather, price of electricity, the health of the economy, environmental regulations, energy efficiency programs, and the availability of alternative

renewable energy sources. Natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand.

Although the project would require natural gas for building heating, the project would comply 2016 Title 24 building energy efficiency standards, reducing energy used in the state. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards (CEC 2015). Based on compliance with Title 24 and CPUC regulations, the project would generate a need for natural gas that is consistent with single-family homes, and due to the newer technology would require less energy than single-family homes in the surrounding project area. As such, the project would not require substantial amounts of energy such that new or expanded natural gas facilities are required. Therefore, impacts associated with the expansion or construction of new natural gas facilities would be less than significant.

**Telecommunication Facilities**

The City's local cable service is provided by Spectrum and Frontier, and SBC Phone Service (now joined with AT&T) provides telephone services. The project site is in an area with existing telecommunication facilities. Transmission poles are located along the northern boundary of the project site, and the project would not impact these facilities. Upon completion, SBC/AT&T's existing local maintenance and operations group would continue to ensure telecommunication services reach the project area and the City of Colton without the need for expansion or construction of new facilities. Therefore, impacts associated with the expansion or construction of telecommunication facilities would be less than significant.

***b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

***Less-Than-Significant Impact.*** According to the 2015 San Bernardino Valley Regional Urban Water Management Plan, available groundwater supply is not expected to change as groundwater is less vulnerable to seasonal and climatic changes than surface water supplies. Nonetheless to provide long-term water management, the IRWMP serves to ensure reliable water supply for the San Bernardino Valley Region, including the City of Colton. IRWMP stakeholders formed a Basin Technical Advisory Committee to facilitate implementation of the IRWMP, largely emphasizing groundwater management (Water Systems Consulting 2016).

Based on historical extraction and estimated population growth rates, the projected water supply and demand for the single- and multiple-year dry year scenarios were calculated for the 2015 Urban Water Management Plan. As an urban water supplier, the City is required to assess the reliability of their water supply service under the multiple-dry year scenario. Table 18 provides the City of Colton supply-and-demand comparison.

**Table 18**
**Multiple-Dry Year Supply-and-Demand Comparison (acre-feet per year)**

| Dry Year Scenario | Supply and Demand | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|
| First Year | Supply totals | 12,608 | 13,000 | 13,770 | 14,853 | 14,853 |
| | Demand totals | 11,504 | 12,431 | 13,176 | 16,968 | 14,808 |
| | **Difference** | **1,104** | **569** | **594** | **885** | **45** |
| Second Year | Supply totals | 12,608 | 13,000 | 13,770 | 14,853 | 14,853 |
| | Demand totals | 11,504 | 12,431 | 13,176 | 16,968 | 14,808 |
| | **Difference** | **1,104** | **569** | **594** | **885** | **45** |
| Third Year | Supply totals | 12,608 | 13,000 | 13,1770 | 14,853 | 14,853 |
| | Demand totals | 11,504 | 12,431 | 13,176 | 13,968 | 14,808 |
| | **Difference** | **1,104** | **569** | **594** | **885** | **45** |

**Source:** Table 13-22, 2015 San Bernardino Valley Regional Urban Water Management Plan (Water Systems Consulting 2016)

As shown in Table 18, available groundwater supply is not expected to change. However, in the unlikely event of a drought, an earthquake that damages delivery facilities, or a regional power outage, the City has prepared a water shortage contingency plan. This plan involves four stages depending on the water supply conditions, with Stage I being normal conditions and Stage IV being Water Emergency. Each stage towards Stage IV includes further restrictions and prohibitions on water use to ensure adequacy of water supply. Based on the future and existing capacity, and water management measures, it is anticipated there are sufficient water supplies to serve the project. Therefore, impacts associated with water supplies would be less than significant.

***c) Would the project 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?***

***Less-Than-Significant Impact.*** The CWRF accepts domestic, commercial, and industrial wastewater generated within the Cities of Colton, Grand Terrace, and some unincorporated areas of San Bernardino County. The facility treats an average daily flow of 5.6 MGD. The CWRF is designed to treat a maximum of 10.4 MGD.

The project would generate the same types of municipal wastewater that are currently generated throughout the City. Effluent produced by the project would not require special treatment prior to entering the municipal sewer system, and no atypical measures would be required to treat the project's wastewater. Based on the existing capacity, the future anticipated demand for wastewater treatment services would not result in significant impacts to wastewater treatment facilities. Therefore, impacts associated with wastewater treatment capacity would be less than significant.

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

***Less-Than-Significant Impact.*** The City of Colton contracts with CR&R Incorporated for trash, green waste/organic, and recycling disposal. Commercial customers are provided with a 3-cubic-yard recycle bin and waste bin, or a 64-gallon waste/ recycle and green waste cart. CR&R collects non-hazardous waste and transports waste to the Material Recovery, Transfer, and Disposal Location in the City of Colton to recycle and divert materials from the waste stream prior to being sent to the landfill. Debris that cannot be diverted would be transported to the appropriate waste facility (CR&R 2019).Based on proximity to the project site, waste would likely be disposed of at the Mid-Valley Landfill in Rialto. This landfill encompasses 38 acres, has a permitted throughput of 1,500 tons per day, and has a permitted capacity of 49,000 cubic yards or 405 tons (CalRecycle 2018).

CalRecycle keeps record of annual reporting for each jurisdiction regarding disposal trends. Beginning with reporting year 2007 jurisdiction annual reports, diversion rates are no longer determined. With the passage of Senate Bill (SB) 1016, the Per Capita Disposal Measurement System, only per capita disposal rates are measured. In 2017, the City generated 66,492 tons of solid waste, had a population of 53,482, and the per capita disposal population was 6.6 pounds per resident per day (lbs/resident/day) (CalRecycle 2019). Based on this rate, the project would generate approximately 2,060lbs/day or 1.03 tons/day and 376 tons per year (0.57% of the annual solid waste generated by the City). [11] Thus, the project would generate a nominal amount of total solid waste generated by the City and the Mid-Valley Landfill's 405 tons of capacity could serve the project's 1.04 tons/day. Additionally, the project would not substantially contribute to the population, and significantly increasing the per capita disposal rate. Further, it is anticipated the project's 1.03 tons/day, which does not take into account diversion,

[11] This conservatively assumes the proposed project would generate 308 persons and assumes that all residents of the proposed project would be new transplants to the City.

could be disposed of at Mid-Valley Landfill. Therefore, impacts associated with solid waste generation would be less than significant.

***e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

***Less-Than-Significant Impact.*** The project would be required to comply with all applicable federal, state, and local agency regulations related to solid waste. Under Assembly Bill (AB) 939, the Integrated Waste Management Act of 1989, local jurisdictions are required to develop source reduction, reuse, recycling, and composting programs to reduce the amount of solid waste entering landfills. Local jurisdictions are mandated to divert at least 50% of their solid waste generation into recycling. The project would be subject to compliance with AB 939.

Additionally, the state has set an ambitious goal of 75% recycling, composting, and source reduction of solid waste by 2020. To help reach this goal, the state has adopted AB 341 and AB 1826. AB 341 is a mandatory commercial recycling bill, and AB 1826 is mandatory organic recycling. Waste generated by the project would enter the City's waste stream but would not adversely affect the City's ability to meet AB 939, AB 341, or AB 1826, since the project's waste generation would represent a nominal percentage of the waste created within the City. Therefore, impacts associated with compliance with solid waste regulations would be less than significant.

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XX. WILDFIRE** – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | | | |
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ☒ | ☐ |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☒ | ☐ |

## 3.20 Wildfire

***a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?***

***Less-Than-Significant Impact.*** According to Cal Fire's Fire Hazard Severity Zone Viewer, the project site and surrounding La Loma Hills area is within a VHFHSZ (Cal Fire 2019). However, as discussed in Section 3.9(f), due to the local and regional connectivity of the project site, in the unlikely event of an emergency, the project-adjacent roadway facilities would serve as emergency evacuation routes for first responders and residents. The project would not adversely affect operations on the local or regional circulation system, and as such, would not impact the use of these facilities as emergency response routes. Therefore, impacts associated with an emergency response plan or emergency evacuation plan would be less than significant.

***b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

***Less-Than-Significant Impact.*** The project site is located on the southwest corner of West Litton Avenue and South Bostick Avenue. The project site is surrounded by vacant land to the west, and residential development to the north, east, and south. As previously discussed, the project site is located in a VHFHSZ, and thus, is subject to the regulations in the City's Municipal Code governing VHFHSZ. Specifically, the project would comply with Section 15.07.070, regarding roof-covering requirements, along with guidelines outlined in the Residential Building Code. Therefore, the project would be constructed using materials with sufficiently low ignitability, such that winds would not exacerbate wildfire risks to surrounding development.

Although the project site is within a VHFHSZ, the project would cluster single-family residential uses adjacent to an existing paved roadway at the bottom of the La Loma Hills, and the project site is surrounded by development of existing single-family residential uses. The extent of development for the project would be located at the base of the hillside away from the La Loma Hills. The proposed single-family uses would be constructed on a relatively flat area that gently slopes to the southeast. However, the project site would be graded as part of the project. Additionally, the existing development surrounding the project site is located on relatively flat lands and is not located on slopes typical of exacerbating wildfire risks. Therefore, impacts associated with slopes, prevailing winds, and other factors that exacerbate wildfire risks would be less than significant.

***c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

***Less-Than-Significant Impact.*** As previously discussed, the project site is located in a VHFHSZ. Under the existing conditions, the project site is vacant. The project would not involve installation or maintenance of infrastructure that would exacerbate fire risk. The project would involve installation of utilities within the project site, such as the stormwater retention basin, and associated roadways. It is not anticipated that installation or maintenance of the stormwater retention basin and road would exacerbate fire risk, since the road would be surrounded by developed land. Further, any potential environmental impacts related to these components of the project are already accounted for in this IS/MND as part of the impact assessment conducted for the entirety of the project and would not exacerbate wildfire risk or result in significant impacts to the environment.. Therefore, impacts associated with installation or maintenance of associated infrastructure resulting in exacerbated fire risk would be less than significant.

***d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

***Less-Than-Significant Impact.*** As previously discussed, the project site is located in a VHFHSZ. As discussed in Section 3.7(a)(iv), the project site is underlain by either very dense, massive granite bedrock, or decomposed bedrock. No landslides or evidence of slope instability was observed during the site-specific investigation (Appendix D). As

discussed in Section 3.10(c), the project site would alter the existing drainage pattern of the site. However, the project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Due to the proposed grading of the site, the relatively flat surrounding lands, and the fact that the site would be paved for development and parking, it is unlikely that the project would exposed people or structures to downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts associated with exposing people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes would be less than significant.

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

## 3.21 Mandatory Findings of Significance

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

***Less-Than-Significant Impact with Mitigation Incorporated.*** As discussed in Section 3.4, Biological Resources; Section 3.5, Cultural Resources; and Section 3.18, Tribal Cultural Resources, with the incorporation of mitigation measures required to minimize potential impacts related to nesting birds and tribal cultural resources, the project would not result in impacts to biological, cultural, or tribal cultural resources. Therefore, the project would not 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.

***b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?***

***Less-Than-Significant Impact with Mitigation Incorporated.*** The project would result in project-related biological resources, cultural resources, tribal cultural resources, geology and soils, hazards and hazardous materials, and transportation impacts that could be potentially significant without the incorporation of mitigation. Thus, when coupled with similar impacts related to the implementation of other related projects throughout the broader project area, the project would potentially result in cumulative-level impacts if these significant impacts are left unmitigated.

However, with the incorporation of mitigation identified herein, the project's biological resources, cultural resources, tribal cultural resources, geology and soils, hazards and hazardous materials, and transportation impacts would be reduced to less-than-significant levels, and because project-level impacts would not be adverse, these impacts would not considerably contribute to cumulative impacts in the broader project area and region. Additionally, these other related projects would presumably be bound by their applicable lead agency to (1) comply with the all applicable federal, state, and local regulatory requirements;

and (2) incorporate all feasible mitigation measures, consistent with CEQA, to further ensure that their potentially cumulative impacts would be reduced to less-than-significant levels.

Although cumulate impacts are always possible, the project, by incorporating all mitigation measures outlined herein, would reduce its contribution to any such cumulative impacts to less than cumulatively considerable. Therefore, the project would result in individually limited, but not cumulatively considerable, impacts.

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

***Less-Than-Significant Impact with Mitigation Incorporated.*** As evaluated throughout this document, with incorporation of mitigation, environmental impacts associated with project would be reduced to less-than-significant levels. Thus, the project would not directly or indirectly cause substantial adverse effects on human beings.

# 4 REFERENCES AND PREPARERS

## 4.1 References Cited

14 CCR 15000–15387 and Appendices A through L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

Airnav.com. 2019. "Airport Information." Accessed January 3, 2019. Airnav.com. 2017. Accessed January 3, 2019. http://www.airnav.com/airports/get.

Cal Fire. 2019. Fire Hazard Severity Zone Viewer. Accessed January 22, 2019. http://egis.fire.ca.gov/FHSZ/.

California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

CalRecycle. 2018. "SWIS Facility Detail MidValley Disposal Transfer Recycling St (10-AA-0201)." Permit Issue Date June 11, 2018. Accessed January 17, 2019. https://www2.calrecycle.ca.gov/swfacilities/Directory/10-AA-0201.

CalRecycle. 2019. "Jurisdiction Per Capita Disposal Trends 2017." Accessed January 17, 2019. https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports.

Caltrans (California Department of Transportation). 2011. *California Scenic Highway Mapping System*. Updated September 7, 2011. Accessed January 3, 2019. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/.

Caltrans (California Department of Transportation). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013.

CAPCOA (California Air Pollution Control Officers Association). 2008. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January 2008.

CARB (California Air Resources Board). 2014. First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 – The California Global Warming Solutions Act of 2006. May 2014. http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CARB (California Air Resources Board). 2017a. "Area Designation Maps/State and National." Last updated October 18, 2017. https://www.arb.ca.gov/desig/adm/adm.htm.

CARB. 2017b. "Clean Car Standards – Pavley, Assembly Bill 1493." Last reviewed January 11, 2017. Accessed July 2018. http://arb.ca.gov/cc/ccms/ccms.htm.

CARB. 2017c. The 2017 Climate Change Scoping Plan Update. Accessed January 2017. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

CDE (California Department of Education). 2018. "Data Quest Home/ Enrollment Report / 2017-18 Enrollment." 2018. http://data1.cde.ca.gov/dataquest.

CDFW (California Department of Fish and Wildlife). 2014. Biogeographic Data Branch. California Natural Diversity Data Base (CNDDB). http://www.dfg.ca.gov/biogeodata/cnddb/. Accessed on multiple days July 10 through August 26, 2014.

CEC (California Energy Commission). 2006. *California Commercial End-Use Survey*. Consultant Report. CEC-400-2006-005. Prepared by Itron Inc. March 2006. http://www.energy.ca.gov/2006publications/CEC-400-2006-005/CEC-400-2006-005.PDF.

CEC. 2016 .*2016 Building Energy Efficiency Standards Frequently Asked Questions*. Accessed July 2018. https://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf.

CGS (California Geologic Survey). Updated Mineral Land Classification Map for Portland Cement Concrete-Grade. Aggregate in the San Bernardino Production-Consumption (P-C) Region, San Bernardino and Riverside Counties, California. Published 2008. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_206/SR206_Plate1.pdf.

City of Colton. 1987a. *City of Colton General Plan Safety Element*. Updated 1987. Accessed December 2017. http://ca-colton.civicplus.com/DocumentCenter/View/273.

City of Colton. 1987b. *City of Colton General Plan Open Space and Conservation Element*. Updated 1987. Accessed December 2017. http://ca-colton.civicplus.com/DocumentCenter/View/272.

City of Colton. 2013a. *City of Colton General Plan Land Use Element*. Adopted August 20, 2013. http://ca-colton.civicplus.com/DocumentCenter/View/1345.

City of Colton. 2013b. *City of Colton General Plan Update Environmental Impact Report*. SCH No. 2012031037. Prepared by Hogle-Ireland Inc. Pasadena, California: Hogle-Ireland Inc. May 2013. http://ca-colton.civicplus.com/DocumentCenter/View/1947.

City of Colton. 2013c. *City of Colton General Plan Mobility Element*. Adopted August 20, 2013.

City of Colton. 2014. *City of Colton General Plan Housing Element*. Adopted February 4, 2014.

City of Colton. 2015. Climate Action Plan. Adopted November 3, 2015. Accessed January 24, 2019. http://ca-colton.civicplus.com/DocumentCenter/View/2774.

City of Colton. 2018. Colton Municipal Code. Current through October 31, 2018. https://library.municode.com/ca/colton/codes/code_of_ordinances?nodeId=TIT18ZO.

City of Colton. 2019. "Wastewater Information." Accessed January 16, 2019. http://www.ci.colton.ca.us/index.aspx?nid=653.

City of Colton Police. 2019. "Crime Statistics." Accessed January 21, 2019. http://www.coltonpd.org/144/Crime-Statistics.

CJUSD (Colton Joint Unified School District). 2019. "Boundary Maps." Accessed January 21, 2019. https://www.colton.k12.ca.us/Page/2960.

Colton Electric Department. 2017. *Integrated Resources Plan*. May 2017. http://www.ci.colton.ca.us/DocumentCenter/View/3495.

County of San Bernardino Fire Department. 2013. *San Bernardino County Emergency Operations Plan.* February 26, 2013. http://www.sbcounty.gov/Uploads/SBCFire/content/oes/pdf/Emergency-Operations-Plan.pdf.

CNRA (California Natural Resources Agency). 2009. "Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97." Sacramento, California: CNRA. December 2009. http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

CPUC (California Public Utilities Commission). 2019. "Natural Gas and California." Accessed January 16, 2019. http://www.cpuc.ca.gov/natural_gas/.

CR&R. 2019. "Material Recovery, Transfer and Disposal Location, Colton, CA." Accessed January 17, 2019. http://crrwasteservices.com/facilities/material-recovery-transfer-and-disposal-location/colton-ca/.

DOC (Department of Conservation). 2016a. "California Important Farmland Finder San Bernardino, 2016." 2016. Accessed January 7, 2019. https://maps.conservation.ca.gov/DLRP/CIFF/.

DOC. 2016b. "San Bernardino County Williamson Act FY 2015/2016 Sheet 2 of 2." Mapped 2016.

DOC 2016c. "Mines Online." 2016. Accessed January 18, 2019.

DOT (U.S. Department of Transportation). 2006. *FHWA Roadway Construction Noise Model: User's Guide*. Final Report. FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. Cambridge, Massachusetts: DOT, Research and Innovative Technology Administration. Final Report. August 2006.

EPA (United States Environmental Protection Agency). 2016a. "Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard – Round 3." July 22, 2016. https://www.epa.gov/sites/production/files/2016-07/documents/areadesign.pdf.

EPA. 2016b. "Health and Environmental Effects of Particulate Matter (PM)" Last updated July 1, 2016. https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm.

EPA. 2017a. "EPA Green Book." Last updated September, 2017.https://www.epa.gov/green-book.

EPA. 2017b. Causes of Climate Change." Last updated January 19, 2017.

EPA. 2019. "Household Hazardous Waste (HHW)." Accessed January 22, 2019. https://www.epa.gov/hw/household-hazardous-waste-hhw.

FEMA (Federal Emergency Management Agency). 2016. "FEMA's National Flood Hazard Layer (Official) Map Number 06071C868J." Map Revised September 2, 2016.

FHWA (Federal Highway Administration). 2004. FHWA Traffic Noise Model Version 2.5.

FHWA. December 8, 2008. Roadway Construction Noise Model (RCNM), Software Version 1.1. U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. Washington, D.C

IPCC (Intergovernmental Panel on Climate Change). 2007. *IPCC Fourth Assessment Synthesis of Scientific-Technical Information Relevant to Interpreting Article 2 of the U.N. Framework Convention on Climate Change*.

ITE (Institute of Transportation Engineers). 2012. *Trip Generation Manual*, 9th ed. November 16, 2012.

NETR. 2018. Historic Aerial Photographs of Los Angeles. Accessed November 6, 2018. https://www.historicaerials.com/viewer.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments. Accessed February 2015. https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0.

OSHA (Occupational Safety and Health Administration). 2019. "Hazard Communication Standard: Safety Data Sheets." Accessed January 22, 2019. https://www.osha.gov/Publications/OSHA3514.html.

Riverside County ALUC (Airport Land Use Commission). 2004. "Riverside County Airport Land Use Compatibility Plan." Adopted October 14, 2004. http://www.rcaluc.org/Portals/0/PDFGeneral/plan/newplan/14-%20Vol.%201%20Flabob.pdf.

RWQCB (Regional Water Quality Control Board). 2010. "National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the San Bernardino County Flood Control District, the County of San Bernardino, and the Incorporated Cities of San Bernardino County within the Santa Ana Region." January 29, 2010. https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2010/10_036_SBC_MS4_Permit_01_29_10.pdf.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp. Web Link: A Manual of California Vegetation, Second Edition. Available at: http://www.cnps.org/cnps/vegetation/manual.php. Accessed on multiple days July 10 through August 26, 2014.

SCAG (Southern California Association of Government). 2016. *The 2016–2040 Regional Transportation Plan/ Sustainable Communities Strategy*. Adopted 2016. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

SCAG. 2017. Profile of the City of Colton. May 2017. http://www.scag.ca.gov/Documents/Colton.pdf.

SCAQMD (South Coast Air Quality Management District). 1993. CEQA Air Quality Handbook.

SCAQMD. 2003. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. August 2003. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf?sfvrsn=2.

SCAQMD. 2005. Rule 403: Fugitive Dust. Adopted May 7, 1976. Amended June 3, 2005.

SCAQMD. 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. October 2008.

SCAQMD. 2009. Final Localized Significance Threshold Methodology. June 2003; revised July 2008; Appendix C "Mass Rate LST Look-up Tables" revised October 2009. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2.

SCAQMD. 2010. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15. September 28, 2010. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2.

SCAQMD. 2015. "SCAQMD Air Quality Significance Thresholds." Originally published in CEQA Air Quality Handbook, Table A9-11-A. Revised March 2015. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

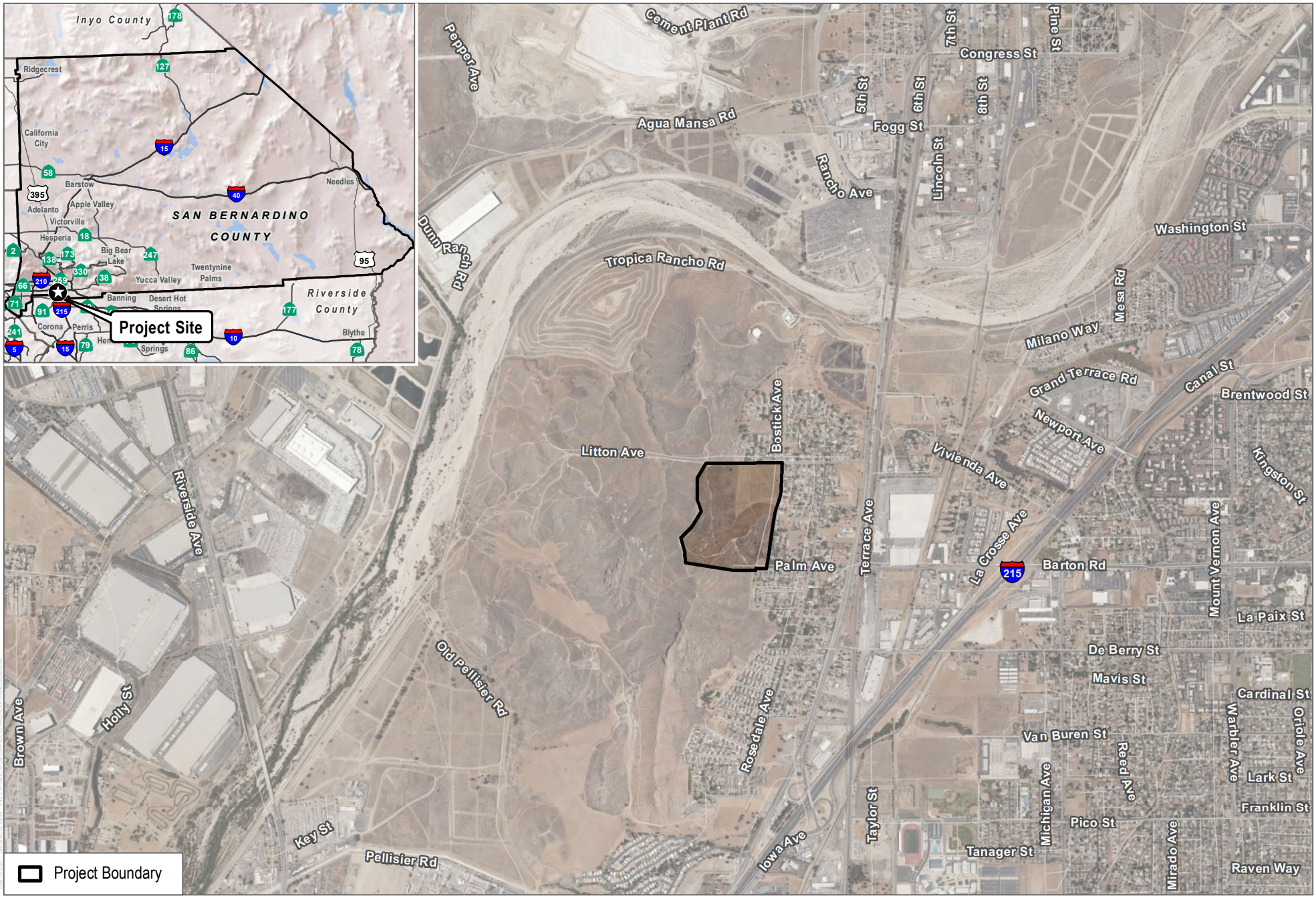
SCAQMD. 2017. Final 2016 Air Quality Management Plan. March 16, 2017. Accessed October 2017. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-.

Transportation Research Board. 2016. *Highway Capacity Manual 6th Edition: A Guide for Multimodal Mobility Analysis*. Washington, DC: The National Academies Press.

## 4.2 List of Preparers

**Dudek**

Collin Ramsey, Project Manager
Sabrina Alonso, Environmental Analyst
Linda Kry, Cultural Resources
Connor Burke, Noise
Andrew Greis, GIS Technician




SOURCE: County of San Bernardino 2020; Bing Maps

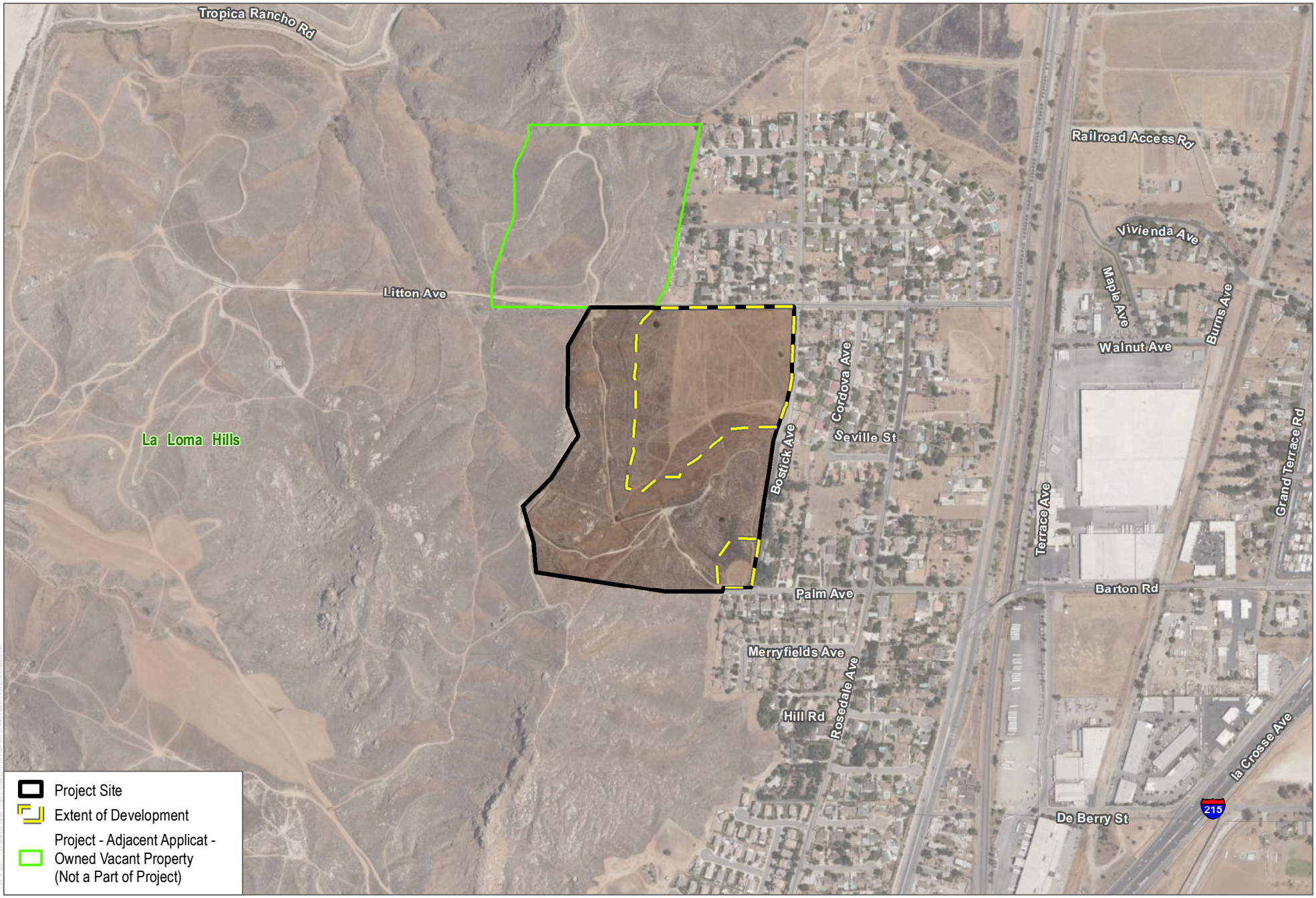
DUDEK

**FIGURE 1**

Project Location

Litton Bostick Residential Project

INTENTIONALLY LEFT BLANK




SOURCE: DigitalGlobe 2017

DUDEK

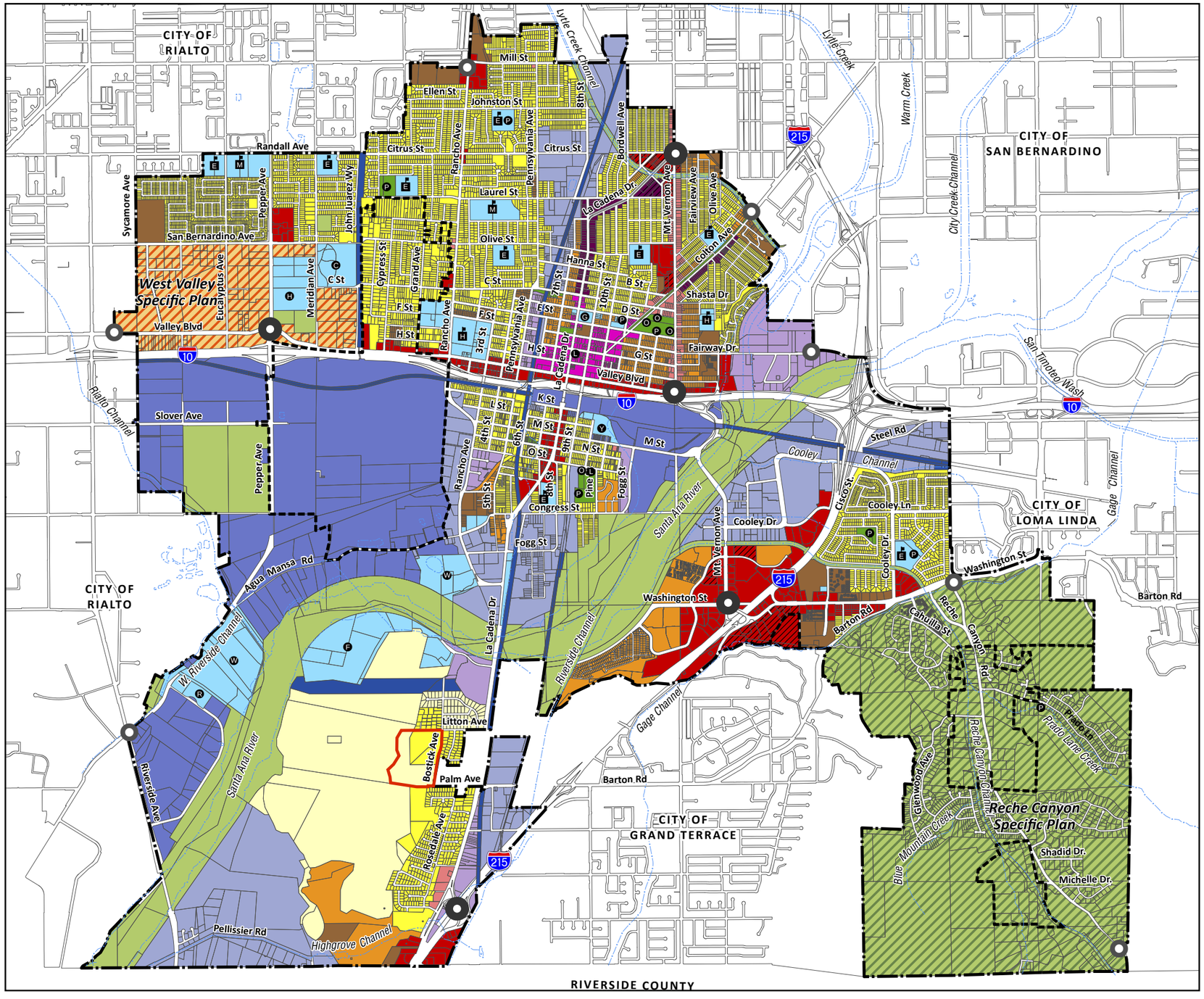
0 250 500 Feet

**FIGURE 2**

Existing Site Conditions

Litton Bostick Residential Project

INTENTIONALLY LEFT BLANK




**Land Use Designations**

- Very Low Density Residential (0.1 - 2.0 DU/AC)
- Low Density Residential (2.1-8.0 DU/AC)
- Medium Density Residential (8.1-16.0 DU/AC)
- High Density Residential (14.1-22.0 DU/AC)
- Neighborhood Commercial
- General Commercial
- Industrial Park
- Light Industrial
- Heavy Industrial
- Mixed Use - Downtown (2.0-30.0 DU/AC; 2.0 FAR)
- Mixed Use - Neighborhood (2.0-8.0 DU/AC; 1.0 FAR)
- Open Space - Recreation
- Open Space - Resource
- Public/Institution
- Railroad/Utility Corridor

**Specific Plans**

- Reche Canyon Specific Plan
- West Valley Specific Plan

**Overlay District**

- Residential Overlay

**Community Gateways**

- Major Gateway
- Minor Gateway

**Public Facilities/Institutions**

- E Elementary School
- M Middle School
- H High School
- C Cemetery
- O Community Center
- G City Hall
- H Hospital (Private)
- L Library
- F Landfill
- Y City Maintenance Yard
- P Parks
- R Power Plant
- W Wastewater Facility

**Base Map**

- City Boundary
- Sphere of Influence
- Watercourse
- Project Site

SOURCE: San Bernardino County Assessor 2010; City of Colton 2011

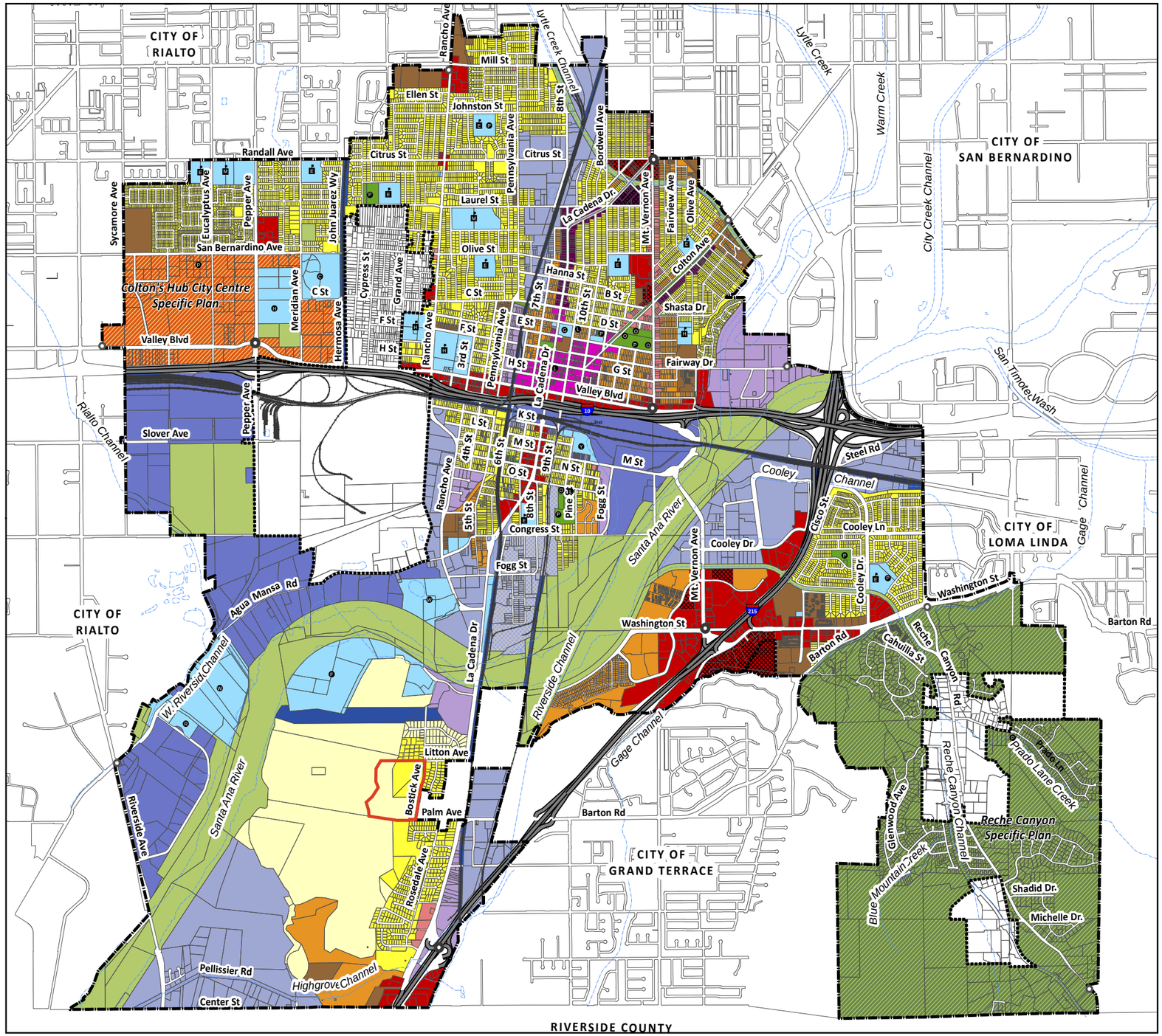
DUDEK

FIGURE 3

General Plan Land Use

Litton Bostick Residential Project

INTENTIONALLY LEFT BLANK




**Zoning Designations**

- VLDR — Very-Low Density Residential (0.1 - 2.0 DU/AC)
- R-1 — Low Density Residential (2.1-8.0 DU/AC)
- R-2 — Medium Residential (8.1-16 DU/AC)
- R-3/R-4 — Multiple Family Residential (14.1-22.0 DU/AC)
- C-1 — Neighborhood Commercial
- C-2 — General Commercial
- M-U/D — Mixed-Use Downtown (2.0-30.0 DU/AC; 2.0 FAR)
- M-U/N — Mixed Use Neighborhood (2.0-8.0 DU/AC; 1.0 FAR)
- I-P — Industrial Park
- M-1 — Light Industrial
- M-2 — Heavy Industrial
- P-I — Public/Institutional Zone
- R-U — Railroad/Utility/ROW Zone
- OS-R — Open Space Recreation
- OS-RS — Open Space Resources

**Specific Plans**

- CHCCSP — Colton's Hub City Centre Specific Plan
- RCSP — Reche Canyon Specific Plan

**Overlay District**

- R-O — Residential Overlay (Up to 30.0 DU/AC)
- SDA — Sensitive Development Area Overlay

**Community Gateways**

- Major Gateway
- Minor Gateway

**Public Facilities/Institutions**

- Elementary School
- Middle School
- High School
- Cemetery
- Community Center
- City Hall
- Hospital (Private)
- Library
- Landfill
- City Maintenance Yard
- Parks
- Power Plant
- Wastewater Facility

**Base Map**

- City Boundary
- Sphere of Influence (Pre-Zoned County)
- Railroad
- Watercourse
- Project Site

SOURCE: City of Colton 2013

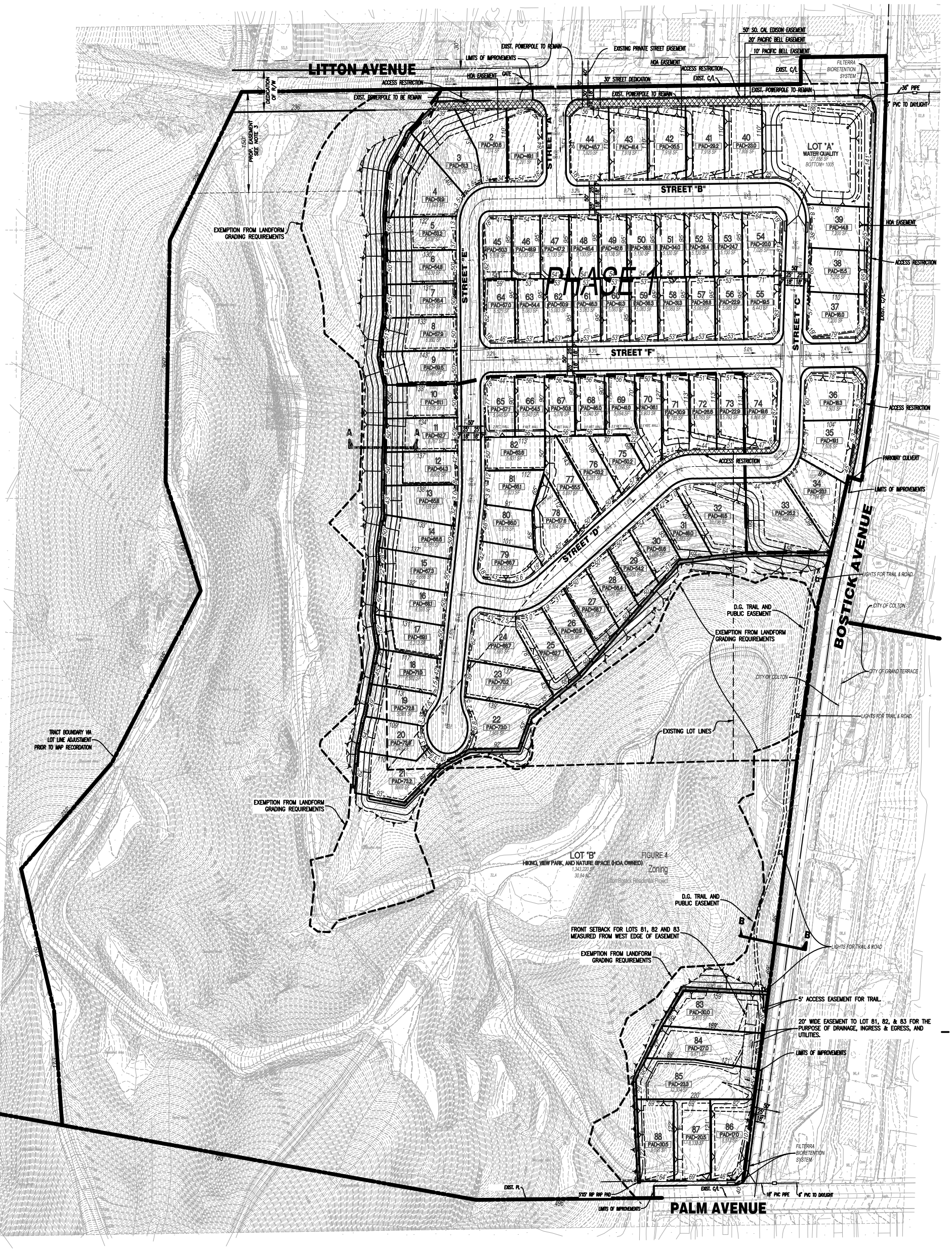
FIGURE 4

Zoning

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK

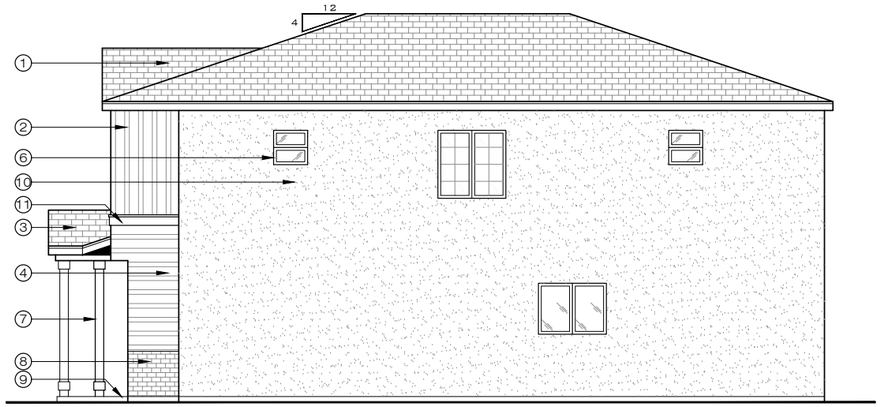



SOURCE: Mayers&Associates Civil Engineering, Inc. 2018

**FIGURE 5**
Site Plan
Litton Bostick Residential Project

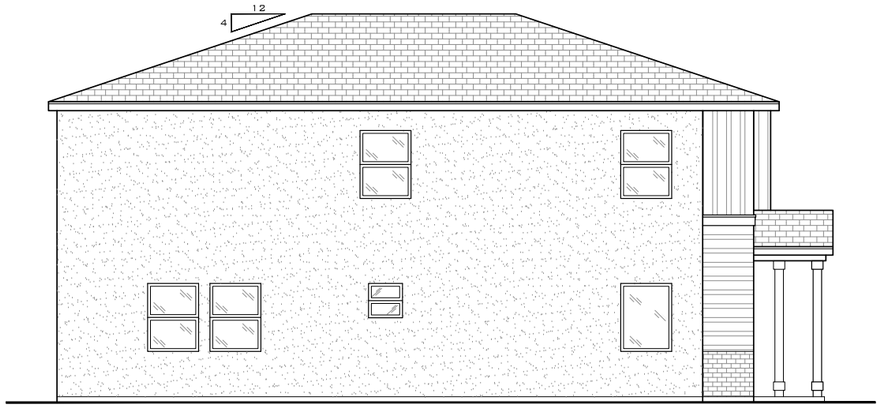
DUDEK

INTENTIONALLY LEFT BLANK

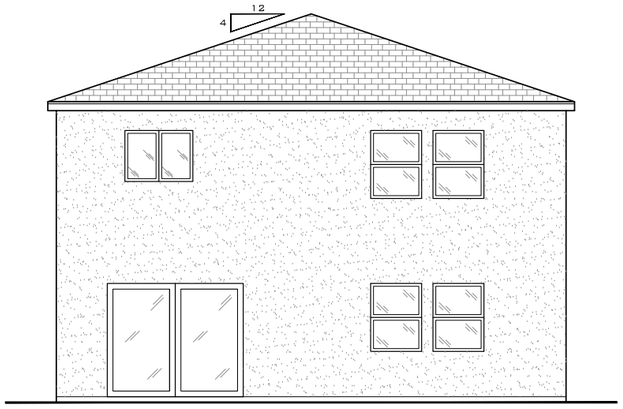



SIDE ELEVATION
SCALE: 1/4" = 1'-0"


FRONT ELEVATION
SCALE: 1/4" = 1'-0"




SIDE ELEVATION
SCALE: 1/4" = 1'-0"




REAR ELEVATION
SCALE: 1/4" = 1'-0"

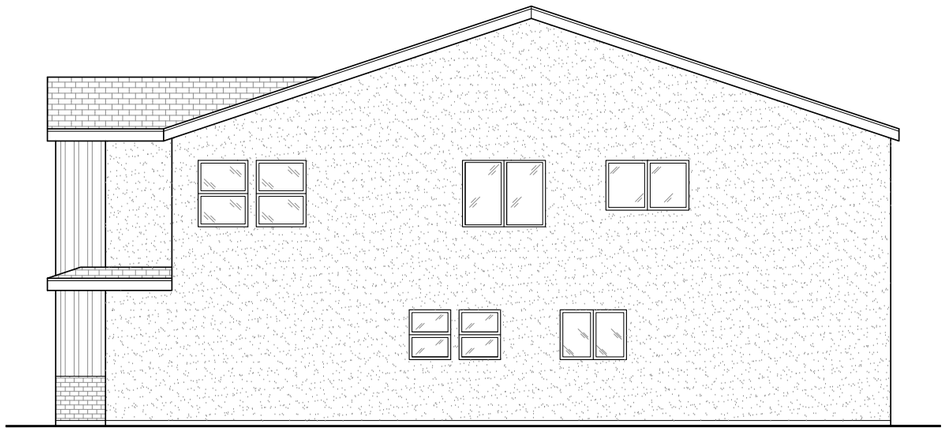
| ELEVATION NOTES | |
|---|---|
| 1 | ASPHALT SHINGLE ROOFING |
| 2 | VERTICAL WOOD SIDING |
| 3 | ENTRY PORCH |
| 4 | HORIZONTAL WOOD SIDING |
| 5 | MAIN ENTRY DOOR |
| 6 | TYPICAL WINDOW PER FLOOR PLAN. ADD TRIM TO ALL WINDOWS IN FRONT ELEVATION |
| 7 | TYPICAL COLUMN |
| 8 | BRICK CLADDING 32" ABOVE FINISHED FLOOR; WRAP AROUND SIDE ELEVATIONS 36" |
| 9 | WEEP SCREED |
| 10 | 7/8" STUCCO FINISH |
| 11 | 8" WOOD TRIM |

SOURCE: Modern Pacific Homes, LLC.

DUDEK

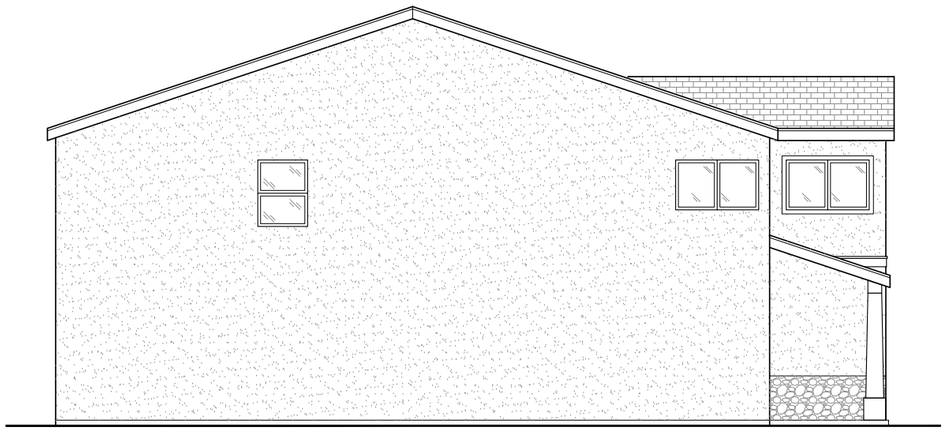
FIGURE 6a
Architectural Elevations
Litton Bostick Residential Project

INTENTIONALLY LEFT BLANK

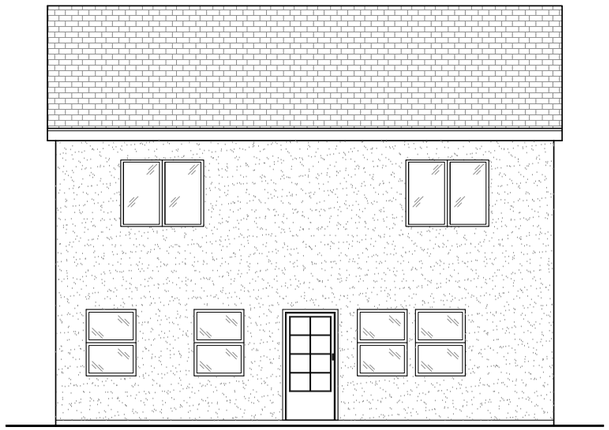


SIDE ELEVATION
SCALE: 1/4" = 1'-0"


FRONT ELEVATION
SCALE: 1/4" = 1'-0"



SIDE ELEVATION
SCALE: 1/4" = 1'-0"



REAR ELEVATION
SCALE: 1/4" = 1'-0"

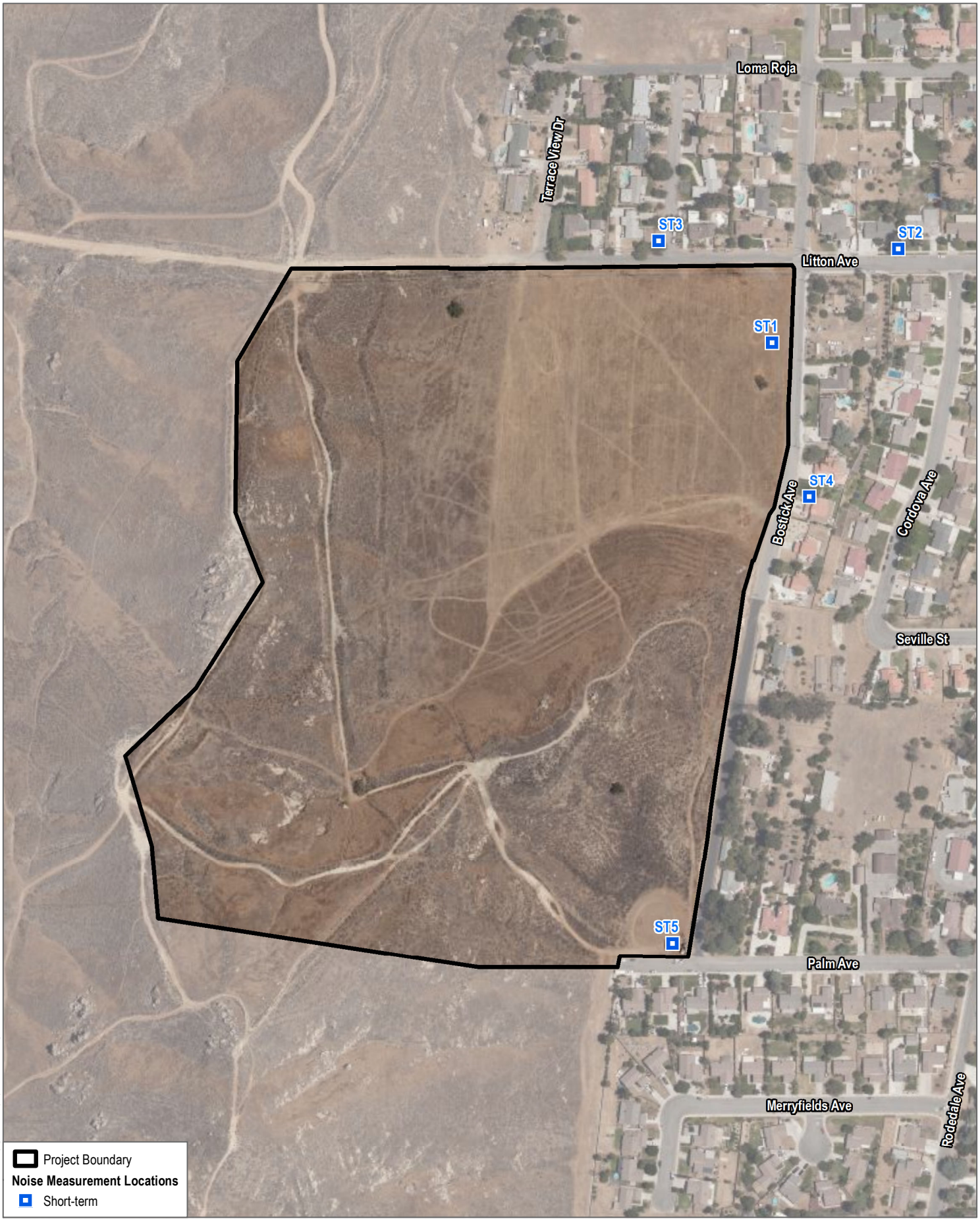
| ELEVATION NOTES | |
|---|---|
| 1 | ASPHALT SHINGLE ROOFING |
| 2 | VERTICAL WOOD SIDING |
| 3 | ENTRY PORCH |
| 4 | 7/8" STUCCO FINISH |
| 5 | DOUBLE DOOR AT MAIN ENTRY |
| 6 | TYPICAL WINDOW PER FLOOR PLAN. ADD TRIM TO ALL WINDOWS IN FRONT ELEVATION |
| 7 | TYPICAL COLUMN |
| 8 | STONE VENEER CLADDING 32" ABOVE FINISHED FLOOR; WRAP AROUND SIDE ELEVATIONS 36". |
| 9 | WEEP SCREED |
| 10 | 8" DECORATIVE TRIM |

SOURCE: Modern Pacific Homes, LLC.

FIGURE 6b
Architectural Elevations
Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




SOURCE: County of San Bernardino 2020; Bing Maps

DUDEK

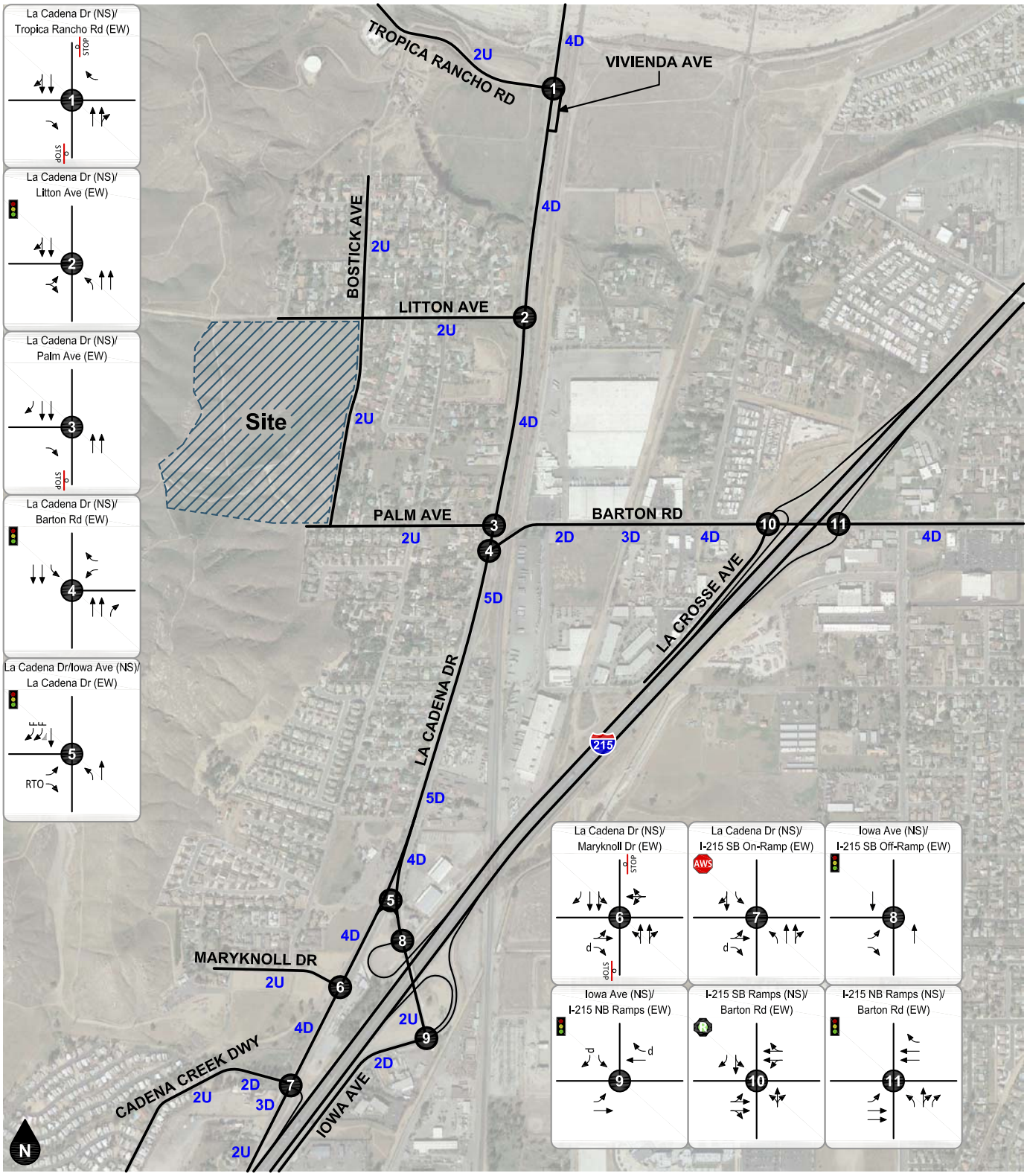
0 150 300 Feet

**FIGURE 7**

Noise Measurement Locations

Litton Bostick Residential Project

INTENTIONALLY LEFT BLANK




Legend

- Traffic Signal
- All Way Stop
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- RTO Right Turn Overlap
- F Free Right Turn Lane
- d De Facto Right Turn Lane
- Roundabout

SOURCE: Ganddini Group, Inc. 2019

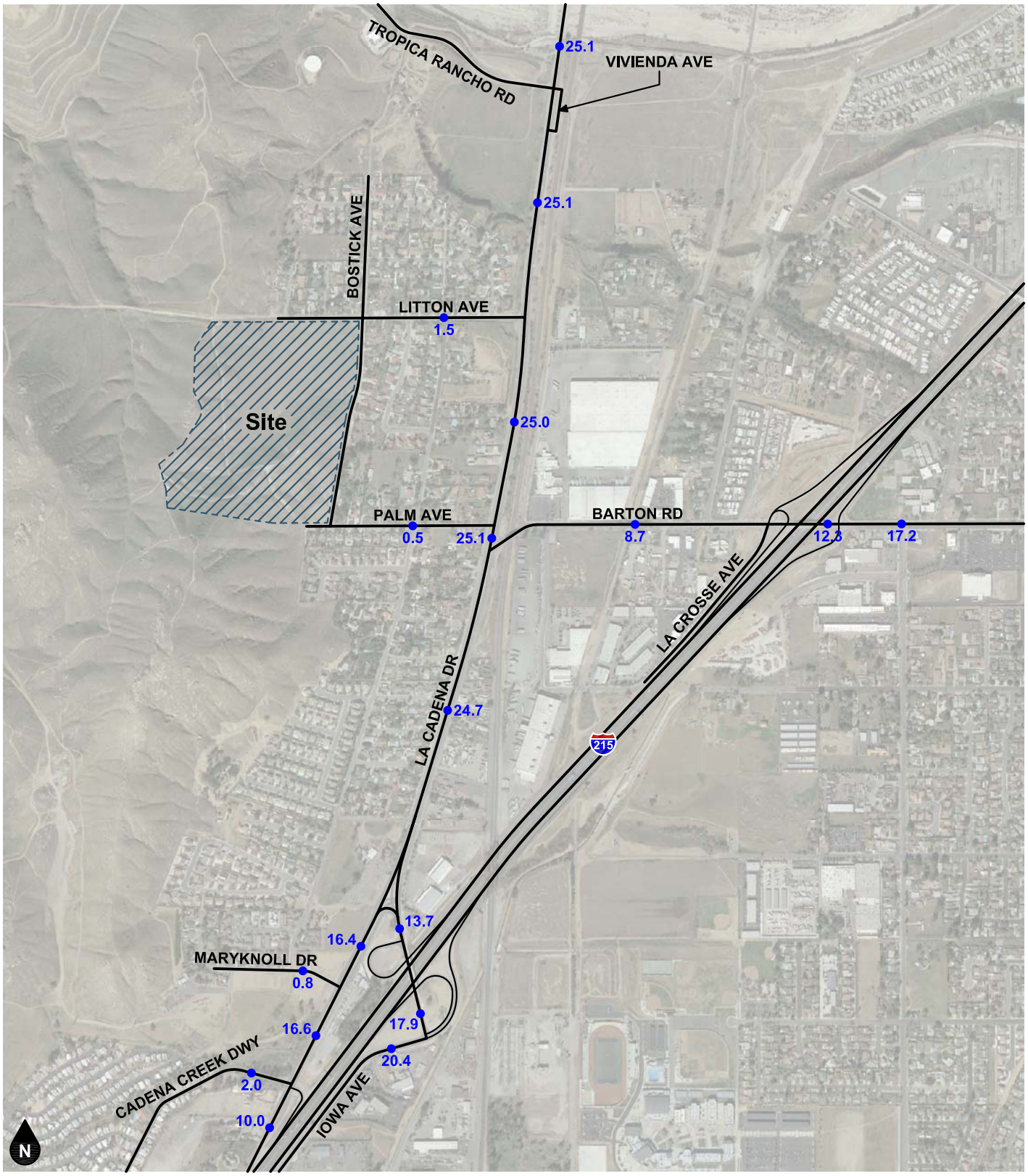
FIGURE 8

Existing Lane Geometry and Intersection Traffic Controls

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

●## Vehicles Per Day (1,000's)

SOURCE: Ganddini Group, Inc. 2019

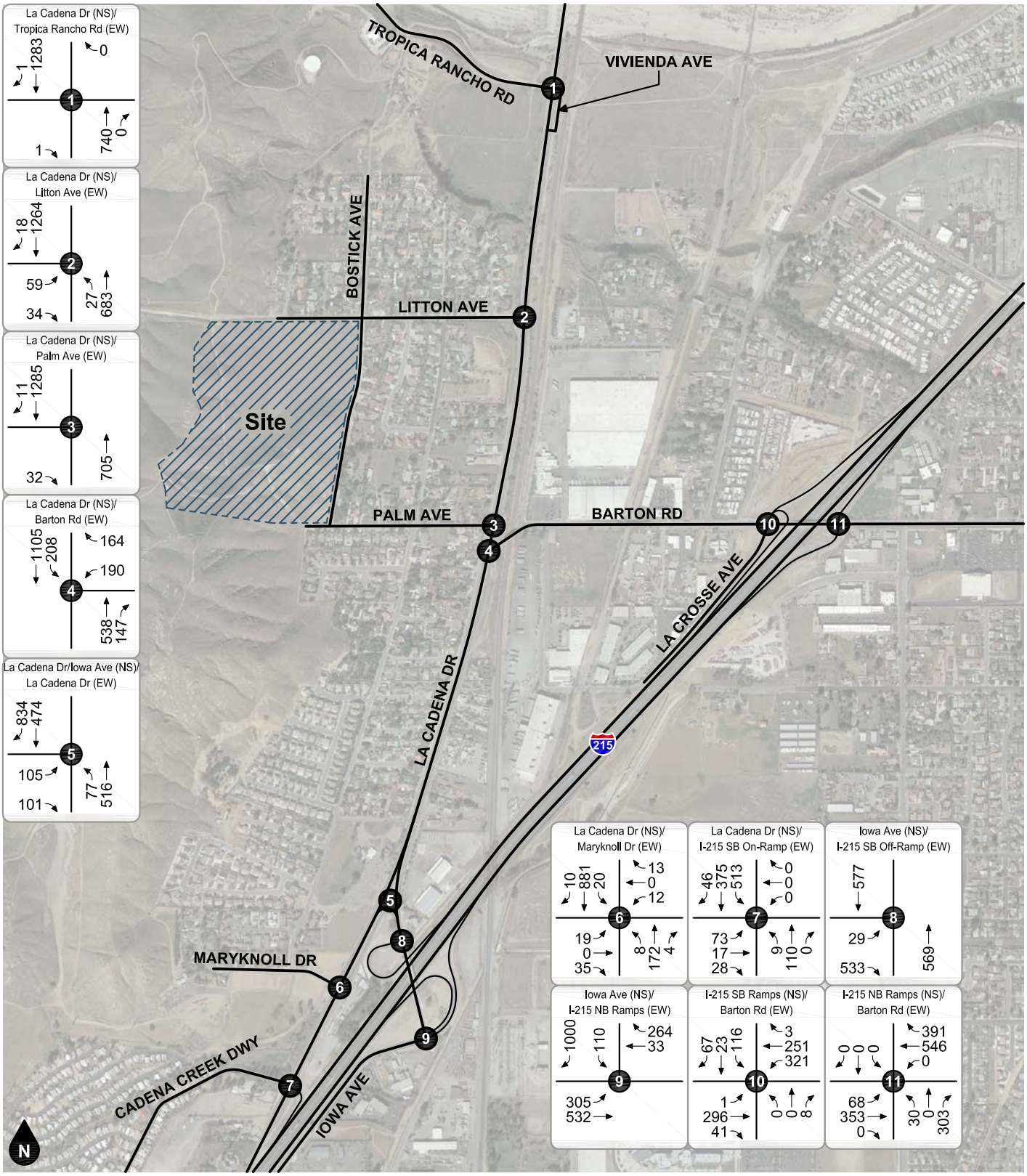
FIGURE 9

Existing Average Daily Traffic Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

# Study Intersection

SOURCE: Ganddini Group, Inc. 2019

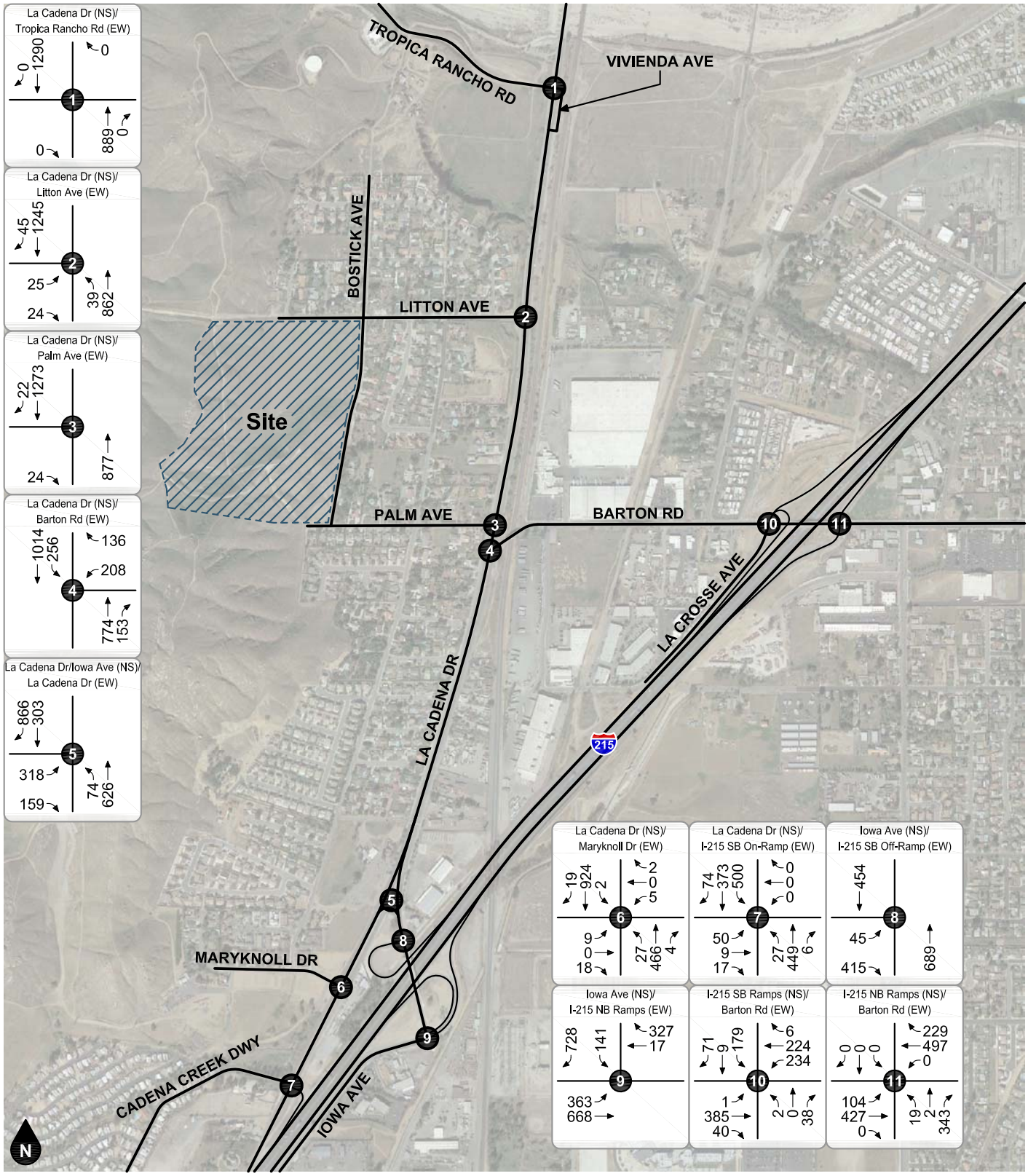
FIGURE 10

Existing AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

(#) Study Intersection

SOURCE: Ganddini Group, Inc. 2019

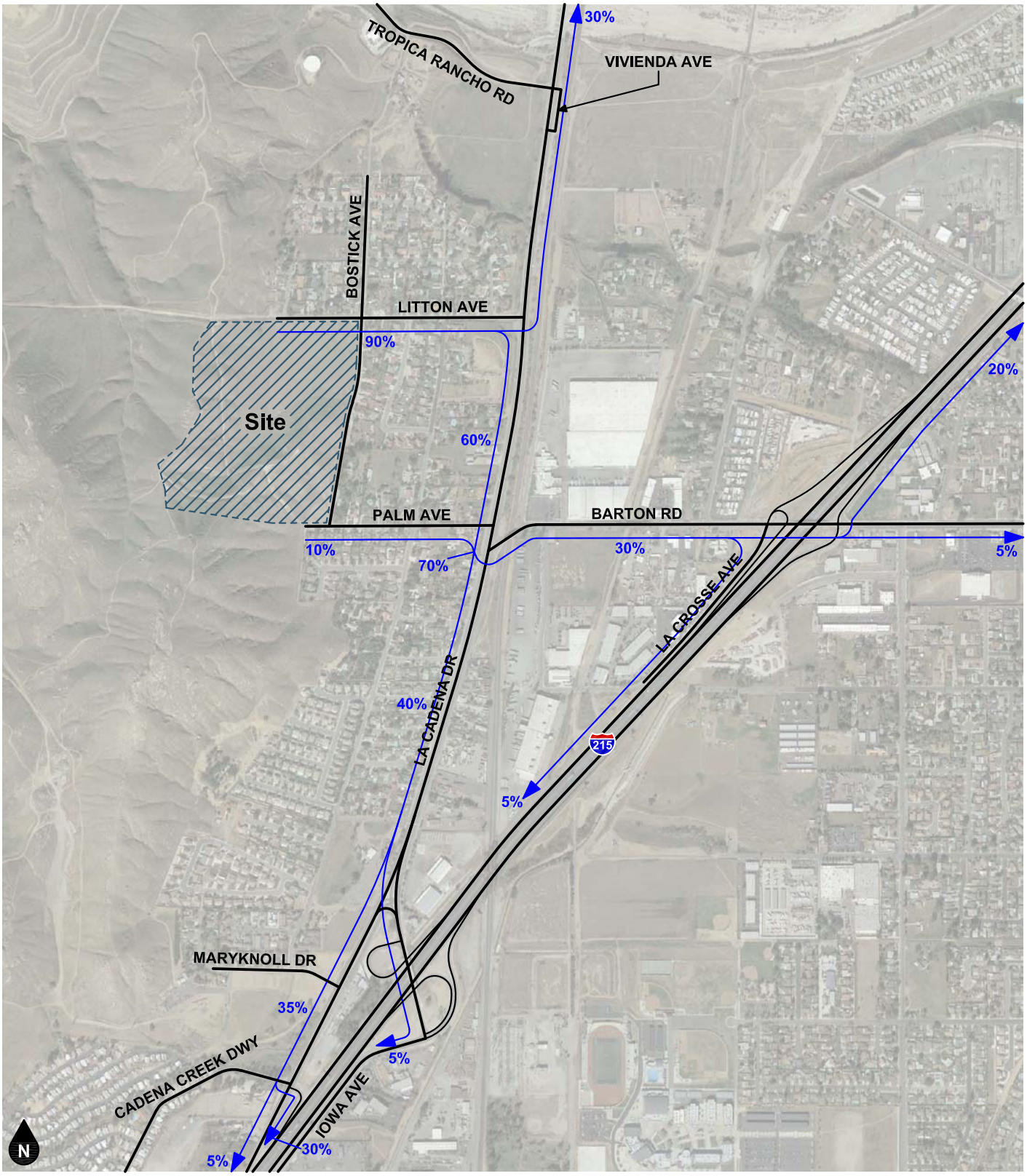
FIGURE 11

Existing PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




SOURCE: Ganddini Group, Inc. 2019

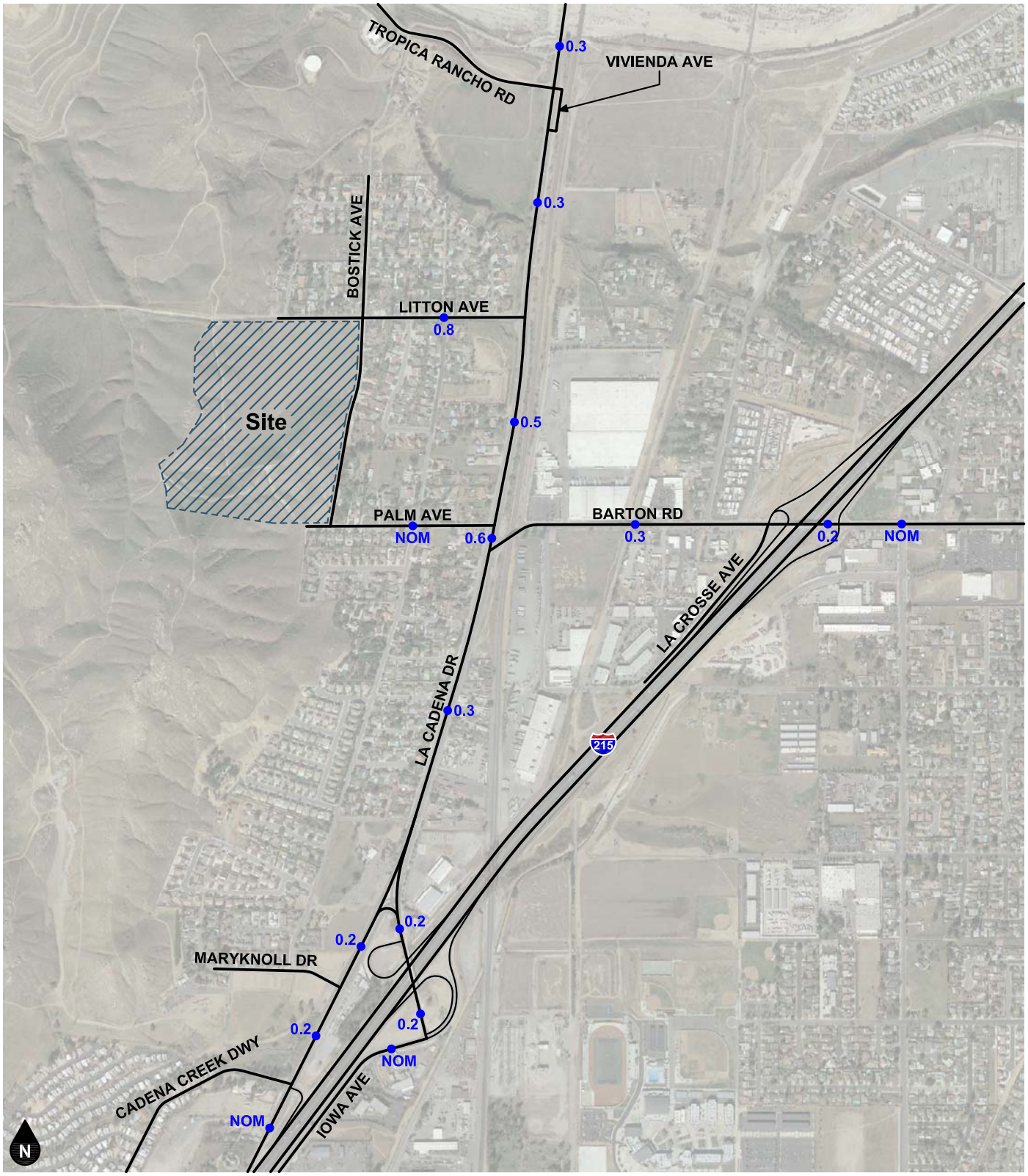
FIGURE 12

Project Trip Distribution

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

●## Vehicles Per Day (1,000's)

NOM Nominal; Less Than 50 Vehicles Per Day

SOURCE: Ganddini Group, Inc. 2019

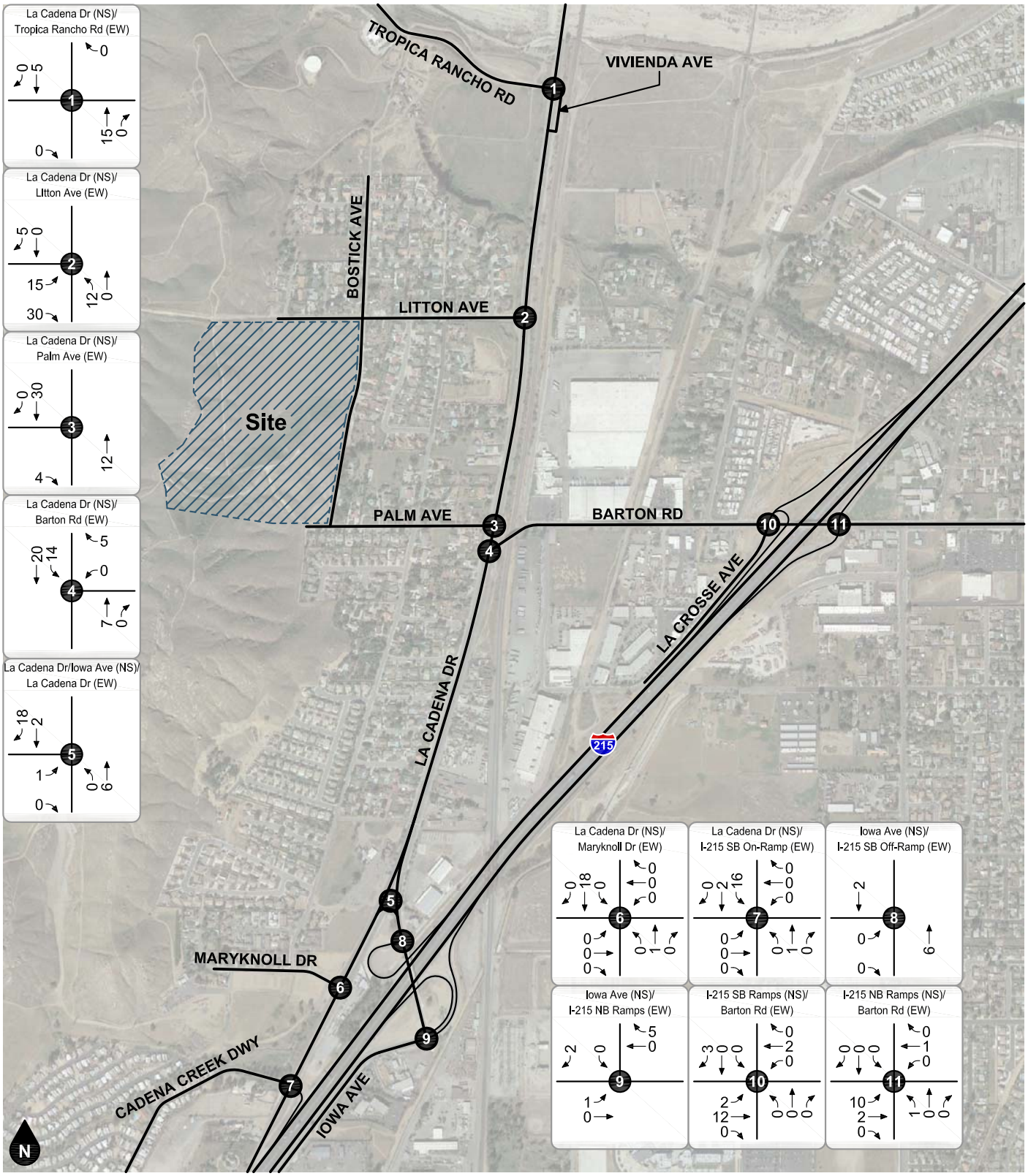
FIGURE 13

Project Average Daily Traffic Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

(#) Study Intersection

SOURCE: Ganddini Group, Inc. 2019

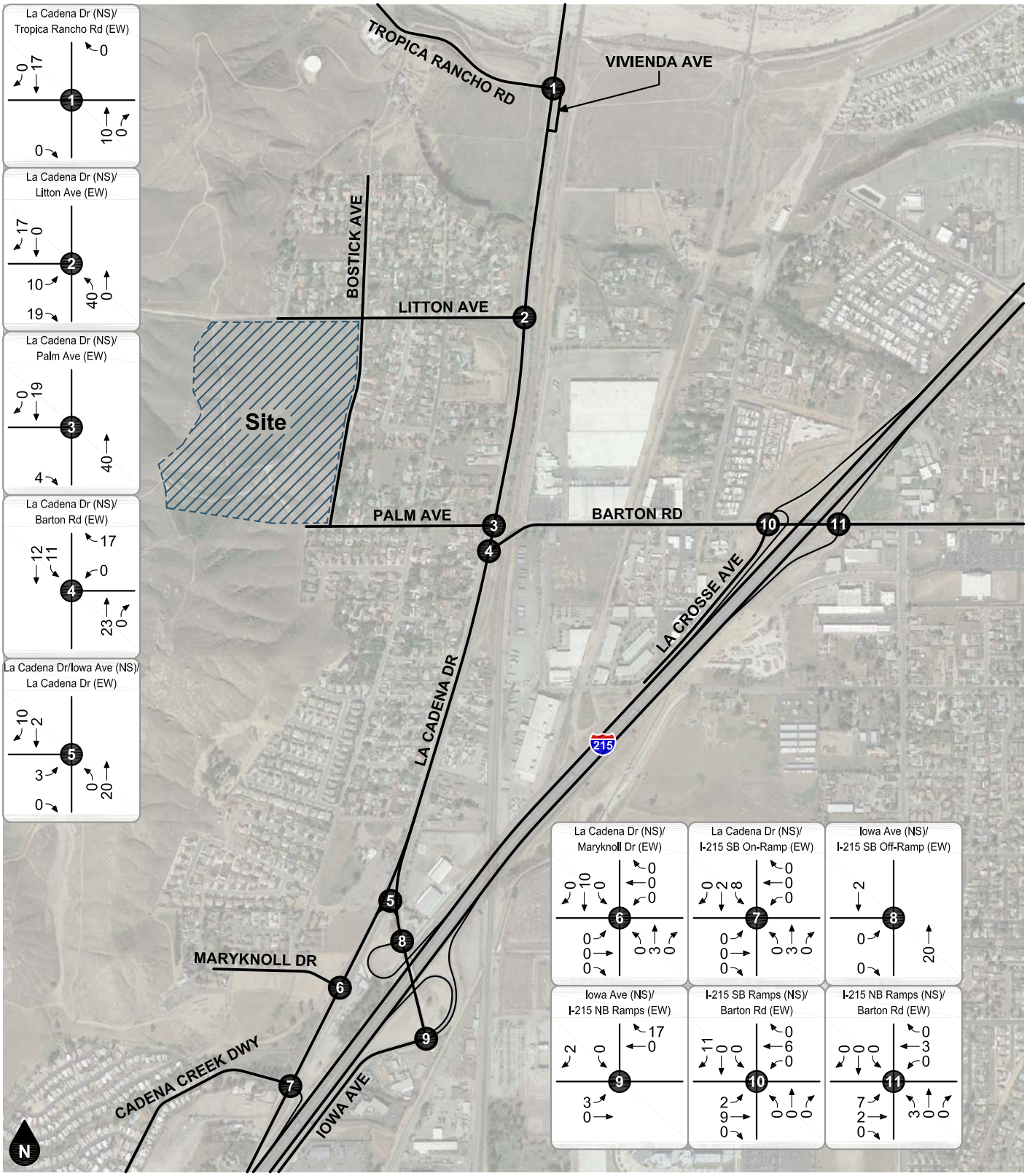
FIGURE 14

Project AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




SOURCE: Ganddini Group, Inc. 2019

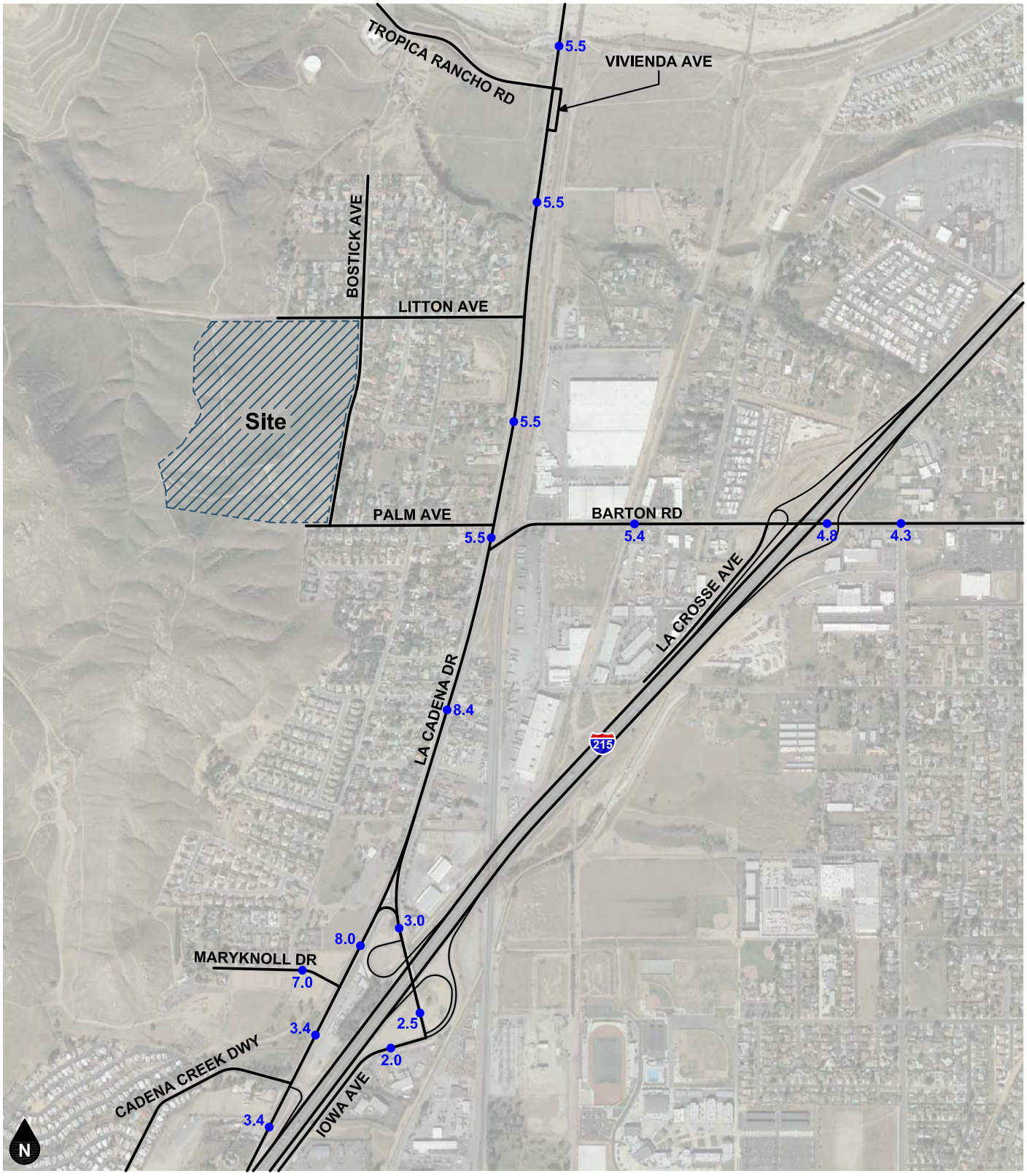
FIGURE 15

Project PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

●## Vehicles Per Day (1,000's)

SOURCE: Ganddini Group, Inc. 2019

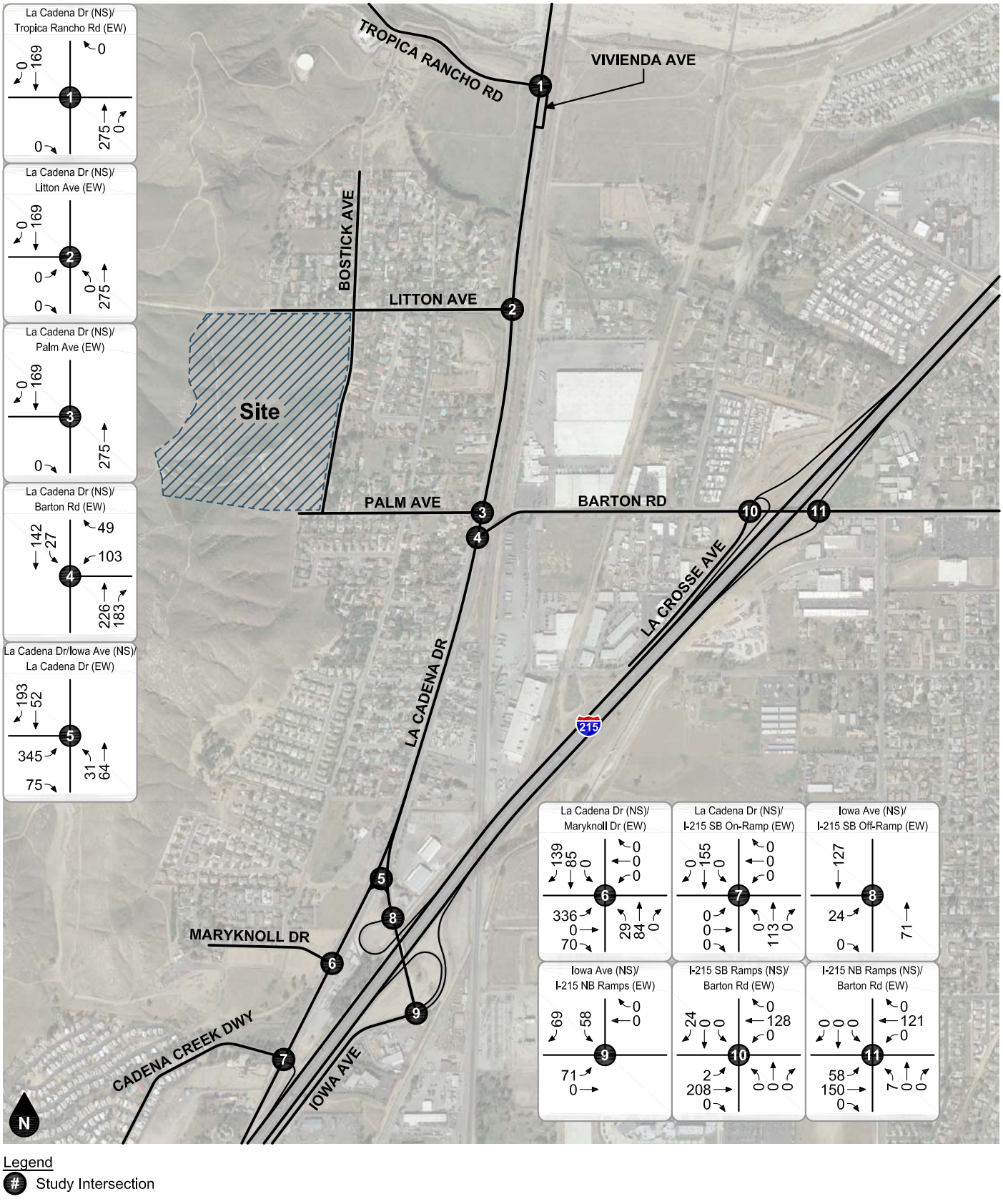
FIGURE 16

Other Development Average Daily Traffic Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

# Study Intersection

SOURCE: Ganddini Group, Inc. 2019

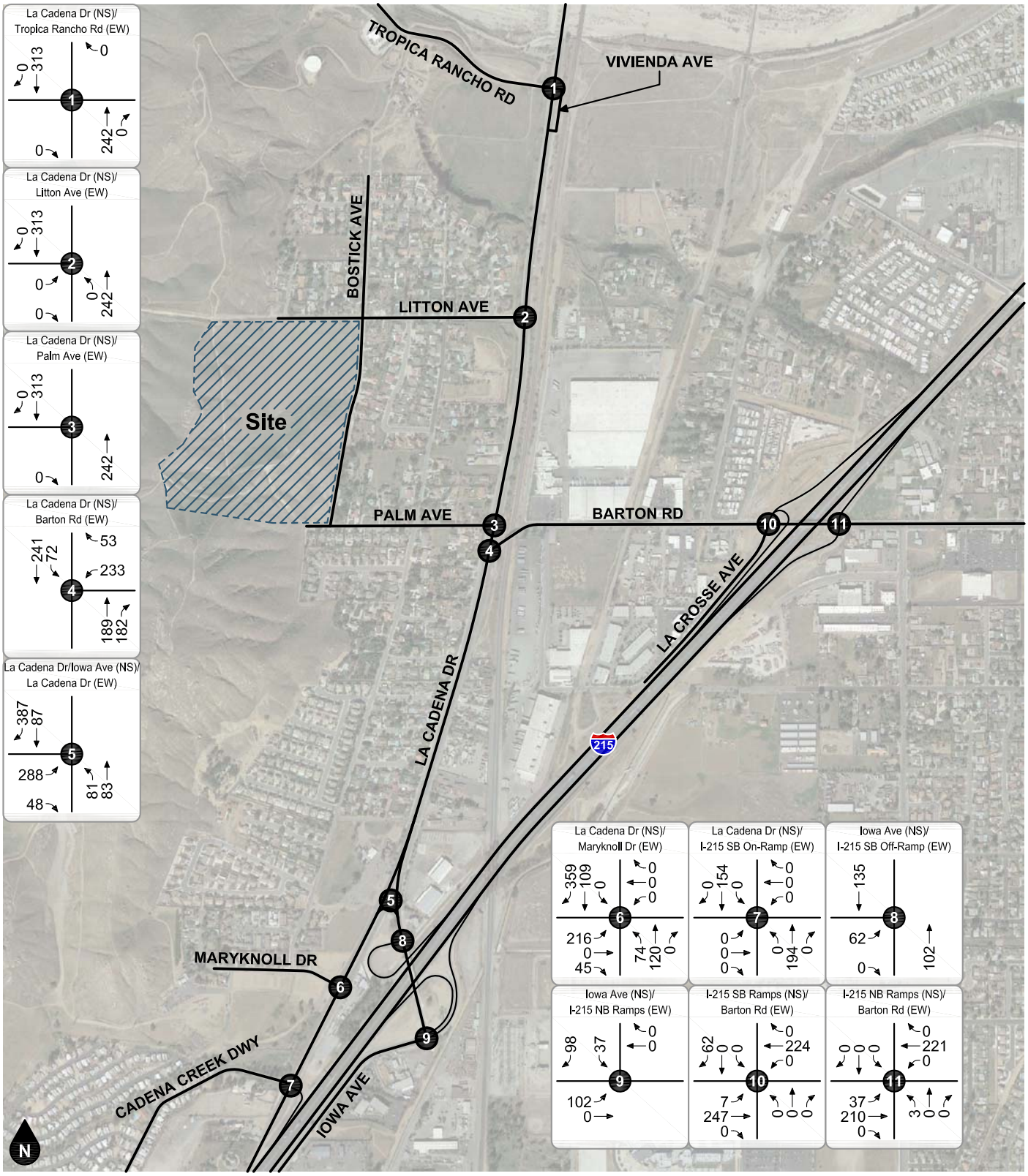
FIGURE 17

Other Development AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




SOURCE: Ganddini Group, Inc. 2019

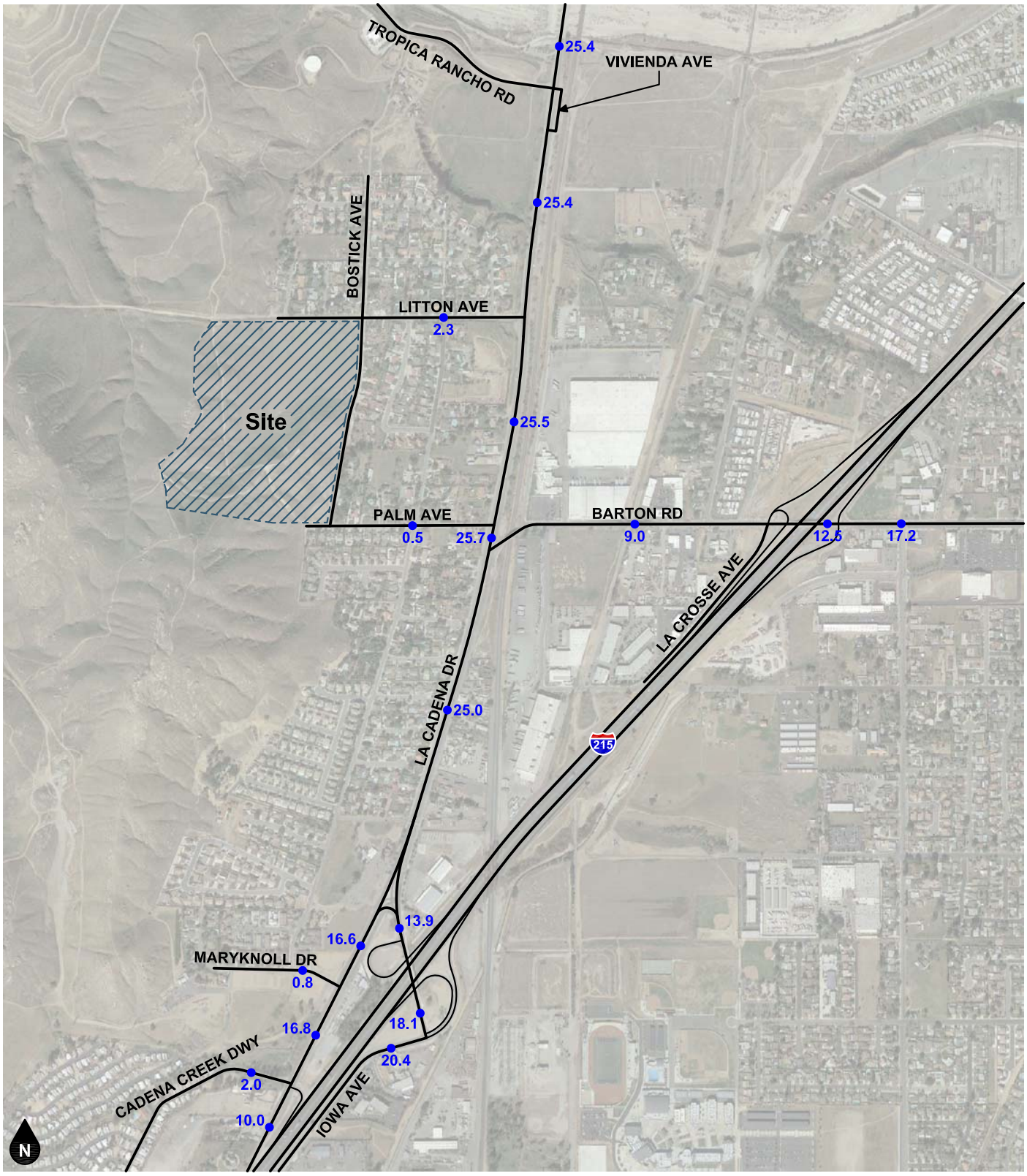
FIGURE 18

Other Development PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

●## Vehicles Per Day (1,000's)

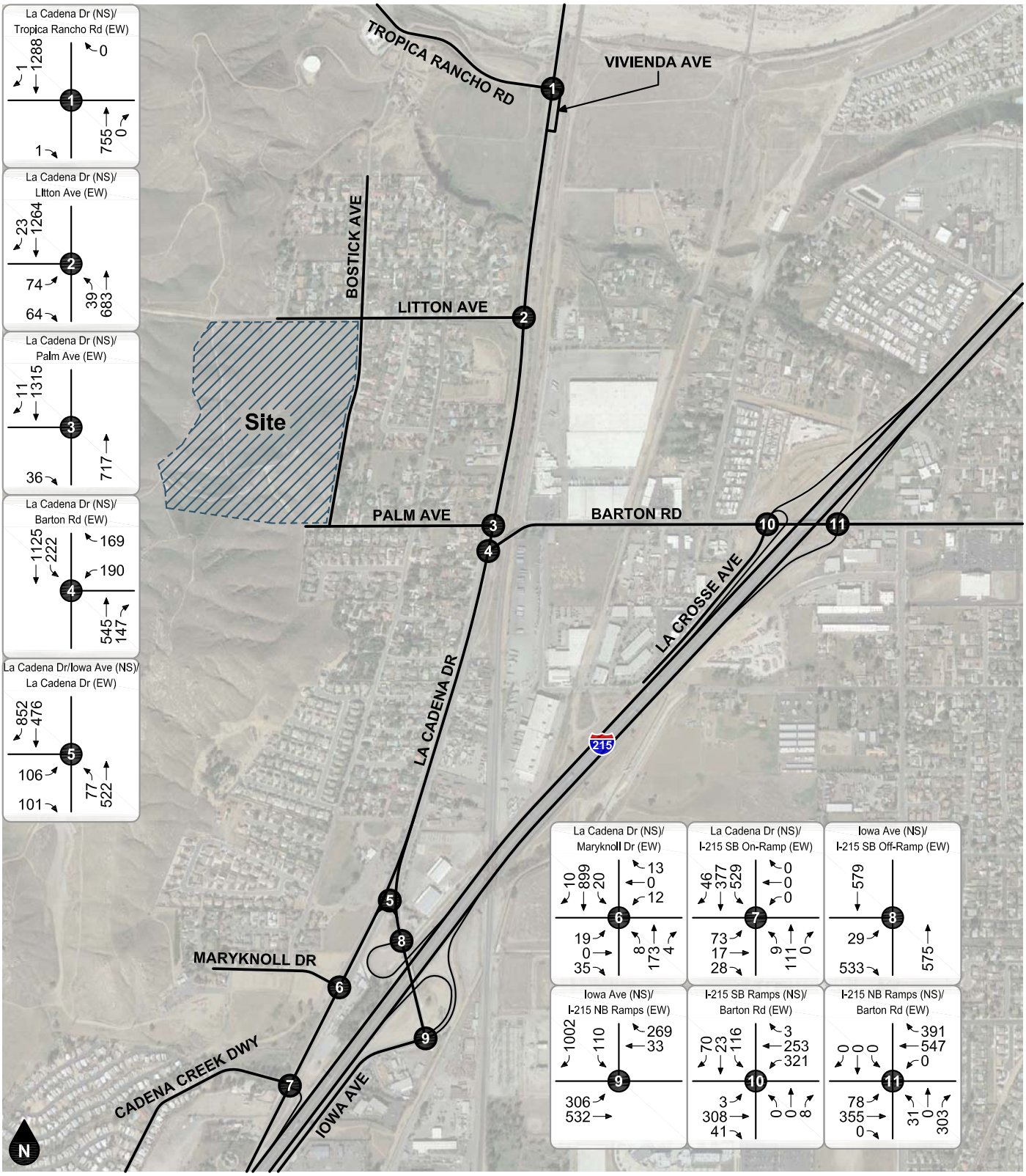
SOURCE: Ganddini Group, Inc. 2019

FIGURE 19

Existing Plus Project Average Daily Traffic Volumes

Litton Bostick Residential Project

INTENTIONALLY LEFT BLANK




Legend

# Study Intersection

SOURCE: Ganddini Group, Inc. 2019

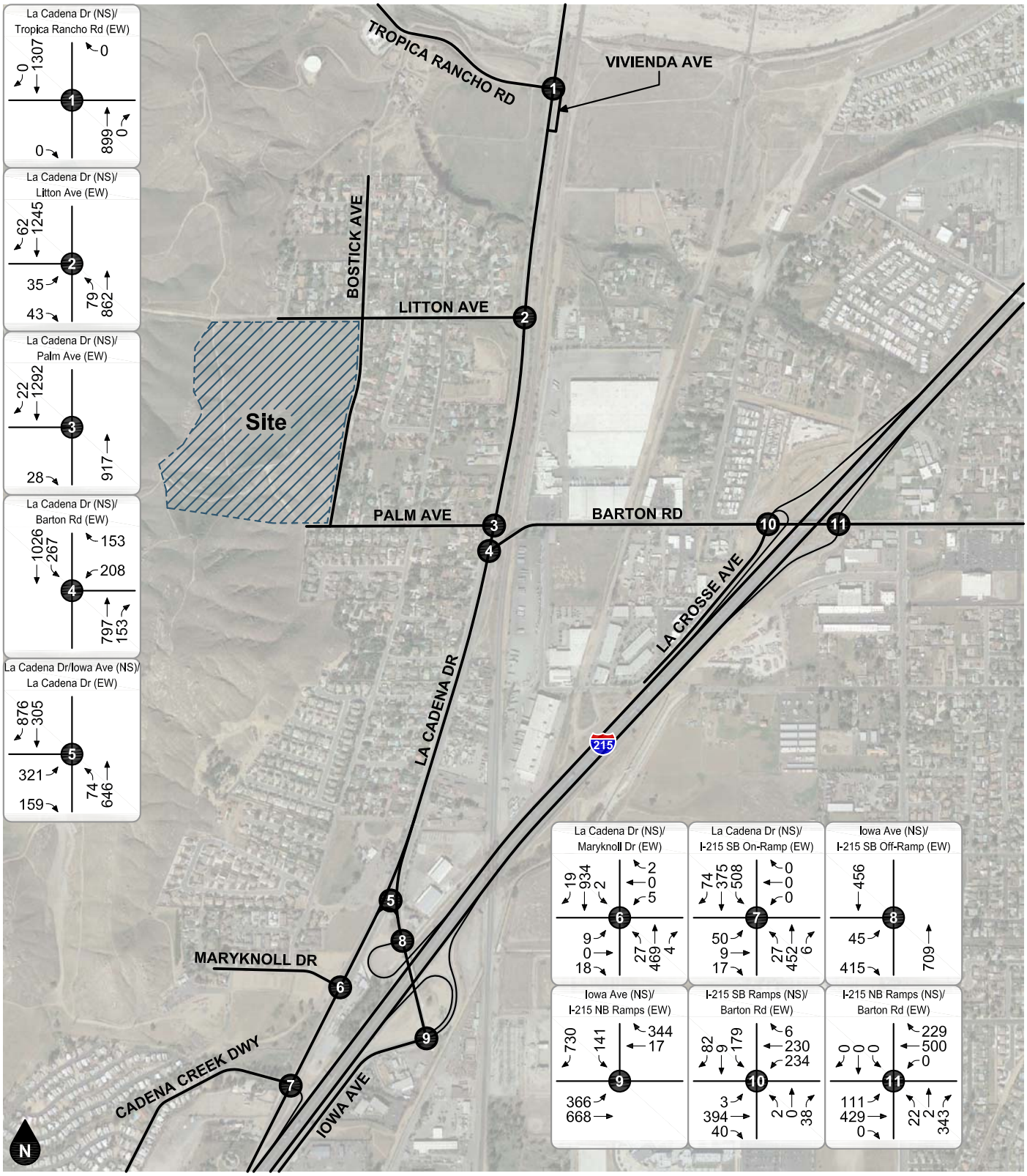
FIGURE 20

Existing Plus Project AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

# Study Intersection

SOURCE: Ganddini Group, Inc. 2019

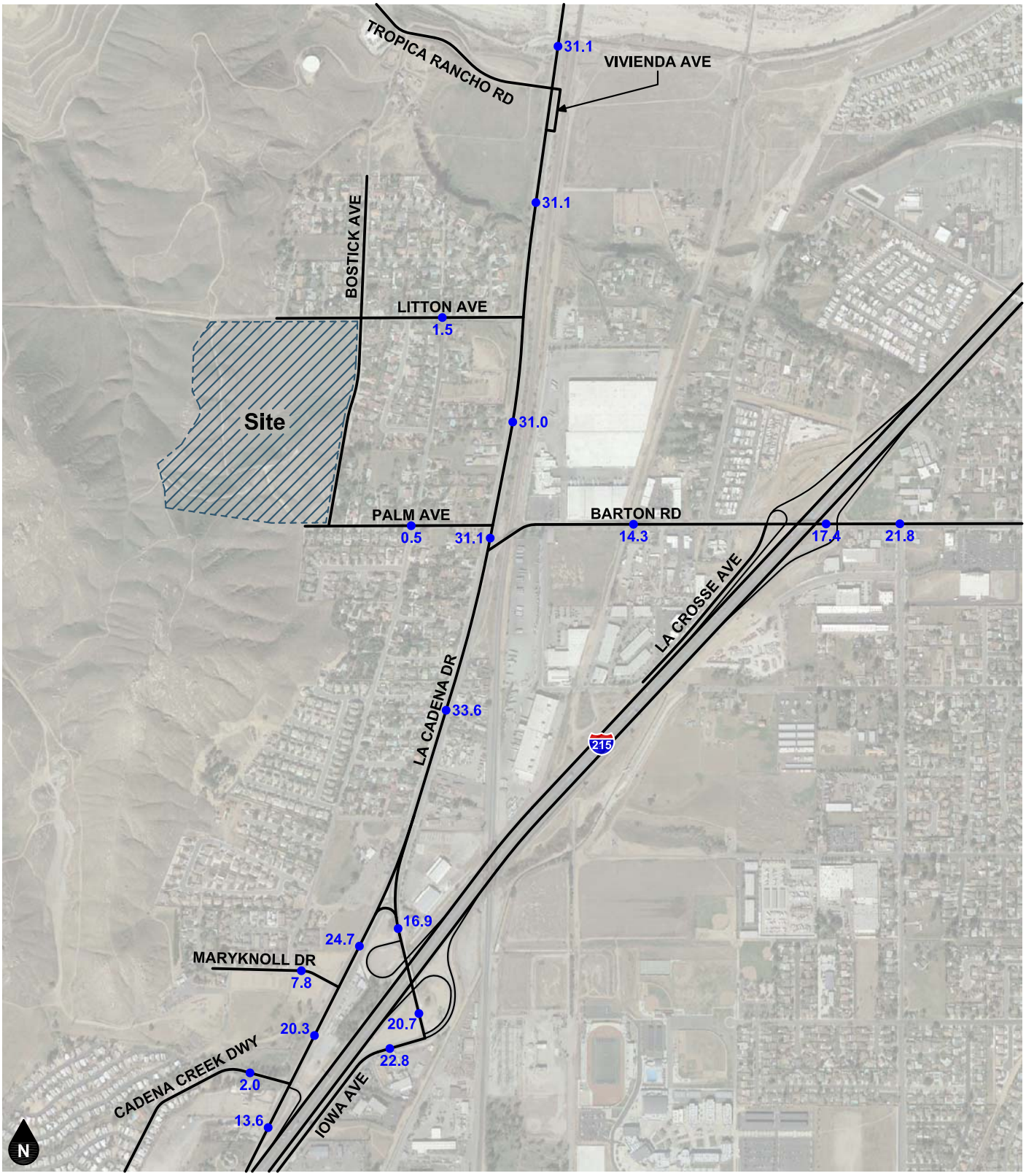
FIGURE 21

Existing Plus Project PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

●## Vehicles Per Day (1,000's)

SOURCE: Ganddini Group, Inc. 2019

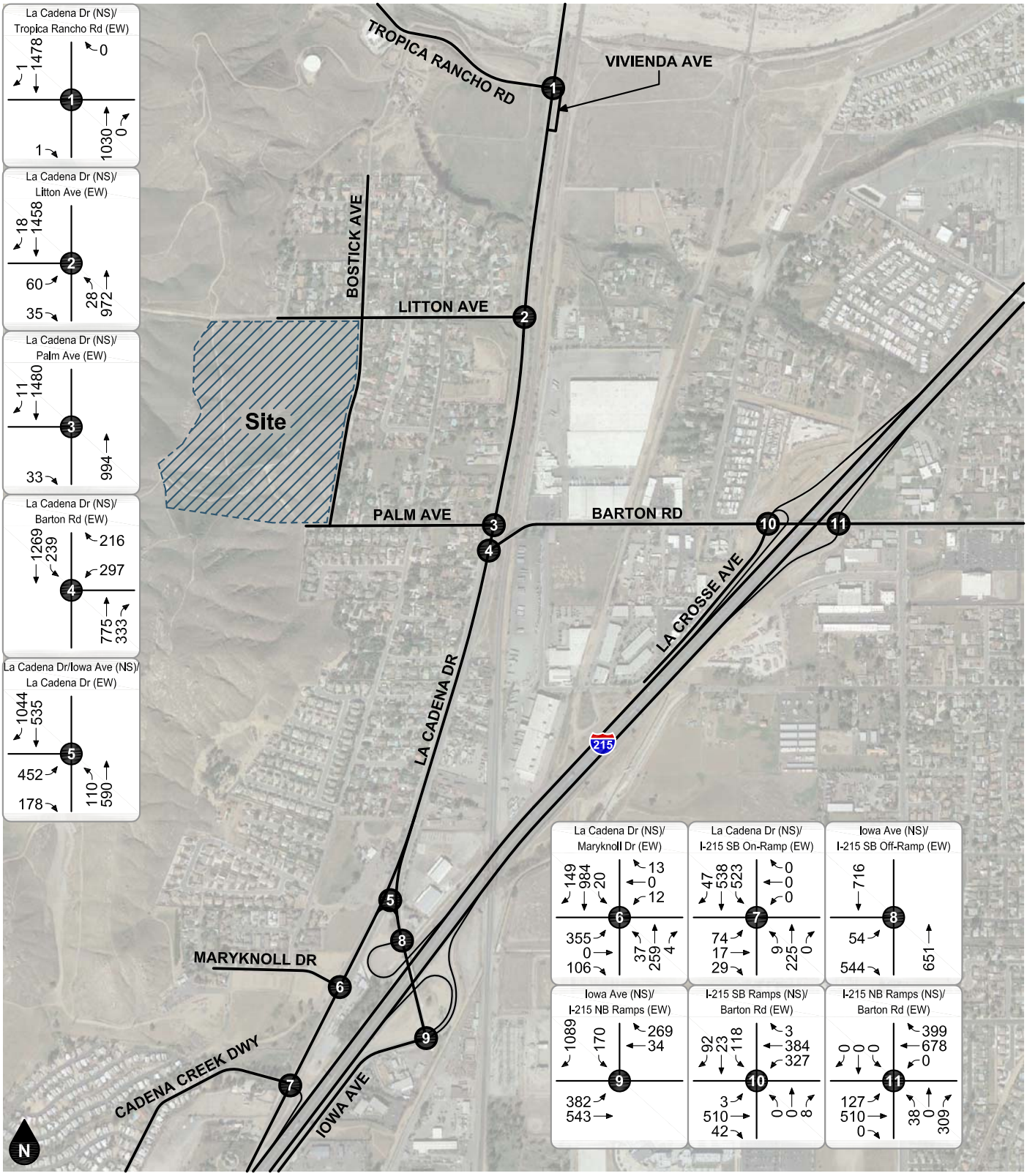
FIGURE 22

Opening Year (2020) Without Project Average Daily Traffic Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

(#) Study Intersection

SOURCE: Ganddini Group, Inc. 2019

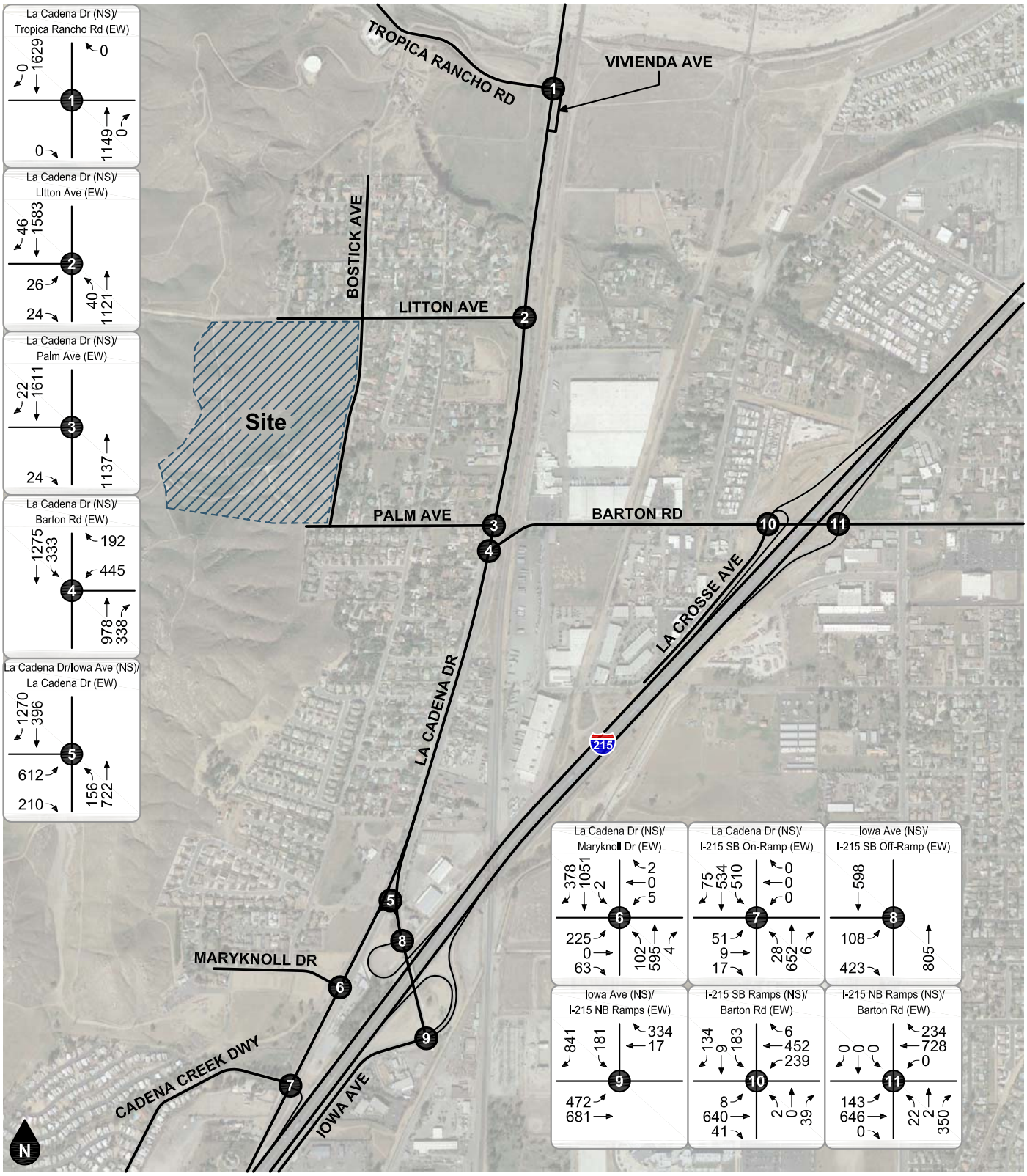
FIGURE 23

Opening Year (2020) Without Project AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




SOURCE: Ganddini Group, Inc. 2019

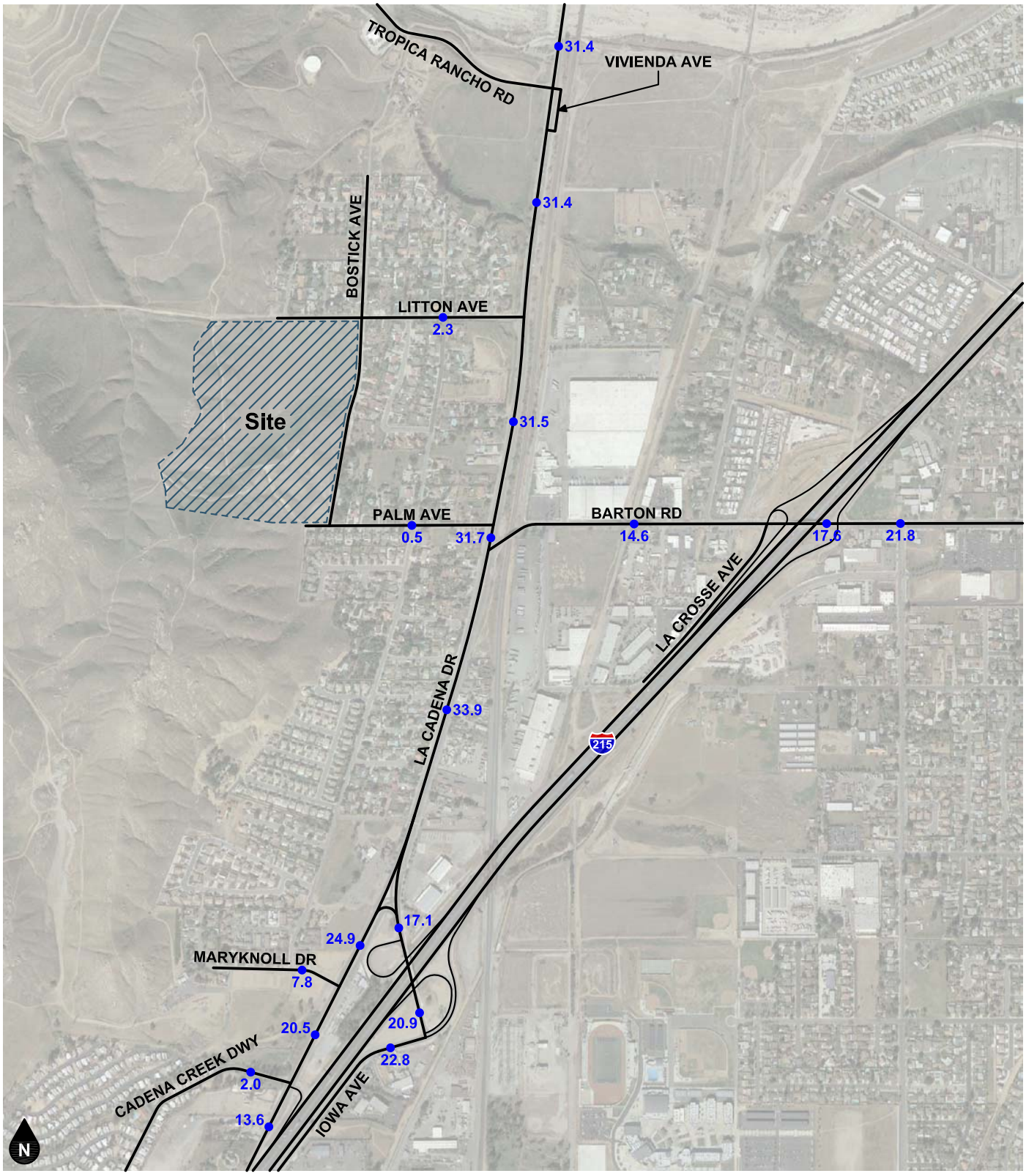
FIGURE 24

Opening Year (2020) Without Project PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

●## Vehicles Per Day (1,000's)

SOURCE: Ganddini Group, Inc. 2019

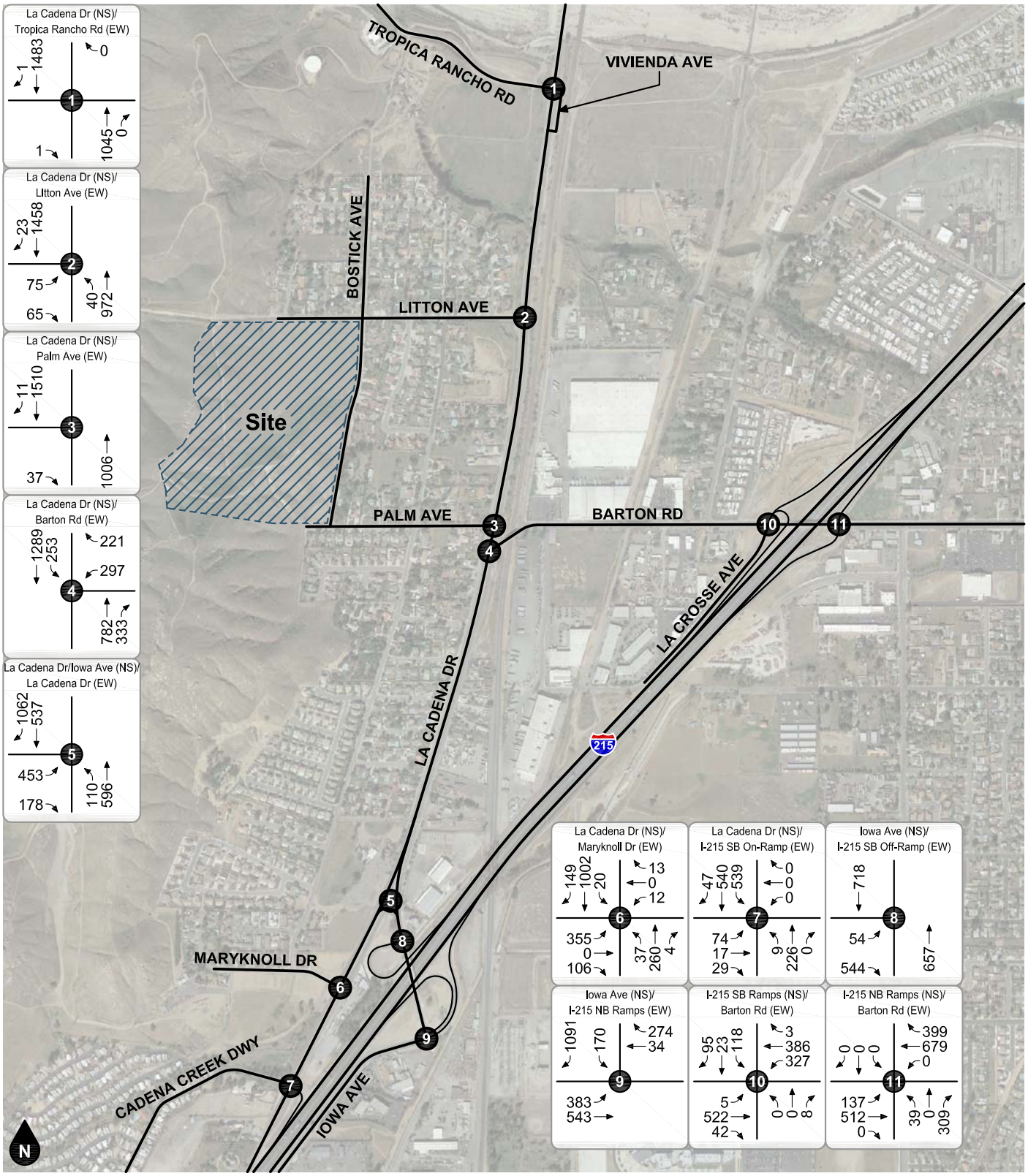
FIGURE 25

Opening Year (2020) With Project Average Daily Traffic Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

(#) Study Intersection

SOURCE: Ganddini Group, Inc. 2019

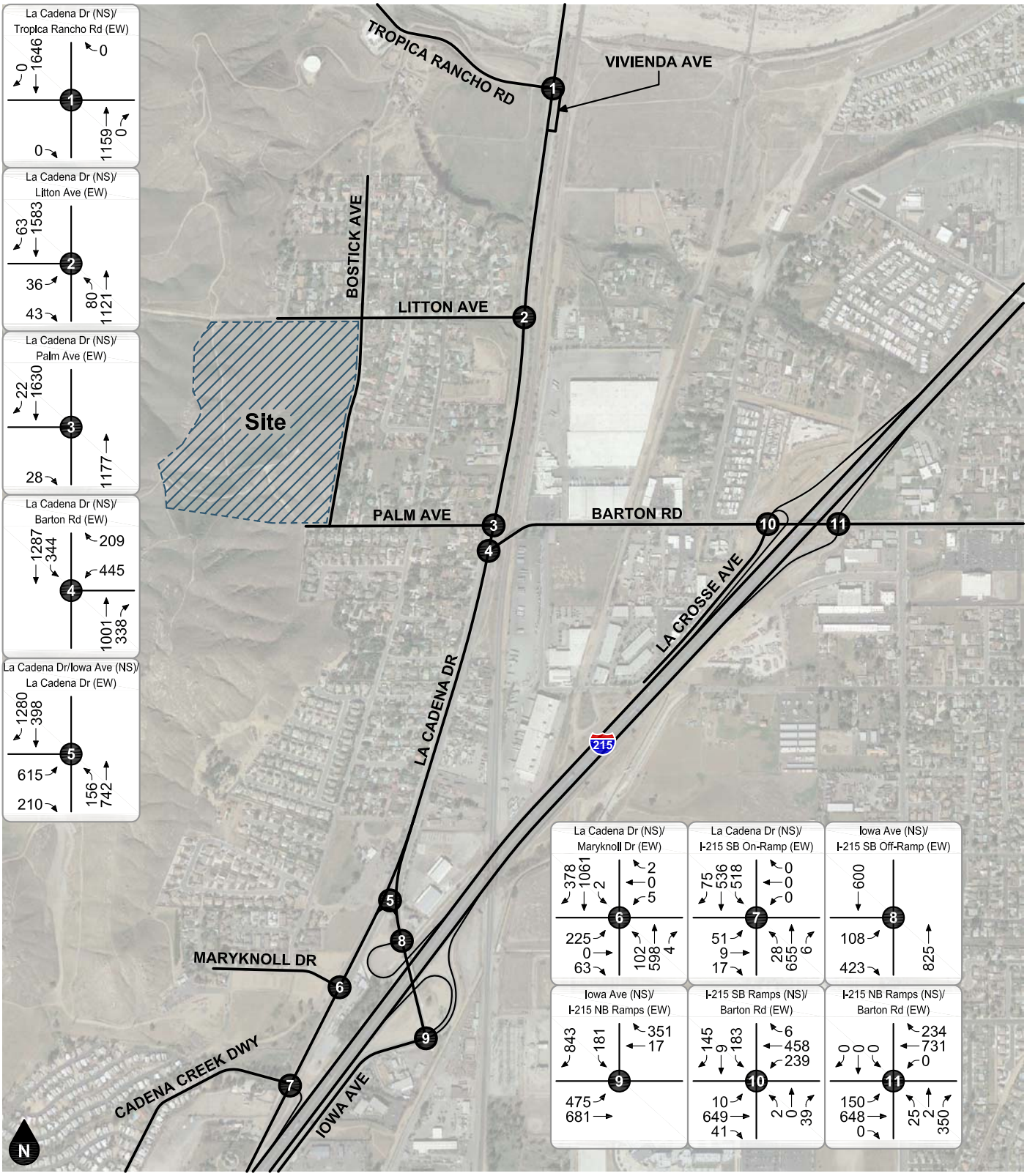
FIGURE 26

Opening Year (2020) With Project AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




SOURCE: Ganddini Group, Inc. 2019

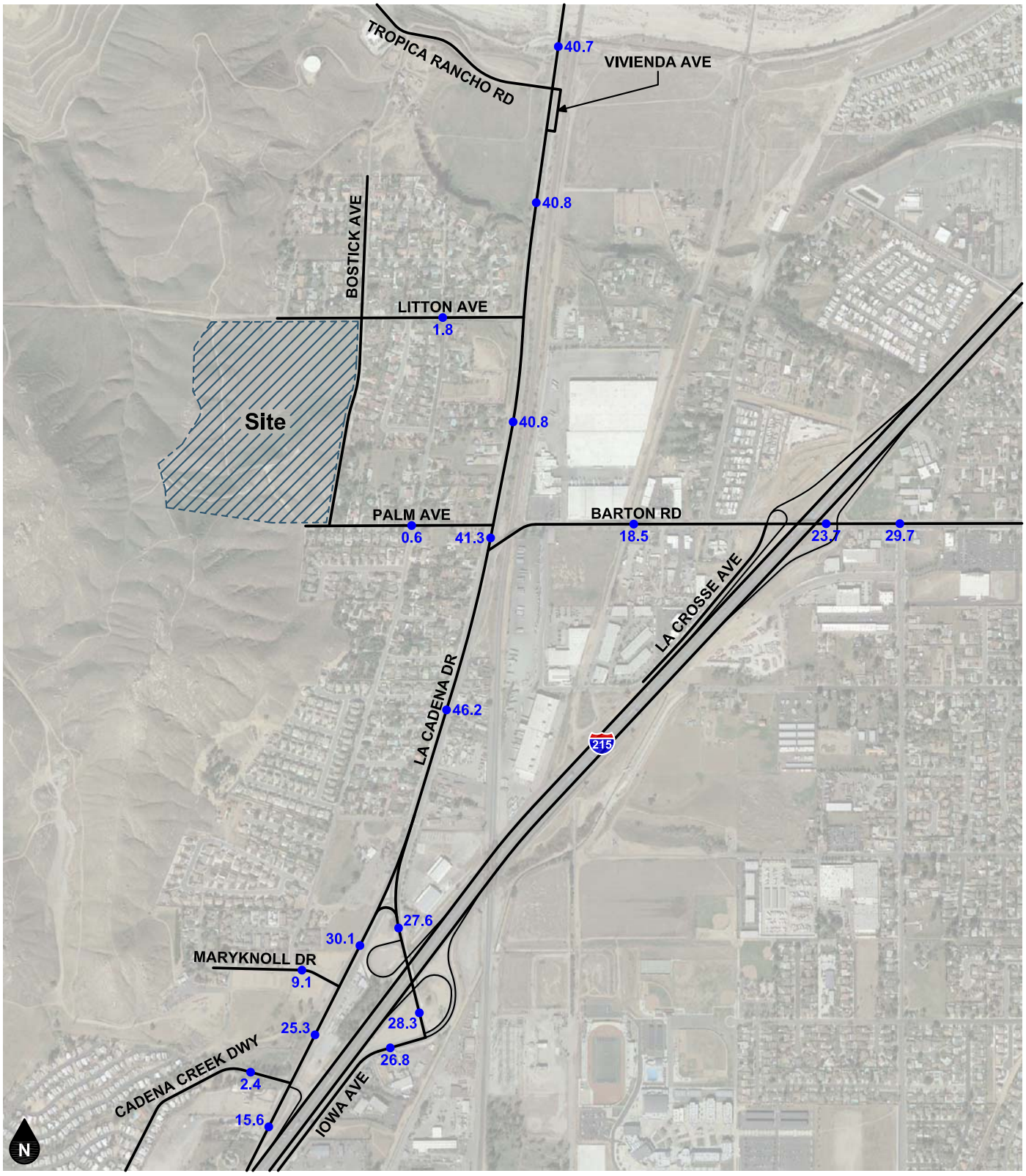
FIGURE 27

Opening Year (2020) With Project PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

●## Vehicles Per Day (1,000's)

SOURCE: Ganddini Group, Inc. 2019

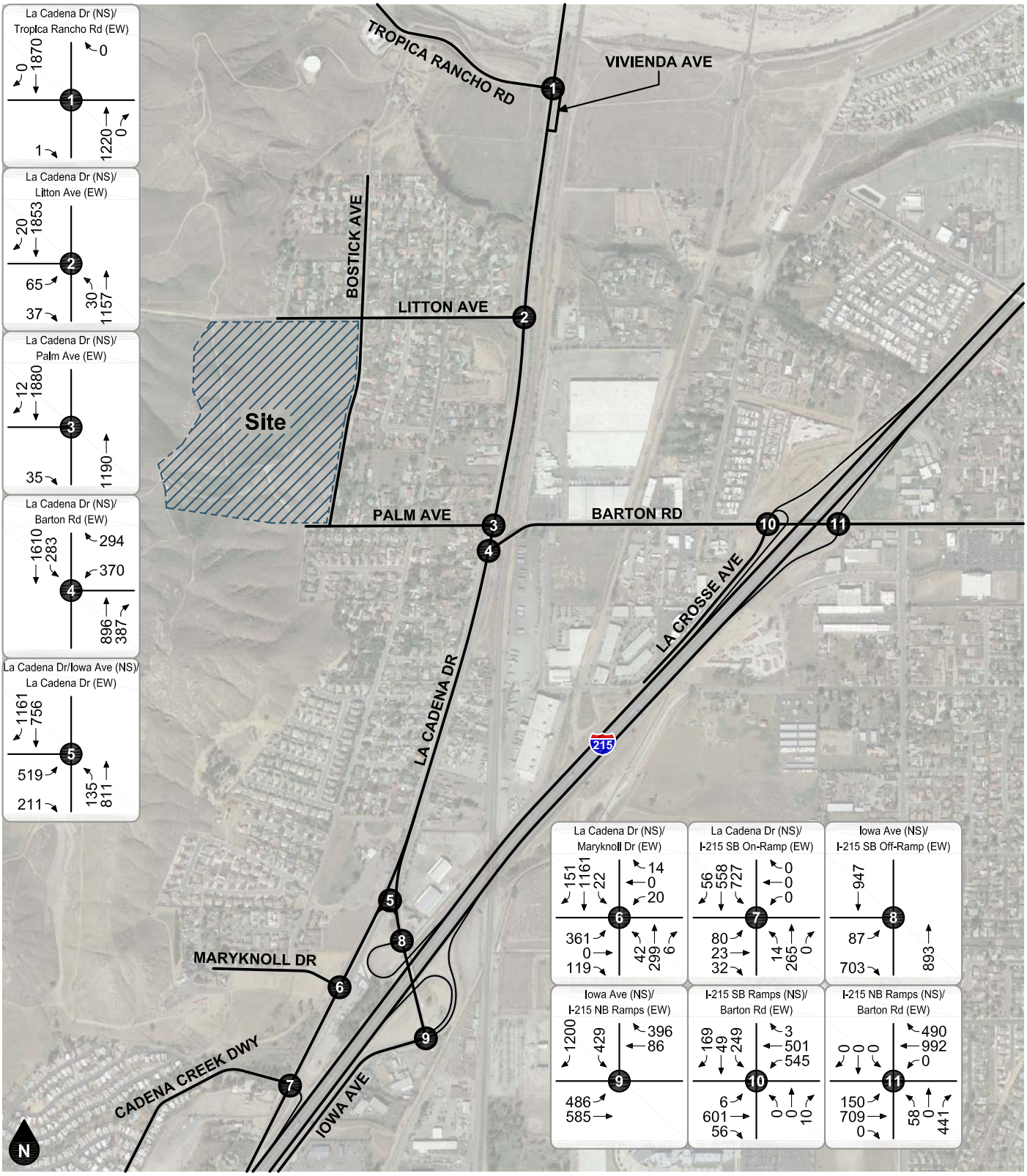
FIGURE 28

Buildout Year (2040) Without Project Average Daily Traffic Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

(#) Study Intersection

SOURCE: Ganddini Group, Inc. 2019

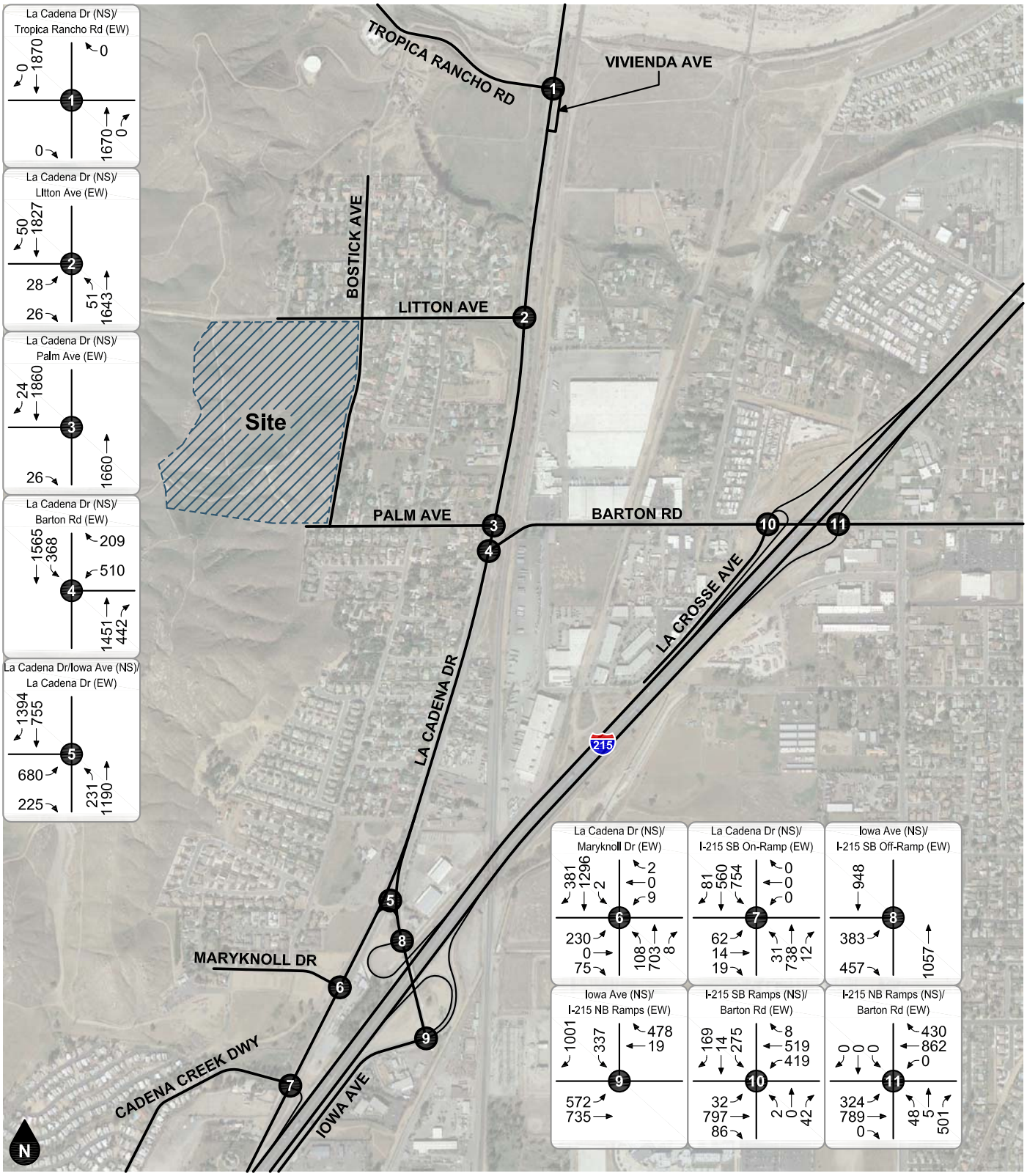
FIGURE 29

Buildout Year (2040) Without Project AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

# Study Intersection

SOURCE: Ganddini Group, Inc. 2019

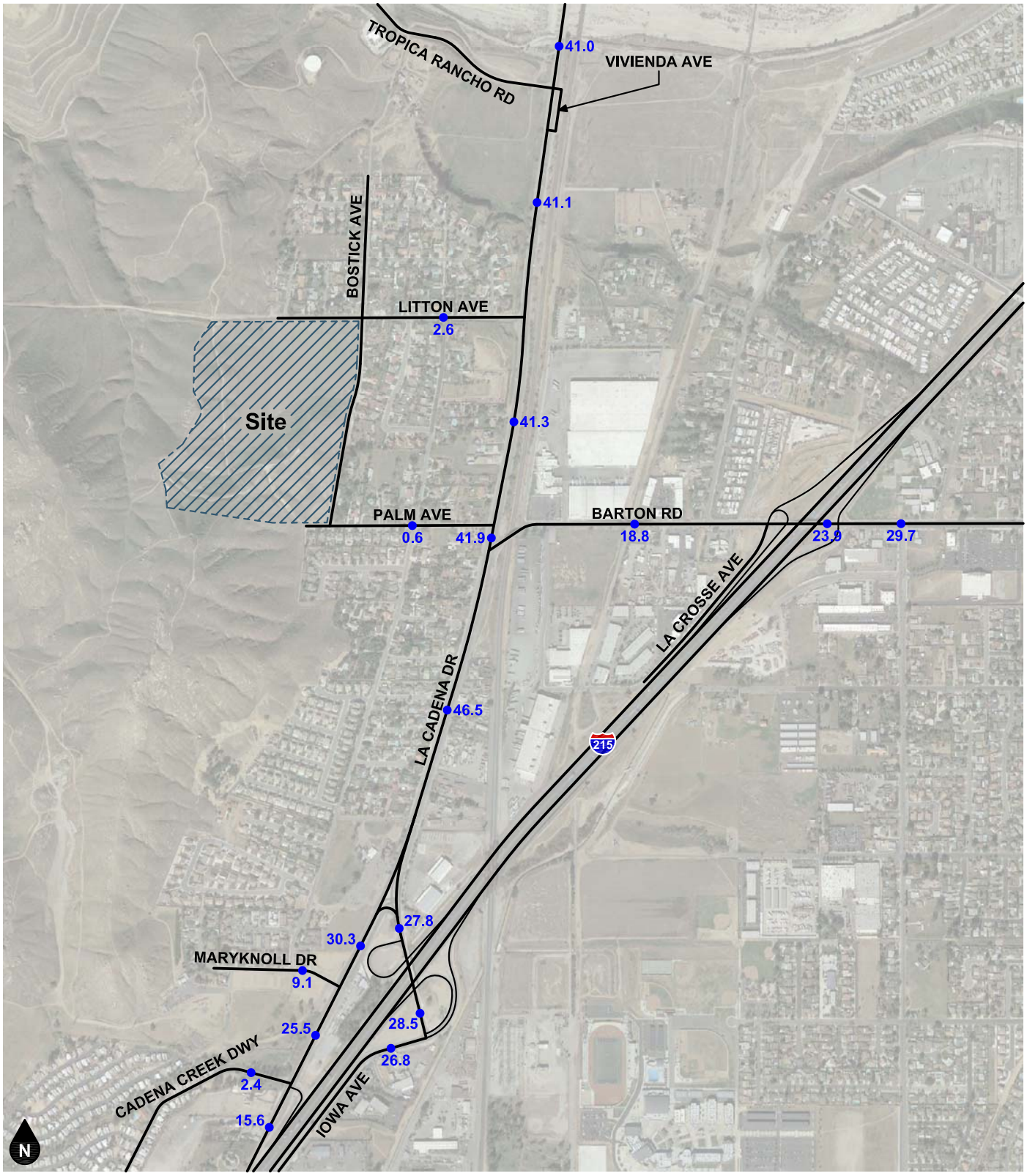
FIGURE 30

Buildout Year (2040) Without Project PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




SOURCE: Ganddini Group, Inc. 2019

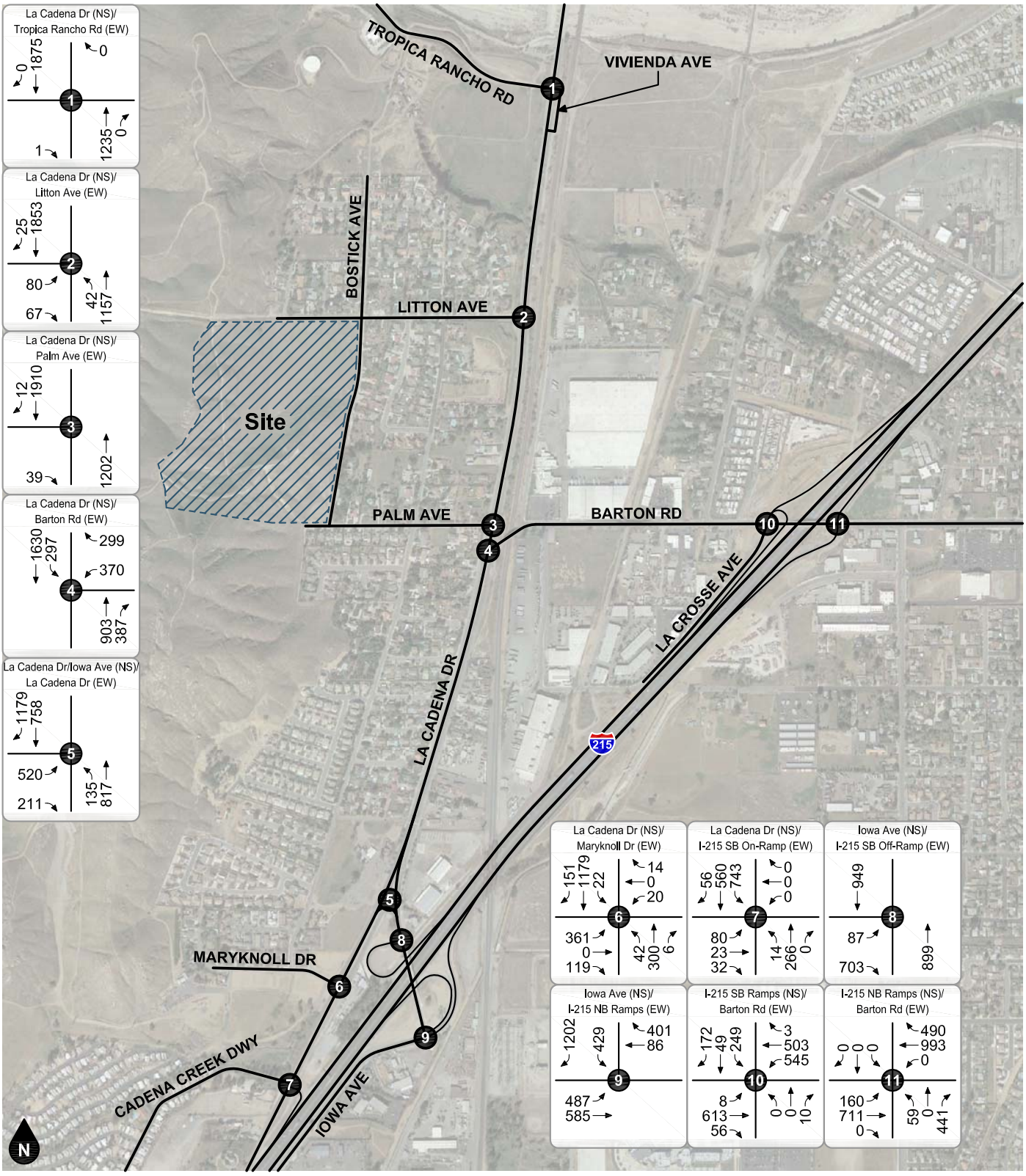
FIGURE 31

Buildout Year (2040) With Project Average Daily Traffic Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

(#) Study Intersection

SOURCE: Ganddini Group, Inc. 2019

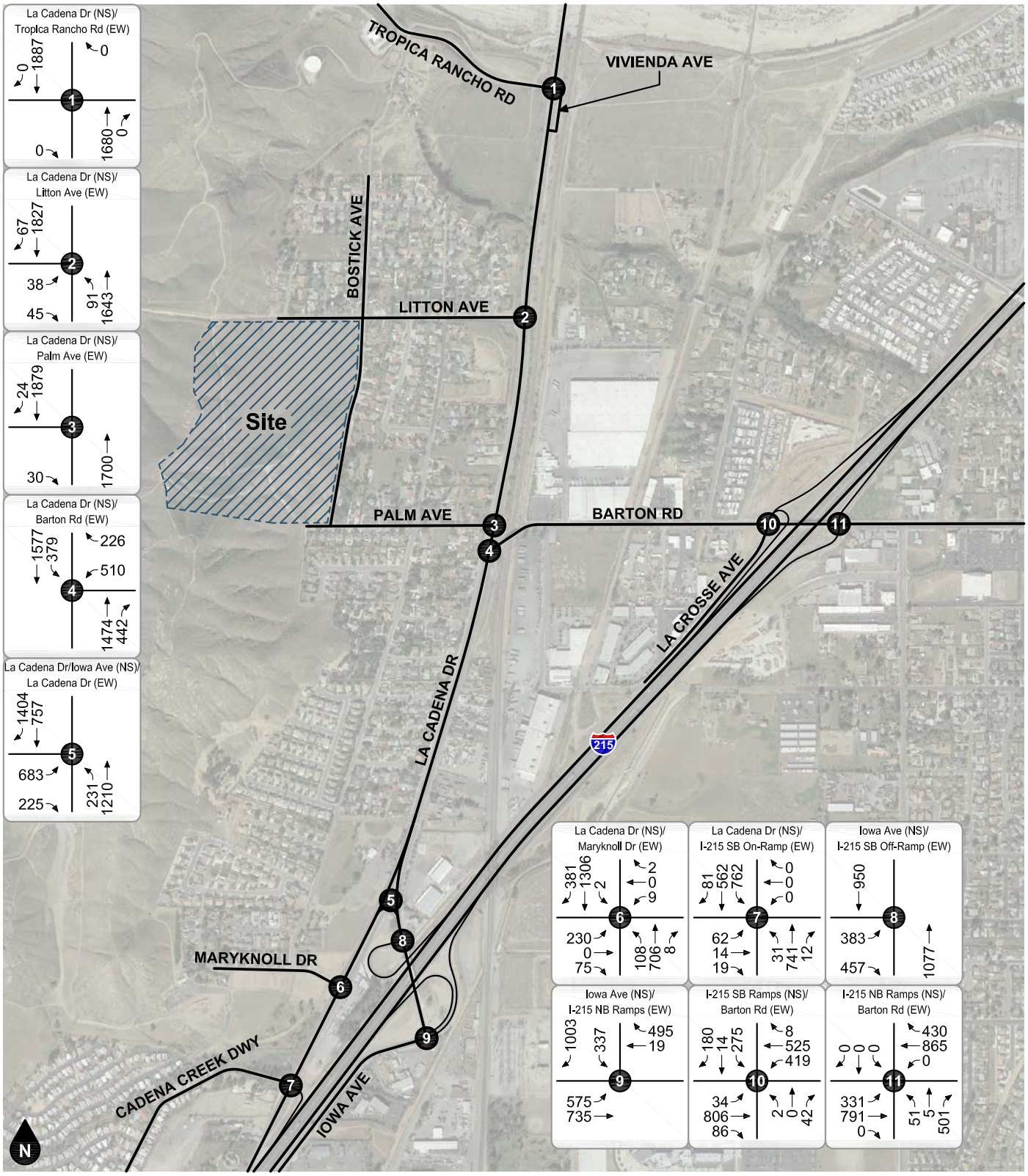
FIGURE 32

Buildout Year (2040) With Project AM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK




Legend

(#) Study Intersection

SOURCE: Ganddini Group, Inc. 2019

FIGURE 33

Buildout Year (2040) With Project PM Peak Hour Intersection Turning Movement Volumes

Litton Bostick Residential Project

DUDEK

INTENTIONALLY LEFT BLANK