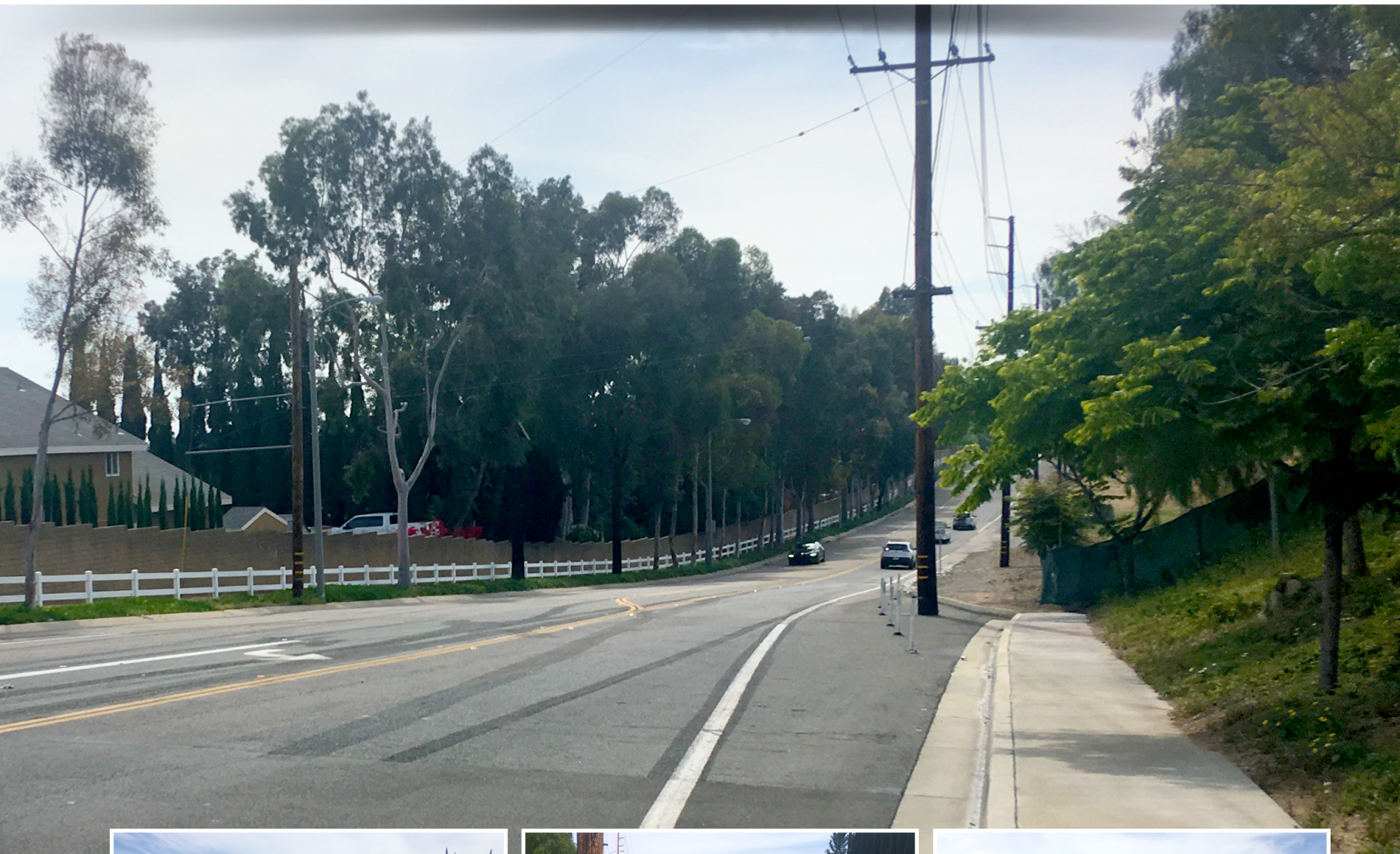
Public Review Draft | June 2019



Bastanchury Road Improvement Project
Casa Loma Avenue to Eureka Avenue
Initial Study / Mitigated Negative Declaration

Prepared for:
City of Yorba Linda

Michael Baker
INTERNATIONAL

PUBLIC REVIEW DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Bastanchury Road Improvement Project

Casa Loma Avenue to Eureka Avenue

Lead Agency:

CITY OF YORBA LINDA
4845 Casa Loma Avenue
Yorba Linda, California 92886
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June 2019

JN 167987

This document is designed for double-sided printing to conserve natural resources.

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1.0 INTRODUCTION

The Bastanchury Road Improvement Project (Casa Loma Avenue to Eureka Avenue) (herein referenced as the "project") proposes to improve a segment of Bastanchury Road between Eureka Avenue and Casa Loma Avenue to enhance mobility and safety for drivers, bicyclists, and pedestrians within the project area. The project would raise the road profile a maximum of approximately six feet, widen the roadway segment from two travel lanes (one travel lane in each direction) to a total of four travel lanes (two lanes of travel in each direction) to match the existing roadway configuration east of Eureka Avenue and west of Casa Loma Avenue. Additionally, the proposed would improve the current deficient stopping sight distance for motorists traveling on along Bastanchury Road within the project limits, improving safety. The project proposes to install traffic signals at the intersections of Bastanchury Road/Eureka Avenue and Bastanchury Road/Casa Loma Avenue, and would include a left-turn lane at each intersection along Bastanchury Road. To accommodate planned development located on a vacant parcel north of the project site, a driveway would be installed along with an eastbound left-turn lane to provide future access to the site. Sidewalk would be installed north of the westbound travel lanes. A 10-foot wide Class 1 multi-purpose trail and an approximately 10-foot high retaining/property wall (seven feet exposed) would be installed south of the eastbound travel lanes.

Following a preliminary review of the proposed project, the City of Yorba Linda (City) has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study/Mitigated Negative Declaration addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with CEQA (Public Resources Code Sections 21000-21177) and pursuant to Section 15063 of Title 14 of the California Code of Regulations (CCR), the City of Yorba Linda, acting in the capacity of Lead Agency, is required to undertake the preparation of an Initial Study to determine whether the proposed project would have a significant environmental impact. If the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration (or Mitigated Negative Declaration) for that project. Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such impacts may occur (Section 21080, Public Resources Code).

The environmental documentation, which is ultimately approved and/or certified by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

1.2 PURPOSE

Section 15063 of the CEQA Guidelines identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;

- Discussion of ways to mitigate significant effects identified, if any;
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 CONSULTATION

As soon as the Lead Agency (in this case, the City of Yorba Linda) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, in order to obtain the recommendations of those agencies on the environmental documentation to be prepared for the project. Following receipt of any written comments from those agencies, the City will consider their recommendations when formulating the preliminary findings. Following completion of this Initial Study, the City will initiate formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 INCORPORATION BY REFERENCE

The following documents were utilized during preparation of this Initial Study and are incorporated into this document by reference. The documents are available for review at the City of Yorba Linda, address.

- *2016 Yorba Linda General Plan (October 2016)*. The *Yorba Linda General Plan* (General Plan) sets forth the City's policies regarding the types and locations of future land uses and activities. It describes the desired character and quality of development as well as the process for how development should proceed now and in the future. It is intended to be used by residents, business owners, City officials and all those interested in the direction of the City. The General Plan is composed of elements which address a broad and evolving range of issues. Each element of the plan identifies and describes goals, policies, and implementation measures which provide specific direction for decision making and formulation of public policy. The General Plan elements are as follows:

    - Land Use;
    - Circulation;
    - Economic Development
    - Housing;
    - Historic Resources
    - Open Space and Recreation Resources;
    - Conservation;
    - Public Health and Safety;
    - Public Services;
    - Noise; and
    - Growth Management.

- *City of Yorba Linda Municipal Code (Current through Ordinance 2019-1058, Effective April 22, 2019)*. The *Yorba Linda Municipal Code* (Municipal Code) establishes standards, consistent with the City's General Plan, that regulate land uses and development throughout the City to ensure compatibility of land uses and to avoid issues associated with incompatibility. The Municipal Code is intended to protect, promote, and enhance the public health, safety, and general welfare for people living and working within the City. The Municipal Code promotes compatibility between the natural and built environment and ensures compatibility with corresponding General Plan land use designations and intensities. It also promotes the development of a safe, effective circulation and transportation network that accommodates the needs of all modes of transportation.

- *2016 Yorba Linda General Plan Draft Environmental Impact Report (May 2016)*. The *Yorba Linda General Plan Draft Environmental Impact Report* (General Plan DEIR) contains analysis of environmental impacts related to buildout of the General Plan. The General Plan DEIR included an analysis of the following potential project impacts:

    - Aesthetics;
    - Agricultural Resources;
    - Air Quality;
    - Biological Resources;
    - Cultural Resources;
    - Geology and Soils;
    - Greenhouse Gas Emissions;
    - Hazards and Hazardous Materials;
    - Hydrology and Water;
    - Land Use and Planning;
    - Mineral Resources
    - Noise;
    - Population and Housing;
    - Public Services;
    - Recreation;
    - Transportation and Circulation; and
    - Utilities and Service Systems.

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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Regionally, the project site is located in the northwest portion of the City of Yorba Linda (City), within the County of Orange; refer to Exhibit 2-1, *Regional Map*. Locally, the project site is located along Bastanchury Road, approximately 0.4-mile east of Imperial Highway (State Route 90) and 3.2 miles north of State Route 91 (SR-91), generally between Eureka Avenue and Casa Loma Avenue; refer to Exhibit 2-2, *Site Vicinity*.

2.2 ENVIRONMENTAL SETTING

In the vicinity of the proposed project, existing Bastanchury Road typically runs east-west, with a 12-foot wide striped median. To the east and west of the project limits, Bastanchury Road is generally a four-lane roadway with two travel lanes and a bike lane in each direction of travel as well as curb and gutter, landscaped parkways, and sidewalk on both sides of the roadway. Within the project limits, between Eureka Avenue and Casa Loma Avenue, Bastanchury Road has two travel lanes (one travel lane in each direction). Consistent with the Circulation Element of the *2016 City of Yorba Linda General Plan* (General Plan), a Class III Bikeway currently exists within the project limits. The bike route is a shared facility with motor vehicle travel. Along Bastanchury Road, an eastbound right- and left-turn pocket and westbound left-turn pocket occurs at the intersection of Eureka Avenue and Bastanchury Road. Additionally, along Bastanchury Road, an eastbound and westbound left-turn pocket occurs at the intersection of Casa Loma Avenue and Bastanchury Road.

An earthen multipurpose trail runs east-west, south of Bastanchury Road and the existing parkway. The earthen multipurpose trail is intended for use by equestrians, hikers, joggers, and bicyclists. A trailhead occurs at the southeast corner of Bastanchury Road and Casa Loma Avenue, travels east along the south side of Bastanchury Road and parkway, runs north along the east side of Eureka Avenue, and continues along various roadways within the City.

Within the project site, there are curb and gutter along the eastbound travel lanes; no sidewalk occurs. Along the westbound travel lanes, no curb, gutter, or sidewalk occur, with the exception of the northeast portion of the project site. Curb, gutter, and sidewalk occur along this portion of the project site (approximately 195 feet west of Eureka Avenue). Roadway runoff is typically captured in a roadside drainage inlet located along the south/central portion of the project site as well as a drainage inlet located in the northwest portion of the project site, along an existing vacant parcel on the north side of Bastanchury Road. The Casa Loma Avenue/Bastanchury Road and Eureka Avenue/Bastanchury Road intersections are stop controlled.

Various utilities are currently located within the project area, including underground standard and high voltage electrical, fiber optic, gas, telephone, water, sewer, and storm drain lines.

Existing landscaping includes groundcover and mature eucalyptus trees in the parkway along the eastbound travel lanes. Mature trees and groundcover also cover portions of the slopes located the northeast portion of the project site (approximately 195 feet west of Eureka Avenue).

SURROUNDING USES

Surrounding land uses in proximity to the project site include the following:

- *North:* Land north of the project site is designated residential; however, the land northwest of the project site is single-family; north is vacant graded land; and northeast is single-family and institutional uses.
- *East:* Bastanchury Road, a Modified Primary Arterial, continues east of the project site.
- *South:* Single-family residential land uses are located to the south.
- *West:* Bastanchury Road, a Modified Primary Arterial, continues west of the project site.

Project Site

NOT TO SCALE

Michael Baker INTERNATIONAL

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BASTANCHURY ROAD IMPROVEMENT PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND)

Regional Map

Exhibit 2-1

Source: Google Earth Pro. May 2019

Project Site

NOT TO SCALE

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BASTANCHURY ROAD IMPROVEMENT PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND)

Site Vicinity

Exhibit 2-2

2.3 EXISTING GENERAL PLAN AND ZONING

Bastanchury Road is designated "Modified Primary 4 Lane" arterial by the General Plan. Additionally, areas along the northern side of Bastanchury Road are designated residential ("R-Medium Low") and "Shell Property Area Plan" by the General Plan. Areas along the southern side of Bastanchury Road are designated residential ("R-Medium") by the General Plan.

As a roadway facility, Bastanchury Road does not have a designation under the *City of Yorba Linda Municipal Code.* However, areas along the northern side of Bastanchury Road are designated "Residential Estate," "Vista del Verde Planned Development," "West Bastanchury Planned Development," and "Oil Production Combining Zone" by the *City of Yorba Linda Zoning Map* (Zoning Map). Areas along the southern side of Bastanchury Road are designated "Residential Suburban" and "Oil Production Combining Zone" by the Zoning Map.

2.4 PROJECT BACKGROUND

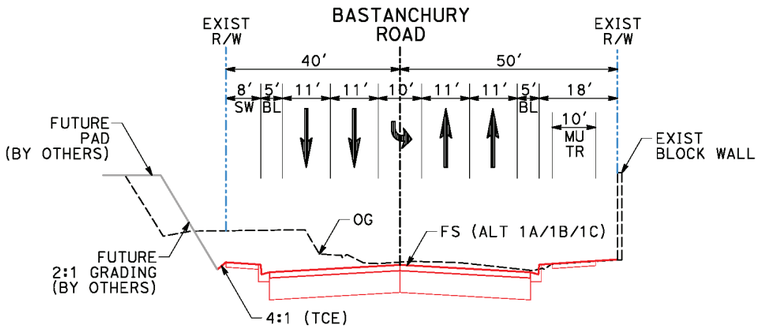
Bastanchury Road within the project limits is designated as a four-lane modified primary arterial in the General Plan Circulation Element. The existing segment of Bastanchury Road within project limits is a two-lane roadway. Immediately east and west of the project site, Bastanchury Road has a four-lane configuration. Thus, the project site represents a segment of Bastanchury Road that is inconsistent with the Circulation Element and hinders mobility, connectivity, and safety along this important east-west corridor.

Additionally, the current roadway profile is such that the current speed limit is limited to 40 miles per hour (MPH). The majority of the remainder of Bastanchury Road has a speed limit of 45 MPH. Thus, the proposed project would address existing deficiencies, improve mobility, connectivity, and safety, and complete this segment of Bastanchury Road consistent with the General Plan Circulation Element.

2.5 PROJECT CHARACTERISTICS

The City of Yorba Linda proposes to improve this segment of Bastanchury Road to enhance mobility and safety for drivers, bicyclists, and pedestrians within the project area. Based on the General Plan and OCTA's 2018 Master Plan of Arterial Highways (MPAH), Bastanchury Road is considered as a Modified Primary Arterial Highway. The project would raise the road profile a maximum of approximately six feet, widen the roadway segment (along Bastanchury Road from Eureka Avenue to Casa Loma Avenue) from two travel lanes (one travel lane in each direction) to a total of four travel lanes (two lanes of travel in each direction) to match the existing roadway configuration east of Eureka Avenue and west of Casa Loma Avenue; refer to Exhibit 2-3, *Conceptual Plan*. Additionally, the proposed project improvements would improve the current deficient stopping sight distance for motorists traveling on the road, improving safety. The project proposes to install traffic signals at the intersections of Bastanchury Road/Eureka Avenue and Bastanchury Road/Casa Loma Avenue, and would include a left-turn lane at each intersection along Bastanchury Road. New north/south crosswalks are proposed for Bastanchury Road/Eureka Avenue on both legs of the intersection. The westerly leg of Bastanchury Road/Casa Loma Avenue intersection would also include a new north/south crosswalk. To accommodate planned development located on a vacant parcel north of the project site, a driveway would be installed along with an eastbound left-turn lane to provide future access to the site. Sidewalk would be installed north of the westbound travel lanes. A 10-foot wide Class 1 multi-purpose trail and an approximately 10-foot high retaining/property wall (seven feet exposed) would be installed south of the eastbound travel lanes. Existing eucalyptus trees (approximately 40) located on the southerly side of Bastanchury Road would be removed as part of the proposed project. Generally, the proposed roadway section would consist of the following:

- 10-foot striped center median;
- Four 11-foot travel lanes (two lanes in each direction)
- Five-foot bike lane;
- Eight-foot sidewalk on the northerly side of the road; and
- 10-foot Class I multi-purpose trail on the southerly side of the road.



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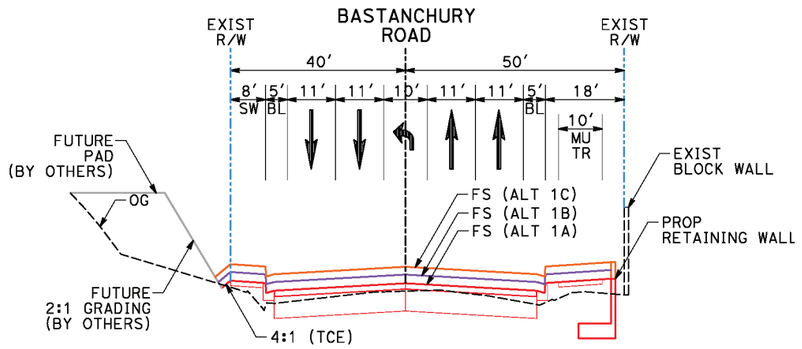

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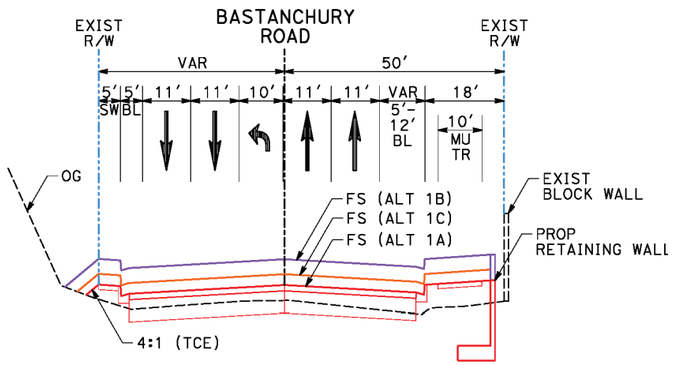

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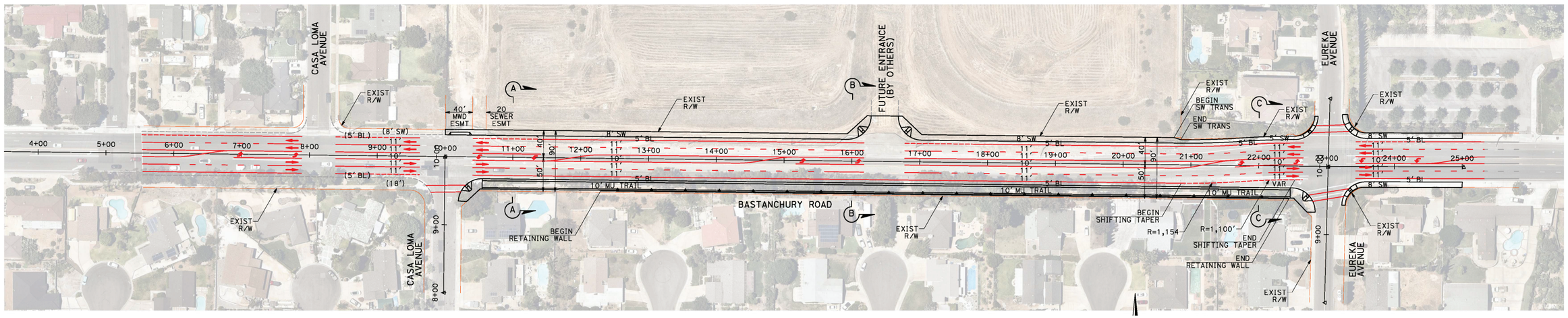

NOT TO SCALE

Michael Baker INTERNATIONAL

05/19 | JN 167987

BASTANCHURY ROAD IMPROVEMENT PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND)

Conceptual Plan

Exhibit 2-3

Back of 11x17

The proposed on-site roadway profile improvements would enhance the existing line-of-sight, thereby allowing for increased travel speed from 40 miles per hour MPH to 45 MPH.

AMERICANS WITH DISABILITIES ACT COMPLIANT FACILITIES

The project proposes to incorporate Americans with Disabilities Act (ADA) compliant facilities including access ramps at the corner of Casa Loma Avenue and Eureka Avenue and an eight-foot concrete sidewalk on the northerly side of Bastanchury Road. The proposed sidewalk would provide continuous pedestrian access between Eureka Avenue and Casa Loma Avenue.

RETAINING/PROPERTY WALL

The existing residential wall located on the southerly side of the road would be demolished and replaced with a Caltrans retaining wall Type 5SW with masonry block wall on top. Following demolition of the existing wall and prior to construction of the new wall, temporary fencing would be installed for safety and aesthetic purposes.

UTILITY IMPROVEMENTS

Two existing catch basins would be relocated and adjusted due to the proposed improvements. The existing drainage pattern would be maintained.

Existing electrical overhead lines and poles would be relocated as part of the proposed improvements. Additional street lighting would be provided at the proposed northerly driveway access for the future development, increasing visibility.

RIGHT-OF-WAY ACQUISITION / CONSTRUCTION EASEMENTS

Permanent right-of-way acquisition would not be required for the proposed improvements. Temporary Construction Easements (TCEs) would be required from the residents adjoining the southern portion of the project site for the construction of the retaining/property wall and the property located at the northwest corner of Eureka Avenue and Bastanchury Road. An easement may be required to allow continued access to the wall for inspection and maintenance purposes.

PHASING AND CONSTRUCTION

Construction of the project would occur in a single phase. Construction is anticipated to begin in 2020 and would last approximately 12 months.

2.6 PERMITS AND APPROVALS

The proposed project would require permits and approvals from the City of Yorba Linda and other agencies prior to construction. These permits and approvals are described below and may change as the project entitlement process proceeds.

City of Yorba Linda
- California Environmental Quality Act Clearance
- Plan Review
- Tree Removal Permit

Storm Water Regional Control Board (SWRCB)
- Construction General Permit

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3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1. Project Title:

Bastanchury Road Improvement Project (Casa Loma Avenue to Eureka Avenue)

2. Lead Agency Name and Address:

City of Yorba Linda
4845 Casa Loma Avenue
Yorba Linda, California 92886

3. Contact Person and Phone Number:

Rick Yee, P.E.
714.961.7171

4. Project Location:

The project site is located along Bastanchury Road, approximately 0.4-mile east of Imperial Highway (State Route 90) and 3.2 miles north of State Route 91 (SR-91), between Eureka Avenue and Casa Loma Avenue in the City of Yorba Linda, California.

5. Project Sponsor's Name and Address:

City of Yorba Linda
4845 Casa Loma Avenue
Yorba Linda, California 92886

6. General Plan Designation:

Bastanchury Road is designated "Modified Primary 4 Lane" arterial by the *2016 Yorba Linda General Plan* (General Plan). Additionally, areas along the northern side of Bastanchury Road are designated residential ("R-Medium Low") and "Shell Property Area Plan" by the General Plan. Areas along the southern side of Bastanchury Road are designated residential ("R-Medium") by the General Plan.

7. Zoning:

As a roadway facility, Bastanchury Road does not have a designation under the *City of Yorba Linda Municipal Code.* However, areas along the northern side of Bastanchury Road are designated "Residential Estate," "Vista del Verde Planned Development," "West Bastanchury Planned Development," and "Oil Production Combining Zone" by the *City of Yorba Linda Zoning Map* (Zoning

Map). Areas along the southern side of Bastanchury Road are designated "Residential Suburban" and "Oil Production Combining Zone" by the Zoning Map.

8. Description of Project:

The Bastanchury Road Improvement Project (Casa Loma Avenue to Eureka Avenue) proposes to improve a segment of Bastanchury Road between Eureka Avenue and Casa Loma Avenue to enhance mobility and safety for drivers, bicyclists, and pedestrians within the project area. The project would raise the road profile a maximum of approximately six feet, widen the roadway segment from two travel lanes (one travel lane in each direction) to a total of four travel lanes (two lanes of travel in each direction) to match the existing roadway configuration east of Eureka Avenue and west of Casa Loma Avenue. Additionally, the proposed would improve the current deficient stopping sight distance for motorists traveling on along Bastanchury Road within the project limits, improving safety. The project proposes to install traffic signals at the intersections of Bastanchury Road/Eureka Avenue and Bastanchury Road/Casa Loma Avenue, and would include a left-turn lane at each intersection along Bastanchury Road. To accommodate planned development located on a vacant parcel north of the project site, a driveway would be installed along with an eastbound left-turn lane to provide future access to the site. Sidewalk would be installed north of the westbound travel lanes. A 10-foot wide Class 1 multi-purpose trail and an approximately 10-foot high retaining/property wall (seven feet exposed) would be installed south of the eastbound travel lanes.

9. Surrounding Land Uses and Setting:

Surrounding uses along the project site include:

- Land north of the project site is designated residential; however, the land northwest of the project site is single-family; north is vacant graded land; and northeast is single-family and institutional uses.
- Residential land uses are located to the south.
- Bastanchury Road, a Modified Primary Arterial, continues east and west of the project site.

10. Other public agencies whose approval is required:

Refer to Section 2.6, *Permits and Approvals*, for a description of the range of local, regional, and State approvals anticipated to be required for the project. Additional approvals may be required as the project entitlement process moves forward.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In compliance with AB 52, the City distributed letters to applicable Native American tribes informing them of the project in March 2019. Consultation was requested by the Gabrieleno Band of Mission Indians – Kizh Nation on March 22, 2019. On May 14, 2019, the City and tribal representatives consulted, and no tribal cultural resources were identified within project boundaries by the Gabrieleno Band of Mission

Indians - Kizh Nation. The City and Tribe concluded that due to the scope of the project, disturbed nature of the site, and limited depth of anticipated excavation, it is not expected that any tribal cultural resources as defined in Public Resources Code Section 21074 would be affected within the project area. Therefore, the proposed project would not have a significant impact to a historical resource, as defined in PRC Section 5020.1(k). Thus, impacts to a listed or eligible resource under the California Register of Historical Resources or a local register as defined under Public Resources Code section 5020.1(k) are anticipated to be less than significant.

3.2 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" or "Less Than Significant Impact with Mitigation Incorporated," as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	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	☒	Tribal Cultural Resources
☐	Utilities and Service Systems	☒	Wildfire	☒	Mandatory Findings of Significance

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- 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
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines and used by the City of Yorba Linda in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- *No Impact*. The development will not have any measurable environmental impact on the environment.

- *Less Than Significant Impact*. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- *Less Than Significant Impact With Mitigation Incorporated*. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- *Potentially Significant Impact*. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

4.0 ENVIRONMENTAL ANALYSIS

A Mitigated Negative Declaration has been prepared for the proposed project because an Initial Study concludes that the proposed Bastanchury Road Improvement Project (project) would not result in significant unavoidable environmental impacts, once mitigation measures are implemented. The following provides a discussion of the potential project impacts as identified in the Initial Study/Mitigated Negative Declaration (IS/MND). Explanations are provided within each corresponding impact category in this analysis.

4.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?				✓

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

No Impact. There are no designated scenic vistas or highways within or near the project area. The City's General Plan lists Telegraph Canyon, Brush Canyon, and San Juan Hills as scenic vistas within Yorba Linda. Limited views of these ridgelines are available along Bastanchury Road near Casa Loma Avenue and Eureka Avenue, but for the most part are interrupted by topography, vegetation, and urban development. The City's General Plan also references Chino Hills State Park, Santa Ana River, Featherly Park, and Yorba Regional Park within its discussion of scenic resources; however, views of these resources are currently not available from the project area. The project would result in roadway improvements and would not involve the implementation of any new structures or features that would impair views of a scenic vista.

The nearest officially designated State Scenic Highway is a stretch of State Route 91 (SR-91).[1] SR-91 is a Caltrans designated scenic highway from SR-55 near Santa Ana Canyon to east of Anaheim Caltrans Scenic Highway, and an Orange County designated Viewscape Corridor. This portion of SR-91 is located approximately 4.42 miles southeast of the project, with no views available to or from the project, as the topography is dominated by hills and natural greenery. Weir Canyon Road is located approximately 4.7 miles southeast of the project site and is an Orange County

[1] California Department of Transportation, *California Scenic Highway Mapping System*, http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/, accessed on April 4, 2019.

designated Viewscape Corridor.[2] Views between Weir Canyon Road and the project site are not available. Accordingly, there would be no potential impact to scenic vistas.

Mitigation Measures: No mitigation is required.

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

No Impact. As discussed in Response 4.1(a), there are no state scenic highways within the project area. The nearest scenic highway is approximately 4.42 miles away, and no views of the site are available. Therefore, there would be no impact in this regard.

Mitigation Measures: No mitigation measures required.

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?

Less Than Significant Impact. The project site is located within an urbanized area, and is surrounded primarily by residential development. The proposed project would implement improvements along Bastanchury Road that would achieve consistency with the City's General Plan Circulation Element, and the project would be designed in accordance with City design standards. The project would include roadway improvements, and would not include any new structures or features with the capacity to interfere with scenic views or vistas. The project would not conflict with any zoning requirements or other regulations pertaining to scenic quality. As noted above in Response 4.1(a), the project would not have any adverse effects on scenic vistas identified in the City's General Plan.

Approximately 40 eucalyptus trees along the southern side Bastanchury Road would be removed as part of project implementation. Based on Chapter 16.08, *Tree Preservation*, of the City's Municipal Code, the project would require a tree removal permit issued by the Community Development Director. During the permitting process, the Community Development Director would determine required conditions including replacement of trees subject to specifications as to number, size, type, and location. Impacts related to removal of trees would be less than significant.

The existing residential property wall located on the southerly side of the road would be demolished and replaced with a Caltrans Type 5SW retaining wall with masonry block wall on top. Following demolition of the existing wall and prior to construction of the new wall, temporary fencing would be installed for safety and aesthetic purposes. The temporary fencing would be similar in height to the existing wall and would be removed once the new wall is constructed, approximately a three-week duration. The anticipated fencing material would include a chain link with opaque fabric. As such, the impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. There are two primary sources of light: light emanating from building interiors that pass through windows and light from exterior sources (i.e., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). Light introduction can be a nuisance to adjacent uses and diminish the view

[2] County of Orange, *Scenic Highway Plan Map,* https://www.ocgov.com/civicax/filebank/blobdload.aspx?blobid=8588, accessed on April 4, 2019.

of the clear night sky. Currently, light and glare in the project vicinity is produced by vehicle headlights, street lighting, and lighting from the adjacent educational, recreational, commercial, and residential uses identified in Section 4.15, *Public Services*.

Mechanical equipment utilized during the short-term construction process would not be capable of producing substantial glare. In addition, it is not anticipated that nighttime construction would occur. Thus, no impact related to short-term light and glare is anticipated.

Traffic signals would be installed at the intersections of Bastanchury Road with Casa Loma Avenue and Eureka Avenue and street lighting would be provided at the proposed northerly driveway access for the future development but would be designed in compliance with City standards (e.g., traffic indicator and street light shielding to prevent light spillover), such that there would be no substantial impact to the project area. Furthermore, lighting from vehicle headlights would be similar to existing conditions since the project would not generate additional traffic beyond existing conditions. As such, the impact related to long-term operation of the project would be less than significant.

Mitigation Measures: No mitigation is required.

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4.2 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:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?				✓

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

No Impact. No farmland currently exists within the site vicinity. The project site occurs adjacent to City owned property located just north of Bastanchury Road. The City purchased the property in 1977 and leased the land to various agricultural interests consistent with the zoning classification of the property at the time (i.e., "Residential Agricultural"). As part of the 1993 General Plan, the property was redesignated as "Medium-Low Density Residential" with the corresponding zoning designation of "Residential Estate with an Oil overlay" (RE (O)). This property has been graded and no agricultural operations exist on the parcel. Based on the Orange County Important Farmland 2016 Map prepared by the California Department of Conservation, the proposed project site does not occur upon any area designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[1] Thus, no impacts would occur in this regard.

[1] California Department of Conservation Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Orange County Important Farmland 2016,* ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/ora16.pdf, accessed on March 28, 2019.

Mitigation Measures: No mitigation is required.

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

No Impact. According to the City of Yorba Linda Zoning Map (Zoning Map), areas along the northern side of Bastanchury Road are designated "Residential Estate," "Vista del Verde Planned Development," "West Bastanchury Planned Development," and "Oil Production Combining Zone" by the Zoning Map. Areas along the southern side of Bastanchury Road are designated "Residential Suburban" and "Oil Production Combining Zone" by the Zoning Map. As a roadway facility, Bastanchury Road does not have a designation under the City of Yorba Linda Municipal Code. There are no existing agricultural uses or associated zoning designations, and there is no Williamson Act contract within or near the project area.[2] Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. No forest or timberlands are present within or near the project area, and no such zoning exists in the project area. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. As discussed above, there is no forest land present within or near the project area; therefore, there no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. As discussed above, there is no existing or zoned farmland or forest land on-site. Land currently farmed by Manassero Farms exists approximately 0.12 miles east of the project areas; however, the project is a roadway improvement project and would not convert farmland to a non-agricultural use. Accordingly, there is no potential conversion of farmland to non-agricultural or non-forest uses.

Mitigation Measures: No mitigation is required.

[2] City of Yorba Linda, *Zoning Map,* https://www.yorbalindaca.gov/DocumentCenter/View/466/City-of-Yorba-Linda-Zoning-Map-PDF?bidId=, accessed on March 28, 2019.

4.3 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:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

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

Less Than Significant Impact. The project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). Consistency with the SCAQMD *2016 Air Quality Management Plan for the South Coast Air Basin* (2016 AQMP) means that a project is consistent with the goals, objectives, and assumptions set forth in the 2016 AQMP that are designed to achieve Federal and State air quality standards. According to the SCAQMD *CEQA Air Quality Handbook* (1993), in order to determine consistency with the 2016 AQMP, two main criteria must be addressed:

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) *Would the project result in an increase in the frequency or severity of existing air quality violations?*

Since the consistency criteria identified under the first criterion pertains to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Responses 4.3(b) and 4.3(c) below, short-term construction and localized concentrations of carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would not exceed SCAQMD's regional significance thresholds and would be less than significant. In addition, the project would not generate long-term operational emissions Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations.[1]

b) Would the project cause or contribute to new air quality violations?

As discussed in Responses 4.3(b) and 4.3(c), the proposed project would result in emissions that are below the SCAQMD thresholds, and localized concentrations of CO, NO_X, PM_{10}, and $PM_{2.5}$ would be less than significant during

[1] Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

project construction and operations. Therefore, the project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

The proposed project would result in less than significant impacts with regard to regional emissions and localized concentrations during project construction and would not generate operational air emissions. As such, the project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and Southern California Association of Governments (SCAG) air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

In the case of the 2016 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the *City of Yorba Linda General Plan* (General Plan), SCAG's regional growth forecast, and SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). The RTP/SCS also provides socioeconomic forecast projections of regional population growth. The proposed project would improve a segment of Bastanchury Road to enhance the mobility and safety for drivers, bicyclists, and pedestrians within the project area. As such, the project would not result in a change in land use for the existing project site and would improve mobility and safety. Thus, the proposed project would be consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RTP/SCS. Additionally, as the SCAQMD has incorporated these same projections into the 2016 AQMP, it can be concluded that the proposed project would be consistent with the projections included in the 2016 AQMP.

b) Would the project implement all feasible air quality mitigation measures?

The proposed project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Response 4.3(b) and 4.3(c). As such, the proposed project meets this 2016 AQMP consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth in the AQMP?

The AQMP contains air pollutant reduction strategies and demonstrates that the applicable ambient air quality standards can be achieved within the time frames required under Federal law. Growth projections from local general plans adopted by cities in the SCAQMD are provided to SCAG, which develops regional growth forecasts that are used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in the General Plan is considered to be consistent with the AQMP. As discussed above, the proposed project would not alter the General Plan land use designation for the project site. Therefore, the proposed project meets this AQMP consistency criterion.

In conclusion, the determination of 2016 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Also, the proposed project would be consistent with the goals and policies of the 2016 AQMP for control of fugitive dust (e.g., SCAQMD Rule 403). As discussed above, the proposed project's long-term influence would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2016 AQMP.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact.

Criteria Pollutants

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" O_3 is a photochemical pollutant, and needs volatile organic compounds (VOCs), NO_X, and sunlight to form; therefore, VOCs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these ozone precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). NO_X are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute

respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2). SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SO_X and lead. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOC's are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

Reactive Organic Gases (ROG). Similar to VOC, ROG are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC interchangeably.

Short-Term Construction Emissions

The project involves construction activities associated with site preparation, grading, and paving. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model version 2016.3.2 (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site.

The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to Appendix A, *Air Quality/GHG/Energy Data* for the CalEEMod outputs and results. Table 4.3-1, *Construction Related Emissions*, presents the anticipated daily short-term construction emissions.

Table 4.3-1
Construction Related Emissions

Emissions Source	Pollutant (pounds/day)[1,2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 1						
Construction Emissions[2]	4.87	49.46	38.10	0.07	6.40	4.05
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. The reduction/credits for construction emissions are based on "mitigation" included in CalEEMod and are required by the SCAQMD Rules. The "mitigation" applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. The emissions results in this table represent the "mitigated" emissions shown in Appendix A.

Refer to Appendix A, *Air Quality/GHG/Energy Data*, for assumptions used in this analysis.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (typically during demolition and construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. Most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and sulfur oxides (SO_X) combining with ammonia. $PM_{2.5}$ components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would implement all required SCAQMD dust control techniques (i.e., daily watering), limitations on construction hours, and adhere to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM_{10} and $PM_{2.5}$ concentrations. As depicted in Table 4.3-1, total PM_{10} and $PM_{2.5}$ emissions would not exceed the SCAQMD thresholds during construction.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-1, construction equipment and worker vehicle exhaust emissions would not exceed the established SCAQMD threshold for all criteria pollutants.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the SCAQMD, the ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. ROG emissions associated with the proposed project would not exceed the SCAQMD threshold for ROG emissions; refer to Table 4.3-1.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

Long-Term (Operational) Emissions

The project would widen Bastanchury Road from two travel lanes (one travel lane in each direction) to four travel lanes (two lanes of travel in each direction) from Eureka Avenue to Casa Loma Avenue to match the existing roadway configuration east of Eureka Avenue and west of Casa Loma Avenue. The project would not result in a change in land use or introduce new vehicle trips on-site and would be consistent with the roadway classification (a four-lane modified primary arterial) in the General Plan Circulation Element. Thus, the project would not generate operational air emissions compared to the baseline condition of Bastanchury Road and would enhance mobility and safety for drivers, bicyclists, and pedestrians within the project area. Furthermore, the project would not produce additional area source or energy source emissions compared to the exiting baseline conditions. Impacts would be less than significant in this regard.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and

character of exposed individual [e.g., age, gender]). In particular, ozone precursors VOCs and NO_x affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

Further, as noted in the Brief of Amicus Curiae by the SCAQMD (April 6, 2015), the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Furthermore, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD) (April 13, 2015), SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from ozone, as an example is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. Thus, as the project would not exceed SCAQMD thresholds for construction and would not generate operational air emissions, the project would not create health impacts related to air quality.

Conclusion

As summarized above, the project's short-term construction emissions would be below the SCAQMD thresholds and would result in a less than significant impact. Furthermore, the project would not result in long-term air quality impacts, as emissions would not change from existing baseline conditions. Thus, it can be reasonably inferred that the project's construction and operational emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the Basin. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Sensitive receptors near the project site include residences approximately 20 feet to the south of the Bastanchury Road Class-1 multi-purpose trail. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (stationary sources only). The project consists of roadway improvements to Bastanchury Road and would not include any stationary sources. Thus, only the LSTs for construction were analyzed in this IS/MND.

Localized Significance Thresholds

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project is located within Source Receptor Area (SRA) 16, North Orange County.

Construction LST

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day. Based on the SCAQMD guidance, the project would disturb a maximum of three acres of land per day during the grading phase. Therefore, the LST thresholds for two acres were utilized for the construction LST analysis. The closest sensitive receptors to the project site are residential uses approximately 20 feet to the south of the Bastanchury Road Class-1 multi-purpose trail. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive uses are 20 feet from the project site, the lowest available LST values for 25 meters were used.

Table 4.3-3, *Localized Significance of Emissions*, shows the localized construction-related emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 16, North Orange County. It is noted that the localized emissions presented in Table 4.3-3 are less than those in Table 4.3-1 because localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust), and do not include off-site emissions (i.e., from hauling activities). As shown in Table 4.3-3, the project's localized construction emissions would not exceed the LSTs for SRA 16. Therefore, localized significance impacts from construction would be less than significant.

Table 4.3-2
Localized Significance of Emissions

Source	Pollutant (pounds/day)[3]			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Construction (Site Preparation)				
On-Site Emissions with SCAQMD Rules Applied[1,2]	22.14	16.06	5.91	3.73
Localized Significance Threshold[3]	147	724	6	4
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:

1. The Site preparation phase emissions are presented as the worst-case scenario for NOx, CO, PM_{10}, and $PM_{2.5}$.
2. The reduction/credits for construction emissions applied in CalEEMod are based on the application of dust control techniques as required by SCAQMD Rule 403. The dust control techniques include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads three times daily; and limit speeds on unpaved roads to 15 miles per hour.
3. The Localized Significance Threshold was determined using Appendix C of the SCAQMD Final Localized Significant Threshold Methodology guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (approximately three acres; therefore, the two-acre threshold was used), a distance of 25 meters to the closest sensitive receptor, and the thresholds for SRA 16.

Refer to Appendix A, *Air Quality/GHG/Energy Data*, for assumptions used in this analysis.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

According to the SCAQMD *CEQA Air Quality Handbook*, a potential CO hotspot may occur at any location where the background CO concentration already exceeds 9.0 parts per million (ppm), which is the 8-hour California ambient air quality standard. As previously discussed, the project site is located in SRA 16, North Orange County. Communities within SRAs are expected to have similar climatology and ambient air pollutant concentrations. The closest monitoring station with CO data that is most representative of SRA 16 is the Anaheim – 812 West Vermont Street monitoring station, which is located approximately 7.62 miles southeast of the project site. The highest CO concentration at the Anaheim – 812 West Vermont Street monitoring station was measured at 2.70 ppm in 2018.[2] As such, the background CO concentration does not exceed 9.0 ppm and a CO hotspot would not occur. Therefore, CO hotspot impacts would be less than significant in this regard.

Localized Air Quality Health Impacts

As evaluated above, the project's air emissions would not exceed the SCAQMD's LST thresholds and CO hotpots would not occur as a result of the proposed project. Therefore, the project would not exceed the most stringent applicable Federal or State ambient air quality standards for emissions of CO, NO_X, PM_{10}, or $PM_{2.5}$. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set in a stringent manner to protect children, elderly, and those with existing respiratory problems. Thus, the project would not result in localized air quality health impacts.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon project completion. Any impacts to existing adjacent land uses would be short-term and are less than significant.

Mitigation Measures: No mitigation is required.

[2] California Air Resources Board, *AQMIS2: Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed on April 23, 2019.

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4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓
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?				✓

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?

Less Than Significant Impact With Mitigation Incorporated. The project area is urbanized and developed. Vegetation within the project site consists of mature street trees, non-native ornamental species, landscaped groundcover, shrubs, and disturbed areas. As such, the project site does not provide suitable habitat for sensitive plant and/or wildlife species known to occur within the general area.

The proposed project may require the removal of existing ornamental vegetation, including mature trees, which could potentially affect nesting migratory birds. The proposed project is required to comply with the provisions of the Federal Migratory Bird Treaty Act (MBTA). As a regulation under the MBTA, and to avoid indirect impacts to nesting bird species within and adjacent to the project area, Mitigation Measure BIO-1 would be required. A pre-construction nesting bird clearance survey would clarify the need for avoidance and minimization measures prior to the start of construction or ground disturbing activities. With implementation of the recommended mitigation, potential construction-related impacts to nesting birds and raptors would be less than significant.

Mitigation Measures:

BIO-1 If ground-disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within the avian nesting season (nesting season generally extend from February 1 - August 31), a pre-construction clearance survey for nesting birds shall be conducted within three days prior to any ground disturbing activities. This measure shall apply to all areas within project site boundaries.

The biologist conducting the clearance survey shall document the negative results if no active bird nests are observed on the project site during the clearance survey with a brief letter report indicating that no impacts to active bird nests would occur before construction can proceed. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer shall be 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity.

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?

No Impact. As noted in Response 4.4(a), above, the project site does not provide suitable habitat for sensitive plant and/or wildlife species known to occur within the general area. Vegetation within the project site consists of mature street trees, non-native ornamental species, landscaped grass, and disturbed areas. There are no riparian areas or wetlands within the project area due to the developed and urbanized nature of the project area. As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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?

No Impact. As discussed above, the project area is urbanized and developed. Vegetation within the project site consists of mature street trees, non-native ornamental species, landscaped grass, and disturbed areas. There are no riparian areas or wetlands within the project area. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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?

No Impact. Urbanization of the project vicinity has confined the limits of the migratory corridors and linkage to natural areas. Past development of the project site (i.e., residential, agricultural, and roadway uses) has removed natural plant communities that once occurred and thus provides limited habitat for wildlife to use during migration. As a result, the proposed improvements on the project site would not disrupt or have any adverse effects to the wildlife movement. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The proposed project would not conflict with local policies or ordinance protection biological resources. Undisturbed, native plant communities are no longer present within the boundaries of the project site due to the existing development.

The proposed improvements would require removal of portions of existing landscaping and vegetation in the roadway parkways and slopes. Approximately 40 eucalyptus trees along the southern side of Bastanchury Road would be removed as part of project implementation. Based on Chapter 16.08, *Tree Preservation*, of the City's Municipal Code, the project would require a tree removal permit issued by the Community Development Director. During the permitting process, the Community Development Director will determine required conditions including replacement of trees subject to specifications as to number, size, type, and location. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact. According to the California Department of Fish and Wildlife's *California Natural Community Conservation Plans* map, the proposed project is not located within the boundaries of any Habitat Conservation Plan or Natural Community Conservation Plan.[1] Therefore, the proposed project would not result in any impacts in this regard.

Mitigation Measures: No mitigation is required.

[1] California Department of Fish and Wildlife, *California Natural Community Conservation Plans,* April 2019.

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4.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to in § 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 formal cemeteries?			✓	

This section is based on the *Phase I Cultural Resources Assessment for the Bastanchury Road Widening Project* (Cultural Resources Assessment), prepared by VCS Environmental in May 2019 (refer to Appendix B, *Cultural Resources Assessment*).

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

No Impact. The Cultural Resources Assessment included a field survey and records search of the South Central Coast Information Center (SCCIC) database. Based on the results of the field survey and records search, there are no historical resources known to be present on-site. Based on the Cultural Resources Assessment, the only element of any historic age on the project site is Bastanchury Road itself. The addition of a new lane of travel to the northern side of the road, resurfacing of existing pavement, and construction of curb and gutter can be considered minor modifications of an existing roadway. However, the unimproved section of the north side of Bastanchury Road within the project site has previously been substantially impacted by heavy grading associated with the vacant parcel north of the roadway. As such, Bastanchury Road is not considered a historic resource and no impact to historical resources would occur. Impacts to prehistoric archaeological resources are analyzed under Response 4.5(b), below.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact With Mitigation Incorporated. As noted above, the Cultural Resources Assessment included a search for archaeological and historical records through the SCCIC. The record search included the project boundaries and a one-mile radius around the project boundaries. Sources consulted included archaeological records, Archaeological Determinations of Eligibility, historic maps, and the Historic Property Data File (HPDF) maintained by the California Office of Historic Preservation.

The records search determined that 14 cultural resources studies have been completed and three cultural resources have been recorded within a one-half mile radius of the project site. Of those, none are located within the project site. During the field survey, no archaeological resources were observed.

Although archaeological resources were not observed during the field survey, grading and excavation associated with the project has the potential to affect unknown buried resources. As such, Mitigation Measure CUL-1 has been incorporated, and would require an archaeologist (and Native American representative) be on-call during project

grading activities. Upon implementation of recommended mitigation, impacts would be less than significant in this regard.

Mitigation Measures:

CUL-1 Prior to the issuance of grading permits, a qualified archaeologist (and Native American representative) shall be retained by the City of Yorba Linda to be on-call during grading activities in the event of a cultural resource discovery. The archaeologist shall be present at the pre-grade conference and shall establish, in cooperation with the City, procedures for temporarily halting or redirecting work, if any is ongoing, to protect the find and permit the sampling, identification, and evaluation of the discovery when the archaeologist is present. If archaeological resources are discovered, the City and archaeologist (and Native American representative) shall be immediately informed and shall determine appropriate actions, for exploration and/or salvage of the find. Significant sites that cannot be avoided may require data recovery measures and shall be completed upon approval of a Data Recovery Plan.

In the event Native American resources are discovered, the City of Yorba Linda shall consult with the Native American representative and affected tribe(s). If requested by the affected tribe(s), the City of Yorba Linda shall consult on the discovery and its disposition (e.g., avoidance, preservation, return of artifacts to the appropriate tribe, etc.).

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. No conditions exist that suggest human remains are likely to be found on the project site. Due to the level of past disturbance on-site, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or disturbance activities. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the "most likely descendant." If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with existing State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be considered less than significant.

Mitigation Measures: No mitigation is required.

4.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

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

***Less Than Significant Impact*.**

Project-Related Sources of Energy Consumption

This analysis focuses on three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips associated with new development and for project construction. The analysis of operational electricity/natural gas usage is based on the California Emissions Estimator Model version 2016.3.2 (CalEEMod) modeling results for the project, which quantifies energy use for occupancy. The project's estimated electricity/natural gas consumption is based primarily on CalEEMod's default settings for Orange County, and consumption factors provided by Southern California Edison (SCE) and Southern California Gas (SoCal Gas) (the electricity and natural gas providers for the City of Yorba Linda). The results of the CalEEMod modeling are included in Appendix A, *Air Quality/GHG/Energy Data*. The amount of operational fuel consumption was estimated using the California Air Resources Board's Emissions Factor 2014 (EMFAC2014) computer program which provides projections for typical daily fuel usage in Orange County, and the project's annual vehicle miles traveled (VMT) outputs from CalEEMod. The estimated construction fuel consumption is based on the project's construction equipment list timing/phasing, and hours of duration for construction equipment.

The project is a roadway improvement project that proposes improvements to a segment of Bastanchury Road to enhance mobility and safety for drivers, bicyclists, and pedestrians within the project area. Project operations would not involve new buildings or uses which would introduce new permanent stationary or mobile sources of emissions within the project area. The project would not result in increased vehicular trips to and from the project site and would not generate new operational emissions. As a result, project operations would not increase energy, natural gas, or fuel consumption over existing conditions. The project's sole source of energy consumption (i.e., vehicle fuel consumption) would occur result from the use of construction equipment on-site, and mobile trips to and from the project site by construction workers, vendors, and soil hauling trucks, etc., during construction activities. The project's estimated construction energy consumption is summarized in Table 4.6-1, *Construction Energy Consumption*. As shown in Table 4.6-1, the project's construction fuel consumption would increase Orange County's consumption by 0.018 percent.

Table 4.6-1
Construction Energy Consumption

Energy Type	Project Annual Energy Consumption[1,3]	Orange County Annual Energy Consumption[2,]	Percentage Increase Countywide[2]
Fuel Consumption			
• Construction (Heavy-Duty Diesel Vehicle) Fuel Consumption[4]	28,329 gallons	157,249,702 gallons	0.018%

Notes:
1. As modeled in CalEEMod version 2016.3.2.
2. The project increases in automotive fuel consumption are compared with the projected Countywide fuel consumption in 2020, as calculated from the California Air Resources Board EMFAC2014.
3. The project is a roadway improvement project which would not involve new buildings, increased vehicular trips, or generate additional energy and natural gas consumption. As such, the project would not have annual energy, natural gas, or operational fuel consumption.
3. Project fuel consumption calculated based on CalEEMod results.

Refer to Appendix A, *Air Quality/GHG/Energy Data*, for assumptions used in this analysis.

Construction-Related Energy Consumption

Project construction would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site clearing, grading, and construction. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.

Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business. As indicated in Table 4.6-1, the project's fuel consumption from construction would be approximately 28,329 gallons, which would increase fuel use in the County by 0.018 percent. As such, construction would have a nominal effect on the local and regional energy supplies. It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. As such, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. As stated above in 4.6(a), project operation would not have operational energy, natural gas, or operational fuel consumption. The project would not generate vehicular trips and/or result in operational electricity, natural gas, or vehicular fuel consumption. The sole source of project energy consumption would consist of vehicle and equipment fuel consumption (heavy-duty diesel fuel consumption from on-site construction equipment and off-site vehicle trips) during construction activities. As shown in Table 4.6-1, the project's construction fuel consumption would be minimal compared to the Orange County region, and construction would be short-term and would cease immediately following completion. As such, the project would not conflict with any State or local plan for renewable energy or energy efficiency. Therefore, the proposed project would result in less than significant impacts associated with renewable energy or energy efficiency plans.

Mitigation Measures: No mitigation is required.

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4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) 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.				✓
2) Strong seismic ground shaking?		✓		
3) Seismic-related ground failure, including liquefaction?		✓		
4) 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 resource or site or unique geologic feature?		✓		

This section is based on the *Geotechnical and Pavement Investigation, Bastanchury Road Widening Project from Eureka Avenue to Casa Loma Avenue, Yorba Linda, California* (Geotechnical Investigation), prepared by GMU Geotechnical on October 23, 2018. The Geotechnical Investigation is provided as Appendix C of this IS/MND.

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

1) 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. Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Alquist-Priolo Earthquake Fault Zone.

The Geotechnical Investigation determined that the project site is not within a designated Alquist-Priolo Earthquake Fault Zone, and identified no known active or potentially active faults traversing the project site. The project site is

located within one mile of the Elsinore fault (Whittier Section), and three miles of the Puente Hills fault. Each fault is capable of generating up to 6.0 and 6.8 maximum earthquake magnitude (M_x). respectively; however, no part of these fault zones is located on-site. Thus, implementation of the proposed project would not result in the rupture of a known Alquist-Priolo earthquake fault and no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

2) Strong seismic ground shaking?

Less Than Significant Impact With Mitigation Incorporated. Southern California has numerous active seismic faults subjecting residents to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for residents and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires. Although no known active or inactive faults exists within the project vicinity and there is a very low probability of exposure to primary seismic hazards, secondary hazards pose a threat to the community as a result of the project's proximity to active regional faults.

The proposed project would not affect subsurface geology or the probability of a seismic event, nor would it include the development of any structures. The project would result in roadway improvements including widening and raising of the existing roadway profile. Project implementation would not expose people or structures to substantial adverse effects related to ground shaking. Roadway design and pavement construction would comply with existing City standards, including Title 15, Chapter 15.40, *Grading*, of the City's Municipal Code. In addition, as noted below in Mitigation Measure GEO-1, grading and construction activities associated with the project would be conducted in accordance with the recommendations included in the Geotechnical Investigation, related to site preparation, grading, fill material/placement, and trenching, among others. Thus, with adherence to the Grading Code and Mitigation Measure GEO-1, the potential impact pertaining to strong seismic ground shaking would be minimized to a less than significant level.

Mitigation Measures:

GEO-1 All grading and construction activities shall be conducted in conformance with the recommendations included in the geotechnical investigation for the proposed project prepared by GMU Geotechnical, Inc, titled *Geotechnical and Pavement Investigation, Bastanchury Road Widening Project From Eureka Avenue to Casa Loma Avenue, Yorba Linda, California* (October 23, 2018). The geotechnical investigation includes detailed recommendations related to site preparation, grading, fill material/placement, and trenching, among others. The City of Yorba Linda City Engineer shall verify that these recommendations have been incorporated into project plans and specifications prior to the issuance of any grading permit for the proposed project.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact With Mitigation Incorporated. Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Liquefaction is characterized by a loss of shear strength in the affected soil layers, thereby causing the soils to behave as a viscous liquid. Susceptibility to liquefaction is based on geologic and geotechnical data. River channels and floodplains are considered most susceptible to liquefaction, while alluvial fans have a lower susceptibility. Depth to groundwater is another important element in the susceptibility to liquefaction. Groundwater shallower than 30 feet results in high to very high susceptibility to liquefaction, while deeper water results in low and very low susceptibility.

Based on the Geotechnical Investigation prepared for the project, the project area is located within a liquefaction zone identified in the Santa Ana Quadrangle; however, soils examined within the project area were not determined to have properties that would potentially increase the likelihood of liquefaction as existing soils within the project area are predominantly comprised of clays and clayey sands. Silty sands or sands and gravel capped by impermeable sediment are most likely to be susceptible to liquefaction. Groundwater was not encountered during the subsurface investigation to approximately 10.75 feet below ground, and was determined to be unlikely to be encountered during project construction unless the groundwater rose to historic highs. As noted above, roadway design and pavement construction would comply with existing City standards, including Title 15, Chapter 15.40, *Grading*, of the City's Municipal Code. In addition, grading and construction activities associated with the project would be conducted in accordance with the recommendations included in the Geotechnical Investigation, related to site preparation, grading, fill material/placement, and trenching, among others (Mitigation Measure GEO-1). Thus, with adherence to the Grading Code and Mitigation Measure GEO-1, the impact pertaining to seismic-related ground failure would be minimized to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

4) Landslides?

No Impact. Based on the Geotechnical Investigation, the project site is not located within a zone susceptible to earthquake-induced landslides. Furthermore, no existing landslides were observed in the project area during the geotechnical investigation. Accordingly, there is no potential landslide impact that would potentially result from the project.

Mitigation Measures: No mitigation is required.

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

No Impact. As discussed in Response 4.7(3) above, the clay and clayey composition of soils within the project site have a low potential for expansion or swelling. The project would not alter the composition of onsite soils, and would result in no potential for soil erosion or loss of topsoil. Furthermore, the project would not result in a significant impact with adherence to existing National Pollutant Discharge Elimination System (NPDES) requirements, as further discussed in Response 4.10(a). The impact in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact With Mitigation Incorporated. As discussed above, the project is located within a liquefaction zone; however, soils present within the project area are not likely to be subject to liquefaction or spreading unless the groundwater rose to historic highs, and have no known history of subsidence. Additionally, the project area is not located on an active fault line, and there is no evidence of landslides having occurred in the area. Furthermore, roadway design and pavement construction would comply with existing City standards, including Title 15, Chapter 15.40, *Grading*, of the City's Municipal Code, and recommendations with the Geotechnical Investigation would be adhered to as noted in Mitigation Measure GEO-1. Thus, with adherence to the Grading Code and Mitigation Measure GEO-1, the potential impact pertaining to unstable geologic units and soils would be minimized to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

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?

Less Than Significant Impact With Mitigation Incorporated. As discussed above, existing soils within the project area are predominately clays and clayey sands, and would have a low potential for expansion, and are suitable for onsite re-use in this regard. The existing soils within the project site are composed primarily of sandy clays and clayey sands, based on expansion testing conducted as a part of the geotechnical investigation. The composition of soils within the project area are considered to have a low potential for expansion and a moderate potential for swelling. As noted above, roadway design and pavement construction would comply with existing City standards, including Title 15, Chapter 15.40, *Grading*, of the City's Municipal Code. In addition, grading and construction activities associated with the project would be conducted in accordance with the recommendations included in the Geotechnical Investigation, related to site preparation, grading, fill material/placement, and trenching, among others (Mitigation Measure GEO-1). Thus, with adherence to the Grading Code and Mitigation Measure GEO-1, the impact pertaining to expansive soils would be minimized to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

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

No Impact. The project would not involve the use of septic tanks or alternative waste water disposal systems, and no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact With Mitigation Incorporated. Paleontological resources were evaluated as a part of the Cultural Resources Assessment prepared for the project in May 2019. The study found that Younger Quaternary Alluvium covers the central and eastern portions of the project site, and was determined to be paleontologically insensitive. Paleontologically-sensitive older Quaternary Alluvium surface deposits are present in most of the project area at shallow depths. The eastern-most portion of the project area contains exposures of the late Pleistocene La Habra Formation, a unique geologic feature. No records of vertebrate fossils within project area were found, but two records of prior fossil discoveries were recorded in the same region.

The Cultural Resources Assessment further determined that grading or shallow excavation in the younger Quaternary Alluvium is unlikely to uncover fossils, but that deeper excavations throughout the project site, and excavation into older Quaternary Alluvium deposits may encounter fossils during construction. Monitoring procedures required under Mitigation Measure GEO-2 would require an on-call paleontologist to provide construction employee awareness training and be available to respond in the event paleontological resources are discovered. Therefore, with implementation of mitigation, the impact from the project would be less than significant in this regard.

Mitigation Measures:

GEO-2 Prior to the issuance of grading permits, a qualified paleontologist shall be retained to be on-call during grading activities in the event of a fossil discovery. The paleontologist will attend the pre-grade conference and establish procedures for temporarily halting or redirecting work, if any is ongoing, to protect the find and permit the sampling, identification, and evaluation of the discovery when the paleontologist is present. Sediment samples shall also be recovered from the vicinity of the discovery to determine the small-fossil potential. If a discovery is determined to be significant, additional excavations and salvage of the fossil shall be necessary to ensure that any impact to it is mitigated to a less than significant level.

4.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

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

Less Than Significant Impact.

Regulations and Significance Criteria

Global Climate Change

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO_{2eq})[1] concentration is required to keep global mean warming below 2 degrees Celsius (ºC), which in turn is assumed to be necessary to avoid dangerous climate change.

State

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 375. SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities' strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

[1] Carbon Dioxide Equivalent (CO_2eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team, made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Senate Bill 97. On June 19, 2008, the Office of Planning and Research (OPR) released a technical advisory on addressing climate change. This guidance document outlines suggested components to CEQA disclosure, including quantification of GHG emissions from a project's construction and operation; determination of significance of the project's impact to climate change; and if the project is found to be significant, the identification of suitable alternatives and mitigation measures.

SB 97, passed in August 2007, is designed to work in conjunction with CEQA and AB 32. SB 97 requires OPR to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof, including, but not limited to, the effects associated with transportation and energy consumption. The Draft Guidelines Amendments for Greenhouse Gas Emissions ("Guidelines Amendments") were adopted on December 30, 2009 and address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the Guidelines Amendments.[2] The Guidelines Amendments require a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The Guidelines Amendments give discretion to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. Furthermore, the Guidelines Amendments identify three factors that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[3]

[2] See 14 California Code of Regulations Section 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHGs).
[3] 14 California Code of Regulations Section 15064.4(b).

The administrative record for the Guidelines Amendments also clarifies "that the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of California Environmental Quality Act's requirements for cumulative impact analysis."[4]

The California Natural Resources Agency is required to periodically update the Guidelines Amendments to incorporate new information or criteria established by CARB pursuant to AB 32. Senate Bill 97 applies to any environmental impact report (EIR), negative declaration, mitigated negative declaration, or other document required by CEQA, which has not been finalized.

SCAQMD Thresholds

The SCAQMD has formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting No. 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.[5]

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD is proposing a screening threshold of 3,000 metric tons of CO_2 equivalent ($MTCO_2eq$) per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. Under the Tier 4 second option the project would be excluded if it had early compliance with AB 32 through early implementation of CARB's Scoping Plan measures. Under the Tier 4 third option, the project would be excluded if it was below an efficiency-based threshold of 4.8 $MTCO_{2eq}$ per service population (SP) per year.[6] Tier 5 would exclude projects that implement off-site mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

GHG efficiency metrics are utilized as thresholds to assess the GHG efficiency of a project on a per capita basis or on a "service population" basis (the sum of the number of jobs and the number of residents provided by a project) such that the project would allow for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020 and 2035). GHG efficiency thresholds can be determined by dividing the GHG emissions inventory goal of the State, by the estimated 2035 population and employment. This method allows highly efficient projects with higher mass emissions to meet the overall reduction goals of AB 32, and is appropriate, because the threshold can be applied evenly to all project types (residential or commercial/retail only and mixed use).

For the proposed project, the 3,000 $MTCO_2eq$ per year non-industrial screening threshold is used as the significance threshold, in addition to the qualitative thresholds of significance set forth below from Section VII of Appendix G to the CEQA Guidelines.

[4] Letter from Cynthia Bryant, Director of the Governor's Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.

[5] The most recent SCAQMD GHG CEQA Significance Threshold Working Group meeting was held on September 2010.

[6] The project-level efficiency-based threshold of 4.8 $MTCO_2eq$ per SP per year is relative to the 2020 target date. The SCAQMD has also proposed efficiency-based thresholds relative to the 2035 target date to be consistent with the GHG reduction target date of SB 375. GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. Applying this 40 percent reduction to the 2020 targets results in an efficiency threshold for plans of 4.1 $MTCO_2eq$ per SP per year and an efficiency threshold at the project level of 3.0 $MTCO_2eq$/year.

Project-Related Sources of Greenhouse Gases

Project-related GHG emissions would include emissions from construction activities. Construction of the project would result in direct emissions of CO_2, N_2O, and CH_4 from the operation of construction equipment. Transport of materials and construction workers to and from the project site would also result in GHG emissions. Construction activities would be short-term in duration and would cease upon project completion. Construction-generated GHG emissions were calculated using the California Emissions Estimator Model version 2016.3.2 (CalEEMod), which estimates a total of 369 $MTCO_2eq$ generated during construction of the proposed project; refer to Appendix A, *Air Quality/GHG/Energy Data*, for detailed model input/output data.

In terms of operational GHG emissions, the proposed project involves roadway improvements and does not propose a trip-generating land use. The proposed project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable GHG emissions from project operations. The project does not propose any buildings and therefore no permanent source or stationary source emissions. In addition, the project would not directly generate vehicle trips or not result in an increase in the rate of vehicle trips, a predominant source of GHG emissions. Rather, the proposed roadway improvements would provide improved mobility and safety for the drivers.

Therefore, neither construction nor operation of the project would generate GHG emissions that would exceed the SCAQMD screening threshold of 3,000 $MTCO_2eq$ per year and impacts. The project would relieve congestion and improve roadway operations consistent with the General Plan and would not directly generate new trips or GHG emissions. GHG impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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 does not have any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The project is a roadway improvement project that would improve deficient stopping sight distances for motorists, and enhance mobility and safety for drivers, bicyclists, and pedestrians within the project area consistent with the General Plan. As such, the project would also improve forms of mobility in the project area that do not require the usage of fossil fuels. Further, the project would generate 369 $MTCO_2eq$ during construction and would not have operational GHG emissions. Thus, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

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

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

Less Than Significant Impact. The short-term construction process for the proposed project would not involve the routine transport, use, or disposal of hazardous materials. With the exception of utilizing gasoline and diesel fuels for construction equipment, no other hazardous materials would be transported to or from the project site or used in the construction process. Fuels and solvents for construction would be stored and utilized pursuant to existing regulatory requirements. Therefore, the short-term construction impact would be less than significant in this regard.

As a roadway facility, long-term operation of the proposed roadway would not itself require the transport, use, or disposal of hazardous materials. However, it is reasonable to assume that vehicles transporting hazardous materials to other destinations would utilize the proposed roadway, similar to existing conditions. Although the proposed project would include additional through lanes and bicycle lanes to the existing roadway where the potential for the transport of hazardous materials exists, the impact in this regard would be less than significant with adherence to existing Federal and State laws and regulations. These include the Code of Federal Regulations (CFR) Title 49, Part 177, Carriage by Public Highway, which sets requirements for acceptable types of hazardous materials that can be transported by vehicle, inspections, driver training, recordkeeping, and loading and unloading; and California Health and Safety Code Division 20, Chapter 6.5, which sets strict permitting requirements for hazardous waste haulers and establishes contingency measures in the event of upset. Further, it is acknowledged that operations of the proposed project would

not increase the routine transport of hazardous materials, compared to the existing condition. Thus, the impact in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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?

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Construction Impact

During the short-term period of project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

Based on the *Phase I Cultural Resources Assessment for the Bastanchury Road Widening Project* (Cultural Resources Assessment), prepared by VCS Environmental in May 2019 (refer to Appendix B, *Cultural Resources Assessment*), Bastanchury Road was constructed by 1952 and the large parcel immediately north of the road was planted entirely with citrus orchards. However, between 2003 and 2010, the property to the north was cleared and graded for construction of future development. No know contamination has been reported in association with these past uses. Thus, no impacts associated with accidental release of hazardous materials in existing soils during grading activities are anticipated.

The project could result in potential construction-related effects due to the disturbance of traffic striping potentially containing lead-based paints (LBP). LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marking materials and hot-melt Thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Mitigation Measure HAZ-1 would ensure that potential LBP materials, if present, are properly disposed of during site disturbance. Impacts in this regard would be reduced to less than significant levels.

Last, it is acknowledged that the project site is located in the vicinity of a former oil well field (Yorba Linda [ABD]).[1] The project area, including the disturbed property to the north, has historically been subject to oil extraction activities, these activities ceased by 1977. All wells in the vicinity are reported to be plugged and abandoned (as of April 19, 2019). Based on available mapping through the California Department of Conservation, these wells do not appear to be situated on-site. However, implementation of Mitigation Measure HAZ-2 would require confirmation with the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), to verify that no wells are on-site and no further requirements regarding plugging and abandoning former oil wells are required. With implementation of the recommended Mitigation Measure HAZ-2, impacts regarding potential accidental release involving former oil wells would be reduced to less than significant levels.

[1] California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Well Finder, https://maps.conservation.ca.gov/doggr/wellfinder/#openModal, accessed on May 10, 2019.

Long-Term Operational Impact

Refer to Response 4.9(a), above, for a description of the impact related to existing and proposed operations at the site. Impacts in this regard would be less than significant.

Mitigation Measures:

HAZ-1 During final design, the City of Yorba Linda shall ensure that a certified consultant shall conduct lead-based paint surveys of pavement materials that will be demolished as part of the proposed project. If pavement materials are determined to contain lead, these materials shall be disposed of at an appropriate, permitted disposal facility as determined by a lead specialist.

HAZ-2 During, or prior to, final design, the City of Yorba Linda shall contact the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), to confirm that no oil wells are located within the boundaries of the project site. Should wells be present, or in the event DOGGR requires additional construction safety requirements for nearby wells, those construction requirements shall be met, as required by State law.

c) 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. There are no schools located within a 0.25-mile radius of the project. The closest school is Yorba Linda Middle School, located approximately 0.50 mile from the project at 444 Plumosa Drive in Yorba Linda. Thus, no impacts would result in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. The project site is not included on a list of hazardous materials sites pursuant to Government Code Section 65962.5.[2] Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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 project is not located within an airport land use plan and there are no public or private airports or airstrips within two miles of the project site. The nearest airport to the project site is the Fullerton Municipal Airport (FMA), approximately nine miles southwest of the project site. Based on the Appendix C of the Airport Master Plan, the project site is located outside of FMA airspace and Off-Airport Land Uses.[3] Therefore, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[2] California Environmental Protection Agency, Cortese List Data Resources, https://calepa.ca.gov/SiteCleanup/CorteseList/, accessed on May 10, 2019.

[3] City of Fullerton, *Airport Master Plan*, May 2004, https://www.cityoffullerton.com/gov/departments/dev_serv/planning_/airport_master_plan.asp, accessed on April 15, 2019.

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

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Construction Impact

The project would not impair any implementation of, or physically interfere with, any adopted emergency response plan or emergency evacuation plan. The project could require partial/temporary lane closures and reductions in speed limits during construction to ensure construction worker safety. As discussed in Section 4.15, *Public Services*, the project would not interfere with any fire or police response times or access with the inclusion of Mitigation Measure TR-1 during construction. Furthermore, the project is not located on any evacuation routes identified by the City of Yorba Linda and the Orange County Fire Authority (OCFA).[4] Therefore, impacts in this regard would be less than significant.

Long-Term Operational Impact

There would be no long-term operational impact resulting from the current project. The roadway would be expanded to include two through lanes in each direction, and the speed limit would be increased from 40 miles per hour (mph) to 45 mph, resulting in improved access for emergency services/evacuation through the project area. No impacts would result in this regard.

Mitigation Measures: Refer to Mitigation Measure TR-1.

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

No Impact. As discussed in Section 4.20, *Wildfire*, there is no potential to expose people or structures to wildland fires within the project area. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[4] *Evacuation Route Map*, Orange County Fire Authority, 2013, https://www.yorbalindaca.gov/DocumentCenter/View/134/Evacuation-Routes-PDF?bidId=, accessed on April 16, 2019.

4.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
1) Result in substantial erosion or siltation on- or off-site?				✓
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			✓	
3) 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?			✓	
4) Impede or redirect flood flows?			✓	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

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

Less Than Significant Impact.

Short-Term Construction Impact

The proposed project would be required to comply with the requirements of a Construction General Permit under the National Pollutant Discharge Elimination System (NPDES) program. A Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will list Best Management Practices (BMPs) the discharger would use to protect storm water runoff and the placement of those BMPs for construction activities may including measures to control and treat pollutants including fueling areas, trash storage areas, outdoor materials storage areas, and outdoor work areas. The SWPPP would also include a visual monitoring program, and a chemical monitoring program for "non-visible" pollutants, to be implemented if a failure of BMPs occurred during construction. Furthermore, as discussed in Response 4.7(a)(3), groundwater was not encountered during subsurface investigations to approximately 10.75 feet below ground, and is unlikely to be encountered during construction. Surface water was not identified within the project area during field evaluations however, two existing catch basins are located within the project area. These catch basins will be relocated during construction, and adjusted so that the existing drainage patterns will be maintained. Therefore, with implementation of

the Construction General Permit requirements, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction, and the impact would be less than significant in this regard.

Long-Term Operational Impact

The project would be designed to continue to operate as a roadway, and would not degrade surface or groundwater during long-term operations. The project would not result in the development of any new land uses or facilities that would have the potential to substantially affect surface or groundwater quality. Specifically, the project would comply with Santa Ana Regional Water Quality Control Board (RWQCB) issued Order No. R8-2009-0030, NPDES Permit No. CAS618030 as Amended by Order No. R8-2010-0062, Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and the incorporated Cities of Orange County within the Santa Ana Region during long-term operations. Therefore, in this regard, the impact would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. As a roadway improvement project, the proposed project would not result in any groundwater extraction or have the capacity to impede groundwater management of the basin. Limited decreases in groundwater percolation would occur because of the proposed minor increase in impervious surfaces due to roadway widening activities; however, the project is located in an urbanized area, and would not substantially impede percolation to the extent that groundwater levels would be affected. The Santa Ana RWQCB Waste Discharge Requirements (WDRs) would provide regulations related to effluent limits, discharge specifications, receiving water limitations, in addition to a wide range of standard provisions and monitoring/reporting activities that would minimize the potential water quality impact. Thus, the impact in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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:

1) Result in substantial erosion or siltation on- or off-site?

No Impact. As discussed in Section 4.7(b), soils within the project site are not prone to erosion or siltation. The majority of the project site is currently paved. The project would be designed and constructed to maintain this condition, including maintaining existing drainage patterns. Therefore, there would be no impact in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The project would increase the amount of impervious surface within the project site; however, the increase would be minimal as compared to existing conditions. As discussed in Response 4.10(b), the limited increase in impervious surface would not result in substantial on- or off-site effects including surface runoff and flooding. The project would be subject to City requirements in regards to stormwater runoff to ensure adequate drainage. Accordingly, the impact would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

3) 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. Refer to Responses 4.10(a) and 4.10(c)(2), above. The impact in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

4) Impede or redirect flood flows?

Less Than Significant Impact. Refer to Response 4.10(c)(2), above. The project would maintain existing drainage patterns on site. Any minor increase in impervious area is not anticipated to result in a potential impact related to flood flows. The project would be subject to City requirements in regards to stormwater runoff to ensure adequate drainage, and the impact in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes.

According to the Federal Emergency Management Agency, the project area is located in Zone X, an area of minimal flood hazard that may be susceptible to 500-year flooding.[1] The project is not located within a United Stated Geological Service (USGS) Quadrangle determined to be at risk for tsunami inundation.[2] Additionally, there are no enclosed or semi-enclosed water bodies in proximity to the site that would be capable of inundating the site as a result of seiche. Therefore, the risk of release of pollutants due to inundation is considered low, and the impact in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact. As discussed in Responses 4.10(a) and 4.10(b) above, the project would comply with NPDES and RWQCB requirements, and would not have the capacity to affect groundwater management in the project area. Therefore, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[1] *FEMA Flood Map Service Center, FIRM Map 06059C0064J, effective on 12/03/2009,* https://msc.fema.gov/portal/search?AddressQuery=yorba%20linda%2C%20ca#searchresultsanchor, accessed on April 17, 2019.
[2] *Orange County Tsunami Inundation Maps*, https://www.conservation.ca.gov/cgs/tsunami/maps/Orange, accessed on May 9, 2019.

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4.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				✓

a) Physically divide an established community?

No Impact. The project would not physically divide an established community. The project area is located along Bastanchury Road, and is located within existing City right-of-way. No existing habitable structures would be affected by the project, and the project would not alter existing land uses. The project would result in a beneficial impact, because it would promote multimodal circulation by adding a bicycle lane and additional vehicle travel lanes to improve mobility and safety. Therefore, there would be no impact in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. The Yorba Linda General Plan classifies land along the project area as R-Medium Low, R-Medium, and Shell Property Area Plan,[1] and the Yorba Linda Zoning Map lists current zoned land uses as Residential Estate, Vista del Verde Planned Development, West Bastanchury Planned Development, Residential Suburban, and Oil Production Combining Zone.[2] Implementation of the proposed intersection improvements would not result in a conflict with existing or planned uses as designated and zoned under the current General Plan designations and zoning designations for these areas. Existing land uses comply with these designations, and would continue to comply after construction of the project is complete. Therefore, the project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[1] City of Yorba Linda General Plan, *2016 General Plan Land Use Map*, https://www.yorbalindaca.gov/DocumentCenter/View/465/2016-General-Plan-Land-Use-Map-PDF?bidId=, accessed on April 14, 2019.

[2] City of Yorba Linda, *Zoning Map*, https://www.yorbalindaca.gov/DocumentCenter/View/466/City-of-Yorba-Linda-Zoning-Map-PDF?bidId=, accessed on April 14, 2019.

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4.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

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

No Impact. The project generally proposes roadway widening and bicycle lane installation along Bastanchury Road. Although various surrounding land uses are zoned "Oil Production Combining Zone," the project site consists of City right-of-way, and no mineral resource recover activities occur within the site. Historically, oil extraction occurred immediately to the north and south of the project area, but no mineral recovery activities currently occur in the project area, and no known mineral resources of value to the region and residents of the state underlie the project site.[1] Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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?

No Impact. There are no designated mineral resource recovery sites in the within or surrounding the project site. Accordingly, there is no potential impact in this regard.

Mitigation Measures: No mitigation is required.

[1] California Department of Conservation, *Mineral Lands Classification Map*, https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc, accessed on April 14, 2019.

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4.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air, and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately three dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between three dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of three dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.

REGULATORY FRAMEWORK

State Level

The State Office of Planning and Research Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL).

Local Level

City of Yorba Linda General Plan

The California Government Code requires that a noise element be included in the general plan of each county and City in the state. The *City of Yorba Linda* (City) *General Plan Noise Element* (Noise Element) evaluates the existing noise environment, future noise environment projections as well as identifies noise-sensitive land uses and major noise sources in the City. Table 4.13-1, *City of Yorba Linda Land Use Compatibility for Community Noise Environments*, presents the Noise Element guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories in the City.

Table 4.13-1
City of Yorba Linda Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (CNEL)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential-Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	70 – 85
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 77.5	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85
Office Buildings, Business Commercial and Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA

CNEL = community noise equivalent level; NA = not applicable

NORMALLY ACCEPTABLE: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
CONDITIONALLY ACCEPTABLE: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
NORMALLY UNACCEPTABLE: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise-insulation features must be included in the design.
CLEARLY UNACCEPTABLE: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, California, *General Plan Guidelines,* October 2003.

The Noise Element provides goals, policies, and implementation programs designed to minimize noise problems and to protect public health. The Noise Element includes the following goals, policies, and implementation programs applicable to the proposed project:

Goal N-1 Indoor and outdoor living areas that are adequately protected from excessive transportation noise impacts.

- Policy N-1.1 Ensure existing transportation noise sources comply with the City's noise ordinance.
- Policy N-1.2 Consider appropriate technologies to mitigate excessive noise where necessary or where feasible.
- Policy N-1.3 Ensure noise mitigation measures are clearly articulated and implemented prior to the approval of new roadway projects.
- Policy N-1.4 Ensure potentially excessive noise generators provide for the highest feasible level of noise mitigation and compliance with local, state, and federal noise standards.
- Policy N-1.5 Promote alternative transportation modes such as walking, bicycling, equestrian transportation, and transit to contribute to reducing or minimizing potential noise impacts.

Goal N-2 Noise and land use compatibility.

- Policy N-2.1 Ensure compliance with the City's established noise thresholds for various land uses.
- Policy N-2.2 Ensure compliance with the City's established noise thresholds for noise sensitive receptors, land uses, and activities.
- Policy N-2.3 Ensure noise producing land uses and activities are designed and located to consider impacts to adjacent uses and activities.

Goal N-4 Project approvals that include conditions to mitigate noise impacts.

- Policy N-4.1 Consider noise impacts in the siting, design, and construction of new development to minimize noise impacts.
- Policy N-4.2 Consider alternative architectural layouts as a means of meeting noise requirements.
- Policy N-4.3 Consider a combination of noise barriers, landscape berms, and architectural design treatments when needed to mitigate noise impacts.
- Policy N-4.5 Consider measures which alter, prohibit or mitigate noise generating uses through site design.

City of Yorba Linda Municipal Code

Based on the Federal and State guidelines, the City provides noise guidelines and standards for significant noise disturbances in City of Yorba Linda Municipal Code Chapter 8.32, *Noise Control* (Municipal Code). This Chapter is intended to assess noise disturbances and prohibit loud, annoying, and unnecessary noises for the purpose of securing and promoting the public health, comfort, convenience, safety, welfare, prosperity and peace and quiet of the City and its residents.

8.32.060 Noise standards – Exterior.

A. The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

Noise Standards

Noise Zone	*Noise Level*	*Time Period*
I	*55 dBA*	*7 a.m.-10 p.m.*
	50 dBA	*10 p.m. – 7 a.m.*

B. It is unlawful for any person, at any location within the City, to create any noise which causes the noise level when measured on any residential property to exceed:

1. *The noise standard for a cumulative period of more than thirty minutes in any hour;*
2. *The noise standard plus five dB(A) for a cumulative period of more than fifteen minutes in any hour;*
3. *The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour;*
4. *The noise standard plus fifteen dB(A) for a cumulative period of more than one minute in any hour; or*
5. *The noise standard plus twenty dB(A) for any period of time.*

C. In the event the ambient noise level exceeds any of the five noise limit categories stated in subsection B of this section, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. Furthermore, the maximum permissible noise level shall never exceed the maximum ambient noise level.

D. Each of the noise limits specified in this section shall be reduced by five dB(A) for impact or simple tone noises or for noises consisting of speech or music. (Prior code § 19A-5)

8.32.060 Noise standards – Interior.

A. It is unlawful for any person at any location within the City to create any noise which causes the noise level when measured within a dwelling unit on any residential property during the period ten p.m. to seven a.m. to exceed:

1. *Forty-five dB(A) for a cumulative period of more than five minutes in any hour;*
2. *Fifty dB(A) for a cumulative period of more than one minute in any hour; or*
3. *Fifty-five dB(A) for any period of time.*

B. In the event that the ambient noise level exceeds any of the above three noise limit categories, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. Furthermore, the maximum permissible noise level shall never exceed the maximum ambient noise level. (Prior code § 19A-6)

8.32.090 Noise standards – Exemptions

The following activities shall be exempt from the provisions of this chapter:

A. School bands, school athletic and school entertainment events;

B. Activities otherwise lawfully conducted on parks, public playgrounds and school grounds, provided such parks, playgrounds and school grounds are owned and operated by a public entity;

C. Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicles or work;

D. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of eight p.m. and seven a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday;

E. All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions;

F. Mobile noise sources associated with agricultural operations, provided such operations do not take place between the hours of eight p.m. and seven a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday;

G. Mobile noise sources associated with agricultural pest control through pesticide application, provided that the application is made in accordance with restricted material permits issued by or regulations enforced by the Agricultural Commissioner;

H. Noise sources associated with the maintenance of real property used for residential purposes, provided said activities take place between the hours of seven a.m. and eight p.m. on any day except Sunday, or between the hours of nine a.m. and eight p.m. on Sunday;

I. Any activity to the extent regulation thereof has been preempted by state or federal law.

J. Noise sources associated with the maintenance of real property owned or operated by a public entity, such as but not limited to golf courses, libraries, municipal buildings, parks, playgrounds, recreation facilities, and school grounds. (Ord. 2008-922, § 1, 2008; prior code § 19A-7)

BASELINE CONDITIONS

Stationary Sources

The project area is located within a developed suburban area. The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment, parking areas, and pedestrians). The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Mobile Sources

The majority of the existing noise in the project area is generated from traffic along surrounding roadways including Bastanchury Road, Casa Loma Avenue, Denver avenue, and Eureka Avenue. Based off the City's *General Plan Environmental Impact Report* (GPEIR) dated May 2016, the segment of Bastanchury Road from Imperial Highway to Lakeview Avenue experiences a CNEL of 66.1 dBA at 50 feet from the near-travel-lane centerline.

Noise Measurements

In order to quantify existing ambient noise levels in the project area, Michael Baker International conducted four short-term noise measurements on May 2, 2019; refer to Appendix D, *Noise Data*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The 10-minute measurements were taken between 2:15 p.m. and 3:30 a.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. Noise measurements were taken during "off-peak" (9:00 a.m. through 3:30 p.m.) traffic noise hours as this provides a more conservative baseline. During rush hour traffic, vehicle speeds and heavy truck volumes are often low. Free-flowing traffic conditions just before or after rush hour often yield higher noise levels.[1] The average noise levels and sources of noise measured at each location are identified in Table 4.13-2, *Noise Measurements*.

Table 4.13-2
Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
1	At the end of the San Simeon Cul-de-sac; perpendicular to Bastanchury Road.	50.0	41.7	70.8	95.8	2:19 p.m.
2	South of Bastanchury Road; on the corner of Casa Coma and Bastanchury Road.	71.1	48.5	81.6	95.6	2:33 p.m.
3	North of Bastanchury Road; on the corner of Casa Loma and Bastanchury Road.	65.8	43.5	77.5	97.5	2:46 p.m.
4	South of Bastanchury Road; on the corner of Eureka Avenue and Bastanchury Road.	69.2	46.4	78.9	94.2	3:02 p.m.
5	North of Bastanchury Road; on the corner of Eureka avenue and Bastanchury Road.	72.6	52.0	82.0	96.8	3:17 p.m.

Source: Michael Baker International, May 2, 2019.

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptors to the project site are single-family residences approximately 20 feet to the south of the proposed Class I multipurpose trail to the south of the eastbound lanes.

[1] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

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?

Less Than Significant Impact with Mitigation Incorporated. It is difficult to specify noise levels that are generally acceptable to everyone; noise that is considered a nuisance to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels or based on studies of the ability of people to sleep, talk, or work under various noise conditions.

Construction

Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Construction of the proposed project would include site preparation, trenching, grading activities, and paving. Ground-borne noise and other types of construction-related noise impacts typically occur during the site preparation and grading construction phases. These phases of construction have the potential to create the highest levels of noise. Typical noise levels generated by construction equipment that could be used for the project are shown in Table 4.13-3, Maximum Noise Levels Generated by Construction Equipment. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents (lasting less than one minute) such as dropping large pieces of equipment or the hydraulic movement of machinery.

Table 4.13-3
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)	L_{max} at 20 Feet (dBA)
Concrete Saw	20	90	98
Crane	40	79	87
Concrete Mixer Truck	40	79	87
Backhoe	40	78	86
Dozer	40	82	90
Excavator	40	81	89
Forklift	40	78	86
Paver	50	77	85
Roller	20	80	88
Tractor	40	84	92
Water Truck	40	80	88
Grader	40	85	93
General Industrial Equipment	50	85	93

Note:
1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)*, January 2006.

Construction noise impacts generally happen when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction activity occurs at the same precise location over an extended period of time (e.g., pile driving in one location for 8-10 hours in a day, or over a duration of several successive days). The closest sensitive receptors are residential uses approximately 20 feet to the south of the proposed Class I multi-purpose trail to the south of Bastanchury Road. Concrete saws represent the loudest piece of construction equipment that could be used during the site preparation phase. Concrete saws would be used at a minimum distance of 20 feet from the closest sensitive receptors (i.e. residential uses to the south). At this distance, concrete saws would generate a maximum noise level of 98 dBA L_{max}; refer to Table 4.13-3. However, construction would occur throughout the project site and would not be concentrated in or confined to one specific area of the project

site. Construction noise would be acoustically dispersed throughout the project site and not concentrated in one area near sensitive uses (i.e., residential uses to the north and south of the project site). Construction activities in any one area would be temporary and intermittent, and therefore not occur in any one particular area for the entire construction duration. Additionally, construction noise would be masked by ambient traffic noise along Bastanchury Road, and the existing perimeter wall around the residential uses would further attenuate construction noise at the nearby sensitive receptors.

Construction noise in the City is regulated by the Municipal Code Section 8.32.090, which identifies standards, specific noise restrictions, exemptions, and variances for sources of noise in the City. Section 8.32.090 establishes additional standards for various noise sources. Specifically, Section 8.32090(D) restricts construction activity such that no person may engage in or conduct construction activity between the hours of 8:00 p.m. and 7:00 a.m., Monday through Saturday. The Municipal Code section prohibits construction activity on Sundays and Federally recognized holidays. The proposed project would be required to comply with the construction time limitations within Section 8.32.090 of the Municipal Code.

Due to the temporary nature of construction, coupled with the fact that construction-related noise is a generally accepted reality in urbanized environments, the City does not promulgate standards for construction-generated noise. Adherence to the permitted hours of construction are required in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. Nonetheless, implementation of Mitigation Measure NOI-1 would ensure that project construction complies with allowable hours for construction noise and requires construction equipment to be equipped with properly operating and maintained mufflers and other state required noise attenuation devices to minimize construction noise levels at nearby sensitive receptors. Thus, a less than significant noise impact would result from construction activities.

Operational

Mobile Noise

An off-site traffic noise impact occurs when there is a discernible increase in traffic noise and the resulting noise level exceeds an established noise standard. In community noise considerations, changes in noise levels greater than 3 dBA are often identified as substantial, while changes less than 1 dBA would not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dBA. This is based on a direct immediate comparison of two sound levels. In a community noise situation, however, noise exposures are over a long period of time and changes in noise levels occur over years (rather than the immediate comparison made in a laboratory situation). Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dBA, and 3 dBA is the most commonly accepted discernible difference. A 5 dBA change is generally recognized as a clearly discernible difference. According to the 2013 California Department of Transportation (Caltrans) *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, doubling of traffic on a roadway would result in an increase of 3 dB (a barely perceptible increase).

Based on average daily traffic (ADT) volumes obtained from the *City of Yorba 2018 Average Daily Traffic Volumes report,* traffic volumes along Bastanchury Road (from Casa Loma Avenue to Eureka avenue) are 16,100 vehicles per day.[2] Traffic noise levels were modeled using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM2.5). TNM2.5 takes into account differences in topography and physical barriers (e.g., buildings, walls, etc.) to model traffic noise levels at discrete receptor locations. TNM2.5 runs were conducted for existing (two lanes on Bastanchury Road) and proposed project conditions (Four lanes on Bastanchury Road).

[2] City of Yorba Linda, *City of Yorba Linda 2018 Average Daily Traffic Volumes*, https://www.yorbalindaca.gov/DocumentCenter/View/439/Traffic-Flow-Map-PDF?bidId=, accessed on May 9, 2019.

Table 4.13-4, *Existing Exterior and Interior Traffic Noise Levels*, shows the existing traffic noise levels modeled in TNM2.5. As shown in Table 4.13-4, existing exterior noise levels would range from 53.7 dBA to a maximum of 66.3 dBA, and existing interior noise levels would range from 33.7 dBA to 46.3 dBA.

Table 4.13-4
Existing Exterior and Interior Traffic Noise Levels

Receptor No.[1]	Exterior Noise Levels (dBA Ldn)	Interior Noise Levels (dBA Ldn) [2]
R_1	66.3	46.3
R_2	54.4	34.4
R_3	63.8	43.8
R_4	53.7	33.7
R_5	56.0	36.0
R_6	57.8	37.8
R_7	58.4	38.4
R_8	56.6	36.6
R_9	62.9	42.9
R_10	61.6	41.6
R_11	55.1	35.1
R_12	57.8	37.8
R_13	57.6	37.6
R_14	59.8	39.8
R_15	57.8	37.8
R_!6	58.3	38.3

dBA = A-weighted decibel; Ldn = day/night average.

Notes:
1. Refer to Appendix D, *Noise Data,* for receptor locations .and for detailed modeling outputs.
2. A 20 dBA noise attenuation rate was utilized to determine the interior noise levels for standard construction per the U.S. Department of Housing and Urban Development, *The Noise Guidebook*, March 2009, page 14. Receptors the exposed to noise levels beyond the City's noise standards would be required to use heating, ventilation, and air conditioning (HVAC) to ensure a "closed window" condition is satisfied.

Table 4.13-5, *Proposed Project Exterior and Interior Traffic Noise Levels*, shows the traffic noise levels with implementation of the proposed project. As shown in Table 4.13-5, exterior noise levels would range from 54.1 dBA to a maximum of 68.4 dBA, and interior noise levels would range from 34.1 dBA to 48.4 dBA.

Table 4.13-6, *Traffic Noise Level Comparison,* compares the existing traffic noise levels with the proposed project traffic noise levels. As shown in Table 4.13-6, the project would result in a maximum increase of 2.7dBA in traffic noise at receptor R_11; refer to Appendix D, *Noise Data* for receptor locations and detailed modeling outputs. Thus, a 3 dBA increase in traffic noise levels would not occur and this would not be perceptible at the nearest receptors. Therefore, a less than significant impact would occur in this regard.

Table 4.13-5
Proposed Project Exterior and Interior Traffic Noise Levels

Receptor No.[1]	Exterior Noise Levels (dBA Ldn)	Interior Noise Levels (dBA Ldn) [2]
R_1	68.4	48.4
R_2	56.3	36.3
R_3	65.3	45.3
R_4	54.1	34.1
R_5	56.2	36.2
R_6	58.3	38.3
R_7	57.6	37.6
R_8	55.6	35.6
R_9	62.3	42.3
R_10	61.9	41.9
R_11	57.8	37.8
R_12	60.4	40.4
R_13	59.6	39.6
R_14	61.4	41.4
R_15	58.4	38.4
R_!6	60.1	40.1

dBA = A-weighted decibel; Ldn = day/night average.

Notes:
1. Refer to Appendix D, *Noise Data,* for receptor locations .and for detailed modeling outputs.
2. A 20 dBA noise attenuation rate was utilized to determine the interior noise levels for standard construction per the U.S. Department of Housing and Urban Development, *The Noise Guidebook*, March 2009, page 14. Receptors the exposed to noise levels beyond the City's noise standards would be required to use heating, ventilation, and air conditioning (HVAC) to ensure a "closed window" condition is satisfied.

Table 4.13-6
Traffic Noise Level Comparison

Receptor No.[1]	Existing with Build Exterior Noise Levels (dBA Ldn)	Existing Exterior Noise Levels (dBA Ldn)	Difference (Existing with Build minus Existing) (dBA Ldn)
R_1	68.4	66.3	2.1
R_2	56.3	54.4	1.9
R_3	65.3	63.8	1.5
R_4	54.1	53.7	0.4
R_5	56.2	56.0	0.2
R_6	58.3	57.8	0.5
R_7	57.6	58.4	-0.8
R_8	55.6	56.6	-1
R_9	62.3	62.9	-0.6
R_10	61.9	61.6	0.3
R_11	57.8	55.1	2.7
R_12	60.4	57.8	2.6
R_13	59.6	57.6	2
R_14	61.4	59.8	1.6
R_15	58.4	57.8	0.6
R_!6	60.1	58.3	1.8

dBA = A-weighted decibel; Ldn = day/night average; **Bold** text indicates a difference in noise level in exceedance of 3 dBa..

Notes:
1. Refer to Appendix D, *Noise Data,* for receptor locations .and for detailed modeling outputs.

Mitigation Measures:

NOI-1 Prior to initiation of construction, the City of Yorba Linda City Engineer shall ensure that the following measures are incorporated into construction contract documents:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- A construction notice shall be mailed to residents within a 150-foot radius of the project and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.
- All construction, maintenance, or demolition activities associated with the proposed project shall be limited to the hours between 7:00 AM and 8:00 PM Mondays - Saturdays. All construction on Sundays and Federal holidays shall be prohibited.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.).
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction equipment staging areas shall be located away from adjacent sensitive receptors.

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

Less Than Significant Impact. Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inch/second) appears to be conservative. As the nearest structures to project construction are residences, this threshold is considered appropriate. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Typical vibration produced by construction equipment is illustrated in Table 4.13-7, *Typical Vibration Levels for Construction Equipment*.

Table 4.13-7
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inches/second)	Approximate peak particle velocity at 30 feet (inches/second)
Large bulldozer	0.089	0.067
Loaded trucks	0.076	0.058
Small bulldozer	0.003	0.002
Jackhammer	0.035	0.026
Vibratory compactor/roller	0.21	0.160

Notes:
1. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006. Table 12-2.
2. Calculated using the following formula:
   $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$
   where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
   PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
   D = the distance from the equipment to the receiver

Source: Refer to Appendix D, *Noise Data*, for calculations and assumptions.

The closest structure to the project site where construction would occur is approximately 30-feet to the south of the proposed roadway improvements. The highest degree of groundborne vibration would be generated during the paving construction phase due to the operation of a vibratory roller. Based on the FTA data and as shown in Table 4.13-7, vibration velocities from vibratory roller operations would be 0.160 inch-per-second peak particle velocity (PPV) at 30 feet from the source of activity.[3] As such, the closest structure located 30 feet from vibratory roller operations would not experience groundborne vibration above the FTA significance threshold (i.e. 0.2 inch-per-second PPV). All residential structures surrounding the project site would be located at or further than 30 feet from vibratory roller operations. Additionally, project implementation would not result in increased heavy-duty truck trips or additional activities that would increase ground borne vibration at nearby structures. Thus, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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?

Less Than Significant Impact. The proposed project is not located within an airport land use plan. Further, there is no public airport, public use airport, or private airstrip located within two miles of the project site. The nearest airport to the project site is the Fullerton Municipal Airport, located approximately nine miles to the southwest of the project site. Therefore, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[3] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

4.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

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

Less Than Significant Impact. The proposed project would not involve the construction of any homes, businesses, or other uses that would result in direct population growth.

The project would involve roadway improvements along Bastanchury Road between Eureka Avenue and Casa Loma Avenue. While this would improve traffic efficiency in the project area, it is not expected to induce substantial population growth. The project would include the construction of a new driveway providing access to the vacant parcel to accommodate the planned residential development north of Bastanchury Road. However, the new planned residential development would be subject to separate, site-specific environmental review prior to construction of that project. The proposed project would achieve consistency with General Plan Circulation Element as it designates Bastanchury Road as a four-lane Modified Primary Arterial from the City limit to Fairmont Boulevard. As such, impacts in regards to growth inducement would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact. No people or housing would be affected by the proposed project, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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4.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
1) Fire protection?		✓		
2) Police protection?		✓		
3) Schools?				✓
4) Parks?			✓	
5) Other public facilities?				✓

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:

1) Fire protection?

Less Than Significant Impact With Mitigation Incorporated. The Orange County Fire Authority (OCFA) provides fire protection for the project vicinity. Station 10 is located approximately 0.65 miles southeast of the project area at 18422 Lemon Drive. Although the project would result in roadway improvements that could result in construction activities that result in partial/temporary lane closures and reductions in speed limits to ensure construction worker safety, Mitigation Measure TR-1 would be implemented. Mitigation Measure TR-1 would require implementation of a Transportation Management Plan (TMP), which would include various provisions to ensure continuous and adequate emergency access along Bastanchury Road during the construction process. Therefore, fire protection response times would not be significantly affected by the project.

As a roadway improvement, the project would not increase the need for fire protection. No habitable structures are proposed, and the project would not directly or indirectly induce population growth. The project would, however, increase the number of through lanes along Bastanchury Road within the project area on which fire engines would potentially use to respond to calls, resulting in a beneficial long-term impact. Therefore, the project would result in a less than significant adverse long-term impact to fire protection services.

Mitigation Measures: Refer to Mitigation Measure TR-1.

2) Police protection?

Less Than Significant Impact With Mitigation Incorporated. Police protection is provided within the project vicinity by the Orange County Sheriffs Department (OCSD), with one substation located in Yorba Linda. The Yorba Linda Police Substation is located at 20994 Yorba Linda Boulevard, approximately three miles east of the project site. As

noted above in Response 4.15(a)(1), the potential impact to emergency response/access related to project construction activities along Bastanchury Road would be minimized to a less than significant level through implementation of Mitigation Measure TR-1.

Additionally, the project would propose no habitable structures, and would not directly or indirectly induce population growth. The project would increase the number of through lanes along Bastanchury Road within the project area, which police would potentially use to respond to calls, resulting in a beneficial long-term impact. Therefore, the project would not result in a long-term impact in this regard.

Mitigation Measures: Refer to Mitigation Measure TR-1.

3) Schools?

No Impact. The proposed project would not directly or indirectly result in any student generation, as no homes or other growth inducing uses are proposed. Implementation of the proposed project would not result in the need for the construction of additional school facilities, as the project would not result in an increase in population. Therefore, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

4) Parks?

No Impact. There are three parks within a half mile of the project areas, with no potential for impact resulting from the project. Vista Del Verde Park is located one quarter mile northwest of the project area at 17600 Lakeview Avenue, with all access points located on Lakeview Avenue. Hurless Barton Park is located 0.35 mile south of the project area at 4579 Casa Loma Avenue, with access from Casa Loma Avenue. Veterans park is located 0.45 mile southwest of the project area at 4756 Valley View Avenue, with access from Valley View Avenue.

As a roadway improvement, the project would not generate the need for new or physically altered park facilities. No habitable structures are proposed as part of the project, nor would the project result in any direct or indirect growth inducement. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

5) Other public facilities?

No Impact. As shown above in Responses 4.14(a)(1) through 4.14(a)(4), the proposed project would not result in significant impact on public services or facilities. No other public facilities are anticipated to be affected by the project. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

4.16 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?		✓		

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?

No Impact. As stated in Response 4.15(a)(4), the proposed project would not result in an increase in demand on existing parks or other recreational facilities, and would not result physical deterioration of these facilities. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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 With Mitigation Incorporated. The project site includes an existing earthen multipurpose trail along the southerly side of Bastanchury Road that is used by equestrians, hikers, joggers, and bicyclists. The earthen portion of this trail begins at Casa Loma Avenue on the west, and extends to Eureka Avenue to the east. Within project boundaries, west of Casa Loma Avenue and east of Eureka Avenue, the earthen trail transitions to a sidewalk. Thus, the earthen portion of the trail along Bastanchury Road is discontinuous within project limits.

Project construction activities could potentially require temporary closure of the earthen trail to allow for roadway improvements and construction of the retaining/property wall along the southern side of Bastanchury Road. While closure of this segment of the trail may have adverse effects on recreational use, any impact would be temporary (up to approximately eight months) and the trail would be restored to pre-project conditions upon completion of construction. Additionally, as noted above, the earthen trail within the project site is discontinuous, and is surrounded to the east and west by sidewalk. However, to further minimize construction impacts in this regard, Mitigation Measure REC-1 has been incorporated. Mitigation Measure REC-1 would require that the City establish a signed detour route for equestrians, hikers, joggers, and bicyclists to ensure continuous access and travel through the project corridor for the duration of construction. Upon implementation of this mitigation, impacts would be less than significant.

Mitigation Measures:

REC-1 As part of the Traffic Management Plan (TMP) to be prepared for the project, the City of Yorba Linda shall address temporary closure of the existing earthen multipurpose trail located along the southerly side of Bastanchury Road. The TMP shall include a trail detour plan that shall identify a planned detour route

and a detour signage plan to provide adequate notification to trail users. The trail detour plan shall be included in project specifications, to be noted on project plans and subject to approval by the City of Yorba Linda City Engineer prior to final plan approval.

4.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				✓
b. Would the project 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?		✓		

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

No Impact. Bastanchury Road within the project limits is designated as a four-lane modified primary arterial in the General Plan Circulation Element. The existing segment of Bastanchury Road within project limits is a two-lane roadway. Immediately east and west of the project site, Bastanchury Road has a four-lane configuration. Thus, the project site represents a segment of Bastanchury Road that is inconsistent with the Circulation Element and hinders mobility, connectivity, and safety along this important east-west corridor. Thus, the project would achieve consistency with the City's General Plan Circulation Element.

The project would also be consistent with the City's 2005 Riding, Hiking, and Bikeway Trails Component to the Yorba Linda General Plan, which identifies a Class II bicycle lane and earthen multipurposed trail between Valley View Avenue and Lakeview Avenue.[1] The project would include Class II bicycle lanes and would restore the earthen multipurpose trail upon completion of construction. Because of the inclusion of these elements, the project would not conflict with any program plans, ordinances, or policies addressing the circulation system. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. The project would not conflict with CEQA Guidelines section 15064.3(b), because it would have no effect on vehicle miles travelled (VMT). Furthermore, the ultimate design for Bastanchury Road, with which the current project would comply, has already been analyzed as a part of the General Plan Circulation Element and General Plan EIR. The current project would match the portion of Bastanchury Road within the project limits with adjacent portions of Bastanchury Road. The project would result in any new land uses or facilities that could result in increased VMT. Therefore, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

[1] City of Yorba Linda, *City of Yorba Linda General Plan Update*, Riding, Hiking and Bikeway Trails Component, April 5, 2005.

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

Less Than Significant Impact With Mitigation Incorporated. The project would not introduce geometric design features that would be hazardous or create incompatible uses within the project area. The additional roadway lanes and raised profile would provide consistency with the City's General Plan Circulation Element and would improve safety through increased sight distances, and safely allow the increase of traffic speeds from 40 mph to 45 mph. The addition of traffic lights at the intersections with Casa Loma Avenue and at Eureka Avenue would increase safety within the project area by introducing enhanced traffic control. The project would result in long-term operational benefits in this regard.

During the short-term construction process, the project could require partial/temporary lane closures and reductions in speed limits to ensure construction worker safety, that may result in temporary hazards for the traveling public. To address this temporary issue, Mitigation Measure TR-1 would be implemented. Mitigation Measure TR-1 would require implementation of a Transportation Management Plan (TMP), which would include various provisions to ensure continuous and adequate emergency access along Bastanchury Road during the construction process. The TMP could include measures such as construction signage, pedestrian protection, limitations on timing for lane closures to avoid peak hours, temporary striping plans, identification of alternate bus stops during potential short-term bus stop closures, construction vehicle routing plans, and the need for a construction flagperson to direct traffic during heavy equipment use. With implementation of Mitigation Measure TR-1, the impact would be less than significant.

Mitigation Measures:

TR-1 Prior to the initiation of construction, the City of Yorba Linda City Engineer shall ensure that a Traffic Management Plan (TMP) has been prepared for the proposed project. The TMP shall include measures to minimize the potential safety impact during the short-term construction process, when partial lane closures may be required. It shall include measures such as construction signage, pedestrian protection, limitations on timing for lane closures to avoid peak hours, temporary striping plans, identification of alternate bus stops during potential short-term bus stop closures, construction vehicle routing plans, and the need for a construction flagperson to direct traffic during heavy equipment use. The TMP shall be incorporated into project specifications for verification prior to final plan approval.

d) Result in inadequate emergency access?

Less Than Significant Impact With Mitigation Incorporated. As discussed in Responses 4.15(a)(1) and 4.15(a)(2), emergency fire and police services near the project area are provided by OCFA and OCSD, respectively. Project construction would not affect emergency access within or near the project area with the implementation of Mitigation Measure TR-1. After construction is completed, the project would facilitate improved emergency access along Bastanchury Road, resulting in a beneficial long-term impact. Therefore, the impact would be less than significant with implementation of Mitigation Measure TR-1.

Mitigation Measures: Refer to Mitigation Measure TR-1.

4.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
1) 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				✓
2) 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.		✓		

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources (CRHR) or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

In compliance with AB 52, the City of Yorba Linda distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project. The letters were distributed by certified mail on March 18, 2019. The tribes had 30 days to respond to the City's request for consultation and one tribal representative engaged in consultation as of March 22, 2019. On May 14, 2019, the City and tribal representatives consulted, and no tribal cultural resources were identified within project boundaries by the Gabrieleno Band of Mission Indians - Kizh Nation. The City and Tribe concluded that due to the scope of the project, disturbed nature of the site, and limited depth of anticipated excavation, no impacts to known tribal cultural resources are anticipated.

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:

1) 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 detailed in Response 4.5(a), no historic resources listed or eligible for listing in a State or local register of historic resources are located on-site. Therefore, no impacts related to historic tribal cultural resources defined in Public Resources Code Section 5020.1(k) would occur in this regard.

Mitigation Measures: No mitigation is required.

2) 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 Incorportated. As noted above, the City distributed letters to potentially affected Native American tribes which have cultural or traditional affiliation with the City in accordance with AB 52 requirements. The Gabrieleno Band of Mission Indians - Kizh Nation requested consultation on March 22, 2019. On May 14, 2019, the City and tribal representatives consulted, and no tribal cultural resources were identified by the Gabrieleno Band of Mission Indians - Kizh Nation. The City and Tribe concluded that due to the scope of the project, disturbed nature of the site, and limited depth of anticipated excavation, no impacts to known tribal cultural resources are anticipated.

The project's proposed ground disturbance activities could uncover previously undiscovered tribal cultural resources. Mitigation Measure CUL-1 would be required to ensure that in the event unknown cultural resources, including archaeological and tribal cultural resources are discovered during ground-disturbing activities, appropriate measures are taken. Compliance with Section 5097.9 of the California Public Resources Code would preclude potential impacts to human remains and associated funerary objects. Refer to Section 4.5, *Cultural Resources*, for the full text of these measures. Following implementation of Mitigation Measures CUL-1 and Section 5097.9 of the California Public Resources Code, impacts to tribal cultural resources would be less than significant.

Mitigation Measures: Refer to Mitigation Measure CUL-1.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications 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?				✓

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

Less Than Significant Impact. Numerous existing utilities occur within the boundaries of the project site, along Bastanchury Road. Existing overhead and underground utility relocation have been identified as necessary for the proposed project. These utilities belong to Aera Energy, AT&T, Charter Communications, Municipal Water District, Southern California Edison, Southern California Gas, and the Yorba Linda Water District. Overhead utilities would be relocated within the boundaries of the project site, while underground utilities would be protected in place to the extent possible, and would be relocated within project boundaries if necessary. Connection to all services would be maintained during construction, and would be unaffected after construction. Thus, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. The proposed project is a roadway improvement project. It would not include any new land uses or development or require water use that would have the capacity to result in insufficient water supplies in normal, dry, and multiple dry years. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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?

No Impact. The proposed project would result in improvements to the existing Bastanchury Road. The project would not require or result in the construction of any wastewater facilities. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The proposed project would result in roadway improvements along a portion of Bastanchury Road. The project would not include any habitable structures and would not have the capability to produce solid waste during long-term operations. Although the project may require the disposal of debris during the grading/excavation process (e.g., asphalt and other demolition waste), the generation of these materials would be short-term in nature and would not have the capability to substantially affect the capacity of regional landfills. Thus, the impact in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact. The project would comply with all Federal, State, and local management and reduction statutes and regulations related to solid waste Therefore, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

4.20 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓
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?				✓

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

Less Than Significant Impact With Mitigation Incorporated. Refer to Response 4.9(f). Upon implementation of Mitigation Measure TR-1, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

Mitigation Measures: Refer to Mitigation Measure TR-1.

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?

No Impact. According to the California Department of Forestry and Fire's *Orange County Fire Hazard Severity Zones in State Responsibility Area Map*, the City of Yorba Linda is not located in or near a State responsibility area nor is the project site designated as a very high fire hazard severity zone.[1] No impacts would occur in this regard. The project site is not affected by significant slopes, nor is it located adjacent to wildland areas that would increase the risk of hazards related to wildland fire. The project would include roadway improvements and would not include any new habitable structures or facilities. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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?

No Impact. Refer to Response 4.20(b).

[1] California Department of Forestry and Fire Protection, *Orange County Fire Hazard Severity Zones in SRA Map*, November 7, 2007

Mitigation Measures: No mitigation is required.

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?

No Impact. Refer to Response 4.20(b).

Mitigation Measures: No mitigation is required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

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 concluded in Section 4.4, *Biological Resources*, the project site is disturbed and is located within an urbanized area of the City. Based on the site's disturbed and urbanized conditions, no sensitive plant and animal species occur on-site. Thus, the project would have no impacts on sensitive plant or animal species. Upon implementation of recommended Mitigation Measures BIO-1, impacts to biological resources would be less than significant.

As indicated in Section 4.5, *Cultural Resources*, Section 4.7, *Geology and Soils*, and Section 4.18, *Tribal Cultural Resources*, the potential for encountering cultural, paleontological, and tribal cultural resources as a result of project construction is considered low. However, in the unlikely event resources are discovered during ground disturbance, Mitigation Measures CUL-1, GEO-2, and compliance with Section 5097.9 of the California Public Resources Code would be required to minimize potential impacts. With implementation of recommended mitigation and compliance with Section 5097.9 of the California Public Resources, the project is not anticipated to eliminate important examples of the major periods of California history or prehistory. Thus, impacts in this regard would be less than significant.

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. A significant impact may occur if a proposed project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately, but would be significant when viewed together. As concluded in Sections 4.1 through 4.20, the proposed project would not result in any significant and unavoidable impacts in any environmental categories with implementation of project mitigation measures. Implementation of mitigation measures at the project-level would reduce the potential for the incremental effects of the proposed project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects.

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

Less Than Significant Impact. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, following conformance with the existing regulatory framework and mitigation measures. Further, as a roadway improvement, project features would be designed to meet the needs of humans and are not anticipated to result in direct or indirect adverse effects. Impacts would be less than significant in this regard.

4.22 REFERENCES

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4.23 REPORT PREPARATION PERSONNEL

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5.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study/Environmental Checklist, we recommend that the City of Yorba Linda prepare a mitigated negative declaration for the Bastanchury Road Improvement Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City of Yorba Linda's determination (see Section 6.0, *Lead Agency Determination*).

June 2019
Date

Alan Ashimine, Environmental Sciences Manager
Michael Baker International

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6.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

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

Signature: _____

Title: Assistant City Engineer

Printed Name: Rick Yee, P.E.

Agency: City of Yorba Linda

Date: June 2019

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