

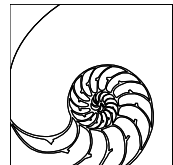
INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION  
15740 HESPERIAN BOULEVARD DIGITAL BILLBOARD PROJECT  
PLN2017-00248

PREPARED FOR:

**ALAMEDA COUNTY PLANNING DEPARTMENT**  
224 W. WINTON AVENUE, ROOM 111  
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**FEBRUARY 2019**



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# INTRODUCTION TO THIS DOCUMENT

This document serves as the Initial Study and Mitigated Negative Declaration for the proposed Project, prepared in accordance with the California Environmental Quality Act (CEQA; Public Resources Code Sections 1500 et seq.).

Per CEQA Guidelines (Section 15070), a Mitigated Negative Declaration can be prepared to meet the requirements of CEQA review when the Initial Study identifies potentially significant environmental effects, but revisions in the Project and/or incorporation of mitigation measures would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

This document is organized in three sections as follows:

- *Introduction and Project Information.* This section introduces the document and discussed the project description including location, setting, and specifics of the lead agency and contacts.
- *Mitigated Negative Declaration.* This section summarizes the impacts and lists the mitigation measures identified in the Initial Study and proposes findings that would allow adoption of this document as the CEQA review document for the proposed project.
- *Initial Study Checklist.* This section discusses the CEQA environmental topics and checklist questions and identifies the potential for impacts and proposed mitigation measures to avoid these impacts.

## PUBLIC REVIEW

The Initial Study and Mitigated Negative Declaration will be circulated for a 30-day public review period. Written comments may be submitted to the following address:

Damien Curry  
Alameda County Planning Department  
224 W. Winton Avenue, Room 111  
Hayward, CA 94544  
damien.curry@acgov.org

Adoption of the Mitigated Negative Declaration does not constitute approval of the Project itself, which is a separate action to be taken by the approval body. Approval of the Project can take place only after the Mitigated Negative Declaration has been adopted.

# PROJECT INFORMATION

1. **Project Title:** 15740 Hesperian Boulevard Digital Billboard  
PLN2017-00248
2. **Lead Agency:** Alameda County Planning Department  
224 W. Winton Avenue, Room 111  
Hayward, CA 94544  
Attn: Damien Curry, Planner  
damien.curry@acgov.org  
510.670.6684
3. **Project Location:** 15740 Hesperian Boulevard (APN 412-0014-036-02), on  
United Rental property adjacent to Interstate 880 in San  
Lorenzo.
4. **Project Applicant's Name and Address:** Bruce Qualls  
Clear Channel Outdoor, Inc.  
Northern California Division  
555 12th Street, Suite 950  
Oakland, CA 94607  
510.446.7215
5. **General Plan Designation:** Commercial (Eden Area General Plan)
6. **Zoning:** San Lorenzo Village Center Specific Plan, Subarea 1
7. **Site and Vicinity:**

The Project site is on the United Rental property adjacent to Interstate 880 (I-880) and is within the Tool-Rental Subarea of the San Lorenzo Village Center Specific Plan.<sup>1</sup> The Project site is generally bounded by I-880, Hesperian Boulevard, and Grant Avenue (**Figure 1**) and contains minimal vegetation consisting primarily of screening trees and shrubs along these roadways. The 36-square-foot Project site is currently paved with concrete and contains a canopy structure. The existing use of the Project area as a location that rents construction equipment and tools would be unchanged by the proposed addition of an unrelated billboard at the site.

The Project vicinity consists of a mix of commercial and residential uses. Commercial uses are found adjacent to and between Hesperian Boulevard and I-880. Residential uses lie predominantly west of Hesperian Boulevard and east of I-880. Near Paseo Grande, south of the Project site, residential areas lie on both sides of I-880.

Most of San Lorenzo consists of a planned community of approximately 5,000 single-family homes known as San Lorenzo Village. San Lorenzo Village Plaza, a large-scale retail center, lies to the south of the Project site and other smaller-scale shopping centers are located at scattered sites within the residential areas and further south along Hesperian Boulevard.

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<sup>1</sup> The San Lorenzo Village Center Specific Plan is an implementation measure of the Alameda County General Plan.





## 8. Project Description:

### *Digital Billboard*

The Project involves construction and operation of one new double-sided outdoor advertising digital billboard in San Lorenzo, California. Construction of the column for the billboard would involve making a hole in the existing storage area canopy structure and drilling a hole approximately 72 inches in diameter through the existing concrete and soil below to a depth of approximately 40 feet below grade. The billboard is proposed to reach a maximum height of 59 feet. The proposed billboard site plan is shown in **Figure 2**.

A “digital billboard” consists of a display surface that supports an image generated by rows of light emitting diodes (LED). The image on the billboard is static for a period of time, not less than eight seconds, before cycling to the next image. Operational details provided by the applicant include the following:

- Each LED display would be 48 feet wide by 14 feet tall and mounted on a column. The two display faces would be oriented parallel to each other such that the displays face the two directions of highway traffic. The design of the billboard is shown in **Figure 3**.
- Lighting levels on each face of the digital billboard would not exceed 0.3 foot-candles over ambient levels, as measured using a foot-candle meter at a 250-foot distance according to the guidelines of the Outdoor Advertising Association of America (OAAA).
- Power for the billboard would consist of a central breaker panel with a primary feed of 200 amps at 120/240 single phase or 200 amps at 208Y/120 three phase primary feed; electrical connections would be UL and IEC-approved.
- The digital billboard would be operated with systems and monitoring in place that would either turn off the display or show a “full black” image on the display in the event of a malfunction that affects at least 50 percent of the sign area.
- Light sensors would be installed with each face of the billboard to measure ambient light levels and to adjust light intensity to respond to changing ambient light conditions.
- The billboard would be programmed for nighttime reduced power operation (to as low as 4 percent of peak power).
- LED lighting has a directional nature and the projected viewing angle values for the proposed billboard is  $\pm 30^\circ$  vertically and  $\pm 60^\circ$  horizontally. Shaders would be located above each row of LEDs to prevent light from projecting upward into the sky.

### *Construction of the Billboard*

The following information regarding the process involved in installing a digital billboard is based on discussions with the applicant and has taken into account details of the soil characteristics at the site. The construction would be subject to the Building Code, and a Building Permit would be required for construction activities. The construction is expected to occur over as many as four two-day weekends, depending on construction conditions, and proceed generally as described below.

**Weekend 1:** On the first day at the site, a crew arrives with a drilling rig. The underground portion of the column (i.e., shaft) would be 6’6” in diameter with an estimated depth of 30 to 40 feet. A trench plate is placed over the hole before the crew leaves the site. The hole in the canopy over the site would be cut either this first weekend or on weekend 2.

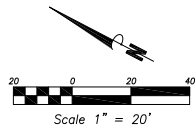


**SURVEY NOTES:**

- PROPERTY LINES ARE A COMPILATION OF DEEDS FOR THIS PROPERTY, ADJACENT PARCELS, CAL TRANS RIGHT OF WAY MAPS, AND NEARBY SUBDIVISION MAPS. BEARINGS AND DISTANCES SHOWN VARY FROM RECORD INFORMATION TO CREATE MATHEMATICALLY CLOSED FIGURE. THE SURVEY BASIS IS THE MONUMENT LINE IN PASEO STREET, APPROXIMATELY 400' WEST. THIS MONUMENT LINE IS TAKEN PER A 1944 SUBDIVISION MAP. THIS IS NOT A RECORD OF A SURVEY.
- THE PURPOSE OF THIS SURVEY IS TO SHOW MAJOR TOPOGRAPHIC FEATURES FOR THE PURPOSE OF A PLANNED BILLBOARD. THIS SURVEY IS NOT INTENDED TO BE A FULL SURVEY FOR NEW SITE WORK, GRADING, AND OTHER IMPROVEMENTS.
- GRADES HEREON ARE ARBITRARY, AND BASED ON AN ASSUMED ELEVATION OF 100.00 IN PASEO STREET.
- UTILITIES SHOWN ARE PER UTILITY MARKINGS, AND RECORD DRAWINGS FOR THE UTILITY SHOWN.

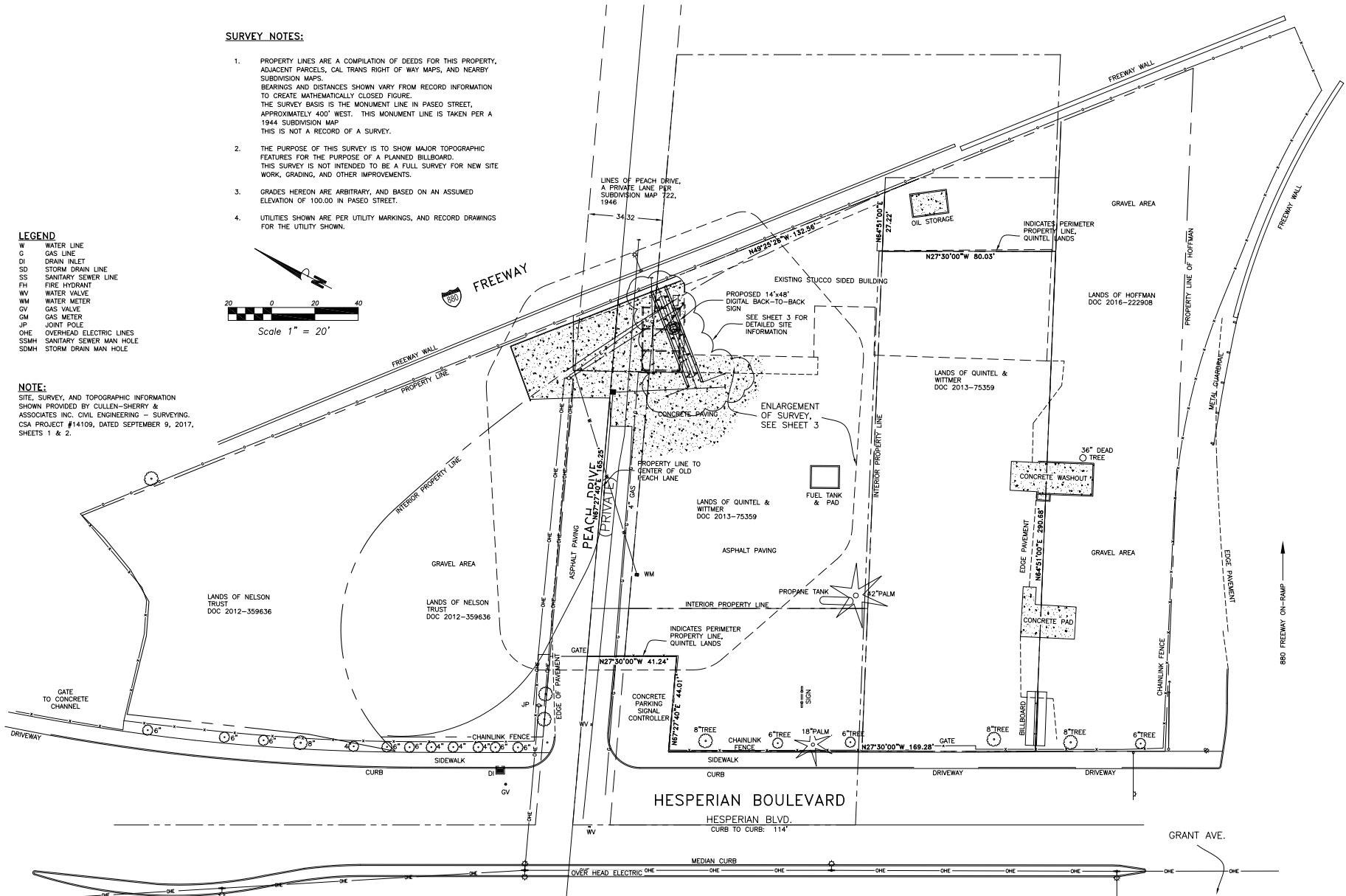
**LEGEND**

- W WATER LINE
- G GAS LINE
- DI DRAIN INLET
- SD STORM DRAIN LINE
- SS SANITARY SEWER LINE
- FH FIRE HYDRANT
- WV WATER VALVE
- WM WATER METER
- GV GAS VALVE
- GM GAS METER
- JP JOINT POLE
- OHE OVERHEAD ELECTRIC LINES
- SSMH SANITARY SEWER MAN HOLE
- SDMH STORM DRAIN MAN HOLE

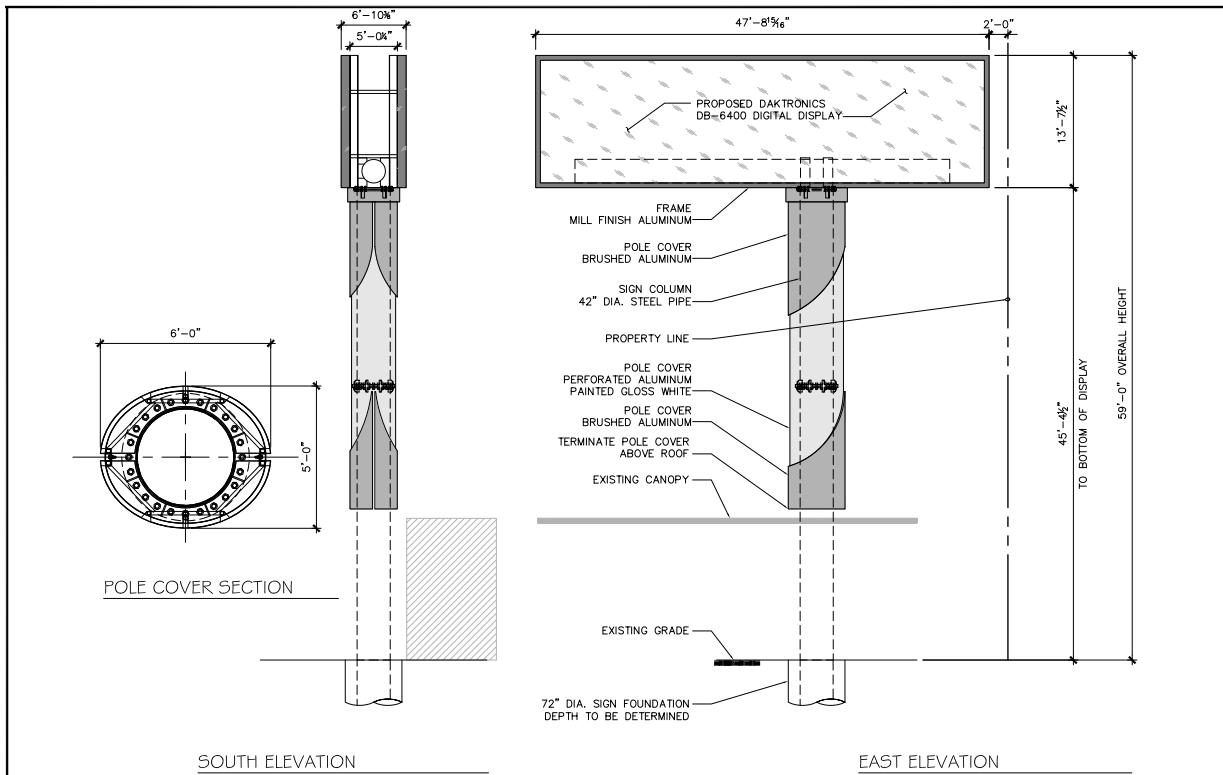


**NOTE:**

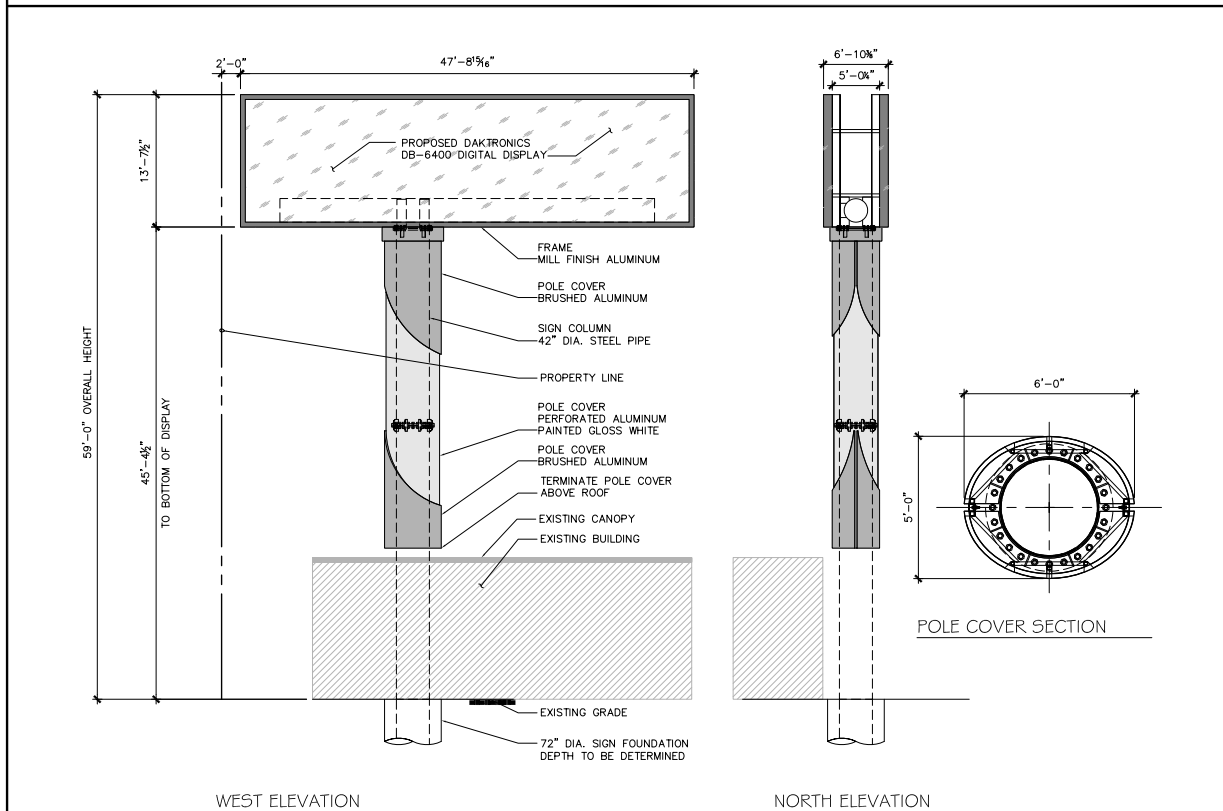
SITE, SURVEY, AND TOPOGRAPHIC INFORMATION SHOWN PROVIDED BY CULLEN-SHERRY & ASSOCIATES INC. CIVIL ENGINEERING - SURVEYING. CSA PROJECT #14109, DATED SEPTEMBER 9, 2017, SHEETS 1 & 2.



**Figure 2. Project Site Plan**  
 Source: AMZ Engineering  
 February 2019



SOUTH AND EAST SIGN ELEVATIONS



WEST AND NORTH SIGN ELEVATIONS

Figure 3. Billboard Design  
Source: AMZ Engineering  
February 2019

**Weekend 2:** The column for the billboard is delivered to the site. The column is lifted into place in the foundation hole by a crane, and is maintained in place by I-beams that are welded to the column. A building inspection is required at this point.

**Weekend 3:** After the building inspection is complete, concrete is poured and allowed to cure for a minimum of three days.

**Weekend 4:** After the concrete has cured, the crew returns to the site. The I-beam welds are ground off and the I-beams removed. The upper structure components are delivered to the site and assembled on the ground by the crew (usually 4-5 persons). The crane returns to the site and lifts the upper structure into place atop the column.

**Electrical service:** Arrangements to extend electrical service to the site are made in advance of the construction activities. Overhead electrical service would be extended to the billboard from an existing Pacific Gas and Electric line; alternatively, the Project would connect to existing electrical service on the site. The typical electrical service is 200 amps for single phase, and 100 amps for 3-phase.

#### *Relocation Agreement*

Consistent with County and California Department of Transportation (Caltrans) goals to reduce the overall number of billboards, approval of the proposed digital billboard would include an agreement to remove other static billboards within Alameda County. The Relocation Agreement facilitates the removal of existing billboards in order to place a new billboard. In coordination with the County, the applicant proposes the removal of 10 billboard faces within 2 miles of the subject site. Some of these billboard faces are mounted singly, others in pairs (**Figure 4**).

Removal of existing billboards would involve a crane to remove the billboard face and if there is a pole, this would be cut and ground down to surface level; if paved, the surface would be patched. Billboard removal would not require additional environmental review as such removal is categorically exempt under CEQA (demolition and removal of existing small structures under CEQA Guidelines Section 15301(I)(4)).

9. **Required Approvals:** Approval of the Project would require a Site Development Review and Building Permits from Alameda County. Additionally, the following reviews and approvals would be required:

Appropriate clearance through Caltrans is also required for highway-oriented signs. This may require a relocation agreement if the freeway segment is determined to be classified as a “landscaped freeway” (as discussed under Regulatory Provisions).

Construction activities would require appropriate building permits.

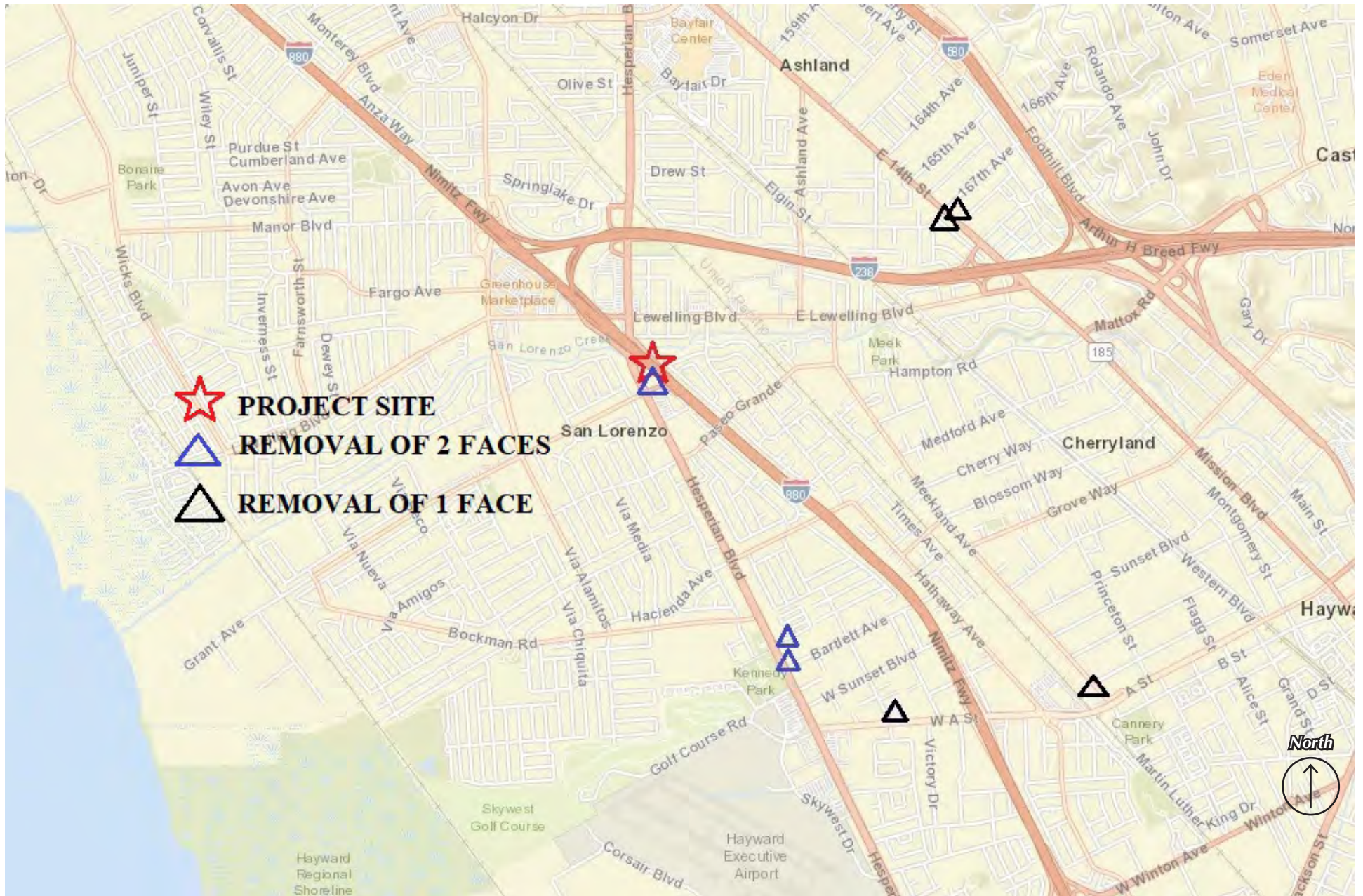
10. **Regulatory Provisions:** The following regulations are applicable to installation of billboards and compliance has been assumed in analysis of this Project.

#### *Federal*

The Federal Highway Beautification Act of 1965 (23 U.S.C. 131) provides for control of outdoor advertising, including removal of certain types of signs, along the interstate highway system. The Act is enforced by the Federal Highway Administration (FHWA).

As part of its enforcement effort, FHWA has entered into agreements regarding the Act with state departments of transportation. The agreements with California are described under the State provisions, below.





**Figure 4. Locations of Billboards Proposed for Removal**

Source: Clear Channel Outdoor  
February 2019

## State

The California Department of Transportation (Caltrans) is involved in the control of “off-premise” displays along state highways. Such displays advertise products or services of businesses located on property other than the display. Caltrans does not regulate on-premise displays (Caltrans Landscape Architecture Program, 2008).

California has entered into two agreements with FHWA as part of the implementation of the Highway Beautification Act: one dated May 29, 1965, and a subsequent agreement dated February 15, 1968. The agreements generally provide that the State will control the construction of all outdoor advertising signs, displays and devices within 660 feet of the interstate highway right-of-way. The agreements provide that such signs shall be erected only in commercial or industrial zones and are subject to the following restrictions:

- no signs shall imitate or resemble any official traffic sign, signal or device, nor shall signs obstruct or interfere with official signs;
- no signs shall be erected on rocks or other natural features;
- signs shall be no larger than 25 feet in height and 60 feet in width, excluding border, trim and supports;
- signs on the same side of the freeway must be separated by at least 500 feet; and
- signs shall not include flashing, intermittent or moving lights, and shall not emit light that could obstruct or impair the vision of any driver.

California regulates outdoor advertising in the Outdoor Advertising Act (Business and Professions Code, Sections 5200 et seq.) and the California Code of Regulations, Title 4, Division 6 (Sections 2240 et seq.), which incorporate the Federal Highway Beautification Act by reference. Caltrans enforces the law and regulations. Caltrans requires applicants for new outdoor lighting to demonstrate that the owner of the parcel consents to the placement of the sign, that the parcel on which the sign would be located is zoned commercial or industrial, and that local building permits are obtained and complied with. A digital billboard is identified as a “message center” in the statute, which is an advertising display where the message is changed more than once every two minutes, but no more than once every four seconds. (Business and Professions Code, Section 5216.4)

In brief, off-premises changeable electronic variable message signs (CEVMS) adjacent to controlled routes shall incorporate standards pertaining to:

1. Duration of Message
2. Transition Time
3. Brightness
4. Spacing
5. Locations

Most importantly as a result of FHWA recommendations, to ensure driver safety, no off-premise advertising billboard operators presently use moving displays of less than a 4 second duration time between messages.

Some freeways are classified as “landscaped freeways.” A landscaped freeway is defined as one that is now, or may in the future be, improved by the planting of lawns, trees, shrubs, flowers or other ornamental vegetation requiring reasonable maintenance on one or both sides of the freeway (Government Code §5216). Off-premise displays are not allowed along landscaped freeways except when approved as part of Relocation Agreements pursuant to §5412 of the Outdoor Advertising Act. It

appears the Project site is within a segment of U.S. 101 that is considered a classified landscaped freeway, though such a determination would be made during the approval process with Caltrans.<sup>2</sup>

The Outdoor Advertising Act contains a number of provisions relating to the construction and operation of billboards:

- The sign must be constructed to withstand a wind pressure of 20 pounds per square feet of exposed surface (§5401).
- No sign shall display any statements or words of an obscene, indecent or immoral character (§5402)
- No sign shall display flashing, intermittent or moving light or lights (§5403(h)).
- Signs are restricted from areas within 300 feet of an intersection of highways or of highway and railroad right-of-ways, but a sign may be located at the point of interception, as long as a clear view is allowed for 300 feet, and no sign shall be installed that would prevent a traveler from obtaining a clear view of approaching vehicles for a distance of 500 feet along the highway (§5404).
- Message center signs may not include any illumination or message change that is in motion or appears to be in motion or that change or expose a message for less than four seconds. No message center sign may be located within 500 feet of an existing billboard, or 1,000 feet of another message center display, on the same side of the highway (§5405).

Additional restrictions on outdoor signage are found in the California Vehicle Code. Section 21466.5 prohibits the placing of any light source “of any color of such brilliance as to impair the vision of drivers upon the highway.” Specific standards for measuring light sources are provided. The restrictions may be enforced by Caltrans, the California Highway Patrol or local authorities. Modern signs such as the one proposed have been designed to comply with applicable restrictions.

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<sup>2</sup> California Department of Transportation. Classified Landscape Freeways, December 14, 2016, available at: <http://www.dot.ca.gov/design/lap/livability/docs/class-ls-fwy-REVISED-12-14-2016.pdf>



# MITIGATED NEGATIVE DECLARATION

## PROJECT DESCRIPTION, LOCATION, AND SETTING

This Mitigated Negative Declaration has been prepared for the 15740 Hesperian Boulevard Billboard Project (Project) in San Lorenzo, CA. See the Introduction and Project Information section of this document for details of the Project.

## POTENTIALLY SIGNIFICANT IMPACTS REQUIRING MITIGATION

The following is a list of potential Project impacts and the mitigation measures recommended to reduce these impacts to a less-than-significant level. Refer to the Initial Study Checklist section of this document for a more detailed discussion.

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The digital billboard technology has the potential to operate at levels brighter than those specified as the operational limits. Impacts would remain less than significant under specified operating conditions, which are required to be tested under Mitigation Measure AES-1, below.

### Mitigation Measure AES-1:

**Billboard Brightness Field Testing.** The Applicant shall demonstrate through field testing compliance with a 0.3-foot-candle increase over ambient light at 250 feet during nighttime conditions upon initial start-up, at 6 months of operation, and at the request of the County for the life of the billboard. The Applicant shall fund field testing by an independent contractor or County staff trained in the use of a handheld photometer to demonstrate continued compliance. The County shall consider citizen complaints consisting of direct personal impacts as cause for requesting field testing.

If increases in ambient light are found to be above the 0.3-foot-candle level, the dimming level shall be adjusted until this level can be demonstrated. This must be completed and demonstrated through follow-up field testing within 24 hours or the billboard shall not be operated until the lighting levels can be brought into compliance.

If no above-threshold levels have been measured in the prior three tests, field testing shall be requested no more often than twice yearly. Otherwise, field tests can be requested up to once monthly.

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Project air quality emissions would be below applicable threshold levels. However, the Bay Area Air Quality Management District (BAAQMD) recommends implementation of construction mitigation measures to reduce construction-related emissions and fugitive dust for all projects. These basic measures are included in Mitigation Measure AIR-1, below and would further reduce already less than significant construction-period criteria pollutant impacts.

### Mitigation Measure AIR-1:

**Basic Construction Management Practices.** The Project applicant shall demonstrate proposed compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD's Basic Construction Mitigation Measures:

- i) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- ii) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- iii) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- iv) All vehicle speeds on unpaved roads shall be limited to 15 mph.
- v) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- vi) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- vii) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- viii) Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

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If construction of the billboard was to occur during the avian breeding season, it is possible that birds nesting in the nearby area may be disturbed by construction activities. Native birds are protected from take by the federal Migratory Bird Treaty Act and the California Fish and Game Code, and the abandonment of even one active nest as a result of Project construction activities could be considered "take" under the Fish and Game Code. Mitigation Measure BIO-1 would ensure nesting birds will not be disturbed and that the impact would be less than significant.

**Mitigation Measure BIO-1:**

**Nesting Birds.** If construction occurs during the breeding season (January through August), the site and a surrounding radius of not less than 0.5 miles shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code. Pre-construction surveys shall be conducted within 15 days prior to start of work and shall be submitted to the Building Division. If the survey indicates the potential presences of nesting birds, the applicant shall comply with recommendations of the biologist regarding an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be based to a large extent on the nesting species and its sensitivity to disturbance.

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Construction of the Project involves minimal ground disturbance; however, the potential for unrecorded resources is considered moderate to high. In the event archaeological or paleontological resources or human remains are discovered on site, these resources would be handled according to applicable regulations (Public Resources Code Sections 21083.2, 21084.1, 5097.98, 15064.5(d) and/or Section 7050.5 of the Health and Safety Code).

**Mitigation Measure CUL-1:**

**Halt Construction Activity, Evaluate Find and Implement Mitigation.** In the event that archaeological resources are discovered during construction, operations shall stop within 50 feet of the find and a qualified archaeologist shall be consulted to determine whether the resource

requires further study. The developer shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the Project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.

**Mitigation Measure CUL-2:**

**Halt Construction Activity, Evaluate Remains and Take Appropriate Action in Coordination with Native American Heritage Commission.** In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
  - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
  - The descendant identified fails to make a recommendation.
  - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

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Significant effects could occur if the proposed digital billboard did not comply with restrictions regarding location, intensity of light, light trespass, or other restrictions or includes driver interaction that could cause driver distraction. With implementation of these Mitigation Measures TRAN-1 and TRAN-2, the County will receive accurate information from the operator regarding compliance on an ongoing basis to ensure that impacts on transportation and traffic safety would be *less than significant*.

**Mitigation Measure TRAN-1:**

**Annual Report.** Upon request by the County, the operator of the digital billboard shall submit to the County, within thirty days following June 30 of each year, a written report regarding operation of each digital billboard during the preceding period of July 1 to June 30. The operator may submit a combined report for all such digital billboards operated by such operator within the County limits. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Alameda County Community Development Agency and shall include information relating to the following:

- a. Status of the operator's license as required by California Business and Professions Code §§5300 et seq.;
- b. Status of the required permit for individual digital billboards, as required by California Business and Professions Code §§5350 et seq.;
- c. Compliance with the California Outdoor Advertising Act, California Business and Professions Code §§5200 and all regulations adopted pursuant to such Act;
- d. Compliance with California Vehicle Code §§21466.5 and 21467;
- e. Compliance with provisions of written agreements between the U.S. Department of Transportation and Caltrans pursuant to the Federal Highway Beautification Act (23 United States Code §131);
- f. Compliance with mitigation measures identified in the Mitigated Negative Declaration adopted as part of Project approval;
- g. Each written or oral complaint received by the operator, or conveyed to the operator by any government agency or any other person, regarding operation of each digital billboard included in the report;
- h. Each malfunction or failure of each digital billboard included in the report, which shall include only those malfunctions or failures that are visible to the naked eye, including reason for the malfunction, duration and confirmation of repair; and,
- i. Operating status of each digital billboard included in the report, including estimated date of repair and return to normal operation of any digital billboard identified in the report as not operating in normal mode.

**Mitigation Measure TRAN-2:**

**Operational Safety.** The operator shall not install or implement any technology that would allow interaction with drivers, vehicles, or any device located in vehicles, including, but not limited to a radio frequency identification device, geographic positions system, or other device without prior approval of the County, taking into consideration technical studies and Caltrans or U.S. Department of Transportation policies and guidance available at the time of the request.

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Although not anticipated, the possibility exists for tribal cultural resources discovered during construction activities. With implementation of Mitigation Measure TCR-1, the impact on tribal cultural resources would be *less than significant*.

**Mitigation Measure TCR-1:**

**Unanticipated Discovery of Tribal Cultural Resources.** In the event that cultural resources of Native American origin are identified during construction, Alameda County shall consult with a qualified archaeologist and begin or continue Native American consultation procedures. If Alameda County determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. If the resource cannot be avoided, additional measures to avoid or reduce impacts to the resource and to address tribal concerns may be required.

**PROPOSED FINDINGS**

Alameda County has determined that with the implementation of mitigation measures identified in this Mitigated Negative Declaration, the proposed Project will not have a significant effect on the environment. If this Mitigated Negative Declaration is adopted by Alameda County, the requirements of CEQA will be met by the preparation of this Mitigated Negative Declaration and the Project will not require the preparation of an Environmental Impact Report. This decision is supported by the following findings:

- a. The Project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate a plant or animal community. It does not reduce the number or restrict the range of a rare or endangered plant or animal. It does not eliminate important examples of the major periods of California history or pre-history, since there is no identified area at the Project site which is habitat for rare or endangered species, or which represents unique examples of California history or prehistory. The Project does not have any significant, unavoidable adverse impacts. Implementation of specified mitigation measures will avoid or reduce the effects of the Project on the environment and thereby avoid any significant impacts.
- b. The Project does not involve impacts which are individually limited but cumulatively considerable, because the described Project will incorporate mitigation measures to avoid significant impacts of the Project in the context of continued growth and development in Alameda County.
- c. The Project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly, because all adverse effects of the Project will be mitigated to less than significant levels.

# INITIAL STUDY CHECKLIST

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Environmental factors that may be affected by the Project are listed alphabetically below. Factors marked with an “X” (☒) were determined to be potentially affected by the Project, involving at least one impact that required mitigation to reduce the impact to less than significant levels, as indicated in the Environmental Evaluation Form Checklist and related discussion that follows. Unmarked factors (☐) were determined to not be significantly affected by the Project, based on discussion provided in the Checklist, including the application of mitigation measures which the applicant has agreed to implement.

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Agricultural and Forest Resources    | <input checked="" type="checkbox"/> Air Quality    |
| <input checked="" type="checkbox"/> Biological Resources               | <input checked="" type="checkbox"/> Cultural Resources        | <input type="checkbox"/> Geology/Soils             |
| <input type="checkbox"/> Greenhouse Gas Emissions                      | <input type="checkbox"/> Hazards/Hazardous Materials          | <input type="checkbox"/> Hydrology/Water Quality   |
| <input type="checkbox"/> Land Use/Planning                             | <input type="checkbox"/> Mineral Resources                    | <input type="checkbox"/> Noise                     |
| <input type="checkbox"/> Population/Housing                            | <input type="checkbox"/> Public Services                      | <input type="checkbox"/> Recreation                |
| <input checked="" type="checkbox"/> Transportation/Traffic             | <input checked="" type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities/Service Systems |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance |   |  |

There are no impacts that would remain significant with implementation of the identified mitigation measures.



## 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.

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Signature

Date

## EVALUATION OF ENVIRONMENTAL EFFECTS

The Checklist portion of the Initial Study begins below, with explanations of each CEQA issue topic. Four outcomes are possible, as explained below.

1. A “no impact” response indicates that no action that would have an adverse effect on the environment would occur due to the Project.
2. A “less than significant” response indicates that while there may be potential for an environmental impact, there are standard procedures or regulations in place, or other features of the Project as proposed, which would limit the extent of this impact to a level of “less than significant.”
3. Responses that indicate that the impact of the Project would be “less than significant with mitigation” indicate that mitigation measures, identified in the subsequent discussion, will be required as a condition of Project approval in order to effectively reduce potential Project-related environmental effects to a level of “less than significant.”
4. A “potentially significant impact” response indicates that further analysis is required to determine the extent of the potential impact and identify any appropriate mitigation. If any topics are indicated with a “potentially significant impact,” these topics would need to be analyzed in an Environmental Impact Report.

Note that this document indicates that no environmental topics would be considered to be “potentially significant” after application of mitigation measures identified in this document and as agreed to by the Project applicant.

# 1. AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			<input checked="" type="checkbox"/>	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			<input checked="" type="checkbox"/>	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		<input checked="" type="checkbox"/>		

## *Scenic Vistas (Criterion a)*

Figures 5-12 show the proposed billboard added to existing views from I-880 and other locations surrounding the Project site.<sup>3</sup> The site and surrounding area is developed with a mix of residential and commercial uses. The Project is located on a flat area near the highway with no substantial views of the San Francisco Bay from or across the site. While the billboard would be visible from both near and far locations, the site is not a scenic resource or vista area and is not identified as a visual corridor in the San Lorenzo Village Center Specific Plan or Eden Area General Plan.<sup>4, 5</sup> The Project would have a *less than significant impact* on scenic vistas.

## *Scenic Highways (Criterion b)*

I-880 is not a designated or eligible State Scenic Highway<sup>6</sup> in the vicinity of the Project nor is it identified as a visual corridor, scenic street, or scenic highway in the San Lorenzo Village Center Specific Plan or Eden Area General Plan.<sup>7, 8</sup> The Project would have *no impact* on a state scenic highway or scenic resources viewable from another designated scenic highway.

## *Visual Character (Criterion c)*

The proposed digital billboard site is adjacent to a freeway in an area characterized by a mix of residential and commercial uses. The new billboard is intended to be visible primarily to drivers along I-880 but would also be visible in some near- and long-range views from commercial and residential areas (see Figures 5 through 12).

<sup>3</sup> The existing billboards shown in Figures 8 and 9 are proposed for removal.

<sup>4</sup> Alameda County Planning Department. San Lorenzo Village Center Specific Plan, October 2004.

<sup>5</sup> Alameda County Community Development Agency. Eden Area General Plan, March 2010.

<sup>6</sup> California Department of Transportation. California Scenic Highway Mapping System. Website accessed December 27, 2017 at: [http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm)

<sup>7</sup> Alameda County Planning Department. San Lorenzo Village Center Specific Plan, October 2004.

<sup>8</sup> Alameda County Community Development Agency. Eden Area General Plan, March 2010.

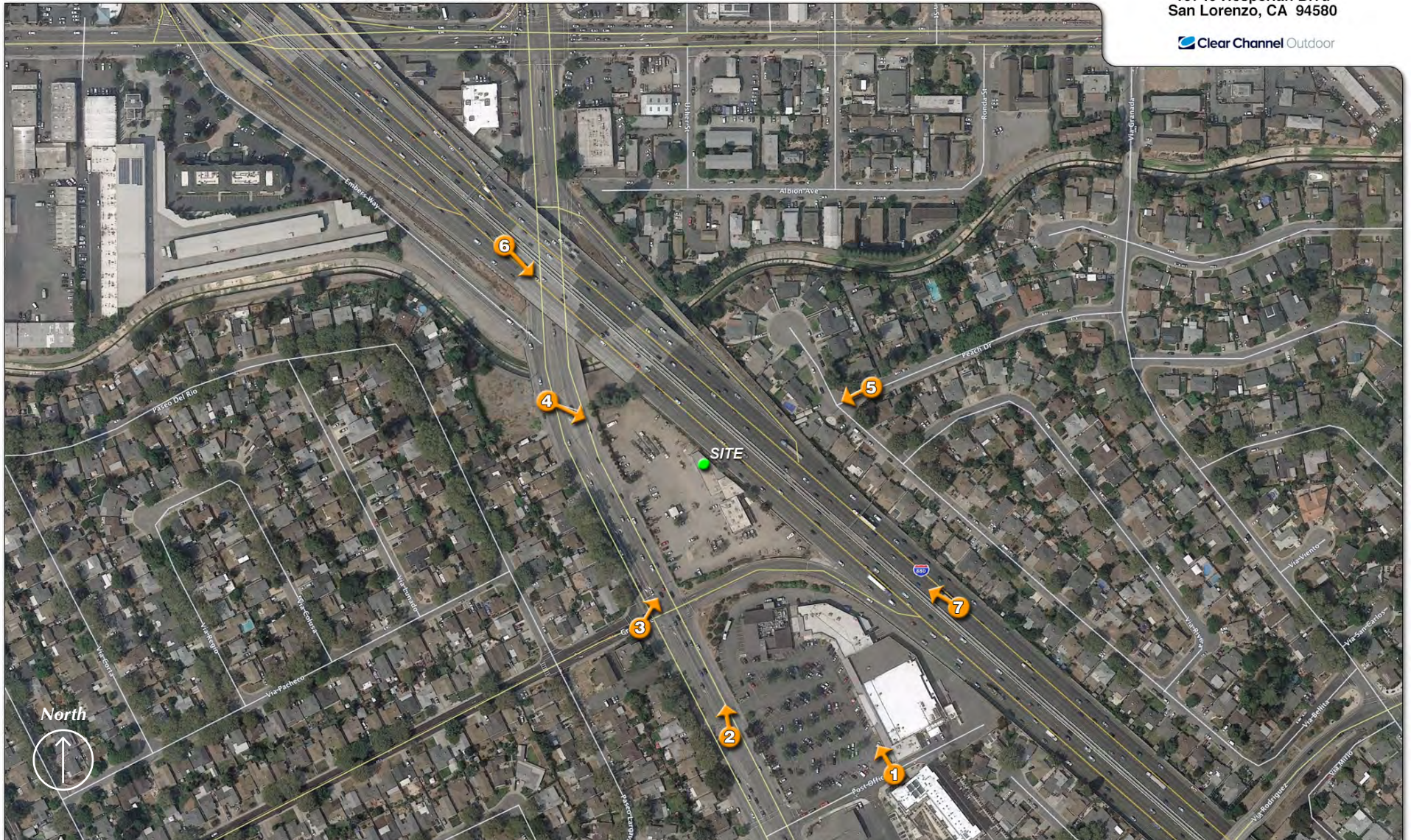


Aerial photograph showing the viewpoints for the photosimulations.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

Clear Channel Outdoor



**Figure 5. Visual Simulation Locations – Surrounds**

Source: Previsualists, Inc.

February 2019





1

**Existing**

Photosimulation of the view looking northwest from the Lucky store parking lot, on Post Office Road.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

Clear Channel Outdoor



**Proposed**

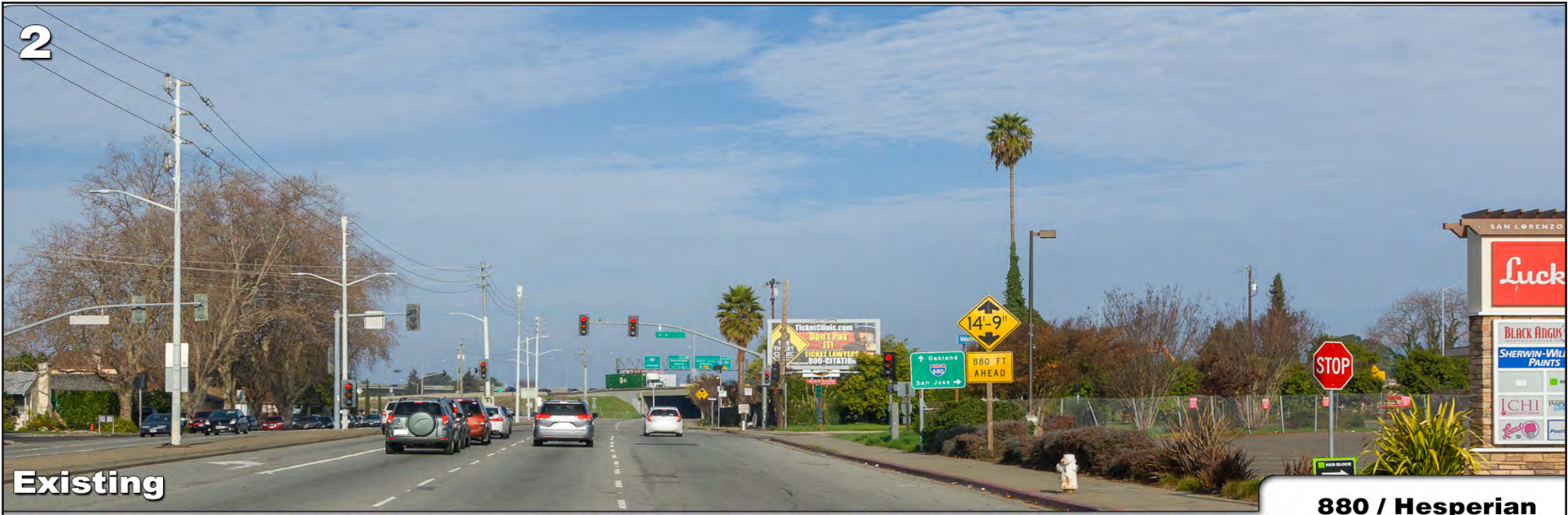
**Figure 6. Visual Simulation, Location 1**

Source: Previsualists, Inc.

February 2019



2



Existing

Photosimulation of the view looking north along Hesperian Blvd.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

Clear Channel Outdoor



Proposed

Figure 7. Visual Simulation, Location 2

Source: Previsualists, Inc.

February 2019





3



**Existing**

Photosimulation of the view looking northeast from Grant Ave at Hesperian Blvd.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

 Clear Channel Outdoor



**Proposed**

**Figure 8. Visual Simulation, Location 3**

Source: Previsualists, Inc.

February 2019



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4



**Existing**

Photosimulation of the view looking southeast from Hesperian Blvd.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

 Clear Channel Outdoor



**Proposed**

**Figure 9. Visual Simulation, Location 4**

Source: Previsualists, Inc.

February 2019



5



**Existing**

Photosimulation of the view looking southwest from Peach Drive, on the east side of 880.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

Clear Channel Outdoor



**Proposed**

**Figure 10. Visual Simulation, Location 5**

Source: Previsualists, Inc.

February 2019



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6



**Existing**

Photosimulation of the view looking south along 880, at a point 700 feet from the sign, center lane.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

 Clear Channel Outdoor



**Proposed**

**Figure 11. Visual Simulation, Location 6**

Source: Previsualists, Inc.

February 2019



7



**Existing**

Photosimulation of the view looking northwest along northbound 880, at a point 700 feet from the sign.

**880 / Hesperian**

15740 Hesperian Blvd  
San Lorenzo, CA 94580

 Clear Channel Outdoor



**Proposed**

**Figure 12. Visual Simulation, Location 7**

Source: Previsualists, Inc.

February 2019



LAMPHER GREGORY

The Project vicinity currently supports some highway-oriented on-site signage, billboards, and roadway signage. The proposed billboard is not inconsistent with the character of the area in which it is proposed. Additionally, the County will review the proposed design as part of the entitlement approval process.

Given the context of the proposed billboard, the Project's impact on visual character would be *less than significant*.

Project approval also requires a Relocation Agreement that will require removal of other area billboards, particularly those in non-highway orientations, for an overall reduction in the number of billboard faces in the area. See "Project Information" for a discussion of the billboards to be removed.

### ***Light and Glare (Criterion d)***

Digital billboards rely on LED technology to display messages on a lit screen. The lighting is designed to make the message displays visible to passing motorists.

The brightness of the LED display on the billboard face is subject to adjustment based on ambient conditions monitored by multiple light sensors. The display, for example, is brighter in the daytime than in darkness and responds to changes in the ambient light conditions. Restrictions on digital billboards, imposed and enforced by Caltrans, preclude lighting that is so directed or intense that it could blind or confuse drivers, or create conditions that make recognition of the roadway or official signage difficult.

Caltrans has imposed these restrictions for traffic safety reasons, and they are discussed in more detail in the Transportation section. The resulting controls, however, effectively regulate light and glare to ensure that the operation of any digital billboard does not create a substantial new source of light or glare.

The billboards would also comply with OAAA guidelines, which specify that lighting levels from a digital billboard will not exceed 0.3-foot-candles over ambient levels, as measured using a foot-candle meter at a pre-set distance based on the size of the billboard face. For a 14-foot by 48-foot billboard, this would be 250 feet.<sup>9</sup> Illuminance would be negligible beyond 500 feet.<sup>10</sup>

The Illuminating Engineering Society of North America (IESNA) Lighting Handbook 10th Edition recommendations are in units of "nits," which are appropriate when light is being bounced off a surface, as is the case with a conventional billboard, but is not the case with a digital billboard, which projects light directly. With assumptions about content, nits and foot-candles can be converted for comparison of digital illuminance to conventional billboard luminance. Conversion of nits using conservative assumptions (80% reflectance) and IESNA Handbook recommendations for bright surrounds results in recommendations of 0.256-foot-candles at 250 feet. This is similar to digital billboard-specific recommendations of 0.3-foot-candles.<sup>11</sup>

The value of 0.3-foot-candles is used here because, while relatively low, it is practical to measure with a handheld photometer and therefore to verify following installation and during operation. This 0.3-foot-candle level would be perceptible at the low end to the human eye over ambient light on a surface. It would be equivalent to average residential street illumination provided by low wattage street lights (i.e., similar to ambient conditions in the vicinity).

Residences are within 350 feet of the proposed billboard to the west and within 250 feet to the east. The billboard faces would be angled in a mostly parallel orientation to decrease the light effects on these nearby

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<sup>9</sup> According to OAAA Methodology to Determine Billboard Luminance Levels, provided by Clear Channel.

<sup>10</sup> OAAA prepared by Light Sciences Inc., November 29, 2006, *Comparison of Digital and Conventional Billboards*.

<sup>11</sup> Ibid.

residences. Increases at the closest residential and commercial uses would be consistent with the existing urban conditions.

**Mitigation Measure AES-1:**

**Billboard Brightness Field Testing.** The Applicant shall demonstrate through field testing compliance with a 0.3-foot-candle increase over ambient light at 250 feet during nighttime conditions upon initial start-up, at 6 months of operation, and at the request of the County for the life of the billboard. The Applicant shall fund field testing by an independent contractor or County staff trained in the use of a handheld photometer to demonstrate continued compliance. The County shall consider citizen complaints consisting of direct personal impacts as cause for requesting field testing.

If increases in ambient light are found to be above the 0.3-foot-candle level, the dimming level shall be adjusted until this level can be demonstrated. This must be completed and demonstrated through follow-up field testing within 24 hours or the billboard shall not be operated until the lighting levels can be brought into compliance.

If no above-threshold levels have been measured in the prior three tests, field testing shall be requested no more often than twice yearly. Otherwise, field tests can be requested up to once monthly.

With implementation of Mitigation Measure AES-1, light levels from the proposed billboard will be required to remain consistent with guidelines and within urban ambient light conditions at residential receivers and potential impacts related to light and glare would be *less than significant*.



## 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 Dept. 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 with Mitigation	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?				<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				<input checked="" type="checkbox"/>
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))?				<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>

### *Agriculture and Forestry Resources (Criterion a-e)*

The Project site is in a developed urban area adjacent to a highway. No part of the site is zoned for or currently being used for agricultural or forestry purposes or is subject to the Williamson Act. The Project would have ***no impact*** on agriculture and forestry resources.

### 3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			<input checked="" type="checkbox"/>	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			<input checked="" type="checkbox"/>	
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			<input checked="" type="checkbox"/>	
d) Expose sensitive receptors to substantial pollutant concentrations?			<input checked="" type="checkbox"/>	
e) Create objectionable odors affecting a substantial number of people?			<input checked="" type="checkbox"/>	

#### *Air Quality Plan (Criterion a)*

The Project site is subject to the Bay Area Clean Air Plan, first adopted by BAAQMD (in association with the Metropolitan Transportation Commission and the Association of Bay Area Governments) in 1991 to meet state requirements and those of the federal Clean Air Act. As required by state law, updates are developed approximately every three years. The plan is meant to demonstrate progress toward meeting the ozone standards, and includes other elements related to particulate matter, toxic air contaminants, and greenhouse gases. The latest update to the plan, adopted in April 2017, is the Bay Area 2017 Clean Air Plan.

A project would be judged to conflict with or obstruct implementation of the regional air quality plan if it would be inconsistent with regional growth assumptions or implementation of control strategies. The Project would have no effect on growth of population or vehicle travel and the Clean Air Plan does not recommend measures directly applicable to this type of use. The Project, therefore, would be generally consistent with the Clean Air Plan and have a *less than significant* impact.

#### *Air Quality Standards/Criteria Pollutants (Criteria b-c)*

Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation and include ozone precursors (nitrogen oxides and reactive organic gases), carbon monoxide, and suspended particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The Bay Area is considered “attainment” for all standards, with the exception of ozone and particulate matter.

Past, present, and future development projects contribute to the region’s adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project’s individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project’s

contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.<sup>12</sup>

BAAQMD's updated CEQA Guidelines including thresholds of significance were adopted in May 2017. These thresholds are average daily emissions of 54 pounds per day or 10 tons per year of nitrogen oxides, reactive organic gases, or PM<sub>2.5</sub> and 82 pounds per day or 15 tons per year of PM<sub>10</sub>. Both the daily and annual thresholds apply to operation and only the daily thresholds apply to construction.

Air quality impacts fall into two categories: short-term impacts that would occur during construction of the Project and long-term impacts due to Project operation.

### **Construction Emissions**

BAAQMD presents screening criteria in their CEQA Guidelines that identify project sizes by type that could have the potential to result in emissions over threshold levels. For example, this table includes a construction-period criteria pollutant screening level of 114 single family dwelling units or 277,000 square feet of retail uses.<sup>13</sup> While construction of billboards is not specifically listed on this screening table, it can be reasonably concluded from a comparison to the entries on this table that the minimal construction activities required for this Project, including only a few days of activity, would be well below threshold levels.

BAAQMD recommends implementation of construction mitigation measures to reduce construction-related emissions and fugitive dust for all projects, regardless of the significance level of construction-period impacts. These basic measures are included in Mitigation Measure AIR-1 and would further reduce construction-period criteria pollutant impacts.

### **Mitigation Measure AIR-1:**

**Basic Construction Management Practices.** The Project applicant shall demonstrate proposed compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD Basic Construction Mitigation Measures:

- i) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- ii) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- iii) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- iv) All vehicle speeds on unpaved roads shall be limited to 15 mph.
- v) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- vi) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of

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<sup>12</sup> BAAQMD. California Environmental Quality Act Air Quality Guidelines, May 2017.

<sup>13</sup> Ibid.



Regulations). Clear signage shall be provided for construction workers at all access points.

- vii) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- viii) Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

### **Operational Emissions**

Similar to the analysis for construction-period impacts above, the Project was compared to BAAQMD screening criteria for operational pollutants. As it relates to operational pollutants, this table includes screening levels of 325 single family dwelling units or 99,000 square feet of regional shopping center uses.<sup>14</sup> These example uses would use over one million kilowatt-hours (kWh) of electrical energy per year in addition to natural gas and fuel for motor vehicles.<sup>15</sup>

The applicants provided electricity usage for a double-sided digital billboard of the same size and technology as the currently proposed billboard that is operating in the region (Belmont). The average daily usage for this digital billboard is about 192 kWh per day for an average annual usage of about 70,140 kWh. The energy usage of a digital billboard in the region is less than one tenth the emissions of a project that would be expected to have emissions above air quality screening threshold levels.

While operation of digital billboards is not specifically listed on this screening table, it can be reasonably concluded from a comparison to example uses in the BAAQMD screening table that operational emissions resulting from this Project would be well below threshold levels.

Additionally, BAAQMD presents as screening criteria for carbon monoxide impacts traffic-based criteria. As operation of the proposed Project would not impact traffic levels, the Project would be below carbon monoxide threshold levels.

Therefore, the Project impact related to operational pollutant emissions would be *less than significant*.

### ***Sensitive Receptors (Criterion d)***

For the purpose of assessing impacts of a proposed Project on exposure of sensitive receptors to risks and hazards, the threshold of significance is exceeded when the project-specific cancer risk exceeds 10 in one million, the non-cancer risk exceeds a Hazard Index of 1.0, or PM<sub>2.5</sub> concentrations exceed 0.3 micrograms per cubic meter. Examples of sensitive receptors are places where people live, play, or convalesce and include schools, hospitals, residential areas and recreation facilities.

Sensitive receptors are located within 350 feet of the proposed billboard to the west and within 250 feet to the east. The Project itself is not considered a sensitive receptor and operation of the Project would not be considered a source of hazardous air emissions. Construction activity that uses traditional diesel-powered equipment results in the emission of diesel particulate matter, which is considered a toxic air contaminant and potential health risk. The generation of these emissions would be temporary, confined to the construction-period of a few active days at the site. Given that the exposure duration would be a maximum

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<sup>14</sup> Ibid.

<sup>15</sup> Calculated using the current version of the California Emissions Estimator Model (CalEEMod version 2016.3.2).

of a few days over a four week period, whereas the methodology to assess health risks is not recommended for a construction period of less than two years, the potential health risk from construction-period emissions would be *less than significant*.

***Objectionable Odors (Criterion e)***

Operation of the billboard would not result in objectionable odors. During construction, diesel-powered vehicles and equipment would create odors that some may find objectionable. However, these odors would be temporary and not likely to be noticeable much beyond the Project site's boundaries. Therefore, the potential for objectionable odor impacts would be *less than significant*.

#### 4. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	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?		<input checked="" type="checkbox"/>		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?			<input checked="" type="checkbox"/>	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				<input checked="" type="checkbox"/>
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?			<input checked="" type="checkbox"/>	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>

#### ***Special Status Species and Habitat and Wetlands (Criteria a-c)***

A Biological Impact Assessment was conducted by H.T. Harvey and associates, as included in full as Attachment A. This included a site visit on December 29, 2017.

The Project site is located within an area currently occupied by an open-air United Rentals storage area with a concrete paved floor and wooden canopy. A chain-link fence separates the Project site from an approximately 5-ft wide strip of ruderal (i.e., disturbance-associated) vegetation that occupies the area between the site and I-880. Dominant vegetation within this ruderal habitat includes native species such as coast live oak (*Quercus agrifolia*) shrubs and coyote brush (*Baccharis pilularis*), and non-native species such as wild oat (*Avena fatua*), Arundo (*Arundo donax*), and silver wattle (*Acacia dealbata*) trees.

San Lorenzo Creek is located approximately 330 feet to the northwest of the Project site. It flows generally west, entering central San Francisco Bay near Roberts Landing, west of the Project site. The channel reach in the Project area, beginning at the Railroad Avenue crossing approximately 1.4 miles downstream of the Project site and continuing approximately 3 miles upstream of the site, is concrete lined and does not support any aquatic vegetation.

The vast majority of plant and animal species occurring on or immediately adjacent to the Project site are very common species associated with urban, developed, and ruderal conditions throughout the Bay Area. Due to the developed nature of the Project site and surrounding area, no special-status plant or animal species are expected to occur within the Project boundary. Special-status animal species, including the federally listed salt marsh harvest mouse (*Reithrodontomys raviventris*) and California Ridgeway's rail (*Rallus*



*obsoletus obsoletus*), as well as the Alameda song sparrow (*Melospiza melodia pusillula*), a California species of special concern, have been recorded in the marsh habitat surrounding the mouth of the San Lorenzo channel approximately 3 miles west of the Project site. No special-status wildlife species are expected to use the reach of the channel within 1 mile of the Project site because the channel is concrete-lined for more than 1 mile both upstream and downstream of the Project site and does not support any wetland habitat. Although historically present, runs of the federally listed Central California Coast steelhead (*Oncorhynchus mykiss*) no longer occur in San Lorenzo creek due to the highly modified nature of the lower reach and the construction of the Don Castro Reservoir, which prevents the migration of steelhead to suitable spawning habitat upstream.

### **Direct Effects of Billboard Installation**

Due to the highly disturbed nature of the Project site and the immediate vicinity, it is extremely unlikely that any special-status species would occur on the Project site. There was no evidence that sensitive species were present on the Project site and no habitat capable of supporting sensitive species is present within or immediately adjacent to the site.

No wetlands, riparian habitats, or other sensitive habitats are present within the Project site or a 100-ft buffer surrounding the Project site. Thus, no sensitive habitats would be impacted by the construction of the billboard. Further, no special-status plant or wildlife species are expected to occur within the Project area. The only wildlife species that may be using habitats in the immediate vicinity of the Project site during construction are common birds that are locally and regionally abundant. Project effects on these species will not be significant under CEQA.

Although no special-status bird species are expected to nest close enough to the Project site to be disturbed by Project construction, all native bird species that occur in the Project area are protected from take by the federal Migratory Bird Treaty Act and the California Fish and Game Code. Abandonment of an active nest because of Project construction activities could be considered take under the Fish and Game Code.

### **Mitigation Measure BIO-1:**

**Nesting Birds.** If construction occurs during the breeding season (January through August), the site and a surrounding radius of not less than 0.5 miles shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds protected under the Federal Migratory Bird Treaty Act and the California Fish and Wildlife Code. Pre-construction surveys shall be conducted within 15 days prior to start of work and shall be submitted to the Building Division. If the survey indicates the potential presences of nesting birds, the applicant shall comply with recommendations of the biologist regarding an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be based to a large extent on the nesting species and its sensitivity to disturbance.

With implementation of Mitigation Measure BIO-1, the impact related to direct effects on special-status species and habitats would be *less than significant*.

### **Indirect Effects of Illuminance on Off-Site Areas**

The potential for impacts related to illuminance of the billboard on wildlife in off-site areas was assessed. Some animals are extremely sensitive to light cues, which influence their physiology and shape their behaviors, particularly during breeding season. Artificial lighting may indirectly impact mammals and birds by increasing the nocturnal activity of predators and/or causing avoidance of well-lit areas resulting in a net loss of habitat availability and quality.

Areas surrounding the Project site are primarily developed urban and ruderal habitats that do not support sensitive species that might be significantly impacted by illuminance from the proposed LED billboard. Similarly, San Lorenzo Creek in the Project vicinity is not expected to support sensitive species due to a lack of suitable habitat. Nevertheless, common, urban-adapted species using the Project area may be subject to increased predation, decreased habitat availability (for species that show aversion to increased lighting), and alterations of physiological processes if the proposed LED billboard produces substantially greater illuminance than existing lighting in the Project area.

Light from currently existing sources illuminates areas adjacent to the Project site to a considerable extent, including light from roadway signage and signals, other signs and billboards, street lights, and security lighting adjacent to the site. LED lighting has a directional nature and the projected viewing angle values for the proposed billboard are  $\pm 30^\circ$  vertically and  $\pm 60^\circ$  horizontally, so the area of brightest night illuminance projected by the proposed billboard would form a narrow cone directed at oncoming traffic. The illuminance would dissipate such that illuminance beyond 250 feet would be minimal and that beyond 500 feet negligible.

Therefore, the LED billboard is not expected to substantially increase the amount of illuminance currently experienced by sensitive habitats (and the species inhabiting them) at the mouth of San Lorenzo Creek (the closest sensitive habitat). The indirect impact of illuminance from the billboard on sensitive habitats and species is *less than significant*.

#### ***Wildlife Corridors (Criterion d)***

The physical structure of the billboard itself would not impact the movement of any wildlife species. However, it is possible for artificial illuminance to affect avian flight behavior. The illuminance of a digital billboard could disorient nocturnally migrating birds moving through the Project area, causing them to potentially strike objects such as buildings, adjacent power lines, or even the billboard itself.

The visibility of the proposed digital billboard to birds in flight, and thus the risk they pose to flying birds, depends primarily on the beam angle of the billboard relative to the flightlines of birds and on the luminance (brightness) of the billboard as perceived by the birds. The directional nature of LED lighting and the projected viewing angle values of  $\pm 30^\circ$  vertically and  $\pm 60^\circ$  horizontally suggest that the viewing angle of the billboard will be narrow enough to preclude attracting migrating birds on clear nights, when they fly high enough to be outside the viewing angle of the billboard. Shaders located above each row of lights will prevent light from projecting upward into the sky. As a result, birds flying more than  $30^\circ$  above the center of the billboard's two beam angles (i.e., northwest and southeast) will not be able to see light from the sign at all. While migrating birds would normally fly higher than  $30^\circ$ , they are forced to fly low during foggy and rainy conditions, which may bring them into the viewing angle of the billboard.

The LED display on the billboard face would be changed every 8 seconds from a static image to a static image, changing the colors, patterns of color, and illuminance of the billboard. Therefore, birds flying near the billboard would not perceive it as a fixed, unchanging light, the type of light most attractive to birds. Migratory birds are attracted to fixed, unchanging light.

Because the area immediately surrounding the Project site is heavily urbanized, large numbers of birds (including species of conservation concern) would not be using a northwest to southeast or southeast to northwest flight corridor (i.e., the alignment of the beams of the proposed LED billboard) through the Project area. The nearest suitable foraging habitat for seabirds and shorebirds is at San Francisco Bay, located approximately 2 miles to the west and Lake Chabot located 2.5 miles to the northeast. Seabirds or shorebirds would follow the coastline and it is unlikely that they would be traveling from San Francisco Bay southeast or northwest across the Project site. It is far more likely that birds would follow the coastline and/or travel across the Project area in a northeast-southwest direction while flying from Lake Chabot to

the San Francisco Bay or vice versa, which would be outside the billboard viewing angle. Therefore, birds moving through or around the Project area are not expected to be attracted to the sign for such a long duration that bird-strike mortality occurs or substantial interference with bird movements occurs.

Given the configuration of bird habitats in the vicinity of the site (which does not lend itself to directed bird flights toward the billboard), the changing images that will be displayed on the LED billboard, the narrow viewing angle, and the use of shaders to prevent light from projecting upward into the sky, the Project's impacts on avian flight behavior would be *less than significant*.

***Local Policies and Ordinances (Criterion e)***

There are no local policies or ordinances related to biological resources applicable to the Project. The Project would have *no impact* with respect to conflicts with local policies and ordinances.

***Habitat Conservation Plan (Criterion f)***

There is no Habitat Conservation Plan applicable to the Project site. Therefore, the Project would have *no impact* in this regard.



## 5. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Public Resources Section 15064.5?			<input checked="" type="checkbox"/>	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Section 15064.5?		<input checked="" type="checkbox"/>		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			<input checked="" type="checkbox"/>	
d) Disturb any human remains, including those interred outside of formal cemeteries?			<input checked="" type="checkbox"/>	

### *Historic, Archaeological and Paleontological Resources, and Human Remains (Criteria a-d)*

The Project site is previously disturbed and there are no known resources at the site. A records search performed by the Northwest Information Center (included as Attachment D) confirmed there are no known cultural resources on the site; however, the potential for unrecorded resources is considered moderate to high.

Construction of the Project involves minimal ground disturbance. In the event archaeological or paleontological resources or human remains are discovered on site, these resources would be handled according to applicable regulations (Public Resources Code Sections 21083.2, 21084.1, 5097.98, 15064.5(d) and/or Section 7050.5 of the Health and Safety Code).

#### **Mitigation Measure CUL-1:**

**Halt Construction Activity, Evaluate Find and Implement Mitigation.** In the event that archaeological resources are discovered during construction, operations shall stop within 50 feet of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The developer shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.

#### **Mitigation Measure CUL-2:**

**Halt Construction Activity, Evaluate Remains and Take Appropriate Action in Coordination with Native American Heritage Commission.** In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
  - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
  - The descendant identified fails to make a recommendation.
  - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

With implementation of Mitigation Measures CUL-1 and CUL-2, which are standard procedures for any project in California, the impact would be *less than significant*.

## 6. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42)</li> <li>ii) Strong seismic ground shaking?</li> <li>iii) Seismic-related ground failure, including liquefaction?</li> <li>iv) Landslides?</li> </ul>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?			<input checked="" type="checkbox"/>	
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?			<input checked="" type="checkbox"/>	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			<input checked="" type="checkbox"/>	
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?				<input checked="" type="checkbox"/>

### *Seismic Hazards, Unstable or Expansive Soils (Criteria a, c-d)*

The San Francisco Bay Area is a seismically active region and the structure is likely to encounter strong seismic ground shaking during its lifetime. There are no active earthquake faults known to pass through the Project area; the closest being the Hayward Fault just under two miles to the east.<sup>16</sup> The Project site would be subject to very strong ground shaking during a seismic event and impacts would be less than significant. There would be no impact related to rupture of a known earthquake fault.

The Project is located in a relative flat area with no slopes that could be considered a landslide risk. There would be no impact related to landslides.

There are no recognized unique geologic features or physical features that would be affected by the construction of the proposed Project.

The site includes area built on Yolo silt loam, a well-drained soil with moderate permeability.<sup>17</sup> The Project requires building permits and will be required to be constructed to the current building code standards

<sup>16</sup> California Department of Conservation. California Geological Survey Regulatory Maps. Website accessed December 28, 2017, at <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>.

<sup>17</sup> U.S. Department of Agriculture. National Cooperative Survey. Website accessed January 24, 2018 at: [https://soilseries.sc.egov.usda.gov/OSD\\_Docs/Y/YOLO.html](https://soilseries.sc.egov.usda.gov/OSD_Docs/Y/YOLO.html)

including consideration of soil, geologic, and seismic conditions based upon a geotechnical report prepared by a certified professional. Therefore, impacts related to seismic hazards and unstable or expansive soils would be *less than significant*.

***Soil Erosion (Criterion b)***

The Project would not involve grading and only minimal ground disturbance (less than one acre). The Project would not involve changes in topography or soil erosion. The impact related to soil erosion would be *less than significant*.

***Septic Tanks (Criterion e)***

The Project would not include the use of septic tanks and associated disposal facilities. Therefore, the Project would have *no impact* in this regard.



## 7. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			<input checked="" type="checkbox"/>	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				<input checked="" type="checkbox"/>

### *Greenhouse Gas Emissions (Criterion a)*

BAAQMD has determined that greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. The operational threshold of 1,100 metric tons carbon dioxide equivalent (MTCO<sub>2</sub>e) per year was used for both the construction-period and operational period for a conservative analysis.

CalEEMod's GHG Emissions Model includes a GHG emission factor of 641 lbs of CO<sub>2</sub> per megawatt-hour of electricity use.<sup>18, 19</sup> The annual average usage, based upon that for a double-sided LED billboard of the same size as the current proposal, is 70,140 kWh. This results in emissions of 20.3 metric tons CO<sub>2</sub> per year. This is well below the threshold level of 1,100 metric tons.

BAAQMD does not suggest a threshold for assessing construction-period GHG emissions impacts or provide a screening level for comparing projects. The construction-period GHG emissions for the Project would be minimal and would add a negligible amount to the lifetime operational GHG emissions discussed above. Therefore, the Project impact related to GHG emissions would be *less than significant*.

### *Greenhouse Gas Reduction Plans (Criterion b)*

The Alameda County Unincorporated Community Climate Action Plan, approved by the Board of Supervisors on February 4, 2014, addresses reduction of GHG emissions through a series of 37 local programs and policy measures related to transportation, land use, building, energy, water, waste, and green infrastructure. The Plan is intended enable the County to reduce its community-wide emissions by more than 15% by the year 2020.

GHG emissions associated with the development of the proposed Project are estimated to be 25.6 metric tons CO<sub>2</sub> per year, which is less than 0.1% of the projected GHG emissions for the commercial/industrial sector.<sup>20</sup> Development of the Project is required to comply with California Title 24 standards for energy efficiency. Development of the Project would not conflict with the Plan's goals for GHG emissions reduction in the commercial/industrial sector, which are specific to commercial and industrial buildings and include emphasizing energy efficiency retrofits for existing buildings, energy performance requirements for new construction, increasing use of renewable energy, and improving community energy management and therefore are not directly applicable to the project. Therefore, there would be *no impact* in relation to consistency with GHG reduction plans.

<sup>18</sup> User's Guide for CalEEMod version 2016.3.2, November 2017. Appendix D, Table 1.2.

<sup>19</sup> Other GHGs would have a negligible contribution to overall GHG levels from energy usage, so were not calculated here.

<sup>20</sup> Alameda County. Alameda County (Unincorporated Areas) Community Climate Action Plan. Table 1.1, February 2014.

## 8. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	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?			<input checked="" type="checkbox"/>	
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?			<input checked="" type="checkbox"/>	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
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 for people residing or working in the project area?			<input checked="" type="checkbox"/>	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				<input checked="" type="checkbox"/>

### *Hazardous Materials (Criteria a-b)*

Digital billboards are designed to withstand wind forces as required by state law, and are subject to building permit requirements that ensure compliance with applicable building and electrical codes. Soil conditions are identified and considered in the design of such structures. No hazardous materials are emitted during operation of the billboard.

Project operations are not expected to create a significant hazard through the routine transport, use or disposal of hazardous materials. This analysis assumes that any materials used during construction activities or for maintenance of the billboard that would be considered hazardous would be used in compliance with applicable regulations. State and federal laws require proper handling, use and disposal of hazardous materials. These same laws and regulations require the prevention and reduction of injury to people and the environment in the event of an accidental release. Consequently, there are no reasonably foreseeable operational upset or accidental conditions that would involve a significant release of hazardous materials into the environment.

Electronic components of the billboard may contain materials that, when disposed, are considered “e-waste” due to potentially hazardous metals, flame retardants, and other chemicals. The operator is required to follow applicable regulations regarding proper disposal and/or recycling, as appropriate, as components are replaced or removed over time.

With compliance with applicable regulations, the impact relating to use or upset of hazardous materials at this site would be *less than significant*.

#### ***Hazardous Materials Near Schools (Criterion c)***

No school is located within one-quarter mile of the Project site. No hazardous materials with the potential for release during operation would be handled on or emitted from the site. As noted above, any materials used during construction activities or for maintenance of the billboard that would be considered hazardous would be used in compliance with applicable regulations. The Project would have *no impact* related to potential exposure of students at nearby schools to hazardous materials at the Project site.

#### ***Hazardous Material Site (Criterion d)***

The Project site is not included on a list of hazardous materials sites and there would be *no impact*.<sup>21, 22</sup>

#### ***Airport Hazards (Criteria e-f)***

The Project site is approximately 1.25 miles north of the Hayward Executive Airport and lies within its Airport Influence Area. The Project site is not within the Airport Influence Area of the Oakland International Airport approximately 4.75 miles to the northwest. Although the Project is not within the Hayward airport's safety compatibility zone, it is nonetheless required to comply with the Federal Aviation Regulations Part 77 due to its location within the Airport Influence Area. Federal Aviation Administration review is required for any proposed structure more than 200 feet above the ground level of its site.<sup>23</sup> The proposed billboard would rise a maximum of 59 feet above a site approximately 42 feet above mean sea level, and Federal Aviation Administration review has determined the billboard would pose no hazard to air navigation.<sup>24</sup>

Additionally, the billboard would not be considered a hazard to air navigation as it would not generate smoke or rising columns of air, would not attract large concentrations of birds, would not generate electrical interference that would interfere with aircraft communications or aircraft instrumentation, would not reflect sunlight, and would not direct steady or flashing lights toward aircraft.

There are no other airports, either public or private, within the vicinity of the Project. There would be a *less than significant* impact related to airport hazards.

#### ***Emergency Response Plan (Criterion g)***

The Project would not alter traffic patterns and would not impair implementation of any adopted emergency response plan or emergency evacuation plan. The Project would therefore have *no impact* related to an emergency response plan.

#### ***Wildland Fire (Criterion h)***

The Project site is located in an urbanized area removed from areas typically subject to wildland fire. Therefore, the Project would have *no impact* related to wildland fire.

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<sup>21</sup> GeoTracker database accessed at:  
<http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=15740+hesperian+boulevard%2C+san+lorenzo%2C+c>.

<sup>22</sup> EnviroStor database accessed at:  
<http://www.envirostor.dtsc.ca.gov/public/map/?myaddress=15740+hesperian+boulevard%2C+san+lorenzo%2C+ca>.

<sup>23</sup> Alameda County Airport Land Use Commission. Hayward Executive Airport Land Use Compatibility Plan, August 2012.

<sup>24</sup> LaDonna James, Federal Aviation Administration Southwest Regional Office, to Stephen Shinn, January 23, 2018.

## 9. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Result in a significant increase in pollutant discharges to receiving waters (marine, fresh, and/or wetlands) during or following construction (considering water quality parameters such as temperature, dissolved oxygen, turbidity, and typical stormwater pollutants, e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)?			<input checked="" type="checkbox"/>	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			<input checked="" type="checkbox"/>	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				<input checked="" type="checkbox"/>
d) Substantially increase the rate or amount of surface runoff (e.g., due to increased impervious surfaces) in a manner which would result in flooding on- or off-site (i.e. within a watershed)?				<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems due to changes in runoff flow rates or volumes?				<input checked="" type="checkbox"/>
f) Result in an increase in any pollutant for which a water body is listed as impaired under Section 303(d) of the Clean Water Act?			<input checked="" type="checkbox"/>	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?			<input checked="" type="checkbox"/>	

### ***Water Quality and Pollutants (Criteria a, f)***

Operation of the Project would not involve the use of water or generation of waste water. Construction activities, such as drilling a hole for the foundation, trenching for electricity connection, and pouring concrete, have the potential to impact water quality through increased sediment loads in runoff. Fuel, oil, grease, solvents, and other chemicals used in construction activities have the potential to create toxicity problems if allowed to enter a waterway. Construction activities are also a source of various other materials including trash, soap, and sanitary wastes.

Construction activities at the Project site would be limited to a few active days for installation. Potential impacts would be minimal, and compliance with County and State regulations would reduce any potential impacts to surface water and drainage to a ***less than significant*** level.



### ***Groundwater (Criterion b)***

The proposed Project is not expected to involve substantial excavation that would impact groundwater. Dewatering activities are not anticipated to be necessary, but if subsequently determined to be required, any dewatering activities associated with the proposed Project must comply with the General Construction Permit and requirements established by the San Francisco Bay Regional Water Quality Control Board to ensure that such activities would not result in substantial changes in groundwater flow or quality.

Following construction, the Project would not substantially change impervious surface area and would not have a substantial impact on groundwater recharge.

Therefore, the proposed Project would have a ***less than significant*** impact on groundwater.

### ***Runoff, Drainage and Flooding (Criteria c-e, g-i)***

The Project would not require service for water. Existing drainage at each site would be maintained, and no increases in stormwater would result. The Project is not within a 100-year flood zone<sup>25</sup> and does not consist of housing or present a risk for flooding or redirection of flood flows. Therefore, there would be no impacts related to runoff, drainage or flooding.

### ***Inundation (Criterion j)***

Project site elevations are approximately 43 feet above mean sea level. The Project site is not considered at risk for tsunami inundation.<sup>26</sup> Climate change induced sea level rise is estimated at up to 17 inches by 2050 and 69 inches by 2100.<sup>27</sup> Therefore, the site is not in danger of inundation from a tsunami or climate change induced sea level rise. Further, the site is not located near an inland body of water, nor is it located adjacent to a soil slope susceptible to rapid mass wasting or mudflows. Therefore, there would be a ***less than significant*** impact due to inundation by seiche, tsunami, mudflow or sea level rise.

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<sup>25</sup> Federal Emergency Management Agency. Flood Insurance Rate Map Panel 06001C0267G, August 3, 2009.

<sup>26</sup> California Department of Conservation. California Geological Survey Tsunami Inundation Maps. Accessed December 28, 2017 at: <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=tsunami>.

<sup>27</sup> Bay Conservation and Development Commission, adopted Oct 6, 2011, *San Francisco Bay Plan*.

**10. LAND USE AND PLANNING**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			<input checked="" type="checkbox"/>	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				<input checked="" type="checkbox"/>

***Physical Division of a Community (Criterion a)***

The Project site is within a developed commercial and residential area adjacent to a freeway. The billboard would not involve any physical changes that would have the potential to divide the established community. The Project would have ***no impact***.

***Conflict with Land Use Plan (Criterion b)***

The Project site is within Subarea 1 of the San Lorenzo Village Specific Plan.<sup>28</sup> The proposed digital billboard would be consistent with the commercial uses standards identified in Specific Plan, which allow for Advertising Signs (Billboards) when proposed pursuant to a relocation agreement for legal existing billboards. Proposals for new billboards within unincorporated Alameda County require Site Development Review approval subject to the Alameda County Zoning Ordinance. The Project will comply with Outdoor Advertising Association of America guidelines to minimize light (see the Aesthetics section for additional detail) and applicable highway safety regulations (see the Transportation section for additional detail) to minimize the potential for hazards.

Currently, Section 17.52.550 of the Alameda County Zoning Ordinance prohibits advertising signs adjacent to scenic routes. The Scenic Route Element of the Alameda County General Plan, which was adopted in 1966, appears to designate all major thoroughfares in Alameda County as Scenic Routes. Amendments to the Zoning Ordinance recently approved by the Alameda County Board of Supervisors will eliminate Section 17.52.550, while adding specific language to section 17.52.515 giving the County discretion to approve new billboards under the Site Development Review process. See also the discussion in the “Aesthetics” section which independently determined that the Project would not have a significant impact on aesthetics. Because the conflict would be remedied prior to approval of this Project and approval would not result in significant aesthetic impacts to which the conflict related, the Project would have a ***less than significant*** impact in relation to conflict with a land use plan.

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<sup>28</sup> The San Lorenzo Village Center Specific Plan is an implementation measure of the Alameda County General Plan.

*Conflict with Conservation Plan (Criterion c)*

The Project site, which is surrounded by urban development, is not subject to a conservation plan. The Project would have *no impact*.

## 11. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	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?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>

### *Mineral Resources (Criteria a-b)*

The site contains no known mineral resources and has not been delineated as a locally important mineral recovery site on any land use plan.<sup>29, 30</sup> The Project would have ***no impact*** on mineral resources.

<sup>29</sup> Alameda County Planning Department. San Lorenzo Village Center Specific Plan, October 2004.

<sup>30</sup> Alameda County Community Development Agency. Eden Area General Plan, March 2010.



**12. NOISE**

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			<input checked="" type="checkbox"/>	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
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, exposure of people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>
f) For a project in the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>

***Excessive Noise or Vibration (Criteria a-d)***

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time (typically greater than one year).

Significant noise impacts do not normally occur when standard construction noise control measures are enforced, and when the duration of the noise generating construction period at a particular receiver or group of receivers is limited to one construction season or less. In this case, the active construction period would only be a few days.

The most pervasive and significant noise source in the Eden Area is vehicular traffic noise on streets and highways. Interstates 880 and 580 and Highway 238 carry the highest volumes of traffic and are the noisiest roadway corridors, though large arterials and collectors, such as Hesperian Boulevard, Grant Avenue and East 14th Street/Mission Boulevard, are also significant contributors.

The Eden Area General Plan limits construction in the vicinity of noise sensitive land uses, such as residences, hospitals or convalescent homes, shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday, and to 8:00 a.m. to 5:00 p.m. Saturday and Sunday.<sup>31</sup> Construction of the Project would comply with these regulations.

<sup>31</sup> Alameda County Community Development Agency. Eden Area General Plan, March 2010.

Following construction, operation of a digital billboard does not produce substantial levels of vibration or noise.

Impacts from noise and vibration generated by the construction and operation of the billboard would be *less than significant*.

*Airport Noise (Criteria e-f)*

A billboard is not a noise sensitive use. Therefore, the Project would have *no impact* related to airport noise.

**13. POPULATION AND HOUSING**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial 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)?				<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				<input checked="" type="checkbox"/>

***Substantial Population Growth (Criteria a-c)***

The proposed Project would not induce population growth and would displace neither existing housing nor people. The Project would therefore have ***no impact*** related to population and housing.

**14. PUBLIC SERVICES**

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 following public services?	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Fire protection.				<input checked="" type="checkbox"/>
b) Police protection.				<input checked="" type="checkbox"/>
c) Schools.				<input checked="" type="checkbox"/>
d) Parks.				<input checked="" type="checkbox"/>
e) Other public facilities.				<input checked="" type="checkbox"/>

***Public Services (Criteria a-e)***

The proposed Project would not increase the demand for public services. The Project would therefore have ***no impact*** related to public services.

**15. RECREATION**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.				<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.				<input checked="" type="checkbox"/>

***Recreation (Criteria a-b)***

The proposed Project would not construct or increase the use of recreational facilities. The Project would therefore have ***no impact*** related to recreation.



**16. TRANSPORTATION**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		<input checked="" type="checkbox"/>		
e) Result in inadequate emergency access?				<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				<input checked="" type="checkbox"/>

***Vehicle and Air Traffic and Alternative Transportation (Criteria a-c, f)***

The operation of digital billboards would not result in any increase in vehicle trips or changes in air traffic patterns or alternative transportation. Traffic generated for construction would be minimal in both volume and duration. The Project would have ***no impact***.

***Hazards (Criterion d)***

The Project proposes to construct and operate one double-sided digital billboard directed for visibility from Interstate 880.

Digital billboards employ LED technology and allow for periodic changes in display. The capability of digital billboards to present changing images has raised concerns regarding the effect of such signage on traffic safety. The primary concern has been effects on driver attention, but concerns have also been raised regarding the potential for such signage to produce light of such intensity or direction that it could interfere with driver vision.

FHWA has addressed signage issues in general, and digital signs in particular. As part of its agreement with various states pursuant to the Highway Beautification Act, for example, FHWA has confirmed that no sign is allowed that imitates or resembles any official traffic sign, and that signs may not be installed in such a manner as to obstruct, or otherwise physically interfere with an official traffic sign, signal, or device, or to obstruct or physically interfere with the vision of drivers in approaching, merging or intersecting traffic. These provisions may be enforced by the FHWA, but the agreement with the State of California also requires Caltrans to enforce these provisions.

The FHWA has responded to the development of signs that present changing messages, either mechanically or digitally, with an interpretation of its agreements with the states pursuant to the Highway Beautification Act. The FHWA discussed changeable message signs in a Memorandum dated July 17, 1996, concluding that a state could reasonably interpret the provisions of its agreement with the FHWA to allow such signs and that the state should determine the frequency of message change and limitation in spacing.

On September 25, 2007, the FHWA again issued a Memorandum on the subject of off-premises changeable electronic variable message signs, or CEVMS. The Memorandum stated that proposed laws, regulations and procedures that allowed CEVMS subject to acceptable criteria would not violate the prohibition on intermittent or flashing or moving signs as used in the state agreements. The Memorandum identified ranges of acceptability relating to such signage, as follows:

- Duration of message: Duration of display is generally between 4 and 10 seconds; 8 seconds is recommended;
- Transition time: Transition between messages is generally between 1 and 4 seconds; 1 to 2 seconds is recommended;
- Brightness: The sign brightness should be adjusted to respond to changes in light levels;
- Spacing: Spacing between the signs should be not less than the minimum specified for other billboards, or greater if deemed required for safety;
- Locations: Location criteria are the same as for other signage, unless it is determined that specific locations are inappropriate.

The Memorandum also referred to other standards that have been found helpful to ensure driver safety. These include a default designed to freeze the display in one still position if a malfunction occurs; a process for modifying displays and lighting levels where directed by Caltrans to assure safety of the motoring public; and requirements that a display contain static messages without movement such as animation, flashing, scrolling, intermittent or full-motion video. Manufacturers and operators of digital billboards currently use a full-black screen in the event of a malfunction.

In addition to the provisions of the Highway Beautification Act (23 United States Code §131) and the FHWA memoranda discussed above, the State of California has adopted the Outdoor Advertising Act (Business and Professions Code §§5200 et seq.) and regulations implementing its provisions (California Code of Regulations, Title 4, Division 6, §§2240 et seq.). These include provisions that deal specifically with message centers, which are defined as “an advertising display where the message is changed more than once every two minutes, but no more than once every four seconds” (§5216.4).

Consistent with the memoranda executed pursuant to the Highway Beautification Act, the Outdoor Advertising Act provides that message center displays that comply with its requirements are not considered flashing, intermittent or moving light. (§5405(d)(1)) The requirements provide that such signs must not display messages that change more than once every four seconds, and that no message center may be placed within 1,000 feet of another message center display on the same side of the highway.

The California Vehicle Code regulates the brightness of billboard lighting. Vehicle Code §21466.5, which identifies the applicable standard, may be enforced by Caltrans, the California Highway Patrol, or local authorities. Vehicle Code §21467 provides that each prohibited sign, signal, device or light is a public nuisance and may be removed without notice by Caltrans, the California Highway Patrol or local authorities.

Caltrans requires that any person engaged in the outdoor advertising business must obtain a license from Caltrans and pay the required fee. (§5300) No person may place any advertising display in areas subject to Caltrans authority without having a written permit from Caltrans (§5350).

These provisions of law and regulation effectively regulate sign location and brightness to ensure that digital billboards will not be located in such a manner as to create hazards due to lighting conditions themselves. Digital billboards are equipped with sensors that modify the brightness of the sign in response to ambient lighting conditions, thus ensuring that the brightness of the display in evening, nighttime or dawn conditions does not present a traffic hazard.

As digital billboard technology has developed, the issue has been raised as to whether digital billboards themselves, regardless of compliance with such operating restrictions, present a distraction to drivers and thereby create conditions that could lead to accidents. FHWA has monitored the issue closely, and released its report updating the agency's view of the issues and research most recently in 2012.<sup>32, 33</sup>

The FHWA reports address the basic research question of whether operation of a CEVMS along the roadway is associated with a reduction of driving safety for the public. The reports identified three fundamental methods for answering this question: (1) whether there is an increase in crash rates in the vicinity of CEVMS, (2) whether there is an increase in near-crashes, sudden braking, sharp swerving and other such behaviors in the vicinity of CEVMS, and (3) whether there are excessive eye glances away from the roadway in the vicinity of CEVMS.

The reports discuss existing literature and reports of studies, key factors and measures relating to CEVMS and effects on traffic. An extensive bibliography is included in the reports. The reports do not purport to provide guidance to states on the control of CEVMS. The report confirmed that there have been no definitive conclusions about the presence or strength of adverse safety impacts from CEVMS. Similarly, a study performed under the National Cooperative Highway Research Program (NCHRP), Project 20-7 (256) titled "Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs" (NCHRP Report) reviewed existing literature. These reports agreed that digital billboards should be regulated as a means of protecting the public interest. A subsequent FHWA report confirmed through a study using an eye-tracking system that the percentage of time that drivers dedicated to the road ahead was not significantly affected by the presence of CEVMS.<sup>34</sup>

Various restrictions have been identified in reports that relate to the location and operation of digital billboards that seek to reduce safety concerns. These relate to brightness, message duration and message change interval, billboard location with regard to official traffic control devices, roadway geometry, vehicle maneuver requirements at interchanges (i.e., lane drops, merges and diverges), and specific constraints on the placement and operation of such signs. Regulation of operations could include, for example, the time any single message may be displayed, the time of message transition, brightness of the sign and controls that adjust brightness based on the ambient light environment, and design and placement that ensures that the sign does not confuse drivers, or create dangerous glare.

Restrictions on digital billboards contained within the Outdoor Advertising Act and enforced by Caltrans regulate many of the conditions that have been identified as relevant to traffic safety. Caltrans regulates the location and size of each proposed digital billboard through its application process as well as the distance between such signs. California statutory provisions regulate brightness of displays. Through state law and the Vehicle Code, such signage would be prohibited from displaying flashing lights or images.

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<sup>32</sup> U.S. Department of Transportation Federal Highway Administration, *The Effects of Commercial Electronic Variable Message Signs (CEVMS) on Driver Attention and Distraction: An Update*, February 2009, Publication no. FHWA-HRT-09-018. Available at [https://www.fhwa.dot.gov/real\\_estate/cevms.pdf](https://www.fhwa.dot.gov/real_estate/cevms.pdf).

<sup>33</sup> U.S. Department of Transportation Federal Highway Administration, *Driver Visual Behavior in the Presence of Commercial Electronic Variable Message Signs (CEVMS)*, September 2012, Publication no. FHWA-HEP-16-036. Available at [https://www.fhwa.dot.gov/real\\_estate/oac/visual\\_behavior\\_report/final/](https://www.fhwa.dot.gov/real_estate/oac/visual_behavior_report/final/).

<sup>34</sup> Ibid.

There are various studies supporting conflicting conclusions regarding the safety of digital billboards and incidence of driver distraction. The analysis in this document has been performed using state and federal published studies and adopted regulations as the best information available at this time.

Significant effects could occur if the proposed digital billboard did not comply with restrictions regarding location, intensity of light, light trespass, or other restrictions, especially those enforced by Caltrans pursuant to its authority under the agreements between the U.S. Department of Transportation under the Highway Beautification Act, and the Outdoor Advertising Act. Mitigation Measure TRAN-1 would ensure that the County receives accurate information from the operator regarding compliance on an ongoing basis.

**Mitigation Measure TRAN-1:**

**Annual Report.** Upon request by the County, the operator of the digital billboard shall submit to the County, within thirty days following June 30 of each year, a written report regarding operation of each digital billboard during the preceding period of July 1 to June 30. The operator may submit a combined report for all such digital billboards operated by such operator within the County limits. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Community Development Director and shall include information relating to the following:

- a. Status of the operator's license as required by California Business and Professions Code §§5300 et seq.;
- b. Status of the required permit for individual digital billboards, as required by California Business and Professions Code §§5350 et seq.;
- c. Compliance with the California Outdoor Advertising Act, California Business and Professions Code §§5200 and all regulations adopted pursuant to such Act;
- d. Compliance with California Vehicle Code §§21466.5 and 21467;
- e. Compliance with provisions of written agreements between the U.S. Department of Transportation and the Caltrans pursuant to the Federal Highway Beautification Act (23 United States Code §131);
- f. Compliance with mitigation measures identified in the Mitigated Negative Declaration adopted as part of Project approval;
- g. Each written or oral complaint received by the operator, or conveyed to the operator by any government agency or any other person, regarding operation of each digital billboard included in the report;
- h. Each malfunction or failure of each digital billboard included in the report, which shall include only those malfunctions or failures that are visible to the naked eye, including reason for the malfunction, duration and confirmation of repair; and,
- i. Operating status of each digital billboard included in the report, including estimated date of repair and return to normal operation of any digital billboard identified in the report as not operating in normal mode.

Another area of concern is the potential development of interactive billboards that would be capable of communicating with vehicles or passenger devices. The use and development of this technology could have consequences, and should be identified by the operator prior to any implementation. Mitigation Measure TRAN-2, set forth below, would require notice to the County in the event such features are proposed. The mitigation measure also confirms prohibitions on visual effects.

**Mitigation Measure TRAN-2:**

**Operational Safety.** The operator shall not install or implement any technology that would allow interaction with drivers, vehicles, or any device located in vehicles, including, but not limited to a radio frequency identification device, geographic positions system, or other device without prior approval of the County, taking into consideration technical studies and Caltrans or U.S. Department of Transportation policies and guidance available at the time of the request.

Implementation of Mitigation Measures TRAN-1 and TRAN-2 would ensure ongoing compliance with traffic safety regulations and control the use of visual effects and driver interaction that could distract drivers. With implementation of these mitigation measures, impacts on transportation and traffic safety would be *less than significant*.

***Inadequate Emergency Access (Criterion e)***

The proposed billboard would be located outside travelled portions of the roadway and would present no obstacles to emergency access. The Project would have *no impact* on emergency access.

The billboard would have the capacity to display official messages regarding emergencies, and could perform as part of the emergency response system, thus resulting in beneficial impacts.



## 17. TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	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: 1) 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, that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code section 5020.1(k), or 2) a resource determined by a lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code section 5024.1 (c), and considering the significance of the resource to a California Native American tribe.		<input checked="" type="checkbox"/>		

### *Tribal Cultural Resources (Criterion a)*

The Project site is previously disturbed and there are no known resources at the site. In March 2018, the County sent letters describing the proposed project to the local Native American tribes provided by the California Native American Heritage Commission as having an interest in the project area. To date, no requests for consultation were received from the tribes and no tribal concerns or tribal cultural resources have been identified.

Construction of the Project involves minimal ground disturbance. Available resources indicate that the site is of moderate archaeological sensitivity as shown in **Figure 13**.<sup>35</sup> In the event tribal cultural resources are discovered on site, Mitigation Measure TCR-1 would be required to protect these resources.

#### **Mitigation Measure TCR-1:**

**Unanticipated Discovery of Tribal Cultural Resources.** In the event that cultural resources of Native American origin are identified during construction, Alameda County shall consult with a qualified archaeologist and begin or continue Native American consultation procedures. If Alameda County determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. If the resource cannot be avoided, additional measures to avoid or reduce impacts to the resource and to address tribal concerns may be required.

With implementation of Mitigation Measure TCR-1, the impact on tribal cultural resources would be *less than significant*.

<sup>35</sup> Quaternary Research Group, Archaeology in Alameda County, October, 1976







**18. UTILITIES AND SERVICE SYSTEMS**

Would the project	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				<input checked="" type="checkbox"/>
e) 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?				<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?				<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?				<input checked="" type="checkbox"/>

***Utilities (Criteria a-g)***

The proposed billboard would require electrical service. Providing such service through extension of existing electrical service in the vicinity would not result in any significant effects.

The Project would not generate any wastewater or require a supply of potable water. Construction and operation of the digital billboard would not require other utility services, and would not affect drainage.

Installation of the proposed billboard would require coordination with various other utility companies via the Underground Service Alert to prevent conflicts with subterranean utilities. The Project would have ***no impact*** on utility services.

***Energy***

The annual average usage, based upon that for a double-sided LED billboard of the same size as the current proposal, is 70,140 kWh. The digital billboard installed and operated as part of the Project would use electrical energy, and would be constructed pursuant to current electrical codes, including Title 24. These standards would ensure that electrical energy would be used efficiently. The GHG emissions associated with this energy demand are addressed under the Greenhouse Gas Emissions section above. The underlying question as to whether digital billboards are an effective or desirable use of electrical energy is a policy question that may be considered in the Project review process, but the environmental effects of the Project related to energy use would be ***less than significant***.

**19. MANDATORY FINDINGS OF SIGNIFICANCE**

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		<input checked="" type="checkbox"/>		
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.)		<input checked="" type="checkbox"/>		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		<input checked="" type="checkbox"/>		

***Environmental Quality (Criterion a)***

With the implementation of mitigation measures identified in this document, the Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. The Project would not impact rare or endangered wildlife species, or eliminate important examples of the major periods of California history or prehistory.

***Cumulative Impacts and Adverse Effects on Human Beings (Criteria b-c)***

Caltrans limits billboards to one every 500 linear feet along the length of the highway and digital billboards to every 1,000 linear feet, which leaves the possibility that additional billboards could be added along I-880 in the vicinity. This has the potential to result in additional cumulative aesthetics impacts. Any additional billboards, whether digital or conventional, would be required to undergo Design Review and County approval processes, which generally require relocation/removal of one or more other billboards for a net reduction in the total number of billboards. While the specific location of future billboard proposals cannot be known at this point, it can be concluded that specifics of impacts to views would be considered for each proposed location. Therefore, the Project’s contribution to cumulative impacts in relation to aesthetics would be considered less than significant.

The Project otherwise does not have individually limited but cumulatively considerable adverse impacts and would not involve substantial adverse effects on human beings, either directly or indirectly, including effects for which project-level mitigation were identified to reduce impacts to less than significant levels. These include impacts related to disturbance of nesting birds during construction and the discovery of unknown cultural resources during construction. These potential effects would be less than significant with implementation of mitigation measures identified in this document and would not contribute in considerable levels to cumulative impacts.

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This document was prepared in consultation with Damien Curry, Community Development Agency, Alameda County.

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# **ATTACHMENT A**

## **Biological Impacts Assessment**





February 15, 2019

Ms. Sharon Wright  
Lamphier-Gregory  
1944 Embarcadero  
Oakland, CA 94606

Subject: 15740 Hesperian Boulevard Clear Channel Billboard Project Biological Impacts Assessment  
(HTH #4121-01)

Dear Ms. Wright:

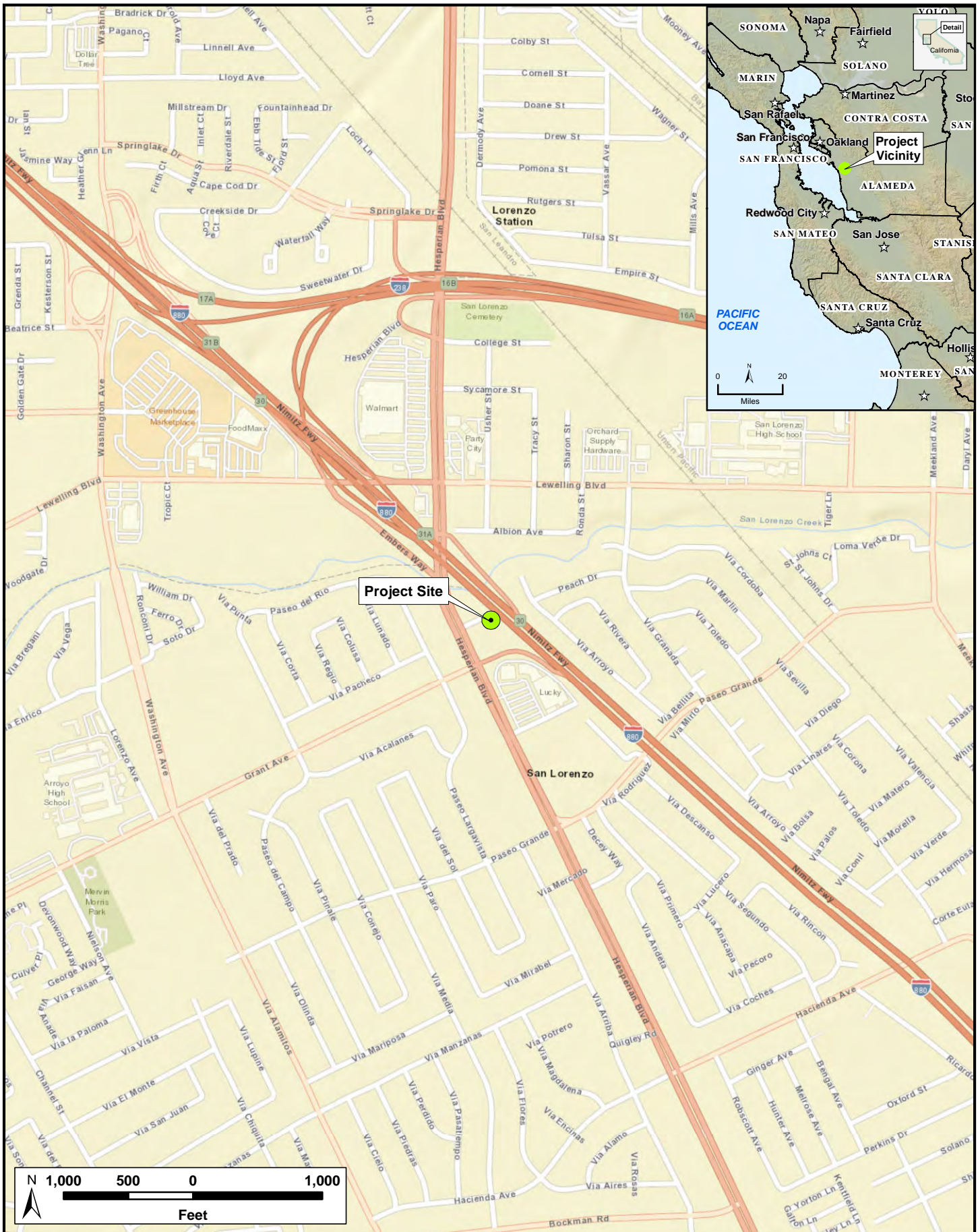
Per your request, H. T. Harvey & Associates has performed a biological impacts assessment for the proposed construction of a new LED billboard at the United Rentals facility located at 15740 Hesperian Boulevard in San Lorenzo, California (Figure 1). The new billboard would have an overall height of 59.0 feet (ft) above existing grade and a width of 48.0 ft with back-to-back 14 ft by 48 ft LED display screens. The billboard would display multiple advertisements, cycling between ads every 8 seconds, and would be equipped with ambient light sensors, which would adjust the brightness of the display correlating with ambient lighting conditions. We understand that the billboard technology would be the same as that utilized for the Clear Channel LED billboard along Shorewood Road in Belmont, California, which we analyzed in 2014, and that the same assumptions can be made regarding illuminance.

## Methods

Prior to conducting a field visit, I reviewed the California Natural Diversity Database (CNDDB 2017) to determine whether there were known occurrences of special-status species in the vicinity of the proposed billboard, so that the potential effects of billboard construction could be assessed in the context of these species' distributions. I then conducted a site visit on December 29, 2017 to inspect habitat conditions in areas immediately surrounding the proposed billboard location that could potentially be disturbed during project construction and in adjacent areas that could be indirectly affected by the project. Following the completion of the survey, H. T. Harvey & Associates ecologists determined the potential for the installation of the new billboard to impact biological resources, such as special-status species and sensitive/regulated habitats, based on the conditions at the proposed project location.

## Existing Site Conditions

The proposed project site is located within an area currently occupied by an open-air United Rentals storage area with a concrete paved floor and wooden canopy (Photos 1 and 2). It is bordered to the north and east by



N:\Projects\41004\21-01\Reports\Figure 1 Vicinity Map.mxd



**H. T. HARVEY & ASSOCIATES**  
Ecological Consultants

Figure 1. Vicinity Map  
15740 Hesperian Boulevard Clear Channel Billboard (4121-01)  
February 2019



Interstate 880 (I-880). A chain-link fence separates the project site from an approximately 5-ft wide strip of ruderal (i.e., disturbance-associated) vegetation that occupies the area between the site and I-880. Dominant vegetation within this ruderal habitat includes native species such as coast live oak (*Quercus agrifolia*) shrubs and coyote brush (*Baccharis pilularis*), and non-native species such as wild oat (*Avena fatua*), Arundo (*Arundo donax*), and silver wattle (*Acacia dealbata*) trees.



**Photo 1.** Looking southeast toward the proposed project site.

San Lorenzo Creek is located approximately 330 ft to the northwest of the project site. It flows generally west, entering central San Francisco Bay near Roberts Landing, west of the project site. The channel reach in the project area, beginning at the Railroad Avenue crossing approximately 1.4 miles (mi) downstream of the project site and continuing approximately 3 mi upstream of the site, is concrete lined and does not support any aquatic vegetation (see Photo 3).



**Photo 2.** Looking east toward the proposed project site.

The vast majority of plant and animal species occurring on or immediately adjacent to the project site are very common species associated with urban, developed, and ruderal conditions throughout the Bay Area.

Common bird species expected to occur here include the Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaidura macroura*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), white-crowned sparrow (*Zonotrichia leucophrys*), and rock pigeon (*Columba livia*). Due to the developed nature of the project site and surrounding area, we do not expect any special-status plant or animal species to occur within the project boundary. Special-status animal species, including the federally listed salt marsh harvest mouse (*Reithrodontomys raviventris*) and California Ridgeway's rail (*Rallus obsoletus obsoletus*), as well as the Alameda song sparrow (*Melospiza melodia pusillula*), a California species of special concern, have been recorded in the marsh habitat surrounding

the mouth of the San Lorenzo channel approximately 3 mi west of the project site (CNDDDB 2017). However, because the channel is concrete-lined for more than 1 mi both upstream and downstream of the project site and does not support any wetland habitat, no special-status wildlife species are expected to use the reach of the channel within 1 mi of the project site. Further, although historically present, runs of the federally listed Central California Coast steelhead (*Oncorhynchus mykiss*) no longer occur in San Lorenzo creek due to the highly-modified nature of the lower reach and the construction of the Don Castro Reservoir, which prevents the migration of steelhead to suitable spawning habitat upstream (Alameda County Flood Control and Water Conservation District 2002).



**Photo 3.** San Lorenzo Creek approximately 330 ft northwest of the project site.

## 1.1 Biological Impacts Assessment

Potential project impacts on biological resources were evaluated from three different perspectives:

- the direct effects of the installation of an LED billboard on biological resources;
- the indirect effects of illuminance from an LED billboard (i.e., the amount of light from the billboard that lands on a certain area) on sensitive species in adjacent areas; and
- the potential effects of an LED billboard’s luminance (i.e., the amount of light leaving the billboard’s surface in a particular direction, or brightness of the LED billboard’s surface as seen by the eye) on the behavior of birds flying in the site vicinity.

In each case, the standards against which we measured the significance of potential impacts were the California Environmental Quality Act (CEQA) significance criteria. These potential impacts are assessed in detail below.

### Direct Effects of Sign Construction

All activity associated with the construction of a new LED billboard at the project site is presumed to take place within the existing concrete paving, with most such activity concentrated in the immediate vicinity of the billboard support column. No wetlands, riparian habitats, or other sensitive habitats are present within the project site or a 100-ft buffer surrounding the project site. Thus, no sensitive habitats would be impacted by the construction of the billboard.

As described above, no special-status plant or animal species are expected to occur within or immediately adjacent to the project site, and wildlife species that may occur here are common species that are locally and regionally abundant. Therefore, due to the very limited size of the project footprint, the project would result in modification of habitat used by a very low number of individuals. As a result, only a very small proportion of regional populations of these species would be affected, and project effects on these species would not be significant under CEQA. Further, no special-status bird species are expected to nest close enough to the project site to be disturbed by project construction. However, all native bird species that occur in the project area are protected from take by the federal Migratory Bird Treaty Act and the California Fish and Game Code. Abandonment of an active nest because of project construction activities could be considered take under the Fish and Game Code. As a result, we recommend that construction of the billboard take place during the non-breeding season (roughly September 1 – January 31). Alternatively, if construction during the non-breeding season is not feasible, preconstruction surveys should be conducted to determine whether any nests of protected birds are present in areas where they may be disturbed (in which case a biologist should determine the size of buffer around each nest necessary to avoid nest abandonment during construction).

#### Indirect Effects of Illuminance of Adjacent Areas

The intensity, spectral quality (i.e., the distribution of blue, green, red, and other portions of the light spectrum emitted by a light source), duration, and periodicity of exposure to light affect the biochemistry, physiology, and behavior of organisms (The Royal Commission on Environmental Pollution 2009). Many animals are extremely sensitive to light cues, having evolved behavioral and/or physiological responses to natural variations in light levels resulting from the day–night cycle, the cycle of the moon, and the seasonal light cycle. Responses can affect processes as diverse as growth, metabolism, patterns of movement (e.g. migration), feeding, breeding behavior, molting, and hibernation (Ringer 1972, de Molenaar et al. 2006). This holds true for birds (Longcore and Rich 2004, Miller 2006, de Molenaar et al. 2006, Da Silva et al. 2015), mammals (Beier 2006, De Molenaar et al. 2003 as cited in Longcore et al. 2016, and Voigt et al. 2017), and other taxa as well, suggesting that increases in ambient light may interfere with these processes across a wide range of species, resulting in impacts on wildlife populations.

Artificial lighting may also indirectly affect birds and mammals. For example, artificial lighting has been shown to increase the nocturnal activity of predators like owls, hawks, and mammalian predators (Negro et al 2000, Longcore and Rich 2004, DeCandido and Allen 2006, Beier 2006). In addition, it has been found to affect the composition of the invertebrate community present in the area (Davies et al. 2012), and some bat species have been found to congregate around artificial light sources because of the high numbers of flying insects they attract (Frank 1988, Eisenbeis 2006). The presence of artificial light may also influence habitat use by rodents such as the salt marsh harvest mouse (Beier 2006), and by breeding birds (Rogers et al. 2006, de Molenaar et al. 2006), by causing avoidance of well-lit areas, resulting in a net loss of habitat availability and quality.

Areas surrounding the proposed project site are primarily developed urban and ruderal habitats that do not support sensitive species that might be significantly impacted by illuminance from the proposed LED billboard. Similarly, San Lorenzo Creek in the project vicinity is not expected to support sensitive species due to a lack of

suitable habitat. Nevertheless, common, urban-adapted species using the project area may be subject to increased predation, decreased habitat availability (for species that show aversion to increased lighting), and alterations of physiological processes if the proposed LED billboard produces substantially greater illuminance than existing lighting in the project area.

Light from currently existing sources illuminates areas adjacent to the project site to a considerable extent. Thus, our assessment of the impact of illuminance of adjacent areas by the LED billboard took into account the existing condition as well as any expected changes in illuminance that would result from construction of an LED billboard. Currently, the area surrounding the proposed project site is subject to artificial illumination from a variety of sources. There is one conventional lighted billboard on the northeast side of Hesperian Boulevard within 270 ft of the project site and two existing lighted I-880 road signs within 0.5 mi of the project site. In addition, streetlights are present along I-880 east of the project site (including one within 35 ft and one at the San Lorenzo Creek crossing to the west of the site), as well as along Hesperian Boulevard to the west and the Hesperian Boulevard on-ramp to I-880 south of the project site, and security lighting is present on the United Rentals building immediately adjacent to the site.

According to material provided by Clear Channel Outdoor, the proposed LED billboard is expected to provide a maximum of 2.23-foot candles (fc) of illuminance (above and beyond ambient light conditions) at 100 ft (L. Musica, pers. comm.) within its viewing angle. Illuminance would decrease with lateral distance from the center of the viewing angle, so that areas 100 ft from the billboard on either side of the center of the viewing angle would experience even less illuminance. The viewing angle of the proposed LED billboard would be  $\pm 30^\circ$  vertically and  $\pm 60^\circ$  horizontally on each side (R. Hatton, pers. comm.).

The LED billboard would be angled in such a way as to maximize the amount of visibility from specific portions of I-880, so the area of brightest night illuminance projected by the proposed billboard would form a narrow cone directed at oncoming traffic (Figure 2). Further, the illuminance would dissipate so that illuminance beyond 100 ft would be minimal and that beyond 500 ft negligible (Figure 3) (LSI 2006). Therefore, the LED billboard is not expected to substantially increase the amount of illuminance currently experienced by sensitive habitats (and the species inhabiting them) at the mouth of San Lorenzo Creek, which is located over 1.4 mi to the west.

### **Potential Effects of LED Billboard's Luminance on Avian Flight Behavior**

**Migrating Birds.** The primary way in which the luminance of an LED billboard might affect the movements of birds in the project area is through the disorientation of nocturnally migrating birds. Hundreds of bird species migrate nocturnally in order to avoid diurnal predators and to minimize energy expenditures. Evidence that migrating birds are attracted to artificial light sources is abundant in the literature as early as the late 1800s (Gauthreaux and Belser 2006). Although the mechanism causing the attraction is unknown, the attraction is well documented (Longcore and Rich 2004, Gauthreaux and Belser 2006). Migrating birds may alter their





N:\Projects\4100\4121-01\Reports\Figure 2 Brightest Area.mxd

Figure 2. Brightest area provided by the proposed  
 Clear Channel LED billboard at night  
 15740 Hesperian Boulevard Clear Channel Billboard (4121-01)  
 February 2019



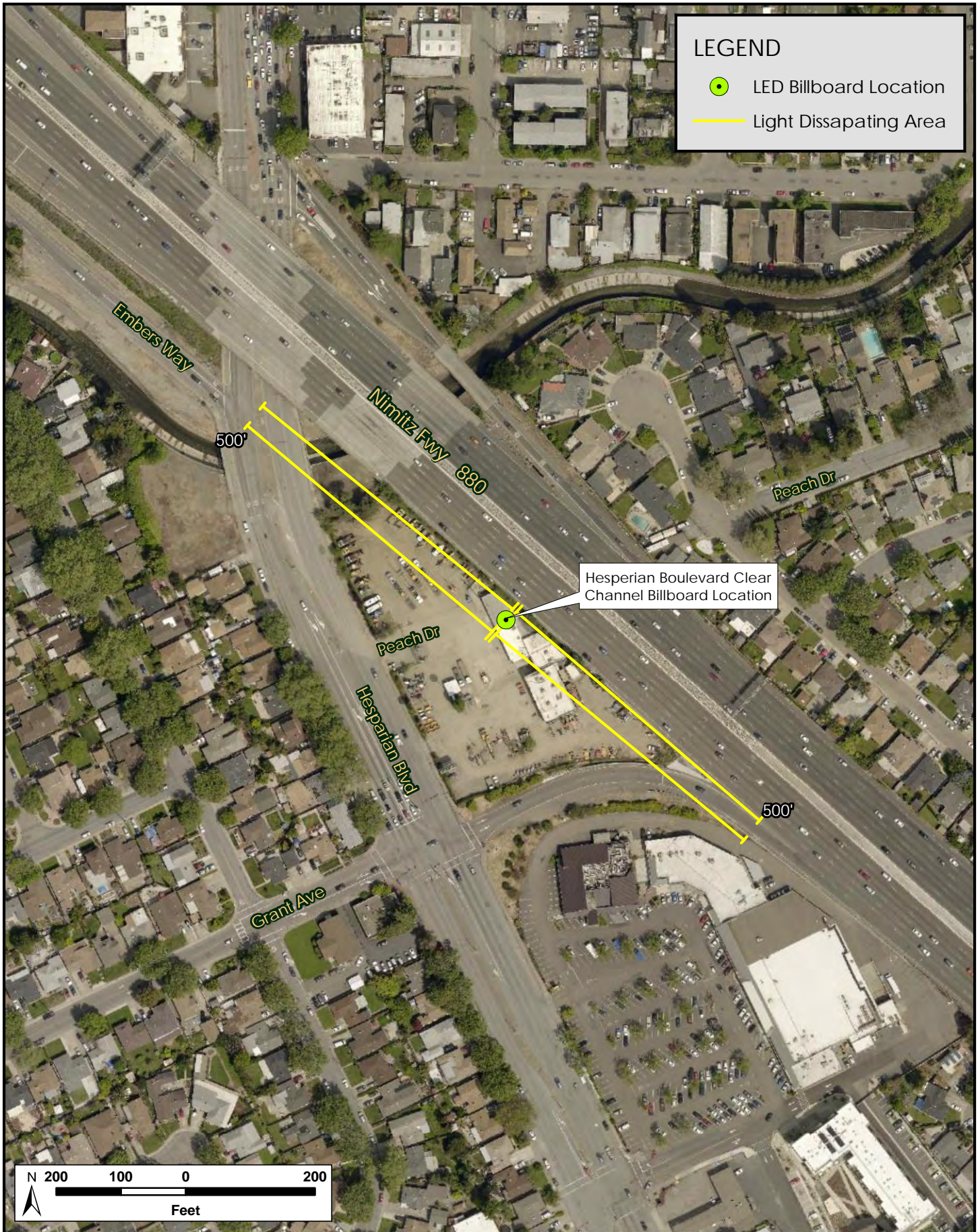


Figure 3. Area over which light from the proposed Clear Channel LED billboard will dissipate  
15740 Hesperian Boulevard Clear Channel Billboard (4121-01)  
February 2019



orientation upon sighting an artificial light source, such as a billboard, and become drawn toward it. Once a bird is within a lighted zone at night, it may become “trapped” and not leave the lighted area (Herbert 1970, Longcore and Rich 2004). The disorienting effects of artificial lights directly affect migratory birds by causing collisions with light structures, buildings, communication and power structures, or even the ground (Gauthreaux and Belser 2006). Indirect effects might include orientation mistakes and increased length of migration due to light-driven detours. Migrating birds are much more likely to be impacted by a billboard’s luminance during foggy or rainy weather, when visibility is poor (Longcore and Rich 2004, Gauthreaux and Belser 2006). Research also suggests that the color of the light may play a significant role in determining whether birds become disoriented. Birds are able to orient to the Earth’s magnetic field under monochromatic blue or green light, but apparently cannot do so under red or white light (van de Laar 2007, Poot et al. 2008, and Longcore 2016).

**Local Birds.** Seabirds may be especially vulnerable to artificial lights because many species are nocturnal foragers that have evolved to search out bioluminescent prey (Imber 1975, Reed et al. 1985, Montevecchi 2006), and thus are strongly attracted to bright light sources. Seabirds using the San Francisco Bay in the San Lorenzo area include primarily gulls, terns, and cormorants, none of which is primarily a nocturnal forager; however, they may still forage to some extent during the night. As described above for migrating birds, when seabirds approach an artificial light, they seem unwilling to leave it and may become “trapped” within the sphere of the light source for hours or even days, often flying themselves to exhaustion or death (Montevecchi 2006).

In addition to seabirds, the San Francisco Bay complex hosts tens of thousands of breeding, migrant, and wintering shorebirds. Shorebirds forage in San Francisco Bay nocturnally as well as diurnally, and move frequently between foraging locations in response to tide levels and prey availability. Biologists and hunters have long used sudden bright light as a means of blinding and trapping shorebirds (Gerstenberg and Harris 1976, Potts and Sordahl 1979), so evidence that shorebirds are affected by bright light is well established, though impacts of a consistent bright light are undocumented. Nevertheless, based on the above studies, it is reasonable to conclude that shorebirds, like other bird species, may be disoriented by a very bright light in their flight path.

However, large numbers of seabirds and shorebirds are not expected to move back and forth between San Francisco Bay and the project site (or over/past the project site) because the area surrounding the project site is heavily urbanized, the project is located approximately 2 mi east of the Bay, and the nearest suitable foraging habitat other than the Bay is located approximately 2.5 miles northeast of the project site at Lake Chabot. Therefore, seabirds and shorebirds are unlikely to be passing through the area impacted by the billboard light.

Although the project site does not provide high-quality habitat for a large number or diversity of passerine birds, a few common, urban-adapted species are expected to occur in the project vicinity, as described above. Passerine birds have been documented responding to increased illumination in their habitats with nocturnal foraging and territorial defense behaviors (Longcore and Rich 2004, Miller 2006, de Molenaar et al 2006), but absent significant illumination, they typically do not forage at night, leaving them less susceptible to the attraction and disorientation caused by luminance when they are not migrating.

**Effects of the 15740 Hesperian Boulevard LED Billboard on Flight Behavior.** The visibility of the proposed LED billboard to birds in flight, and thus the risk it poses to flying birds, depends primarily on the beam angles of the sign relative to the flight lines of birds and on the luminance (brightness) of the sign as perceived by the birds. The directional nature of LED lighting and the projected viewing angle values of  $\pm 30^\circ$  vertically and  $\pm 60^\circ$  horizontally suggest that the viewing angle of the sign will be narrow enough to preclude attracting migrating birds on clear nights, when they fly high enough to be outside the viewing angle of the sign. Shaders located above each row of lights will prevent light from projecting upward into the sky. As a result, birds flying more than  $30^\circ$  above the center of either of the sign's two beam angles (i.e., northwest and southeast) will not be able to see light from the sign at all. However, migrating birds are forced to fly low during foggy and rainy conditions, which may bring them into the viewing angle of the billboard.

The proposed billboard could produce a peak value of approximately 641 candelas<sup>1</sup> (cd)/ft<sup>2</sup> of luminance (LSI 2006). However, in practice, the LED billboard will be operated so that its peak luminance would be approximately 46 cd/ft<sup>2</sup> in the center of the beam angle (R. Hatton, pers. comm.). For comparison, a full moon at its brightest point produces approximately 232 cd/ft<sup>2</sup> (LRC 2006). The proposed billboard would be equipped with a light sensor that adjusts the brilliance of the billboard in response to available ambient light, dimming the luminance as ambient light lessens. Further, the peak luminosity for an LED billboard cited above assumes that the display on the billboard is solid white. In practice, the displays on the planned LED billboard would contain a variety of colors, which would substantially reduce the amount of luminance produced and reduce the potential for the light to disorient migrating birds.

Additionally, the LED display on the billboard can be changed every 8 seconds from a static image to a static image, resulting in a changing light source. Colors and patterns of color on the billboard would thus be changing, and birds flying near the sign would not perceive it as a fixed, unchanging light, the type of light that appears to be most attractive to birds (Jones and Francis 2003, Gauthreaux and Belser 2006, Gehring et al. 2009).

As described above, the light beams from the proposed billboard would be angled in such a way as to maximize the amount of visibility from specific portions of I-880 to the northwest and southeast (Figure 2). Because the area immediately surrounding the project site is heavily urbanized, we do not expect large numbers of birds (including species of conservation concern) to be using a northwest to southeast or southeast to northwest flight corridor (i.e., the alignment of the beams of the proposed LED billboard) through the project area. As described above, the nearest suitable foraging habitat for seabirds and shorebirds is at San Francisco Bay located approximately 2 mi to the west and Lake Chabot located 2.5 mi to the northeast. Therefore, it is unlikely that seabirds or shorebirds would be traveling from San Francisco Bay south and east across the project site. It is far more likely that birds would follow the coastline and/or travel across the project area in a northeast-

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<sup>1</sup> The 'candela' is a unit of luminous intensity in the International System of Units, defined as the luminous intensity in a given direction of a source that emits monochromatic radiation of frequency  $540 \times 10^{12}$  hertz and has a radiant intensity in that same direction of 1/683 watt per steradian (unit solid angle). The candela has replaced the standard candle as a unit of luminous intensity in calculations involving artificial light.

southwest direction while flying from Lake Chabot to the San Francisco Bay or vice versa. Therefore, we do not expect birds moving through or around the project area to be attracted to the sign for such a long duration that bird-strike mortality occurs or substantial interference with bird movements occurs; and we do not expect the installation of the new billboard to have a significant impact on seabirds or shorebirds. It is also unlikely that the billboard would impact substantial numbers of roosting birds because the developed and ruderal habitats adjacent to the project site do not provide high quality roosting habitat.

It is possible that some birds that find themselves near the center of a sign's beam angle may be attracted to the sign. However, we do not expect this effect to result in long-term consequences, such as increased bird-strike mortalities or substantial interference with bird movements, because a relatively limited area at low altitude above I-880 would be within the center of either of the sign's two beam angles.

Given the configuration of bird habitats in the vicinity of the site (which does not lend itself to directed bird flights toward the sign), the changing images that will be displayed on the LED billboard, the narrow viewing angle, and the use of shaders to prevent light from projecting upward into the sky, we expect the sign's impacts on avian flight behavior and avian roosting behavior to be less than significant.

## Summary

Based on the information provided by Clear Channel Outdoor concerning the LED billboard, our review of literature concerning lighting effects on wildlife, our reconnaissance-level surveys of the project site, and our knowledge of likely avian flight lines in the vicinity of the site, we do not expect the construction of a new LED billboard to result in significant impacts on wildlife. If the assumptions made in our analysis concerning the LED billboard's characteristics (e.g., illuminance, luminance, or beam angle) differ from actual characteristics of the billboard, additional analysis may be necessary to determine whether impacts are significant.

Please feel free to contact me at [gbolen@harveyecology.com](mailto:gbolen@harveyecology.com) or (408) 458-3246 if you have any questions regarding our report. Thank you very much for contacting H. T. Harvey & Associates regarding this project.

Sincerely,



Ginger M. Bolen, Ph.D.

Associate Wildlife Ecologist

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# **ATTACHMENT B**

## **Northwest Information Center Records Search Results**



CALIFORNIA  
HISTORICAL  
RESOURCES  
INFORMATION  
SYSTEM



ALAMEDA  
COLUSA  
CONTRA COSTA  
DEL NORTE

HUMBOLDT  
LAKE  
MARIN  
MENDOCINO  
MONTEREY  
NAPA  
SAN BENITO

SAN FRANCISCO  
SAN MATEO  
SANTA CLARA  
SANTA CRUZ  
SOLANO  
SONOMA  
YOLO

**Northwest Information Center**  
Sonoma State University  
150 Professional Center Drive, Suite E  
Rohnert Park, California 94928-3609  
Tel: 707.588.8455  
nwic@sonoma.edu  
<http://www.sonoma.edu/nwic>

January 17, 2018

NWIC File No.: 17-1789

Sharon Wright  
Lamphier-Gregory Urban Planning  
1944 Embarcadero  
Oakland, CA 94606

Re: Record search results for the proposed 15740 Hesperian Boulevard Billboard Project in San Lorenzo, CA, APN 412-14-36-2

**Project Description:** Construction and operation of a new general advertisement double-faced 14-foot by 48-foot digital V-shaped LED billboard. Construction of the column for the billboard would involve making a hole in the existing storage area canopy structure and drilling a hole approximately 72 inches in diameter through the existing concrete and soil below to a depth of approximately 40 feet below grade.

Dear Ms. Sharon Wright:

Per your request received by our office on January 10, 2018, a rapid response records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Alameda County. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

Review of this information indicates that there has been one architectural study that included the buildings within the 15740 Hesperian Boulevard project area (Fitzgerald et al 2002: S-30655). This project area contains no recorded archaeological resources. The State Office of Historic Preservation Historic Property Directory (OHP HPD) (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) lists no recorded buildings or structures within or adjacent to the proposed project area. In addition to these inventories, the NWIC base maps show the project area is located within the boundaries of P-01-10742, the San Lorenzo Village Historic District. The buildings within the project area are non-contributing components of the district (Fitzgerald et al 2002: 6-7).



At the time of Euroamerican contact the Native Americans that lived in the area were speakers of the Chochenyo language, part of the Costanoan language family (Levy 1978:485). There is one Native American tribal area in the area of the proposed project area referenced in the ethnographic literature [area of the Yrgin (Milliken 1995)].

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Alameda County have been found in areas marginal to the San Francisco Bay shore, inland near intermittent and perennial watercourses, and near the hill to valley interface. The 15740 Hesperian Boulevard project area is located approximately eighty-five meters south of San Lorenzo Creek and contains Holocene alluvial fan deposits. Given the similarity of one or more of these environmental factors, there is a moderate to high potential for unrecorded Native American resources in the proposed 15740 Hesperian Boulevard project area.

Review of historical literature and maps indicated the possibility of historic-period activity within the 15740 Hesperian Boulevard project area. The 1878 Thompson and West Atlas indicated the project area was located within the lands of John Marlin. With this in mind, there is a moderate potential for unrecorded historic-period archaeological resources in the proposed 15740 Hesperian Boulevard project area.

The 1959 Hayward USGS 15-minute topographic quadrangle depicts an urban area indicating one or more buildings or structures within the 15740 Hesperian Boulevard project area. These unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

## **RECOMMENDATIONS:**

1) There is a moderate to high potential of identifying Native American archaeological resources and a moderate potential of identifying historic-period archaeological resources in the project area. However, due to the previously disturbed nature of the project area, combined with the amount of disturbance of the current project, further study is not recommended at this time.

2) If archaeological resources are encountered **during construction**, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid

altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

3) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: [http://ohp.parks.ca.gov/default.asp?page\\_id=1069](http://ohp.parks.ca.gov/default.asp?page_id=1069)

4) We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

5) The project area parcel is located within the boundaries of P-01-10742, the San Lorenzo Village Historic District. As per Fitzgerald's study, the buildings within the project area are non-contributing components of the district (2002: 6-7). Prior to commencement of project activities, it is recommended that these resources be assessed by a professional familiar with the architecture and history of Alameda County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at <http://www.chrisinfo.org>.

6) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

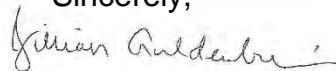
Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource

information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

A handwritten signature in cursive script that reads "Jillian Guldenbrein".

Jillian Guldenbrein  
Researcher

## LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Historical Resources Information System, Northwest Information Center, the following literature was reviewed:

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\*\*Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.