INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

101 TERMINAL COURT CLEAR CHANNEL BILLBOARD PROJECT AND RELATED ZONING AMENDMENT

PREPARED FOR:

CITY OF SOUTH SAN FRANCISCO

DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
315 MAPLE AVENUE
SOUTH SAN FRANCISCO, CA 94080

PREPARED BY:

LAMPHIER – GREGORY
1944 EMBARCADERO
OAKLAND, CA 94606

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INTRODUCTION TO THIS DOCUMENT

This document serves as the Initial Study and Mitigated Negative Declaration (IS/MND) 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 lists the impacts and 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.

PROJECT INFORMATION

1. **Project Title:** 101 Terminal Court Clear Channel Billboard Project and Related Zoning Amendment

2. **Lead Agency Contact:** City of South San Francisco
Gerry Beaudin, Principal Planner
Department of Economic and Community Development
City of South San Francisco
315 Maple Avenue
South San Francisco, CA 94083
650-877-8535 or gerry.beaudin@ssf.net

3. **Project Location:** In the Park N Fly parking lot at 101 Terminal Court (APN 015-116-240) adjacent to highway 101 in South San Francisco.

4. **Project Applicant's Name and Address:** Patrick Powers
Clear Channel Outdoor, Inc.
Northern California Division
555 12th Street, Suite 950
Oakland, CA 94607
(510) 835-5900 x7219

5. **General Plan Designation:** Community Commercial

6. **Zoning:** Freeway Commercial (FC)

7. **Site and Vicinity:** The regional location is shown in Figure 1 and the specific location on this site is shown on Figure 2. The Project site is located within the paved parking area operated privately by Park N Fly as off-site airport parking.

   An approximately 40-foot wide landscape strip is located between the Project site and the highway to the east, consisting largely of shrubs and grasses. Farther east, at approximately 275 feet to the other side of the highway, is located a commercial complex with some retail and hotels. Beyond that are largely industrial uses and Research and Development/office complexes.

   The site is bordered to the west by the Golden Gate Produce Terminal, which houses multiple produce purveyors in two large buildings. A separate off-site airport parking use is located farther to the north.

   The Park N Fly site extends for nearly 800 feet to the south from the location of the billboard. At the southern boundary of the site is an approximately 150-foot wide unnamed channel and buffer area, on the other side of which is located light industrial and retail uses.

   The closest residential areas are located approximately 2,300 feet to the southwest, 3,000 feet to the northwest and 3,800 feet to the south. There are no residences in the vicinity to the east.

8. **Project Description:**

   Digital Billboard

   The Project involves construction and operation of one new double-sided outdoor advertising LED billboard located in South San Francisco, California. The billboard is proposed to reach a maximum height of 70 feet. It is possible that, through the City approval process, including the design review, the billboard height could be reduced. Reduced height is discussed in the Aesthetics section.

   An “LED 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 mounted on a column so that the overall height is approximately 70 feet above grade. The two display faces will be oriented in a "V" shape such that the displays face the two directions of highway traffic. The design of the billboard is shown in Figures 2 and 3.
- Brightness of each digital display: Lighting levels on each face of the digital billboard will not exceed 0.3 foot candles over ambient levels, as measured using a foot candle meter at a 250' distance according to the guidelines of the Outdoor Advertising Association of America (OAAA).
- Power: 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.
- Signage would be controlled remotely and would have remote maintenance software, and the applicant will immediately shut off, or go to "full black" in the event of a malfunction.
- Light sensors would be installed with each face of the billboard to measure ambient light levels and to adjust light intensity to respond to such conditions. Currently, "beehive" light sensor enclosures are utilized, incorporating two light sensors into the enclosure.
- The billboard will be programmed for nighttime reduced (4 percent of peak power) power operation.
- LED lighting has a directional nature and the projected viewing angle values for the proposed billboard is ± 30° vertically and ± 60° horizontally. Shaders will be located above each row of LEDs to prevent light from projecting upward into the sky.

Zoning Code Amendment

Digital billboards are currently not allowed under the City's Zoning Code. Because a Zoning Code amendment is required for approval of the proposed billboard, this amendment, including the following assumptions, has been included as part of the Project description analyzed in this document. While the final wording of the amendment was not available at the time of drafting of this report, the City's intent is that no more than 3 digital billboards could be allowed along the highway in conjunction with negotiated Relocation Agreements. The location of proposed digital billboards would be constrained to the western side of the highway between Sister Cities Boulevard and the City's southern boundary and otherwise following billboard locating restrictions (such as Caltrans rule of 500 feet between billboards, discussed in more detail under item 11, Regulatory Provisions). Approval and construction of any digital billboard would require a negotiated Relocation Agreement involving removal of multiple similarly-sized existing billboards within the City.

Construction of the Billboard

The following information regarding the process involved in installing a digital billboard is based on discussions with representatives of Clear Channel, and is the process typically followed. The following description of activities has been included here as general project information, and has been used as the basis for evaluating potential construction-period impacts for air quality and noise. The specifics of the procedure could be modified if recommended by the structural engineer based upon the results of a site-specific soil study. The construction would be subject to the Building Code, and a Building Permit would be required for construction activities. The construction typically proceeds as described below.

Day 1: On the first day at the site, a crew arrives with a drilling rig and drills a hole 5' in diameter and

32’ deep. A trench plate is placed over the hole before the crew leaves the site.

Day 2: The column for the billboard is delivered to the site. The column is typically 42” in diameter. 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, and the company attempts to arrange for the inspection early enough in the day to allow pouring of concrete on Day 2.

Day 5: After the concrete cures for three days, 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. Underground electrical service will be extended to the billboard through trenching, using a sleeve that will accommodate the electrical service inside a concrete foundation. The typical electrical service is 200 amps for single phase, and 100 amps for 3-phase.

9. **Required Approvals**: Approval of the Project will require a Zoning Code amendment, Relocation Agreement, and Design Review from the City of South San Francisco. 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 will require appropriate administrative permits.

   The City and applicant may also enter into a Development Agreement.

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.

    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 billboard manufacturers presently use moving displays or 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 which is considered a classified landscaped freeway, though such a determination would be made during the approval process with Caltrans.[1]

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

[1] California Department of Transportation, July 13, 2011, *Classified "Landscape Freeways"*, available at http://www.dot.ca.gov/hq/LandArch/lsfwy/pdf/class_ls_fwy.pdf.

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); and

- 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.

Figure 1: Project Location

Source: Google Inc., Google Earth imagery date 10/31/2011, with project location noted by Lamphier-Gregory.

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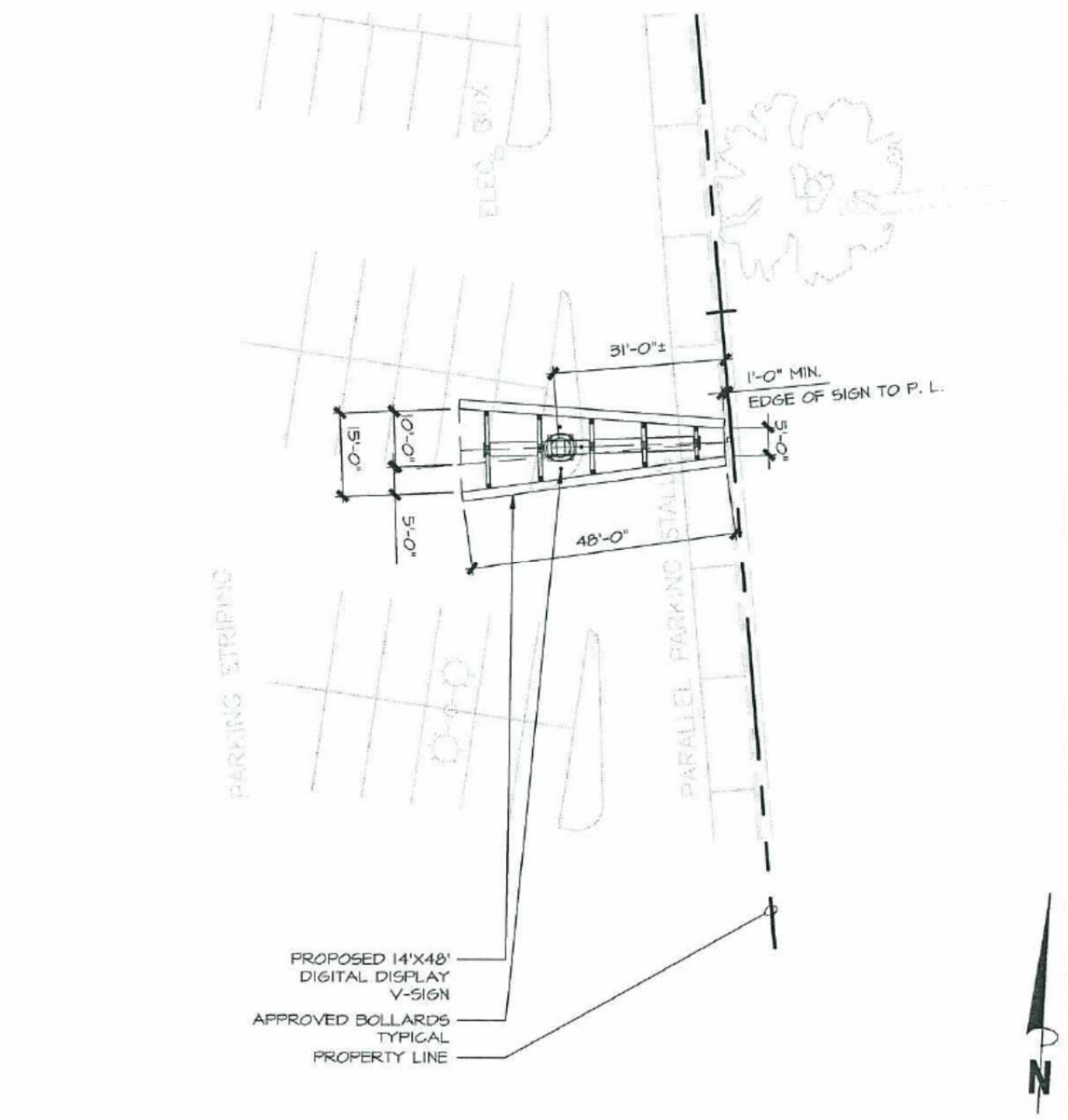

Figure 2: Proposed Billboard Site Plan

Source: Vincent Kevin Kelly & Assoc., Inc. for the applicant, dated May 1, 2012

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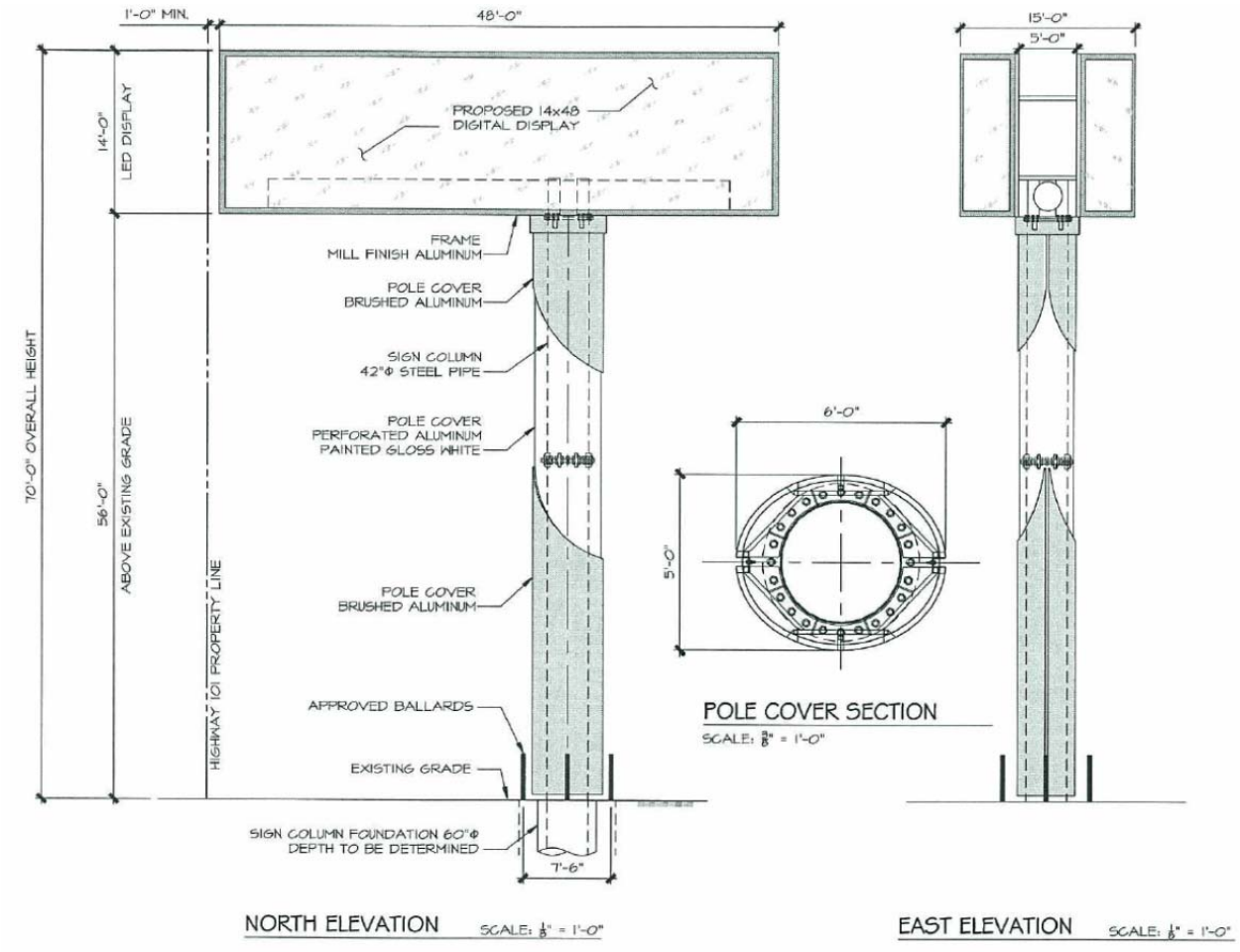

Figure 3: Proposed Billboard Design

Source: Vincent Kevin Kelly & Assoc., Inc. for the applicant, dated May 1, 2012

Notes:

The specifics of the decorative pole cover could be revised per the design review process.

The design review/approval process could also result in a lowered overall height, potentially a 55' total height. The 70' height was utilized in this analysis because it is the maximum height that is being considered. See the Aesthetics section for a discussion and visual modeling of both the 70' and 55' overall heights.

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MITIGATED NEGATIVE DECLARATION

PROJECT DESCRIPTION, LOCATION, AND SETTING

This Mitigated Negative Declaration has been prepared for the 101 Terminal Court Clear Channel Billboard Project and related code amendments. 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.

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 Visual-1, below.

Mitigation Measure

Visual-1: **Billboard Brightness Field Testing.** The Applicant shall demonstrate through field testing compliance with a 0.3 footcandle 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 City for the life of the billboard. The Applicant shall fund field testing by an independent contractor or City staff trained in the use of a handheld photometer to demonstrate continued compliance. The City 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 footcandle 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.

Project air quality emissions would be below applicable threshold levels. However, the local Air 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 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 Regulations [CCR]). 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.

Given the site characteristics, coupled with the regional archaeological sensitivity, there is a moderate potential of unrecorded Native American resources (especially buried deposits with no surface indications) within the proposed Project area. If present, these would be located below any artificial fill at the surface, but potentially within the 35 foot depth of the proposed disturbance. Preparation and implementation of a cultural monitoring and mitigation plan would assure that discovery of any cultural resources would be identified and treated appropriately and therefore that any impact in this regard would be less than significant.

Mitigation Measure

Cultural-1: **Cultural Monitoring and Mitigation Plan**. The Project applicant shall fund preparation and implementation of a cultural monitoring and mitigation plan by a qualified archaeologist to address the potential for presence and disturbance of Native American archaeological resources or remains during excavation of the billboard pole footing. This will include at a minimum monitoring during excavation of the billboard pole footing and may also include but is not limited to additional archival research, hand auger sampling, shovel test units, geoarchaeological analysis, or other common methods used to identify the presence of archaeological resources to be determined per the recommendation of the qualified archaeologist. The archaeologist and construction contractors shall follow the appropriate procedures should any cultural resources or human remains be discovered during ground disturbance.

The site has not been assessed for the potential presence of hazardous materials. During the installation process of the billboard, holes would be drilled and the excavated soil would be transported offsite. The Project will also include trenching to connect to electrical supply. With implementation of Mitigation Measure Haz-1, the site will be assessed for the presence of hazardous materials prior to construction activities, which, if present, would be handled appropriately to ensure the impact would remain less than significant.

Mitigation Measure

Haz-1: **Phase I and/or Phase II Reports.** Prior to issuance of construction permits, the City of South San Francisco shall require the Project applicant to submit a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the Project site. The reports shall make recommendations for remedial action in accordance with State and Federal laws, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. The Applicant shall comply with these recommendations.

Mitigation Measure

Haz-2: **E-Waste Disposal.** Electronic components of the billboard may contain materials considered "e-waste" when disposed of due to potentially hazardous metals, flame retardants, and other chemicals. The operator shall be required to follow applicable regulations regarding proper disposal and/or recycling, as appropriate, as components are replaced or removed over 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 or includes visual effects or driver interaction that would cause driver distraction. With implementation of these Mitigation Measures Traf-1and Traf-2, the City 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

Traf-1: **Annual Report.** The operator of the digital billboard shall submit to the City, 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 City limits. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Director of the Economic and Community Development Department 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 California Department of Transportation pursuant to the federal Highway Beautification Act (23 U.S.C. §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 Traf-2: **Operational Safety.** The operation of the digital billboard shall comply with the following at all times:

a. No special visual effects that include moving or flashing lights shall accompany any message or the transition between two successive messages;

b. 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 City of South San Francisco, taking into consideration technical studies and CalTrans or US DOT policies and guidance available at the time of the request.

PROPOSED FINDINGS

The City of South San Francisco 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 the City of South San Francisco, 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 the City of South San Francisco.

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.

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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.

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

for 6·24·2013

Signature Date

Susy Kalkin, Chief Planner

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 does not indicate that any 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?			☒	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			☒	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		☒		

a) Scenic Vistas. The site and surrounding area is predominately developed with industrial uses and is not a scenic resource or vista. The Project is located on a flat area near the highway with no substantial views of the Bay from or across the site.

Sign Hill, which contains the prominent concrete "South San Francisco The Industrial City" sign on the hillside, and San Bruno Mountain are visible from U.S. 101 across the site to the north. Distant views of the ridge along Skyline Boulevard are visible from U.S. 101 across the site to the south/southwest.

Figures 4 and **6** show existing views from U.S. 101 toward the site to the north and south and **Figures 5** and **7** show visual models of the proposed billboard in these views. Views toward Sign Hill, San Bruno Mountain and the Skyline Boulevard ridge from U.S. 101 are already partially and intermittently obscured by existing development, signage and landscaping. As can be inferred from these figures, the proposed billboard would contribute to temporary obstruction of these views as a driver progresses toward and past the billboard.

There are no specific policies to protect views of Sign Hill from U.S. 101 and neither Sign Hill, San Bruno Mountain, nor Skyline Boulevard ridge are designated as scenic vistas or scenic views. The locations from which views are affected are not places where people would specifically gather in order to gain a view of these landmarks. Blockage of views toward San Bruno Mountain and Skyline Boulevard ridge would not be considered a potentially significant environmental impact. However, Sign Hill is identified as a national historic landmark and regional landmark that is clearly visible to travelers on nearby freeways, so is considered a scenic resource for purposes of this analysis.[2]

The proposed billboard would contribute to blockage of views toward Sign Hill from the point of view of a vehicle driving north along U.S. 101. This interruption of views would be temporary in that the billboard would only block views for a short period as the vehicle progresses toward the billboard. Signs in this area are not uncommon though cumulative blockage of views would be intermittent, as views toward Sign Hill would be available between signs as a vehicle progresses north.

Figures 8 and **9** additionally show the billboard at a height of only 55', which is currently being considered as a modification to the Project. While these are static photos, it is important to consider the perception of relative size. As a person approaches an object, the object's perceived size will

[2] City of South San Francisco, prepared by Dyett and Bhatia, *South San Francisco General Plan*, 1999, p. 240.

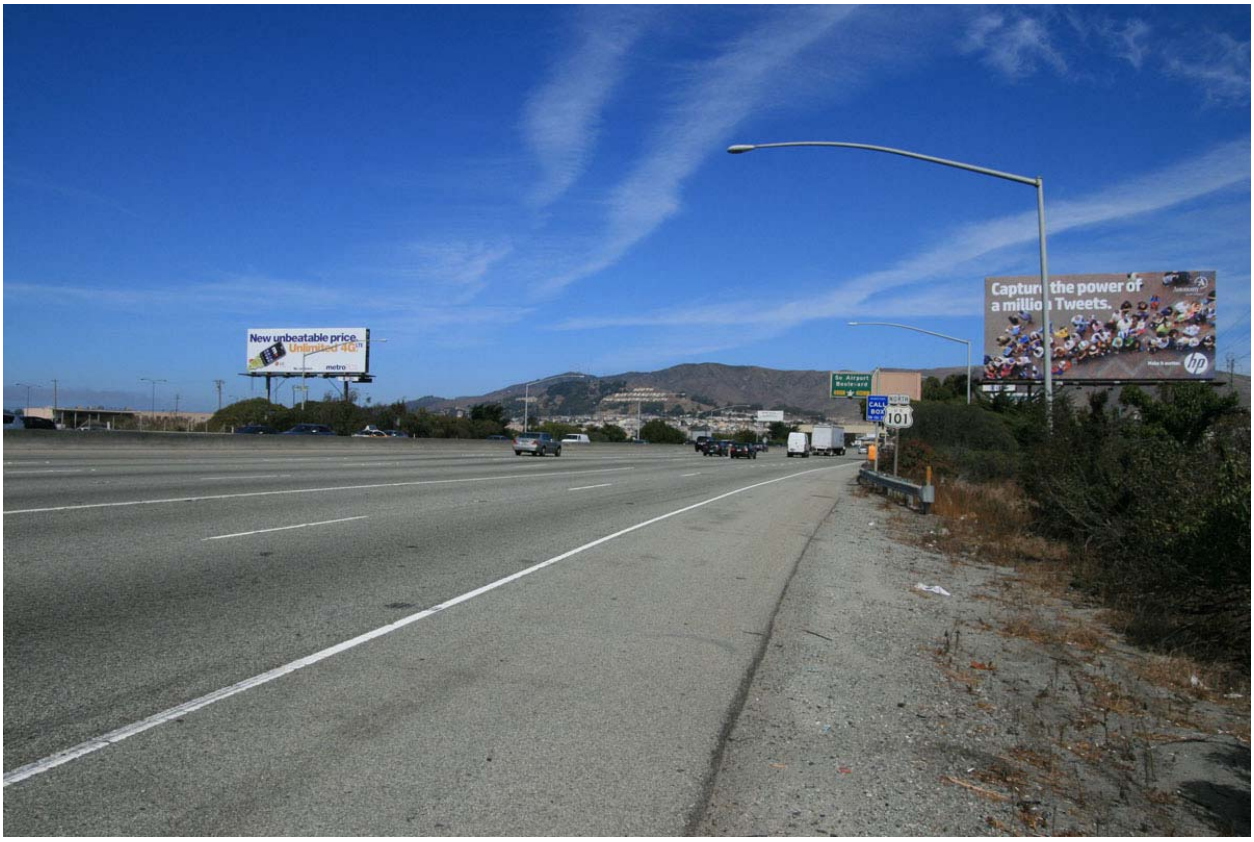

Figure 4: Existing View from U.S. 101, facing north

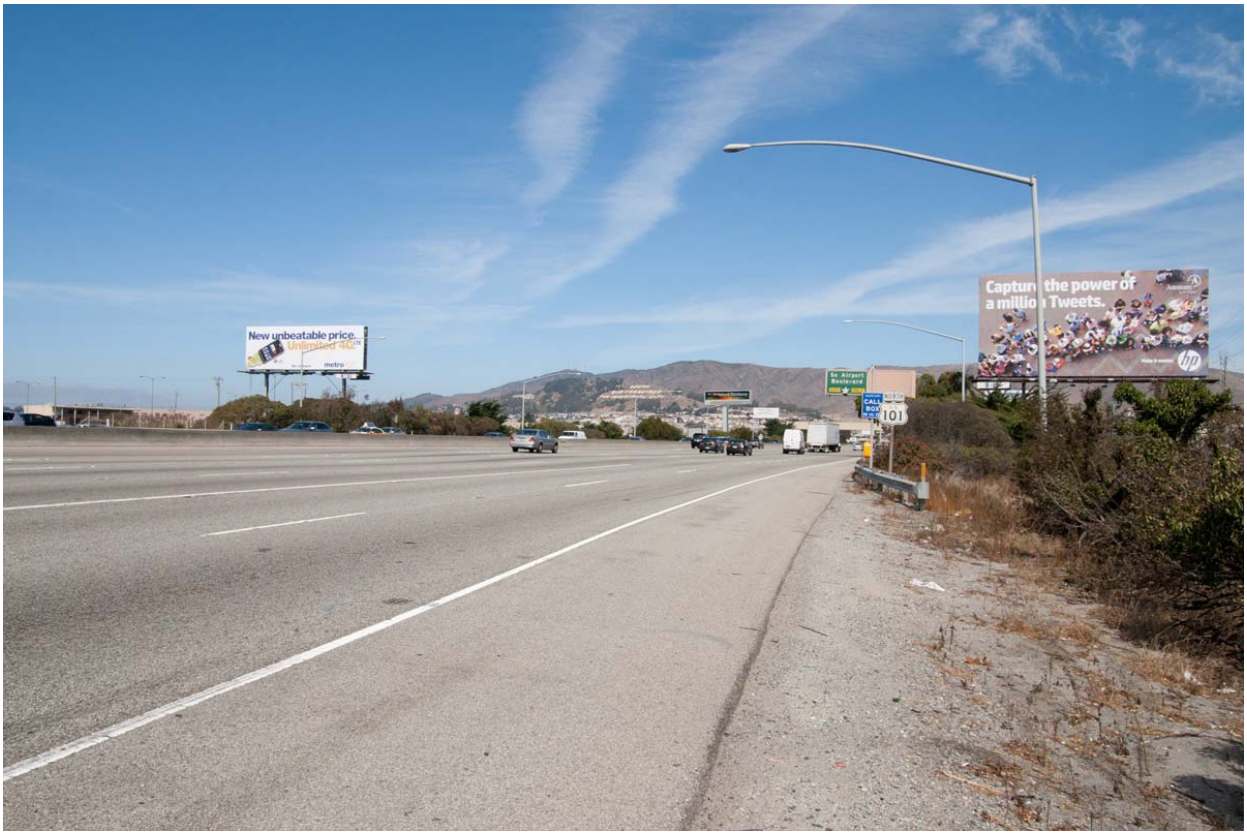

Figure 5: Proposed Billboard from U.S. 101, facing north (70' height)

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Figure 6: Existing View from U.S. 101, facing south

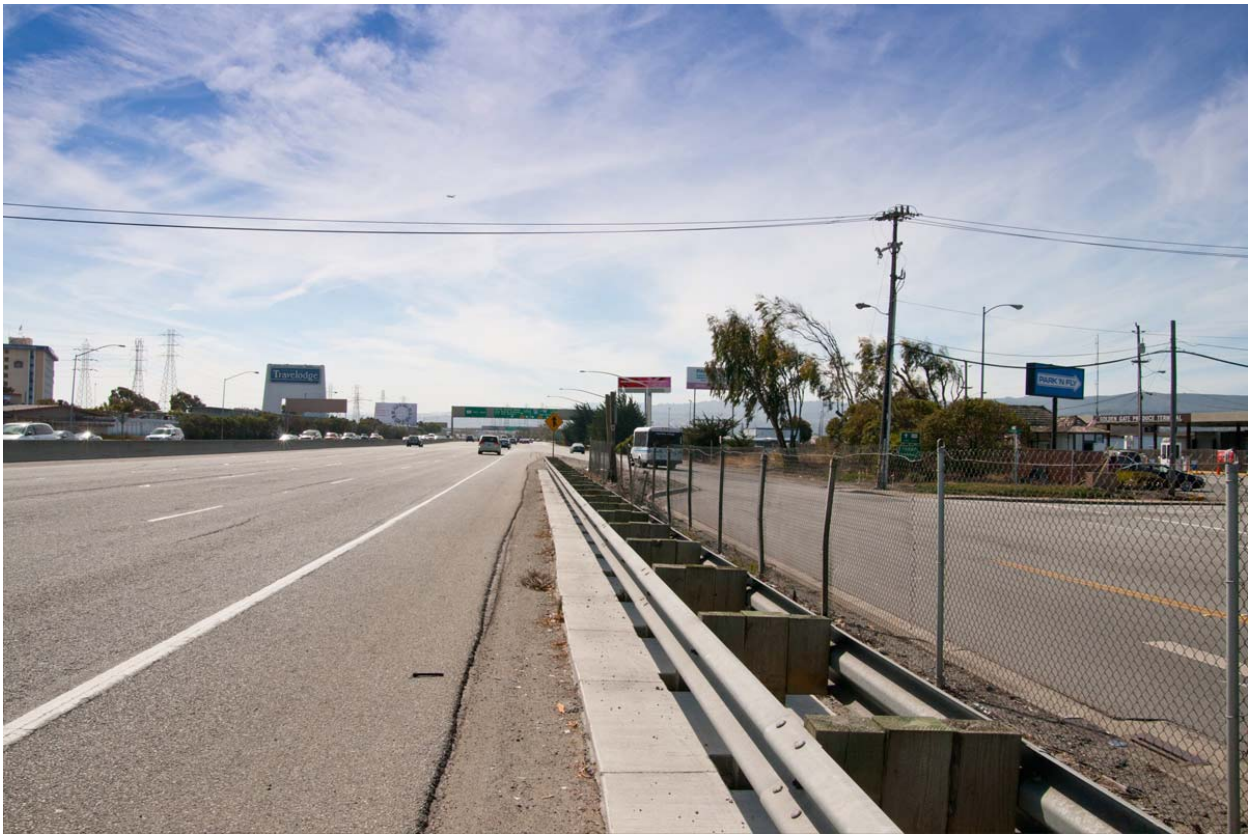

Figure 7: Proposed Billboard from U.S. 101, facing south (70' height)

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Figure 8: Reduced Height Billboard from U.S. 101, facing north (55' height)

Figure 9: Reduced Height Billboard from U.S. 101, facing south (55'height)

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increase. This is why a person standing across a football field from you can be covered in your vision by your own outstretched hand. We perceive something farther away as smaller (and therefore shorter). In the case of this Project, the nearer object (the billboard) will appear to grow taller relative to the more distant object (Sign Hill) as it is approached. At a height of 55', the proposed billboard would still be tall enough to block views toward Sign Hill from U.S. 101, though the lane position and distance of the vehicle from the billboard would be different than where the blockage would occur for a billboard at a 70' height. Because a lower billboard would be observed as tall enough to block views when the observer is closer to it than a 70' billboard, a marginally shorter time would pass during which views are blocked for the 55' billboard. Therefore, it can be assumed that this height reduction would result in a similar, though marginally reduced impact to an already less than significant impact on Sign Hill views.

The Project also includes amending the Zoning Code to potentially allow up to 3 digital billboards, including this one, along the western side of U.S. 101 within the city limits through Relocation Agreements. With Relocation Agreements, billboards could be located as close together as 500 feet and digital billboards as close as 1,000 feet to each other.

The two additional allowable digital billboards could contribute to intermittent blockage of views toward Sign Hill. The specific proposals for the other two billboards have not yet been submitted and would have to undergo appropriate review. However, any proposed billboards would be required to conform to Caltrans spacing regulations, which would ensure space between signs and therefore only intermittent blockage of views would result.

Taking both the regulatory and specific locational/scenic context into account, as well as the temporary and intermittent nature of the obstruction from the point of view of a moving vehicle, the Project's impact on scenic vistas, including views of Sign Hill from U.S. 101, would be considered a ***less than significant impact***.

The City and applicant are considering a reduced height billboard, which would reach a maximum height of 55' instead of the proposed 70'. Reducing the height would result in impacts that are similar to the Project at the proposed height and would not require additional environmental review. A reduced height billboard would marginally reduce an already less-than-significant impact related to blockage of views toward Sign Hill.

b) Scenic Highways. U.S. 101 is not a designated or eligible State Scenic Highway corridor in the vicinity of the Project nor is it identified as a scenic corridor in the South San Francisco General Plan.[3] The Project would have ***no impact*** on a state scenic highway or scenic resources viewable from such a highway.

c) Visual Character. The proposed digital billboard site is located along a freeway in the Lindenville area of South San Francisco, which is characterized by warehousing and distribution and light industrial uses including storage, automobile repair, manufacturing, and small business parks. The Project site and surrounding area is anticipated in the General Plan to ultimately transition to Regional Commercial uses.

The new billboard would be visible primarily to drivers along U.S. 101 as well as adjacent and across-highway industrial, hotel, and commercial uses. It is expected the billboard would be visible in some mid- and long-range views from farther commercial and residential areas that are high enough to have views across the area. The vicinity where the billboard is proposed already 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.

[3] California Department of Transportation, State Scenic Highway Mapping System, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

Additionally, City staff will review the proposed design as part of the approval process, and design parameters would be imposed by the City.

Therefore, given the context of the proposed billboard, the impact related to degrading visual character would be considered ***less than significant***.

The additional two digital billboards, including a maximum of four billboard faces, that could be allowed under the Zoning Code amendment would be constrained to the western side of U.S. 101 adjacent to the freeway and between Sister Cities Boulevard and the southern boundary of the City. There are numerous commercial or industrial areas in which they could be located, particularly considering relocation or removal of existing billboards. There is no current proposal for the additional billboards, so the specific locations cannot be analyzed. If/when additional digital billboards are proposed, the City would perform the appropriate review. The Zoning Code amendment that could allow two additional digital billboards would not change this impact conclusion.

It is also important to note that under the proposed Zoning Amendment, a digital billboard would only be allowed pursuant to a Relocation Agreement, which would result in the removal of one or more other billboards within the City for each proposed digital billboard. This could result in a net reduction in the total number of billboards within the City.

d) Light and Glare. 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 would be directed at motorists 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 guidelines of the Outdoor Advertising Association of America (OAAA). These guidelines specify that lighting levels from a digital billboard will not exceed 0.3 footcandles over ambient levels, as measured using a footcandle meter at a pre-set distance based on the size of the billboard face. For the 14' by 48' billboards, this would be 250 feet.[4] It is anticipated that the illuminance would be negligible beyond 500 feet.[5]

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 an LED billboard. With assumptions about content, "nits" and footcandles can be converted for comparison of LED 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 footcandles at 250 feet. This is similar to digital billboard-specific recommendations of 0.3 footcandles. [6]

[4] According to *OAAA Methodology to Determine Billboard Luminance Levels*, provided by Clear Channel.

[5] OAAA prepared by Light Sciences Inc., November 29, 2006, *Comparison of Digital and Conventional Billboards.*

[6] OAAA prepared by Light Sciences Inc., November 29, 2006, *Comparison of Digital and Conventional Billboards.*

The value of 0.3 footcandles is utilized 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 footcandle level would be perceptible, but 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).

Mitigation Measure

Visual-1: **Billboard Brightness Field Testing.** The Applicant shall demonstrate through field testing compliance with a 0.3 footcandle 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 City for the life of the billboard. The Applicant shall fund field testing by an independent contractor or City staff trained in the use of a handheld photometer to demonstrate continued compliance. The City 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 footcandle 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.

There are no residences within 500 feet of the proposed billboard, at which point the increases in illuminance would be negligible. Hotel uses are located between 250 and 500 feet from the billboard, where illuminance increases from the billboard would be barely perceptible and consistent with the existing urban conditions. With implementation of Mitigation Measure Visual-1, light levels from the proposed billboard will be assured to remain at these low levels and potential impacts related to light and glare would be ***less than significant***.

The additional two digital billboards that could be allowed under the Zoning Code amendment through Relocation Agreements could be as close as 500 feet to the currently proposed billboard. As noted above, the increase in illuminance is negligible at 500 feet and barely perceptible at 250 feet. The potential for multiple digital billboards in the future, as allowed under the Zoning Code amendment, would not substantially contribute to cumulative light and glare impacts and would not change the impact conclusion. The specific locations of the other two billboards are not yet proposed. Billboard-specific light and glare impacts of these future billboards would need to be assessed in respect to any light-sensitive uses in their vicinity.

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?				☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production(as defined by Government Code section 51104(g))?				☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?				☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				☒

a-e) Agriculture and Forestry Resources. The Project site is located 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 are subject to the Williamson Act. There would be ***no impact*** to agriculture and forestry resources as a result of this Project.

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?			☒	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		☒		
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)?			☒	
d) Expose sensitive receptors to substantial pollutant concentrations?			☒	
e) Create objectionable odors affecting a substantial number of people?			☒	

a) Air Quality Plan. The Project site is subject to the Bay Area Clean Air Plan, first adopted by the Bay Area Air Quality Management District (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, but also includes other elements related to particulate matter, toxic air contaminants, and greenhouse gases. The latest update to the plan, which was adopted in September 2010, is called the Bay Area 2010 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 in this regard.

b-c) Air Quality Standards/Criteria Pollutants. 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 (O_3) precursors (NOx and ROG), carbon monoxide (CO), and suspended particulate matter (PM_{10} and $PM_{2.5}$). The Bay Area is considered "attainment" for all of the national standards, with the exception of ozone. It is considered "nonattainment" for State standards for 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.[7]

[7] BAAQMD, May 2011, *California Environmental Quality Act Air Quality Guidelines*, p. 2-1.

BAAQMD's updated CEQA Guidelines including thresholds of significance were adopted on June 2, 2010. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that BAAQMD had failed to comply with CEQA when it adopted its 2010 Thresholds. The court did not determine whether the Thresholds were valid on the merits, but found that the adoption of the Thresholds was a project under CEQA. The court issued a writ of mandate ordering BAAQMD to set aside the Thresholds and cease dissemination of them until BAAQMD had complied with CEQA. The 2010 Thresholds are more conservative than the previous 1999 version and have been used in this analysis for a conservative determination of impact significance. Current thresholds of significance for Criteria Air Pollutants are set by BAAQMD as summarized below:

BAAQMD CRITERIA POLLUTANT THRESHOLDS OF SIGNIFICANCE

Pollutant	Construction-Related	Operational-Related	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Maximum Annual Emissions (tpy)
ROG	54	54	10
NOX	54	54	10
PM10	82 (exhaust only)	82	15
PM2.5	54 (exhaust only)	54	10
PM10/PM2.5 (fugitive dust)	Best Management Practices	None	
Source: BAAQMD Adopted Air Quality CEQA Thresholds of Significance - June 2, 2010			

Project-related 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 criteria 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.[8] 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.

However, 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, below and would further reduce construction-period criteria pollutant impacts.

Mitigation Measure

Air-1: **Basic Construction Management Practices.** The Project 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.

[8] BAAQMD, May 2011, *California Environmental Quality Act Air Quality Guidelines*, pp. 3-2 to 3-3.

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 [CCR]). 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.[9] These example uses would utilize over 1,000,000 kilowatt-hours per year.[10]

In 2010 (the most recent data available), Clear Channel billboards average annual usage for double-sided digital billboards of the same size as that proposed was 86,400 kilowatt-hours (kwh), or less than one tenth the emissions of a project that would be expected to have emissions above threshold levels.

While operation of digital billboards is not specifically listed on this screening table, it can be reasonably concluded from a comparison to 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***.

d) Sensitive Receptors

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 or the non-cancer risk exceeds a Hazard Index of 1.0. Examples of sensitive

[9] BAAQMD, May 2011, *California Environmental Quality Act Air Quality Guidelines*, pp. 3-2 to 3-3.

[10] Calculated using energy utilization rates from BAAQMD's Greenhouse Gas Model (BGM).

receptors are places where people live, play or convalesce and include schools, hospitals, residential areas and recreation facilities.

The Project itself is not considered a sensitive receptor and operation of the Project would not be considered a source of hazardous emissions. However, 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 each site.

BAAQMD provides a document titled Screening Tables for Air Toxics Evaluation during Construction to estimate the potential for significant air quality health risk impacts associated with construction activity based on general project characteristics, such as type and size, utilizing worst-case and conservative assumptions. The table is not intended to be used for projects substantially different from the described residential, commercial and industrial projects.[11] Therefore, the table cannot be used directly for this Project. However, a brief comparison of the BAAQMD Screening Table to Project characteristics is used to analyze the health risk impacts. The smallest projects identified in the Screening Table include construction of a 5 unit residential project on 1.7 acres and construction of a 5,000 square foot commercial project on 0.2 acres. The screening table reports that under worst-case conditions, there is the potential for significant health risk if a sensitive receptor is located within 95 or 100 meters (up to 328 feet) of such a construction site.

The nearest sensitive receptor to the Project site is over 2,300 feet away. Additionally, BAAQMD Screening Tables for Air Toxics Evaluation use a two-year construction period for screening purposes, the shortest period they recommend with the health risk modeling. While it is inappropriate to use this table to quantify an approximate risk for such a different project than those listed, it is reasonable to conclude that emissions and the resultant health risks from an exposure period of only a few days would be substantially less than emissions over a 2 year period. The health risk models and methods are not considered accurate for such short durations as the construction-period of this Project.

Given the distance to sensitive uses and that the exposure duration would be shorter than that able to be accurately modeled as well as substantially shorter than projects in BAAQMD's Screening Table, it can reasonably be assumed that the potential health risk from construction-period emissions would be ***less than significant***.

Additionally, as recommended by the BAAQMD, standard construction Best Management Practices would be implemented to reduce emissions as outlined in mitigation measure Air-1. This would further reduce diesel and particulate matter emissions.

e) Objectionable Odors. 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 is considered ***less than significant***.

[11] BAAQMD, May 2010, *Screening Tables for Air Toxics Evaluation During Construction*, Version 1.0.

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?			☒	
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?			☒	
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?				☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			☒	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				☒

a-c) Special Status Species and Habitat and Wetlands. A biological assessment was conducted by H.T. Harvey and associates, as included in full as Attachment A. This included both daytime and evening site visits on August 27, 2012 and another daytime visit on August 31, 2012.

The Project site is located on the perimeter of a large commercial parking lot. The project site is paved and completely devoid of vegetation in the immediate vicinity of the proposed billboard.

A chain-link fence separates the Project site from an approximately 45-ft wide strip of ruderal (i.e., disturbance-associated) vegetation that occupies the area between the Project site and U.S. 101 to the east. Dominant species present in the adjacent ruderal habitat include cypress (Cupressus sp.), toyon (Heteromeles arbutifolia), and non-native French broom (Cytisus monspessulanus). The ruderal habitat immediately east of the Project site (approximately 26 ft east of the proposed billboard pole) also supports a wetland with a dense stand of horsetail (Equisetum sp.). This wetland appears to be supported by runoff from the adjacent parking lot, and meets the physical criteria and regulatory definition of "waters of the United States".

Direct Effects of Billboard Installation

Due to the highly disturbed nature of the Project site and the immediately surrounding vicinity, it is extremely unlikely that any special-status species would occur in the Project area. The vast majority of plant and animal species occurring here are very common species associated with urban, developed, and ruderal conditions throughout the San Francisco Bay area. 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 immediate Project site. Thus, since construction does not extend into the horsetail-lined wetland to the east, 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 such as the house finch (Carpodacus mexicanus), American robin (Turdus migratorius), and northern mockingbird (Mimus polyglottos). These species are locally and regionally abundant, and Project effects on these species will not be significant under the CEQA.

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 queues, 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.

The Project site is completely surrounded by urban habitats that do not support sensitive species that might be significantly impacted by illuminance from the proposed LED billboard. Similarly, the small wetland immediately adjacent to the Project site is not expected to support sensitive species. The San Francisco Bay to the east provides suitable habitat for a variety of wildlife, including the federally and state listed California clapper rail (Rallus longirostris obsoletus), and the federally listed mission blue butterfly (Aricia icarioides missionensis) has been observed at Sign Hill Park to the north of the Project site. However, these habitats are located too far from the Project site to be affected by illuminance from the proposed LED billboard. Similarly, Colma Creek to the north of the Project site and the unnamed channel to the south are located too far from the Project site to be affected by illuminance from the proposed billboard. The indirect impact of illuminance from the billboard on sensitive habitats and species is ***less than significant***.

d) Wildlife Corridors. The physical structure of the billboard itself would not impact the movement of any wildlife species. However, avian flight behavior could be impacted by artificial illuminance. The primary way in which the luminance of an LED billboard might impact the movements of birds in the Project area is through the disorientation of nocturnally migrating birds. Such birds may alter their orientation upon sighting the light and become drawn toward the billboard, potentially striking objects such as buildings, adjacent power lines, or even the billboard itself.

The visibility of the proposed LED billboard to birds in flight, and thus the risk they pose to flying birds, depends primarily on the beam angle of the billboards relative to the flightlines of birds and on the luminance (brightness) of the billboards as perceived by the birds. The directional nature of LED lighting and the projected viewing angle values of ± 30° vertically and ± 60° horizontally suggest that the viewing angle of the billboards 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° above the center of the billboard's beam angle will not be affected by light from the billboard. 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 LED display on the billboard face 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 billboard would not perceive it as a fixed, unchanging light, the type of light that appears to be most attractive to birds.

It is possible that some birds that find themselves near the center of the beam angle may be attracted to the billboard. However, this is not expected to result in long-term consequences, such as increased bird-strike mortalities or substantial interference with bird movements because the billboard will be focused on the highway, not on airspace above the highway. Thus, a relatively limited area at low altitude above U.S. 101 will be within the center of the billboard's beam angle.

Because the area surrounding the billboard is heavily urbanized and contains no habitats of value to estuarine birds using the San Francisco Bay habitats to the east, we do not expect large numbers of birds (especially species of conservation concern) to be flying in a north-south direction, and at low altitudes that would be within the beam, close enough to the billboard for disorientation to occur at all. Therefore, it is not expected that birds moving through or around the Project area to be attracted to the billboard 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***.

d) Local Policies and Ordinances. There are no local policies or ordinances directly applicable to this Project. The landscaping on the adjacent Caltrans setback is maintained by Caltrans with billboard visibility taken into consideration and would continue to operate that way. No tree removal is proposed with this Project. Therefore, the Project would have ***no impact*** regarding conflicts with local policies and ordinances, including tree preservation.

e) Habitat Conservation Plan. 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?			☒	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Section 15064.5?		☒		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			☒	
d) Disturb any human remains, including those interred outside of formal cemeteries?		☒		

a–d) Historic, Archaeological and Paleontological Resources and Human Remains. 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) resulted in the following considerations:

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in close proximity to sources of water (including perennial and intermittent streams and springs), near the bay margin and its associated wetlands, and near ecotones and other productive environments. The proposed Project area is located within the lower reaches of the Colma Creek basin. Based on 19th century maps, the Project area was dominated by estuaries that have since been covered in artificial fill. Given the correlation of these environmental factors, coupled with the regional archaeological sensitivity, there is a moderate potential of unrecorded Native American resources (especially buried deposits with no surface indications) within the proposed Project area. If present, these would be located below any artificial fill at the surface, but potentially within the 35 foot depth of the proposed disturbance. There is a low potential of identifying other types of unrecorded cultural resources.

Mitigation Measure

Cultural-1: Cultural Monitoring and Mitigation Plan. The Project applicant shall fund preparation and implementation of a cultural monitoring and mitigation plan by a qualified archaeologist to address the potential for presence and disturbance of Native American archaeological resources or remains during excavation of the billboard pole footing. This will include at a minimum monitoring during excavation of the billboard pole footing and may also include but is not limited to additional archival research, hand auger sampling, shovel test units, geoarchaeological analysis, or other common methods used to identify the presence of archaeological resources to be determined per the recommendation of the qualified archaeologist. The archaeologist and construction contractors shall follow the appropriate procedures should any cultural resources or human remains be discovered during ground disturbance.

Preparation and implementation of a cultural monitoring and mitigation plan would assure that discovery of any cultural resources would be identified and treated appropriately and therefore that any impact in this regard 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:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42)				☒
ii) Strong seismic ground shaking?			☒	
iii) Seismic-related ground failure, including liquefaction?			☒	
iv) Landslides?				☒
b) Result in substantial soil erosion or the loss of topsoil?			☒	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			☒	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			☒	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				☒

a, d) Seismic Hazards. The San Francisco Bay Area is a seismically active region and the structure is likely to encounter strong seismic ground shaking during its lifetime. Additionally, the Project location is in the lowland zone of South San Francisco, which can be underlain by Bay Mud and associated with shrink-swell, settlement, corrosivity and liquefaction.[12] The billboard requires building permits and would be constructed to the current building code standards. These standards include consideration of geologic and seismic conditions. Soil conditions at the billboard site would be identified and considered as part of the design process.

There are no active earthquake faults known to pass through the vicinity of the Project.[13] There would be no impact related to rupture of a known earthquake fault.

The Project site is in an area of relatively flat topography and the possibility of landslides is considered unlikely.[14] There would be no impact related to landslides.

Therefore, the impact related to seismic hazards would be ***less than significant***.

[12] City of South San Francisco, prepared by Dyett and Bhatia, *South San Francisco General Plan*, 1999, pp. 246 to 250.

[13] State of California Department of Conservation, State of California Special Studies Zones (Delineated in compliance with Alquist-Priolo Special Studies Zones Act), San Francisco South, January 1, 1982.

[14] City of South San Francisco, prepared by Dyett and Bhatia, *South San Francisco General Plan*, 1999, p.250.

b) Soil Erosion. The Project would not involve significant grading. The Project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB), which will address any erosion potential from ground disturbance. With compliance with applicable regulations, the impact related to soil erosion would be ***less than significant***.

c, d) Unstable or Expansive Soil. Construction of the Project may require temporary groundwater pumping as groundwater may be encountered during the drilling of the foundation hole. The hole would be drilled and the following day, the pole structure would be installed and concrete poured to fill the hole. As a result continuous groundwater pumping would not be required or cause subsidence to occur. There are no other known conditions that could create substantial risks related to expansive or unstable soils. The impact related to unstable and expansive soil would be ***less than significant***.

e) Septic Tanks. 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?			☒	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				☒

a) Greenhouse Gas Emissions. 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 (CO_2e) per year was used for both construction-period and operational period for a conservative analysis.

BAAQMD's GHG Emissions Model includes a GHG emission factor of 804.54 lbs of CO_2 per megawatt-hour of electricity usage. (Other GHGs would have a negligible contribution to overall GHG levels from energy usage, so were not calculated here.) In 2010, Clear Channel billboards' average annual usage for double-sided LED billboards of the same size as the current proposal was 86,400 kwh. This results in emissions of 31.53 metric tons CO_2 per year for a 14' by 48' LED billboard. This is well below the threshold level of 1,100 metric tons.

BAAQMD does not suggest a threshold for assessment of construction-period GHG emissions impacts or provide a screening level at which to compare projects. However, with a construction period of only a few days, construction-period GHG emissions 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***.

b) Greenhouse Gas Reduction Plans. The Project is not located in a community with an adopted qualified GHG Reduction Strategy, so consistency with such a plan cannot be analyzed. GHG emissions associated with the development of the proposed Project were analyzed per the BAAQMD May 2011 CEQA Air Quality Guidelines. BAAQMD's thresholds and methodologies take into account implementation of state-wide regulations and plans, such as the AB 32 Scoping Plan and adopted state regulations such as Pavley and the low carbon fuel standard. Therefore, there would be ***no impact*** in relation to consistency with GHG reduction plans.

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?		☒		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		☒		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		☒		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				☒
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?			☒	
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				☒
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?				☒

a, b, d) Hazardous Materials. 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. It is assumed that any materials used during construction activities or for maintenance of the billboard that would be considered hazardous would be utilized in compliance with applicable regulations. It is also noted that 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.

During the installation process of the billboard, holes would be drilled and the excavated soil would be transported offsite. The Project will also include trenching to connect to electrical supply. Prior to construction activities, the site will be assessed for the presence of hazardous materials, which, if present, would be handled appropriately, as per the following mitigation:

Mitigation Measures

Haz-1: **Phase I and/or Phase II Reports.** Prior to issuance of construction permits, the City of South San Francisco shall require the Project applicant to submit a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the Project site. The reports shall make recommendations for remedial action in accordance with State and Federal laws, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. The Applicant shall comply with these recommendations.

Haz-2: **E-Waste Disposal.** Electronic components of the billboard may contain materials considered "e-waste" when disposed of due to potentially hazardous metals, flame retardants, and other chemicals. The operator shall be required to follow applicable regulations regarding proper disposal and/or recycling, as appropriate, as components are replaced or removed over time.

With implementation of Mitigation Measures Haz-1 and Haz-2, the impact relating to the possible presence of hazardous materials at this site would be ***less than significant***.

c) Hazardous Materials Near Schools. 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. The Project would represent ***no impact*** relative to the potential exposure of students at nearby schools to hazardous materials at the Project site.

e, f) Airport Hazards. The closest airport is the San Francisco Airport located approximately 1 mile southeast from the Project site. This is within the jurisdiction of the Airport Land Use Plan for the San Francisco International Airport, though the site is not directly within the approach pathway. Federal Aviation Regulations, Part 77, limits structure heights to an elevation of 161 feet above mean sea level in the most restricted areas, increasing at a slope of 20:1 to a height of 361 feet above mean sea level.[15] The proposed billboard would rise a maximum of 70 feet above a site approximately 11 feet above mean sea level. The billboard height would be below applicable height restrictions.

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. [16]

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.

g) Emergency Response Plan. The Project would not alter traffic patterns and would not impair implementation of any adopted emergency response plan or emergency evacuation plan. Therefore, the Project would have ***no impact*** in this regard.

h) Wildland Fire. 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.

[15] City/County Association of Governments of San Mateo County, December 1996, *San Mateo County Comprehensive Airport Land Use Plan*, Map SFO-4.

[16] Ibid, p.V.-19.

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?			☒	
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)?			☒	
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?				☒
d) Substantially increase the rate or amount of surface runoff (e.g., due to due to increased impervious surfaces) in a manner which would result in flooding on- or off-site (i.e. within a watershed)?				☒
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?				☒
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?			☒	
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?				☒
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				☒
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?				☒
j) Inundation by seiche, tsunami, or mudflow?			☒	

a, f) Water Quality and Pollutants. Operation of the Project does not involve the use of water or generation of waste water. Construction activities, such as drilling a hole for the foundation and pouring concrete, have the potential to impact water quality. These activities have the potential to increase sediment loads in runoff that would enter the combined sewer system. 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 days for installation. Potential impacts would be minimal, and compliance with City and State regulations would reduce any potential impacts to surface water and drainage to a ***less than significant*** level.

b) The proposed Project is not expected to involve substantial excavation that would impact groundwater. The Project involves drilling holes approximately 5 feet in diameter with a depth of approximately 32 feet, which could result in groundwater being encountered. In the event that groundwater is encountered and dewatering activities are required, it would be short-term as each site installation is expected to take only a few days to complete and the hole would be filled with concrete resulting in minimal effects to groundwater. 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.

c-e, g-i) Runoff, Drainage and Flooding. 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 located in a 100 year flood zone[17] 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.

j) Inundation. The proposed Project is located over 4,000 feet from the San Francisco Bay, and over 6 miles from the Pacific Ocean. Project site elevations are between 10 and 11 feet above mean sea level. Wave run up from a tsunami is estimated at 6 feet above mean sea level for a 500-year tsunami.[18] Climate change induced sea level rise is estimated at up to 17 inches by 2050 and 69 inches by 2100.[19] 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.

[17] City of South San Francisco prepared by Dyett & Bhatia, October 199, *South San Francisco General Plan*, Figure 8-3.

[18] City of South San Francisco, prepared by Dyett and Bhatia, *South San Francisco General Plan: Health and Safety Element*, 1999, p. 250.

[19] 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?				☒
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?			☒	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				☒

a) Physical Division of a Community. The Project site is at the boundary of currently developed parcels and highways. The billboard would not involve any physical changes that would have the potential to divide the established community. Thus, the Project would have ***no impact*** concerning community division.

b) Conflict with Land Use Plan. Digital billboards are not currently allowed under South San Francisco Zoning Code. Amendment of the Zoning Code as proposed with this Project could allow a limited number of digital billboards (up to three total) if approved in conjunction with Relocation Agreements. 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 hazards. Therefore, assuming approval of the Zoning Code amendments, the Project would have a ***less than significant impact*** with regard to land use plan conflicts.

c) Conflict with Conservation Plan. The Project site is not subject to a conservation plan. It is surrounded by urban development and has been designated for such land use for a considerable period of time. The Project would, therefore, have ***no impact*** in relation to this item.

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

a, b) Mineral Resources. The site contains no known mineral resources and has not been delineated as a locally important mineral recovery site on any land use plan.[20] The Project would have ***no impact*** with regard to mineral resources.

[20] U.S. Geological Survey, 2005, Mineral Resources Data System: U.S. Geological Survey, Reston, Virginia. Available through: http://tin.er.usgs.gov/mrds/

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?				☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			☒	
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?				☒
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?				☒

a-d) Excessive Noise or Vibration. 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 at the Project site 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 construction period would span only a few days. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life.

The South San Francisco Noise Ordinance (Chapter 8.32 of the Municipal Code, Section 8.32.050) restricts construction activities to the hours of 8:00 a.m. to 8:00 p.m. on weekdays, 9:00 a.m. to 8:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. This ordinance also limits noise generation of any individual piece of equipment to 90 dBA at 25 feet or at the property line. Construction activities will comply with the Noise Ordinance.

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 are ***less than significant***.

e-f) Airport Noise. A billboard is not a noise sensitive use. Therefore, the Project would result in ***no impact*** under this criterion.

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

a-c) Substantial Population Growth. The proposed Project would not induce population growth and would displace neither existing housing nor people. Therefore, there would be ***no impact*** in this regard.

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.				☒
b) Police protection.				☒
c) Schools.				☒
d) Parks.				☒
e) Other public facilities.				☒

a-e) Public Services. The proposed Project would not increase the demand for public services. Therefore, there would be ***no impact*** in this regard.

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.				☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.				☒

a-b) Recreation. The proposed Project would not construct or increase the use of recreational facilities. Therefore, there would be ***no impact*** in this regard.

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?				☒
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?				☒
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?				☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		☒		
e) Result in inadequate emergency access?				☒
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?				☒

a-c, f) Vehicle and Air Traffic and Alternative Transportation. 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 level and duration. There would be ***no impact*** in this regard.

d) Hazards. The Project proposes to construct and operate one double-sided digital billboard and amend the Zoning Code to also allow up to two additional digital billboards along U.S. 101 within the City limits, if approved in conjunction with Relocation Agreements. The billboards would be visible from the roadway.

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 agreement with California includes specific provisions regarding the brightness of signage:

Signs shall not be placed with illumination that interferes with the effectiveness of, or obscures any official traffic sign, device or signal; shall not include or be illuminated by flashing, intermittent or moving lights (except that part necessary to give public service information such as time, date, temperature, weather or similar information); shall not cause beams or rays of light to be directed at the traveled way if such light is of such intensity or brilliance as to cause glare or impair the vision of any driver, or to interfere with any driver's operation of a motor vehicle. (Agreement dated February 15, 1968)

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 changeable message signs… The frequency of message change and limitation in spacing for these signs should be determined by the State."

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 Project as proposed will comply with these criteria.

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 U.S.C. §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. The report is entitled: "The Effects of Commercial Electronic Variable Message Signs (CEVMS) on Driver Attention and Distraction: An Update."[21]

The FHWA report addressed 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 report 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 report discusses existing literature and reports of studies, key factors and measures relating to CEVMS and effects on traffic, and recommends a study approach. An extensive bibliography is included in the report. The report does 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) entitled "Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs" (NCHRP Report) reviewed existing literature. Both reports agreed that digital billboards should be regulated as a means of protecting the public interest.

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 with regard to the specific constraints that should be placed 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

[21] 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 http://www.fhwa.dot.gov/realestate/cevms.htm.

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.

It should be noted that there are various studies supporting conflicting conclusions regarding the safety of digital billboards and incidence of driver distraction. This analysis has been performed utilizing 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 the California Department of Transportation (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 Traf-1 would ensure that the City receives accurate information from the operator regarding compliance on an ongoing basis.

Mitigation Measure Traf-1:

Annual Report. The operator the digital billboard shall submit to the City, 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 City limits. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Director of the Economic and Community Development Department 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 California Department of Transportation pursuant to the federal Highway Beautification Act (23 U.S.C. §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 passengers. The use and development of this technology would have consequences, and should be identified by the operator prior to any implementation. Mitigation Measure Traf-2, set forth below, would require notice to the City in the event such features are proposed. The mitigation measure also confirms prohibitions on visual effects.

Mitigation Measure Traf-2: **Operational Safety.** The operation of the digital billboard shall comply with the following at all times:

a. No special visual effects that include moving or flashing lights shall accompany any message or the transition between two successive messages

b. 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 City of South San Francisco, taking into consideration technical studies and CalTrans or US DOT policies and guidance available at the time of the request.

Implementation of Mitigation Measures Traf-1 and Traf-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***.

e) Inadequate Emergency Access. The proposed digital billboard would be located outside travelled portions of the roadway and would present no obstacles to 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. Therefore, the Project would have ***no impact*** with regard to inadequate emergency access.

17. 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?				☒
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?				☒
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?				☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				☒
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?				☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?				☒

a-g) Utilities. 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 (USA) to prevent conflicts with subterranean utilities. There would be ***no impact*** on utility services.

Energy: In 2010, Clear Channel billboards' average annual usage for double-sided digital billboards of the same size as currently proposed was 86,400 kilowatt-hours (kwh). For a comparison, this equates to the annual electricity usage of approximately 14.25 single family homes (calculated using BAAQMD's GHG Emissions Model rate of 6,047 kwh annual electricity usage). The latest generation of LED equipment is anticipated to be approximately 15% more energy efficient, but this technology was only beginning to be installed in November of 2011, so annual usage data was not available for the newer generation for this analysis.

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 addresed in Item 7, Greehouse Gas Emissions. 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 any environmental effects are ***less than significant***.

18. 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?			☒	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			☒	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			☒	

a) Environmental Quality. With the implementation of mitigation measures, 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.

b) Cumulative Impacts and Adverse Effects on Human Beings. The Project includes revision of the Zoning Code to allow up to three digital billboards along U.S. 101 in South San Francisco if approved in conjunction with Relocation Agreements. The analysis included in this document takes into account the potential for two digital billboards in addition to the one currently proposed. No additional digital billboards beyond these three would be allowed under the proposed Zoning Code amendment.

Caltrans limits billboards to one every 500 feet along the length of the highway, which leaves the possibility that additional conventional (as opposed to digital) billboards could be added along U.S. 101 in South San Francisco beyond the three digital billboards. This has the potential to result in additional cumulative aesthetics impacts. The analysis in this report already considers that two additional billboards could be located as close as 500 feet to either direction of the proposed billboard, which represents a worst case scenario that covers either digital or conventional billboards.

Any additional billboards, whether digital or conventional, would be required to undergo design review and City approval processes, which generally require relocation 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 and that Relocation Agreements would keep the same or reduce the total number of billboards in the area. Therefore, 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 the discovery of unknown cultural

resources, the potential presence of contaminated soil on the construction site, and traffic hazards related to driver distraction. 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.

DOCUMENT PREPARERS

Lamphier – Gregory
(Primary Report Preparers)
Scott Gregory, President
Rebecca Gorton, Senior Planner

1944 Embarcadero
Oakland, Ca. 94606
510-535-6690

Vistarus
(Visual Modeling)
Niral Patel

H.T. Harvey & Associates
(Biological Impacts Assessment)
Ginger M. Bolen, Ph.D., Senior Wildlife Ecologist

City of South San Francisco
This document was prepared in consultation with Gerry Beaudin, Principal Planner, City of South San Francisco.

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ATTACHMENT A

Biological Impacts Assessment

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

5 September 2012

Ms. Rebecca Gorton
Lamphier-Gregory
1944 Embarcadero
Oakland, CA 94606

Subject: South San Francisco Clear Channel Billboard Project Biological Impacts Assessment (HTH #3410-01)

Dear Ms. Gorton:

Per your request, H. T. Harvey & Associates has performed a biological impacts assessment for the construction of an LED billboard at 101 Terminal Court, South San Francisco, California (Figure 1). The project site is bounded by Highway 101 to the east and extensive commercial development to the north, west, and south.

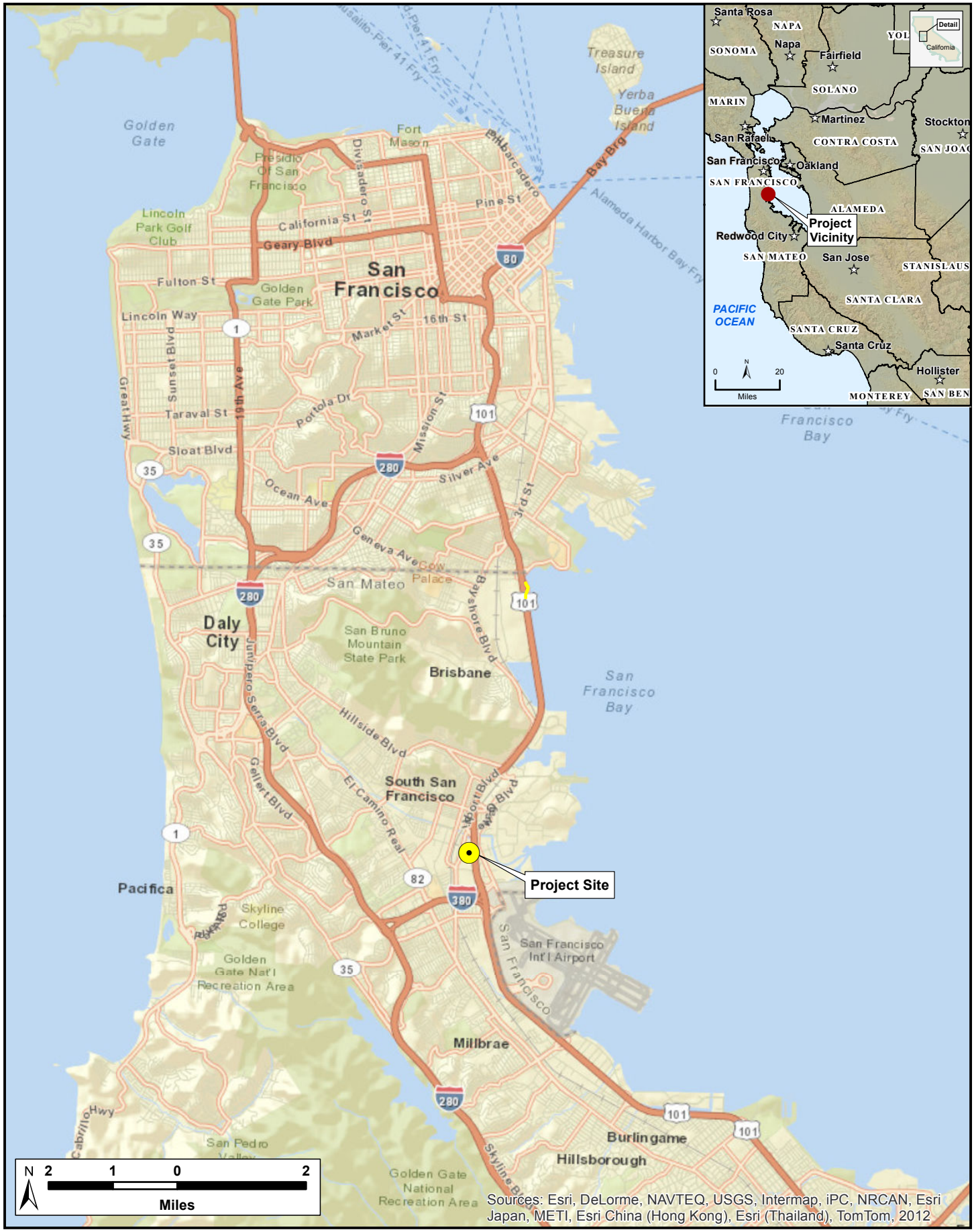
According to information you provided, the new billboard would have an overall height of 70 feet (ft) and a width of 48 ft with a 14 ft by 48 ft LED display screen mounted above a pole with a 56 ft clearance from grade. The billboard would display multiple advertisements, cycling between ads every 8 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 will be the same as that utilized for the Clear Channel LED billboard along Highway 92 that we analyzed in 2008 and that the same assumptions can be made regarding illuminance.

METHODS

I conducted a daytime site visit on 27 August 2012 to inspect habitat conditions immediately surrounding the proposed sign location (which could potentially be disturbed during the installation of the new LED sign) and in adjacent areas that could be indirectly affected by the project. I returned to the site that evening to observe qualitatively the existing ambient lighting in the vicinity of the project site to provide a basis for determining the potential direct and indirect effects of the billboard's lighting on wildlife. In addition, H. T. Harvey & Associates senior plant/wetland ecologist Patrick Boursier, Ph.D., conducted a site visit on 31 August 2012 to assess the site for the presence of potentially sensitive habitats (e.g., wetlands). Following the completion of the surveys, I determined the potential for the installation of the billboard to impact biological resources, such as special-status species and sensitive/regulated habitats, based on the conditions at the proposed billboard location.

EXISTING SITE CONDITIONS

The project site is located on the perimeter of a large commercial parking lot (Park 'N Fly). A chain-link fence separates the project site from an approximately 45-ft wide strip of ruderal (i.e., disturbance-associated) vegetation that occupies the area between the project site and Highway



N:\Projects3400\3410-01\Reports\Figure 1 Vicinity Map.mxd

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Figure 1: Vicinity Map

SSF Clear Channel Billboard (3410-01)

September 2012

101 to the east. The project site is paved and completely devoid of vegetation; however, dominant species present in the adjacent ruderal habitat include cypress (*Cupressus* sp.), toyon (*Heteromeles arbutifolia*), and non-native French broom (*Cytisus monspessulanus*). The ruderal habitat immediately east of the project site (approximately 26 ft east of the proposed billboard pole) also supports a wetland with a dense stand of horsetail (*Equisetum* sp.). This wetland appears to be supported by runoff from the adjacent parking lot, and meets the physical criteria and regulatory definition of "waters of the United States".

Due to the highly disturbed nature of the project site and the immediately surrounding vicinity, it is extremely unlikely that any special-status species would occur in the project area. The vast majority of plant and animal species occurring here are very common species associated with urban, developed, and ruderal conditions throughout the San Francisco Bay area. 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.

BIOLOGICAL IMPACTS ASSESSMENT

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

- The direct effects of the installation of an LED billboard on biotic resources
- The indirect effects of illuminance from the LED billboard (i.e., the amount of light from the billboard that lands on a certain area) on sensitive species in adjacent areas
- The potential effects of the 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 INSTALLATION

All activity associated with installation of the LED billboard at the project site is presumed to take place within the paved parking lot, with most such activity concentrated in the immediate vicinity of the billboard.

No wetlands, riparian habitats, or other sensitive habitats are present within the immediate project site. Thus, as long as construction does not extend into the horsetail-lined wetland to the east, 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 such as the house finch (*Carpodacus mexicanus*), American robin (*Turdus migratorius*), and northern mockingbird (*Mimus polyglottos*). These species are locally and regionally abundant, and project effects on these species will not be significant under the CEQA.

In summary, no biological impacts that are significant under CEQA will occur as a result of the installation of a billboard at this location.

INDIRECT EFFECTS OF ILLUMINANCE OF ADJACENT AREAS

Many animals are extremely sensitive to light cues, which influence their physiology and shape their behaviors, particularly during the breeding season (Ringer 1972, de Molenaar et al. 2006). Artificial light has been used as a means of manipulating breeding behavior and productivity in captive birds for decades (de Molenaar et al. 2006), and has been shown to influence the territorial singing behavior of wild birds (Longcore and Rich 2004, Miller 2006, de Molenaar et al. 2006). While it is difficult to extrapolate results of experiments on captive birds to wild populations, it is known that photoperiod (the relative amount of light and dark in a 24-hour period) is an essential cue triggering physiological processes as diverse as growth, metabolism, development, breeding behavior, and molting (de Molenaar et al. 2006). This holds true for birds, mammals (Beier 2006), 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 to wildlife populations.

Artificial lighting may indirectly impact mammals and birds by increasing 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). The presence of artificial light may also influence habitat use by rodents such as the salt marsh harvest mouse (*Reithrodontomys raviventris*) and salt marsh wandering shrew (*Sorex vagrans halicoetes*) (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.

The project site is completely surrounded by urban habitats that do not support sensitive species that might be significantly impacted by illuminance from the proposed LED billboard. Similarly, the small wetland immediately adjacent to the project site is not expected to support sensitive species. The San Francisco Bay to the east provides suitable habitat for a variety of wildlife, including the federally and state listed California clapper rail (*Rallus longirostris obsoletus*), and the federally listed mission blue butterfly (*Aricia icarioides missionensis*) has been observed at Sign Hill Park to the north of the project site (CNDDB 2012). However, these habitats are located too far from the project site to be affected by illuminance from the proposed LED billboard. Similarly, Colma Creek to the north of the project site and the unnamed channel to the south are located too far from the project site to be affected by illuminance from the proposed billboard.

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 ± 30° vertically and ± 60° 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 a specific portion of Highway 101, so the area of brightest night illuminance projected by the proposed billboard would form a narrow cone directed at oncoming traffic. Further the illuminance would dissipate so that illuminance beyond 100 ft would be minimal and that beyond 500 ft negligible. Thus, the proposed LED billboard is not expected to substantially increase the amount of illuminance

currently experienced by sensitive habitats (and the species inhabiting them) within San Francisco Bay, which is located over 3600 ft to the east, or Sign Hill Park, which is located over 5800 ft to the north. Therefore, we do not expect illuminance from the LED billboard to result in significant impacts on these sensitive habitats or their associated wildlife species.

POTENTIAL EFFECTS OF LED BILLBOARD'S LUMINANCE ON AVIAN FLIGHT BEHAVIOR

The primary way in which the luminance of an LED billboard might impact the movements of birds in the project area is through the disorientation of nocturnally migrating birds. Such birds may alter their orientation upon sighting the light and become drawn toward the sign, potentially striking objects such as buildings, adjacent power lines, or even the sign itself. Migrating birds are much more likely to be impacted by the billboard's luminance during foggy or rainy weather, when visibility is poor (Longcore and Rich 2004, Gauthreaux and Belser 2006).

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 migrating birds to be attracted to bright lights is unknown, the attraction is well documented (Longcore and Rich 2004, Gauthreaux and Belser 2006). Migrating birds are frequently drawn from their migratory flight paths into the vicinity of an artificial light source, where they end up circling the lit area, effectively "captured" by the light (Herbert 1970, Gauthreaux and Belser 2006). When birds are drawn to artificial lights during their migration, they become disoriented and possibly blinded by the intensity of the light (Gauthreaux and Belser 2006). The disorienting and blinding effects of artificial lights directly impact migratory birds by causing collisions with light structures, buildings, communication and power structures, or even the ground (Gauthreaux and Belser 2006). Indirect impacts on migrating birds might include orientation mistakes and increased length of migration due to light-driven detours.

Effects of the Proposed LED Billboards 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 angle of the sign relative to the flightlines 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 ± 30° vertically and ± 60° 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° above the center of the sign's beam angle 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 cd/ft^2 of luminance (LSI 2006). However, in practice, the LED billboards will be operated so that their peak luminance will be approximately 46 cd/ft^2 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^2 (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. The peak luminosity for an LED billboard cited in the 2006 Light

Sciences Inc. report to the Outdoor Advertising Association of America (LSI 2006) and indicated above assumes that the display on the billboard is solid white. In practice, the displays on the planned LED billboard will contain a variety of colors, which will substantially reduce the amount of luminance produced.

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).

It is possible that some birds that find themselves near the center of the 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 the sign will be focused on the highway, not on airspace above the highway. Thus, a relatively limited area at low altitude above Highway 101 will be within the center of the sign's beam angle.

Because the area surrounding the sign is heavily urbanized and contains no habitats of value to estuarine birds using the San Francisco Bay habitats to the east, we do not expect large numbers of birds (especially species of conservation concern) to be flying in a north-south direction, and at low altitudes that would be within the beam, close enough to the billboard for disorientation to occur at all. Thus, 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.

Given the configuration of bird habitats in the vicinity of the site (which does not lend itself to directed bird flights toward the signs), 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 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 site, and our knowledge of likely avian flightlines in the vicinity of the project 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 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.
Senior Wildlife Ecologist

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PERSONAL COMMUNICATIONS

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ATTACHMENT B

Northwest Information Center Records Search Results

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
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
Email: leigh.jordan@sonoma.edu
http://www.sonoma.edu/nwic

August 21, 2012 NWIC File No.: 12-0165

Rebecca Gorton
Lamphier-Gregory, Inc.
1944 Embarcadero
Oakland, CA 94606

Re: Record search results for the proposed project at 101 Terminal Court, City of South San Francisco.

Dear Ms. Gorton:

Per your request received by our office on 15 August 2012, a 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 San Mateo 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 no record of any cultural resource studies that cover the proposed project area. While there are no archaeological resources within the proposed project area, several Native American habitation sites are present in the general vicinity. The Office of Historic Preservation (OHP) Historic Property Directory (HPD) includes no recorded buildings or structures within the proposed project area. In addition, the NWIC base maps show no recorded buildings or structures.

At the time of Euroamerican contact, the Native Americans that lived in this portion of the peninsula were speakers of the Costanoan or Ohlone language, part of the Utian language family (Levy 1978:485). The settlement patterns of Native Americans living on the San Francisco peninsula were significantly disrupted earlier that in other regions of the state. However, as in other areas, settlement patterns would indicate a mixture of residential occupation of villages and seasonal rounds to exploit resources at their peak. Reconstruction of tribal names and locations undertaken by Milliken (1995), based principally on mission registers, would place the proposed project area as being located within the northern portion of the area controlled by the *Urebure* (1995:258).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in close proximity to sources of water (including perennial and intermittent streams and springs), near the bay margin and its associated wetlands, and near ecotones and other productive environments. The proposed project area is located within the lower

reaches of the Colma Creek basin. Based on 19th century maps, the project area was dominated by estuaries that have since been covered in artificial fill. While this land was adjacent to estuaries in the 19th century, this productive environment has undergone significant changes as sea levels have rose over last 10,000 years. Given the correlation of these environmental factors, coupled with the regional archaeological sensitivity, there is a moderate potential of unrecorded Native American resources (especially buried deposits with no surface indications) within the proposed project area.

Review of historical literature and maps gave no indication of the possibility of historic-period archaeological resources within the proposed project area. With this in mind, there is a low potential of identifying unrecorded historic-period archaeological resources in the proposed project area.

The 1947 San Francisco South USGS 7.5-minute topographic quadrangle fails to depict any buildings or structures within the proposed project area; therefore, there is a low possibility of identifying any buildings or structures 45 years or older within the project area.

RECOMMENDATIONS:

1) There is a moderate possibility of identifying Native American archaeological resources and a low possibility of identifying historic-period archaeological resources in the project area. Given the depth of disturbance for the proposed project (approximately 35 feet below surface) buried terrestrial land surfaces that have the potential for containing archaeological material may be present below the artificial fill at the surface. We recommend a qualified archaeologist conduct further archival and field study to identify cultural resources. Field study may include, but is not limited to, pedestrian survey, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of archaeological resources (especially buried deposits with no surface indications). Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

2) If the proposed project area contains buildings or structures that meet the minimum age requirement, prior to commencement of project activities, it is recommended that this resource be assessed by a professional familiar with the architecture and history of San Mateo County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at http://www.chrisinfo.org.

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

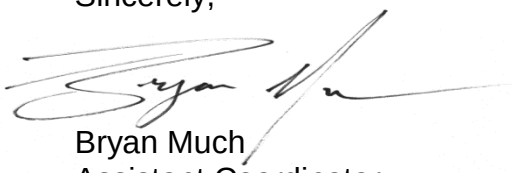
4) If archaeological resources are encountered **during construction,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided 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.

5) 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

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

Sincerely,



Bryan Much
Assistant Coordinator

LITERATURE REVIEWED

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

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1951 *Adobe Houses in the San Francisco Bay Region*. In Geologic Guidebook of the San Francisco Bay Counties, Bulletin 154. California Division of Mines, Ferry Building, San Francisco, CA.

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1982 *Geologic, Scenic, and Historic Points of Interest in San Mateo County, California*. Miscellaneous Investigations Series, Map I-1257-B, 1:62,500. Department of the Interior, United States Geological Survey, Washington, D.C.

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1974 *Local History Studies*, Vol. 18., "The Costanoan Indians." California History Center, DeAnza College, Cupertino, CA.

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1978 Costanoan. In *California*, edited by Robert F. Heizer, pp. 485-495. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

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1971 Preliminary Map of Historic Margins of Marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map. U.S. Department of the Interior, Geological Survey in cooperation with the U.S. Department of Housing and Urban Development, Washington, D.C.

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Woodbridge, Sally B.
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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.