Draft

JEAN SWEENEY OPEN SPACE PARK

Initial Study / Mitigated Negative Declaration

Prepared for
City of Alameda

June 2014

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CITY OF ALAMEDA

Draft Initial Study / Mitigated Negative Declaration

1. Introduction

This draft Initial Study /Mitigated Negative Declaration (IS/MND) evaluates the potential environmental effects of the Jean Sweeney Open Space Park (Sweeney Park) project. The project would develop 22 acres of land with six primary uses: walking and bike trails, a community garden, natural playgrounds, open lawn, picnic areas, and natural open space. A more detailed description of the proposed project is provided in the Project Description below.

The environmental approval process, which is regulated by California Environmental Quality Act (CEQA) Statutes and Guidelines, includes circulation of this IS/MND for public and agency review for a 20-day period. Written comments received during this review period will then be reviewed. The Planning Board and City Council, at regularly scheduled meetings, will review all of the related material and make a determination as to adequacy of this analysis prior to making a decision on whether to approve the project. A Notice of Determination, if made, will then be filed with the Alameda County Recorder. The proposed project would proceed after filing the Notice of Determination.

The organization and format of this document is stipulated by the CEQA Guidelines. Section 4 of this IS/MND, the "Environmental Checklist," includes 17 specific factors (e.g., Air Quality, Cultural Resources, Transportation and Traffic, etc.) which must be addressed, as well as a section entitled, Mandatory Findings of Significance. The four levels of impact are: "Potentially Significant Impact," "Less Than Significant with Mitigation Incorporation," "Less than Significant Impact," and "No Impact." A discussion relating the anticipated impacts to each of the CEQA issues then follows. If a significant impact is identified, mitigation is presented to offset any potentially significant impacts. Each checklist item includes a reference section, which lists technical studies, agencies, and other resources consulted in this evaluation.

Project Specifics

A. Project Address and Title:

Address: 1925 Sherman Street, Alameda, CA, 94501
APN 074-906-32-05, 074-906-32-12, 074-906-32-15

Title: Jean Sweeney Open Space Park

B. Lead Agency Name and Address:

City of Alameda
Recreation and Park Department
2226 Santa Clara Avenue
Alameda, California 94501-4417

C. Contact Person and Phone Number:

Amy Wooldridge, Recreation and Park Director
City of Alameda
Recreation and Park Department
2226 Santa Clara Avenue
Alameda, California 94501-4417
510-747-7529

D. Project Sponsor's Names and Addresses:

City of Alameda
Recreation and Park Department
2226 Santa Clara Avenue
Alameda, California 94501-4417

E. Existing General Plan Designation and Zoning:

General Plan: Parks and Public Open Space

Zoning: Open Space

F. Project Description:

See page 3.

G. Location of Project:

See page 3.

2. Project Description

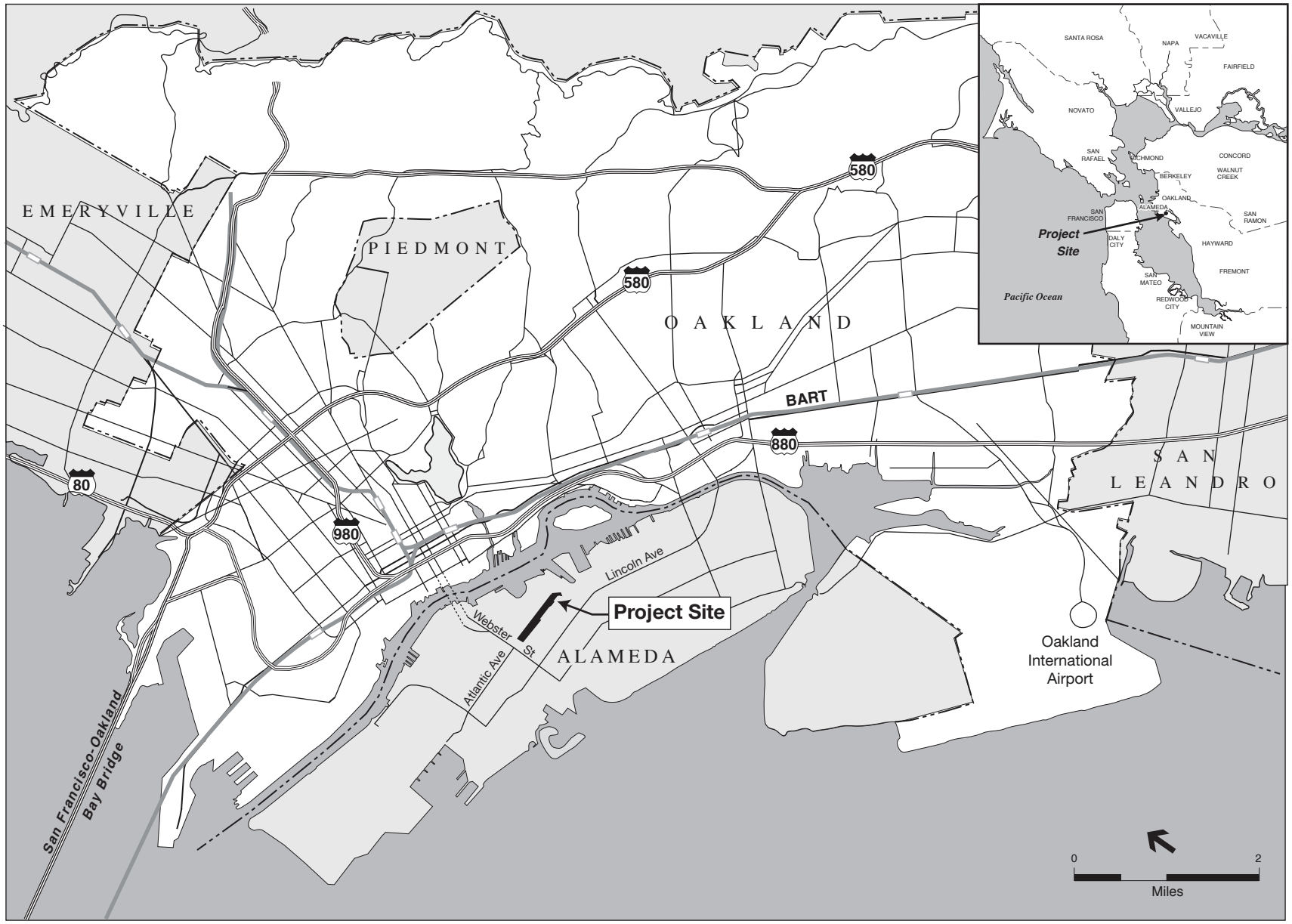
The City of Alameda, Recreation and Park Department (the City), is proposing to develop a new 22-acre community park on the former Alameda Beltline Railroad property, which is owned by the City. The proposed project would include removal of remnant building foundations and infrastructure, and require remediation activities for known instances of soil contamination. Park construction would include landscaping, benches, hardscape walkways, lighting, playground structures, parking spaces, a seasonal water feature, walking and biking trails, and a community garden.

Project and Site Vicinity

The project site is located at 1925 Sherman Street in the City of Alameda, south of Atlantic Avenue, as illustrated in **Figure 2-1**. The project site is approximately 2 miles south and west of Oakland and approximately 12 miles from San Francisco (10 miles by ferry). Regional vehicular access to the project area is provided by Interstate 880 (I-880) from Oakland through the Webster Street (State Route [SR] 260) Tunnel to Alameda Island. Access to the project site is provided by Atlantic Avenue (running east-west), Constitution Way, running north-south on the west, Sherman Street, running north-south on the east, and multiple residential streets along the southern boundary.

The 22-acre project site consists of three parcels that are zoned Open Space and designated in the General Plan as Parks and Public Open Space, respectively. The project site in an unpaved roughly rectangular property with a single remaining building located at the eastern end of the rail yard that served as the former yard house. The site has remnant concrete foundations from several other structures, including a former maintenance building, and concrete pits. Much of the site is covered with ballast rock. The topography of the site is defined by soil stockpiles and elongated east-west oriented areas of higher ground about three to four feet higher than the central rail yard area, along the northern and southern margins of the project site; asphalt and concrete rubble protrudes from the soil stockpiles and elevated areas in many places.

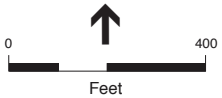
The project site and existing setting is shown in **Figure 2-2**. The project site is directly adjacent to single family and multi-family residential units to the south, as well as the Marina Village Business Park to the north. To the west of the project site is the Webster Square Shopping Center. The Bay Eagle Community Garden is located southeast of the site. A parking lot is located adjacent to the eastern boundary, beyond which the Northern Waterfront General Plan Amendment planning area is located, including the site of the former Del Monte warehouse which is planned for redevelopment as future residential units and retail space.



SOURCE: ESA, 2014

Sweeney Park . 140118

Figure 2-1
Regional Location



SOURCE: KK Design Studio

Sweeney Park . 140118

Figure 2-2

Existing Setting

Project Characteristics

The proposed project would construct a new community park and open space in northern Alameda which would primarily support passive recreation, with some active recreation uses. Community and open space parks are generally intended to serve residents across multiple neighborhoods throughout the city.

The conceptual park master plan is illustrated in **Figure 2-3**. The design features six recreation use types, including: walking and bike trails, natural open space, picnic areas, community garden, natural playgrounds, and open lawn areas. Active uses would generally be located towards the perimeter of the park, surrounding passive uses in the central area. The park would incorporate sustainable design and water management policies.

Park Development Project

The overall project construction schedule is expected to begin in fall 2015. In addition to the construction phases outlined here, the actual development of the park may be completed in stages as funding is available:

- **Soil remediation** constituents would remain in areas planned for hardscape or greenscape installation, which would serve as a cap.
- **Grading and drainage** improvements as necessary to prepare the site. The proposed project would require trenching, and minor cut and fill as part of construction.
- **Park construction** would be completed in stages as funding is identified and would include a 90-day plant establishment. The general park features are described below.

Park Features

The new park would include six recreation use types for Sweeney Park following an extensive community input process. These include:

1. Walking and bike trails;
2. Natural open space;
3. Picnic areas;
4. Community garden;
5. Natural playgrounds; and
6. Open lawn areas.

Access and Circulation

The design of the proposed project would construct the more active uses on the outside edges of the property, with the quieter, more serene areas constructed the main central area. The Cross Alameda Trail (CAT), a City Council-approved pedestrian and bicycle trail running the length of Alameda Island, would be located on the northern edge of the property, away from the existing residential neighborhoods. There would also be a tree buffer along the southern edge, to act as a

SOURCE: KK Design Studio

Sweeney Park . 140118

Figure 2-3
Masterplan

natural visual and sound barrier for the residential area. New parking lots would be located on the northwest and east sides of the property, with 120 total spaces, in order to provide enough available space to draw all parking away from residential areas.

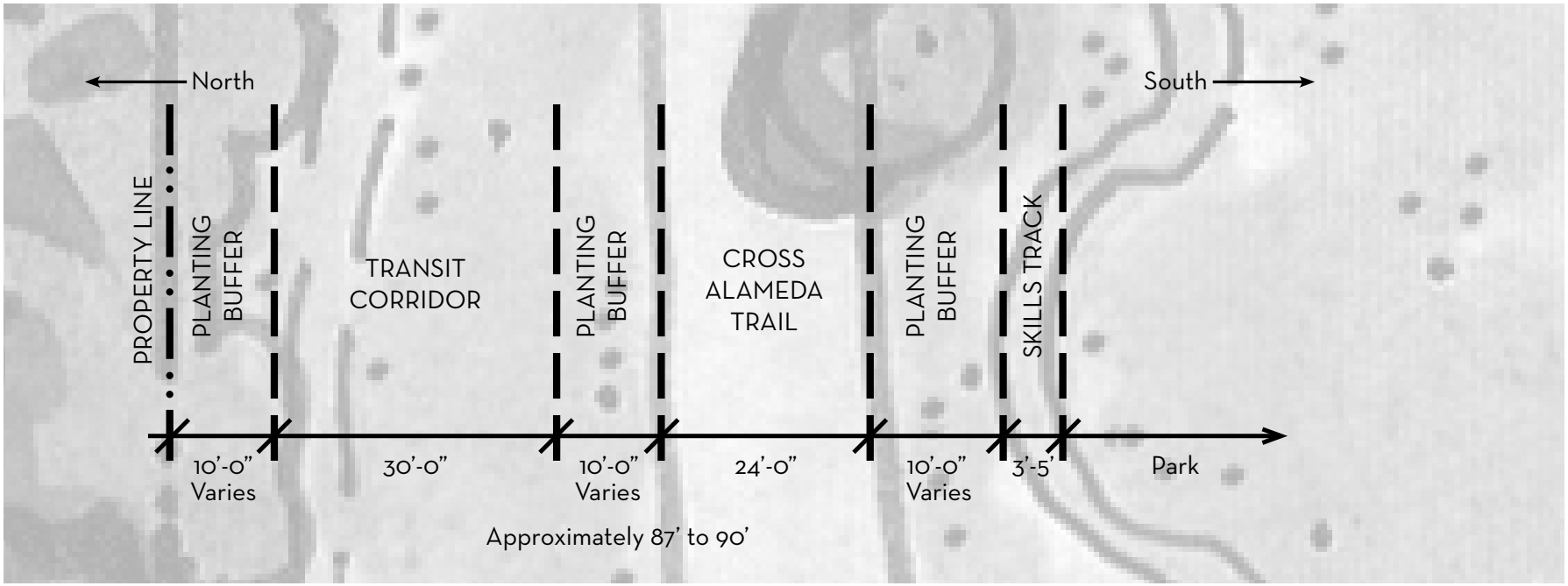
Figure 2-4 is a cross-section, running from north to south, which illustrates proposed circulation along the northern portion of the property. The primary route through the park for pedestrians and bicyclists would be from east to west along the CAT, described in further detail below. The site may be served by transit in the future, which would occupy a 30-foot wide corridor running east to west, parallel to the northern boundary of the site. Running south of the CAT, a bicycle skills loop would feature hilly terrain and obstacles that provide a unique recreational opportunity for youth and adults to improve their bicycling skills. Beyond the bicycle skills loop would be additional trails that would be restricted to pedestrian use (shown in **Figure 2-5**).

The CAT would be constructed as a wide, paved trail that would be lit around the clock for commuters and safety. The proposed CAT would be designed to accommodate multiple user types and would provide a transportation link between the segment of the CAT east of the park and the CAT segment along Ralph Appezzato Memorial Parkway to the west. The cross-section would be constructed as follows:

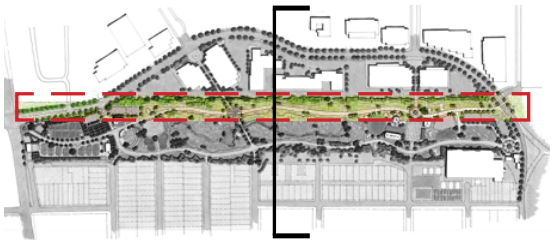
> **Bicycles:** 2 lanes that are 6 feet each, totaling 12 feet across for bicycles. This assumes a standard width of 3 feet per bicycle and allows bicycles to ride side-by-side in both directions. This complies with the City's approved Alameda Bicycle Facility Design Standards.
>
> **Pedestrians:** 8 feet across. This assumes 5 feet for two pedestrians to walk side-by-side and allows for additional space for movement and passing in both directions.
>
> **Jogging:** 4 feet across. Due to the recreational nature of this portion of the CAT, a distinct jogging lane is proposed to separate the faster moving joggers from the adjacent pedestrian pathway. The jogging lane would be decomposed granite or other hard-packed dirt surface and not a paved surface.

As illustrated in **Figure 2-5**, the CAT would connect to a smaller walking/biking trail on the south side of the property. These two trails would combine to offer a one-mile loop for bikers and walkers. Adjacent to this one-mile loop and separated by a 3-foot buffer, would be a bike skills track. In addition, there are several pedestrian-only trails located in passive recreation areas.

Pedestrians and bicyclists would access the park from two primary entrances, which would be distinguished by decorative paving and art features. These entrances would be located to the west at Constitution Way and Atlantic Avenue, and the east at Sherman Street. The intersection of Sherman Street with its future intersection with the Clement Avenue extension would be signalized to facilitate pedestrian movement between the future residential land uses and the proposed park. There would be approximately 120 parking spaces split between two parking areas near each entrance: one parking area would be located to the east off Sherman Street, and the other entrance would be located to the west off Atlantic Avenue.



Key Map

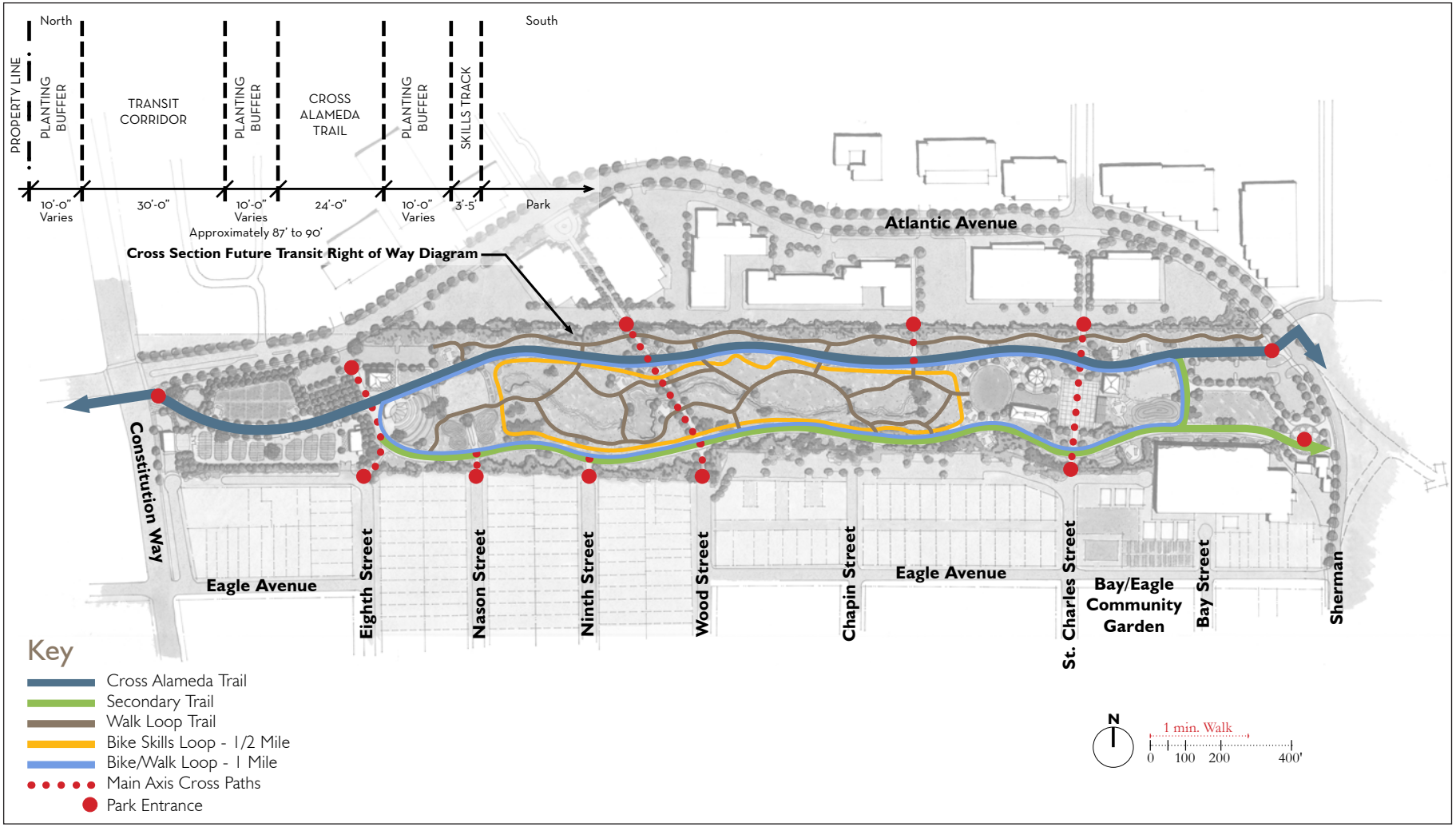


SOURCE: KK Design Studio

Sweeney Park . 140118

Figure 2-4

Cross Section Future Transit Right of Way Diagram



SOURCE: KK Design Studio

Sweeney Park . 140118

Figure 2-5

Circulation Diagram

There would also be two primary walkways running north/south that connect to Atlantic Avenue at Challenger Drive and Triumph Drive, along existing pathways in the Marina Village Business Park, linking residents to the Bay Trail and the Marina Village Shopping Center. Additionally, a main axis provides a connection between Eighth Street and the parking lot off Atlantic Avenue.

Secondary entrances would provide intermediate pedestrian and bicycle points of entry, and would be blocked to vehicular traffic by bollards. A secondary entrance would connect to the CAT along the north from the Marina Village Business Park. Secondary access from the south would be provided at five locations via walkways that would connect to the walking/biking trail at each of the adjacent residential streets.

Park Design and Amenities

The park would include features and amenities that support passive recreation, as well as education opportunities. Existing oak trees and other vegetation would be retained along the perimeter of the park, providing a natural vegetated buffer, and in clustered areas in the center of the park throughout the walking/biking paths and in surrounding natural landscape areas. A water feature would be located in the center of the park running from east to west intersecting the walking trails. The water feature would be seasonal for storm water detention and include a frog pond, dry creek beds, and five bridge crossings.

Both the east and west ends would feature restrooms and natural playgrounds. Educational opportunity areas would be offered on the west side of the park, including an outdoor classroom near a demonstration garden, fruit tree orchard, and butterfly garden. The east side would feature the “great lawn” area, a gazebo, covered picnic pavilion, main plaza with trellis feature, and a grassy hill. This area would be offered to the community as rental space; amplified sound would not be permitted. Other amenities would include plaza areas with art, a demonstration garden, and various lawn areas. Picnic tables and benches would be scattered throughout the property and along trails.

A two-acre community garden is proposed for the far western side of the property. The garden would follow the recommendation of the Alameda Point Collaborative’s feasibility study, and could include up to 250 plots, a central gathering area, common tool sheds and compost areas.

The project would also include the restoration of the historic yard house on the eastern edge of the project site. The yard house may be restored and would be operated as a concession stand and model railroad museum. The park would include a small maintenance building and yard behind the yard house that would be used to store equipment and materials needed to care for the proposed park.

Environmental Preservation and Protection

The design of the proposed park is intended to provide environmental protection, minimize greenhouse gases, and improve environmental quality on the site and within the area. These goals will be accomplished through the inclusion of the following features:

- Retain existing live oak trees and use Oak Tree Fund to plant additional live oak trees.
- Goal to reuse all existing concrete onsite, or as much as is reasonably feasible.
- Park and trail lighting will utilize LED and/or solar lighting technology.
- Plantings throughout the park will consist predominantly of California native plants.
- Landscaping will follow “Bay-Friendly” planting guidelines.
- Solar powered trash compactors will be installed.
- All storm water will be filtered onsite through the use of bioswales and a seasonal creek.
- Adds critical connection points to the Cross Alameda Trail for bicyclists and pedestrians.
- Will include educational and historic signage.
- Possible preservation and adaptive reuse of the Alameda Rail Yard House.

Approvals Required

The project would require the following approvals and discretionary actions from the City of Alameda:

- Adoption of the Initial Study/Mitigated Negative Declaration
- Adoption of the Mitigation Monitoring and Reporting Program
- Building Permits
- Award of construction contracts

3. Environmental Factors Potentially Affected and City's Mitigation Determination

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

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

DETERMINATION:

On the basis of this initial study:

☐ 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, no further environmental documentation is required.

_____ _____

Signature Date

_____

Printed Name

4. Environmental Checklist, Discussion, and Mitigation Measures

Aesthetics

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
1. AESTHETICS — Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) 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 daytime or nighttime views in the area?	☐	☐	☒	☐

Discussion

a-c) **Less than Significant.** The proposed Sweeney Park site is located on three vacant parcels bounded by Atlantic Avenue to the north, Constitution Way to the west, and Sherman Street on the east. None of these roadways have been designated or are considered eligible to be state scenic highways, nor is the project site visible from a state scenic highway (Caltrans, 2011).

The project site is directly adjacent to single family and multi-family residential units to the south, as well as the Marina Village Business Park to the north. To the west of the project site is the Webster Square Shopping Center. The Bay Eagle Community Garden is located southeast of the site. A parking lot is located adjacent to the eastern boundary, beyond which the Northern Waterfront General Plan Amendment planning area is located, including the site of the former Del Monte warehouse which is planned for redevelopment as future residential units and retail space. Views onto the site from the west are visible at the intersection of Atlantic Avenue and Constitution Way, through existing chain link fencing, and largely consists of open space filled with non-native vegetation (**Figure 4-1**). Evidence of industrial activity is visible on the east side, where East Bay Municipal Utility District (EBMUD) is using a portion of the proposed project area as a yard for staging equipment and materials (**Figure 4-2**).

Figure 4-1
Existing View into Project Site from the West

Figure 4-2
Existing View Towards Project Site from the East

The project boundary is enclosed by fencing on all sides. There are several mature trees and large shrubs along the perimeter and within the interior of the site. Many of the existing mature trees and beneficial shrubs would be retained as a natural vegetated buffer. Additional trees and plants would be planted internally along pathways and near future park structures.

Short-range publicly available views through the project site are of the fencing that surrounds the project site, mature trees that are visible above the fence line, and predominantly non-native grassland vegetation in some locations where views are afforded through existing chain link fencing. The former yard house building is visible from Sherman Street (**Figure 4-3**). Other existing structures, including remnant concrete pads, are obscured from view by the existing fencing and vegetation.

Views onto and through the site from the Marina Village Business Park to the north are entirely obscured by the existing fencing and vegetation (see **Figure 4-4**). Along the southern boundary, lower fencing allows for views into the site in some areas, particularly looking north up the residential streets that dead end at the property line (**Figure 4-5**), and the parking lots adjacent to the site that serve each multi-family residential development (**Figure 4-6**).

With implementation of the proposed project, much of the existing non-native vegetation would be cleared and replaced with natural landscaping, open lawn areas, gardens, and urban agricultural areas. The park would also include concrete sidewalks, unpaved walkways, picnic areas, a seasonal water feature, trees, plants, groundcover, parking areas, and lighting. Clearing of existing non-native vegetation and renovation of the yard house building would not change the visual character of the project site in a negative way. Demolition of the remnant structures would not have a substantial adverse effect on views of the project site.

Short-range public views would be intermittent, as new trees would obstruct some views through the interior of the park. The proposed project would complement existing land uses and development in the vicinity in terms of scale, use, and location, particularly with respect to the transition of the Northern Waterfront area from industrial to residential uses. The project would not adversely affect long-range views, nor would the project result in a substantial adverse effect on a scenic vista. Therefore, the project would result in a less than significant impact on scenic resources and scenic vistas.

Figure 4-3
View from Sherman Street of Existing Yard House Building

Figure 4-4
View Looking Southwest from Marina Village Business Park Parking Lot

Figure 4-5
Looking North from Eighth Street at Stewart Court

Figure 4-6
View from Adjacent Parking Lot, South of Project Site

d) **Less than Significant.** The park's facilities would include low-level solar lighting and light-emitting diode (LED) lighting fixtures serving as safety lighting that would be contained onsite. The Cross Alameda Trail (CAT) running along the north side of the site would be lit up to 10:00 p.m. for safety and commuting purposes. The CAT would be located from around 175 to 200 feet away from the nearest residences and would use LED lights with minimal spread to reduce the potential for glare. Other lighting fixtures within the park would stay on from dusk to dawn and would include cut-off fixtures; these lighting fixtures would also use the lowest feasible lighting levels to reduce potential impacts from glare.

The residents on the southern property boundary would be protected from all potential light and glare sources by an approximately 10-foot wide landscaping buffer and perimeter wall/fence that would run the length of the project site. Project plans, including lighting plans, will be reviewed to reduce light and glare impacts to surrounding properties in accordance with City code. The proposed project would have a less-than-significant impact on light and glare.

References

California Department of Transportation (Caltrans), California Scenic Highway Mapping System website, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed September 9, 2013.

Agricultural and Forest Resources

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

Discussion

a-b) **No Impact.** The project site is not designated by either the General Plan or the Zoning Ordinance as agricultural (Alameda, 1991). It is not designated as important farmland by the state (DOC, 2012). Thus, no significant agricultural resources or operations would be affected as a result of the proposed project.

c-d) **No Impact.** The project site is not zoned or designated for forestry or timberland uses (Alameda, 1991). The site is currently vacant and was previously used as a rail yard. There would be no impacts.

References

City of Alameda, 1991. City of Alameda General Plan, with 2009 and 2012 updates.

California Department of Conservation (DOC), 2012. Important Farmland of Santa Clara County (Map). Division of Land Resource Protection. Accessed May 6, 2014.

Air Quality

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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:**				
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?	☐	☐	☒	☐

Discussion

The Bay Area Air Quality Management District (BAAQMD) is the regional air quality authority in the proposed project area. The BAAQMD *CEQA Air Quality Guidelines* were adopted in 2010 and amended in 2011 to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and greenhouse gas emissions. In 2012, the Alameda County Superior Court ruled that the BAAQMD had failed to comply with CEQA when it adopted the thresholds of significance in the BAAQMD *CEQA Air Quality Guidelines*. In August 2013, the First District Court of Appeal reversed the trial court's judgment and upheld the BAAQMD's *CEQA Guidelines*. The case is currently before the California Supreme Court. Although reliance on the 2011 thresholds is in a state of flux, local agencies still have a duty to evaluate impacts related to air quality and GHG emissions. In addition, CEQA grants local agencies broad discretion to develop their own thresholds of significance, or to rely on thresholds previously adopted or recommended by other public agencies or experts so long as they are supported by substantial evidence. Accordingly, this analysis is based on the BAAQMD's 2011 thresholds to evaluate project impacts in order to protectively evaluate the potential effects of the project on air quality. The science and reasoning contained in the BAAQMD 2011 *CEQA Air Quality Guidelines*, supported by the BAAQMD's 2009 *Options and Justifications* report, provide the latest state-of-

the-art guidance available. For that reason, substantial evidence supports continued use of the BAAQMD 2011 *CEQA Air Quality Guidelines*.

a) **Less than Significant.** The project site is within the San Francisco Bay Area Air Basin (Bay Area), which is currently designated as a nonattainment area for state and national ozone standards, state particulate matter (PM10 and PM2.5) standards, and federal PM2.5 (24-hour) standard. The BAAQMD *Bay Area 2010 Clean Air Plan* (2010 CAP) updates the Bay Area 2005 Ozone Strategy, in accordance with the requirements of the California Clean Air Act, to implement feasible measures to reduce ozone and provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases throughout the region.

The BAAQMD Guidelines identify a three-step methodology for determining a project's consistency with the current CAP. If the responses to these three questions can be concluded in the affirmative and those conclusions are supported by substantial evidence, then BAAQMD considers the project to be consistent with air quality plans prepared for the Bay Area.

The first question to be assessed in this methodology is "does the project support the goals of the Air Quality Plan" (currently the 2010 CAP)? The BAAQMD-recommended measure for determining project support for these goals is consistency with BAAQMD thresholds of significance. If a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation measures, the project would be consistent with the goals of the 2010 CAP. As indicated in the following discussion with regard to air quality impact questions b) and c), the project would result in less than significant construction emissions with implementation of **Mitigation Measure AIR-1**, and would not result in long-term adverse air quality impacts. Therefore, the project would be considered to support the primary goals of the 2010 CAP and, therefore, would be consistent with the 2010 CAP.

The second question to be assessed in this consistency methodology is "does the project include applicable control measures from the CAP?" The 2010 CAP contains 55 control measures aimed at reducing air pollution in the Bay Area. Projects that incorporate all feasible air quality plan control measures are considered consistent with the CAP. The proposed project would include the development of a park, and there are no measures in the CAP that appear to apply directly to this type and size of project. However, the project would facilitate cross-town bicycle travel and pedestrian travel through improvements to the Cross Alameda Trail, and would therefore appear to be consistent with Transportation Control Measure (TCM) D-1, Bicycle Access and Facilities Improvements, and TCM D-2, Pedestrian Access and Facilities Improvements. The project would also appear to be consistent with Energy and Climate Measure (ECM) 3, Urban Heat Island Mitigation, and ECM 4, Shade Tree Planting. Therefore, no inconsistency with the 2010 CAP is identified, and the project would appear to include all applicable control measures from the CAP.

The third question to be assessed in this consistency methodology is "does the project disrupt or hinder implementation of any control measures from the CAP?"[1] The proposed project would not create any barriers or impediments to planned or future improvements to transit or bicycle facilities in the area and therefore would not hinder implementation of CAP control measures.

In summary, the responses to all three of the questions with regard to CAP consistency are either affirmative or not applicable, and the proposed project would not conflict with or obstruct implementation of the 2010 CAP. This is a less than significant impact.

b) **Less than Significant with Mitigation.** The Bay Area Air Basin experiences occasional violations of ozone and particulate matter (PM10 and PM2.5) standards. Thus, during the construction phase of any given project basin wide violations can occur. The proposed demolition of the building remnants and infrastructure and the subsequent redevelopment of the area into a neighborhood park would result in emissions primarily from construction vehicles. Demolition and construction would involve use of equipment and materials that would emit ozone precursor emissions (i.e., reactive organic gases or ROG, and nitrogen oxides, or NOx). Demolition, remediation, and construction activities would also result in the emission of other criteria pollutants from equipment exhaust, construction-related vehicular activity, and construction worker automobile trips. Emission levels for these activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of ROG and NOx from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during project development. Emissions were estimated using the latest CalEEMod (version 2013.2.2) model and are depicted below in **Table 3-1**. Additional assumptions and information are included in **Appendix A**.

TABLE 3-1
AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS (Pounds/Day)[a]

Year	ROG	NOx	Exhaust PM10[b]	Exhaust PM2.5[b]
2015 (Unmitigated Emissions)	4	43	2	2
2016 (Unmitigated Emissions)	3	19	1	1
BAAQMD Construction Threshold	54	54	82	54
Significant Impact?	No	No	No	No

a Emissions were modeled using CalEEMod and assume demolition of 1,500 SF of buildings remnants. It was also assumed that approximately 1,000 CY of topsoil would be exported and equivalent clean soil imported during the grading phase. Construction activities were assumed to occur for a duration of 16 months for the total park development, which is a conservative assessment since the project would likely be built out in three phases. Additional information is included in Appendix A.
b BAAQMD's proposed construction-related significance thresholds for PM10 and PM2.5 apply to exhaust emissions only and not to fugitive dust.

[1] Examples of how a project may cause the disruption or delay of control measures include a project that precludes an extension of a transit line or bike path, or proposes excessive parking beyond parking requirements.

Notably, if soil remediation is required for the project, air quality concerns related to soil remediation capping are addressed by compliance with DTSC requirements, which includes control measures where appropriate. In addition, compliance with all applicable BAAQMD Rules and Regulations, such as Regulation 11 (Hazardous Pollutants) Rule 2 (Asbestos Demolition, Renovation, and Manufacturing), would be required by law.

Although the proposed project would not generate emissions during construction that would exceed the BAAQMD thresholds, due the potential for localized impacts on the adjacent sensitive land uses, implementation of **Mitigation Measure AIR-1** would ensure that impacts are reduced to a less-than-significant level.

In regards to operations, the proposed project would develop the site into a community park. The proposed community park would generate approximately 110 daily vehicle trips. Overall project emissions were estimated using the CalEEMod software and are depicted below in **Table 3-2**. Additional assumptions and information are included in **Appendix A**.

As shown in Table 3-2, long-term operational emissions of the project would be less than significant.

TABLE 3-2
AVERAGE DAILY OPERATION-RELATED POLLUTANT EMISSIONS (Pounds/Day)[a]

Year	ROG	NOx	PM10	PM2.5
Area Sources	20.6	0	0	0
On-road Vehicles	0.5	1.5	0.5	0.2
Total Operational Emissions	21.1	1.5	0.5	0.2
BAAQMD Operational Threshold	54	54	82	54
Significant Impact?	No	No	No	No

a Emissions were modeled using CalEEMod. Additional information is included in Appendix A.

Mitigation Measure AIR-1: During active construction, the City shall require construction contractors to implement all the BAAQMD's Basic Construction Mitigation Measures, listed below:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. 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.

6. 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.

7. 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.

8. 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.

c) **Less than Significant with Mitigation.** According to the BAAQMD, 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. In addition, according to the BAAQMD CEQA Air Quality Guidelines, if a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (BAAQMD, 2011). As discussed for criteria "b" above, the project would result in less than significant construction emissions with mitigation incorporation, and less than significant operational emissions. The project's emissions from both construction and operation would be so minimal as to not contribute considerably to any cumulative significant air quality impacts.

Mitigation Measure: Implement Mitigation Measure AIR-1.

d) **Less than Significant.** BAAQMD defines sensitive receptors as children, adults, and seniors occupying or residing in residential dwellings, schools, colleges and universities, daycares, hospitals, and senior-care facilities. Sensitive receptors in the vicinity of the project include residences immediately south of the project site.

Construction of the project would result in short-term diesel exhaust emissions (DPM), which are toxic air contaminants (TACs), from on-site heavy-duty equipment. Project construction would generate DPM emissions from the use of off-road diesel equipment required for construction activities. Exposure of sensitive receptors—such as the nearby residences—is the primary factor used to determine health risk. Exposure is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. A longer exposure period would result in a higher exposure level. Thus, the risks estimated for a maximally exposed individual are

higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Construction of the project would likely occur over three phases. The assumed total duration of the proposed construction of 16 months would only constitute a small percentage of the total 70-year exposure period. OEHHA recommends that a minimum exposure duration of two years be assumed for health risk assessment of short-term projects, such as construction. However, in this case, the assumption of a two-year exposure would overstate potential health risks. In addition, development would occur at different areas across the 22 acre site and would not result in TAC exposure at any one residence over the full construction period. DPM from construction activities is not anticipated to result in the exposure of sensitive receptors to levels that exceed applicable standards. However, implementation of **Mitigation Measure AIR-1** (BAAQMD's Basic Construction Mitigation Measures) would also reduce potential DPM emissions.

The long-term operation of the project would not result in any sources of toxic air emissions. The proposed project would not expose visitors to increased TACs from any nearby sources. This impact would be less than significant.

e) **Less than Significant.** As a general matter, the types of land use development that pose potential odor problems include wastewater treatment plants, refineries, landfills, composting facilities and transfer stations. No such uses would occupy the project site. Therefore the project would not create objectionable odors that would affect a substantial number of people.

References

Bay Area Air Quality Management District (BAAQMD), 2009. *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October. Available at: http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/Revised%20Draft%20CEQA%20Thresholds%20%20Justification%20Report%20Oct%202009.ashx?la=en.

Bay Area Air Quality Management District (BAAQMD), 2010. Bay Area 2010 Clean Air Plan, adopted September 15, 2010. Available at http://www.baaqmd.gov.

Bay Area Air Quality Management District (BAAQMD), 2011. CEQA Air Quality Guidelines, revised May 2011.

Biological Resources

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. 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?	☐	☐	☐	☒

Discussion

The proposed project has the potential to adversely affect biological on the project site. The approach to analysis for this project is as follows: (1) review available biological resource studies of the project area and relevant surrounding vicinity; (2) review special-status species lists derived from the California Natural Diversity Database (CNDDB), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW),[2] and California Native Plant Society (CNPS); and (3) perform a field reconnaissance the project site to record current site conditions.

The findings of these previous biological resources analysis were used in conjunction with lists derived from the CNDDB, USFWS, and CNPS for the Oakland West, Oakland East, Richmond,

[2] The California Department of Fish and Game (CDFG) changed its name on January 1, 2013 to the California Department of Fish and Wildlife (CDFW). In this document, references to literature published by CDFW prior to Jan. 1, 2013 are cited as 'CDFG, [year]'. The agency is otherwise referred to by its new name, CDFW."

and San Leandro, California U.S. Geological Survey 7.5-minute topographic quadrangles in order to compile the list of special-status species that may occur at the project site (**Appendix B**).

Reconnaissance Survey

An ESA biologist conducted a reconnaissance-level field survey of the project site on April 25, 2014, to verify existing biological conditions, assess vegetation and wildlife habitats, and identify potential for special-status plant and animal species[3] to occur onsite. The 22-acre project site was formerly owned by the Alameda Beltline Railroad and includes a single remaining building on the east end of the site, abandoned rail tracks, remnant concrete foundations, ballast rock, rubble piles, and extensive elongated soil stockpiles running east to west along the otherwise flat site. East Bay Municipal Utility District is currently using the east end of the proposed project area as a yard for staging equipment and materials.

Much of the site consists of non-native grassland with a thriving population of pampas grass (*Cortaderia jubata*) hummocks throughout the property with acacia (*Acacia* sp.) trees scattered along the north boundary and lining the south boundary. Grassland species that characterize the proposed project site include non-native slender oat (*Avena barbata*), rip-gut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), rat-tail fescue (*Festuca myuros*), cheeseweed mallow (*Malva parviflora*), storks beak (*Erodium* sp.), perennial sweet-pea (*Lathyrus latifolius*), stinkwort (*Dittrichia graveolens*), and curly dock (*Rumex crispus*). An extensive bramble of Himalayan blackberry (*Rubus armeniacus*) occurs at the site midpoint along the abandoned rail tracks which run along the south side of the site. Native saltgrass (*Distichlis spicata*), coyote bush (*Baccharis pilularis*), and coast live oak (*Quercus agrifolia*) trees occur sporadically amongst the non-native vegetation. Wildlife observed during the survey included house finch (*Haemorhous mexicanus*) and lesser goldfinch (*Spinus psaltria*) using the onsite vegetation, and American crow (*Corvus brachyrhynchos*) and various gull species (*Larus* sp.) flying over the proposed project site.

Environmental Setting

Regional Setting

The project site is located in the Bay Area-Delta Bioregion, as defined by the State's Natural Communities Conservation Program. This bioregion consists of a variety of natural communities that range from the open waters of the Bay and Delta, to salt and brackish marshes, to chaparral and oak woodlands. The temperate climate is Mediterranean in nature, with relatively mild, generally wet winters and warm, dry summers. The high diversity of vegetation and wildlife found in Alameda County, which reflects that of the region as a whole, is a result of soils, topography, and micro-

3 The term "special-status" species includes those species that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as Threatened or Endangered, but designated as "Rare" or "Sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations, or local agencies such as counties, cities, and special districts. A principle source for this designation is the California "Special Animals List" (CDFG, 2009B).state endangered species legislation, as well as species not formally listed as Threatened or Endangered, but designated as "Rare" or "Sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations, or local agencies such as counties, cities, and special districts. A principle source for this designation is the California "Special Animals List" (CDFG, 2011).

climate diversity that combine to promote relatively high levels of endemism.[4] This, in combination with the rapid pace of development in the region, has resulted in a relatively high degree of endangerment for local flora and fauna.

The project area is located on the north east side of Alameda Island, adjacent to the Oakland-Alameda Estuary, which is part of the larger San Francisco Bay Estuary. The San Francisco Estuary is designated as a Western Hemisphere Shorebird Reserve Network of international importance, with more than one million shorebirds using regional wetlands each winter. Between 300,000 and 900,000 shorebirds pass through San Francisco Bay during spring and fall migration periods, more than 50 percent of the diving ducks in the Pacific Flyway winter in the shallow wetlands of the Bay, and several species breed in regional wetlands during the summer (Goals Project 1999).

Vegetation Communities and Habitat Types

Developed

The proposed project site occurs in a highly urbanized context on Alameda Island and is surrounded by urban infill comprised of residential neighborhoods, commercial office parks, and light industry. Wildlife species utilizing urban areas must be able to tolerate the presence of humans and their activities and are typically generalists, capable of utilizing the limited food sources available, such as garbage and horticultural plants and their fruit. Urban wildlife species found in the Alameda area include common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), Norway rat (*Rattus norvegicus*), Virginia opossum (*Didelphis virginiana*), and feral cats. Several exceptions to the generalist rule are red-tailed hawk, which prey on rodents, and Cooper's hawk (*Accipiter cooperii*) and peregrine falcon (*Falco peregrinus anatum*), which prey almost exclusively on small to medium sized birds. Bats may also colonize unoccupied buildings on the property and in the project vicinity.

Non-native grassland

As described above, the majority of the proposed project site is non-native grassland comprised of slender wild oat, ripgut brome, and foxtail barley with prolific pampas grass hummocks throughout the entire property. This vegetation community can provide cover, foraging, and nesting habitat for a variety of bird species as well as reptiles and small mammals, especially those that are tolerant of disturbance and human presence. Birds commonly found in such areas include non-native species such as English sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*) as well as birds native to the area, including American robin (*Turdus migratorius*), house finch, and western scrub jay (*Aphelocoma californica*). This habitat within the project site also provides foraging and nesting habitat for California horned lark (*Eremophila alpestris actia*), a species included on the CDFW Watch List, and loggerhead shrike (*Lanius ludovicianus*), a California Species of Special Concern.

[4] *Endemism* refers to the degree to which organisms or taxa are restricted to a geographical region or locality and are thus individually characterized as endemic to that area.

Wetlands and Other Waters of the United States

Wetlands are ecologically complex habitats that support a variety of both plant and animal life. The federal government defines and regulates wetlands and other waters in Section 404 of the Clean Water Act as "areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b] and 40 CFR 230.3).

Under normal circumstances, the federal definition of wetlands requires the presence of three identification parameters: wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to other waters of the United States. Other waters of the U.S. include unvegetated waters of streams, lakes and ponds.

The Porter-Cologne Water Quality Control Act Section 13260 of the California Water Code requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." Under the Porter-Cologne Water Quality Control Act definition, the term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Although all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—in California, waters of the United States represent a subset of waters of the state. Therefore, the State of California through each of nine Regional Water Quality Control Boards retains authority to regulate discharges of waste into any waters of the state, regardless of whether USACE has concurrent jurisdiction under Clean Water Act Section 404.

Jurisdictional wetlands and other waters of the United States and waters of the State occur to the north and northeast project site in Alaska Basin and the Oakland Estuary. Project activities are not planned to occur within these jurisdictional features. Isolated areas of plants species that are tolerant of seasonally inundated or saturated soils, including native saltgrass (*Distichlis spicata*) and non-native Himalayan blackberry (*Rubus armeniacus*), occur on the proposed project site, and may indicate the presence of isolated wetland features. Highly compacted soils, which also are present, can restrict drainage and concentrate soil moisture from precipitation, resulting in isolated wetted areas. These can foster obligate[5] and facultative[6] wetland indicator plant species as observed during the 2014 reconnaissance site visit (Corps 2012). Although the federal definition of jurisdictional wetlands excludes features that are isolated, lacking connection to waters that are navigable in fact, the state wetland definition is more inclusive of such features. Further investigation of the property will be necessary to determine if isolated jurisdictional wetlands occur on the project site.

[5] Obligate plant species always occur in standing water or saturated soils.
[6] Facultative plant species are tolerant of both wet and dry conditions, are equally likely to occur in wetlands or non-wetlands.

Regulatory Framework

Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects the fish and wildlife species and their habitats that the USFWS or NMFS has identified as threatened or endangered. The term endangered refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range. The term threatened refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

The USFWS and NMFS administer the ESA. In general, the NMFS is responsible for protecting ESA-listed marine species and anadromous fishes (those that live in the sea but migrate upstream to spawn); listed, proposed, and candidate wildlife, plant species, and fish species are under USFWS jurisdiction. "Take"[7] of listed species can be authorized through either the Section 7[8] consultation process (for actions by federal agencies) or the Section 10 permit process (for actions by non-federal agencies). Federal agency actions include activities on federal land or that are conducted by, funded by, or authorized by a federal agency (including issuance of federal permits and licenses).

Under the ESA, the Secretary of the Interior (or the Secretary of Commerce, as appropriate) formally designates critical habitat for certain federally listed species and publishes these designations in the *Federal Register*. Critical habitat is defined as the specific areas that are essential to the conservation of a federally listed species and that may require special management consideration or protection. However, there is no federally designated critical habitat within the project site.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA; United States Code, Title 16, Section 703, Supplement I, 1989) prohibits taking, killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. The ESA defines take as "…harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species." Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction). Therefore, for projects that would not result in the direct mortality of birds, the MBTA is generally also interpreted in CEQA analyses as protecting active nests of all species of birds that are on the List of Migratory Birds, published in the *Federal Register* in 1995. With respect to nesting birds, while the MBTA itself does not provide

7 The ESA defines the term "take" as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

8 Under Section 7, the federal lead agency must consult with the USFWS to ensure that the proposed action would not jeopardize endangered or threatened species or destroy or adversely modify designated critical habitat. If a project "may affect" a listed species or designated critical habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the expected effect. The USFWS then issues a biological opinion determining whether (1) the proposed action may either jeopardize the continued existence of one or more listed species or result in the destruction or adverse modification of critical habitat or (2) that the proposed action would not jeopardize the continued existence of any listed species or result in adverse modification of critical habitat.

specific take avoidance measures, the USFWS and CDFW over time have developed a set of measures sufficient to demonstrate take avoidance. Since these measures are typically required as permitting conditions by these agencies, they are often incorporated as mitigation measures for projects during the environmental review process. These requirements include avoiding tree removal during nesting season, preconstruction nesting bird surveys and establishment of appropriate buffers from construction if active nests are found.

California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code, Section 2070). The CDFW also maintains a list of candidate species," which are those formally under review for addition to either the list of endangered species or the list of threatened species. In addition, the CDFW maintains a list of "species of special concern," which serves as a watch list.

The CESA prohibits the take of plant and animal species that the California Fish and Game Commission has designated as either threatened or endangered in California. "Take" in the context of the CESA means to hunt, pursue, kill, or capture a listed species, as well as any other actions that may result in adverse impacts when a person is attempting to take individuals of a listed species. The take prohibitions also apply to candidates for listing under the CESA. However, Section 2081 of the CESA allows the CDFW to authorize exceptions to the State's take prohibition for educational, scientific, or management purposes.

In accordance with the requirements of the CESA, an agency reviewing a project within its jurisdiction must determine if any State-listed endangered or threatened species could be present in the project area. The agency also must determine if the project could have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any project that could affect a candidate species.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (CNPPA), which directed the CDFW to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The CNPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. The CESA expanded on the original CNPPA and enhanced legal protection for plants. The CESA established threatened and endangered species categories and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered.

Special-Status Natural Communities

The CDFW's Natural Heritage Division identifies special-status natural communities, which are those that are naturally rare and those whose extent has been greatly diminished through changes in land use. The CNDDB tracks 135 such natural communities in the same way that it tracks

occurrences of special-status species: Information is maintained on each site for the natural community's location, extent, habitat quality, level of disturbance, and current protection measures. The CDFW is mandated to seek the long-term perpetuation of the areas in which these communities occur. While there is no statewide law that requires protection of all special-status natural communities, CEQA requires consideration of the potential impacts of a project on biological resources of statewide or regional significance.

California Fish and Game Code

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation under it. Section 3503.5 prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) allow the designation of a species as fully protected. This is a greater level of protection than that afforded by CESA. Except for take related to scientific research, all take of fully protected species is prohibited**.**

Local Plans and Policies

City Of Alameda General Plan

The City of Alameda General Plan identifies several Guiding Policies, as well as several implementing policies, that pertain to Open Space for the preservation of natural resources. In relation to the proposed project, it is important to consider the following policies:

Guiding Policies

Policy 5.1.a Preserve and enhance all wetlands and water-related habitat.

Policy 5.1 i Encourage the use of drought-resistant landscaping.

Implementing Policies

Policy 5.1.x Prevent migration runoff off-site or into wetlands areas and water-related habitat by requiring that proposed projects include design features ensuring detention of sediment and contaminants.

Project design should specify techniques to be used to detain runoff. On-site inspection during construction may be necessary to ensure that designs are realized.

Policy 5.1.bb Require a biological assessment of any proposed project site where species or the habitat of species defined as sensitive or special status by the California Department of Fish and Game or the U.S. Fish and Wildlife Service might be present.

Policy 5.1.dd Develop and implement planting and herbicide, pesticide, and fertilizer application plans, including a pesticide drift control plan, for the golf course and public open space areas.

City of Alameda Master Street Tree Plan

The City of Alameda Master Street Tree Plan protects palm trees within the public right-of-way on Burbank Street and Portola Avenue, any street tree on Thompson and Central Avenues, and any coast live oak greater than 10 inches diameter at breast height (DBH). In addition, Chapter 23-3.2 of the City's municipal code applies to street trees in general and requires that the Public Works Director permit any planting, removal, trimming, pruning, or cutting of street trees. City tree permits may specify the number, kind, and spacing for planting trees and shrubs and may limit the number of trees or shrubs to be removed or pruned and prescribe the methods to be used in any street tree or shrub removal.

Special-Status Species

The California Natural Diversity Database (CNDDB) and USFWS database searches found 86 special status plant and animals species within the Oakland West, Oakland East, Richmond, and San Leandro U.S. Geological Survey (USGS) quadrangles, which surround the project site (CDFW 2014; USFWS 2014). Of these 86 species identified within the four quadrangles, 36 plants 40 animals are associated with specific habitat types and vegetation communities such as cismontane woodland, valley and foothill grassland, chaparral, coastal scrub, riparian woodland, and alkali playa, none of which are found on the project site. **Appendix B** lists special-status plants and animals, their preferred habitats and plant blooming periods, and their potential to occur in the project area. Conclusions regarding habitat suitability and species occurrence are based on the results described in previous studies, the reconnaissance survey conducted by ESA, as well as the analysis of existing literature and database queries described above. It was then determined whether there is a low, moderate, or high potential for species occurrence at the project site based on previous special-status species record locations and current site conditions. Only species with a moderate or high potential for occurrence are discussed further in this section. Species unlikely to occur within the project area due to lack of suitable habitat or range were eliminated from the discussion.

Special-Status Plants

The CNDDB documents two occurrences of special-status plant species within the City of Alameda, which include the robust spineflower (*Chorizanthe robusta* var. *robusta*) and Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*). These species occur on sandy soils in coastal dunes and coastal scrub communities, neither of which is present within the project site. All Alameda County records for the latter species are quite old, none more recent than the 1890's. The other 34 special-status plants listed in the CNDDB and USFWS database searches also require specialized supportive vegetation communities or geological substrates which are not present within the project site.

Special-Status Animals

The project will not occur in aquatic environments and thus special-status fish and marine mammals are not considered in this analysis. The following special-status animal species were determined to have a moderate to high potential to occur at or in the vicinity of the project site:

- Special-status and Migratory Birds
- Special-status Bats

Cooper's hawk (*Accipiter cooperi*). Cooper's hawks range over most of North America and may be seen throughout California, most commonly as a winter migrant. Nesting pairs have declined throughout the lower-elevation, more populated parts of the state. Cooper's hawk generally forage in open woodlands and wooded margins and nests in tall trees, often in riparian areas. Cooper's hawk is known to nest locally in Bay Area urban neighborhoods and five occupied nests were documented in the April 2013 in Alameda (City of Alameda 2013a and b). This species likely forages for avian prey in and around the project area and may nest in mature trees in the project area as well. Cooper's hawks are on the CDFW Watchlist and are protected under Section 3503.5 of the California Fish and Game Code.

White-tailed kite (*Elanus leucurus*). The white-tailed kite is listed as Fully Protected[9] species under the CDFG Code. This species forages in wetlands and open brushlands, usually near water and streams. Oak woodlands, valley oak or live oak, or trees along marsh edges are used for nesting sites. The nest made by this species is a frail platform of sticks, leaves, weed stalks, and similar materials located in tree or bush. A combination of habitats is essential, including open grasslands, meadows or marshes for foraging, and isolated dense topped trees for perching and nesting. The destruction of wetlands is a primary threat to this species. The Alameda County Breeding Bird Atlas shows few breeding locations for this species near San Francisco Bay. However, white-tailed kites have successfully nested in a light industrial neighborhood near Arrowhead Marsh in Oakland and they could nest in mature trees within the project area.

California horned lark (*Eremophila alpestris actia*). California horned lark was, until recently, listed by the State of California as a Species of Special Concern but is currently on the CDFW Watch List due to a perceived reduction in threat to the species. However, this passerine is still protected under California Fish and Game Code Section 3503, which prohibits the taking or destroying of nests or eggs of nearly all birds. This species is a permanent resident in most of California except the Sierra during winter. It is usually found in open habitat, such as grassland and agricultural areas, where trees and shrubs are absent. This species has been observed from sea level to above treeline in grasslands, deserts and alpine dwarf-scrub habitat. Horned lark uses grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities for cover from predators. The California horned lark typically nests in dry grasslands and rangelands that provide low, sparse cover (e.g., grazed, mowed, or barren areas without trees and shrubs) between March and July. Foraging habitat includes open grasslands where insects and seeds are abundant. The species has been documented as nesting in the Northwest Territories and the adjacent Federal Property on Alameda Island (City of Alameda 2002).

Peregrine falcon (*Falco peregrinus*). Listed as Fully Protected under the California Fish and Game Code, the peregrine falcon was removed from the federal list of threatened and endangered species in 1999 and the State list of threatened and endangered species in 2008 due to recovery.

9 A California fully protected species cannot be taken at any time, except, under certain circumstances, in association with a species recovery plan.

Peregrines are known throughout California and is a year-around resident along the Pacific coast. The peregrine is a specialist, preying primarily on mid-sized birds, such as pigeons and doves, in flight. Occasionally these birds will take insects and bats. Although typical nesting sites for the species are tall cliffs, preferably over or near water, peregrines are also known to use urban sites, including the Bay Bridge and tall buildings in San Francisco and San Jose, and throughout the Bay Area. Peregrine falcons nest annually on the Fruitvale Bridge between Oakland and Alameda and in other urban sites throughout the Bay Area. Peregrines are also known to use structures at the Port of Oakland for roosting (but are not known to nest there). In recent years, peregrines have been one of the top predators at the California least tern colony during the breeding season (DVA, 2013).

Loggerhead shrike (*Lanius ludovicianus*). Loggerhead shrike is a California Species of Special Concern that is found throughout California in open habitats, such as grasslands or, occasionally, agricultural fields, using shrubs, trees, posts, fences, and utility lines for perching. Habitats with little to no human disturbance are preferred and edges of denser habitats are sometimes used. Insecticides and habitat loss have caused population decreases for this species. Suitable foraging and nesting habitat is present in the project area for this species.

Osprey (*Pandion haliaetus*). The osprey is a former California Species of Special Concern and nesting osprey are currently on the CDFW Watchlist. Ospreys are also protected under Section 3503.5 of the California Fish and Game Code. These large fish-eating raptors can be found around nearly any water body, including salt marshes, rivers, ponds, reservoirs, estuaries, and oceans. Historically, ospreys nested throughout much of California but by the 1960's much of the osprey population declined in central and southern California area. This decline was attributed to human persecution, habitat alteration, and DDT use. The osprey prefers to nest within sight of permanent water and readily builds its nest on manmade structures, such as telephone poles, channel markers, duck blinds, and nest platforms designed especially for it. A nesting pair has bred successfully within the project area at the end of Breakwater Island and, more recently, on one of the MARAD ships moored in Seaplane Lagoon (City of Alameda 2013a and b). The nest failed in 2013 (City of Alameda 2013b)

Double-crested cormorant (*Phalacrocorax auritus*). The double-crested cormorant is a former Species of Special Concern in California and its nesting colonies are still considered a resource of conservation concern by the CDFW. A yearlong resident along the entire coast of California, the species is fairly common to locally very common along the coast and in estuaries and salt ponds. The species forages mainly on fish, crustaceans, and amphibians. It sometimes feeds cooperatively in flocks of up to 600, often with pelicans, and nests in colonies of a few to hundreds of pairs (Zeiner et al., 1990). There are known breeding colonies within the Bay on Yerba Buena and Alcatraz Islands, as well as the Richmond-San Rafael and Bay Bridges. The species forages and roosts within the project area.

Caspian tern (*Sterna caspia*). These terns, whose nesting colonies are listed as a sensitive resource on the California Special Animals List, are common to very common along the California coast and at scattered locations inland, from April through early August. They nest in colonies on sandy

estuarine shores, on levees in salt ponds, and on islands in alkali and freshwater lakes. Breeding adults often fly substantial distances to forage in lakes, rivers, and fresh and saline emergent wetland habitats. Caspian terns nest west of the project area in the West Wetland of the Northwest Territories but may and forage in the surrounding waters of the project area.

California least tern (*Sternula antillarum browni*). California least tern is federally and State-listed as endangered and is also a state Fully Protected species under the CDFG Code. The California least tern is the smallest tern in North America and it forages over open water or protected bays, skimming low over the water or diving for small fish. The California least tern breeds on sandy beaches along the coast of California south to Mexico, and winters in Mexico, Central America, and south to South America. The majority of current nesting colonies and the population are found in southern California, with smaller populations in the San Francisco Bay Area and in Baja California (DVA, 2013). The California least tern was first documented nesting at the former NAS Alameda in 1976, while the air station and its runways were still active. Since that time and the closure of NAS Alameda, the colony has grown to be the largest in the San Francisco Bay Area (DVA, 2013). The majority of least terns typically arrive at Alameda by late April. Least terns nest almost entirely within the fenced tern colony on the Federal Property with the exception of occasional instances of terns attempting to nest outside of the fenced area. Terns also fledge to and roost outside of the fenced colony. Least terns use the adjacent open waters of San Francisco Bay, nearby Seaplane Lagoon, and the Oakland-Alameda Estuary for foraging. Tern foraging primarily occurs in the waters south and west of the colony (DVA, 2013). The colony at Alameda is the largest in the Bay, with the second largest occurring at Hayward Regional Shoreline, about 14 miles southeast of the project area (Reinsche et al., 2012).

Other breeding and migratory birds. Alameda Island and surrounding Bay waters provide habitat for over a diversity of birds, with some species as year-round residents, other species as winter residents, and still others passing through along the Pacific Flyway during spring and fall migrations. Avian diversity in urbanized areas is highest where relatively large sized, diverse patches of habitat remain. Trees, shrubs, grasslands, and buildings within the project area provide foraging and nesting habitat for a variety of birds as well as patches of habitat for potential use by migrants as stop-over sites. As discussed above in the *Regulatory Framework*, most migratory birds are protected from harm by the federal Migratory Bird Treaty Act and nearly all breeding birds in California are protected under the California Fish and Game Code (Section 3503).

American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and great horned owl (*Bubo virginianus*) may forage and nest in the mature trees south of the project site in Little John Park. California gull (*Larus californicus*) may occur in the project area on a transient basis.

Townsend's big-eared bat (*Corynorhinus townsendii*). Townsend's big-eared bat is distributed along the Pacific coast British Columbia south to central Mexico and east into the Great Plains, with isolated populations occurring in the central and eastern United States. It has been reported in a wide variety of habitat types ranging from sea level to over 7,000 feet elevation. Habitat associations include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian

communities, active agricultural areas, and coastal habitat types. While its distribution is strongly correlated with the availability of caves and cave-like roosting habitat, including abandoned mines, the species has also been reported to utilize buildings, bridges, rock crevices and hollow trees as roost sites. Over 90 percent of the species' diet consists of moths. The species has been reported from the northern Alameda Island shoreline roosting in buildings (City of Alameda 2010) and may occur in the project area, most likely only on a transient basis.

a) **Less than Significant with Mitigation.** Special-status and migratory bird and bat species have the potential to occur in the vicinity of the proposed project site and associated construction activities including the removal of existing vegetation and renovation of the yard house could disrupt occupied nests/roosts on or in the vicinity of the project site. Implementation of **Mitigation Measures BIO-1a and BIO-1b** would reduce potential project-related impacts on these species to a less-than-significant level.

Nesting Birds. Breeding birds are protected under Section 3503 of the California Fish and Game Code (Code), and raptors are protected under Section 3503.5. In addition, both Section 3513 of the Code and the Federal Migratory Bird Treaty Act (16 USC, Sec. 703 Supp. I, 1989) prohibit the killing, possession, or trading of migratory birds. Finally, Section 3800 of the Code prohibits the taking of non-game birds, which are defined as birds occurring naturally in California that are neither game birds nor fully protected species.

In general, CDFW recommends a 250-foot construction exclusion zone around the nests of active passerine songbirds during the breeding season, and a 500-foot buffer for nesting raptors. These buffer distances are considered initial starting distances once a nest has been identified, and are sometimes revised downward to 100 feet and 250 feet, respectively, based on site conditions and the nature of the work being performed. These buffer distances may also be modified if obstacles such as buildings or trees obscure the construction area from active bird nests, or existing disturbances (i.e. an adjacent, heavily trafficked thoroughfare) create an ambient background disturbance similar to the proposed disturbance.

Mitigation Measure BIO-1a: Preconstruction Surveys for Nesting Birds. To the extent practicable, construction activities including vegetation and tree removal, site remediation and grading, building renovation of the former yard house, and new site construction shall be performed between September 1 and January 31 in order to avoid breeding and nesting season for birds. If these activities cannot be performed during this period, a preconstruction survey for nesting birds shall be conducted by a qualified biologist.

In coordination with the City, surveys shall be performed during breeding bird season (February 1 – August 31) no more than 14 days prior to construction activities listed above in order to locate any active passerine nests within 250 feet of the project site and any active raptor nests within 500 feet of the project site. Surveys shall be performed in accessible areas within 500 feet of the project site and include suitable habitat within line of sight as access is available. Building renovation, tree and vegetation removal, and new construction activities performed

between September 1 and January 31 avoid the general nesting period for birds and therefore would not require pre-construction surveys.

If active nests are found on either the project site or within the 500-foot survey buffer surrounding the project site, no-work buffer zones shall be established around the nests. Buffer distances will consider physical and visual barriers between the active nest and project activities, existing noise sources and disturbance, as well as sensitivity of the bird species to disturbance. Modification of standard buffer distances, 250 feet for active passerine nests and 500 feet for active raptor nests, will be determined by a qualified biologist in coordination with CDFW. No building renovation, vegetation removal, or ground-disturbing activities including remediation or grading shall occur within a buffer zone until young have fledged or the nest is otherwise abandoned as determined by the qualified biologist. If work during the nesting season stops for 14 days or more and then resumes, then nesting bird surveys shall be repeated, to ensure that no new birds have begun nesting in the area.

Roosting Bats. The proposed project has the potential to affect special-status and common roosting bat species, including the Townsend's bid-eared bat, during renovation of the yard house. Bats have the potential to roost in existing vacant or underutilized buildings, other man-made structures, and trees within or near the project site. Bats and other non-game mammals are protected in California under the State Fish and Game Code.

Maternity roosts are those that are occupied by pregnant females or females with non-flying young. Non-breeding roosts are day roosts without pregnant females or non-flying young. Destruction of an occupied, non-breeding bat roost, resulting in the death of bats; disturbance that causes the loss of a maternity colony of bats (resulting in the death of young); or destruction of hibernacula[10] are prohibited under the Fish and Game Code and would be considered a significant impact (although hibernacula are generally not formed by bat species in the Bay Area due to sufficiently high temperatures year round). This may occur due to direct or indirect disturbances. Direct disturbance includes tree removal, building removal, or roost destruction by any other means. Indirect disturbance to bat species could result in behavioral alterations due to construction-associated noise or vibration, or increased human activity in area. The proposed project would involve site remediation and grading, renovation of the yard house, and tree and vegetation removal prior to construction of the new park and associated facilities. Prior to the issuance of construction permits the City shall ensure the project applicant for development facilitated under the proposed project implements the following measures protective of protected bats which would reduce the impacts to a less-than-significant level:

Mitigation Measure BIO-1b: Preconstruction Surveys for Bat Roosting Sites. Potential direct and indirect disturbances to bats shall be identified by locating colonies and instituting protective measures prior to construction. No more than two weeks in advance of initiation of building renovation activities onsite or initiation of construction within 100 feet of trees or structures providing potential

[10] Hibernaculum refers to the winter quarters of a hibernating animal.

bat roosting sites, a qualified biologist shall conduct pre-construction surveys for bat roosts. No activities that could disturb active roosts shall proceed prior to the completed surveys.

If a maternity colony is located within the project site during pre-construction surveys, the project shall be redesigned to avoid impacts if feasible, and a no-disturbance buffer acceptable in size to the CDFW shall be created around the roost. Bat roosts (maternity or otherwise) initiated during construction are generally presumed to be unaffected by increased noise, vibration, or human activity, and no buffer is necessary as long as roost sites are not directly altered or destroyed. However, the "take" of individuals is still prohibited at any time.

If there is a maternity colony present and the project cannot be redesigned to avoid removal of the tree or structure inhabited by the bats, removal of that tree or renovation of that structure shall not commence until after young are flying (i.e., after July 31, confirmed by a qualified bat biologist) or before maternity colonies form the following year (i.e. prior to March 1).

If a non-maternity roost must be removed as part of the project, the non-maternity roost shall be evicted prior to building renovation by a qualified biologist, using methods such as making holes in the roost to alter the air-flow or creating one-way funnel exits for the bats.

If significant (e.g., maternity roosts or large non-maternity roost sites) bat roosting habitat is destroyed during building renovation/tree removal, artificial bat roosts shall be constructed in an undisturbed area in the project site vicinity away from human activity and at least 200 feet from project demolition/construction activities. The design and location of the artificial bat roost(s) shall be determined by a qualified bat biologist.

b) **No Impact.** There is no riparian habitat present onsite. Potential for the project to adversely affect sensitive natural communities, i.e. wetlands which may occur onsite, are discussed under criterion c).

c) **Less than Significant with Mitigation.** During ESA's 2014 reconnaissance survey, areas of blackberries and saltgrass that might indicate the presence of isolated wetlands were observed throughout the property. The presence of such vegetation alone is not conclusive of wetland presence and further investigation of the site by a qualified wetland ecologist is necessary. If wetlands are found on the property, they have the potential to be adversely affected by development of the proposed project. Implementation of **Mitigation Measure BIO-2a**, **BIO-2b**, and **BIO-2c** would reduce these project-related impacts to a less-than-significant level by requiring a wetland delineation be performed of the proposed project site to identify any jurisdictional features. If wetlands are confirmed on the project site, **Mitigation Measure BIO-2b** would ensure they are protected from project-related impacts. Should avoidance of jurisdictional features not be feasible under the proposed project, **Mitigation Measure BIO-2c** would compensate for wetland impacts.

Mitigation Measure BIO-2a: Wetland Delineation. In coordination with the City, a qualified wetland ecologist shall conduct a wetland delineation of the 22-

acre proposed project site to identify potential waters of the state which may be present. If no waters of the state are identified onsite, no further action is required. Should waters of the state be determined present within the project site, features shall be mapped and documented in a report for submission to the Regional Water Quality Control Board (RWQCB) which retains authority over isolated wetland features.

Mitigation Measure BIO-2b: Wetland Protection. At the project site, the following measures shall be applied to protect state jurisdictional wetlands:

- A protective barrier (such as silt fencing) shall be erected around jurisdictional features identified on the project site to isolate and protect from impact during construction of the park features (e.g. vegetation removal and site grading).
- Signs that read "Environmentally Sensitive Area–Keep Out" shall be installed on the fencing to identify sensitive habitat.
- No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the project site until wetland protection fencing has been inspected and approved by a qualified biologist.
- Temporary fencing shall be continuously maintained until all project construction is completed.

Mitigation Measure BIO-2c: Wetland Mitigation. If avoidance of state jurisdictional features found on the property is not feasible under the proposed project, impacts to these features shall be mitigated through one of the following options:

- Onsite mitigation, consisting of creation, restoration, enhancement or preservation, or combination thereof;
- Payment into an approved in-lieu fee program to preserve or restore wetlands in the same watershed;
- Purchase of appropriate amount of credits at an approved wetlands mitigation bank; or
- Off-site mitigation.

d) **Less than Significant with Mitigation.** The proposed project has the potential to interfere substantially with the movement of native resident or migratory avian and bat species within the project vicinity. Implementation of **Mitigation Measures BIO-1a and BIO-1b** under criterion a) would reduce these potential project-related impacts to a less-than-significant level.

e) **Less than Significant with Mitigation.** Tree ordinances for the City of Alameda that apply to the proposed project protect palm trees within the public right-of-way on Burbank Street and Portola Avenue, any street tree on Thompson and Central Avenues, and any coast live oak greater than 10 inches diameter at breast height (dbh). Coast live

oak trees protected under this ordinance *are* present on the project site and could be impacted by project construction. All other trees within the project site, mainly a variety of acacia species are not protected by this ordinance. Removal or damage to protected trees resulting from the proposed project would be considered a significant impact. Project design intends to preserve all coast live oak trees protected under the ordinance and identified on the project site and implementation of **Mitigation Measure BIO-3** would ensure possible project-related impacts on protected trees are reduced to a less-than-significant level.

Mitigation Measure BIO-3: Coast Live Oak Tree Protection. The City shall ensure that prior to project development and throughout each phase of project activities that have the potential to result in impacts on coast live oak trees, protected under the City ordinance and located within the project area, the project applicant shall take the following steps to avoid direct and indirect impacts to protected trees:

- A Tree Protection Zone shall be established around each tree to be preserved prior to construction. No grading, excavation, construction or storage of materials shall occur within that zone. Tree Protection Zones shall be established with fencing at the tree dripline in all directions, and remain until construction is complete. Street trees will not be fenced to allow continued vehicle and pedestrian access as necessary. The lower 8-10' of protected street tree trunks shall be wrapped with straw wattles (or a similar material). Should excavation be necessary around street tree roots in support of street and sidewalk improvements, or should root pruning be necessary, excavation and root pruning shall be monitored by a certified arborist.
- Street tree canopy shall be pruned to allow construction and access clearance, under the supervision of a certified arborist, and prior to demolition of existing buildings. Demolition adjacent protected street trees shall be monitored by a certified arborist.
- Should protected trees become damaged during construction, tree condition shall be evaluated by a certified arborist and appropriate treatments shall be applied.
- Where feasible, underground utilities, drain lines or irrigation lines shall be routed outside tree protection zones to avoid root damage.

f) **No Impact.** There are no habitat conservation plans or natural communities conservation plans that apply to the project.

References

California Department of Fish and Wildlife (CDFW), California Natural Diversity Database for 7.5 minute topographic quadrangles for Oakland West, Oakland East, Richmond, and San Leandro, Commercial Version, accessed March 21, 2014.

City of Alameda General Plan, 1991

City of Alameda Municipal Code.

City of Alameda, 2010. *Boatworks Residential Project Draft Environmental Impact Report*, SCH No. 2009102040, March 2010.

City of Alameda, 2013a. Alameda Raptor Monitoring 4/20/13, email from the Alameda Raptor Monitoring Team to Jennifer Ott, Chief Operating Officer Alameda Point.

City of Alameda, 2013b. Alameda Raptor Monitoring 7/12/13, email from the Alameda Raptor Monitoring Team to Jennifer Ott, Chief Operating Officer Alameda Point.

U.S. Army Corps of Engineers (Corps), 2012. National Wetland Plant List. Available: http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/techbio/nwpl_may2012_factsheet.pdf, accessed May 20, 2014.

Department of Veterans' Affairs and City of Alameda, 2013. Memorandum of Agreement By and Between the United States of America, Acting By and Through the Department of Veterans Affairs and the City of Alameda, June 2013.

eBird. 2014. eBird: An online database of bird distribution and abundance. eBird, Ithaca, New York. Available: http://www.ebird.org, accessed May 6, 2014.

Environmental Science Associates, Site Reconnaissance, April 25, 2014.

Reinsche, D.L., Elliot, M.L., Euing, S.H., 2012. *Breeding Status, Nesting Densities, and Diet Trends of Two Endangered California Least Tern Colonies*, J. Env Sci and Eng B 1 (2012): 1135-1145, October 20, 2012.

U.S. Fish and Wildlife Service (USFWS), 2014. *Official List of Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Oakland West, Oakland East, Richmond, and San Leandro USGS 7.5-minute topographic quadrangles*, Document No. 140321051703, accessed March 21, 2014.

Zeiner et al., 1990. *California's Wildlife Volume II, Birds*, California Department of Fish and Game.

Cultural Resources

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
5. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §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?	☐	☒	☐	☐

Discussion

a) **Less than Significant with Mitigation.** A significant impact would occur if the project would cause a substantial adverse change to a historical resource, herein referring to historic-period architectural resources or the built environment, including buildings, structures, and objects. A substantial adverse change includes the physical demolition, destruction, relocation, or alteration of the resource.

ESA completed a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System on May 6, 2014 (File No. 13-1693). The review included the project area and a ½-mile radius. Previous surveys, studies, and site records were accessed. Records were also reviewed in the Historic Property Data (HPD) for Alameda County, which contains information on places of recognized historical significance including those evaluated for listing in the *National Register of Historic Places*, the *California Register of Historical Resources*, the *California Inventory of Historical Resources*, *California Historical Landmarks*, and *California Points of Historical Interest*. The purpose of the records search was to (1) determine whether known cultural resources have been previously recorded within the project vicinity; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources.

The project area is the location of the former Alameda Belt Line Railroad and Union Pacific Railroad yards. Most of the site was formerly occupied by parallel standard gauge spur tracks. The yard house is on Sherman Street in the southeast corner of the parcel. Concrete foundations remain from a former above ground fuel tank and the former maintenance buildings are on the west end of the parcel. Concrete foundations are also present on the northeast corner of the parcel.

The Alameda Belt Line Railway was initially known as the Industrial Railway or the Municipal Railway. The City of Alameda constructed the Belt Line in 1918. The City's Board of Public Utilities was to be the operator; however, from the beginning the Southern Pacific Railroad maintained operations. In January of 1925, the City proposed to extend the Belt Line west of Grand Street to Encinal Terminal. Western Pacific and Santa Fe Railroad bought the existing tracks, and acquired additional land for the expansion. The Belt Line served local customers with spurs between Grand Avenue and Constitution Way. The maintenance building, located at the western end of the project area near Constitution Way, burned to the ground in 1980. The only principal building remaining is the yard house at 1925 Sherman Street (URS, 1999).

The Alameda Belt Line Railway has been previously evaluated as part of a historic district eligible for local listing [Office of Historic Preservation (OHP) status code 5S2]. The Yard House was assigned an OHP status code 7N (OHP, 2012). Status Code 7N indicates that a property needs to be reevaluated for eligibility for listing on the California Register because that property was previously assigned a status code 4, which indicated that a property could be eligible for listing, pending either further research, restoration, or the passage of time such that a relatively newer property would reach the age threshold for listing.[11] Although the formal designation of the yard house with respect to eligibility for listing on the California register is thus not currently known, the yard house is listed on the City of Alameda's Historic Buildings Study List. Moreover, the entirety of the Alameda Belt Line is considered a historical resource by the City. As such, the Alameda Belt Line Railway and its contributors, including the existing yard house, are considered historical resources for purposes of CEQA. However, with the exception of the yard house, the integrity of the project site, in terms of its ability to convey the historic importance of the Belt Line, is low: the tracks on and adjacent to the site have been removed, as have other structures. Moreover, under the proposed project, the yard house—the only remaining structure—would be retained and rehabilitated. Implementation of the proposed project would result in the rehabilitation of the yard house. Implementation of **Mitigation Measure CUL-1** would reduce potential impacts to the yard house to a less-than-significant level, by requiring rehabilitation consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

> **Mitigation Measure CUL-1:** Rehabilitation of Belt Line Yard House.
>
> Rehabilitation of the Alameda Belt Line yard house shall conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The Standards require the preservation of character defining features that convey a building's historical significance, and offers guidance about appropriate and compatible alterations to historical resources.

[11] The California Office of Historic Preservation revised the status codes in 2003 to change status code 4 to indicate that a resource "appears eligible for listing"; resources formerly assigned status code 4—which had typically been presumed to be historical resources for purposes of CEQA—were reassigned to status code 7N or 7N1, indicating that they needed to be reevaluated.

b) **Less than Significant with Mitigation.** A significant impact would occur if the proposed project would cause a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration of the resource.

The project area is within the traditional territory of the Costanoan or Ohlone people (Levy, 1978: 485–495). The people collectively referred to by ethnographers as Costanoan were actually distinct sociopolitical groups that spoke at least eight languages of the same Penutian language group. The Ohlone occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. The primary sociopolitical unit was the tribelet, or village community, which was overseen by one or more chiefs. The project area is in the greater *Chochenyo* tribal area (Milliken, 1995). After European contact, Ohlone society was severely disrupted by missionization, disease, and displacement. Today, the Ohlone still have a strong presence in the San Francisco Bay Area, and are highly interested in their historic and prehistoric past.

No prehistoric archaeological sites have been recorded in the central part of Alameda or within a 0.5-mile radius of the project area. The nearest prehistoric sites are approximately 1 mile to the southeast and consist of shell middens with burials on land that was historically bordering the Oakland marshland.

The project area is underlain by artificial fill over Holocene-age San Francisco Bay Mud (Witter, et al) and is in an area that has been highly disturbed from previous impacts related to the construction of the rail yard and associated facilities. Based on nearby site distribution, the geologic context, and previous disturbance in the project area it does not appear that the proposed project has the potential to uncover prehistoric archaeological resources.

No prehistoric archaeological resources have been recorded in the project vicinity. Based on the geologic conditions and site history including previous disturbance, the project area has a low potential to contain buried prehistoric sites. However, the possibility of inadvertent discovery cannot be entirely discounted, and would result in a potentially significant impact. Implementation of **Mitigation Measure CUL-2** would ensure that inadvertent discovery of archaeological resources would be reduced to a less-than-significant level.

> **Mitigation Measure CUL-2:** Inadvertent Discovery of Archaeological Resources.
>
> If prehistoric or historic-period archaeological resources are encountered, all ground disturbing activities within 100 feet shall halt and the City of Alameda shall be notified. A Secretary of the Interior-qualified archaeologist shall inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA *Guidelines*, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource;

incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan in consultation with the City of Alameda and a Native American representative. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

c) **No Impact.** A significant impact would occur if the project would destroy a unique paleontological resource or site, or a unique geologic feature. Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils—particularly vertebrate fossils—are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are highly significant records of ancient life.

Rock formations that are considered of paleontological sensitivity are those rock units that have yielded significant vertebrate or invertebrate fossil remains. This includes, but is not limited to, sedimentary rock units that contain significant paleontological resources anywhere within its geographic extent. The project area is underlain by artificial fill over San Francisco Bay Mud, and is not likely yield significant paleontological remains because they are surface deposits that are not considered fossil-bearing rock units. In addition, construction of the proposed project would not require substantial excavation to depths at which paleontological resources could be encountered. The project would therefore have no impact on paleontological resources.

d) **Less than Significant with Mitigation.** There is no indication from the archival research that any part of the project area has been used for human burial purposes in the recent or distant past. Therefore, it is unlikely that human remains would be encountered during the proposed project. However, the possibility of inadvertent discovery cannot be entirely discounted, and would result in a potentially significant impact. Implementation of **Mitigation Measure CUL-3** would ensure that inadvertent discovery impacts to human remains would be reduced to a less-than-significant level.

Mitigation Measure CULT-3: Inadvertent Discovery of Human Remains.

If human remains are encountered, all ground disturbing activities within 100 feet of the find shall halt and the Alameda County Coroner shall be notified immediately. A qualified archaeologist shall also be contacted to evaluate the

situation. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. Pursuant to Section 5097.98 of the Public Resources Code, the Native American Heritage Commission will identify a Native American Most Likely Descendent to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined whether or not the remains are subject to the coroner's authority.

References

California Office of Historic Preservation (OHP), *Directory of Properties in the Historic Property Data File for Alameda County*. On file, Northwest Information Center of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California. April 2012.

Levy, Richard, 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., 1978.

Milliken, Randall, *A Time of Little Choice*. Ballena Press Anthropological Papers No. 43. 1995.

URS Greiner Woodward Clyde (URS), *Phase II Environmental Assessment 22-acre Former Alameda Belt Line Rail Yard, Alameda, California.* Prepared for Sun Country Partners, LLC. March 1999.

Witter, R.C., K.L. Knudsen, J.M. Sowers, C.M. Wentworth, R.D. Koehler, and C.E. Randolph. Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California. United State Geological Survey Open-file report 2006-1037, 2006.

Geology, Soils, and Seismicity

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
6. GEOLOGY, SOILS, AND SEISMICITY — Would the project:				
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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion

a.i) **Less than Significant.** The project site is not located in an Alquist-Priolo Earthquake Fault Zone nor is it located on or immediately adjacent to an active or potentially active fault.[12] The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones by the California Department of Conservation, Geological Survey (CGS, formerly known as the California Division of Mines and Geology [CDMG]) along sufficiently active and well-defined faults. The purpose of the Act is to restrict construction of structures intended for human occupancy along traces of known active faults. Alquist-Priolo Zones

[12] An active fault is defined by the State of California is a fault that has had surface displacement within Holocene time (approximately the last 10,000 years). A potentially active fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. Sufficiently active is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches (Hart, 1997).

are designated areas most likely to experience surface fault rupture, although fault rupture is not necessarily restricted to those specifically zoned areas The nearest active faults to the project site are the Hayward Fault (approximately 5 miles northeast), the San Andreas Fault (approximately 14 miles southwest), the Calaveras Fault (approximately 17 miles east), and the Concord-Green Valley Fault (approximately 19 miles northeast). Because the site is not located on or relatively close to an active or potentially active fault, the potential for surface fault rupture is low and the impact is considered less than significant.

a.ii, iii) **Less than Significant.** The City of Alameda is located in a seismically active region. Recent studies by the United States Geological Survey (USGS) indicate there is a 63 percent likelihood of a Richter magnitude 6.7 or higher earthquake occurring in the Bay Area in the next 30 years (USGS, 2008a; 2008b). The project site could experience a range of ground shaking effects during an earthquake on one of the aforementioned Bay Area faults. An earthquake on the San Andreas Fault could result in very strong (Modified Mercalli Index VII) ground shaking intensities.[13] Ground shaking of this intensity could result in moderate damage of above ground improvements (ABAG, 2014a). Seismic shaking of this intensity can also trigger ground failures caused by liquefaction, potentially resulting in foundation damage, disruption of utility service and roadway damage.[14] The project site is underlain by alluvial materials that can cause moderate to very high shaking amplification, and is within an area designated by the CGS as a liquefaction Seismic Hazard Zone (ABAG, 2014b, ABAG, 2014c).

The Seismic Hazards Mapping Act (SHMA) was enacted in 1990 to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failures caused by earthquakes. SHMA requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation must be conducted and appropriate mitigation measures incorporated into the project design. The CGS Special Publication 117A, first adopted in 1997 (and updated in 2008) by the CGS in accordance with the SHMS, provides guidelines for evaluating seismic hazards other than surface faulting, and for recommending mitigation measures as required by Public Resources Code Section 2695(a).

Although the proposed project would include few above-ground structures, the park design would be required to comply with all applicable City of Alameda regulations and standards to address potential geologic impacts associated with the minor development (e.g., walkways, parking spaces, etc.) of the project site, including ground shaking and

[13] Shaking intensity is a measure of ground shaking effects at a particular location, and can vary depending on the overall magnitude of the earthquake, distance to the fault, focus of earthquake energy, and type of underlying geologic material. The Modified Mercalli (MM) intensity scale is commonly used to measure earthquake effects due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total).

[14] Liquefaction is the process by which saturated, loose, fine-grained, granular, soil, like sand, behaves like a dense fluid when subjected to prolonged shaking during an earthquake.

liquefaction. Geotechnical and seismic design criteria must also conform to engineering recommendations in accordance with the seismic requirements of the 2013 California Building Code (Title 24). As the project site is located within a liquefaction Seismic Hazard Zone according to the CGS, the City would be required to comply with the guidelines set by CGS Special Publication 117A to minimize the potential for liquefaction to adversely affect these park improvements.

a.iv) **No Impact.** The project site is relatively level, and is not located on or adjacent to a hillside. Improvements resulting from the proposed project would therefore not be affected by potential impacts associated with landslides or mudslides.

b) **Less than Significant.** Redevelopment of the project site would involve earthwork activities such as grading and trenching. These activities could expose soils to the effects of erosion. The proposed project site is greater than one acre in size, and therefore is subject to the National Pollutant Discharge Elimination System (NPDES) requirements for construction. Project construction would be required to comply with the NPDES General Construction Activities Stormwater Permit which requires preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would include a description of appropriate Best Management Practices (BMPs) that include erosion control measures. Construction contractor(s) are responsible for implementation of the SWPPP, which includes maintenance, inspection, and repair of erosion and sediment control measures and water quality BMPs throughout the construction period. Once constructed, disturbed areas would be protected by coverings such as structures, pavement, concrete, or vegetation such the potential for erosion or loss of topsoil is very low. Therefore, with implementation of the required BMPs as part of a SWPPP, the potential for soil erosion or loss of topsoil is less than significant.

c) **Less than Significant.** In general, the proposed improvements represent very limited loading but would nonetheless be constructed in accordance with CBC and City grading requirements. As a result, potential impacts associated with unstable units would be less than significant. Potential impacts related to liquefaction are discussed under a.ii, above.

d) **Less than Significant.** The presence of expansive soils can only be determined through laboratory analysis of soil samples obtained from the site. The completion of a site-specific geotechnical investigation and incorporation of geotechnical recommendations, as required by the City's Building Division and the California Building Code prior to issuance of a building permit, would ensure that site-specific information on shrink-swell capabilities of onsite soils is obtained. The site-specific geotechnical investigation would include measures to minimize hazards associated with expansive soils, if present.

e) **No Impact.** The proposed improvements at the project site would not require septic or other alternative wastewater disposal; therefore the project would have no impact related to the support of septic systems.

References

ABAG, 2014a. Modified Mercalli Intensity Scale. http://www.abag.ca.gov/bayarea/eqmaps/doc/mmi.html. Accessed May 2, 2014.

ABAG, 2014b. Earthquake Hazard Maps. http://quake.abag.ca.gov/earthquakes/. May 2, 2014.

ABAG, 2014c. California Geological Survey Seismic Hazard Zonation Program mapping. http://gis.abag.ca.gov/website/LiquefactionCGS/index.html, accessed May 2, 2014.

Hart, E.W. Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act of 1972 with Index to Earthquake Fault Zones, California Geological Survey (formerly the California Division of Mines and Geology), Special Publication 42, 1990, Revised and Updated 1997.

USGS, 2008a. 2008 Bay Area Earthquake Probabilities. http://earthquake.usgs.gov/regional/nca/ucerf/images/2008probabilities-lrg.jpg. Accessed May 2, 2014.

USGS, 2008b. Uniform California Earthquake Rupture Forecast, Version 2. Working Group on California Earthquake Probabilities (WG07). Findings, http://www.conservation.ca.gov/cgs/information/publications/sr/Documents/SR_203.pdf. Accessed May 2, 2014.

Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
7. GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

a,b) **Less than Significant.** Greenhouse gas (GHG) impacts are considered to be exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA, 2008). GHG emissions associated with project construction and operations were modeled with CalEEMod (version 2013.2.2) and are described below.

The project would consist of demolition of building foundation remnants, potential soil remediation, and the subsequent redevelopment of the project site into a neighborhood park. Greenhouse gases (GHGs) associated with demolition, remediation, and construction would be generated by construction equipment, haul trucks, and worker vehicles. As shown in **Appendix A**, maximum annual GHGs of 467 metric tons of CO_2 would be emitted during the year 2015.

In regards to long-term operations, in accordance with the BAAQMD CEQA Air Quality Guidelines (BAAQMD, 2011), this project would have a significant impact if the project emits GHGs greater than 1,100 metric tons per year CO_2e from sources other than permitted stationary sources. In regards to operations, on-road vehicles, landscaping maintenance activities, and water/wastewater conveyance would be the primary sources of GHGs associated with the project. The proposed neighborhood park would generate approximately 110 daily vehicle trips. Overall project emissions were estimated using the CalEEMod software. As shown in **Appendix A**, GHG emissions generated by the project would equate to 130 metric tons of CO_2 per year. Thus, the proposed project would not exceed the BAAQMD GHG threshold and would be considered less than significant.

The City of Alameda has established a *Local Action Plan for Climate Protection* (City of Alameda, 2008) GHG reduction plan that outlined multiple initiatives that would help Alameda achieve its overall goal of reducing community-wide emissions by 25 percent below 2005 levels by 2020. Notably, the proposed project would not conflict with any of

the initiatives included in the plan or other regulations adopted for the purpose of reducing GHG emissions. This would be a less than significant impact.

References

Bay Area Air Quality Management District (BAAQMD), 2011. *CEQA Air Quality Guidelines*, revised May 2011.

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

City of Alameda, 2008. *Local Action Plan for Climate Protection*, February 5, 2008.

Hazards and Hazardous Materials

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

Discussion

a,d) **Less than Significant with Mitigation.** The construction of the proposed project would require demolition, soil remediation, and minor grading activities. If not addressed beforehand, construction activities could potentially expose construction workers and the public to hazardous conditions through disturbance of hazardous materials present in subsurface soils or building materials.

Demolition

Restoration of the existing yard house buildings may expose construction workers, the public, or the environment to hazardous materials such as lead-based paint, asbestos, and/or polychlorinated biphenyls (PCBs). The buildings were constructed in a time

period which indicates that any of the aforementioned hazardous building materials could be present. If asbestos containing materials (ACMs) are present and disturbed, it could expose workers and the public to potentially hazardous airborne fibers during demolition. Any ACMs, if present, would need appropriate abatement of identified asbestos prior to demolition.

ACMs are regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. Cal-OSHA also regulates worker exposure to lead-based paint. Potential exposure to these hazardous building materials can be reduced through appropriate identification, removal and disposal according to applicable regulations.

Structures slated for restoration or demolishing under the project must be assessed for ACMs, and if present, abatement carried out in accordance with state and federal regulations prior to the start of demolition or renovation activities.

Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The Bay Area Air Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work.

Notification must include the names and addresses of operations and persons responsible; description and location of the structure to be demolished/altered including size, age, and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The BAAQMD randomly inspects asbestos removal operations and would inspect any removal operation about which a complaint has been received.

Asbestos abatement contractors must follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos related work involving 100 square feet or more of asbestos-containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a hazardous waste generator number assigned by and registered with the Department of Toxic Substances Control (DTSC) in Sacramento. The site owner or responsible party and the transporter of the waste are required to file a hazardous waste manifest that details the transportation of the material from the site and its disposal.

Both the federal OSHA and Cal-OSHA regulate worker exposure during construction activities that disturb lead-based paint. The Interim Final Rule found in 29 CFR 1926.62

covers construction work in which employees may be exposed to lead during such activities as demolition, removal, surface preparation for repainting, renovation, cleanup, and routine maintenance. The OSHA-specified compliance includes respiratory protection, protective clothing, housekeeping, special high-efficiency filtered vacuums, hygiene facilities, medical surveillance, and training. No minimum level of lead is specified to activate the provisions of this regulation.

Fluorescent lighting ballasts manufactured prior to 1978, and electrical transformers, capacitors, and generators manufactured prior to 1977, may contain PCBs and/or mercury. To prevent unintentional release, these lighting fixtures are required to be removed intact and transported to a regulated facility. In accordance with the Toxic Substances Control Act and other federal and state regulations, the proposed project would be required to properly handle and dispose of electrical equipment and lighting ballasts that contain PCBs and/or mercury, reducing potential impacts to a less-than-significant level.

Compliance with these regulations and procedures would ensure that any potential impacts due to hazardous building materials are less than significant.

Subsurface Contamination

The project site was formerly used as a rail yard with a history of hazardous materials use including petroleum products associated with underground storage tanks (USTs). A number of previous subsurface investigations have occurred on the site to determine the presence of contaminants associated with historical uses. Potential unresolved contamination issues at the site appear to include (but may not be limited to, based on the opinion of the Alameda County Environmental Health Department (ACEHD)) further characterization of the extent and source of elevated lead concentrations, evaluation of the elevated oil concentrations remaining in soil in the vicinity of a spill excavation, evaluation of soil quality in the vicinity of the maintenance and other pits on the parcels, evaluation of the source and quality of fill materials placed into the excavation and pits, evaluation of soil quality in areas where fill from off-site sources was placed on the parcels, presence of heavy metals in blast grit observed on the parcels, possible presence of contaminants in soil resulting from the burning of the maintenance building, evaluation of soil quality along previous railroad tracks, evaluation of soil quality in bare/gravel patch on one of the parcels (APN 74-906-32-05), and investigation into the location of a potential historic UST, confirmation of their removal, and possible evaluation of soil and ground water quality in the previous location of the tank(s) (Blackie, 2010). However, a more recent Targeted Site Investigation has been completed for the site, which addresses many of these issues (SGI, 2014). According to this investigation, however, there still remains areas that require some level of remediation to protect human health and the environment prior to any new site uses.

Although the proposed project would only require limited earthwork activities, minor cut and fill, soil sampling as required by **Mitigation Measures HAZ-1**, and any required

follow up remediation, if necessary, would ensure that any contaminated site soils would be removed from the project site and thus would not be a potential health threat to proposed future users.

Otherwise, during operation of the proposed project, there would be no routine transport, use, or disposal of hazardous materials. Landscaping maintenance may require the use of limited quantities of industry standard hazardous materials such as herbicides or pesticides but not in such a manner as to represent a significant threat to human health and the environment. Such materials are stored in cabinets onsite in accordance with all laws and regulations and with proper permits, where applicable.

> **Mitigation Measure HAZ-1:** Prior to obtaining a grading or building permit, the City shall obtain a qualified environmental professional to complete any remaining Phase II and remediation actions consistent with the findings and recommendations of the 2014 Targeted Site Investigation by the Source Group in accordance with regulatory oversight from the Alameda County Environmental Health Department (ACEHD). Prior to receiving a building or grading permit, project applicant shall provide documentation from ACEHD that all identified contamination has been remediated to levels where no threat to human health or the environment remains based on the proposed future use of the project site.

b) **Less than Significant.** Construction at the site could involve minor quantities of paints, solvents, oil and grease, and petroleum hydrocarbons as discussed in Section 9, *Hydrology and Water Quality*. Compliance with hazardous materials BMPs, as identified in a Stormwater Pollution Prevention Plan (SWPPP) would reduce potential impacts from spills or leaks associated with construction hazardous materials to a less-than-significant level. Following construction, no substantial hazardous materials storage, use, or disposal would be likely. Therefore potential impacts from upset or accidental releases during or after project construction would be considered less than significant.

c) **Less than Significant.** The project site is not located within a quarter mile of any school. Even so, as discussed above, the proposed project would not handle or disturb significant hazardous materials; therefore this is a less-than-significant impact.

e,f) **No Impact.** The project site is not located within two miles of any airport or airstrip nor is it included in an existing airport land use plan. The nearest airport is the Oakland International Airport which is over 5 miles from the project site. Therefore, there would be no impact related to proximity to airports or private airstrips.

g) **No Impact.** The proposed project would alter a formerly developed site to expand into a recreational area. Construction and operation of the proposed project would not involve the temporary or permanent closure of roads, and would not interfere with emergency response or evacuation plans. There would be no impact.

h) **Less than Significant.** The project site is located in an urban setting. The project site is not located in a designated wildland area that would contain substantial forest fire risks or

hazards. The risk of increased fire hazards from implementation of the proposed improvements at the project site is considered less than significant.

References

Blackie, Belinda, *Phase I Environmental Site Assessment, ABL Parcels, Alameda California,* March 8, 2010.

The Source Group, Incorporated (SGI), *Targeted Site Investigation, Jean Sweeney Open Space Park, Alameda California,* April 25, 2014.

Hydrology and Water

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
9. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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 a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
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 that 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) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Discussion

a) **Less than Significant.** Stormwater runoff generated from the project site currently occurs as overland flow.

The project site is more than one acre and is required to apply for coverage under the State General Construction Permit to comply with federal National Pollutant Discharge Elimination System (NPDES) regulations. As such, construction activities would be

required to adhere to appropriate construction Best Management Practices (BMPs) contained in a Stormwater Pollution Prevention Plan (SWPPP) in order to minimize potential sedimentation or contamination of stormwater runoff generated from the project site. The BMPs would be implemented before, during, and after construction as part of the project in accordance with the grading permit. These erosion and sedimentation control measures would therefore reduce potential degradation of water quality associated with future project construction to a less-than-significant level.

The City of Alameda is a co-permittee agency listed in the regional Municipal NPDES Stormwater Permit. Operational stormwater discharges from new development at the project site, though limited, would be regulated by the City's regional municipal stormwater permits, under the National Pollutant Discharge Elimination System (NPDES) permit. Development projects in the City of Alameda, must comply with the NPDES Permit No. CAS612008, which is issued to the Clean Water Program Alameda County (CWPAC) (formerly the Alameda Countywide Clean Water Program) and other Bay Area jurisdictions by the RWQCB (NPDES Order No. R2-2009-0074). The Municipal Regional Stormwater Permit (MRP) was issued on October 14, 2009 and revised November 28, 2011, replacing the previous permit originally issued in February 2003 with additional requirements for development and redevelopment projects.

Hazardous materials associated with construction activities would likely involve minor quantities of paint, solvents, oil and grease, and petroleum hydrocarbons. Storage and use of hazardous materials at the project site during construction activities would comply with BMPs as required by the local grading permit. Adherence to BMPs would effectively reduce potential impacts to groundwater quality associated with spills or leaks of hazardous materials and stormwater quality during construction to a less-than-significant level.

Following the completion of construction activities, application of pesticides and herbicides related to landscape maintenance could be potential sources of polluted stormwater runoff. In addition, the creation of 120 new parking spaces could become a source of polluted runoff associated with automobile use. However, the number of spaces would be above the 5,000 square foot threshold and therefore would require treatment controls to prevent offsite transport of pollutants. Otherwise, there would be no sources that would significantly impact stormwater runoff quality, and the proposed project would not adversely affect ground water quality. Regardless, as previously discussed, the proposed project would be required to comply with City of Alameda and CWPAC stormwater quality protection requirements where applicable. Therefore, potential groundwater quality impacts associated with potential development would be considered less than significant.

b,c) **Less than Significant.** Development of the site would not involve groundwater extraction, nor the alteration of a stream or river. After removal of existing structures and former building foundations, the proposed improvements at the project site would create

a limited amount of new impervious surfaces, but overall no substantive increased offsite runoff would occur. Therefore, the proposed project would not lower the groundwater table as a result of groundwater extraction or reduction in groundwater recharge and would not otherwise cause offsite sedimentation or erosion to occur.

d,e) **Less than Significant.** As discussed above, the proposed project would not alter any stream or river. The decrease in impervious surfaces with the proposed improvements, albeit relatively minor, would nonetheless not increase flows to receiving waters. Therefore, the potential impact of altered drainage causing offsite or onsite flooding would be less than significant.

f) **Less than Significant.** Operation of the proposed project would not result in any substantial changes to onsite water quality associated with stormwater runoff. As discussed under a), above, implementation of BMPs and compliance with any City requirements where applicable would reduce potential impacts to water quality to a less-than-significant level.

g,h,i) **Less than Significant.** The project site is not located near levees or dams and would not be exposed to flooding from failure of these structures. According to maps compiled by the Association of Bay Area Governments and National Oceanic and Atmospheric Administration (NOAA), even sea level rise of 6 feet would not inundate the project site though areas immediately south of the site would be (ABAG, 2014). The proposed project site is otherwise not currently located within a 100 year flood hazard zone according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FEMA, 2009).

In addition, the proposed project does not include the construction of any residential units, and proposes no substantial above ground improvements. Therefore, flooding hazards related to the proposed project would be less than significant.

j) **Less than Significant.** The project site is not located immediately adjacent to the Bay and is on the Inner Harbor side of the Alameda island. Tsunami waves would have to travel from the Pacific Ocean through the Golden Gate and then through the Oakland Inner Harbor to finally reach the shoreline nearest the project site. Due to natural attenuation, the probability of significant tsunami waves impacting the project site are very low. Seiches are large waves on an enclosed or semi-enclosed body of water that can be caused by seismic activity. San Francisco Bay is partially enclosed, with outlets to San Pablo Bay, as well as the Pacific Ocean via the Golden Gate, and is relatively shallow, with a mean depth of approximately 27.6 feet. Geologic-induced seiche events have not been documented in the San Francisco Bay. The proposed project site is relatively flat and not subject to mudflows. Therefore, the potential impact of seiche, tsunamis and mudflows is less than significant.

References

Association of Bay Area Governments (ABAG), http://www.csc.noaa.gov/slr/viewer/#, accessed May 2, 2014.

FEMA, Flood Insurance Rate Map, City of Alameda, California. Alameda County, Community Panel Number 06001C 0069G, August 3, 2009.

Land Use and Land Use Planning

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
10. LAND USE AND LAND USE PLANNING — Would the project:				
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?	☐	☐	☐	☒

Discussion

a) **Less than Significant.** The project site is located within an urban area, surrounded by residential, commercial and industrial land uses. The project site is directly adjacent to single family and multi-family residential units to the south, as well as the Marina Village Business Park to the north. To the west of the project site is the Webster Square Shopping Center. The Bay Eagle Community Garden is located southeast of the site. A parking lot is located adjacent to the eastern boundary, beyond which the Northern Waterfront General Plan Amendment planning area is located, including the site of the former Del Monte warehouse which is planned for redevelopment as future residential units and retail space. The project would include remediation of contaminated soil sites, demolition of remnant infrastructure, and construction of various recreational amenities.

The site consists of several connected parcels zoned Open Space (OS). The land along the northern boundary of the site is zoned Mixed Use Planned Development (M-X) while the area along the southern boundary is zoned Two Family Residential (R-2). To the west is a General Residential Planned Development (R-5-PD) and several lots zoned Commercial Manufacturing (C-M). To the east is land zoned Commercial Manufacturing Planned Development (C-M-PD). The site falls within the Northern Waterfront General Plan Amendment planning area, near land planned for future commercial, residential and recreational uses..

The proposed recreational uses on the site would be consistent with the existing neighboring residential and commercial uses, as well as the Grand and Fortman Marinas to the north of the project site. Developing a community park on the site would improve connectivity between surrounding land uses by granting access through the site, which is currently not available to pedestrians or bicyclists. A new park would not change the character of the neighborhood in a negative way; rather, it would provide additional recreational opportunities and a gathering place for the adjacent community which would

enhance the character of the existing neighborhood. Further, the proposed open space park would be consistent with Policy 2.4.n of the General Plan which states:

> "Give priority for public open space and other public improvements to neighborhoods determined to have a shortage relative to the rest of the city."

The project would have a less than significant impact on the surrounding land uses.

b) **Less than Significant.** The project site is not located in an area governed by any adopted environmental plans or policies by agencies, outside of the City of Alameda, with jurisdiction over the project. Therefore, the proposed project would not conflict with environmental plans or policies adopted by agencies with jurisdiction over the project.

c) **No Impact.** There are no habitat conservation plan or natural communities conservation plans that apply to the project; therefore, the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan affecting the area.

References

City of Alameda, 1991. City of Alameda General Plan.

City of Alameda General Plan Land Use Map, May 2008.

City of Alameda, 2013. City of Alameda Municipal Zoning Map. Available at http://alamedaca.gov/sites/default/files/department-files/2013-12-18/zoning_map_11-19-2013lowres_reduced.pdf.

ESA, Review of Jean Sweeney Open Space Park Conceptual Site Plan.

Jean Sweeney Open Space Park, Google Earth Search. May 7, 2014.

Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
11. MINERAL RESOURCES — Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

a,b) **No Impact.** There are no known mineral resources within the project site, and no operational mineral resource recovery sites at the project site or in the vicinity. Therefore, the project would not result in any impacts to mineral resources since it would not result in the loss of availability of a known mineral resource that would be of value to the region or the state, or result in the loss of a locally-important mineral resource. Therefore, the proposed project would not affect mineral resources.

Noise

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
12. NOISE — Would the project:				
a) Result in 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) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) Result in 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 area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☒
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a) **Less than Significant.** The nearest noise-sensitive receptors to the project site are directly south of the project. The project would involve the use of heavy equipment and on-road vehicles (trucks and workers) for construction. Noise from project operations would primarily be associated with landscape maintenance and on-road vehicles.

The project area contains sensitive residential land uses, the nearest of which are adjacent to the southern project boundary. The distance to the nearest receptors will be used for the purpose of citing distance from construction equipment that would occur during the park construction.

Existing Noise Environment

The noise environment surrounding the project site is influenced primarily by aircraft and surface traffic noise, as well as industrial uses on both sides of the Oakland Estuary. The highest surface street noise levels in the vicinity of the project site occur on Buena Vista Avenue, Clement Avenue, Entrance Road, Grand Street, and Sherman Street. As indicated in the *Northern Waterfront General Plan Amendment EIR*, Charles M. Salter Associates conducted a noise study in 2004. One of the noise measurement sites was located in close proximity to the proposed project, at Buena Vista Avenue and Sherman

Street. An additional short-term measurement was taken by ESA in 2013, at Entrance Road and Buena Vista Avenue. Results of these noise monitoring studies are summarized in **Table 12-1**.

TABLE 12-1
SOUND-LEVEL MEASUREMENTS AT THE PROPOSED PROJECT

Location	Time Period	Result	Noise Sources
Long-Term: Buena Vista Ave and Sherman Street. About 50' north of Buena Vista centerline, 40' east of Sherman St centerline, 12' elevation	October 16-17, 2003 2:00 p.m. to 2:00 p.m.	71 dBA CNEL	• Unattended long-term measurement
Short-Term: Buena Vista Ave and Sherman Street. About 65' north of Buena Vista centerline, 170' east of Sherman centerline, 5' elevation	October 17, 2003 2:45 p.m. to 3:00 p.m.	15-minute result: Leq = 62 dBA	• None specifically listed
Short-Term: Buena Vista Ave and Entrance Road. About 50' north of Buena Vista Ave centerline, 25' west of Entrance Rd centerline, 5' elevation	April 19, 2013 4:42 p.m. to 4:47 p.m.	5-minute result: Leq = 62.5 dBA Lmax = 70.6 dBA	• Traffic on Buena Vista Ave and Entrance Rd (primarily Buena Vista Ave) • Pedestrians talking • Birds chirping

SOURCES: ESA, 2013

Construction

Construction activity noise levels at and near the project site would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment.

Construction-related trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. **Table 12-2** shows typical noise levels during different construction stages. **Table 12-3** shows typical noise levels produced by various types of construction equipment.

TABLE 12-2
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Activity	Noise Level (dB, Leq)[a]
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

a Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

SOURCE: U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971.

TABLE 12-3
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dB, Leq at 50 feet)
Dump Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Scraper	88
Jack Hammer	88
Dozer	87
Paver	89
Generator	76
Backhoe	85

SOURCE: Cunniff, Environmental Noise Pollution, 1977.

The closest sensitive receptors to the proposed project would be the adjacent residences along the southern boundary. Noise impacts from construction generally result when construction activities occur during the noise-sensitive times of the day (early morning, evening, or nighttime hours), in areas immediately adjacent to construction activities, or when construction noise lasts over extended periods of time. The City of Alameda Municipal Code, section 4-10.7(e), states that construction noise is exempted from the noise standards provided it is limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 am to 5:00 pm on Saturdays.

Assuming an attenuation rate of 6 dB per doubling of distance, the adjacent residences to proposed park would experience exterior noise levels of up to 89 dBA and maximum interior noise levels of approximately 69 dBA, which takes into account an approximate 20 dBA of exterior-to-interior noise level reduction provided by the receiving building structure. Construction activities associated with the project would be temporary in nature and the maximum noise levels discussed above would be short-term. Adherence to the Municipal Code would ensure that construction impact would be less than significant.

Park Operations

An increase in traffic noise of 3 dB or more (a level perceivable to most individuals (Caltrans, 1998) at a sensitive receptor location would be considered a significant impact. The proposed neighborhood park would generate approximately 110 daily vehicle trips on the roadway network, which would be a minimal increase in traffic on the access arterials. Project traffic noise would not be noticeable; therefore, project traffic noise would be at less-than-significant levels.

The only other sources of noise would be from maintenance equipment such as lawnmowers, leaf blowers, and any pumps or compressors used. These sources would be required to comply with the City's Noise Ordinance standards at off-site receptors. Notably, the City of Alameda Municipal Code, section 4-10.7(i), states that recreational

programs or activities conducted within City parks are exempted from the noise standards provided the activities are limited to between the hours of 9:00 am and 10:15 pm. As a result, the project would have a less-than-significant impact with respect to local noise standards.

b) **Less than Significant.** The construction of the project would not require the use of equipment that could result in substantial vibration (such as pile drivers) on nearby receptors. In addition, project operations would not introduce any new sources of groundborne noise or vibration. This impact would be less than significant.

c) **Less than Significant.** Noise impacts from the project would be primarily during the construction phase of the project. As described for criterion "a" above, the project would be consistent with the exempted hours of construction and City park operations included in the City municipal code and would not contribute significantly to the ambient noise environment. In addition, the project would not result in a substantial increase in vehicle trips during long-term operations. Therefore, the project's contribution to cumulative roadside noise levels would also be less than significant.

d) **Less than Significant.** As discussed in the "Construction" sub-section of criterion "a" above, the resulting impact would be less than significant.

e-f) **No Impact.** Because there are no public airports or private airstrips within two miles of the project, aircraft related noise would not be a significant impact for park uses to be developed under the proposed project, and these significance criteria are not discussed further.

References

Caltrans, Technical Noise Supplement, 1998.

Population and Housing

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
13. POPULATION AND HOUSING — Would the project:				
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 units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a) **No Impact.** The proposed project would not result in any new residential land uses on the site. While the project may include infrastructure connections to proposed on-site structures, the project would not extend any new infrastructure to undeveloped areas located off of the project site that could indirectly induce population growth. The proposed park would not increase employment at the site, although park maintenance would require a relatively small increase in the amount of Park and Recreation staff time devoted to the site. Therefore, the project would not induce substantial population growth, and would result in no impact.

b,c) **No Impact.** The project site is currently a vacant property that formerly served industrial and commercial uses. There are no residences on the site and no people who currently reside on the site. The project would not result in a substantial displacement of existing housing or people and would therefore not necessitate the construction of replacement housing elsewhere.

Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
14. PUBLIC SERVICES — Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the 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:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Discussion

a.i) **Less than Significant.** The Alameda Fire Department (AFD) delivers fire suppression services out of four stations throughout the city, with a total of 98 sworn firefighters and 7 non-sworn personnel. The AFD is also equipped to provide emergency medical services with three full-time advanced life support (ALS) ambulances. A response for a first alarm assignment consists of three fire engines, two fire trucks, one ambulance and the Division Chief vehicle. The response team for a first alarm call includes, at minimum, eighteen fire personnel accompanied by at least one paramedic. The AFD also provides non-emergency ambulance transport for patients to or from medical facilities through the Basic Life Support (BLS) Transport Program, including inter-facility transportation, doctors appointments, dialysis appointments, and medical event standbys.

The project site is 0.4 mile from Station Number 2, at 635 Pacific Avenue, which would be the first to provide fire and emergency response services. In 2013, Station No. 2 responded to 2,036 calls, 1,470 of which were emergency response calls, 40 of which were fire-related calls, and 526 of which were other calls (City of Alameda, 2014). There were no calls for service to the project site during this time. According to the Northern Waterfront General Plan Amendment EIR, the AFD meets it goal of responding to calls within 3.5 minutes for 90 percent of calls (City of Alameda, 2006). The average response time in 2013 was 4 minutes, 27 seconds. The AFD does not have an official staffing ratio, but currently, there are 24 firefighters and one fire chief on duty every day.

Development that occurs within the project site would comply with standard fire code requirements administered by the City of Alameda Community Development

Department's Permit Center and specified by the California Building Code and California Fire Code (CFC). The implementation of the proposed project would result in the development of a recreation area on the project site, which is currently served by the Alameda Fire Department. The recreational uses on the project site would not be anticipated to lead to a substantial increase in calls for emergency medical services and fire suppression services. The Fire Department would review all project designs at the time building permits are issued to ensure that adequate fire and life safety measures are incorporated into the project in compliance with all applicable state and city fire safety requirements and to ensure that Fire Department personnel would have adequate access to the site.

The proposed project would not create a need for new or altered facilities to maintain adequate service ratios, response times and other objective standards, and would not, therefore, result in significant environmental impacts to fire protection and emergency medical response provisions.

a.ii) **Less than Significant.** Police protection would be provided to the project by the Alameda Police Department (APD). The Department operates out of one station located at 1555 Oak Street, which is approximately 1.5 miles from the project site. The APD currently has a total of 88 sworn officers and 33 non-sworn personnel (Lopez, 2014).

The APD's patrol is based on a five-sector system. Seven days a week, 24 hours a day, officers are assigned to patrol the five sectors during which, there are typically one to four officers assigned to each sector. The project site is located in Police Sector 2. The APD has 30 patrol vehicles, but only eight are used during each shift. With a target response time of 3 minutes, the APD's average response time is 3 minutes, 15 seconds for priority 1 calls and 6 minutes, 10 seconds for priority 2 calls (Lopez, 2014).

In 2012, the Alameda Police Department received approximately 28,960 emergency (911) calls and 87,160 non-emergency calls (Lopez, 2014). The project could result in an incremental increase in calls for police services for a variety of property- and traffic-related incidents but the increase would not be sufficient to require construction of new fire stations in order to maintain adequate response times. Therefore, the project would have a less-than-significant impact on police services.

a.iii) **No Impact.** The project site is located within the service boundaries of the AUSD. AUSD operates a childhood development center, 10 elementary schools, two middle schools, two comprehensive high schools, an Early College High School, and an adult continuation school.

As stated in Section 13, *Population and Housing*, no residential units would be constructed as part of the proposed project. The project would not increase the number of residents or school-aged children in the area. In addition, although the project would expand a recreational resource that could attract residents to the park on a temporary basis, this is not the type of development that could indirectly allow for future residential

development. Therefore, the project would not increase the student population in the City of Alameda, and it would have no impact on schools.

a.iv, v) **No Impact.** The discussion of project effects on parks is addressed in Section 15, *Recreation*.

References

City of Alameda, 2006. Northern Waterfront General Plan – Draft EIR.

City of Alameda Fire Department, Non-Emergency Ambulance, Accessed May 7, 2014 at: http://alamedaca.gov/fire/non-emergency-ambulance.

City of Alameda Fire Department, Response Data, Accessed May 7, 2014 at: http://alamedaca.gov/fire/response-data

City of Alameda Fire Department, Medical Services, Accessed May 7, 2014 at: http://alamedaca.gov/fire/medical-services.

Lopez, Florence. City of Alameda Police Department, personal communication, March 19, 2014.

Raff, Maria. City of Alameda Fire Department, personal communication, March 24, 2014.

Recreation

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
15. RECREATION — Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☒	☐	☐

Discussion

a) **Less than Significant.** The project would include demolition of remnant building foundations and infrastructure, and include capping of existing soil in areas of known soil contamination. This area would be replaced with landscaping, benches, hardscape walkways, lighting, playground structures, parking spaces, water features, and an above-ground community garden. The creation of a new recreational facility would not result in an adverse affect to the City's current park performance standard.

b) **Less than Significant with Mitigation.** The proposed project would result in the construction of a new park. Physical effects that could result from the proposed project are discussed in the other sections of this IS/MND and all impacts have been determined to be less than significant with implementation of measures identified in this IS/MND.

References

Project description and plans.

Transportation and Traffic

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
16. TRANSPORTATION AND TRAFFIC — Would the project:				
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?	☐	☐	☒	☐

Discussion

a,b) **Less than Significant with Mitigation.** *Operation*. The proposed project would alter the use of the project site by constructing a city park on a vacant 22-acre parcel. Vehicle trip generation for the proposed project was estimated using rates found in San Diego Trip Generators (SANDAG, 2002), for neighborhood parks. The proposed open space park would generate approximately 110 one-way vehicle trips on a weekday (55 inbound and 55 outbound).

The construction of the open space park would increase the traffic at the project site as the site is vacant under existing conditions. On weekends with ideal weather, an increase in persons accessing the site would be expected. Traffic generated by the recreational land use would be spread out throughout the day, and the increased traffic volume in any one hour on any one roadway is not expected to be high. In addition, trips to recreational facilities tend not to occur during peak commute periods when there is more traffic on roadways. Roadways in the project vicinity have sufficient capacity to carry the increase in vehicle trips to the park. Although the proposed project would include 60 parking spaces on either end of the park, as an open space park, it is expected that many users

would walk or bicycle to the site, especially as the park would provide most passive recreational opportunities, including walking and bicycle trails.

Additionally, the proposed Park Master Plan includes a 24-foot wide Cross Alameda Trail (CAT) on the northern edge that travels east and west. The cross-section is illustrated in **Figure 2-4**. The proposed CAT would be designed to accommodate multiple user types and would provide a transportation link between the Northern Waterfront Area and Ralph Appezzato Memorial Parkway.

The park open space is a community park and it is intended for residents of Alameda, and specifically for those in the immediate vicinity, which would be able to access the park without vehicular travel. As such, park generate traffic would not be using the tubes or bridges that are operating at capacity. Therefore, the project would have a less than significant impact on the roadway system in the project vicinity, individually and cumulatively.

Construction. The proposed project would be constructed over a period anticipated to last approximately 16 months. Construction activities would include daily vehicle trips generated by the arrival and departure of construction workers, as well as haul trucks carrying demolition debris, soil, and building materials. Construction of the proposed project would not require any lane closures.

Trucks would haul materials away from and to the site. The proposed project would be completed in three phases- with two sub-phases according under each phase- the demolition phase of the project and the construction of the park.

The impact of construction truck traffic would be a temporary lessening of the capacities of local streets due to the slower movement and larger turning radii of trucks, which could affect both traffic and transit operations. However, this level of truck activity would not be sufficient to result in significant impacts to intersection operations or to transit service. Throughout the remainder of the construction period, there would be a reduced flow of construction related trucks into and out of the site, generally limited to trucks making occasional deliveries of material.

As discussed, project construction would result in short-term and intermittent construction traffic impacts associated with the delivery of materials and equipment, removal of debris, hauling of fill material to the site, and parking for construction workers. Any construction traffic occurring on weekdays between 7:00 a.m. and 9:00 a.m., or between 4:00 p.m. and 6:00 p.m., would coincide with peak hour traffic and could impede traffic flow. Construction activities could impede pedestrian access near the site or block traffic. Thus, **Mitigation Measures TRAN-1a and TRAN-1b** are provided to reduce the significance of this potentially significant impact to a less-than-significant level.

Mitigation Measure TRAN-1a: As part of pre-construction submittals, the contractor(s) shall submit a truck route plan to the City of Alameda Public Works Department for review and approval to help minimize impacts to adjacent neighborhoods.

Mitigation Measure TRAN-1b: To the extent possible, heavy truck movements should be limited to the hours between 9:00 a.m. and 3:30 p.m. (or other times, if approved by the Public Works Department).

c) **No Impact.** The proposed project would not change air traffic patterns, increase air traffic levels or result in a change in location that would result in substantial safety risks. Therefore, the project would result in no impact in this area.

d) **Less than Significant.** The proposed project would involve physical changes to the site that would affect the existing pedestrian or bicycle circulation. However, the development of the recreational land use would not impede or obstruct bicycles or pedestrians if the circulation within the site maintained clear visibility. The design of the bicycle and walking trails, and parking areas would be reviewed and approved by the City's traffic engineer and fire department ensuring the project would have a less than significant impact and would not generate an hazardous designs. The development at the park would increase demand for bicycle parking and secure bicycle parking would be provided as part of the project.

e) **Less than Significant.** The proposed project would revitalize the 22-acre site by constructing a park, thus it would involve physical changes to the site that could affect emergency access. The design of the parking areas and emergency access would be reviewed and approved by the City's traffic engineer and fire department and therefore, the project would have a less than significant impact on emergency access.

f) **Less than Significant.** Altering the use of the project site from underutilized industrial land to recreational use would not conflict with adopted policies, plans, or programs supporting alternative transportation. Therefore, there would be a less than significant impact related to alternative transportation.

References

ESA, Field Reconnaissance Survey, May 9, 2014.

SANDAG (San Diego Regional Planning Agency), San Diego Traffic Generators, April 2002.

Project description and plans.

Utilities and Service Systems

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
17. UTILITIES AND SERVICE SYSTEMS — Would the project:				
a) Conflict with 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 that would 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?	☐	☐	☒	☐

Discussion

a,b,e) **Less than Significant.** Wastewater from the project would be treated by the East Bay Municipal Utility District (EBMUD) at the Main Wastewater Treatment Plant (MWWTP), located at the foot of the San Francisco-Oakland Bay Bridge in the City of Oakland. The wastewater treatment plant is permitted by the Regional Water Quality Control Board (RWQCB) and effluent from the plant is regularly monitored to ensure that water quality standards are not violated. There have been no violation of water quality standards by the treatment plant in the last couple years (August 1, 2010 through March 1, 2013), and there are no RWQCB enforcement actions pending against EBMUD (SWRCB, 2013). EBMUD's MWWTP has excess dry weather flow capacity of 66 mgd.

Wastewater associated with the project would be generated from bathroom facilities, drinking fountains, and the yard house building. These facilities would be connected to sanitary sewer infrastructure, but are not expected to generate a substantial amount of new wastewater. Wastewater generated by the project would not contain any unusual pollutants that would be within the existing dry weather capacity and permitted discharge volume of the treatment plant.

In January 2009, EBMUD entered into a Stipulated Order for Preliminary Relief (Stipulated Order) from the U.S. Environmental Protection Agency (EPA), State Water Resources Control Board (SWRCB), and San Francisco Regional Water Quality Control Board (RWQCB), which contains measures that EBMUD is required to implement in order to address inadequately treated sewage to San Francisco Bay during wet weather conditions (Alameda, 2013). The intent of the stipulated order is to formulate long-term solutions to minimize the high level of infiltration to the East Bay collection systems and eliminate the discharge of the excess flows from the EBMUD's wet weather facilities. Subsequently, in March 2011, the East Bay wastewater collection agencies (referred to as "Satellites"), including the City of Alameda, entered into a Stipulated Order with the EPA, SWRCB, and the RWQCB. This particular Stipulated Order obligates Satellites to improve management of their wastewater collection systems, to address sanitary sewer overflows, and to reduce inflow and infiltration (I&I) in their collection systems.

Consistent with the Stipulated Order, the proposed project would construct new wastewater infrastructure to connect facilities onsite to nearby collection and conveyance pipelines. The City would work with EBMUD to ensure any new sewer infrastructure would reduce I&I flows entering the system in wet weather conditions and thereby reduce wet weather flows to the MWWTP. Such improvements would be expected to further ensure that the project does not contribute to exceedances of RWQCB treatment standards for water discharged to the Bay; therefore, this impact would be less than significant.

b) **Less than Significant.** EBMUD provides potable water service to the City of Alameda and other communities within Contra Costa and Alameda Counties. EBMUD also owns and maintains the distribution pipeline facilities within public streets throughout its service area. Raw water is treated at EBMUD's Orinda filter plant and conveyed to Alameda via pipeline. EBMUD owns and operates a 24-inch water transmission line that crosses the Oakland/Alameda Estuary near the Webster/Posey Tubes. This facility supplies water to the majority of the west end of Alameda (City of Alameda, 2013).

The proposed project would generate a minimal increased demand of domestic water, as it would only have a restrooms and drinking fountains. The current total District-wide consumption is approximately 220 mgd (EBMUD, 2012), and the project's incremental water demand would be less than significant. With a current treatment capacity of 375 mgd, EBMUD can accommodate projected future demand with the available treatment capacity. The proposed project's incremental increase in demand would not be significant, and would not require the construction of new water treatment facilities or the expansion of such facilities.

The project would include construction of water conveyance pipelines to connect to EBMUD's main distribution system, at existing connection points on Sherman Street and Atlantic Avenue. Construction of these pipelines could result in potentially significant environmental impacts but implementation of mitigation measures described throughout this IS/MND would reduce construction-related impacts to a less-than-significant level (i.e,

construction mitigation measures related to air quality, noise, hydrology, and transportation).

As described above, the proposed project's incremental increase in demand would not be significant. EBMUD's MWWTP has a current average dry weather flow capacity of approximately 54 mgd and a permitted dry weather flow of 120 mgd; therefore, the excess dry weather flow capacity is 66 mgd (Alameda, 2013). EBMUD would have adequate dry weather capacity at the MWWTP for the project's anticipated wastewater flows.

The proposed project would require the construction of new pipelines to connect on site facilities to wastewater collection and conveyance pipes. As described for criterion a.) above, as part of EBMUD's Stipulated Order, the City will work with EBMUD to reduce the amount of I&I entering the wastewater collection system. Since the MWWTP and the EBMUD interceptor are expected to have adequate capacity to serve projected new demand generated by the proposed project, the project would not require the construction of any new wastewater treatment facilities or the expansion of such facilities. Therefore, impacts on existing wastewater treatment facilities would be less than significant

c) **Less than Significant.** The City storm collection drain system provides for storm water runoff from City streets along gutters and through underground pipes to discharge into waterways that drain to San Francisco Bay. The system is designed for the control of flooding only and does not provide any treatment to the storm water runoff. As part of the project, a new stormwater collection and drainage system would be installed which would include new inlets and pipelines appropriately sized to convey the site run-off. These pipelines would connect to the City's existing storm drainage system and eventually discharge to the Arbor Street Pump Station. In addition, a seasonal water feature and bioswales would detain storm water onsite.

Construction activities associated with the new storm water drainage facilities would include in-street trenching and excavation work. Such activities would be temporary and, as described in Section 9, Hydrology and Water Quality, would be required to comply with the requirements of the RWQCB concerning discharges of stormwater during project construction, the project applicant would be required to obtain a NPDES permit for construction activities and prepare a Stormwater Pollution Prevention Plan (SWPPP) that would outline construction stormwater quality management practices based on the Alameda County Clean Water Program (ACCWP) Stormwater Quality Management Plan. The SWPPP would describe erosion control measures similar to those recommended by the ACCWP which are designed to reduce the potential for pollutants to contact stormwater and eliminate or reduce discharge of materials to stormwater during on-land construction. For a detailed discussion of impacts, mitigation measures, and permits regarding construction and operation of the proposed improvements to the project site's stormwater system, please refer to Hydrology and Water Quality Section. Through compliance with the requirements of necessary permits, standard construction

specifications incorporated as part of the project, and mitigation measures identified in the abovementioned sections, environmental impacts would be less than significant.

The proposed project would be required to adhere to the C.3. provision in the NPDES by including specific site design features that minimize land features and impervious surfaces and providing for implementation of Low Impact Development (LID) measures, which would include bio-treatment areas to treat stormwater runoff from impervious areas on the project site prior to discharging into the stormwater system. These bio-treatment areas would be integrated in areas with excess landscaping adjacent to parking areas or buildings. With implementation of LID measures and compliance with C.3 provisions, operation impacts of the new storm drainage system would be considered less than significant.

d) **Less than Significant.** See the discussion under criterion b.), above, for discussion of the incremental increase in water demand that would be generated by the proposed project. Site landscaping would be sustained with potable water, including lawn areas, natural landscape areas, and existing vegetated areas. Water would be needed for irrigation to support the community garden, demonstration garden, entry garden, fruit orchard, and butterfly garden. Water would also be required for onsite drinking fountains, and two restroom facilities.

EBMUD is expected to have the capacity to meet the projected increase in potable water supplies. In addition, according to EBMUD's Urban Water Management Plan (UWMP) 2010, EBMUD's water supply is adequate to meet existing and projected demand through 2030 under normal conditions and up to two years of drought. EBMUD also implements numerous water conservation and recycling programs to reduce demand and develops projects to manage future water supply needs. The water demand projections used by EBMUD are derived from a land-use based demand forecast that reflects the City's plans and policies, and assumes an amount of future development permitted under the General Plan's growth management ordinance and additional growth. For these reasons, the proposed project would be adequately served by the existing water supply and the impact would be less than significant.

e) **Less than Significant.** See the discussion under criterion b.), above, for discussion of the incremental increase in wastewater that would be generated by the proposed project. As described above, by improving the wastewater collection system within the project site, EBMUD's MWWTP would have adequate capacity to serve the project's estimated wastewater flows in addition to the plant's existing average wastewater flows. The Estuary siphon facility and the EBMUD interceptor would also have adequate capacity for proposed wastewater flows generated by full buildout of the proposed project. Because this would be a very small increase over current average flow rates and because the plant has adequate dry weather capacity, the project would not substantially increase wastewater service demands. For these reasons, impacts related to wastewater treatment capacity would be less than significant.

f,g) **Less than Significant.** The City of Alameda delivers its solid waste to the Davis Street Resource Recovery Complex located in San Leandro, where it is sorted and recyclable materials are recovered. Residual solid waste is disposed at the Altamont Landfill, which accepts the following types of waste: ash, construction/demolition, contaminated soil, green materials, industrial, mixed municipal, other designated waste, tires, shreds. This landfill has an estimated permitted capacity of 62,000,000 cubic yards, a daily permitted capacity of 11,500 tons per day (CalRecycle, 2013), and an estimated remaining capacity of 47,220,000 cubic yards as of 2012 (Alameda County Environmental Health Department, 2013). The City has a diversion rate of 72 percent (as of 2011), which is above Assembly Bill 939 diversion goals (Stopwaste.Org, 2013). Measure D (the Alameda County Source Reduction and Recycling Initiative Charter Amendment), requires the County to divert 75 percent of solid waste from the landfill by 2010.

Construction Impacts

Solid waste generated by buildout of the proposed project (from construction debris) would largely consist of the removal of the concrete pads. When structures are "deconstructed," rather than demolished, wood and fixtures could be retained for resale or other reuse rather than disposed, and the majority of such materials can be diverted from the waste stream (City of Alameda, 2002). Deconstructed materials can be diverted from landfills to recycling and reuse markets. Solid waste generated from demolition of existing utility systems would also require disposal. Because the portions of existing utility systems within development areas may either be abandoned in place or removed and disposed, the amount of solid waste generated from demolition of existing utility systems is unknown at this time.

In addition, the project would be required to comply with Chapter XXI, Section 21 of the City of Alameda Municipal Code, which requires that new developments submit plans for managing construction debris to promote separation of waste types and recycling. These plans would need to be prepared in coordination with City staff, the project sponsor(s), and demolition subcontractors, and must be approved by City staff prior to issuance of a demolition permit. Compliance with the City's Municipal Code regarding management of construction debris, project construction would result in less-than-significant impacts on landfill capacity.

Operation Impacts

The proposed project would create a public recreational facility, the use of which could incrementally generate solid waste. The Department of Public Works would be responsible for trash pickups and waste would be collected by Alameda County Industries. Whenever feasible, solid waste would be recycled to help the city comply with AB 939. The proposed project would not conflict with or interfere with the City's ability to implement its adopted solid waste management programs and policies, including the Citywide integrated waste management plan and Chapter XXI, Section 21 of the City of Alameda Municipal Code, or Alameda County's Measure D. The project would be served by weekly curbside pickup of recyclable materials by ACI. Waste generated by the

proposed project would enter the same stream as other area waste collected by ACI, and would be subject to the same stream as other area waste collected by ACI, and would be subject to the same existing requirements regarding recycling and solid waste disposal. Because existing solid waste collection and disposal in Alameda complies with current federal, State and local requirements, and because the project's solid waste would enter the same existing disposal stream, the proposed project would not violate any federal, State, or local statutes or regulations related to solid waste.

References

Alameda County Environmental Health Department, 2013. E-mail communication with Wing Suen, Registered Environmental Health Specialist.

CalRecycle, 2013. Facility/Site Summary Details: Altamont Landfill & Resource Recv'ry (01-AA-0009), accessed December 26, 2013 at http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0009/Detail// diversionprogram/JurisdictionDiversionDetail.aspx?JurisdictionID=3&Year=2006.

City of Alameda General Plan, and City of Alameda Municipal Code.

City of Alameda, 2002. Alameda Point General Plan Amendment Environmental Impact Report, prepared by LSA Associates, Inc., December 2002.

City of Alameda, 2012. Marina Cove II Subdivision Initial Study & Mitigated Negative Declaration, September.

City of Alameda, 2013. *Alameda Point Project Draft Environmental Impact Report, Section M. Utilities and Service Systems*, September 2013. Available: http://alamedaca.gov/sites/default/files/department-files/2013-09-03/4m_utilities_service.pdf

EBMUD, 2012, Water Supply Management Program 2040 Plan, April.

State Water Resources Control Board (SWRCB), California Integrated Water Quality System Project (CIWQS), Wastewater Violation Report, 2010-2013, accessed May 2013 at http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportEsmrAtGlanceServlet?reportID=1&newPageNumber=1.

Stopwaste.Org, 2013. 1995 to 2011 Diversion Rates by Jurisdiction, www.stopwaste.org/ docs/diversion.pdf, accessed on July 12, 2013.

Waste Management, Altamont Landfill, 2013. altamontlandfill.wm.com/sustainability/index.jsp, accessed May 15, 2013.

Mandatory Findings of Significance

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
18. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:				
a) 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) 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) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

a) **Less than Significant with Mitigation.** Based upon background research and site visits, with implementation of mitigation measures identified in this Initial Study, the project does not have the potential to 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. Any potential short-term increases in potential effects to the environment during construction are mitigated to a less-than-significant level, as described throughout the Initial Study.

b) **Less than Significant with Mitigation.** In accordance with CEQA *Guidelines* Section 15183, the environmental analysis in this Initial Study was conducted to determine if there were any project-specific effects from the proposed project. The proposed park project would not have a cumulatively significant impact, either individually or combined with other projects in the vicinity, which could not be mitigated to a less-than-significant level. The proposed project would contribute to environmental effects in the areas of biological resources, air quality, temporary increases in construction-generated dust and noise, a temporary increase in sedimentation and water quality effects during construction, potential hazardous materials considerations with new development, and short-term traffic impacts during demolition and construction. Mitigation measures incorporated herein mitigate any potential contribution to

cumulative impacts associated with these environmental issues to a less-than-significant level, and would preclude the project from making a substantial contribution to cumulative impacts. Therefore, the proposed project does not have impacts that are individually limited, but cumulatively considerable.

c) **Less than Significant with Mitigation.** The project may have significant adverse effects on human beings in the areas of air quality, noise, and traffic during construction, and with hazardous materials considerations with redevelopment of the site. Mitigation measures identified in this Initial Study would reduce the effects to less-than-significant level.

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5. Mitigation Measures Identified in this Initial Study

1. **Mitigation Measure AIR-1:** During active construction, the City shall require construction contractors to implement all the BAAQMD's Basic Construction Mitigation Measures, listed below:

    1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
    2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
    3. 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.
    4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
    5. 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.
    6. 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.
    7. 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.
    8. 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.

2. **Mitigation Measure BIO-1a: Preconstruction Surveys for Nesting Birds.** To the extent practicable, construction activities including vegetation and tree removal, site remediation and grading, building renovation of the former yard house, and new site construction shall be performed between September 1 and January 31 in order to avoid breeding and nesting season for birds. If these activities cannot be performed during this period, a preconstruction survey for nesting birds shall be conducted by a qualified biologist.

    In coordination with the City, surveys shall be performed during breeding bird season (February 1 – August 31) no more than 14 days prior to construction activities listed above in order to locate any active passerine nests within 250 feet of the project site and any active raptor nests within 500 feet of the project site. Surveys shall be performed in accessible areas within 500 feet of the project site and include suitable habitat within line of sight as access is available. Building renovation, tree and vegetation removal, and new construction activities performed between September 1 and January 31 avoid the general nesting period for birds and therefore would not require pre-construction surveys.

If active nests are found on either the project site or within the 500-foot survey buffer surrounding the project site, no-work buffer zones shall be established around the nests. Buffer distances will consider physical and visual barriers between the active nest and project activities, existing noise sources and disturbance, as well as sensitivity of the bird species to disturbance. Modification of standard buffer distances, 250 feet for active passerine nests and 500 feet for active raptor nests, will be determined by a qualified biologist in coordination with CDFW. No building renovation, vegetation removal, or ground-disturbing activities including remediation or grading shall occur within a buffer zone until young have fledged or the nest is otherwise abandoned as determined by the qualified biologist. If work during the nesting season stops for 14 days or more and then resumes, then nesting bird surveys shall be repeated, to ensure that no new birds have begun nesting in the area.

3. **Mitigation Measure BIO-1b: Preconstruction Surveys for Bat Roosting Sites.** Potential direct and indirect disturbances to bats shall be identified by locating colonies and instituting protective measures prior to construction. No more than two weeks in advance of initiation of building renovation activities onsite or initiation of construction within 100 feet of trees or structures providing potential bat roosting sites, a qualified biologist shall conduct pre-construction surveys for bat roosts. No activities that could disturb active roosts shall proceed prior to the completed surveys.

   If a maternity colony is located within the project site during pre-construction surveys, the project shall be redesigned to avoid impacts if feasible, and a no-disturbance buffer acceptable in size to the CDFW shall be created around the roost. Bat roosts (maternity or otherwise) initiated during construction are generally presumed to be unaffected by increased noise, vibration, or human activity, and no buffer is necessary as long as roost sites are not directly altered or destroyed. However, the "take" of individuals is still prohibited at any time.

   If there is a maternity colony present and the project cannot be redesigned to avoid removal of the tree or structure inhabited by the bats, removal of that tree or renovation of that structure shall not commence until after young are flying (i.e., after July 31, confirmed by a qualified bat biologist) or before maternity colonies form the following year (i.e. prior to March 1).

   If a non-maternity roost must be removed as part of the project, the non-maternity roost shall be evicted prior to building renovation by a qualified biologist, using methods such as making holes in the roost to alter the air-flow or creating one-way funnel exits for the bats.

   If significant (e.g., maternity roosts or large non-maternity roost sites) bat roosting habitat is destroyed during building renovation/tree removal, artificial bat roosts shall be constructed in an undisturbed area in the project site vicinity away from human activity and at least 200 feet from project demolition/construction activities. The design and location of the artificial bat roost(s) shall be determined by a qualified bat biologist.

4. **Mitigation Measure BIO-2a: Wetland Delineation.** In coordination with the City, a qualified wetland ecologist shall conduct a wetland delineation of the 22-acre proposed project site to identify potential waters of the state which may be present. If no waters of the state are identified onsite, no further action is required. Should waters of the state be determined present within the project site, features shall be mapped and documented in a report for submission to the Regional Water Quality Control Board (RWQCB) which retains authority over isolated wetland features.

5. **Mitigation Measure BIO-2b: Wetland Protection.** At the project site, the following measures shall be applied to protect state and/or federal jurisdictional wetlands:

   - A protective barrier (such as silt fencing) shall be erected around jurisdictional features identified on the project site to isolate and protect from impact under project activities.
   - Signs that read "Environmentally Sensitive Area–Keep Out" shall be installed on the fencing to identify sensitive habitat.
   - No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the project site until wetland protection fencing has been inspected and approved by a qualified biologist.
   - Temporary fencing shall be continuously maintained until all project construction is completed.

6. **Mitigation Measure BIO-2c: Wetland Mitigation.** Wetland Mitigation. If avoidance of state jurisdictional features found on the property is not feasible under the proposed project, impacts to these features shall be mitigated through one of the following options:

   - Purchase of appropriate amount of credits at an approved wetlands mitigation bank;
   - Payment into an approved in-lieu fee program to preserve or restore wetlands in the same watershed;
   - Onsite mitigation, consisting of creation, restoration, enhancement or preservation, or combination thereof; or
   - Off-site mitigation.

7. **Mitigation Measure BIO-3: Coast Live Oak Tree Protection.** The City shall ensure that prior to project development and throughout each phase of project activities that have the potential to result in impacts on coast live oak trees, protected under the City ordinance and located within the project area, the project applicant shall take the following steps to avoid direct and indirect impacts to protected trees:

   - A Tree Protection Zone shall be established around each tree to be preserved prior to construction. No grading, excavation, construction or storage of materials shall occur within that zone. Tree Protection Zones shall be established with fencing at the tree dripline in all directions, and remain until construction is complete. Street trees will not be fenced to allow continued vehicle and pedestrian access as necessary. The lower 8-10' of protected street tree trunks shall be wrapped with straw wattles (or a similar material). Should excavation be necessary around street tree roots in support of street and sidewalk improvements, or should root pruning be necessary, excavation and root pruning shall be monitored by a certified arborist.
   - Street tree canopy shall be pruned to allow construction and access clearance, under the supervision of a certified arborist, and prior to demolition of existing buildings. Demolition adjacent protected street trees shall be monitored by a certified arborist.
   - Should protected trees become damaged during construction, tree condition shall be evaluated by a certified arborist and appropriate treatments shall be applied.

- Where feasible, underground utilities, drain lines or irrigation lines shall be routed outside tree protection zones to avoid root damage.

8. **Mitigation Measure CUL-1: Rehabilitation of Belt Line Yard House.** Rehabilitation of the Alameda Belt Line yard house shall conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The Standards require the preservation of character defining features that convey a building's historical significance, and offers guidance about appropriate and compatible alterations to historical resources.

9. **Mitigation Measure CUL-2: Inadvertent Discovery of Archaeological Resources.** If prehistoric or historic-period archaeological resources are encountered, all ground disturbing activities within 100 feet shall halt and the City of Alameda shall be notified. A Secretary of the Interior-qualified archaeologist shall inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA *Guidelines*, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan in consultation with the City of Alameda and a Native American representative. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

10. **Mitigation Measure CULT-3: Inadvertent Discovery of Human Remains.** If human remains are encountered, all ground disturbing activities within 100 feet of the find shall halt and the Alameda County Coroner shall be notified immediately. A qualified archaeologist shall also be contacted to evaluate the situation. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. Pursuant to Section 5097.98 of the Public Resources Code, the Native American Heritage Commission will identify a Native American Most Likely Descendent to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined whether or not the remains are subject to the coroner's authority.

11. **Mitigation Measure HAZ-1:** Prior to obtaining a grading or building permit, the City shall obtain a qualified environmental professional to complete any remaining Phase II and remediation actions consistent with the findings and recommendations of the 2014

Targeted Site Investigation by the Source Group in accordance with regulatory oversight from the Alameda County Environmental Health Department (ACEHD). Prior to receiving a building or grading permit, project applicant shall provide documentation from ACEHD that all identified contamination has been remediated to levels where no threat to human health or the environment remains based on the proposed future use of the project site.

12. **Mitigation Measure TRAN-1a:** As part of pre-construction submittals, the contractor(s) shall submit a truck route plan to the City of Alameda Public Works Department for review and approval to help minimize impacts to adjacent neighborhoods.

13. **Mitigation Measure TRAN-1b:** To the extent possible, heavy truck movements should be limited to the hours between 9:00 a.m. and 3:30 p.m. (or other times, if approved by the Public Works Department).

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APPENDIX A

Air Quality Appendix

Sweeney Park - Alameda

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	180.00	Space	1.62	72,000.00	0
City Park	20.38	Acre	20.38	887,752.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2016
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	239.4	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utility GHG intensity factor for CO2 based on info provided by AMP (0.10859 MT CO2e/MWh), and CH4 and N2O factors for statewide average included as a conservative assessment.

Land Use - 22 acre park, including 180 space parking lot

Construction Phase - As a conservative estimate, modeled as if whole project would be developed within about 1.5 years

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Basic building construction for project

Demolition - Assumes demo of remnant building foundations

Grading - Assumes some soil remediation will be required - export/import

Architectural Coating - Assumes small interior/exterior area for restrooms etc

Vehicle Trips - Adjusted trip rate to match 110 daily trip gen

Area Coating - Assumes small interior/exterior area for restrooms etc

Energy Use -

Off-road Equipment - Basic buildings proposed (i.e, restrooms)

Off-road Equipment - Minimal demo

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	444,956.00	2,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,334,869.00	6,000.00
tblAreaCoating	Area_Nonresidential_Exterior	444957	4000
tblAreaCoating	Area_Nonresidential_Interior	1334870	6000
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	35.00	85.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	370.00	196.00
tblGrading	AcresOfGrading	212.50	22.00
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	239.4
tblProjectCharacteristics	N2OIntensityFactor	0	0.006
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	VendorTripNumber	157.00	4.00
tblTripsAndVMT	WorkerTripNumber	81.00	2.00
tblTripsAndVMT	WorkerTripNumber	403.00	20.00
tblVehicleTrips	ST_TR	1.59	5.40
tblVehicleTrips	SU_TR	1.59	5.40
tblVehicleTrips	WD_TR	1.59	5.40

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.5714	5.6440	3.7763	5.0300e-003	0.2951	0.3088	0.6039	0.1492	0.2878	0.4370	0.0000	464.4684	464.4684	0.1190	0.0000	466.9666
2016	0.1375	1.0293	0.7187	1.1000e-003	7.5500e-003	0.0634	0.0709	2.0200e-003	0.0593	0.0613	0.0000	99.6764	99.6764	0.0247	0.0000	100.1956
Total	**0.7089**	**6.6732**	**4.4950**	**6.1300e-003**	**0.3027**	**0.3722**	**0.6749**	**0.1512**	**0.3471**	**0.4983**	**0.0000**	**564.1448**	**564.1448**	**0.1437**	**0.0000**	**567.1622**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.5714	5.6440	3.7763	5.0300e-003	0.2951	0.3088	0.6039	0.1492	0.2878	0.4370	0.0000	464.4679	464.4679	0.1190	0.0000	466.9661
2016	0.1375	1.0293	0.7187	1.1000e-003	7.5500e-003	0.0634	0.0709	2.0200e-003	0.0593	0.0613	0.0000	99.6763	99.6763	0.0247	0.0000	100.1955
Total	**0.7089**	**6.6732**	**4.4950**	**6.1300e-003**	**0.3027**	**0.3722**	**0.6749**	**0.1512**	**0.3471**	**0.4983**	**0.0000**	**564.1442**	**564.1442**	**0.1437**	**0.0000**	**567.1615**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.7513	2.0000e-005	1.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5800e-003	3.5800e-003	1.0000e-005	0.0000	3.7900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.8803	6.8803	8.3000e-004	1.7000e-004	6.9512
Mobile	0.0910	0.2592	0.9392	1.3400e-003	0.0878	3.9200e-003	0.0917	0.0236	3.5900e-003	0.0272	0.0000	113.1525	113.1525	5.4400e-003	0.0000	113.2667
Waste						0.0000	0.0000		0.0000	0.0000	0.3552	0.0000	0.3552	0.0210	0.0000	0.7961
Water						0.0000	0.0000		0.0000	0.0000	0.0000	9.2289	9.2289	1.1200e-003	2.3000e-004	9.3241
Total	**3.8422**	**0.2592**	**0.9411**	**1.3400e-003**	**0.0878**	**3.9300e-003**	**0.0917**	**0.0236**	**3.6000e-003**	**0.0272**	**0.3552**	**129.2652**	**129.6205**	**0.0284**	**4.0000e-004**	**130.3419**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.7513	2.0000e-005	1.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5800e-003	3.5800e-003	1.0000e-005	0.0000	3.7900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.8803	6.8803	8.3000e-004	1.7000e-004	6.9512
Mobile	0.0910	0.2592	0.9392	1.3400e-003	0.0878	3.9200e-003	0.0917	0.0236	3.5900e-003	0.0272	0.0000	113.1525	113.1525	5.4400e-003	0.0000	113.2667
Waste						0.0000	0.0000		0.0000	0.0000	0.3552	0.0000	0.3552	0.0210	0.0000	0.7961
Water						0.0000	0.0000		0.0000	0.0000	0.0000	9.2289	9.2289	1.1200e-003	2.3000e-004	9.3241
Total	**3.8422**	**0.2592**	**0.9411**	**1.3400e-003**	**0.0878**	**3.9300e-003**	**0.0917**	**0.0236**	**3.6000e-003**	**0.0272**	**0.3552**	**129.2652**	**129.6205**	**0.0284**	**4.0000e-004**	**130.3419**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/30/2015	5	22	
2	Grading	Grading	1/31/2015	5/29/2015	5	85	
3	Building Construction	Building Construction	5/30/2015	2/29/2016	5	196	Park landscaping, infrastructure, bldgs, etc
4	Paving	Paving	3/1/2016	4/29/2016	5	44	
5	Architectural Coating	Architectural Coating	4/30/2016	5/31/2016	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	7.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	250.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	20.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4000e-004	0.0000	7.4000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2667	0.2004	2.2000e-004		0.0143	0.0143		0.0135	0.0135	0.0000	20.7779	20.7779	5.0700e-003	0.0000	20.8844
Total	**0.0264**	**0.2667**	**0.2004**	**2.2000e-004**	**7.4000e-004**	**0.0143**	**0.0150**	**1.1000e-004**	**0.0135**	**0.0136**	**0.0000**	**20.7779**	**20.7779**	**5.0700e-003**	**0.0000**	**20.8844**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	1.2200e-003	9.3000e-004	0.0000	6.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	2.0000e-005	3.0000e-005	0.0000	0.2445	0.2445	0.0000	0.0000	0.2445
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.3900e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7524	0.7524	5.0000e-005	0.0000	0.7534
Total	**4.7000e-004**	**1.7800e-003**	**6.3200e-003**	**1.0000e-005**	**8.6000e-004**	**3.0000e-005**	**8.9000e-004**	**2.3000e-004**	**3.0000e-005**	**2.5000e-004**	**0.0000**	**0.9969**	**0.9969**	**5.0000e-005**	**0.0000**	**0.9979**

3.2 Demolition - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4000e-004	0.0000	7.4000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2667	0.2004	2.2000e-004		0.0143	0.0143		0.0135	0.0135	0.0000	20.7778	20.7778	5.0700e-003	0.0000	20.8844
Total	**0.0264**	**0.2667**	**0.2004**	**2.2000e-004**	**7.4000e-004**	**0.0143**	**0.0150**	**1.1000e-004**	**0.0135**	**0.0136**	**0.0000**	**20.7778**	**20.7778**	**5.0700e-003**	**0.0000**	**20.8844**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	1.2200e-003	9.3000e-004	0.0000	6.0000e-005	2.0000e-005	8.0000e-005	2.0000e-005	2.0000e-005	3.0000e-005	0.0000	0.2445	0.2445	0.0000	0.0000	0.2445
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.3900e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7524	0.7524	5.0000e-005	0.0000	0.7534
Total	**4.7000e-004**	**1.7800e-003**	**6.3200e-003**	**1.0000e-005**	**8.6000e-004**	**3.0000e-005**	**8.9000e-004**	**2.3000e-004**	**3.0000e-005**	**2.5000e-004**	**0.0000**	**0.9969**	**0.9969**	**5.0000e-005**	**0.0000**	**0.9979**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2677	0.0000	0.2677	0.1420	0.0000	0.1420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2879	3.3595	2.1607	2.6200e-003		0.1616	0.1616		0.1487	0.1487	0.0000	250.0794	250.0794	0.0747	0.0000	251.6472
Total	**0.2879**	**3.3595**	**2.1607**	**2.6200e-003**	**0.2677**	**0.1616**	**0.4293**	**0.1420**	**0.1487**	**0.2906**	**0.0000**	**250.0794**	**250.0794**	**0.0747**	**0.0000**	**251.6472**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2100e-003	0.0436	0.0332	9.0000e-005	2.1100e-003	6.5000e-004	2.7600e-003	5.8000e-004	6.0000e-004	1.1800e-003	0.0000	8.7305	8.7305	7.0000e-005	0.0000	8.7321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	5.3800e-003	0.0521	9.0000e-005	7.7200e-003	7.0000e-005	7.7900e-003	2.0500e-003	6.0000e-005	2.1200e-003	0.0000	7.2676	7.2676	4.4000e-004	0.0000	7.2767
Total	**6.8600e-003**	**0.0490**	**0.0853**	**1.8000e-004**	**9.8300e-003**	**7.2000e-004**	**0.0106**	**2.6300e-003**	**6.6000e-004**	**3.3000e-003**	**0.0000**	**15.9981**	**15.9981**	**5.1000e-004**	**0.0000**	**16.0088**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2677	0.0000	0.2677	0.1420	0.0000	0.1420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2879	3.3595	2.1607	2.6200e-003		0.1616	0.1616		0.1487	0.1487	0.0000	250.0791	250.0791	0.0747	0.0000	251.6469
Total	**0.2879**	**3.3595**	**2.1607**	**2.6200e-003**	**0.2677**	**0.1616**	**0.4293**	**0.1420**	**0.1487**	**0.2906**	**0.0000**	**250.0791**	**250.0791**	**0.0747**	**0.0000**	**251.6469**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2100e-003	0.0436	0.0332	9.0000e-005	2.1100e-003	6.5000e-004	2.7600e-003	5.8000e-004	6.0000e-004	1.1800e-003	0.0000	8.7305	8.7305	7.0000e-005	0.0000	8.7321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	5.3800e-003	0.0521	9.0000e-005	7.7200e-003	7.0000e-005	7.7900e-003	2.0500e-003	6.0000e-005	2.1200e-003	0.0000	7.2676	7.2676	4.4000e-004	0.0000	7.2767
Total	**6.8600e-003**	**0.0490**	**0.0853**	**1.8000e-004**	**9.8300e-003**	**7.2000e-004**	**0.0106**	**2.6300e-003**	**6.6000e-004**	**3.3000e-003**	**0.0000**	**15.9981**	**15.9981**	**5.1000e-004**	**0.0000**	**16.0088**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2389	1.9215	1.1817	1.7400e-003		0.1315	0.1315		0.1243	0.1243	0.0000	156.6569	156.6569	0.0378	0.0000	157.4511
Total	**0.2389**	**1.9215**	**1.1817**	**1.7400e-003**		**0.1315**	**0.1315**		**0.1243**	**0.1243**	**0.0000**	**156.6569**	**156.6569**	**0.0378**	**0.0000**	**157.4511**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2000e-003	0.0358	0.0475	7.0000e-005	1.9900e-003	5.9000e-004	2.5800e-003	5.7000e-004	5.4000e-004	1.1100e-003	0.0000	6.7922	6.7922	6.0000e-005	0.0000	6.7935
Worker	6.6200e-003	9.7400e-003	0.0944	1.7000e-004	0.0140	1.3000e-004	0.0141	3.7200e-003	1.2000e-004	3.8300e-003	0.0000	13.1671	13.1671	7.9000e-004	0.0000	13.1837
Total	**0.0108**	**0.0456**	**0.1419**	**2.4000e-004**	**0.0160**	**7.2000e-004**	**0.0167**	**4.2900e-003**	**6.6000e-004**	**4.9400e-003**	**0.0000**	**19.9593**	**19.9593**	**8.5000e-004**	**0.0000**	**19.9772**

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2389	1.9215	1.1817	1.7400e-003		0.1315	0.1315		0.1243	0.1243	0.0000	156.6568	156.6568	0.0378	0.0000	157.4509
Total	**0.2389**	**1.9215**	**1.1817**	**1.7400e-003**		**0.1315**	**0.1315**		**0.1243**	**0.1243**	**0.0000**	**156.6568**	**156.6568**	**0.0378**	**0.0000**	**157.4509**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.2000e-003	0.0358	0.0475	7.0000e-005	1.9900e-003	5.9000e-004	2.5800e-003	5.7000e-004	5.4000e-004	1.1100e-003	0.0000	6.7922	6.7922	6.0000e-005	0.0000	6.7935
Worker	6.6200e-003	9.7400e-003	0.0944	1.7000e-004	0.0140	1.3000e-004	0.0141	3.7200e-003	1.2000e-004	3.8300e-003	0.0000	13.1671	13.1671	7.9000e-004	0.0000	13.1837
Total	**0.0108**	**0.0456**	**0.1419**	**2.4000e-004**	**0.0160**	**7.2000e-004**	**0.0167**	**4.2900e-003**	**6.6000e-004**	**4.9400e-003**	**0.0000**	**19.9593**	**19.9593**	**8.5000e-004**	**0.0000**	**19.9772**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0605	0.4978	0.3178	4.7000e-004		0.0333	0.0333		0.0314	0.0314	0.0000	42.4329	42.4329	0.0101	0.0000	42.6444
Total	**0.0605**	**0.4978**	**0.3178**	**4.7000e-004**		**0.0333**	**0.0333**		**0.0314**	**0.0314**	**0.0000**	**42.4329**	**42.4329**	**0.0101**	**0.0000**	**42.6444**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	8.4900e-003	0.0120	2.0000e-005	5.4000e-004	1.3000e-004	6.7000e-004	1.6000e-004	1.2000e-004	2.7000e-004	0.0000	1.8306	1.8306	1.0000e-005	0.0000	1.8309
Worker	1.6100e-003	2.3800e-003	0.0229	5.0000e-005	3.8100e-003	3.0000e-005	3.8400e-003	1.0100e-003	3.0000e-005	1.0400e-003	0.0000	3.4677	3.4677	2.0000e-004	0.0000	3.4718
Total	**2.6200e-003**	**0.0109**	**0.0350**	**7.0000e-005**	**4.3500e-003**	**1.6000e-004**	**4.5100e-003**	**1.1700e-003**	**1.5000e-004**	**1.3100e-003**	**0.0000**	**5.2982**	**5.2982**	**2.1000e-004**	**0.0000**	**5.3027**

3.4 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0605	0.4978	0.3178	4.7000e-004		0.0333	0.0333		0.0314	0.0314	0.0000	42.4329	42.4329	0.0101	0.0000	42.6444
Total	**0.0605**	**0.4978**	**0.3178**	**4.7000e-004**		**0.0333**	**0.0333**		**0.0314**	**0.0314**	**0.0000**	**42.4329**	**42.4329**	**0.0101**	**0.0000**	**42.6444**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	8.4900e-003	0.0120	2.0000e-005	5.4000e-004	1.3000e-004	6.7000e-004	1.6000e-004	1.2000e-004	2.7000e-004	0.0000	1.8306	1.8306	1.0000e-005	0.0000	1.8309
Worker	1.6100e-003	2.3800e-003	0.0229	5.0000e-005	3.8100e-003	3.0000e-005	3.8400e-003	1.0100e-003	3.0000e-005	1.0400e-003	0.0000	3.4677	3.4677	2.0000e-004	0.0000	3.4718
Total	**2.6200e-003**	**0.0109**	**0.0350**	**7.0000e-005**	**4.3500e-003**	**1.6000e-004**	**4.5100e-003**	**1.1700e-003**	**1.5000e-004**	**1.3100e-003**	**0.0000**	**5.2982**	**5.2982**	**2.1000e-004**	**0.0000**	**5.3027**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0460	0.4925	0.3260	4.9000e-004		0.0277	0.0277		0.0255	0.0255	0.0000	46.2304	46.2304	0.0139	0.0000	46.5232
Paving	2.1200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0481**	**0.4925**	**0.3260**	**4.9000e-004**		**0.0277**	**0.0277**		**0.0255**	**0.0255**	**0.0000**	**46.2304**	**46.2304**	**0.0139**	**0.0000**	**46.5232**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2600e-003	1.8700e-003	0.0180	4.0000e-005	3.0000e-003	3.0000e-005	3.0200e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.7246	2.7246	1.5000e-004	0.0000	2.7278
Total	**1.2600e-003**	**1.8700e-003**	**0.0180**	**4.0000e-005**	**3.0000e-003**	**3.0000e-005**	**3.0200e-003**	**8.0000e-004**	**2.0000e-005**	**8.2000e-004**	**0.0000**	**2.7246**	**2.7246**	**1.5000e-004**	**0.0000**	**2.7278**

3.5 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0460	0.4925	0.3260	4.9000e-004		0.0277	0.0277		0.0255	0.0255	0.0000	46.2303	46.2303	0.0139	0.0000	46.5232
Paving	2.1200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0481**	**0.4925**	**0.3260**	**4.9000e-004**		**0.0277**	**0.0277**		**0.0255**	**0.0255**	**0.0000**	**46.2303**	**46.2303**	**0.0139**	**0.0000**	**46.5232**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2600e-003	1.8700e-003	0.0180	4.0000e-005	3.0000e-003	3.0000e-005	3.0200e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.7246	2.7246	1.5000e-004	0.0000	2.7278
Total	**1.2600e-003**	**1.8700e-003**	**0.0180**	**4.0000e-005**	**3.0000e-003**	**3.0000e-005**	**3.0200e-003**	**8.0000e-004**	**2.0000e-005**	**8.2000e-004**	**0.0000**	**2.7246**	**2.7246**	**1.5000e-004**	**0.0000**	**2.7278**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0261	0.0207	3.0000e-005		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	2.8086	2.8086	3.3000e-004	0.0000	2.8155
Total	**0.0249**	**0.0261**	**0.0207**	**3.0000e-005**		**2.1600e-003**	**2.1600e-003**		**2.1600e-003**	**2.1600e-003**	**0.0000**	**2.8086**	**2.8086**	**3.3000e-004**	**0.0000**	**2.8155**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.2000e-004	1.2000e-003	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1816	0.1816	1.0000e-005	0.0000	0.1819
Total	**8.0000e-005**	**1.2000e-004**	**1.2000e-003**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1816**	**0.1816**	**1.0000e-005**	**0.0000**	**0.1819**

3.6 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0261	0.0207	3.0000e-005		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	2.8086	2.8086	3.3000e-004	0.0000	2.8155
Total	**0.0249**	**0.0261**	**0.0207**	**3.0000e-005**		**2.1600e-003**	**2.1600e-003**		**2.1600e-003**	**2.1600e-003**	**0.0000**	**2.8086**	**2.8086**	**3.3000e-004**	**0.0000**	**2.8155**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.2000e-004	1.2000e-003	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1816	0.1816	1.0000e-005	0.0000	0.1819
Total	**8.0000e-005**	**1.2000e-004**	**1.2000e-003**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1816**	**0.1816**	**1.0000e-005**	**0.0000**	**0.1819**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0910	0.2592	0.9392	1.3400e-003	0.0878	3.9200e-003	0.0917	0.0236	3.5900e-003	0.0272	0.0000	113.1525	113.1525	5.4400e-003	0.0000	113.2667
Unmitigated	0.0910	0.2592	0.9392	1.3400e-003	0.0878	3.9200e-003	0.0917	0.0236	3.5900e-003	0.0272	0.0000	113.1525	113.1525	5.4400e-003	0.0000	113.2667

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	110.05	110.05	110.05	234,945	234,945
Parking Lot	0.00	0.00	0.00		
Total	110.05	110.05	110.05	234,945	234,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542757	0.062006	0.168650	0.114572	0.031552	0.004717	0.018583	0.044562	0.001747	0.003723	0.005493	0.000211	0.001428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.8803	6.8803	8.3000e-004	1.7000e-004	6.9512
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.8803	6.8803	8.3000e-004	1.7000e-004	6.9512
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	63360	6.8803	8.3000e-004	1.7000e-004	6.9512
Total		**6.8803**	**8.3000e-004**	**1.7000e-004**	**6.9512**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	63360	6.8803	8.3000e-004	1.7000e-004	6.9512
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**6.8803**	**8.3000e-004**	**1.7000e-004**	**6.9512**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.7513	2.0000e-005	1.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5800e-003	3.5800e-003	1.0000e-005	0.0000	3.7900e-003
Unmitigated	3.7513	2.0000e-005	1.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5800e-003	3.5800e-003	1.0000e-005	0.0000	3.7900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.7483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5800e-003	3.5800e-003	1.0000e-005	0.0000	3.7900e-003
Total	**3.7513**	**2.0000e-005**	**1.8900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.5800e-003**	**3.5800e-003**	**1.0000e-005**	**0.0000**	**3.7900e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.7483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5800e-003	3.5800e-003	1.0000e-005	0.0000	3.7900e-003
Total	**3.7513**	**2.0000e-005**	**1.8900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.5800e-003**	**3.5800e-003**	**1.0000e-005**	**0.0000**	**3.7900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.2289	1.1200e-003	2.3000e-004	9.3241
Unmitigated	9.2289	1.1200e-003	2.3000e-004	9.3241

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.2824	9.2289	1.1200e-003	2.3000e-004	9.3241
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**9.2289**	**1.1200e-003**	**2.3000e-004**	**9.3241**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.2824	9.2289	1.1200e-003	2.3000e-004	9.3241
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**9.2289**	**1.1200e-003**	**2.3000e-004**	**9.3241**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.3552	0.0210	0.0000	0.7961
Unmitigated	0.3552	0.0210	0.0000	0.7961

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.75	0.3552	0.0210	0.0000	0.7961
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.3552**	**0.0210**	**0.0000**	**0.7961**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.75	0.3552	0.0210	0.0000	0.7961
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.3552**	**0.0210**	**0.0000**	**0.7961**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Sweeney Park - Alameda

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	180.00	Space	1.62	72,000.00	0
City Park	20.38	Acre	20.38	887,752.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2016
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	239.4	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utility GHG intensity factor for CO2 based on info provided by AMP (0.10859 MT CO2e/MWh), and CH4 and N2O factors for statewide average included as a conservative assessment.

Land Use - 22 acre park, including 180 space parking lot

Construction Phase - As a conservative estimate, modeled as if whole project would be developed within about 1.5 years

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Basic building construction for project

Demolition - Assumes demo of remnant building foundations

Grading - Assumes some soil remediation will be required - export/import

Architectural Coating - Assumes small interior/exterior area for restrooms etc

Vehicle Trips - Adjusted trip rate to match 110 daily trip gen

Area Coating - Assumes small interior/exterior area for restrooms etc

Energy Use -

Off-road Equipment - Basic buildings proposed (i.e, restrooms)

Off-road Equipment - Minimal demo

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	444,956.00	2,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,334,869.00	6,000.00
tblAreaCoating	Area_Nonresidential_Exterior	444957	4000
tblAreaCoating	Area_Nonresidential_Interior	1334870	6000
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	35.00	85.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	370.00	196.00
tblGrading	AcresOfGrading	212.50	22.00
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	239.4
tblProjectCharacteristics	N2OIntensityFactor	0	0.006
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	VendorTripNumber	157.00	4.00
tblTripsAndVMT	WorkerTripNumber	81.00	2.00
tblTripsAndVMT	WorkerTripNumber	403.00	20.00
tblVehicleTrips	ST_TR	1.59	5.40
tblVehicleTrips	SU_TR	1.59	5.40
tblVehicleTrips	WD_TR	1.59	5.40

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.9357	80.1465	52.7570	0.0663	6.5391	3.8192	10.3583	3.4043	3.5136	6.9180	0.0000	6,915.9772	6,915.9772	1.9496	0.0000	6,956.9196
2016	3.0059	24.1956	16.7226	0.0259	0.2153	1.5924	1.8077	0.0577	1.5034	1.5611	0.0000	2,519.8614	2,519.8614	0.7064	0.0000	2,534.6964
Total	**9.9416**	**104.3421**	**69.4796**	**0.0922**	**6.7544**	**5.4115**	**12.1660**	**3.4620**	**5.0171**	**8.4791**	**0.0000**	**9,435.8386**	**9,435.8386**	**2.6561**	**0.0000**	**9,491.6160**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.9357	80.1465	52.7570	0.0663	6.5391	3.8192	10.3583	3.4043	3.5136	6.9180	0.0000	6,915.9772	6,915.9772	1.9496	0.0000	6,956.9196
2016	3.0059	24.1956	16.7226	0.0259	0.2153	1.5924	1.8077	0.0577	1.5034	1.5611	0.0000	2,519.8614	2,519.8614	0.7064	0.0000	2,534.6964
Total	**9.9416**	**104.3421**	**69.4796**	**0.0922**	**6.7544**	**5.4115**	**12.1660**	**3.4620**	**5.0171**	**8.4791**	**0.0000**	**9,435.8386**	**9,435.8386**	**2.6561**	**0.0000**	**9,491.6160**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5069	1.3452	4.8171	7.7600e-003	0.5009	0.0215	0.5223	0.1342	0.0197	0.1538		723.0227	723.0227	0.0330		723.7147
Total	**21.0628**	**1.3454**	**4.8381**	**7.7600e-003**	**0.5009**	**0.0215**	**0.5224**	**0.1342**	**0.0198**	**0.1539**		**723.0666**	**723.0666**	**0.0331**	**0.0000**	**723.7612**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5069	1.3452	4.8171	7.7600e-003	0.5009	0.0215	0.5223	0.1342	0.0197	0.1538		723.0227	723.0227	0.0330		723.7147
Total	**21.0628**	**1.3454**	**4.8381**	**7.7600e-003**	**0.5009**	**0.0215**	**0.5224**	**0.1342**	**0.0198**	**0.1539**		**723.0666**	**723.0666**	**0.0331**	**0.0000**	**723.7612**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/30/2015	5	22	
2	Grading	Grading	1/31/2015	5/29/2015	5	85	
3	Building Construction	Building Construction	5/30/2015	2/29/2016	5	196	Park landscaping, infrastructure, bldgs, etc
4	Paving	Paving	3/1/2016	4/29/2016	5	44	
5	Architectural Coating	Architectural Coating	4/30/2016	5/31/2016	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	7.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	250.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	20.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0671	0.0000	0.0671	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	2.4020	24.2462	18.2190	0.0204		1.2993	1.2993		1.2264	1.2264		2,082.1520	2,082.1520	0.5083		2,092.8261
Total	**2.4020**	**24.2462**	**18.2190**	**0.0204**	**0.0671**	**1.2993**	**1.3664**	**0.0102**	**1.2264**	**1.2366**		**2,082.1520**	**2,082.1520**	**0.5083**		**2,092.8261**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.4500e-003	0.1069	0.0666	2.4000e-004	5.5500e-003	1.6600e-003	7.2100e-003	1.5200e-003	1.5300e-003	3.0500e-003		24.5206	24.5206	2.1000e-004		24.5249
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0445	0.5207	9.4000e-004	0.0754	6.6000e-004	0.0761	0.0200	6.0000e-004	0.0206		81.2293	81.2293	4.5300e-003		81.3244
Total	**0.0441**	**0.1515**	**0.5873**	**1.1800e-003**	**0.0810**	**2.3200e-003**	**0.0833**	**0.0215**	**2.1300e-003**	**0.0237**		**105.7498**	**105.7498**	**4.7400e-003**		**105.8493**

3.2 Demolition - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0671	0.0000	0.0671	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	2.4020	24.2462	18.2190	0.0204		1.2993	1.2993		1.2264	1.2264	0.0000	2,082.1520	2,082.1520	0.5083		2,092.8261
Total	**2.4020**	**24.2462**	**18.2190**	**0.0204**	**0.0671**	**1.2993**	**1.3664**	**0.0102**	**1.2264**	**1.2366**	**0.0000**	**2,082.1520**	**2,082.1520**	**0.5083**		**2,092.8261**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.4500e-003	0.1069	0.0666	2.4000e-004	5.5500e-003	1.6600e-003	7.2100e-003	1.5200e-003	1.5300e-003	3.0500e-003		24.5206	24.5206	2.1000e-004		24.5249
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0445	0.5207	9.4000e-004	0.0754	6.6000e-004	0.0761	0.0200	6.0000e-004	0.0206		81.2293	81.2293	4.5300e-003		81.3244
Total	**0.0441**	**0.1515**	**0.5873**	**1.1800e-003**	**0.0810**	**2.3200e-003**	**0.0833**	**0.0215**	**2.1300e-003**	**0.0237**		**105.7498**	**105.7498**	**4.7400e-003**		**105.8493**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2992	0.0000	6.2992	3.3403	0.0000	3.3403			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.2992**	**3.8022**	**10.1014**	**3.3403**	**3.4980**	**6.8383**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0689	0.9885	0.6151	2.2300e-003	0.0513	0.0153	0.0666	0.0141	0.0141	0.0282		226.6607	226.6607	1.9000e-003		226.7007
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.1113	1.3019	2.3400e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		203.0732	203.0732	0.0113		203.3109
Total	**0.1606**	**1.0998**	**1.9170**	**4.5700e-003**	**0.2399**	**0.0170**	**0.2569**	**0.0641**	**0.0156**	**0.0797**		**429.7339**	**429.7339**	**0.0132**		**430.0116**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2992	0.0000	6.2992	3.3403	0.0000	3.3403			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.2992**	**3.8022**	**10.1014**	**3.3403**	**3.4980**	**6.8383**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0689	0.9885	0.6151	2.2300e-003	0.0513	0.0153	0.0666	0.0141	0.0141	0.0282		226.6607	226.6607	1.9000e-003		226.7007
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.1113	1.3019	2.3400e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		203.0732	203.0732	0.0113		203.3109
Total	**0.1606**	**1.0998**	**1.9170**	**4.5700e-003**	**0.2399**	**0.0170**	**0.2569**	**0.0641**	**0.0156**	**0.0797**		**429.7339**	**429.7339**	**0.0132**		**430.0116**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1025	24.9545	15.3465	0.0226		1.7076	1.7076		1.6140	1.6140		2,242.6587	2,242.6587	0.5414		2,254.0280
Total	**3.1025**	**24.9545**	**15.3465**	**0.0226**		**1.7076**	**1.7076**		**1.6140**	**1.6140**		**2,242.6587**	**2,242.6587**	**0.5414**		**2,254.0280**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0483	0.4498	0.4672	9.6000e-004	0.0267	7.5700e-003	0.0343	7.6300e-003	6.9600e-003	0.0146		97.5451	97.5451	8.7000e-004		97.5634
Worker	0.0917	0.1113	1.3019	2.3400e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		203.0732	203.0732	0.0113		203.3109
Total	**0.1400**	**0.5612**	**1.7691**	**3.3000e-003**	**0.2153**	**9.2200e-003**	**0.2245**	**0.0577**	**8.4700e-003**	**0.0661**		**300.6183**	**300.6183**	**0.0122**		**300.8743**

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1025	24.9545	15.3465	0.0226		1.7076	1.7076		1.6140	1.6140	0.0000	2,242.6587	2,242.6587	0.5414		2,254.0280
Total	**3.1025**	**24.9545**	**15.3465**	**0.0226**		**1.7076**	**1.7076**		**1.6140**	**1.6140**	**0.0000**	**2,242.6587**	**2,242.6587**	**0.5414**		**2,254.0280**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0483	0.4498	0.4672	9.6000e-004	0.0267	7.5700e-003	0.0343	7.6300e-003	6.9600e-003	0.0146		97.5451	97.5451	8.7000e-004		97.5634
Worker	0.0917	0.1113	1.3019	2.3400e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		203.0732	203.0732	0.0113		203.3109
Total	**0.1400**	**0.5612**	**1.7691**	**3.3000e-003**	**0.2153**	**9.2200e-003**	**0.2245**	**0.0577**	**8.4700e-003**	**0.0661**		**300.6183**	**300.6183**	**0.0122**		**300.8743**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8813	23.7049	15.1326	0.0226		1.5848	1.5848		1.4965	1.4965		2,227.3468	2,227.3468	0.5287		2,238.4501
Total	**2.8813**	**23.7049**	**15.1326**	**0.0226**		**1.5848**	**1.5848**		**1.4965**	**1.4965**		**2,227.3468**	**2,227.3468**	**0.5287**		**2,238.4501**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0425	0.3912	0.4249	9.6000e-004	0.0267	6.0600e-003	0.0328	7.6300e-003	5.5700e-003	0.0132		96.3959	96.3959	7.7000e-004		96.4120
Worker	0.0822	0.0996	1.1651	2.3400e-003	0.1886	1.5500e-003	0.1902	0.0500	1.4200e-003	0.0515		196.1187	196.1187	0.0103		196.3351
Total	**0.1246**	**0.4908**	**1.5901**	**3.3000e-003**	**0.2153**	**7.6100e-003**	**0.2229**	**0.0577**	**6.9900e-003**	**0.0647**		**292.5146**	**292.5146**	**0.0111**		**292.7471**

3.4 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8813	23.7049	15.1326	0.0226		1.5848	1.5848		1.4965	1.4965	0.0000	2,227.3468	2,227.3468	0.5287		2,238.4501
Total	**2.8813**	**23.7049**	**15.1326**	**0.0226**		**1.5848**	**1.5848**		**1.4965**	**1.4965**	**0.0000**	**2,227.3468**	**2,227.3468**	**0.5287**		**2,238.4501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0425	0.3912	0.4249	9.6000e-004	0.0267	6.0600e-003	0.0328	7.6300e-003	5.5700e-003	0.0132		96.3959	96.3959	7.7000e-004		96.4120
Worker	0.0822	0.0996	1.1651	2.3400e-003	0.1886	1.5500e-003	0.1902	0.0500	1.4200e-003	0.0515		196.1187	196.1187	0.0103		196.3351
Total	**0.1246**	**0.4908**	**1.5901**	**3.3000e-003**	**0.2153**	**7.6100e-003**	**0.2229**	**0.0577**	**6.9900e-003**	**0.0647**		**292.5146**	**292.5146**	**0.0111**		**292.7471**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1862**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0616	0.0747	0.8738	1.7500e-003	0.1415	1.1600e-003	0.1426	0.0375	1.0700e-003	0.0386		147.0890	147.0890	7.7300e-003		147.2513
Total	**0.0616**	**0.0747**	**0.8738**	**1.7500e-003**	**0.1415**	**1.1600e-003**	**0.1426**	**0.0375**	**1.0700e-003**	**0.0386**		**147.0890**	**147.0890**	**7.7300e-003**		**147.2513**

3.5 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1862**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0616	0.0747	0.8738	1.7500e-003	0.1415	1.1600e-003	0.1426	0.0375	1.0700e-003	0.0386		147.0890	147.0890	7.7300e-003		147.2513
Total	**0.0616**	**0.0747**	**0.8738**	**1.7500e-003**	**0.1415**	**1.1600e-003**	**0.1426**	**0.0375**	**1.0700e-003**	**0.0386**		**147.0890**	**147.0890**	**7.7300e-003**		**147.2513**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**2.2646**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.2100e-003	9.9600e-003	0.1165	2.3000e-004	0.0189	1.6000e-004	0.0190	5.0000e-003	1.4000e-004	5.1400e-003		19.6119	19.6119	1.0300e-003		19.6335
Total	**8.2100e-003**	**9.9600e-003**	**0.1165**	**2.3000e-004**	**0.0189**	**1.6000e-004**	**0.0190**	**5.0000e-003**	**1.4000e-004**	**5.1400e-003**		**19.6119**	**19.6119**	**1.0300e-003**		**19.6335**

3.6 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**2.2646**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.2100e-003	9.9600e-003	0.1165	2.3000e-004	0.0189	1.6000e-004	0.0190	5.0000e-003	1.4000e-004	5.1400e-003		19.6119	19.6119	1.0300e-003		19.6335
Total	**8.2100e-003**	**9.9600e-003**	**0.1165**	**2.3000e-004**	**0.0189**	**1.6000e-004**	**0.0190**	**5.0000e-003**	**1.4000e-004**	**5.1400e-003**		**19.6119**	**19.6119**	**1.0300e-003**		**19.6335**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5069	1.3452	4.8171	7.7600e-003	0.5009	0.0215	0.5223	0.1342	0.0197	0.1538		723.0227	723.0227	0.0330		723.7147
Unmitigated	0.5069	1.3452	4.8171	7.7600e-003	0.5009	0.0215	0.5223	0.1342	0.0197	0.1538		723.0227	723.0227	0.0330		723.7147

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	110.05	110.05	110.05	234,945	234,945
Parking Lot	0.00	0.00	0.00		
Total	110.05	110.05	110.05	234,945	234,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542757	0.062006	0.168650	0.114572	0.031552	0.004717	0.018583	0.044562	0.001747	0.003723	0.005493	0.000211	0.001428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Unmitigated	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	20.5387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0500e-003	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Total	**20.5560**	**2.0000e-004**	**0.0210**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0439**	**0.0439**	**1.2000e-004**		**0.0465**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	20.5387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0500e-003	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Total	**20.5560**	**2.0000e-004**	**0.0210**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0439**	**0.0439**	**1.2000e-004**		**0.0465**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Sweeney Park - Alameda

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	180.00	Space	1.62	72,000.00	0
City Park	20.38	Acre	20.38	887,752.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2016
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	239.4	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utility GHG intensity factor for CO2 based on info provided by AMP (0.10859 MT CO2e/MWh), and CH4 and N2O factors for statewide average included as a conservative assessment.

Land Use - 22 acre park, including 180 space parking lot

Construction Phase - As a conservative estimate, modeled as if whole project would be developed within about 1.5 years

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Basic building construction for project

Demolition - Assumes demo of remnant building foundations

Grading - Assumes some soil remediation will be required - export/import

Architectural Coating - Assumes small interior/exterior area for restrooms etc

Vehicle Trips - Adjusted trip rate to match 110 daily trip gen

Area Coating - Assumes small interior/exterior area for restrooms etc

Energy Use -

Off-road Equipment - Basic buildings proposed (i.e, restrooms)

Off-road Equipment - Minimal demo

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	444,956.00	2,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,334,869.00	6,000.00
tblAreaCoating	Area_Nonresidential_Exterior	444957	4000
tblAreaCoating	Area_Nonresidential_Interior	1334870	6000
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	35.00	85.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	370.00	196.00
tblGrading	AcresOfGrading	212.50	22.00
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.029
tblProjectCharacteristics	CO2IntensityFactor	0	239.4
tblProjectCharacteristics	N2OIntensityFactor	0	0.006
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	VendorTripNumber	157.00	4.00
tblTripsAndVMT	WorkerTripNumber	81.00	2.00
tblTripsAndVMT	WorkerTripNumber	403.00	20.00
tblVehicleTrips	ST_TR	1.59	5.40
tblVehicleTrips	SU_TR	1.59	5.40
tblVehicleTrips	WD_TR	1.59	5.40

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.9502	80.2264	53.0620	0.0661	6.5391	3.8192	10.3584	3.4043	3.5137	6.9180	0.0000	6,899.4195	6,899.4195	1.9497	0.0000	6,940.3624
2016	3.0172	24.2383	16.9839	0.0257	0.2153	1.5924	1.8077	0.0577	1.5035	1.5612	0.0000	2,503.6237	2,503.6237	0.7064	0.0000	2,518.4587
Total	**9.9674**	**104.4647**	**70.0459**	**0.0918**	**6.7544**	**5.4117**	**12.1661**	**3.4620**	**5.0172**	**8.4792**	**0.0000**	**9,403.0432**	**9,403.0432**	**2.6561**	**0.0000**	**9,458.8211**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.9502	80.2264	53.0620	0.0661	6.5391	3.8192	10.3584	3.4043	3.5137	6.9180	0.0000	6,899.4195	6,899.4195	1.9497	0.0000	6,940.3624
2016	3.0172	24.2383	16.9839	0.0257	0.2153	1.5924	1.8077	0.0577	1.5035	1.5612	0.0000	2,503.6237	2,503.6237	0.7064	0.0000	2,518.4587
Total	**9.9674**	**104.4647**	**70.0459**	**0.0918**	**6.7544**	**5.4117**	**12.1661**	**3.4620**	**5.0172**	**8.4792**	**0.0000**	**9,403.0432**	**9,403.0432**	**2.6561**	**0.0000**	**9,458.8211**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5441	1.4745	5.7690	7.3300e-003	0.5009	0.0217	0.5225	0.1342	0.0199	0.1540		681.7524	681.7524	0.0330		682.4453
Total	**21.1001**	**1.4747**	**5.7900**	**7.3300e-003**	**0.5009**	**0.0218**	**0.5226**	**0.1342**	**0.0200**	**0.1541**		**681.7962**	**681.7962**	**0.0331**	**0.0000**	**682.4918**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5441	1.4745	5.7690	7.3300e-003	0.5009	0.0217	0.5225	0.1342	0.0199	0.1540		681.7524	681.7524	0.0330		682.4453
Total	**21.1001**	**1.4747**	**5.7900**	**7.3300e-003**	**0.5009**	**0.0218**	**0.5226**	**0.1342**	**0.0200**	**0.1541**		**681.7962**	**681.7962**	**0.0331**	**0.0000**	**682.4918**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/30/2015	5	22	
2	Grading	Grading	1/31/2015	5/29/2015	5	85	
3	Building Construction	Building Construction	5/30/2015	2/29/2016	5	196	Park landscaping, infrastructure, bldgs, etc
4	Paving	Paving	3/1/2016	4/29/2016	5	44	
5	Architectural Coating	Architectural Coating	4/30/2016	5/31/2016	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	7.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	250.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	20.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0671	0.0000	0.0671	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	2.4020	24.2462	18.2190	0.0204		1.2993	1.2993		1.2264	1.2264		2,082.1520	2,082.1520	0.5083		2,092.8261
Total	**2.4020**	**24.2462**	**18.2190**	**0.0204**	**0.0671**	**1.2993**	**1.3664**	**0.0102**	**1.2264**	**1.2366**		**2,082.1520**	**2,082.1520**	**0.5083**		**2,092.8261**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9400e-003	0.1126	0.1015	2.4000e-004	5.5500e-003	1.6600e-003	7.2200e-003	1.5200e-003	1.5300e-003	3.0500e-003		24.4639	24.4639	2.1000e-004		24.4683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0370	0.0554	0.5137	8.6000e-004	0.0754	6.6000e-004	0.0761	0.0200	6.0000e-004	0.0206		74.8158	74.8158	4.5300e-003		74.9109
Total	**0.0459**	**0.1680**	**0.6151**	**1.1000e-003**	**0.0810**	**2.3200e-003**	**0.0833**	**0.0215**	**2.1300e-003**	**0.0237**		**99.2797**	**99.2797**	**4.7400e-003**		**99.3791**

3.2 Demolition - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0671	0.0000	0.0671	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	2.4020	24.2462	18.2190	0.0204		1.2993	1.2993		1.2264	1.2264	0.0000	2,082.1520	2,082.1520	0.5083		2,092.8261
Total	**2.4020**	**24.2462**	**18.2190**	**0.0204**	**0.0671**	**1.2993**	**1.3664**	**0.0102**	**1.2264**	**1.2366**	**0.0000**	**2,082.1520**	**2,082.1520**	**0.5083**		**2,092.8261**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9400e-003	0.1126	0.1015	2.4000e-004	5.5500e-003	1.6600e-003	7.2200e-003	1.5200e-003	1.5300e-003	3.0500e-003		24.4639	24.4639	2.1000e-004		24.4683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0370	0.0554	0.5137	8.6000e-004	0.0754	6.6000e-004	0.0761	0.0200	6.0000e-004	0.0206		74.8158	74.8158	4.5300e-003		74.9109
Total	**0.0459**	**0.1680**	**0.6151**	**1.1000e-003**	**0.0810**	**2.3200e-003**	**0.0833**	**0.0215**	**2.1300e-003**	**0.0237**		**99.2797**	**99.2797**	**4.7400e-003**		**99.3791**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2992	0.0000	6.2992	3.3403	0.0000	3.3403			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.2992**	**3.8022**	**10.1014**	**3.3403**	**3.4980**	**6.8383**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0827	1.0412	0.9378	2.2300e-003	0.0513	0.0154	0.0667	0.0141	0.0142	0.0282		226.1368	226.1368	1.9200e-003		226.1772
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0924	0.1385	1.2842	2.1500e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		187.0394	187.0394	0.0113		187.2771
Total	**0.1751**	**1.1797**	**2.2220**	**4.3800e-003**	**0.2399**	**0.0170**	**0.2570**	**0.0641**	**0.0157**	**0.0797**		**413.1762**	**413.1762**	**0.0132**		**413.4544**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2992	0.0000	6.2992	3.3403	0.0000	3.3403			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.2992**	**3.8022**	**10.1014**	**3.3403**	**3.4980**	**6.8383**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0827	1.0412	0.9378	2.2300e-003	0.0513	0.0154	0.0667	0.0141	0.0142	0.0282		226.1368	226.1368	1.9200e-003		226.1772
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0924	0.1385	1.2842	2.1500e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		187.0394	187.0394	0.0113		187.2771
Total	**0.1751**	**1.1797**	**2.2220**	**4.3800e-003**	**0.2399**	**0.0170**	**0.2570**	**0.0641**	**0.0157**	**0.0797**		**413.1762**	**413.1762**	**0.0132**		**413.4544**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1025	24.9545	15.3465	0.0226		1.7076	1.7076		1.6140	1.6140		2,242.6587	2,242.6587	0.5414		2,254.0280
Total	**3.1025**	**24.9545**	**15.3465**	**0.0226**		**1.7076**	**1.7076**		**1.6140**	**1.6140**		**2,242.6587**	**2,242.6587**	**0.5414**		**2,254.0280**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0614	0.4711	0.7582	9.6000e-004	0.0267	7.6600e-003	0.0344	7.6300e-003	7.0400e-003	0.0147		96.8090	96.8090	8.9000e-004		96.8277
Worker	0.0924	0.1385	1.2842	2.1500e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		187.0394	187.0394	0.0113		187.2771
Total	**0.1538**	**0.6096**	**2.0424**	**3.1100e-003**	**0.2153**	**9.3100e-003**	**0.2246**	**0.0577**	**8.5500e-003**	**0.0662**		**283.8484**	**283.8484**	**0.0122**		**284.1049**

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1025	24.9545	15.3465	0.0226		1.7076	1.7076		1.6140	1.6140	0.0000	2,242.6587	2,242.6587	0.5414		2,254.0280
Total	**3.1025**	**24.9545**	**15.3465**	**0.0226**		**1.7076**	**1.7076**		**1.6140**	**1.6140**	**0.0000**	**2,242.6587**	**2,242.6587**	**0.5414**		**2,254.0280**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0614	0.4711	0.7582	9.6000e-004	0.0267	7.6600e-003	0.0344	7.6300e-003	7.0400e-003	0.0147		96.8090	96.8090	8.9000e-004		96.8277
Worker	0.0924	0.1385	1.2842	2.1500e-003	0.1886	1.6500e-003	0.1903	0.0500	1.5100e-003	0.0515		187.0394	187.0394	0.0113		187.2771
Total	**0.1538**	**0.6096**	**2.0424**	**3.1100e-003**	**0.2153**	**9.3100e-003**	**0.2246**	**0.0577**	**8.5500e-003**	**0.0662**		**283.8484**	**283.8484**	**0.0122**		**284.1049**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8813	23.7049	15.1326	0.0226		1.5848	1.5848		1.4965	1.4965		2,227.3468	2,227.3468	0.5287		2,238.4501
Total	**2.8813**	**23.7049**	**15.1326**	**0.0226**		**1.5848**	**1.5848**		**1.4965**	**1.4965**		**2,227.3468**	**2,227.3468**	**0.5287**		**2,238.4501**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0538	0.4095	0.7104	9.6000e-004	0.0267	6.1200e-003	0.0328	7.6300e-003	5.6300e-003	0.0133		95.6644	95.6644	7.9000e-004		95.6809
Worker	0.0821	0.1239	1.1409	2.1500e-003	0.1886	1.5500e-003	0.1902	0.0500	1.4200e-003	0.0515		180.6125	180.6125	0.0103		180.8289
Total	**0.1359**	**0.5334**	**1.8513**	**3.1100e-003**	**0.2153**	**7.6700e-003**	**0.2230**	**0.0577**	**7.0500e-003**	**0.0647**		**276.2769**	**276.2769**	**0.0111**		**276.5098**

3.4 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8813	23.7049	15.1326	0.0226		1.5848	1.5848		1.4965	1.4965	0.0000	2,227.3468	2,227.3468	0.5287		2,238.4501
Total	**2.8813**	**23.7049**	**15.1326**	**0.0226**		**1.5848**	**1.5848**		**1.4965**	**1.4965**	**0.0000**	**2,227.3468**	**2,227.3468**	**0.5287**		**2,238.4501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0538	0.4095	0.7104	9.6000e-004	0.0267	6.1200e-003	0.0328	7.6300e-003	5.6300e-003	0.0133		95.6644	95.6644	7.9000e-004		95.6809
Worker	0.0821	0.1239	1.1409	2.1500e-003	0.1886	1.5500e-003	0.1902	0.0500	1.4200e-003	0.0515		180.6125	180.6125	0.0103		180.8289
Total	**0.1359**	**0.5334**	**1.8513**	**3.1100e-003**	**0.2153**	**7.6700e-003**	**0.2230**	**0.0577**	**7.0500e-003**	**0.0647**		**276.2769**	**276.2769**	**0.0111**		**276.5098**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1862**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0616	0.0929	0.8557	1.6100e-003	0.1415	1.1600e-003	0.1426	0.0375	1.0700e-003	0.0386		135.4594	135.4594	7.7300e-003		135.6217
Total	**0.0616**	**0.0929**	**0.8557**	**1.6100e-003**	**0.1415**	**1.1600e-003**	**0.1426**	**0.0375**	**1.0700e-003**	**0.0386**		**135.4594**	**135.4594**	**7.7300e-003**		**135.6217**

3.5 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1862**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0616	0.0929	0.8557	1.6100e-003	0.1415	1.1600e-003	0.1426	0.0375	1.0700e-003	0.0386		135.4594	135.4594	7.7300e-003		135.6217
Total	**0.0616**	**0.0929**	**0.8557**	**1.6100e-003**	**0.1415**	**1.1600e-003**	**0.1426**	**0.0375**	**1.0700e-003**	**0.0386**		**135.4594**	**135.4594**	**7.7300e-003**		**135.6217**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**2.2646**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.2100e-003	0.0124	0.1141	2.2000e-004	0.0189	1.6000e-004	0.0190	5.0000e-003	1.4000e-004	5.1400e-003		18.0613	18.0613	1.0300e-003		18.0829
Total	**8.2100e-003**	**0.0124**	**0.1141**	**2.2000e-004**	**0.0189**	**1.6000e-004**	**0.0190**	**5.0000e-003**	**1.4000e-004**	**5.1400e-003**		**18.0613**	**18.0613**	**1.0300e-003**		**18.0829**

3.6 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**2.2646**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.2100e-003	0.0124	0.1141	2.2000e-004	0.0189	1.6000e-004	0.0190	5.0000e-003	1.4000e-004	5.1400e-003		18.0613	18.0613	1.0300e-003		18.0829
Total	**8.2100e-003**	**0.0124**	**0.1141**	**2.2000e-004**	**0.0189**	**1.6000e-004**	**0.0190**	**5.0000e-003**	**1.4000e-004**	**5.1400e-003**		**18.0613**	**18.0613**	**1.0300e-003**		**18.0829**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5441	1.4745	5.7690	7.3300e-003	0.5009	0.0217	0.5225	0.1342	0.0199	0.1540		681.7524	681.7524	0.0330		682.4453
Unmitigated	0.5441	1.4745	5.7690	7.3300e-003	0.5009	0.0217	0.5225	0.1342	0.0199	0.1540		681.7524	681.7524	0.0330		682.4453

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	110.05	110.05	110.05	234,945	234,945
Parking Lot	0.00	0.00	0.00		
Total	110.05	110.05	110.05	234,945	234,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542757	0.062006	0.168650	0.114572	0.031552	0.004717	0.018583	0.044562	0.001747	0.003723	0.005493	0.000211	0.001428

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Unmitigated	20.5560	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	20.5387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0500e-003	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Total	**20.5560**	**2.0000e-004**	**0.0210**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0439**	**0.0439**	**1.2000e-004**		**0.0465**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0152					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	20.5387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0500e-003	2.0000e-004	0.0210	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0439	0.0439	1.2000e-004		0.0465
Total	**20.5560**	**2.0000e-004**	**0.0210**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0439**	**0.0439**	**1.2000e-004**		**0.0465**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AVERAGE ANNUAL DAILY CRITERIA POLLUTANT EMISSIONS

Unmitigated Construction			tpy		Unmitigated Construction			average lbs/day	
Year	ROG	Nox	PM10 exh	PM2.5 exh	Year	ROG	Nox	PM10 exh	PM2.5 exh
2015	0.5714	5.644	0.3088	0.2878	2015	4.378544	43.24904	2.366284	2.205364
2016	0.1375	1.0293	0.0634	0.0613	2016	2.546296	19.06111	1.174074	1.135185

Construction Duration: 2015 261 days
2016 108 days

APPENDIX B

Biology Appendix

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S3	WL
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SSC
Amsinckia lunaris bent-flowered fiddleneck	PDBOR01070	None	None	G2?	S2?	1B.2
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Archoplites interruptus Sacramento perch	AFCQB07010	None	None	G2G3	S1	SSC
Arctostaphylos pallida pallid manzanita	PDERI04110	Threatened	Endangered	G1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Atriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
California macrophylla round-leaved filaree	PDGER01070	None	None	G2	S2	1B.1
Calystegia purpurata ssp. saxicola coastal bluff morning-glory	PDCON040D2	None	None	G4T2T3	S2S3	1B.2
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	PDPGN04081	None	None	G2T1	S1	1B.2
Chorizanthe robusta var. robusta robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S1	
Circus cyaneus northern harrier	ABNKC11010	None	None	G5	S3	SSC
Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3.3	4.3

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Clarkia franciscana Presidio clarkia	PDONA050H0	Endangered	Endangered	G1	S1	1B.1
Danaus plexippus monarch butterfly	IILEPP2010	None	None	G5	S3	
Dipodomys heermanni berkeleyensis Berkeley kangaroo rat	AMAFD03061	None	None	G3G4T1	S1	
Dirca occidentalis western leatherwood	PDTHY03010	None	None	G2G3	S2S3	1B.2
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eriogonum luteolum var. caninum Tiburon buckwheat	PDPGN083S1	None	None	G5T2	S2	1B.2
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S2S3	SSC
Euphydryas editha bayensis Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T2	S2	SSC
Gilia capitata ssp. chamissonis blue coast gilia	PDPLM040B3	None	None	G5T2	S2.1	1B.1
Helianthella castanea Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
Helminthoglypta nickliniana bridgesi Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1	
Hemizonia congesta ssp. congesta white seaside tarplant	PDAST4R065	None	None	G5T2T3	S2S3	1B.2
Heteranthera dubia water star-grass	PMPON03010	None	None	G5	S1	2B.2
Hoita strobilina Loma Prieta hoita	PDFAB5Z030	None	None	G2	S2	1B.1
Holocarpha macradenia Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T2	S2?	1B.1
Hydroprogne caspia Caspian tern	ABNNM08020	None	None	G5	S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4?	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G4T1	S1	FP
Layia carnosa beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
Leptosiphon rosaceus rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
Masticophis lateralis euryxanthus Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
Meconella oregana Oregon meconella	PDPAP0G030	None	None	G2G3	S1	1B.1
Melospiza melodia pusillula Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2?	SSC
Melospiza melodia samuelis San Pablo song sparrow	ABPBXA301W	None	None	G5T2?	S2?	SSC
Microcina leei Lee's micro-blind harvestman	ILARA47040	None	None	G1	S1	
Microtus californicus sanpabloensis San Pablo vole	AMAFF11034	None	None	G5T1T2	S1S2	SSC
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G2G3	S2S3	1B.2
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Northern Maritime Chaparral Northern Maritime Chaparral	CTT37C10CA	None	None	G1	S1.2	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S3	
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S2	SSC
Phalacrocorax auritus double-crested cormorant	ABNFD01020	None	None	G5	S3	WL
Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	PDBOR0V061	None	None	G3T2Q	S2.2	1B.2
Plagiobothrys diffusus San Francisco popcornflower	PDBOR0V080	None	Endangered	G1Q	S1	1B.1
Polygonum marinense Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Rallus longirostris obsoletus California clapper rail	ABNME05016	Endangered	Endangered	G5T1	S1	FP
Rana boylii foothill yellow-legged frog	AAABH01050	None	None	G3	S2S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
Rynchops niger black skimmer	ABNNM14010	None	None	G5	S1S3	SSC
Sanicula maritima adobe sanicle	PDAPI1Z0D0	None	Rare	G2	S2.2	1B.1
Scapanus latimanus parvus Alameda Island mole	AMABB02031	None	None	G5T1Q	S1	SSC
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Sorex vagrans halicoetes salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2S3	FP
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2.2	1B.2
Stuckenia filiformis ssp. alpina slender-leaved pondweed	PMPOT03091	None	None	G5T5	S3	2B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Taxidea taxus American badger	AMAJF04010	None	None	G5	S4	SSC
Trachusa gummifera San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	G1	S1	
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2G3	S2S3	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3S4	SSC

Record Count: 83