

**FINAL**

**Mitigated Negative Declaration  
for the  
Bidwell Park Master Plan Project**

*Prepared for:*

**Hayward Area Recreation and Park District**

1099 E Street  
Hayward, California 94541  
*Contact: Marvin Yee*

*Prepared by:*

**DUDEK**

1630 San Pablo Avenue  
Oakland, California 94612  
*Contact: Hannah Young*

**OCTOBER 2020**



# Table of Contents

---

| <b><u>SECTION</u></b>                                     | <b><u>PAGE NO.</u></b> |
|---|------------------------|
| <b>ACRONYMS AND ABBREVIATIONS .....</b>                   | <b>III</b>             |
| <b>1 INTRODUCTION .....</b>                               | <b>1</b>               |
| 1.1 Project Overview .....                                | 1                      |
| 1.2 California Environmental Quality Act Compliance ..... | 1                      |
| 1.3 Public Review Process .....                           | 2                      |
| <b>2 PROJECT DESCRIPTION .....</b>                        | <b>3</b>               |
| 2.1 Project Background .....                              | 3                      |
| 2.1.1 HARD Recreation and Parks Master Plan .....         | 3                      |
| 2.1.2 Planning Process and Community Meetings .....       | 4                      |
| 2.2 Project Location and Surrounding Uses .....           | 4                      |
| 2.3 Existing Conditions .....                             | 6                      |
| 2.4 Project Characteristics .....                         | 6                      |
| 2.5 Construction .....                                    | 9                      |
| 2.6 Required Agency Approvals .....                       | 10                     |
| <b>3 INITIAL STUDY CHECKLIST .....</b>                    | <b>11</b>              |
| 3.1 Aesthetics .....                                      | 14                     |
| 3.2 Agriculture and Forestry Resources .....              | 16                     |
| 3.3 Air Quality .....                                     | 18                     |
| 3.4 Biological Resources .....                            | 25                     |
| 3.5 Cultural Resources .....                              | 30                     |
| 3.6 Energy .....  | 34                     |
| 3.7 Geology and Soils .....                               | 35                     |
| 3.8 Greenhouse Gas Emissions .....                        | 40                     |
| 3.9 Hazards and Hazardous Materials .....                 | 45                     |
| 3.10 Hydrology and Water Quality .....                    | 50                     |
| 3.11 Land Use and Planning .....                          | 53                     |
| 3.12 Mineral Resources .....                              | 55                     |
| 3.13 Noise .....  | 56                     |
| 3.14 Population and Housing .....                         | 60                     |
| 3.15 Public Services .....                                | 61                     |
| 3.16 Recreation .....                                     | 63                     |
| 3.17 Transportation .....                                 | 64                     |
| 3.18 Tribal Cultural Resources .....                      | 70                     |
| 3.19 Utilities and Service Systems .....                  | 71                     |
| 3.20 Wildfire .....                                       | 75                     |
| 3.21 Mandatory Findings of Significance .....             | 77                     |

4 LIST OF PREPARERS ..... 79  
5 MITIGATION MONITORING AND REPORTING PROGRAM..... 81

**APPENDICES**

- A CalEEMod Calculations
- B Biological Resources Report
- C Cultural Resources Report

**FIGURES**

1 Project Location .....5  
2 Bidwell Park Existing Conditions .....7  
3 Bidwell Park Overall Site Plan .....8

**TABLES**

1 Air Quality Thresholds of Significance..... 19  
2 Average Daily Unmitigated Construction Emissions ..... 22  
3 Daily Unmitigated Operational Emissions ..... 23  
4 Estimated Annual Operational Greenhouse Gas Emissions ..... 43  
5 Construction Equipment Noise Emission Levels..... 57  
6 Estimated Project Trip Generation for Bidwell Park..... 67



# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition  |
|----------------------|---|
| AB                   | Assembly Bill   |
| ACFD                 | Alameda County Fire Department                        |
| ACWD                 | Alameda County Water District                         |
| AFY                  | acre-feet per year                                    |
| APN                  | assessor's parcel number                              |
| BAAQMD               | Bay Area Air Quality Management District              |
| BART                 | Bay Area Rapid Transit                                |
| CAPCOA               | California Air Pollution Control Officers Association |
| CARB                 | California Air Resources Board                        |
| CCR                  | California Code of Regulations                        |
| CDFW                 | California Department of Fish and Wildlife            |
| CEQA                 | California Environmental Quality Act                  |
| CH <sub>4</sub>      | methane   |
| CHRIS                | California Historical Resources Information System    |
| CMU                  | concrete masonry units                                |
| CNDDB                | California Natural Diversity Data Base                |
| CNPS                 | California Native Plant Society                       |
| CO                   | carbon monoxide                                       |
| CO <sub>2</sub>      | carbon dioxide  |
| CRHR                 | California Register of Historical Resources           |
| CRPR                 | California Rare Plant Rank                            |
| DMG                  | Division of Mining and Geology                        |
| DTSC                 | California Department of Toxic Substances             |
| EBMUD                | East Bay Municipal Utility District                   |
| EIR                  | Environmental Impact Report                           |
| EO                   | Executive Order                                       |
| EPA                  | U.S. Environmental Protection Agency                  |
| ESA                  | Environmental Site Assessment                         |
| ESL                  | environmental screening level                         |
| FEMA                 | Federal Emergency Management Agency                   |
| FHSZ                 | Fire Hazard Severity Zones                            |
| FIRM                 | Flood Insurance Rate Map                              |
| FMMP                 | Farmland Mapping Monitoring Program                   |
| GHG                  | greenhouse gas  |
| GIS                  | geographic information system                         |
| GSA                  | Groundwater Sustainability Agency                     |
| GSP                  | Groundwater Sustainability Plans                      |
| GWP                  | Global Warming Potential                              |
| HARD                 | Hayward Area Recreation and Park District             |
| HFD                  | Hayward Fire Department                               |
| HMCP                 | Hazardous Materials Contingency Plan                  |
| IPCC                 | Intergovernmental Panel on Climate Change             |
| IS/MND               | Initial Study/Mitigated Negative Declaration          |
| L <sub>MAX</sub>     | maximum sound level                                   |

MITIGATED NEGATIVE DECLARATION FOR THE BIDWELL PARK MASTER PLAN PROJECT

| Acronym/Abbreviation | Definition                                       |
|----------------------|--|
| LOS                  | level of service                                 |
| LRA                  | local responsibility areas                       |
| MLD                  | most likely descendent                           |
| MM                   | mitigation measure                               |
| MT                   | metric ton                                       |
| NAHC                 | Native American Heritage Commission              |
| NHD                  | National Hydrography Dataset                     |
| NHUSD                | New Haven Unified School District                |
| NPDES                | National Pollutant Discharge Elimination System  |
| NRHP                 | National Register for Historic Places            |
| NWI                  | National Wetlands Inventory                      |
| NWIC                 | North West Information Center                    |
| O <sup>3</sup>       | ozone  |
| OEHHA                | Office of Environmental Health Hazard Assessment |
| OPR                  | Office on Planning and Research                  |
| OS                   | Open Space                                       |
| OSHA                 | Occupational Safety and Health Administration    |
| PI                   | Private Institutional                            |
| PM                   | particulate matter                               |
| PM <sub>10</sub>     | particulate matter 10 micrometers or less        |
| PM <sub>2.5</sub>    | particulate matter 2.5 micrometers or less       |
| PQP                  | Public and Quasi-Public                          |
| RCNM                 | Rodway Construction Noise Model                  |
| RCRA                 | Resource Conservation and Recovery Act           |
| ROG                  | reactive organic gases                           |
| RS                   | Residential District                             |
| RWQCB                | Regional Water Quality Control Board             |
| SB                   | Senate Bill                                      |
| SFBAAB               | San Francisco Bay Area Air Basin                 |
| SFPUC                | San Francisco Public Utilities Commissions       |
| SLF                  | Sacred Lands File                                |
| SR                   | State Route                                      |
| SWPPP                | Stormwater Pollution Prevention Plan             |
| TAC                  | toxic air contaminants                           |
| TCR                  | tribal cultural resources                        |
| USFWS                | U.S. Fish and Wildlife Service                   |
| USGS                 | U.S. Geological Survey                           |
| UWMP                 | Urban Water Management Plan                      |

# 1 Introduction

---

## 1.1 Project Overview

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to evaluate the potential environmental effects of the Hayward Area Recreation and Park District's (HARD's) proposed Bidwell Park Master Plan (project or proposed project) in Alameda County. The project would expand the existing park to include the former Bidwell Elementary School campus and improve the existing park facilities, including a new community center, in the City of Hayward.

Section 1, Introduction, provides an overview of the project and the environmental review process. Section 2, Project Description, outlines the distinct characteristics and environmental setting of each park and a description of the proposed project. Section 3, Environmental Checklist, provides a summary of the environmental resources potentially significantly affected by this project and the lead agency's determination with respect to the appropriate type of CEQA document to be prepared for the proposed project. Section 4, List of Preparers, identifies those involved in the preparation of this document.

## 1.2 California Environmental Quality Act Compliance

This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations (CCR) Section 15000 et seq. HARD has the primary responsibility for carrying out and approving the proposed project and thus is the lead agency responsible for implementing the requirements of CEQA. The City of Hayward is considered responsible agencies for the purposes of CEQA as they have discretionary approval over the proposed project.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines Section 15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared in accordance with CEQA Guidelines Section 15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant mitigate the potentially significant effects to a less-than-significant level, a Mitigated Negative Declaration may be prepared instead of an EIR [CEQA Guidelines Section 15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines Section 15071.

## 1.3 Public Review Process

Per State CEQA Guidelines Sections 15072 and 15073, HARD determined that an MND would be required for this proposed project and issued a Notice of Intent (NOI) to adopt a MND on September 4, 2020. HARD published the NOI in the East Bay Times newspaper; mailed the NOI to residents and property owners located within an approximately 300-foot radius of the project site; e-mailed or mailed directly to interested parties, including but not limited to those who expressed interest during the preliminary planning and community design phase; and posted notices at the project site. The IS/MND was available to view or download from HARD's website (<https://hard.icitywork.com/>). Paper copies were also available for viewing at the address below.

Hayward Area Recreation and Park District  
1099 E Street  
Hayward, California 94541

The public review period extended from September 4, 2020 through October 5, 2020, during which time the public and interested parties had an opportunity to provide comments on the proposed project. HARD received one comment letter from a resident of the community; this letter expressed support for the project and did not address issues related to the adequacy of the environmental analyses contained in this IS/MND.

# 2 Project Description

---

## 2.1 Project Background

HARD was established as a Special District in 1944, with the purpose of providing recreation facilities and services for the residents of Hayward and the surrounding unincorporated areas. HARD's area encompasses 104 square miles in Alameda County including the City of Hayward, as well as the neighboring unincorporated areas of Ashland, Castro Valley, Cherryland, Fairview, and San Lorenzo. HARD's park system includes approximately 104 sites covering 1,357 acres, including a mix of urbanized areas and protected regional open space. The system includes local and community parks, school recreation sites, aquatic centers, and golf courses. HARD offers many programs including after-school programs, camps, arts classes, fitness classes, sports, and classes for seniors.<sup>1</sup>

### 2.1.1 HARD Recreation and Parks Master Plan

HARD's update to its 2006 Recreation and Parks Master Plan was completed in October 2019. The Recreation and Parks Master Plan establishes 10-year goals for HARD and provides a comprehensive overview of the parks and recreation system, summarizes the key issues HARD is facing, and identifies the park sites in need of improvement.

The proposed expansion and improvement of Bidwell Park would result in an approximately 10.5-acre site in the City of Hayward. The property includes the former Bidwell Elementary School operated by the Hayward Unified School District (HUSD) through the 2017–2018 school year. The Bidwell Elementary School includes the school buildings, parking lot, hardcourts, and community garden. Under an agreement between the HUSD and HARD, HARD operated and maintained the southern portion of the project site as a public park (since 1963). The existing Bidwell Park includes baseball fields and a children's play area. In December 2019, HARD purchased the Building Elementary School facilities in the northern half of the site while the HUSD retained ownership over the southern portion of the site and continues to lease it back to HARD for recreational use.

The proposed project would extend Bidwell Park to include the school buildings and campus, and would extend to Fairway Street. The Recreation and Parks Master Plan designates the project site as a Local Park, a combination of playground and park area designed primarily for non-supervised, non-organized recreation activities.

In November 2016, voters residing within HARD's service area passed Measure F1, a \$250 million bond measure authorizing funding for needed repairs, upgrades, and new construction projects for parks and facilities. The project site was identified as being in poor condition and needing park improvements or renovations, with funding from Measure F1 and HARD's Three-Year Capital Improvements Projects (CIP) program (2017–2020), and from the Five-Year CIP program (2020-2025).

HARD created the Bidwell Park Master Plan, which is the subject of this CEQA document, to implement a vision and specific improvements for this park.

---

<sup>1</sup> Hayward Area Recreation and Park District. 2019. *Recreation and Parks Master Plan*. October 2019.

## 2.1.2 Planning Process and Community Meetings

The Three-Year CIP program included funding for the proposed project and the redevelopment of an existing park named El Rancho Verde Park. HARD planned to develop park master plans for both sites as they serve the same Fairway Park neighborhood in south Hayward. In 2019, HARD retained Carducci Associates to lead the development of the Bidwell Park Master Plan and El Rancho Verde Park Master Plan. Four community meetings were held by HARD and their design team between June 2019 and October 2019 to solicit input from residents on the desired features and amenities for both the proposed project and El Rancho Verde Park.

At the first community meeting on June 20, 2019, the team presented an overview of the current conditions and needs of the park sites. The second community meeting on July 18, 2019 was focused on El Rancho Verde Park. Based on the input received at these meetings, a community vision for both parks was developed. At the third community meeting on August 22, 2019, the team presented the designs created for El Rancho Verde Park and Bidwell Park. The community supported the proposed design for El Rancho Verde Park that was presented at this meeting and continued to brainstorm potential plans for the proposed Bidwell Park. The team presented the concept designs for the proposed Bidwell Park at the fourth community meeting on October 24, 2019, and the community supported the preferred plan for the proposed Bidwell Park.

The Bidwell Park Master Plan and the El Rancho Verde Park Master Plan are separate projects with their own independent utility and will undergo separate environmental review. As described above, the Bidwell Park Master Plan is the subject of this MND. The El Rancho Verde Park Master Plan will undergo its own environmental review at a later time.

## 2.2 Project Location and Surrounding Uses

The project site includes the former Bidwell Elementary School campus and existing Bidwell Park site at 175 Fairway Street (assessor's parcel number [APN] 78G-2704-002-01), in the southeastern portion of the City of Hayward in Alameda County, as shown in Figure 1, Project Location. The project site is approximately 10.5 acres.

The project site is bounded by Fairway Street on the northwest, residences along Meadowbrook Avenue on the northeast, Rousseau Street on the southeast, and residences along Carroll Avenue on the southwest. The surrounding area is a predominately single-family residential neighborhood.

The project site is approximately 3 miles from Interstate 880, via Industrial Parkway to Mission Boulevard or Whipple Road. The San Francisco Bay Area Rapid Transit District (BART) train lines are approximately 320 feet to the west and BART's Hayward Maintenance Complex (yard and shop) is just beyond, farther to the west.







## 2.3 Existing Conditions

As shown on Figure 2, Bidwell Park Existing Conditions, the project site includes the former Bidwell Elementary School campus and existing Bidwell Park site. The site includes the existing two school buildings, the parking lot, and recreational areas including the baseball fields. The school was constructed in the mid-1950s and the campus has a total of approximately 21,240 square feet of building space as follows: main building with auditorium/kitchen building (3,320 square feet) and north classrooms (10,411 square feet) and rear building with south classrooms (7,506 square feet). The 9,900-square-foot parking lot is accessed from Fairway Street and contains 15 vehicle parking spaces. Pedestrian access through the site is provided at two gates along Fairway Street and two gates on Rousseau Street.

Recreational facilities include hardcourts and children's play areas on the east and west sides of the buildings and two baseball fields in the southern portion of the site. The site is generally fenced off; an approximately 18-foot-high chain link fence extends along Rousseau Street and a 6-foot-high fence along Fairway Street. There are approximately 14 lights throughout the project site; eight lights are mounted at building entries and exits, six illuminate the walkway between the two school buildings, and one is in the parking lot.

An abandoned community garden lies immediately to the east of the buildings and mature and ornamental trees are located throughout the site. London plane trees are located along the northeast and southwest boundaries to screen adjacent residential properties. Coast redwoods and cedars are along the western corner near the children's play area and parking lot.

The Bidwell Elementary School closed at the end of the 2017–2018 school year and students from that site were relocated to the nearby Treeview Elementary School.<sup>2</sup> Since the school closed, the site has continued to informally serve as a community recreation space. The baseball fields and recreational facilities are open for use during daylight hours.

About 25% of the site, primarily along Fairway Street, is occupied by the buildings, parking lot, and blacktop/playground areas, resulting in approximately 108,250 square feet of impervious surface. The remainder of the site is field/open area.

The City of Hayward's General Plan land use designation for the site is Public and Quasi-Public (PQP). The PQP designation allows for community centers, recreational uses, schools, etc. and any redevelopment to these properties should include landscaping and building improvements. The site is zoned Single-Family Residential District (RS).

## 2.4 Project Characteristics

As shown in Figure 3, Bidwell Park Overall Site Plan, the proposed project would expand the existing park on the former school site and improve the existing park facilities to create a 10.5-acre park. The existing school buildings would be repurposed and reconfigured to create a community center with event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks. The site would be reconfigured to provide new access points from the neighborhood and paths through the site to integrate the park into the community.

---

<sup>2</sup> Hayward Unified School District. 2019. "News- HUSD invites applicants for a 7-11 Bidwell Property Advisory Committee." January 31, 2019. Accessed February 13, 2020. [www.husd.us/pf4/cms2/news\\_themed\\_display?id=1548930680405](http://www.husd.us/pf4/cms2/news_themed_display?id=1548930680405).





FIGURE 2

Bidwell Park Existing Conditions

Bidwell Park Master Plan Project

SOURCE: ESRI 2020





Source: Carducci Associates, 2019

### **Project Improvements and Landscaping**

The main building with the kitchen/auditorium and north classrooms would be renovated into a community center with classrooms, a kitchen, and community event space. The rear building (south classrooms) would be demolished to create additional garden and lawn space. The existing perimeter fencing along Fairway and Rousseau streets would be removed.

The existing garden furnishings, playgrounds, and blacktops would be demolished to create redesigned play and picnic spaces. The field would be landscaped along the perimeter to create screening from neighbors, planted with trees along the southwest portion to create wooden areas, and two fenced dog parks would be installed on the eastern corner of the park. The children's play area to the northwest would be expanded with new play structures and adjacent picnic areas. A kitchen garden would be installed. The baseball fields would be converted into a multi-use recreational lawn. A family picnic area would be to the west of the lawn, with a paved 0.5-mile pedestrian trail and fitness loop winding through it. A 300-square-foot restroom with maintenance storage would be built near the picnic area. Approximately 75,200 square feet of impervious surface would be added on site, for a total area of 183,500 square feet of impervious surface.

To the east of the community center would be an event plaza and gazebo with a spectator lawn. The existing northern hardcourts would be converted to a 15,000-square-foot multi-use sports court and fitness area with four pickleball courts, one basketball court, fitness equipment stations, and picnic tables.

Other improvements include upgrades to the storm drains and installation of night security lighting along the pedestrian circulation paths and parking areas.

### **Parking Facilities and Circulation**

A new drop-off zone on Fairway Street would be created in front of a new entry plaza and entrance to the community center. The new 25-foot drop-off zone would be located near the existing drop-off zone in front of the school, with a new curb line to allow vehicles to pull out of the travel lane, and the adjacent sidewalk would be re-aligned. On-street parking on Fairway Street would be reconfigured from parallel to diagonal parking to create three additional (net new) spaces at the northwest corner of the site. Similarly, five net new parking spaces would be created along Rousseau Street. The on-street diagonal parking would require the realignment of the curb and sidewalk along the street to accommodate the parking reconfiguration. The existing school parking lot would be reconfigured to include six net new parking spaces for a total of 21 spaces. With both the on-site and on-street parking changes, the project would result in a net increase of 14 new parking spaces.

### **Operational Characteristics**

The park hours of operation would be from sunrise to sunset and the community center facilities would be available for rental from 8 a.m. to 10 p.m. The events would comply with noise restrictions outlined in City of Hayward Municipal Code Chapter 4-1.03.1.

## 2.5 Construction

Construction is anticipated to start as early as 2021 and be completed by the end of 2025; however, the total duration of construction activities is anticipated to be approximately 15 months. Construction activities would include site preparation and mobilization, demolition, including demolition of the rear building (south classrooms), and earthwork, construction of improvements, renovation of the main building, and landscaping. Construction staging would occur on site although the contractor may apply for a City permit to encroach on the street during construction.

The project would demolish the existing rear building, the asphalt blacktop play areas, and remove the existing fencing along Fairway and Rousseau streets. Demolition and grading would include grubbing, removing, and disposing of the existing natural turf in areas that will be landscaped; decommissioning the irrigation; and removing play equipment and site furnishings. Approximately 246,245 square feet of the project site would be cleared and graded. Some trees may be required to be removed.<sup>3</sup> Grading and excavation would occur up to 12 inches below grade. Approximately 3,000 cubic yards of soils would be cut and off-hauled. No soil is anticipated to be imported.

Construction would include renovation of the main building. The kitchen would be remodeled with new appliances, the auditorium would receive new windows, new floors and surfaces, new lighting and possibly sliding doors would be installed on the northeast façade of the building.

The field and event space would be re-contoured and the fill for the up to 3-foot event berms would be from on-site unless it is determined after soil testing that the soil cannot be reused. Construction would include paving and restriping for the on-site parking lot, asphalt paving for the multi-use courts, concrete paving for pedestrian paths and fitness area, installation of play equipment, installation of fences for the kitchen garden and dog parks. Utilities would be upgraded throughout the site including stormwater drainage, potable water lines for drinking fountains, and sanitary sewer connections. Electrical power would be extended on the site for night security lighting. Mature, healthy trees would be retained on site as feasible and landscaping, including woodland and redwood forest areas, would be installed.

Subject to the approval by the City of Hayward, off-site improvements would include the drop-off zone on Fairway Street, reconfiguration of parking areas along Fairway and Rousseau streets requiring realignment of the curb and sidewalk, and installation of landscaping including low-water-use ornamentals and grasses.

Per City of Hayward Municipal Code Chapter 4-1.03.4, construction hours would be Mondays through Saturday (7 a.m. to 7 p.m.) and Sundays/Holidays (10 a.m. to 6 p.m.).

## 2.6 Required Agency Approvals

### HARD

- Approval of the Bidwell Park Master Plan and adoption of the MND by the Board of Directors

### City of Hayward

- Administrative Use Permit for the proposed park uses within a residential zone
- Demolition Permit (if demolition is performed without a Building Permit) or Building Permit (which would include permission for demolition)
- Tree Removal Permit for removal of any trees subject to the permit based on tree size
- Grading Permit, which includes encroachment permits, for stormwater management and work within the public right-of-way
- Transportation engineering review and approval for the on-street parking configuration

---

<sup>3</sup> Consistent with HARD's standard nesting bird specification for contractors (Supplementary Conditions, 3.b. Nesting Birds), any tree removal would be completed in a manner compliant with the Migratory Bird Treaty Act (16 U.S.C. § 703-712) and the California Fish and Game Code (§§ 3503-3503.5), such that the contractor would conduct a preconstruction nesting survey no more than 2 weeks prior to removal to ensure that no nesting birds are nesting within the project site. If any protected bird species are found during the survey(s), the contractor must immediately notify HARD for further direction prior to performing any work in an area that would disturb nesting birds. A qualified biologist shall assist with determining regulatory compliance and may establish an avoidance buffer around occupied bird nests within which no construction or ground-disturbing activities would be conducted until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting.

# 3 Initial Study Checklist

---

**1. Project title:**

Bidwell Park Master Plan

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

Hayward Area Recreation and Park District  
1099 E Street, Hayward, California 94541

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

Marvin Yee, 510.881.6713

**4. Project location:**

175 Fairway Street, Hayward, California 94544

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

Hayward Area Recreation and Park District  
1099 E Street, Hayward, California 94541

**6. General Plan designation:**

City of Hayward: Public and Quasi-Public (PQP)

**7. Zoning:**

City of Hayward: Single-Family Residential (RS)

**Environmental Factors Potentially Affected**

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

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

**Determination (To be completed by the Lead Agency)**

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

*Marvin Yee*

---

Signature

October 16, 2020

---

Date

### 3.1 Aesthetics

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

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

A scenic vista can generally be defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Although the General Plan for the City of Hayward notes the importance of protecting “land areas with views of natural or man-made significance,” it does not outline specific locations of scenic vistas within the City.<sup>4</sup> To the west, the hillsides of Garin and Dry Creek Regional Parks reach elevations of 1,400 feet above mean sea level and are visible from the project site.

The project site is relatively flat and not located in the immediate vicinity of these vistas. Furthermore, the project components at the project site would include single-story building(s), landscaping and trees, amenities such as picnic tables and sports facilities, and improved pedestrian circulation. The rear building (south classrooms) would be demolished to create additional garden and lawn space.

For these reasons, the proposed project would not impact the scenic vistas in the vicinity of the hillsides and ridgelines of Garin and Dry Creek Pioneer Regional Parks. Therefore, the proposed project would have no impact to scenic vistas.

<sup>4</sup> City of Hayward. 2014. *Hayward 2040 General Plan*. [https://www.hayward-ca.gov/sites/default/files/documents/General\\_Plan\\_FINAL.pdf](https://www.hayward-ca.gov/sites/default/files/documents/General_Plan_FINAL.pdf).



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

Although there are numerous California Department of Transportation (Caltrans) officially designated and eligible State Scenic Highways within the County of Alameda, none fall within the vicinity of the project site. The closest designated State Scenic Highway is State Route 84 (SR-84), which is approximately 8 miles from Bidwell Park.<sup>5</sup> Based on the distance and intervening topography and development between this segment of SR-84 and the project site, the project would occur outside of the viewshed of a State Scenic Highway. As such, the project would not substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Therefore, there would be no impact to scenic resources within a State Scenic Highway.

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

CEQA Guidelines Section 15387 defines an “urbanized area” as “a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile.” As of 2018, the City of Hayward has a population estimate of approximately 159,147 people.<sup>6</sup> Therefore, the project is located in an urbanized area and the second question in the threshold applies.

The project site is located within a residential neighborhood within the City of Hayward. The surrounding vicinity, including the project site, is zoned as Single-Family Residential (RS), which conditionally allows for public agency and recreational facilities.<sup>7</sup> Existing conditions on site include two buildings associated with the former Bidwell School, 10,000 square foot parking lot, and attached recreational facilities. The proposed project would repurpose and reconfigure the school buildings to create a community center with event and lawn space, play and picnic areas, multi-use sports courts, event plaza and gazebo, pedestrian paths, and dog parks (Figure 3).

The City of Hayward Zoning Code Section 10.1.200 governs scenic quality through design and performance standards, including the permitted uses, building setbacks, height limits, maximum lot coverage, and Site Development Review within this zoning district. The project would comply with the standards laid out in Section 10.1-245 Minimum Design and Performance Standards. The project does not lie within a scenic overlay zone. As such, development of the proposed project would be consistent with the City of Hayward’s zoning requirements and regulations governing scenic quality. Impacts would be less than significant.

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

The project site is located in a residential neighborhood with existing sources of light and glare from street lights and homes. There are approximately 14 lights throughout the project site; eight lights are mounted

---

<sup>5</sup> California Department of Transportation. 2019. State Scenic Highways. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.  
<sup>6</sup> U.S. Census Bureau. City and Town Population Totals: 2010–2018. <https://www.census.gov/data/tables/time-series/demo/popest/2010s-total-cities-and-towns.html>.  
<sup>7</sup> City of Hayward. Municipal Code Section 10-1.200: Single Family Residential District.

at building entries and exits, six illuminate the walkway between the two school buildings, and one is in the parking lot. The proposed project would introduce a limited number of additional sources of light and glare to the project site, creating an increase over existing levels. New sources of light would include exterior lighting of the proposed community center, multi-use sports courts, pedestrian pathways, and reconfigured parking lot. In addition, night security lights would be added.

Exterior lighting would be designed, erected, and maintained so that light or glare is not directly cast upon adjacent properties or public rights-of-way. However, light and glare would be obscured from view at adjacent residences by the dense landscaping lining the southwestern and northeastern borders of the site. The proposed project would not be expected to result in new sources of light and glare that are substantial by comparison to current conditions, or that would be incompatible with the surrounding area. All lighting proposed by the project would be consistent with the policies, guidelines, and controls in the California Building Standards Code, including Section A4.106.10 Light Pollution Reduction, which ensures that newly constructed projects reduce the amount of light and glare from both interior and exterior light sources leaving the site. Therefore, the proposed project would not create a substantial new source of light and glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

### 3.2 Agriculture and Forestry Resources

|  | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| <b>II. AGRICULTURE AND FORESTRY RESOURCES</b> – 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?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

|  | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**a,b) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

The 10.5-acre project site includes the former Bidwell Elementary School campus and existing Bidwell Park in the City of Hayward. The City of Hayward’s General Plan land use designation for the site is Public and Quasi-Public (PQP) and it is zoned Single-Family Residential (RS). The project site is located in a residential neighborhood. The project site is designated as Urban and Built-Up Land by the Farmland Mapping Monitoring Program (FMMP) of the California Resources Agency and is not Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.<sup>8</sup> Thus the project site is not important farmland or under a Williamson Act contract.<sup>9</sup> Therefore, the project would not convert farmland to a non-agricultural use, conflict with existing zoning for agricultural use, or conflict with a Williamson Act contract. There would be no impact.

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

As described above, the project site is zoned Single-Family Residential (RS) and is within an urban, developed area surrounded by residential uses. No forestland, timberland, or Timberland Production zones exist on or adjacent to the project site.<sup>10</sup> Therefore, the project would not conflict with zoning of forestland

<sup>8</sup> California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. “Alameda County Important Farmland 2016” [map]. Accessed on February 24, 2020. <https://maps.conservation.ca.gov/DLRP/CIFF/>.

<sup>9</sup> City of Hayward. 2020. “Property Information, demographics, business statistics” [online GIS map]. United States: GIS Planning. Accessed on February 24, 2020. Available online at: <http://webmap.hayward-ca.gov/>.

<sup>10</sup> City of Hayward. 2016. “City of Hayward Zoning” [map]. *Hayward 2040 General Plan*. Approved July 1, 2014. Accessed February 24, 2020.

or timberland and would not result in the loss of forestland or conversion of forestland to non-forest use. No impact would occur.

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

No Farmland, agricultural resources, or forest land resources exist within the project site. Therefore, the proposed project would not involve changes in the existing environment that would result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

### 3.3 Air Quality

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

The project site is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) and would emit criteria air pollutants into the San Francisco Bay Area Air Basin (SFBAAB). Therefore, the project site is analyzed in this section. The BAAQMD adopted updated CEQA Air Quality Guidelines, including new thresholds of significance, in June 2010,<sup>11</sup> and revised them in May 2011. The CEQA Air Quality Guidelines advise lead agencies on how to evaluate potential air quality impacts, including establishing quantitative and qualitative thresholds of significance. The BAAQMD resolutions adopting and revising the significance thresholds in 2011 were set aside by a judicial writ of mandate on March 5, 2012. In May 2012, the BAAQMD updated its CEQA Air Quality Guidelines to continue to provide direction on recommended analysis methodologies, but without recommended quantitative

<sup>11</sup> Bay Area Air Quality Management District. 2010. *California Environmental Quality Act Air Quality Guidelines*. May 2010. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/draft\\_baaqmd\\_ceqa\\_guidelines\\_may\\_2010\\_final.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/draft_baaqmd_ceqa_guidelines_may_2010_final.pdf?la=en).

significance thresholds.<sup>12</sup> On August 13, 2013, the First District Court of Appeal ordered the trial court to reverse the judgment and upheld the BAAQMD’s CEQA thresholds. The BAAQMD CEQA Air Quality Guidelines were recently re-released in May 2017 and include the same thresholds as in the 2010 and 2011 Guidelines for criteria air pollutants, toxic air contaminants (TACs), and greenhouse gases (GHGs).<sup>13</sup> The Guidelines also address the Supreme Court’s opinion (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369). These BAAQMD significance thresholds are summarized in Table 1.

**Table 1. Air Quality Thresholds of Significance**

| Pollutant  | Construction Thresholds  | Operational Thresholds  |                                      |
|--|--|---|--------------------------------------|
|  | Average Daily Emissions (lbs/day)  | Average Daily Emissions (lbs/day)   | Maximum Annual Emissions (tons/year) |
| ROG  | 54   | 54  | 10                                   |
| NO <sub>x</sub>  | 54   | 54  | 10                                   |
| PM <sub>10</sub>                                       | 82 (exhaust)   | 82  | 15                                   |
| PM <sub>2.5</sub>                                      | 54 (exhaust)   | 54  | 10                                   |
| PM <sub>10</sub> /PM <sub>2.5</sub> (fugitive dust)    | Best Management Practices  | None  |                                      |
| Local CO   | None   | 9.0 ppm (8-hour average, 20.0 ppm (1-hour average)  |                                      |
| Risks and Hazards (Individual Project)                 | Compliance with Qualified Community Risk Reduction Plan or<br>Increased cancer risk of >10.0 in 1 million<br>Increased noncancer risk of >1.0 Hazard Index (chronic or acute)<br>Ambient PM <sub>2.5</sub> increase >0.3 µg/m <sup>3</sup> annual average<br>Zone of Influence: 1,000-foot radius from property line of source or receptor                                     |   |                                      |
| Risks and Hazards (Cumulative)                         | Compliance with Qualified Community Risk Reduction Plan or<br>Cancer risk of >100 in 1 million (from all local sources)<br>Noncancer risk of >10.0 Hazard Index (chronic, from all local sources)<br>Ambient PM <sub>2.5</sub> >0.8 µg/m <sup>3</sup> annual average (from all local sources)<br>Zone of Influence: 1,000-foot radius from property line of source or receptor |   |                                      |
| Accidental Release of Acutely Hazardous Air Pollutants | None   | Storage or use of acutely hazardous material located near receptors or new receptors located near stored or used acutely hazardous materials considered significant |                                      |
| Odors  | None   | Five confirmed complaints to BAAQMD per year averaged over 3 years  |                                      |

**Source:** Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2017. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en).

**Notes:** lbs/day = pounds per day; tons/year = tons per year; ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter; ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; PM<sub>2.5</sub> = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; CO = carbon monoxide.

In general, the BAAQMD significance thresholds for reactive organic gases (ROG), oxides of nitrogen (NO<sub>x</sub>), particulate matter with an aerodynamic resistance diameter of 10 micrometers or less (PM<sub>10</sub>), particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less (PM<sub>2.5</sub>), and carbon monoxide (CO) address the first

<sup>12</sup> Bay Area Air Quality Management District. 2012. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2012. [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines\\_Final\\_May%202012.ashx?la=en](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en).

<sup>13</sup> Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2017. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en).

three air quality significance criteria listed above. The BAAQMD maintains that these thresholds are intended to maintain ambient air quality concentrations of these criteria air pollutants below state and federal standards and to prevent a cumulatively considerable contribution to regional nonattainment with ambient air quality standards. The TAC thresholds (cancer and noncancer risks) and local CO thresholds address the third significance criterion, and the BAAQMD odors threshold addresses the fourth significance criterion.

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

An area is designated as “in attainment” when it is in compliance with the federal and/or state standards. These standards are set by the U.S. Environmental Protection Agency (EPA) or California Air Resources Board (CARB) for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or public welfare with a margin of safety. The project site is located within the San Francisco Bay Area Air Basin (SFBAAB), which is designated non-attainment for the federal 8-hour ozone (O<sub>3</sub>) and 24-hour PM<sub>2.5</sub> standards. The area is in attainment or unclassified for all other federal standards. The area is designated non-attainment for state standards for 1-hour and 8-hour O<sub>3</sub>, 24-hour PM<sub>10</sub>, annual PM<sub>10</sub>, and annual PM<sub>2.5</sub>.

On April 19, 2017, the BAAQMD adopted the *Spare the Air: Cool the Climate Final 2017 Clean Air Plan*.<sup>14</sup> The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Clean Air Plan includes all feasible measures to reduce emissions of O<sub>3</sub> precursors (ROG and NO<sub>x</sub>) and reduce O<sub>3</sub> transport to neighboring air basins. In addition, the 2017 Clean Air Plan builds upon the BAAQMD efforts to reduce fine particulate matter (PM) and TACs. To protect the climate, the plan defines a vision for transitioning the region to the post-carbon economy that is needed to achieve the ambitious GHG reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets.

The BAAQMD Guidelines identify a three-step methodology for determining a project’s consistency with the current Clean Air Plan. If the responses to these three questions can be concluded in the affirmative and those conclusions are supported by substantial evidence, then the 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?” 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 2017 Clean Air Plan. As indicated in the following discussion with regard to air quality impact (see question 3.3[b] below), the project would result in less-than-significant construction and operational emissions. Therefore, the project would be considered to support the primary goals of the 2017 Clean Air Plan and would be consistent with the current Clean Air Plan.

The second question to be assessed in this consistency methodology is “does the project include applicable control measures from the Clean Air Plan?” The 2017 Clean Air Plan contains 85 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 Clean Air Plan. The project includes plans for renovations and

<sup>14</sup> Bay Area Air Quality Management District. 2017. *Spare the Air: Cool the Climate – Final 2017 Clean Air Plan*. April 19, 2017. [http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en).

redevelopment of a park, including the conversion to a community center and open space. The control strategies of the 2017 Clean Air Plan include measures in the categories of stationary sources, the transportation sector, the buildings sector, the energy sector, the agriculture sector, natural and working lands, the waste sector, the water sector, and super-GHG pollutant measures. Depending on the control measure, the tools for implementation include leveraging the BAAQMD rules and permitting authority, regional coordination and funding, working with local governments to facilitate best policies in building codes, outreach and education, and advocacy strategies. Since the project would comply with all applicable BAAQMD rules and would incorporate the required energy efficiency and green building measures in compliance with state standards and/or local building codes, the project would include the applicable control measures from the 2017 Clean Air Plan.

The third question to be assessed in this consistency methodology is “does the project disrupt or hinder implementation of any control measures from the Clean Air Plan?” 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. The project would not create any barriers or impediments to planned or future improvements to transit or bicycle facilities in the area, nor would it include excessive parking. Therefore, the project would not hinder implementation of 2017 Clean Air Plan control measures.

In summary, the project would be consistent with all three of the compliance questions with regard to the Clean Air Plan and the project would not conflict with or obstruct implementation of the Clean Air Plan. Therefore, the project would have a less-than-significant impact.

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

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the project. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and GHG emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the project land use type and size and construction schedule were based on information provided by the project applicant, or default model assumptions if project specifics were unavailable.<sup>15</sup>

**Construction.** Construction of the project would involve construction and operation of a park totaling approximately 10.5 acres with uses including a community center, event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks. Construction is anticipated to begin as early as 2021 and be completed by the end of 2025. Construction activity would be intermittent during that period, and the total duration of construction is anticipated to be approximately 15 months.

---

<sup>15</sup> The CalEEMod analysis and modeling includes both the proposed Bidwell Park Master Plan project and the El Rancho Verde Park Master Plan project. At the time the analysis was prepared, the proposed El Rancho Verde Park Master Plan was anticipated to be included in this MND. As the El Rancho Verde Park will now undergo separate environmental review, the estimated emissions calculations, which included both projects, overstate the actual emission levels associated with the Bidwell Park Master Plan. Therefore, the analysis and modeling provide a conservative assessment of the proposed project’s construction and operations-related air pollutant emissions.

At the project site, approximately 246,245 square feet of the project site would be cleared and graded. Grading and excavation would occur up to 12 inches below grade. Approximately 3,000 cubic yards of soils would be cut and off-hauled. No soil is anticipated to be imported. Sources of construction emissions at the project site would include: off-road construction equipment exhaust, on-road vehicles exhaust and entrained road dust (i.e., material delivery trucks and worker vehicles), fugitive dust associated with site preparation and grading activities, and paving and architectural coating activities. Detailed assumptions associated with project construction are included in Appendix A, CalEEMod Calculations.

Average daily emissions were computed by dividing the total construction emissions by the number of active construction days, which were then compared to the BAAQMD construction thresholds of significance. Table 2 shows average daily construction emissions of O<sub>3</sub> precursors (ROG and NO<sub>x</sub>), PM<sub>10</sub> exhaust, and PM<sub>2.5</sub> exhaust during project construction.<sup>16</sup>

**Table 2. Average Daily Unmitigated Construction Emissions**

| Year                                  | ROG                   | NO <sub>x</sub> | PM <sub>10</sub> Exhaust | PM <sub>2.5</sub> Exhaust |
|---------------------------------------|-----------------------|-----------------|--------------------------|---------------------------|
|                                       | <i>pounds per day</i> |                 |                          |                           |
| 2021-2022                             | 6.0                   | 25.3            | 7.3                      | 2.0                       |
| <i>BAAQMD Construction Thresholds</i> | 54                    | 54              | 82                       | 54                        |
| <b>Exceed Threshold?</b>              | <b>No</b>             | <b>No</b>       | <b>No</b>                | <b>No</b>                 |

**Source:** Appendix A

**Notes:** The values shown are average daily emissions based on total overall tons of construction emissions, converted to pounds, and divided by 270 active work days.

ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 2, construction of the project would not exceed BAAQMD significance thresholds. Therefore, criteria air pollutant emissions during construction would be less than significant.

Although the BAAQMD does not have a quantitative significance threshold for fugitive dust, the BAAQMD’s CEQA Guidelines recommend that projects determine the significance for fugitive dust through application of best management practices (BMPs). The project contractor would be required as conditions of approval to implement the following BMPs that are required of all projects:

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 miles per hour (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.

<sup>16</sup> Fuel combustion during construction and operations would also result in the generation of sulfur dioxide (SO<sub>2</sub>) and CO. These values are included in Appendix A. However, since the SFBAAB is in attainment of these pollutants, the BAAQMD has not established a quantitative mass-significance threshold for comparison and are not included in the project-generated emissions tables in this document. Notably, the BAAQMD does have screening criteria for operational localized CO, which are discussed in more detail below.



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 BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.

Implementation of the required fugitive dust control measures would ensure air quality and fugitive dust-related impacts associated with construction would remain less than significant.

**Operations.** Operation of the project would generate criteria pollutant (including ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) emissions from mobile sources (vehicular traffic), area sources (consumer products, architectural coatings, landscaping equipment), and energy sources (natural gas appliances, space and water heating). CalEEMod was used to estimate daily emissions from project-related operational sources. The CalEEMod default trip rates were utilized. Table 3 summarizes the daily mobile, energy, and area emissions of criteria pollutants that would be generated by project development and compares the emissions to BAAQMD operational thresholds.

**Table 3. Daily Unmitigated Operational Emissions**

| Source                               | ROG                   | NO <sub>x</sub>   | PM <sub>10</sub>  | PM <sub>2.5</sub> |
|--------------------------------------|-----------------------|-------------------|-------------------|-------------------|
|                                      | <i>pounds per day</i> |                   |                   |                   |
| Area                                 | 0.66                  | <0.1 <sup>a</sup> | <0.1 <sup>a</sup> | <0.1 <sup>a</sup> |
| Energy                               | <0.1 <sup>a</sup>     | 0.08              | 0.01              | 0.01              |
| Mobile                               | 1.17                  | 5.73              | 3.87              | 1.06              |
| Total                                | 1.84                  | 5.81              | 3.88              | 1.07              |
| <i>BAAQMD Operational Thresholds</i> | 54                    | 54                | 82                | 54                |
| <b>Exceed Threshold?</b>             | <b>No</b>             | <b>No</b>         | <b>No</b>         | <b>No</b>         |

Source: Appendix A

Note: The values shown are the maximum summer or winter daily emissions results from CalEEMod.

ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

<sup>a</sup> <0.1 = value less than reported 0.1 pounds per day.

As indicated in Table 3, project-related operational emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would not exceed the BAAQMD significance thresholds during operations, and thus, the project would have a less-than-significant impact in relation to regional operational emissions.

In regards to localized CO concentrations, according to the BAAQMD thresholds, a project would result in a less-than-significant impact if the following screening criteria are met:

1. The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.

2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The project would generate minimal traffic trips as described in Section 3.17, Transportation, and would comply with the BAAQMD screening criteria. Accordingly, project-related traffic would not exceed CO standards and therefore, no further analysis was conducted for CO impacts. This CO emissions impact would be less than significant for the project as well as the cumulative scenario.

Past, present, and future development projects may contribute to the region's adverse air quality impacts on a cumulative basis. Per BAAQMD's CEQA Guidelines, by its nature air pollution is largely a cumulative impact; no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be considered cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, if the project's emissions are below the BAAQMD thresholds or screening criteria, then the project's cumulative impact would be less than significant.

As described previously, criteria pollutant emissions generated by short-term construction and long-term operations of the project would not exceed the BAAQMD significance thresholds. Thus, the project would have a less-than-significant cumulative impact in relation to regional emissions. In addition, project-related traffic would not exceed the BAAQMD CO screening criteria and would result in a less-than-significant cumulative impact in relation to localized CO.

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

The BAAQMD has adopted project and cumulative thresholds for three risk-related air quality indicators for sensitive receptors: cancer risks, noncancer health effects, and increases in ambient air concentrations of PM<sub>2.5</sub>. These impacts are addressed on a localized rather than regional basis and are specific to the sensitive receptors identified for the project. Sensitive receptors are groups of individuals, including children, the elderly, the acutely ill, and the chronically ill, that may be more susceptible to health risks due to chemical exposure, and sensitive-receptor population groups are likely to be located at hospitals, medical clinics, schools, playgrounds, childcare centers, residences, and retirement homes.<sup>17</sup> The closest existing sensitive receptors to the Bidwell Park site are existing residences located approximately 20 feet southwest.

"Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology.<sup>18</sup> In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be diesel particulate matter, emitted from heavy-

---

<sup>17</sup> Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2017. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en).

<sup>18</sup> Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments*. February 2015.

duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB air toxic control measures to reduce diesel particulate matter emissions. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project.<sup>19</sup> Thus, the duration of proposed construction activities (approximately 15-months) would only constitute a small percentage of the total 30-year exposure period.

Regarding long-term operations, the project would include the operation of a community park. The project would not include any stationary sources that would emit air pollutants or TACs.

In summary, the project would not expose sensitive receptors to substantial, long-term pollutant concentrations or health risk during construction or operations, and this impact would be less than significant for the project as well as the cumulative condition.

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

BAAQMD has identified typical sources of odor in the CEQA Air Quality Guidelines, a few examples of which include manufacturing plants, rendering plants, coffee roasters, wastewater treatment plants, sanitary landfills, and solid waste transfer stations. While sources that generate objectionable odors must comply with air quality regulations, the public’s sensitivity to locally produced odors often exceeds regulatory thresholds. As previously discussed, the project site would be developed as a community park. No significant odor impacts that would affect a substantial number of people are anticipated from the project. In addition, any potential odor sources, such as the kitchen within the proposed Bidwell Park or picnic or barbeque areas, would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, potential other emissions including odor impacts would be less than significant.

### 3.4 Biological Resources

|  | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| <b>IV. BIOLOGICAL RESOURCES – Would the project:</b>   |                                |   |                                     |                          |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

<sup>19</sup> Ibid.

|   | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?                        | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?                  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

The following analysis summarizes the biological resources assessment conducted for the proposed project (see Appendix B, Biological Resources Report). The biological study area investigated included the Bidwell Park project site and a 100-foot buffer around the site.

**Literature Review**

A review of available literature and data was undertaken potential special-status biological resources that may be found within the biological study area. The review included the California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Data Base (CNDDDB),<sup>20</sup> U.S. Fish and Wildlife Service’s (USFWS) Environmental Conservation Online System,<sup>21</sup> and California Native Plant Society’s (CNPS) Inventory of Rare and Endangered Plants data (CNPS Inventory).<sup>22</sup> A 5-mile buffer around the project site was queried in the USFWS data using geographic information systems (GIS) software, and a “nine-quad” query was conducted of the CNDDDB and CNPS

<sup>20</sup> California Department of Fish and Wildlife. 2019. RareFind 5, Version 5.2.14. Biogeographic Data Branch. Sacramento, California: California Natural Diversity Database. Accessed March 2019. <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>.  
<sup>21</sup> U.S. Fish and Wildlife Service. 2019. Environmental Conservation Online System, Information for Planning and Conservation Report (online edition). Accessed March 2019. <http://ecos.fws.gov/ipac/>.  
<sup>22</sup> California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, California. Accessed March 2019. <http://www.rareplants.cnps.org/>.

Inventory. The nine-quad query included the USGS 7.5-minute Newark quadrangle and the surrounding eight USGS quadrangles (San Leandro, Hayward, Dublin, Niles, Milpitas, Mountain View, Palo Alto, and Redwood Point). These databases provided information regarding special-status plants, wildlife, and habitats recorded for the project site and vicinity. Dudek also reviewed soil survey maps,<sup>23</sup> USGS National Hydrography Dataset (NHD) of aquatic resources, USFWS' National Wetlands Inventory (NWI) maps,<sup>24</sup> City of Hayward's General Plan,<sup>25</sup> and other in-house documentation, GIS layers, and sources for locations of special-status species and water resources.

### Field Reconnaissance

A general biological survey was performed within the biological study area. The purpose of the general survey was to identify vegetation communities and land covers, and identify potential habitat for any threatened, endangered, or otherwise special-status species that may occur within the biological study area.

During the field survey, a general inventory of plant and wildlife species detected by sight, calls, tracks, scat, or other signs was compiled; and the potential for special-status species to occur within the biological study area was determined. Observable special-status resources including perennial plants and conspicuous wildlife (e.g., birds and some reptiles) commonly accepted as regionally sensitive by the USFWS, CDFW, and/or CNPS were recorded.

In addition, a preliminary investigation of the extent and distribution of U.S. Army Corps of Engineers (Corps) jurisdictional "waters of the U.S.," Regional Water Quality Control Board (RWQCB) jurisdictional "waters of the State," and CDFW jurisdictional streambed and associated riparian habitat was conducted.

### Existing Biological Conditions

The project site is occupied by introduced plantings of exotic, and sometimes native, species as landscaping that is actively maintained. The project site is frequently maintained for passive and active recreation. Several planted species of shrubs and trees, as well as ground cover, occur within the biological study area. The low native plant diversity reflects the ornamental setting of the biological study area and its proximity to adjacent disturbed and developed areas.

Some of the species that occur within the proposed project site include California sycamore (*Platanus racemosa*), glossy privet (*Ligustrum lucidum*), redwood (*Sequoia sempervirens*), silver wattle (*Acacia dealbata*), and sweetgum (*Liquidambar styraciflua*). Other ground cover species include Bermudagrass (*Cynodon dactylon*), California brome (*Bromus carinatus*), dallisgrass (*Paspalum dilatatum*), English ivy (*Hedera helix*), field bindweed (*Convolvulus arvensis*), mallow (*Malva* sp.), and wild oat (*Avena fatua*).

Wildlife species detected within the biological study area was limited to the following urban-adapted species: American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), California towhee (*Melospiza crissalis*), cedar waxwing (*Bombicilla cedrorum*), domestic dog (*Canis lupus familiaris*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), and northern mockingbird (*Mimus polyglottos*). No active bird nesting was observed during the field survey, but the various trees and shrubs within the study area could support nesting birds. The park also provides limited habitat for other common, urban-adapted wildlife species, such as

---

<sup>23</sup> U.S. Department of Agriculture. 2019. Web Soil Survey. Natural Resources Conservation Service. Accessed March 2019. <http://websoilsurvey.nrcs.usda.gov>.

<sup>24</sup> U.S. Fish and Wildlife Service. 2019. National Wetlands Inventory, Wetlands Mapper (online edition). Accessed March 2019. <http://www.fws.gov/wetlands/Data/Mapper.html>.

<sup>25</sup> City of Hayward. 2014. *Hayward 2040 General Plan*. Adopted July 1, 2014.

Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel (*Spermophilus [Otospermophilus] beecheyi*). No amphibian, reptile, or fish species were detected within the study area.

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

#### ***Vegetation Communities***

The proposed project would result in the grading and removal of landscaped areas that are not considered sensitive. As a result, there would be no impact to sensitive vegetation communities.

#### ***Special-Status Plants***

Special-status plants include those listed, or candidates for listing, as threatened or endangered by the USFWS and CDFW, and species identified as rare by the CNPS (particularly California Rare Plant Rank [CRPR] 1A – Presumed extinct in California; CRPR 1B – Rare, threatened, or endangered throughout its range; and CRPR 2 – Rare or Endangered in California, more common elsewhere). A total of 48 special-status plant species were reported in the CNDDDB, USFWS, and CNPS databases as occurring in the vicinity of the biological study area. However, no special-status plant species were observed within the biological study area during the field survey. Additionally, based on the high level of human activity, species ranges, land covers, and soils present on the project site, there is little to no potential for special-status plants to occur. Therefore, there would be less-than-significant impacts.

#### ***Special-Status Wildlife***

Special-status wildlife include those listed, or candidates for listing, as threatened or endangered by the USFWS and CDFW, and designated as a species of special concern by CDFW. A total of 35 special-status wildlife species were reported in the CNDDDB and USFWS databases as occurring in the vicinity of the biological study area. However, no special-status wildlife species were observed within the biological study area during the site visit. The park provides limited habitat for other common, urban-adapted wildlife species, such as Botta's pocket gopher and California ground squirrel. No amphibian, reptile, or fish species were detected within the study area. Based on the species ranges and vegetation communities/land covers within the project site, there is little to no potential for special-status wildlife to occur.

The biological study area supports suitable habitat for nesting bird species. Active bird nests are protected under the Migratory Bird Treaty Act and California Fish and Game Code Section 3500, and compliance with these regulations is required. Removal of existing trees and other potential nesting habitat could result in direct significant impact to nesting birds if conducted during the bird nesting season (i.e., February 15 through August 31). Significant indirect impacts to nesting birds from short-term construction-related noise during the nesting season could also cause decreased reproductive success or abandonment of nests.

However, as described in Chapter 2, Project Description, consistent with HARD's standard nesting bird specification for contractors (Supplementary Conditions, 3.b. Nesting Birds), any tree removal would be completed in a manner compliant with the Migratory Bird Treaty Act and the California Fish and Game Code. The contractor would conduct a preconstruction nesting survey no more than 2 weeks prior to removal to ensure that no birds are nesting within the project site or near any work area. If any active bird nests are

found during the survey(s), the contractor would stop all work in the area that would disturb nesting birds and immediately notify HARD for further direction prior to performing further work. A qualified biologist shall assist with determining regulatory compliance and may establish an avoidance buffer around occupied bird nests within which no construction or ground-disturbing activities would be conducted until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting. Therefore, with implementation of the HARD's standard project specifications, the project would have a less-than-significant impact on nesting birds.

- b,c) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

Most of the biological study area is comprised of urban and developed land covers. The biological study area does not support any riparian habitat or aquatic resources regulated by the Corps, RWQCB, or the CDFW as jurisdictional wetlands, "waters of the U.S.," or "waters of the state." Therefore, the proposed project would be no impact.

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

The project site does not occur within a designated native wildlife nursery. As described above, most of the biological study area is comprised of urban and developed land covers and limited wildlife movement could occur within the area. Project activities would not result in impacts to wildlife movement because construction of the proposed project would not impede wildlife movement through the area due to the relatively limited size of the project footprint. Additionally, opportunities for local wildlife movement, primarily common bird species, would remain intact.

Therefore, the proposed project would have less-than-significant impacts on the movement of any native resident or migratory fish or wildlife species, on established native resident or migratory wildlife corridors, or on native wildlife nursery sites.

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

The City of Hayward's tree protection policies (Municipal Code Article 15, Section 10-15) protect (1) trees with a minimum trunk diameter of eight inches measured 54 inches above the ground; (2) street trees or other required trees per a condition of approval, Use Permit, or other zoning requirement; (3) all memorial trees or specimen trees; (4) trees with a minimum of 4 inches diameter trunk size of species such as big leaf maple, California buckeye, madrone, western dogwood, etc.; and (5) all trees of any size planted as a replacement for a protected tree.

The project site contains several mature trees regulated by the City of Hayward. Some of the overstory species that occur within the project site include California sycamore (*Platanus racemosa*), glossy privet (*Ligustrum lucidum*), redwood (*Sequoia sempervirens*), silver wattle (*Acacia dealbata*), and sweetgum

(*Liquidambar styraciflua*). Based on the preliminary project design, removal of individual trees that are protected by the City’s tree ordinance may result from implementation of the proposed project and it is anticipated that tree removal permits could be needed for the proposed project. At a minimum, trees that are removed must be replaced with like-sized, like-kind trees or an equal value tree(s) as determined by the City’s Landscape Architect.

Therefore, impacts to local policies and ordinances protecting biological resources would be less than significant.

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

Project site is not located within an area covered by any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As a result, the proposed project would have no impact on an adopted habitat conservation plan.

### 3.5 Cultural Resources

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

This section summarizes the cultural report prepared for the proposed project (see Appendix C, Cultural Resources Report). The cultural study area includes the project site and a 0.5-mile radius.

**Cultural Records Search Results**

A search of the California Historical Resources Information System (CHRIS) at the North West Information Center (NWIC) was completed for the cultural study area. This search included their collections of mapped prehistoric, historic, and built environment resources, Department of Parks and Recreation Site Records, and technical reports. Additional consulted sources include historical maps of the study area, the National Register for Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historic Property Data File, the lists of California State Historical Landmarks, California Points of Historical Interest, and the Archaeological Determinations of Eligibility. The NWIC records indicate that 16 cultural resources investigations have been conducted within 0.5-mile of the study area; however, none of these cultural resources investigations have included any portion of the study areas.



### **Native American Coordination**

A search of the NAHC Sacred Lands File was completed and the results of the SLF search were negative. The NAHC also provided a Tribal Consultation List of NAHC-listed tribal representatives who have been identified as possibly having additional information relating to Native American resources (see Section 3.18, Tribal Cultural Resources).

### **Archival Building Research**

A pedestrian survey of the project site was completed for historic built environment resources. Two buildings over 45 years of age at Bidwell Park site were identified and recorded. Archival research for the buildings was completed by reviewing records at the Alameda County Assessor's Office, Hayward County Planning Department, City of Hayward Public Library, Hayward Unified School District Administration, Hayward Area Historical Society, archival newspapers, and historic maps.

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

This section addresses built-environment, historical resources. Historical archeological resources are analyzed under question 3.5(b) below.

The project would convert the existing elementary school to a community center and construct improvements to the existing neighborhood park. The main building on the site would be rehabilitated for community center uses and the rear building would be demolished.

The two educational buildings on site were designed by Oakland architects, Anderson and Simonds, in the Mid-Century Modern Style with some International-style elements. Construction of the buildings was completed in 1956 for use of elementary school purposes and continued to serve in this capacity until the school was closed in 2018. The buildings are located on a large square parcel surrounded by the rows of residential properties that line Meadowbrook and Carrol Avenues. The school buildings front Fairway Street and sit in the northwestern segment of the city block. Over half of the parcel contains open greenspace (south of the buildings). Other features of the Bidwell Park site include baseball fields and a children's play area.

The design and features of the two buildings are described below.

#### ***Main Building***

The main building is a one-story building designed in the Mid-Century Modern style with elements of the International Style. The irregular L-shaped building is comprised of three distinct building sections that fronts Fairway Street. The roof structure displays a combination of gabled and flat roof sections that are clad in grey rolled composition roofing material. Both the flat and pitched sections of the roof feature wide, boxed eaves and wood fascia board. The eastern section of the main building includes an open-air trough cut away at the center of the gabled roof that allows light to penetrate through clerestory windows at the center of the building. The main building is entirely clad in stucco except for the recessed entry area on the north (main) elevation, which contains sienna-colored concrete masonry units (CMU) arranged in square columns and set in a simple checkerboard relief pattern astride the primary entrance doors.

Fenestration across the main building consists of repeating groups of metal framed windows in various sizes and arrangements. Some windows feature operable lower sections, while others are fixed, and some window groups project slightly from the flat surface of the building. The west, south (rear) and east elevations of the building feature horizontal, metal brise soleils that shade the windows. In the space below the gable on the east elevation, a projecting concrete border frames the access door and a slatted screen leading to the recessed light trough at the running through the center of this section of the building.

A wide, covered walkway supported by concrete columns extends from the central section of the south (rear) elevation and connects with rear building's west elevation.

### ***Rear Building***

The rear building is a one-story, rectangular building designed in the Mid-Century Modern style with some elements of the International Style. It is south of the main building and connected to the central section of the main building via a covered walkway that is affixed to the western entrance of the rear building. The gabled roof structure is clad in grey rolled composition roofing material and features an open-air trough cut away at the center of the gabled roof that allows light to penetrate through clerestory windows at the center of the building. The rear building is entirely clad in stucco. Fenestration across the building consists of repeating groups of metal framed windows in various sizes and arrangements. Some windows feature operable lower sections, while others are fixed. The south (rear) elevation of the building features horizontal, metal brise soleils that shade the windows from direct exposure to the sun. Beneath the gable end on the east elevation, a slatted screen reveals the recessed central channel of the building. Below, a cantilevered overhang protects the double entry doors.

### ***Historical Significance***

The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. The NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. The criteria for listing historical resources on the CRHR are consistent with the NRHP criteria.

The property was evaluated for eligibility for listing in the NRHP/CRHR and did not meet any of the criteria as described further in Appendix C. Due to their lack of historical and architectural significance, the buildings located within the Bidwell Park site do not appear eligible under the NRHP, CRHR, or the local Hayward Register of Historic Resources. Thus, the buildings are not considered historic resources under CEQA.

The proposed project would not result in a substantial adverse change in the significance of a historical resource pursuant to §15064.5. Therefore, impacts to historical resources would be less than significant.

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

The NWIC records search did not identify the presence of cultural resources on the project site and no newly identified archaeological resources were recorded during the pedestrian survey of the site (see Appendix C). The proposed project would have a very low potential for encountering intact cultural deposits during ground-disturbing activities. However, less-disturbed areas, such as within the adjacent grass fields, have a higher relative potential to support the presence of archaeological resources. Thus, there is the potential

to encounter previously undiscovered significant archaeological resources during project construction activities. Should these resources be encountered during project grading and construction, the proposed project could have significant impacts.

Thus, the project would be required to implement MM-CUL-1. With implementation of MM-CUL-1, which requires the evaluation of archaeological resources if they are inadvertently discovered, impacts to archaeological resources would be less than significant with mitigation.

**MM-CUL-1: Unanticipated Discovery of Archaeological Resources.** In the event that archaeological resources (sites, features, or artifacts) are exposed during ground disturbing construction activities for the proposed project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA,<sup>26,27</sup> the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

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

The project site is located in a developed residential neighborhood. No known human remains or burial sites were discovered through the NWIC records search, pedestrian survey of the project site, or NAHC Sacred Lands File search and subsequent tribal outreach. However, there is potential for the unanticipated discovery of human remains during project construction. If human remains were encountered during project grading and construction, the proposed project could have significant impacts.

MM-CUL-2 has been incorporated into the project to ensure that potential impacts would be less-than-significant impact with mitigation by providing standard procedures in the event that human remains are encountered during project construction.

**MM-CUL-2: Unanticipated Discovery of Human Remains.** In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found during project ground disturbing activities, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the MLD from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

---

<sup>26</sup> 14 CCR 15000–15387 and Appendices A through L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

<sup>27</sup> California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

### 3.6 Energy

|   | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| <b>VI. Energy</b> – Would the project:  |                                |   |                                     |                          |
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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

The project would comply with the most current Title 24 California Building Code/Code of Regulations (2019), CAL Green Code, California Green Building Standards Code, and 2019 energy standards at the time of building construction, as amended by the State of California, and the City of Hayward. The project would demolish a building, convert the other existing building to a community center, and expand park facilities on the project site. The facilities and improvements are required to be compliant with all current Title 24 energy requirements. During construction activities, heavy equipment powered by diesel and gasoline would be used; however, per California Air Resources Board's air toxic control measures limiting diesel equipment idling, construction equipment operators would be required to limit idling and other inefficient equipment use such that wasteful operation would not occur. In addition, during both construction and operation of the project, HARD or their contractor would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended. During construction, all waste generated would be recycled to the maximum extent possible.

The project does not include the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Therefore, the impact would be less than significant.

**b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

The project would follow applicable energy standards and regulations during the construction phases. In addition, the project would be built and operated in accordance with all existing regulations that are applicable at the time of construction. As such, impacts related to the project's potential to conflict with plans for renewable energy and energy efficiency would be less than significant.

### 3.7 Geology and Soils

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

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

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

The California Geological Survey provides scientific information about the state’s geology, seismology, and associated hazards. As part of their Seismic Hazards Program, areas prone to geological hazards are mapped on their California Earthquake Hazards Zone Application (EQ Zapp).<sup>28</sup> The results based on the EQ Zapp for the proposed project site are discussed below.

The project site is located within a seismically active region that contains several major active faults, including the San Andreas Fault, Hayward Fault, and Calaveras Fault. The Hayward Fault crosses through the City of Hayward and runs approximately parallel and within a few hundred feet of Mission Boulevard, .025 mile to the northeast of the site. According to the EQ Zapp, the project site is not located within an Earthquake Fault Zone and there is no evidence that any fault crosses directly through the site. Therefore, the project would result in less-than-significant impacts.

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

As discussed in question 3.7(a.i) above, the project site is located near multiple known active faults, the San Francisco Bay Region is prone to moderate to severe earthquakes, which can cause strong ground-shaking. The intensity of ground shaking at any specific location within the region depends on the characteristics of the earthquakes, the distance from the earthquake, and the local geologic and soil conditions.<sup>29</sup> The project site is located in a developed residential neighborhood. The project does not include any structures for human occupancy, which reduces the risk of loss, injury, or death posed by earthquakes. Compliance with California Building Code requirements would ensure that impacts related to seismic ground shaking would be less than significant.

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

Ground failure is a secondary effect of ground shaking and can include landslides, liquefaction, lurching, and differential settlement. Liquefaction is the loss of soil strength due to seismic forces generating various types of ground failure. Liquefaction occurs when saturated and poorly consolidated granular material is shaken during an earthquake and is transformed into a fluid-like state. The potential for liquefaction is determined by soil types and density, the groundwater table, and the duration and intensity of ground shaking. According to the EQ Zapp, the project site is not located within a Liquefaction Zone. As previously addressed in question 3.17(a.i) and Impact 3.17(a)(ii) above, the project would comply with all state and local requirements to reduce the risk of loss, injury, or death posed by liquefaction. Therefore, impacts associated with liquefaction would be less than significant.

---

<sup>28</sup> California Geological Survey. 2020. “Earthquake Zones of Required Investigation.” [digital map]. Accessed on March 25, 2020. <https://maps.conservation.ca.gov/cgs/EQZApp/app/>.

<sup>29</sup> U.S. Geological Survey. n.d. “What are the Effects of Earthquakes?” [https://www.usgs.gov/natural-hazards/earthquake-hazards/science/what-are-effects-earthquakes?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/natural-hazards/earthquake-hazards/science/what-are-effects-earthquakes?qt-science_center_objects=0#qt-science_center_objects).

**iv) Landslides?**

Problems of slope instability are most prevalent in hillside areas where landsliding has previously occurred and where landslide deposits can be found. Landslide failures have also occurred in areas where slopes were modified by grading. Excavating too steeply, undercutting slopes, or placing fills or structures on unstable slopes can potentially cause a landslide.

The project site consists of developed flat land. According to the EQ Zapp, the project site is within a Landslide Zone. The project site lacks geological feature typically associated with landslides such as hillsides and riverbanks. Compliance with all applicable state and local requirements for soil stabilization, coupled with the fact that the proposed project does not include any structures for human occupancy and requires minimal ground disturbance and grading to prepare the site for construction, would reduce the risk of loss, injury, or death posed by earthquake-induced landslides. Therefore, impacts associated with landslides for the project site would be less than significant.

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

Construction of the project would require earthwork activities that could potentially allow surface runoff to convey sediments and pollutants off-site, thereby degrading water quality. As the project would disturb 1 or more acres of land, it would be required to implement a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ, NPDES No. CAS000002) (also known as the Construction General Permit), or the latest approved general permit requirements for stormwater discharge at construction sites. The SWPPP would generally contain a site map(s) showing the construction perimeter, existing and proposed buildings, erosion control measures, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways. Additionally, the SWPPP must contain a visual monitoring program and a chemical monitoring program for “non-visible” pollutants, should the BMPs fail. Section A of the Construction General Permit lists all elements that must be contained in a SWPPP.

The preparation, implementation, and participation with both the NPDES General Permit and the Construction General Permit, including the SWPPP and BMPs, would reduce project construction effects on erosion to acceptable levels. Therefore, short-term construction impacts associated with erosion would be less than significant.

Upon completion of construction activities, the project site would be landscaped and replanted with trees and other plantings including seed turf; disturbed soils would not be left bare. The soils would be stabilized and retained on site, decreasing erosion potential. Therefore, potential impacts of the proposed project associated with erosion or loss of topsoil would be less than significant.

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

As previously discussed, the topography of the project site and nearby vicinity is relatively flat. The project site would be exposed to landslide-related hazards nor would the project exacerbate existing slope failure related hazards. Impacts related to landslides would be less than significant.

Lateral spreading is horizontal or lateral ground movement of relatively flat soil deposits towards a free face or slope such as an excavation, channel, or open body of water. Typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. However, because the topography of the project site is relatively flat, there are no open faces or slopes near the site, and the project site is not located in a liquefaction hazard zone, impacts associated with lateral spreading and liquefaction would be less than significant.

Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to subsurface movement of earth materials. Subsidence is most often attributed to human activity, mainly from the removal of subsurface water. The project does not include any removal of subsurface water; therefore, there would be no impacts associated with subsidence.

The project site is not underlain by natural or man-made subsurface features that are typically associated with collapse, including mining or extraction operations or karst topography. Therefore, no impacts associated with collapse would occur.

The project would not include changes that could increase the risk of on-or-off site landslide, lateral spreading, subsidence, liquefaction, or collapse as it does not alter the flat topography of the project site or introduce features placing significant weight loads on compressible soils. The project would not be located on a geological unit or unstable soil, or a soil that would potentially become unstable as a result of the project. Therefore, impacts related to unstable geologic units would be less than significant.

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

Expansive soils have a potential to undergo significant changes in volume in the form of either shrinking or swelling due to changes in moisture content. Periodic shrinking and swelling of expansive soils can cause extensive damage to buildings, other structures, and roads. The soil at the project site is Rincon clay loam, which drains well and has slow permeability.<sup>30</sup> This soil type tends to exhibit shrink-swell characteristics consistent with expansive soils. As previously addressed, the project would be designed and constructed to meet all applicable seismic requirements set forth in the current CBC, which have been created to address various soil constraints, including expansive soils. Compliance with all applicable state and local requirements, coupled with the fact that the proposed project does not include any dwelling units, would reduce the risk of loss, injury, or death posed by expansive soils. Therefore, impacts associated with expansive soil would be less than significant.

---

<sup>30</sup> UC Davis. 2020. "Soil Web" [digital map]. UC Davis California Soil Resource Lab. Accessed March 25, 2020. Available online at: <https://casoilresource.lawr.ucdavis.edu/gmap/>.



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

The project site is located on developed parcels served by a municipal sewer system and the proposed restroom facilities would connect to the sewer system. The project would not require septic tanks or similar alternative wastewater disposal systems. Therefore, no impacts associated with septic tanks or similar alternative wastewater systems would occur.

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

Recent Holocene alluvium fans (map units Qhf and Qhff; less than approximately 11,700 years old) are mapped within the project site.<sup>31</sup> Modern shell fragments may be encountered within these geological units, but due to their young age, these shells would not be considered to be paleontologically significant. Older, Pleistocene-age deposits (2.58 million to 11,700 years old) are anticipated to underlie these Holocene-age deposits at an unknown depth. The alluvium material consists of interbedded clay, silt, sand, gravel, and coarse debris deposited by streams and weathering of the hills to the east. Soils in the project site are classified as Rincon clay loams with less than 2% slopes.<sup>32</sup> Local deposits of artificial fill can also be found throughout the project site. These are typically loosely compacted soil and organic materials that were laid over native soils during past construction and landscaping activities over the last two centuries, which have no potential to yield paleontological resources. Additionally, no paleontological resources were observed during the pedestrian survey undertaken for the cultural resources study completed for this project (see Appendix C). Therefore, the paleontological sensitivity of the project site is considered low.

However, the region is considered to have the potential to yield significant paleontological resources. Pleistocene-age sedimentary deposits may be encountered during grading activities at the project site. Therefore, while the design of the project would not likely impact paleontological resources, given the sensitivity of the immediate surrounding area, impacts are considered potentially significant. Implementation of mitigation measure MM-GEO-1 would reduce impacts to less than significant with mitigation.

**MM-GEO-1: Unanticipated Discovery of Paleontological Resources.** In the event that paleontological resources are exposed during construction activities for the project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified specialist, meeting the Society of Vertebrate Paleontology<sup>33</sup> for paleontology, can evaluate the significance of the find and determine whether additional study is warranted. Depending on the significance of the find, the paleontologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of a paleontological treatment plan, testing, or data recovery may be warranted.

<sup>31</sup> Witter, R.C. et al. 2006. "Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California." U.S. Geological Survey: Open File Report 2006-1037.

<sup>32</sup> UC Davis. 2020. "Soil Web" [digital map]. UC Davis California Soil Resource Lab. Accessed April 28, 2020. <https://casoilresource.lawr.ucdavis.edu/gmap/>.

<sup>33</sup> Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Accessed April 28, 2020. [http://vertpaleo.org/Membership/Member-Ethics/SVP\\_Impact\\_Mitigation\\_Guidelines.aspx](http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx).

### 3.8 Greenhouse Gas Emissions

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

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind, lasting for an extended period (decades or longer). Gases that trap heat in the atmosphere are often called GHGs. The greenhouse effect traps heat in the troposphere through a threefold process: (1) short-wave radiation emitted by the Sun is absorbed by the Earth; (2) the Earth emits a portion of this energy in the form of long-wave radiation; and (3) GHGs in the upper atmosphere absorb this long-wave radiation and emit this long-wave radiation into space and back toward the Earth. This trapping of the long-wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

Principal GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide, O<sub>3</sub>, and water vapor. Some GHGs, such as CO<sub>2</sub>, CH<sub>4</sub>, and nitrous oxide, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Emissions of CO<sub>2</sub> are largely byproducts of fossil-fuel combustion, whereas CH<sub>4</sub> results mostly from off-gassing associated with agricultural practices and landfills. Manufactured GHGs, which have a much greater heat-absorption potential than CO<sub>2</sub> include fluorinated gases, such as hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride, which are associated with certain industrial products and processes.<sup>34</sup>

The Intergovernmental Panel on Climate Change (IPCC) developed the Global Warming Potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas.<sup>35</sup> The reference gas used is CO<sub>2</sub>; therefore, GWP-weighted emissions are measured in metric tons of CO<sub>2</sub> equivalent (MT CO<sub>2</sub>e).

<sup>34</sup> Climate Action Team. 2006. *Climate Action Team Report to the Governor Schwarzenegger and the Legislature*. Sacramento, California. March 2006. [http://www.climatechange.ca.gov/.climate\\_action\\_team/reports/2006report/2006-04-03\\_FINAL\\_CAT\\_REPORT.PDF](http://www.climatechange.ca.gov/.climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF).

<sup>35</sup> Intergovernmental Panel on Climate Change. 2014. *Climate Change 2014 Synthesis Report: A Report of the Intergovernmental Panel on Climate Change*. Contribution of Working Groups I, II, and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. <http://www.ipcc.ch/report/ar5/syr/>.

Regarding impacts from GHGs, both BAAQMD and the California Air Pollution Control Officers Association (CAPCOA) consider GHG impacts to be exclusively cumulative impacts;<sup>36, 37</sup> therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere. This analysis uses both a quantitative and a qualitative approach. The quantitative approach is used to address the first significance criterion listed above. The quantifiable thresholds developed by BAAQMD were formulated based on Assembly Bill (AB) 32 and California Climate Change Scoping Plan reduction targets; these strategies will reduce GHG emissions statewide. Thus, a project cannot exceed a numeric BAAQMD threshold without also conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Therefore, if a project exceeds a numeric threshold and results in a significant cumulative impact, it would also result in a significant cumulative impact with respect to consistency with a plan, policy, or regulation, even though the project may incorporate measures or have features that would reduce its contribution to cumulative GHG emissions.

Separate thresholds of significance are established by the BAAQMD for operational emissions from stationary sources (such as generators, furnaces, and boilers) and nonstationary sources (such as on-road vehicles).<sup>38</sup> The threshold for stationary sources is 10,000 MT CO<sub>2e</sub> per year (i.e., emissions above this level may be considered significant). For nonstationary sources, the following three separate thresholds have been established:

- Compliance with a Qualified Greenhouse Gas Reduction Strategy (i.e., if a project is found to be out of compliance with a Qualified Greenhouse Gas Reduction Strategy, its GHG emissions may be considered significant).
- 1,100 MT CO<sub>2e</sub> per year (i.e., emissions above this level may be considered significant).
- 4.6 MT CO<sub>2e</sub> per service population per year (i.e., emissions above this level may be considered significant). (Service population is the sum of residents plus employees expected for a development project.)

This analysis uses the quantitative threshold of 1,100 MT CO<sub>2e</sub> annually. If the project GHG emissions would exceed this threshold, it would be considered to have a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact on climate change

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

**Construction.** Construction of the project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor (material delivery) trucks, and worker vehicles. Since the BAAQMD has not established construction-phase GHG thresholds, construction GHG emissions were amortized assuming a 30-year development life after completion of construction and added to operational emissions to compare to the BAAQMD operational GHG threshold. The project's amortized construction-related GHG emissions would be 33.7 MT CO<sub>2e</sub> generated annually.

A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, vendor trucks, and worker vehicles—is included in Appendix A.

---

<sup>36</sup> Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2017. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en).

<sup>37</sup> California Air Pollution Control Officers Association. 2008. *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January 2008.

<sup>38</sup> Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2017. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en).

**Operations.** HARD has maintained the existing Bidwell Park ball fields and playground, conducting landscaping activities with gasoline-powered equipment. The proposed project would include renovating the existing vacant elementary school into community center with, multi-use courts, play areas, picnic areas and a lawn space. Long-term operational emissions would occur over the life of the project. CalEEMod was used to estimate GHG emissions from motor vehicle trips, grid electricity usage, solid waste, and other sources (including area sources, natural gas combustion, and water/wastewater conveyance). This analysis provides a conservative estimate of GHG emissions as it does not account for the existing GHG emissions from the existing land uses on the site, which are typically reduced (netted out) from the project analysis.<sup>39</sup>

CalEEMod default mobile source data, including temperature, trip characteristics, variable start information, emission factors, and trip distances, were used for the model inputs. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the model defaults for city park and community center land use traffic. The CalEEMod default trip rate was utilized. It is conservatively assumed that the first year of project operation would be in the year 2022.

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

The estimation of operational energy emissions was based on CalEEMod land use defaults and total area (i.e., square footage) of the project. Annual natural gas (non-hearth) and electricity emissions were estimated in CalEEMod using the emissions factors for Pacific Gas and Electric Company (PG&E) as a conservative estimate and adjusted to account for 39% renewable portfolio standard as of 2018. The most recent amendments to Title 24, Part 6, referred to as the 2019 standards, became effective on January 1, 2020. These standards are incorporated in the latest version of CalEEMod by including a 30% reduction compared with the default values in CalEEMod.

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

The project would generate a limited amount of solid waste and would therefore result in CO<sub>2</sub>e emissions associated with landfill off-gassing. The project was assumed to comply with the 50% diversion rate consistent with AB 341 (Chesbro, Chapter 476, Statutes of 2011).

The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water supply, and wastewater treatment are shown in Table 4.

---

<sup>39</sup> The CalEEMod analysis and modeling includes both the proposed Bidwell Park Master Plan project and the El Rancho Verde Park Master Plan project. At the time the analysis was prepared, the proposed El Rancho Verde Park Master Plan was anticipated to be included in this MND. As the El Rancho Verde Park will now undergo separate environmental review, the estimated emissions calculations, which included both projects, overstate the actual emission levels associated with the Bidwell Park Master Plan. Therefore, the analysis and modeling provide a conservative assessment of the proposed project's construction and operations-related air pollutant and GHG emissions.

Table 4 indicates that the GHG emissions associated with the project would be below BAAQMD’s GHG threshold of 1,100 MT CO<sub>2e</sub> per year. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and this would represent a less-than-significant GHG impact.

**Table 4. Estimated Annual Operational Greenhouse Gas Emissions**

| Emission Source                                 | CO <sub>2e</sub> (MT/yr) |
|---|--------------------------|
| Area  | <0.1 <sup>a</sup>        |
| Energy  | 65.35                    |
| Mobile  | 407.34                   |
| Solid Waste                                     | 30.74                    |
| Water Supply and Wastewater                     | 24.30                    |
| <b>Total</b>                                    | <b>527.73</b>            |
| Amortized Construction Emissions                | 33.74                    |
| <b>Operation + Amortized Construction Total</b> | <b>560.47</b>            |
| <i>BAAQMD GHG Threshold</i>                     | <i>1,100</i>             |
| <i>Significant (Yes or No)?</i>                 | <i>No</i>                |

Source: Appendix A

Notes: Total emissions may not sum due to rounding. Project GHG emissions are based on the “mitigated” CalEEMod outputs in order to incorporate compliance with the 2019 Title 24 Standards, water reduction consistent with CALGreen, and solid waste diversion rates consistent with AB 341, even though these would not be considered actual mitigation.

CO<sub>2e</sub> = carbon dioxide-equivalent; MT/year = metric tons per year

<sup>a</sup> <0.1 = value less than reported 0.1 metric tons per year.

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

The Scoping Plan, approved by CARB on December 12, 2008, provides a framework for actions to reduce California’s GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Relatedly, in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the California Natural Resources Agency observed that “[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan.”<sup>40</sup> Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. To the extent that these regulations are applicable to the project, the project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

<sup>40</sup> California Natural Resources Agency. 2009 *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. December 2009. [https://resources.ca.gov/CNRA/legacyFiles/ceqa/docs/Final\\_Statement\\_of\\_Reasons.pdf](https://resources.ca.gov/CNRA/legacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf)

Regarding consistency with Senate Bill (SB) 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and Executive Order (EO) S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future-year analysis. However, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the *First Update to the Climate Change Scoping Plan* that “California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32” (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the *First Update to the Climate Change Scoping Plan*<sup>41</sup> states the following:

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

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in *California’s 2017 Climate Change Scoping Plan (2017 Scoping Plan)*, which states, “This Plan draws from the experiences in developing and implementing previous plans to present a path to reaching California’s 2030 GHG reduction target. The Plan is a package of economically viable and technologically feasible actions to not just keep California on track to achieve its 2030 target, but stay on track for a low- to zero-carbon economy by involving every part of the state.”<sup>42</sup> The *2017 Scoping Plan* also states that although “the Scoping Plan charts the path to achieving the 2030 GHG emissions reduction target, we also need momentum to propel us to the 2050 statewide GHG target (80% below 1990 levels). In developing this Scoping Plan, we considered what policies are needed to meet our mid-term and long-term goals.”<sup>43</sup>

The project would not interfere with implementation of any of the above-described GHG reduction goals for 2030 or 2050 because the project would not exceed the BAAQMD’s GHG threshold of 1,100 MT CO<sub>2e</sub> per year, which was established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. Because the project would not exceed the threshold, this analysis provides support for the conclusion that the project would not impede the state’s trajectory toward the above-described statewide GHG reduction goals for 2030 or 2050.

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

---

<sup>41</sup> California Air Resources Board. 2014. *First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 – The California Global Warming Solutions Act of 2006*. May 2014. Accessed August 2016. [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf).

<sup>42</sup> California Air Resources Board. 2017. *California’s 2017 Climate Change Scoping Plan*. November 2017. [https://www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf).

<sup>43</sup> Ibid.

Based on the above considerations, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be less than significant.

### 3.9 Hazards and Hazardous Materials

|   | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| <b>IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:</b>   |                                |   |                                     |                                     |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

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

Construction and operation of the project would require hazardous or potentially hazardous materials to be handled, transported, used, and disposed of both on and off the project site. These materials include gasoline, diesel fuel, lubricants, and other petroleum-based products used to operate and maintain construction and maintenance equipment and vehicles as well as household cleaning products, degreasers, paints, and fertilizers for ongoing maintenance. Numerous laws and regulations ensure the safe transportation, use, storage and disposal of these materials including the federal Resource Conservation and Recovery Act (RCRA), the Hazardous Materials Transportation Act, and California's Hazardous Waste Control Law. Contractors would be required to comply with existing and future hazardous materials laws and regulations for the transport, storage, labeling, use and disposal of hazardous materials. Quantities of these materials would not be above the state-defined thresholds or pose a threat to human or environmental health. Therefore, implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts would be less than significant.

**b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

The proposed project would renovate the main building and demolish the rear building, both of which were constructed in the mid-1950s. The Phase I Environmental Site Assessment (ESA) prepared for the project site summarizes the findings of a search of regulatory databases and the site reconnaissance conducted.<sup>44</sup>

The site reconnaissance and records review did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the site. A review of regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge. A review of regulatory agency records and available databases did not identify contaminated facilities that would be expected to impact the site. No Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified on the site.

Based on an asbestos and lead-based paint survey prepared for the project, asbestos- and lead-containing materials are present within buildings on the project site. When left intact and undisturbed, asbestos-containing materials and lead-based paint materials do not pose a health risk to building occupants.<sup>45</sup> However, deterioration, damage, or disturbance of both these materials could result in hazardous exposure and health risks. In addition, the Phase I ESA and Agrichemical Impact Assessment note that termiticides or other agricultural chemicals have been applied to the perimeter of the buildings during the 1950s to the 1970s, and are present in near-surface soils surrounding the buildings.<sup>46</sup> These chemicals persist in the environment and elevated concentrations may remain many years after application. The Agrichemical Impact Assessment found that lead concentrations in the soil were below the RWQCB residential exposure environmental screening level (ESL) but the arsenic concentrations exceed the current ESL. However, the arsenic concentrations are within the expected background level for the San Francisco Bay Area. Organochlorine pesticides,

---

<sup>44</sup> ENGEO. 2019. *Phase I Environmental Site Assessment for Bidwell Park*. No. 16016. June 17, 2019.

<sup>45</sup> ACC Environmental Consultants, Limited Asbestos and Lead Survey for the Planned Renovation Project, Bidwell School, 175 Fairway Street, Hayward, California, June 24, 2019.

<sup>46</sup> ENGEO. 2019. *Agrichemical Impact Assessment for Bidwell Park*. No. 16016. July 15, 2019.



including 4,4-dichlorodiphenyldichloroethylene (DDE), 4,4-dichlorodiphenyltrichlorethane (DDT), dichlorodiphenyldichloroethane (DDD), gamma-chlordane, alpha-chlordane, chlordane, heptachlor, heptachlor epoxide, and endrin aldehyde, were detected in soil samples. Of these organochlorine pesticides, chlordane was detected at concentrations in excess of the ESL in four soil samples. In addition, DDE, DDD, and DDT were detected in soil samples at concentrations that would be considered Class I California Hazardous Waste and RCRA Federal Hazardous Waste if excavated and removed from the property. Additional testing would be required to determine whether the chlordane concentrations would also be considered hazardous waste, for the purposes of disposal (i.e., hazardous vs. nonhazardous landfill). In addition, due to the age of the buildings, a heating oil tank may have been used on the project site. If such a tank was present, residual concentrations of heating oil may be present in on-site soils in the vicinity of the existing school buildings.

Therefore, the renovation of the main building and demolition of rear building could result in a release or upset of hazardous materials related to asbestos- and lead-based paint materials, as well as disturbance of possible soil contamination. In addition, approximately 246,245 square feet of the project site would be cleared and graded. Grading and excavation would occur up to 12 inches below grade. Approximately 3,000 cubic yards of soils would be cut and exported off-site. No soil is anticipated to be imported. The field and event space would be re-contoured and the fill for the up to 3-foot event berms would be from on-site unless it is determined after soil testing that the soil cannot be reused. In the absence of soil remediation prior to demolition and grading, soils contaminated with hazardous concentrations of pesticides, including chlordane, DDE, DDD, and DDT, could be disturbed and redistributed across the site. In addition, previously unidentified soil contamination, such as from a possible heating oil tank, could be disturbed and redistributed across the site. These actions could result in health and safety impacts to on-site personnel, as well as adverse water quality impacts, if contaminated soils were exposed to rainfall and/or on-site watering for dust suppression and soil compaction. However, with implementation of mitigation measures MM-HAZ-1, which requires remediation of known soil contamination, and MM-HAZ, which requires the handling and disposal of asbestos containing materials, lead-based paint, and pesticide-contaminated soils in accordance all federal, state, and local ordinances and policies, impacts would be less than significant with mitigation.

**MM-HAZ-1: Soil Remediation.** Prior to issuance of a grading or demolition permit by the City of Hayward and the start of construction activities at the Bidwell Park site, a soil remediation plan shall be developed and approved by the California Department of Toxic Substances Control (DTSC) and/or Regional Water Quality Control Board (RWQCB), depending on which entity is the lead agency. Remediation will address organochlorine pesticide contamination in on-site soils, including but not limited to 4,4-dichlorodiphenyldichloroethylene (DDE), 4,4-dichlorodiphenyltrichlorethane (DDT), dichlorodiphenyldichloroethane (DDD), and chlordane. Soil remediation shall be completed either prior to or in conjunction with project demolition and grading, with approval from the DTSC and/or RWQCB.

**MM-HAZ-2: Hazardous Materials Contingency Plan.** Prior to commencement of any building renovation, demolition, or other construction activities at the project site, a Hazardous Materials Contingency Plan (HMCP) shall be developed by HARD, or its designee, that addresses potential disturbance and exposure of hazardous substances and contaminated soil during demolition and grading. Potential disturbance and exposure include documented asbestos- and lead-containing materials in buildings to be demolished, as well as potential unknown contaminated soil in areas of proposed grading and excavations.

The HMCP shall be prepared in compliance with local, state, and federal regulations for any necessary removal and disposal of such materials. Prior to implementation, the HMCP must be reviewed and accepted by the County of Alameda Department of Environmental Health. A California-licensed lead/asbestos abatement contractor shall be used for the structural removal work and proper removal methodology, as outlined in California Division of Occupational Safety and Health (CalOSHA) Title 8, Section 1529, of the California Code of Regulations. In addition, all other applicable federal, state, and local regulations regarding the removal, transport and disposal of asbestos-containing material and lead-based paint shall be applied.

The HMCP shall describe procedures for assessment, characterization, management, and disposal of hazardous constituents, materials, and wastes, in accordance with all applicable federal, state, and local regulations. Contaminated soils shall be managed and disposed of in accordance with federal, state, and local regulations. The HMCP shall include provisions for construction worker training, worker protection, and preparation of exposure assessments as needed. As part of the HMCP, construction contractors shall consult federal Occupational Safety and Health Administration (OSHA) Regulations at Title 29, Section 1926.62, of the Code of Federal Regulations and Cal-OSHA Regulations at Title 8, 1532.1, "Lead in Construction" standards for complete requirements.

The HMCP shall also include a monitoring plan to be conducted by a qualified consultant during abatement activities to ensure compliance with the work plan requirements and abatement contractor specifications.

Demolition plans and contract specifications shall incorporate any necessary abatement measures for the removal of materials containing hazardous materials, including lead-based paint and asbestos, to the satisfaction of the City of Hayward Building Division. The measures shall be consistent with the HMCP prepared for the proposed project and conducted by a California-licensed lead/asbestos abatement contractor.

With implementation of mitigation measure MM-HAZ-1, which requires remediation of known soil contamination, and MM-HAZ 2, which requires handling and disposal of asbestos containing materials, lead-based paint, and pesticide concentrations in soil, in accordance all federal, state, and local ordinances and policies, impacts would be less than significant.

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

The project site includes the former elementary school and existing park site. There are no other existing or proposed schools within 0.25 mile of the project site. Therefore, there would be no impact.

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

The California DTSC maintains a Hazardous Waste and Substances Sites List (Cortese List). As part of the Cortese List, DTSC also tracks "Calsites," which are mitigation or brownfield sites (e.g., sites previously used

for industrial purposes) that are not currently being remediated by DTSC. Before placing a site on the backlog, DTSC ensures that all necessary actions have been taken to protect the public and environment from any immediate hazard posed by the site. A review of the Cortese List indicates that the Bidwell Park site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.<sup>47</sup> Furthermore, as outlined in the Phase I ESA prepared for the project, a review of regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge on the Bidwell Park site. This review of regulatory agency records and databases also did not identify contaminated facilities within the vicinity that would impact the project site. Based on these regulatory databases, no impact associated with hazardous materials sites would occur.

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

The project site is not located within an airport land use plan or within 2 miles of an airport. The closest airport is Hayward Executive Airport approximately 4.8 miles to the northwest. Therefore, the project does not have the potential to result in a safety hazard for people residing or working in the project area. There would be no impact.

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

The Alameda County Emergency Operations Plan established the emergency coordination of all the cities within Alameda County and adopted the Standardized Emergency Management System.<sup>48</sup> In addition, the City of Hayward has a “Local Hazard Mitigation Plan” that serves to assess hazard risk and asset vulnerability in Hayward, identify strategies to reduce further losses from natural hazards, and outline the responsibility in emergencies.<sup>49</sup> The project would comply with the terms of the emergency response plans for Alameda County and the City of Hayward. The project would not adversely affect vehicular circulation in the project vicinity or impede emergency vehicle access through road closure. Therefore, the project would not interfere with an adopted emergency response or emergency evacuation plan and impacts would be less than significant.

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

As described in Section 3.20 Wildfire, potential wildland fires impacts would be less than significant. Please see analysis therein.

---

<sup>47</sup> State Water Resources Control Board. 2020. *Cortese List: Geo Tracker* [online GIS map]. Map data 2020. Accessed on February 26, 2020. [https://geotracker.waterboards.ca.gov/search?CMD=search&case\\_number=&business\\_name=&main\\_street\\_name=&city=&zip=&county=&SITE\\_TYPE=LUFT&oilfield=&STATUS=&BRANCH=&MASTER\\_BASE=&Search=Search](https://geotracker.waterboards.ca.gov/search?CMD=search&case_number=&business_name=&main_street_name=&city=&zip=&county=&SITE_TYPE=LUFT&oilfield=&STATUS=&BRANCH=&MASTER_BASE=&Search=Search).

<sup>48</sup> County of Alameda. 2012. *Alameda County Emergency Operations Plan*. December 2012. <https://www.acgov.org/ready/documents/EmergencyOperationsPlan.pdf>.

<sup>49</sup> City of Hayward. 2016. *Local Hazard Mitigation Plan*. <https://www.hayward-ca.gov/sites/default/files/pdf/2016%20City%20of%20Hayward%20Local%20Hazard%20Mitigation%20Plan.pdf>.

### 3.10 Hydrology and Water Quality

|  | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| <b>X. HYDROLOGY AND WATER QUALITY – Would the project:</b>   |                                |   |                                     |                          |
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?                                  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: |                                |   |                                     |                          |
| i) result in substantial erosion or siltation on or off site;  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or                             | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) impede or redirect flood flows?  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**a,c,i) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? Substantially alter the existing drainage pattern of the site or area which would result in substantial erosion or siltation on or off site?**

The California Regional Water Quality Control Board, San Francisco Bay. Region regulates water quality in surface waters and groundwater bodies and is responsible for implementation of state and federal water quality protection guidelines at the project site. As outlined in Section, 3.7 Geology and Soils, question

3.7(b), the project would comply with the NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities and creation of a SWPPP. SWPPPs are required to include erosion control measures, such as covering exposed soil stockpiles, lining the perimeter of construction areas with sediment barriers, and protecting storm drain inlets and adjacent bay waters. Construction activities could also result in incidental spills of pollutants, including paint, concrete, mortar, and cement. BMPs would similarly be implemented in accordance with the SWPPP to control potential releases of these materials. With implementation of construction-related BMPs, project construction would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface water or groundwater quality. The preparation, implementation, and participation with both the NPDES General Permit and the Construction General Permit, including the SWPPP and BMPs, would reduce project construction effects on water quality to acceptable levels. Therefore, short-term construction impacts associated with water quality standards and erosion would be less than significant.

The proposed building, pedestrian walkways, graded areas, and baseball fields would all drain to bioretention facilities, which would be designed and constructed to the criteria in the SWPPP. The proposed Bidwell Park would include approximately 11,000 square feet of bioretention areas. The project would also upgrade the storm drain systems throughout the project site. Compliance with the regulations stated above and implementation of BMPs have proven effective at improving water quality of stormwater discharge. As such, the project would have less-than significant impact on water quality.

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

The City of Hayward provides water service for the project site. The City of Hayward purchases all of its drinking water from the San Francisco Public Utilities Commissions (SFPUC). The Hetch Hetchy watershed, an area located in the Yosemite National Park, provides the majority of water delivered by the SFPUC to Hayward. The Hetch Hetchy water is supplemented with groundwater from the 45-square-mile Westside Basin, a series of aquifers extending from Golden Gate Park in San Francisco southward through San Bruno.<sup>50,51</sup> Although a small percentage of the water purchased from the SFPUC may be sourced from groundwater, local groundwater sources would not be substantially affected by the project.

The City of Hayward is also situated over portions of two medium priority groundwater basins: the East Bay Plain and the Niles Cone. Although the City of Hayward does not use groundwater as a regular water supply, the City does maintain groundwater wells that are critical to the City of Hayward’s ability to provide water service during an earthquake or other water supply emergency.<sup>52</sup>

Implementation of the project would increase the amount of impervious surfaces on the site by approximately 75,000 square feet. However, the new stormwater drainage system facilities would treat and detain increased stormwater runoff these surfaces and direct runoff to proposed bioretention areas. The bioretention areas would promote retention of stormwater runoff, allowing for percolation of these waters into subsurface soils and eventually into the East Bay Plain Subbasin below. The project would not deplete

---

<sup>50</sup> City of Hayward. 2018. *Water Quality Report*. Accessed February 25, 2020. <https://www.hayward-ca.gov/sites/default/files/2018%20-%20CCR%20-%20Final%20%28Online%29.pdf>.

<sup>51</sup> San Francisco Public Utilities Commission. n.d. “Groundwater.” <https://www.sfwater.org/index.aspx?page=184>.

<sup>52</sup> City of Hayward. 2018. “Sustainable Groundwater Management.” <https://www.hayward-ca.gov/content/sustainable-groundwater-management>.

groundwater supplies or interfere substantially with groundwater recharge. Therefore, impacts associated with groundwater supplies and recharge would be less than significant.

- c.ii,iii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: [see question 3.10(a)(c.i) above and question 3.10(d.iv) below]. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; 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;***

The project site is relatively flat and there are no streams and rivers through the site. As described above, following construction, runoff would be directed to bioretention areas dispersed throughout the project site. Storm drainage from impervious areas would follow existing storm drain patterns. The project would not alter the existing drainage pattern of the project site such that the potential for flooding or runoff water would be increased. In addition, the project would not create runoff that would exceed the capacity of the storm drain system or create additional sources of polluted runoff. Therefore, impacts associated with the amount or rate of runoff would be less than significant.

- d.c.iv) *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? Would the project substantially impede or redirect flood flows?***

According to the U.S. Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate Map (FIRM) Panels 431 and 432, the project site is not located within the 100-year floodplain or an area of flood hazard. In addition, the project site is not located in a coastal environment, near an open body of water, or within a tsunami zone.<sup>53</sup> The site would not be subject to seiches, which are oscillations (i.e., sloshing) in an enclosed body of water due to seismically induced ground shaking. Thus, the project would not impede or redirect flood flows or risk release of pollutants due to inundation of the project. Therefore, the proposed project would have a less-than-significant impact with respect to tsunamis, seiche, flooding, and flood-related water pollution.

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

**Water Quality Control Plan**

The applicable water quality control plan for the project site is the San Francisco Bay RWQCB Basin Plan. As previously discussed, the project would comply with applicable water quality regulatory requirements, including implementation of a SWPPP, stormwater BMPs, and low-impact-development design, which would minimize potential off-site surface water quality impacts and contribute to a reduction in water quality impacts. The project would reduce potential water quality impairment of surface waters such that key surface water drainages throughout the jurisdiction of the San Francisco Bay RWQCB Basin Plan would not be adversely impacted. As a result, the project would not conflict with or obstruct the San Francisco Bay RWQCB Basin Plan, and less-than-significant impacts would occur.

---

<sup>53</sup> State of California Emergency Management Agency, Earthquake and Tsunami Program. 2009. “Tsunami Inundation Map for Emergency Planning for Newark Quadrangle/Redwood Point Quadrangle” [https://www.conservation.ca.gov/cgs/Documents/Tsunami/Maps/Tsunami\\_Inundation\\_NewarkRedwoodPoint\\_Quads\\_Alameda.pdf](https://www.conservation.ca.gov/cgs/Documents/Tsunami/Maps/Tsunami_Inundation_NewarkRedwoodPoint_Quads_Alameda.pdf).

**Sustainable Groundwater Management Plan**

With respect to groundwater management, the Sustainable Groundwater Management Act of 2014 empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSP) for crucial groundwater basins in California.

The City of Hayward is the GSA for the portion of the East Bay Plain Groundwater Basin that underlies the City. The East Bay Municipal Utility District (EBMUD) is the GSA for the portion of the East Bay Plain Basin that underlies the EBMUD statutory boundaries.<sup>54</sup> The City of Hayward and EBMUD are working together to develop the East Bay Plain Subbasin Groundwater Sustainability Plan. This plan is expected to be completed and adopted in January 2022. Therefore, there currently is no adopted sustainable groundwater management plan that applies to the project at the Bidwell Park site. As discussed above, the project would not deplete groundwater supplies or interfere substantially with groundwater recharge. Therefore, impacts would be less than significant.

### 3.11 Land Use and Planning

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

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

The 10.5-acre project site is the former Bidwell Elementary School campus and existing Bidwell Park site. Existing school facilities would be repurposed and reconfigured to create a community center with event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks. The site would be reconfigured to provide new access points from the neighborhoods and paths through the site to integrate the park into the community.

The proposed project would not create a physical division of the community, such as could occur with construction of an interstate highway or railroad tracks, or removal of a means access, such as a local road or bridge that would impair mobility within an existing community or between outlying communities and areas. The proposed project would occur on developed land with existing facilities and recreational features. Therefore, no impacts associated with the physical division of an establish community would occur.

<sup>54</sup> City of Hayward. 2017. "City Council Staff Report: Formation of a Groundwater Sustainability Agency under SGMA." <https://www.hayward-ca.gov/sites/default/files/Council%20Report%20-%20202-7-2017.pdf>.

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

HARD's 2019 District Recreation and Parks Master Plan,<sup>55</sup> contains a series of goals and recommendations to ensure projects are consistent with the intent of the Recreation and Parks Master Plan, although these goals were not explicitly adopted with the purposes of avoiding or mitigating an environmental effect. Recommendation E:1 Prioritize Maintenance notes that projects should set higher standards for landscape maintenance, makes the park more visually appealing, emphasizes trash removal, and addresses facilities that are in fair or poor condition. The proposed project is consistent with this recommendation as the landscaping on the site would be upgraded and new vegetation added, bioretention facilities are included, and facilities in poor condition would be rehabilitated.<sup>56</sup> The proposed project would adhere to the recommendations within the HARD Parks Master Plan.

The project site is zoned by the City of Hayward as Single-Family Residential (RS), which allows for park and recreational facilities. While HARD is not subject to the City of Hayward General Plan, the proposed Bidwell Park would be consistent with the policies of the General Plan that pertain to parks and recreational facilities, including policies PFS-3.15 Water Conservation Programs, which promotes water conservation strategies and PFS-3.17 Bay-Friendly Landscaping, which promotes landscaping techniques that use native and climate appropriate plants, sustainable design and maintenance, water efficient irrigation systems, and yard clipping reduction practices. Per PFS-5.4 Green Stormwater Infrastructure and PFS-5.5 Public Improvement Design, which encourages retention and infiltration of stormwater by diverting urban runoff to bio-filtration systems, the project would include bioretention areas. Similarly PFS-5.8 Enhance Recreation and Habitat requires the incorporation of new stormwater drainage facilities into existing parks to enhance recreation and habitat.

The project would not conflict with the HARD District Recreation and Parks Master Plan,<sup>57</sup> and the City of Hayward's General Plan policies, or the Municipal Code. The project would also receive an Administrative Use Permit from the City of Hayward, to confirm the proposed use is consistent with the zoning district, to ensure harmony with the area, and that it complies with city policies and regulation. The project would not have a significant environmental impact due to conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the proposed project would have less-than-significant impacts.

---

<sup>55</sup> Hayward Area Recreation and Park District. 2019. *Parks Master Plan*. October, 2019.

<sup>56</sup> Ibid.

<sup>57</sup> Hayward Area Recreation and Park District. 2019. *Parks Master Plan*. October, 2019.



### 3.12 Mineral Resources

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

**a,b) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

The California Department of Conservation’s Division of Mining and Geology (DMG) implements the Mineral Land Classification program,<sup>58</sup> and studies produced by the State Geologist address mineral resource conservation. The objective of these studies is to ensure that mineral materials will be available when needed and do not become inaccessible as a result of inadequate information during land-use decision making.

The project site is zoned Single-Family Residential District (RS). Furthermore, the project site is classified Mineral Resource Zone category MRZ-3 by the DMG and are not designated for valuable mineral resources.<sup>59</sup> Therefore, no impacts associated with the loss mineral resources of value would occur.

<sup>58</sup> California Department of Conservation Division of Mining and Geology. “Mineral Land Classification Report: Aggregate Materials in the South San Francisco Bay Production-Consumption Region.” Accessed February 24, 2020. <https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/>.

<sup>59</sup> California Department of Conservation, Division of Mines and Geology. 1996. Revised Mineral Land Classification Map, South San Francisco Bay Production-Consumption Region, Newark Quadrangle (Plate 2 of 29).

### 3.13 Noise

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

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

***Construction Noise***

Construction activities could increase noise levels temporarily in the vicinity of the project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. The nearest sensitive receptors to the project site are single-family homes that immediately abut the site to the northeast and southwest; these residences are within approximately 20 feet of the project site.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time, condition of each piece of equipment, and number of pieces of equipment that will actually operate on site. The range of maximum noise levels for various types of construction equipment at a distance of 25 feet is depicted in Table 5.

**Table 5. Construction Equipment Noise Emission Levels**

| Equipment                 | Typical Sound Level (dBA) 25 Feet from Source |
|---------------------------|---|
| Air Compressor            | 81  |
| Backhoe                   | 80  |
| Concrete/industrial saws  | 89  |
| Crane                     | 79  |
| Dozer                     | 84  |
| Excavator                 | 83  |
| Grader                    | 87  |
| Forklift (gradall)        | 85  |
| Loader                    | 81  |
| Paver                     | 80  |
| Paving Equipment          | 80  |
| Scraper                   | 86  |
| Welder                    | 76  |
| <b>Criteria</b>           | <b>dBA 25 feet from source</b>                |
| City of Hayward Ordinance | 83  |

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

Construction noise ordinance limits established by the City of Hayward are 83 dBA at 25 feet for any individual piece of equipment, as shown in Table 5, and 86 dBA at the property line; this measurement is represented as the maximum sound level ( $L_{MAX}$ ) values calculated in the Roadway Construction Noise Model (RCNM). Based on the calculated results in the RCNM model using the applied noise ordinance distance (i.e. 25 feet), the calculated dBA  $L_{MAX}$  values would range from approximately 76 to 89 dBA  $L_{MAX}$  for a given piece of equipment. Thus, this would potentially exceed the City’s significance threshold of 83 dBA at 25 feet, resulting in potentially significant construction noise impacts.

Through the application of the noise control techniques that affect and control the construction noise at the source (i.e., heavy equipment, pumps), noise levels can be reduced by approximately 3 to 6 dBA. In addition, noise control techniques implemented along the path between the noise source and receptor (i.e., temporary noise barriers, enclosures, relocation of equipment) have been shown to reduce construction noise levels between 2 to 7 dBA.<sup>60</sup> The overall noise level reduction achieved through implementation of these types of reduction measures ranges from 5 to 13 dBA.

Furthermore, the City of Hayward regulates construction noise by establishing a maximum allowable noise level and restricting the allowable hours of construction. Section 4-1.03.4 of the City of Hayward’s Municipal Code limits the construction, alteration, or repair of structures and any landscaping activities to between the hours of 10 a.m. and 6 p.m. on Sundays and holidays, and 7 a.m. and 7 p.m. on other days.

The project site is within the City of Hayward and construction activities at that site would comply with Hayward’s construction noise ordinance. Through compliance with City of Hayward’s Municipal Code section 4-1.03.4 and the application of the mitigation measure MM-NOI-1 discussed below, impacts from

<sup>60</sup> Wu & Keller 2007. 2007. Noise Mitigation Measures at Large-Scale Construction Sites. Published paper, presented October 2007. Reno, Nevada.

construction noise levels would be reduced to an acceptable level. In addition, construction activities would be short-term, intermittent, and temporary. Therefore, with implementation of MM-NOI-1, impacts would be less than significant with mitigation.

**MM-NOI-1: Construction Noise-Reduction Measures.** HARD and/or their contractor shall implement the following measures:

- Ensure construction noise levels are consistent with limits established by the City of Hayward's Municipal Code section 4-1.03.4.
- Construction equipment and vehicles shall be fitted with efficient, well-maintained mufflers that reduce equipment noise emission levels at the project site. Internal combustion powered equipment shall be equipped with properly operating noise suppression devices (e.g., mufflers, silencers, wraps) that meet or exceed manufacture specifications. Mufflers and noise suppressors shall be properly maintained and tuned to ensure proper fit, function and minimization of noise.
- All construction equipment shall maintain maximum physical separation, as far as practicable, between the noise sources (construction equipment) and sensitive receptors.
- Impact tools (e.g., jack hammers, hoe rams, etc.) shall be powered by hydraulic or electric means wherever possible to avoid noise associated with compressed air exhaust from pneumatic tools. Where use of pneumatic tools is required, or impact noise sources are elevated, impact tools shall have the working area/impact area shrouded or shielded, with intake and exhaust ports on power equipment muffled or suppressed. This may necessitate the use of temporary or portable, application specific noise shields or barriers.
- Construction equipment shall not be idled for extended periods (e.g., 15 minutes or longer) of time in the immediate vicinity of noise-sensitive receptors.
- Use of noise barriers, such as paneled noise blankets, shrouds, and industrial noise absorption barriers shall be employed to isolate stationary and off-road equipment that are found to generate substantial noise levels. Noise control shrouds, blankets, and barriers shall incorporate a solid panel that achieves a minimum Sound Transmission Class rating of 29. All noise control elements shall be suitable for outdoor-all weather conditions and incorporate sound-absorptive materials on the face of the barrier exposed to the construction activity.
- A disturbance coordinator shall be designated by HARD and/or the contractor. The coordinator shall post contact information in a publicly accessible location near the entrance of the construction site so that it is clearly visible to the nearby receptors most likely to be disturbed. Contact information for the disturbance coordinator shall be provided via a monitored phone number and physical mailing address at a minimum, but also may include email, web-form addresses. The coordinator shall manage complaints resulting from the construction noise. Reoccurring disturbances shall be evaluated by a qualified acoustical consultant retained by the HARD to ensure compliance with applicable standards.

### **Operational Noise**

The project site would include renovating the existing vacant elementary school into a community center with multi-use courts, play areas, picnic areas, and a lawn space. The primary noise-related effect that most non-industrial projects produce is a potential for on-site and off-site increases in traffic, which is the main source of noise in most urban areas. As discussed in Section 3.17, Transportation, the overall function of the facilities and the vehicle trips generated would not substantially change compared to the current and prior uses at the site. Therefore, noise resulting from traffic is not anticipated to increase substantially compared to existing conditions.

The project would not be anticipated to increase the ambient noise levels in the area in excess of the established noise thresholds anticipated for lands designated by the General Plan for playground and neighborhood park uses. Hours of operation for the proposed project would be during daytime hours, which are less sensitive noise hours; nighttime use of the facilities is not anticipated. Additionally, per Policy HAZ-8.8 Park Noise of the Hayward General Plan, the City will coordinate with HARD to establish and enforce hours of operation for park and recreational facilities near residential homes. Therefore, the proposed project would not be anticipated to exceed the established General Plan noise thresholds during operations and impacts would be less than significant.

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

The project may generate intermittent ground borne vibration during project construction. These potential impacts would be limited to project construction. Adherence to the time limitations of construction activities described above would limit the ground-borne vibration disturbances in the project area. Impacts would be anticipated to be less than significant.

**c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

The closest airport is the Hayward Executive Airport, which is located 5 miles northwest of the project site. The project site is not located within an airport land use plan and are not within 2 miles of a public airport or public use airport. Thus, the project would not expose people residing or working in the project area to excessive noise from airports or airstrips. There would be no impact.

### 3.14 Population and Housing

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

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

The project does not include any residential uses and would not construct off-site infrastructure improvements such as a roadways or utilities that could indirectly induce population growth. Construction of the project would require a limited number of construction workers. These construction jobs would be short-term and temporary in nature and would likely be filled through the existing local labor force. Although the project may increase recreational users of the park, it would not directly or indirectly induce substantial unplanned population growth. Impacts would be less than significant.

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

The project site does not contain existing housing units; the project site is a former elementary school and existing park. There would be no displacement of people or housing necessitating the construction of replacement housing elsewhere. No impact would occur.

### 3.15 Public Services

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

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

**Fire protection?**

The proposed project would renovate and expand a former school campus and existing park into a larger park with a community center and improved amenities. The Hayward Fire Department (HFD) provides fire protection services to the Bidwell Park site.<sup>61</sup> The closest HFD station to the Bidwell Park site is Fire Station 3 (31982 Medinah Street, Hayward, California 94544), located approximately 1 mile from the site. The HFD currently meets or exceeds the response time goal of the first arriving fire company on scene in 5 minutes or less 90% of the time, with the balance of the first alarm structural response on scene in less than 8 minutes 90% of the time.<sup>62</sup>

Although the project may increase visitors to the site, the project would not substantially increase calls for service or affect response times. Furthermore, the project would reuse and occupy existing vacant buildings on-site, which can pose danger to the neighborhood.<sup>63</sup> The City of Hayward requires Fire Department Permits for Building Construction, in which the HFD reviews the project plans for fire engine access, water supply, occupancy classification, built-in fire protection, life safety systems, and annual permit requirements.<sup>64</sup> The proposed buildings on site would be in compliance with local and state fire codes,

<sup>61</sup> City of Hayward. 2019. *Hayward Fire Department*. Accessed on February 26, 2020. <https://www.hayward-ca.gov/fire-department/about-hfd>.  
<sup>62</sup> City of Hayward. 2014. *Hayward 2040 General Plan Draft Environmental Impact Report*. [https://www.hayward-ca.gov/sites/default/files/documents/Hayward\\_GPU\\_Public\\_Release\\_DraftEIR\\_1-30-14.pdf](https://www.hayward-ca.gov/sites/default/files/documents/Hayward_GPU_Public_Release_DraftEIR_1-30-14.pdf).  
<sup>63</sup> National Fire Protection Association. 2018. *Fires in Vacant Buildings*. February 2018. <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Building-and-life-safety/osvacantbuildings.pdf>.  
<sup>64</sup> City of Hayward. 2020. "Fire Permits for Build Construction." Accessed on April 3, 2020. <https://www.hayward-ca.gov/services/permits/fire-permits-building-construction>.

ensuring the project site would not result in a new fire hazard. Therefore, the project would not result in substantial adverse physical impacts associated with the provisions of new or physically altered facilities for the provision of fire protection services and impacts would be less than significant.

***Police protection?***

The Hayward Police Department provides police protection services to the City of Hayward.<sup>65</sup> The Hayward Police Department is located at 300 West Winton Avenue, Hayward, California 94544 and is approximately 5 miles north of the Bidwell Park site. The HPD's response time goal is to arrive at the scene of Priority 1 calls (3.7% of calls for service) within 5 minutes, 90% of the time. However, the HPD met this goal 68.7% of time; their average response time to Priority 1 calls was approximately 9 minutes.

Although the project may increase visitors to the Bidwell Park site, the project would not substantially increase calls for service or affect response times. Therefore, the project would not result in substantial adverse physical impacts associated with the provisions of new or physically altered facilities for the provision of police protection services and impacts would be less than significant.

***Schools?***

The Hayward Unified School District is comprised of 21 elementary schools, five middle schools, three high schools, an alternative high school, adult education center and a pre-school.<sup>66</sup> The proposed project would not increase the student population in the area or increase demand for school services. Therefore, the project would not result in substantial adverse physical impacts associated with the provisions of new or physically altered facilities for the provision of school services and would have no impact to school services.

***Parks? Other public facilities?***

The proposed project would convert a former elementary school and expand a neighborhood park, thereby increasing the amount of available parkland within HARD's service area. The new park facilities would offer a broader range of both passive and active recreational amenities, improve pedestrian circulation, offer higher-quality family gathering areas, a new dog park, and generally transform the park into a more welcoming and pleasing setting for all age groups. Similar to the other existing park facilities in within their jurisdiction, HARD will continue to routinely maintain the park, as well as make necessary repairs for the park to continue to perform as intended and to prevent physical deterioration. Therefore, the project would not result in substantial adverse physical impacts associated with the provisions of new or physically altered parks and impacts associated with the increased use of park and other recreational facilities would be less than significant.

---

<sup>65</sup> City of Hayward. 2019. *Hayward Police Commitment to Service*. Accessed on February 26, 2020. <https://www.hayward-ca.gov/police-department/about/our-commitment-service>.

<sup>66</sup> Hayward Unified School District. 2018. *Demographics*. September 2019. Accessed on February 26, 2020. <https://www.husd.us/Demographics>.



### 3.16 Recreation

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

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

The proposed project would renovate the former Bidwell Elementary School and existing park facilities and transform the site into a park with a community center having an event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks, which will allow HARD to offer a broader range of both passive and active recreational amenities at the site.

The project would improve pedestrian circulation within the site, offer higher-quality family gathering areas, and transform the park into a more welcoming setting for all age groups. Although there could be some increased use of the park by the neighborhood and broader community as a result of these improvements, a substantial increase in park usage is not anticipated.

Furthermore, HARD would continue to routinely maintain the park, as well as make any necessary repairs to ensure that the park performs as intended and to prevent physical deterioration. Therefore, impacts associated with substantial physical deterioration of recreational facilities due to increased use of the park and other recreational facilities would be less than significant.

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

As discussed above, the project site would create new and expanded park facilities. The potential environmental impacts of the project are discussed, evaluated, and identified throughout this MND, and where needed, mitigation measures are identified to reduce potential effects to less-than-significant levels. Other than the project, which is recreational in nature, no additional off-site recreational facilities would be required as a result of the project. Therefore, impacts associated with the increased use of park and other recreational facilities or with construction and expansion of a recreational facility would be less than significant.

### 3.17 Transportation

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

**Existing Traffic Conditions**

This section describes existing conditions within the transportation study area. Characteristics are provided for the existing roadway system.

**Roadway System**

**Mission Boulevard**, which is also designated as State Route 238 (SR-238), is a four-lane, north-south, divided roadway that serves as the primary roadway for the project site. Mission Boulevard is classified as an Arterial by the City of Hayward Mobility Element. Generally, parking is prohibited and the posted speed limit is 40 mph. As part of the Mission Boulevard Corridor Improvement Project, Mission Boulevard will be reconfigured to include a Class IV protected bicycle lane and improved sidewalks on both sides of the roadway. Construction is phased and is expected to be complete in the area surrounding near the site by the end of 2020.

**Fairway Street** is a two-lane, east-west, undivided roadway that is on the northern edge of the Bidwell Park site and connects to Mission Boulevard. Fairway Street is classified as a Local roadway in the City of Hayward Mobility Element. The parking lot of the former Bidwell Elementary School is accessible via Fairway Street, east of Carrol Avenue. Generally, parking is provided on both sides of the road, and the posted speed limit is 25 mph.

**Rousseau Street** is a two-lane, east-west, undivided roadway that is on the southern edge of the Bidwell Park site. Rousseau Street is classified as a Local roadway in the City of Hayward Mobility Element. There is an all-way stop traffic circle located at its intersection with Brae Burn Avenue, before Rousseau Street connects with Mission Boulevard. Generally, parking is provided on both sides of the road, and the posted speed limit is 25 mph.

**Whipple Road** is a two-lane, east-west, undivided roadway that serves as a connection from Interstate 880 (I-880) to Mission Boulevard, for regional access for the project site. Whipple Road is classified as a Collector roadway in the City of Hayward Mobility Element. Generally, parking is provided on the northern side of the road, except where prohibited west of Ithaca Street, and the posted speed limit is 30 mph.

### ***Transit System***

Public transportation to the project site is provided primarily by Alameda-Contra Costa Transit District (AC Transit) bus service. There is also wider regional service provided by San Francisco Bay Area Rapid Transit District (BART) that connects both neighborhoods with other communities in the East Bay and greater San Francisco Bay Area. The following transit routes provide service in the vicinity of the proposed Bidwell Park site:

#### **AC Transit**

- **Route 99** primarily provides service between the Fremont and Hayward BART Stations. Along Mission Boulevard, service is provided daily and weekday peak service frequency averages approximately 15-30 minutes. The nearest bus stop location to the project site is at the intersection of Mission Boulevard/Fairway Street.
- **Route 801** is an overnight service that primarily provides service between neighborhoods and nearby BART stations including the locations of: Fremont, Union City, South Hayward, Hayward, Bay Fair, and San Leandro. Along Mission Boulevard, service is provided daily and overnight service frequency averages approximately 60 minutes. The nearest bus stop location to the project site is at the intersection of Mission Boulevard/Fairway Street.

#### **BART**

- **Warming Springs/South Fremont – Daly City Route** provides rail service to population centers in East Bay and the City of San Francisco. The nearest stations to the project site are the South Hayward Station and the Union City Station both of which are approximately 2 and 3 miles away. This route provides weekday peak service with a frequency of 15 minutes.
- **Warming Springs/South Fremont – Richmond Route** provides rail service to population centers in the East Bay. The nearest stations to the project site are the South Hayward Station and the Union City Station both of which are approximately 2 and 3 miles away. This route provides weekday peak service with a frequency of 15 minutes.

### ***Existing Pedestrian and Bicycle Facilities***

#### **Pedestrian Facilities**

In the vicinity of the project site, there are currently sidewalks on the northern edge along Fairway Street and on the southern edge along Rousseau Street. There are also sidewalks from the on-site parking lot to the school buildings.

All other roadways previously described are constructed with curbs, gutters, and sidewalks along both sides of the streets within the transportation study area. Portions of Mission Boulevard that are currently undergoing construction as of part the Mission Boulevard Corridor Improvement Project will have improved pedestrian facilities with medians that will separate pedestrians from bicyclists and motorists, create additional pedestrian crossings, and improve landscaping and lighting.

**Bicycle Facilities**

Within the transportation study area, there are several bicycle facilities that are currently available. Along Mission Boulevard, there is a Class II bicycle lane south of Gresel Street. As part of the Mission Boulevard Corridor Improvement Project, expected to be complete within the study area in 2020, Mission Boulevard will be upgraded to provide Class IV bicycle paths that separate bicyclists from motorists, thereby providing safer circulation. Near the project site, there is a Class III bicycle route along Fairway Street that connects to the planned Mission Boulevard bicycle network. Along Rousseau Street, Class II bicycle lanes are provided on both sides of the roadway from Mission Boulevard to Brae Burn Avenue. There are no other bicycle facilities adjacent to the project site.

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

The applicable plan, ordinance, or policy that establishes measures of effectiveness for the performance of the circulation system for the proposed project is described within the City of Hayward Mobility Element. The proposed infill park rehabilitation/conversion project would not be anticipated to conflict with the policies described within the City of Hayward. Additionally, the proposed project complies with the standards and criteria set forth by the City of Hayward Interim Traffic Study Guidelines.

Furthermore, the proposed project would be subject to review by the City of Hayward during the planning stages and construction, as described in Chapter 2, Project Description. The proposed project would not conflict with the City of Hayward’s development ordinances or guidelines governing construction, engineering review, site development review, or other such associated policies.

As per SB 743 and guidelines published by the State of California Governor’s Office on Planning Research, Level of Service (LOS) is no longer an applicable metric of evaluation within CEQA as further described under question 3.17(b) below. Therefore, this analysis does not address LOS.

Under the proposed project, the existing facilities at the project site would be reconfigured to create a community center with event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks. The site would be reconfigured to provide new access points from the neighborhood and paths through the site to integrate the park into the community. Parking along Fairway Street and Rousseau Street would be reconfigured from parallel to diagonal parking, and the existing parking lot would be expanded. An overall net total of 14 additional parking spaces would be provided. Additionally, an expanded pull-in and drop-off area would be configured at the northwest entrance area on Fairway Street causing the adjacent sidewalk to be realigned.

The overall function and vehicle trip generation of the site would not substantially change compared to its current or prior uses, as an informal community recreation space and elementary school, respectively. Any increase in park users is anticipated to be generated from within the neighborhood and would represent a modal mixture of pedestrians, bicyclists, and vehicle trips.

Table 6 presents a conservative estimate of potential additional trip generation for the project site. For the purposes of this analysis, it was estimated that approximately 3 acres of new uses would be constructed on the site, including the community center and amenities. The additional trips from the project were based on these 3 acres of new uses. The remaining 7.5 acres of the 10.5-acre site would include landscaping and open space areas, which are similar uses to the existing recreational uses/facilities on the site. No new trips would be

anticipated to be generated from the improvements planned for approximately 7.5 acres of the site. It should be noted that this trip rate is representative of a typical weekday and weekend activities such as special events related to sports fields may generate additional trips.

**Table 6. Estimated Project Trip Generation for Bidwell Park**

| Land Use   | Size/Units | Daily | AM Peak Hour |     |       | PM Peak Hour |     |       |
|--|------------|-------|--------------|-----|-------|--------------|-----|-------|
|  |            |       | In           | Out | Total | In           | Out | Total |
| <b>Trip Rates<sup>1</sup></b>                                  |            |       |              |     |       |              |     |       |
| City Park (developed with meeting rooms and sports facilities) | per acre   | 50.0  | 50%          | 50% | 13%   | 50%          | 50% | 9%    |
| <b>Trip Generation for New Uses on Site<sup>2</sup></b>        |            |       |              |     |       |              |     |       |
| Bidwell Park   | 3.0 acres  | 150   | 10           | 10  | 20    | 7            | 7   | 14    |
| <b>Trip Generation Discount</b>                                |            |       |              |     |       |              |     |       |
| Trips originating in Neighborhood (30%)                        |            | 105   |              |     |       |              |     |       |

**Notes:**

- <sup>1</sup> Daily trip rate AM and PM trip rate from SANDAG's Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.
- <sup>2</sup> Approximately 3 acres of new uses would be constructed, including community center and amenities; the remaining 7.5 acres include landscaping and open space areas, similar to existing uses.

Based on a city park trip generation rate that accounts for the types of new uses proposed on the site and the urban/developed location of the site, the proposed project could generate approximately 150 daily trips, including 20 AM peak-hour trips (10 inbound and 10 outbound), and 14 PM peak-hour trips (7 inbound and 7 outbound), as shown in Table 6.<sup>67</sup> Of these trips, the analysis conservatively assumed that approximately 30% of all trips would originate from within the neighborhood. Thus, of the new 150 daily trips, 45 (30%) of those trips (approximately 22 inbound and 22 outbound trips) would not to drive to the park, and may instead, walk, run, or bike. Therefore, with this discount, the total amount of vehicular trips associated with the proposed project will be approximately 105 daily trips. Thus, new weekday peak-hour vehicle trips generated by the project would be nominal when compared to the existing condition of the site and its prior uses.

The existing street classification and overall function of the study area roadways would be preserved and not substantially change from the existing condition (with the exception of Mission Boulevard under a separate ongoing project). Therefore, impacts to the existing roadway system would be less than significant. Similarly, the project is not expected to create a substantial increase in ridership in regard to the existing transit system within the transportation study area. Therefore, the impact to the existing transit system as a result of the project would be less than significant. Also, the project would not modify pedestrian and bicycle circulation in the transportation study area or create substantial demand, and therefore, the impact to pedestrian and bicycle facilities within the transportation study area as a result of the project would be less than significant.

<sup>67</sup> A review of trip generation rates for a park use was conducted to determine the most appropriate daily and peak hour trip rate for the project. The San Diego Association of Governments (SANDAG) Brief Guide of Vehicular Trip Generation Rates for the San Diego Region, April 2002, provides the most appropriate City Park generation rate (i.e., 50 trips per acre) given the urban nature of the Bidwell Park site.  
San Diego Association of Governments. 2002. Brief Guide of Vehicular Trip Generation Rates for the San Diego Region. April 2002.

The project is not expected to generate a significant change in weekday peak hour vehicle trips or a significant change in traffic operations on the adjacent roadway system. Therefore, the proposed project would not be anticipated to conflict with the applicable plans, ordinances, and policies establishing measures of effectiveness for the performance of the circulation system and the proposed project's impacts would be less than significant.

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

CEQA Guidelines Section 15064.3, subdivision (b), focuses on newly adopted criteria (vehicle miles traveled) adopted pursuant to SB 743 for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis changed from vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. As stated in CEQA Guidelines Section 15064.3(c), the provisions of Section 15064.3 shall apply prospectively. A lead agency may elect to be governed by the provision of Section 15064.3 immediately. The provisions must be implemented statewide by July 1, 2020.

Due to the regional focus of SB 743, many counties across the State of California are developing VMT thresholds and guidelines for entities within their county. In June 2020 the City of Hayward City Council incorporated by reference the findings contained in Resolutions No. 23-083 and No. 20-084 approving the General Plan Amendments establishing new VMT Thresholds.<sup>68</sup> The VMT thresholds have been drafted to be included in the revised City of Hayward Mobility Element and include several screening criteria unique to the City and also criteria based on the California Governor's Office on Planning and Research (OPR) guidelines.<sup>69</sup>

Per the Technical Advisory on Evaluating Transportation Impacts in CEQA, OPR states that certain projects may be screened out depending on their size, scope, and relation of the project towards reducing existing VMT.<sup>70</sup> A screening threshold provided by OPR indicates that "projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact."

As discussed under question 3.17(a) above, the proposed project would provide improvements and enhancements that may increase users of the park. Park users are anticipated to come primarily from the local neighborhood and would represent a modal mixture of pedestrians, bicyclists, and vehicles. As shown in Table 6, the proposed Bidwell Park is conservatively estimated to generate new 105 daily trips, below the 110 daily trips per day VMT screening threshold.

Additionally, per the City of Hayward's recommended screening criteria checklist contained in the recently adopted VMT Thresholds of Significance and Screening Criteria, the criteria screen out land uses that contain "local serving public facilities" from further analysis. As mentioned previously, the project will contain several local serving public facilities such as improved park space, community center with event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks.

As any increase in vehicle trips associated with the proposed project would not be anticipated to add new traffic of more than 110 vehicles per day at each project site, and the project is a local serving public facility, the proposed project therefore would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b), and the impacts would be less than significant.

---

<sup>68</sup> City of Hayward. 2020. Summary of Published Ordinance. June 2020.

<sup>69</sup> City of Hayward. 2020. VMT Thresholds of Significance and Screening Criteria – Brief. June 2020.

<sup>70</sup> California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

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

The proposed project would have a new 25-foot drop-off zone on Fairway Street, where a new curb line allowing vehicles safely to maneuver to the travel lane would be configured. This would also cause the adjacent sidewalk to be realigned. Existing on-street parking on Fairway Street would be reconfigured from parallel to diagonal parking on the northwest corner of the project site. Additionally, along Rousseau Street, parking would be realigned from parallel to diagonal parking at the southwest and southeast corners of the project site. The existing parking lot on site would be reconfigured to create additional parking stalls. In total, the project would result in an increase of 14 new parking spaces. The project would be responsible for on-site circulation improvements (driveways and internal drive aisles) and frontage improvements along Fairway and Rousseau streets.

As such, no sharp curves, dangerous intersections, or incompatible uses would be introduced by the proposed project. Therefore, impacts associated with hazardous design features or incompatible land uses would be less than significant.

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

As discussed above, the function and overall layout of the proposed project would not substantially alter either the project site. Emergency vehicle access to the surrounding neighborhood and the project site would be maintained and access would not be significantly impacted. New parking areas for the proposed project on Fairway and Rousseau streets would be designed to comply with all relevant local and jurisdictional standards of design. All parking and loading areas would be designed and constructed to all jurisdictional standards and comply with width, clearance, and turning-radius requirements. During construction of the proposed project, the project site would be accessible to emergency responders during construction and operation of the proposed project. Any impacts to emergency access during the construction period would be temporary.

All major entrances, parking areas, and loading zones would be maintained to allow for emergency vehicle access. As a result of the proposed project's compliance with local requirements related to emergency vehicle access and circulation, the proposed the project would comply with all applicable local requirements related to emergency vehicle access and circulation, and would not result in inadequate emergency access. Therefore, the impacts would be less than significant.

### 3.18 Tribal Cultural Resources

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

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

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

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

As noted in Section 3.5, Cultural Resources, the proposed project site has been disturbed from urban development. There are no California Register of Historical Resources (CRHR) or NAHC Sacred Lands File eligible tribal cultural resources (TCR) on the project site or within a 0.5-mile radius. The project is subject to compliance with Assembly Bill (AB) 52, which requires lead agencies to provide tribes (who have requested notification) with early notification of the proposed project and, if requested, consultation to inform the CEQA process with respect to tribal cultural resources. Pursuant to AB52, HARD contacted the



seven NAHC Native American individuals and/or tribal organizations who may have direct knowledge of cultural resources in or near the project site on August 4, 2020.

- Irenne Zwierlein, Amah Mutsun Tribal Band of Mission San Juan Bautista
- Tony Cerda, Costanoan Rumsen Carmel Tribe
- Corrina Gould, The Confederated Villages of Lisjan
- Andrew Galvan, The Ohlone Indian Tribe
- Ann Marie Sayers, Indian Canyon Mutsun Band of Costanoan
- Charlene Nijmeh, Muwekma Ohlone Indian Tribe of the SF Bay
- Katherine Erolinda Perez, North Valley Yokuts Tribe

Katherine Erolinda Perez of the North Valley Yokuts Tribe responded on August 19, 2020, inquiring if a literature search had been completed and, if so, if it could be shared with her. With permission from HARD, Dudek emailed the results of the CHRIS records search and the NAHC Sacred Lands File search to Ms. Perez on August 28, 2020. No other responses have been received to date. No information pertaining to any potential Native American resources in the vicinity of the proposed project has been received. The proposed project, as currently designed, appears to have a low potential for encountering intact cultural deposits during ground-disturbing activities and would have no impact to known cultural resources. Based on these negative findings and the observed conditions of the present proposed project, no additional cultural resources efforts, including archaeological monitoring, are recommended to be necessary beyond standard protection measures for unanticipated discoveries of cultural resources and human remains (Appendix C). This impact is less than significant.

### 3.19 Utilities and Service Systems

|   | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| <b>XIX. UTILITIES AND SERVICE SYSTEMS</b> - Would the project:  |                                |   |                                     |                          |
| a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|  | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|
| c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?  | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

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

**Water**

Water service is provided by the City of Hayward for residential, commercial, industrial, governmental and fire suppression uses.<sup>71</sup> The City of Hayward purchases its drinking water from the San Francisco Public Utilities Commissions (SFPUC). The City receives this water through two pipelines along Mission Boulevard and Hesperian Boulevard that have a total capacity of 32 million gallons per day (mgd). In addition, the City of Hayward also maintains five emergency groundwater wells with a combined theoretical short-term pumping capacity of nearly 13.6 mgd.

Hayward’s average water demand is 14.55 mgd.<sup>72</sup> In the event that SFPUC transmission lines are not able to meet the City’s demands for a limited time, due to a short-term emergency, the wells can be activated. The 2015 Urban Water Management Plan (UWMP) found that the City of Hayward can adequately meet expected increases in demand through 2040 with existing entitlements during normal, dry and multiple dry years, provided water shortage contingency actions are implemented during any future drought years.

The existing facilities at the project site would be repurposed and reconfigured to create a community center with event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks. The proposed project would result in demand for water services during construction and during operations for restrooms and drinking fountains, kitchen and classroom uses, garden and landscaping uses. This demand for water could represent an increase in demand at the site compared to the existing community recreation uses but would likely be similar to or less than the demand from the former elementary school and existing park on

<sup>71</sup> City of Hayward. 2016. 2015 Urban Water Management Plan. <https://www.haywardca.gov/sites/default/files/documents/City%20of%20Hayward%20Final%202015%20UWMP.pdf>.

<sup>72</sup> Bay Area Water Supply and Conservation Agency. n.d. “Hayward, City of.” <https://bawsca.org/members/profiles/hayward>.

the project site. The water conveyance facilities serving the project site are currently sized to accommodate the demand from the former elementary school and are expected to be adequate for the proposed project.

The project would be required by the City of Hayward to meet water conservation and landscape design policies. Furthermore, the project would be required to comply with applicable water conservation measures set forth by the 2013 California Energy Code, Part 6 Title 24 CCR. These water conservation measures are related to bathroom fixtures in the upgraded existing building and landscaping materials. These measures would assist the project to avoid excessive, uncontrolled water consumption.

The existing water supply is expected to adequately serve the project's demand without the need for new or expanded water treatment, delivery, or storage facilities. Compliance with the applicable mandatory water conservation provisions would further reduce the need for new water facilities. Therefore, the proposed project would have a less-than-significant impact pertaining to the relocation or construction of new or expanded water facilities.

### **Wastewater**

The City of Hayward operates the Sewer Collection System, the wastewater collection system that collects wastewater from the majority of the residential, commercial and industrial users within the incorporated City limits.<sup>73</sup> The wastewater collection system is comprised of about 350 miles of sewer mains, nine sewage lift stations, and 2.5 miles of force mains. The City maintains a comprehensive maintenance and replacement program to minimize the potential for sanitary sewer overflows and to ensure that sufficient collection capacity is available to meet demand. Wastewater collected by the City is conveyed to the City-owned Water Pollution Control Facility, which is permitted under a NPDES permit issued by the San Francisco Bay RWQCB to provide primary through advanced secondary treatment for up to 18.5 mgd of wastewater.<sup>74</sup> The current average dry weather flow rate is 11.4 mgd, representing sufficient excess treatment capacity available to accommodate development.

As described above, the proposed project would result in generate wastewater from restrooms and kitchen and classroom uses. Compared to existing uses on the site, the proposed project could generate a limited increase in wastewater, which would likely be similar to or less than the wastewater generated from the former elementary school and existing park on the site. The wastewater conveyance facilities serving the site would accommodate the demand from the project; however, the project would upgraded sanitary sewer connections to the site.

The City of Hayward Water Pollution Control Facility can accommodate the wastewater generated from the proposed project and has adequate wastewater treatment capacity. Therefore, the proposed project would have a less-than-significant impact pertaining to the relocation or construction of new or expanded wastewater facilities.

### **Stormwater**

The project site has existing storm drain infrastructure. The project would remove existing garden furnishings, playgrounds, and blacktops and create a redesigned play and picnic spaces with landscaped

---

<sup>73</sup> City of Hayward. 2016. *2015 Urban Water Management Plan*. June 2016. Accessed on February 25, 2020. <https://www.haywardca.gov/sites/default/files/documents/City%20of%20Hayward%20Final%202015%20UWMP.pdf>.

<sup>74</sup> Ibid.

perimeters. Approximately 75,200 square feet of impervious surface would be added on site. The project design would update the stormwater drainage system and include the extension of stormwater pipes and 11,000 square feet of bio-retention areas to collect and treat stormwater runoff. No improvements would be required off-site to accommodate additional stormwater as the on-site facilities would contain runoff from the impervious areas. Therefore, the proposed project would have a less-than-significant impact pertaining to the relocation or construction of new or expanded stormwater drainage facilities.

***Electric power, natural gas, and telecommunications facilities***

The project site is equipped with utilities to serve the former elementary school, including existing PG&E and Pacific Telephone and Telegraph (PT&T). The existing PG&E and PT&T are located on the southwest corner of the site.

The proposed project would result in a limited demand for electric power, natural gas, and telecommunications facilities during construction and during operations. The utility service providers are expected to be able to adequately serve the project and services would be provided in compliance with applicable regulations for electric power, natural gas, and telecommunications facilities. Therefore, the proposed project would have a less-than-significant impact pertaining to the relocation or construction of new or expanded utility service facilities.

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

As described above, the current water supplies are expected to adequately serve the project's water supply demands during normal, dry, and multiple dry years. Therefore, impacts to existing water supplies would be less than significant.

**c) *Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

As described above, the proposed project is not anticipated to significantly increase wastewater demand. Therefore, impacts from the proposed project would be less than significant.

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

Waste Management of Alameda County Inc., a privately owned waste hauler, provides solid waste collection services to residential, commercial, and industrial customers in the City of Hayward. All waste from the City of Hayward is delivered to the Davis Street Transfer Station, where recyclable materials and solid waste are sorted.

Solid waste from Hayward is transported to the Altamont Landfill in Livermore, which has a total capacity of 124.4 million cubic yards, remaining capacity of 65.4 million cubic yards, and an anticipated closure date of 2040.<sup>75</sup>

---

<sup>75</sup> CalRecycle. 2019. SWIS Facility Detail. Altamont Landfill & Resource Recovery (01-AA-0009). <https://www2.calrecycle.ca.gov/swfacilities/Directory/01-AA-0009/>.

The project site was an elementary school and serves as an existing park; it currently generates solid waste and has generated solid waste in the past. The proposed project could result in construction waste and a limited increase in solid waste generation during operations due to potential increased use of the park facilities. This solid waste would represent a minor percentage of the daily permitted capacity at the Altamont Landfill and the landfill would be able to accommodate this minor potential increase in solid waste. Therefore, impacts associated with solid waste disposal would be less than significant.

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

The project would be required to comply with all applicable diversion requirements set forth by the County of Alameda Construction and Demolition Debris Management Ordinance. This ordinance requires projects to divert at least 75% of all inert solids (e.g., asphalt, concrete, rock, stone, brick, sand, soil, and fines) and 50% of all remaining construction and demolition waste from the waste stream.<sup>76</sup> As established by the ordinance, a Debris Management Plan would be prepared and submitted to the County for review and approval. This plan would include information regarding the estimated total volume or weight of waste generated by the project and means for diverting waste, including the disposal facilities to be used. Additionally, the project would be required to comply with all applicable requirements set forth by the Alameda County Department of Environmental Health, Office of Solid/Medical Waste Management. Further, the project will also be required to comply with all applicable state and local waste diversion requirements, including AB 939<sup>77</sup> and Senate Bill 1016.<sup>78</sup> Therefore, no impacts associated with federal, state, and local statutes and regulations related to solid waste would occur.

### 3.20 Wildfire

|  | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|
| <b>XX. WILDFIRE</b> – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:   |                                |   |                                     |                                     |
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

<sup>76</sup> Alameda County. n.d. "Construction and Demolition Debris." <https://www.acgov.org/sustain/what/greenbuilding/cdd.htm>.

<sup>77</sup> AB 939. California Integrated Waste Management Act. Chapter 1095. Amended 1989.

<sup>78</sup> Senate Bill No. 1016. Common interest developments. Chapter 376. Approved by Governor September 13, 2018.

|   | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?   | <input type="checkbox"/>       | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?**

As discussed in Section 3.9, Hazards and Hazardous Materials, question 3.9(f), and Section 3.17, Transportation, question 3.17(d), the project would not block or impede access to emergency evacuation routes, and would not interfere with implementation of an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

**b,c,d) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

The California Department of Forestry and Fire Protection (CAL FIRE) produces Wildland-Urban Interface maps for Fire Hazard Severity Zones (FHSZ), or areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. CAL Fire also maps areas of California where local governments have financial responsibility for wildland fire protection, known as local responsibility areas (LRA).<sup>79</sup> The project site is within an LRA and managed by the Hayward Fire Department and Fairview Fire Protection District. It is not within a FHSZ. The project would not install or require maintenance of infrastructure that may exacerbate fire risk or expose people or structures to significant risks of post fire slope instability or drainage changes. The project would develop recreational uses with an open lawn and landscaped areas, which would not pose a substantial wildfire risk.

Therefore, the proposed project does not contain environmental features or structures that would exacerbate the risk of wildfire, or post fire impacts. The impacts would be less than significant.

<sup>79</sup> California Department of Forestry and Fire Protection. 2008. "Very High Fire Hazard Severity Zones in Local Responsibility Areas" [online map]. 1:100,000 at 34"x30." Alameda County, California: CAL FIRE.

### 3.21 Mandatory Findings of Significance

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

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

As discussed in Section 3.4, Biological Resources, the project site is a former elementary school and an existing recreational park, and is not expected to support sensitive vegetation communities special-status plants, or special-status wildlife species, or their habitat. Any trees and other vegetation that have the potential to support nesting birds would be removed in a manner consistent with California Fish and Game Code and the Migratory Bird Treaty Act. Therefore, with implementation of the HARD’s project specifications (Supplementary Conditions, 3.b. Nesting Birds), the project would have a less-than-significant impact on biological resources.

As described in Section 3.5, Cultural Resources, the proposed project would have a less-than-significant impact on historical resources. In addition, the proposed project would include ground disturbing activities

that could result in the inadvertent discovery of sub-surface cultural and/or paleontological resources. In the unlikely event that sub-surface cultural and/or paleontological resources were to be discovered during construction activities associated with the proposed project, the resource(s) would be protected in accordance with mitigation measures MM-CUL-1 and MM-GEO-1. Therefore, the proposed project would not eliminate important examples of the major periods of California history or prehistory. For these reasons, impacts to cultural resources resulting from the proposed project would be less than significant with mitigation incorporated.

As such, effects to biological and cultural resources and potential for project-related activities to degrade the quality of the environment would be less than significant with incorporation of mitigation measures MM-CUL-1, and MM-GEO-1.

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

As described throughout this IS/MND, the proposed project would result in potentially significant impacts involving biological resources, cultural resources, geology and soils, hazards and hazardous materials, and noise. However, mitigation measures have been identified that would reduce these impacts to less-than-significant levels. Furthermore, the analysis presented in Section 3.2, Air Quality, and Section 3.17, Transportation, consider cumulative impacts and have determined that cumulative air and traffic impacts would be less than significant. All reasonably foreseeable future development in the City of Hayward would be subject to the same land use and environmental regulations that have been described throughout this document. Furthermore, all development projects are guided by the policies identified in the General Plan and by the regulations established in the Municipal Code. Therefore, compliance with applicable land use and environmental regulations would ensure that environmental effects associated with the proposed project would not combine with effects from reasonably foreseeable future development in the project vicinity to cause cumulatively considerable significant impacts. For these reasons, cumulative impacts would be less than significant with mitigation incorporated (see Sections 3.4, Biological Resources, 3.5, Cultural Resources, 3.8, Geology and Soils, 3.9, Hazards and Hazardous Materials, and 3.13 Noise). No further mitigation is required.

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

As detailed throughout this IS/MND, the proposed project would not exceed any significance thresholds or result in significant impacts in the environmental categories typically associated with indirect or direct effects to human beings, such as aesthetics, air quality, hazards and hazardous materials, or public services. However, the proposed project could result in potentially significant impacts related to construction noise. With implementation of mitigation measure identified in Section 3.13, Noise, of this IS/MND, this impact would be reduced to a less-than-significant level (mitigation measure MM-NOI-1). In addition, the incorporation of MM-HAZ-1 and MM-HAZ-2 would ensure the handling and disposal of asbestos containing materials, lead-based paint, and the testing for and disposal of potential pesticides in near-surface soils would be in accordance all federal, state, and local ordinances and policies. As such, impacts would be less than significant with mitigation incorporated. No further mitigation is required.



# 4 List of Preparers

---

## **Hayward Area Recreation and Park District**

1099 E Street

Hayward, California 94541

Marvin Yee, Project Manager

## **Dudek**

1630 San Pablo Avenue, Suite 300

Oakland, California 94612

Hannah Young, AICP, Project Manager

Kara Laurenson-Wright, Deputy Project Manager

Nicholas Lorenzen, Air Quality/Greenhouse Gases Specialist

Mike Carr, INCE, Acoustician

Ryan Henry, Biological Resources Specialist

Katie Haley, MA, Architectural Historian

Fallin Steffen, Architectural Historian

Adam Giacinto, MA, RPA, Cultural Resources Specialist

William Burns, MA, Cultural Resources Specialist

Dennis Pascua and Mladen Popovich, Transportation

INTENTIONALLY LEFT BLANK

# 5 Mitigation Monitoring and Reporting Program

## Mitigation Monitoring and Reporting Program

| Mitigation Measures   | Responsibility for Implementation   | Mitigation Schedule                 | Monitoring/Report Responsibility   | Status/Date Completed |
|---|---|-------------------------------------|--|-----------------------|
| <i>Cultural Resources</i>   |   |                                     |  |                       |
| <p><b>Mitigation Measure (MM) CUL-1: Unanticipated Discovery of Archaeological Resources:</b> In the event that archaeological resources (sites, features, or artifacts) are exposed during ground disturbing construction activities for the proposed project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior’s Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA,<sup>1,2</sup> the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.</p>  | Hayward Area Recreation and Park District, contractor, and qualified professional archaeologist | Ongoing during project construction | Hayward Area Recreation and Park District  |                       |
| <p><b>MM-CUL-2: Unanticipated Discovery of Human Remains:</b> In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found during project ground disturbing activities, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the MLD from the deceased Native American. The MLD shall complete their inspection within 48 hours of</p> | Hayward Area Recreation and Park District, contractor, and County of Alameda Coroner            | Ongoing during project construction | Hayward Area Recreation and Park District, contractor, and County of Alameda Coroner |                       |

<sup>1</sup> 14 CCR 15000-15387 and Appendices A through L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

<sup>2</sup> California Public Resources Code, Section 21000-21177. California Environmental Quality Act, as amended.

**Mitigation Monitoring and Reporting Program**

| Mitigation Measures   | Responsibility for Implementation   | Mitigation Schedule  | Monitoring/Report Responsibility   | Status/Date Completed |
|---|---|--|--|-----------------------|
| being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.  |   |  |  |                       |
| <b>Geology and Soils</b>  |   |  |  |                       |
| <b>MM-GEO-1: Unanticipated Discovery of Paleontological Resources:</b> In the event that paleontological resources are exposed during construction activities for the project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified specialist, meeting the Society of Vertebrate Paleontology <sup>3</sup> for paleontology, can evaluate the significance of the find and determine whether additional study is warranted. Depending on the significance of the find, the paleontologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of a paleontological treatment plan, testing, or data recovery may be warranted.  | Hayward Area Recreation and Park District, contractor, and qualified paleontologist | Ongoing during project construction  | Hayward Area Recreation and Park District, contractor, and qualified paleontologist  |                       |
| <b>Hazards and Hazardous Materials</b>  |   |  |  |                       |
| <b>MM-HAZ-1: Soil Remediation:</b> Prior to issuance of a grading or demolition permit by the City of Hayward and the start of construction activities at the Bidwell Park site, a soil remediation plan shall be developed and approved by the California Department of Toxic Substances Control (DTSC) and/or Regional Water Quality Control Board (RWQCB), depending on which entity is the lead agency. Remediation will address organochlorine pesticide contamination in on-site soils, including but not limited to 4,4-dichlorodiphenyldichloroethylene (DDE), 4,4-dichlorodiphenyltrichloroethane (DDT), dichlorodiphenyldichloroethane (DDD), and chlordane. Soil remediation shall be completed both prior to or in conjunction with project demolition and grading, with approval from the DTSC and/or RWQCB. | Hayward Area Recreation and Park District   | Prior to issuance of a grading or demolition permit and the start of construction activities | Hayward Area Recreation and Park District, California Department of Toxic Substances Control (DTSC), and/or Regional Water Quality Control Board (RWQCB) |                       |

<sup>3</sup> Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. [http://vertpaleo.org/Membership/Member-Ethics/SVP\\_Impact\\_Mitigation\\_Guidelines.aspx](http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx).

**Mitigation Monitoring and Reporting Program**

| Mitigation Measures   | Responsibility for Implementation                | Mitigation Schedule   | Monitoring/Report Responsibility  | Status/Date Completed |
|---|--|---|---|-----------------------|
| <p><b>MM-HAZ-2: Hazardous Materials Contingency Plan:</b> Prior to commencement of any building renovation, demolition, or other construction activities at the project site, a Hazardous Materials Contingency Plan (HMCP) shall be developed by HARD, or its designee, that addresses potential disturbance and exposure of hazardous substances and contaminated soil during demolition and grading. Potential disturbance and exposure include documented asbestos- and lead-containing materials in buildings to be demolished, as well as potential unknown contaminated soil in areas of proposed grading and excavations.</p> <p>The HMCP shall be prepared in compliance with local, state, and federal regulations for any necessary removal and disposal of such materials. Prior to implementation, the HMCP must be reviewed and accepted by the County of Alameda Department of Environmental Health. A California-licensed lead/asbestos abatement contractor shall be used for the structural removal work and proper removal methodology, as outlined in California Division of Occupational Safety and Health (CalOSHA) Title 8, Section 1529, of the California Code of Regulations. In addition, all other applicable federal, state, and local regulations regarding the removal, transport and disposal of asbestos-containing material and lead-based paint shall be applied.</p> <p>The HMCP shall describe procedures for assessment, characterization, management, and disposal of hazardous constituents, materials, and wastes, in accordance with all applicable federal, state, and local regulations. Contaminated soils shall be managed and disposed of in accordance with federal, state, and local regulations. The HMCP shall include provisions for construction worker training, worker protection, and preparation of exposure assessments as needed. As part of the HMCP, construction contractors shall consult federal Occupational Safety and Health Administration (OSHA) Regulations at Title 29, Section 1926.62, of the Code of Federal Regulations and Cal-OSHA Regulations at Title 8, 1532.1, "Lead in Construction" standards for complete requirements.</p> | <p>Hayward Area Recreation and Park District</p> | <p>Prior to issuance of a grading or demolition permit and the start of construction activities</p> | <p>Hayward Area Recreation and Park District, County of Alameda Department of Environmental Health, and City of Hayward Building Division</p> |                       |

**Mitigation Monitoring and Reporting Program**

| Mitigation Measures   | Responsibility for Implementation                        | Mitigation Schedule                 | Monitoring/Report Responsibility                         | Status/Date Completed |
|---|--|-------------------------------------|--|-----------------------|
| <p>The HMCP shall also include a monitoring plan to be conducted by a qualified consultant during abatement activities to ensure compliance with the work plan requirements and abatement contractor specifications.</p> <p>Demolition plans and contract specifications shall incorporate any necessary abatement measures for the removal of materials containing hazardous materials, including lead-based paint and asbestos, to the satisfaction of the City of Hayward Building Division. The measures shall be consistent with the HMCP prepared for the proposed project and conducted by a California-licensed lead/asbestos abatement contractor.</p>   |  |                                     |  |                       |
| <b>Noise</b>  |  |                                     |  |                       |
| <p><b>MM-NOI-1: Construction Noise-Reduction Measures:</b> HARD and/or their contractor shall implement the following measures:</p> <ul style="list-style-type: none"> <li>• Ensure construction noise levels are consistent with limits established by the City of Hayward’s Municipal Code section 4-1.03.4.</li> <li>• Construction equipment and vehicles shall be fitted with efficient, well-maintained mufflers that reduce equipment noise emission levels at the project site. Internal combustion powered equipment shall be equipped with properly operating noise suppression devices (e.g., mufflers, silencers, wraps) that meet or exceed manufacture specifications. Mufflers and noise suppressors shall be properly maintained and tuned to ensure proper fit, function and minimization of noise.</li> <li>• All construction equipment shall maintain maximum physical separation, as far as practicable, between the noise sources (construction equipment) and sensitive receptors.</li> <li>• Impact tools (e.g., jack hammers, hoe rams, etc.) shall be powered by hydraulic or electric means wherever possible to avoid noise associated with compressed air exhaust from pneumatic tools. Where use of pneumatic tools is required, or impact noise sources are elevated, impact tools shall have the working area/impact area shrouded or shielded, with intake and exhaust ports on power</li> </ul> | Hayward Area Recreation and Park District and contractor | Ongoing during project construction | Hayward Area Recreation and Park District and contractor |                       |

**Mitigation Monitoring and Reporting Program**

| Mitigation Measures   | Responsibility for Implementation | Mitigation Schedule | Monitoring/Report Responsibility | Status/Date Completed |
|---|-----------------------------------|---------------------|----------------------------------|-----------------------|
| <p>equipment muffled or suppressed. This may necessitate the use of temporary or portable, application specific noise shields or barriers.</p> <ul style="list-style-type: none"> <li>• Construction equipment shall not be idled for extended periods (e.g., 15 minutes or longer) of time in the immediate vicinity of noise-sensitive receptors.</li> <li>• Use of noise barriers, such as paneled noise blankets, shrouds, and industrial noise absorption barriers shall be employed to isolate stationary and off-road equipment that are found to generate substantial noise levels. Noise control shrouds, blankets, and barriers shall incorporate a solid panel that achieves a minimum Sound Transmission Class rating of 29. All noise control elements shall be suitable for outdoor-all weather conditions and incorporate sound-absorptive materials on the face of the barrier exposed to the construction activity.</li> <li>• A disturbance coordinator shall be designated by HARD and/or the contractor. The coordinator shall post contact information in a publicly accessible location near the entrance of the construction site so that it is clearly visible to the nearby receptors most likely to be disturbed. Contact information for the disturbance coordinator shall be provided via a monitored phone number and physical mailing address at a minimum, but also may include email, web-form addresses. The coordinator shall manage complaints resulting from the construction noise. Reoccurring disturbances shall be evaluated by a qualified acoustical consultant retained by the HARD to ensure compliance with applicable standards.</li> </ul> |                                   |                     |                                  |                       |

INTENTIONALLY LEFT BLANK



# Appendix A

---

## CalEEMod Calculations

Bidwell/EI Rancho Verde - San Francisco Bay Area Air Basin, Annual

**Bidwell/EI Rancho Verde  
San Francisco Bay Area Air Basin, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses                 | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|---------------------------|-------|----------|-------------|--------------------|------------|
| Government (Civic Center) | 21.24 | 1000sqft | 0.00        | 21,240.00          | 0          |
| Other Asphalt Surfaces    | 75.20 | 1000sqft | 1.73        | 75,200.00          | 0          |
| City Park                 | 10.50 | Acre     | 10.50       | 457,380.00         | 0          |
| City Park                 | 3.30  | Acre     | 3.30        | 143,748.00         | 0          |

**1.2 Other Project Characteristics**

|                                 |                                |                                 |       |                                  |       |
|---------------------------------|--------------------------------|---------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>             | Urban                          | <b>Wind Speed (m/s)</b>         | 2.2   | <b>Precipitation Freq (Days)</b> | 64    |
| <b>Climate Zone</b>             | 5                              | <b>Operational Year</b>         |       | 2022                             |       |
| <b>Utility Company</b>          | Pacific Gas & Electric Company |                                 |       |                                  |       |
| <b>CO2 Intensity (lb/MW hr)</b> | 454.91                         | <b>CH4 Intensity (lb/MW hr)</b> | 0.029 | <b>N2O Intensity (lb/MW hr)</b>  | 0.006 |

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Operational year 2022. CO2 intensity factor reduced based on PG&E Power Content Label.

Land Use - Acreage based on project site.

Construction Phase - Building construction was reduced to account for renovations

Demolition - Demolition of the southern classroom buildings at the Bidwell site.

Grading - 3,000 CY exported.

Energy Use - CalEEMod defaults.

Note: This CalEEMod analysis and modeling includes both the proposed Bidwell Park Master Plan project and the EI Rancho Verde Park Master Plan project. At the time the analysis was prepared, the proposed EI Rancho Verde Park Master Plan was anticipated to be included in the MND. As the EI Rancho Verde Park will now undergo separate environmental review, the estimated emissions calculations, which included both projects, overstate the actual emission levels associated with the Bidwell Park Master Plan. Therefore, the analysis and modeling provide a conservative assessment of the proposed project's construction and operations-related emissions.

Construction Off-road Equipment Mitigation - standard dust rule compliance.

Energy Mitigation - None applied.

Waste Mitigation - None applied.

| Table Name                | Column Name                  | Default Value | New Value |
|---------------------------|------------------------------|---------------|-----------|
| tblConstDustMitigation    | WaterUnpavedRoadVehicleSpeed | 0             | 15        |
| tblConstructionPhase      | NumDays                      | 300.00        | 222.00    |
| tblGrading                | MaterialExported             | 0.00          | 3,000.00  |
| tblLandUse                | LotAcreage                   | 0.49          | 0.00      |
| tblProjectCharacteristics | CO2IntensityFactor           | 641.35        | 454.91    |

## 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         |                 |                 |               |               |                 |
| 2021           | 0.4344        | 4.2798        | 3.4289        | 9.6600e-003        | 0.5382        | 0.1562        | 0.6944        | 0.1895         | 0.1459        | 0.3353        | 0.0000        | 876.8224        | 876.8224        | 0.1174        | 0.0000        | 879.7583        |
| 2022           | 0.3199        | 0.4149        | 0.4431        | 1.1300e-003        | 0.0378        | 0.0154        | 0.0532        | 0.0102         | 0.0144        | 0.0247        | 0.0000        | 102.0108        | 102.0108        | 0.0144        | 0.0000        | 102.3717        |
| <b>Maximum</b> | <b>0.4344</b> | <b>4.2798</b> | <b>3.4289</b> | <b>9.6600e-003</b> | <b>0.5382</b> | <b>0.1562</b> | <b>0.6944</b> | <b>0.1895</b>  | <b>0.1459</b> | <b>0.3353</b> | <b>0.0000</b> | <b>876.8224</b> | <b>876.8224</b> | <b>0.1174</b> | <b>0.0000</b> | <b>879.7583</b> |

#### 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         |                 |                 |               |               |                 |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| 2021           | 0.4344        | 4.2798        | 3.4289        | 9.6600e-003        | 0.4149        | 0.1562        | 0.5711        | 0.1322        | 0.1459        | 0.2780        | 0.0000        | 876.8220        | 876.8220        | 0.1174        | 0.0000        | 879.7579        |
| 2022           | 0.3199        | 0.4149        | 0.4431        | 1.1300e-003        | 0.0378        | 0.0154        | 0.0532        | 0.0102        | 0.0144        | 0.0247        | 0.0000        | 102.0107        | 102.0107        | 0.0144        | 0.0000        | 102.3717        |
| <b>Maximum</b> | <b>0.4344</b> | <b>4.2798</b> | <b>3.4289</b> | <b>9.6600e-003</b> | <b>0.4149</b> | <b>0.1562</b> | <b>0.5711</b> | <b>0.1322</b> | <b>0.1459</b> | <b>0.2780</b> | <b>0.0000</b> | <b>876.8220</b> | <b>876.8220</b> | <b>0.1174</b> | <b>0.0000</b> | <b>879.7579</b> |

|                          | 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        |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|----------------|---------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Percent Reduction</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>21.42</b>  | <b>0.00</b>  | <b>16.50</b> | <b>28.69</b>   | <b>0.00</b>   | <b>15.92</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

| Quarter | Start Date | End Date       | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|----------------|--|--|
| 1       | 1-1-2021   | 3-31-2021      | 1.4582                                       | 1.4582                                     |
| 2       | 4-1-2021   | 6-30-2021      | 1.0709                                       | 1.0709                                     |
| 3       | 7-1-2021   | 9-30-2021      | 1.0826                                       | 1.0826                                     |
| 4       | 10-1-2021  | 12-31-2021     | 1.0927                                       | 1.0927                                     |
| 5       | 1-1-2022   | 3-31-2022      | 0.7539                                       | 0.7539                                     |
|         |            | <b>Highest</b> | <b>1.4582</b>                                | <b>1.4582</b>                              |

## 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     | 0.1208      | 1.0000e-005 | 1.0100e-003 | 0.0000      |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 1.9700e-003 | 1.9700e-003 | 1.0000e-005 | 0.0000      | 2.1000e-003 |
| Energy   | 2.2100e-003 | 0.0201      | 0.0169      | 1.2000e-004 |               | 1.5300e-003  | 1.5300e-003 |                | 1.5300e-003   | 1.5300e-003 | 0.0000   | 76.6061     | 76.6061     | 3.9100e-003 | 1.1200e-003 | 77.0385     |
| Mobile   | 0.1220      | 0.5833      | 1.2857      | 4.4300e-003 | 0.3780        | 4.0500e-003  | 0.3821      | 0.1015         | 3.7900e-003   | 0.1053      | 0.0000   | 406.9445    | 406.9445    | 0.0156      | 0.0000      | 407.3354    |
| Waste    |             |             |             |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 24.8177  | 0.0000      | 24.8177     | 1.4667      | 0.0000      | 61.4847     |

|              |               |               |               |                    |               |                    |               |               |                    |               |                |                 |                 |               |                    |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|----------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Water        |               |               |               |                    |               | 0.0000             | 0.0000        |               | 0.0000             | 0.0000        | 1.3387         | 18.4537         | 19.7924         | 0.1387        | 3.4900e-003        | 24.2991         |
| <b>Total</b> | <b>0.2450</b> | <b>0.6034</b> | <b>1.3037</b> | <b>4.5500e-003</b> | <b>0.3780</b> | <b>5.5800e-003</b> | <b>0.3836</b> | <b>0.1015</b> | <b>5.3200e-003</b> | <b>0.1068</b> | <b>26.1563</b> | <b>502.0064</b> | <b>528.1627</b> | <b>1.6249</b> | <b>4.6100e-003</b> | <b>570.1599</b> |

### 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         | 0.1208        | 1.0000e-005   | 1.0100e-003   | 0.0000             |               | 0.0000             | 0.0000        |                | 0.0000             | 0.0000        | 0.0000         | 1.9700e-003     | 1.9700e-003     | 1.0000e-005   | 0.0000             | 2.1000e-003     |
| Energy       | 1.5800e-003   | 0.0144        | 0.0121        | 9.0000e-005        |               | 1.0900e-003        | 1.0900e-003   |                | 1.0900e-003        | 1.0900e-003   | 0.0000         | 64.9859         | 64.9859         | 3.4400e-003   | 9.4000e-004        | 65.3515         |
| Mobile       | 0.1220        | 0.5833        | 1.2857        | 4.4300e-003        | 0.3780        | 4.0500e-003        | 0.3821        | 0.1015         | 3.7900e-003        | 0.1053        | 0.0000         | 406.9445        | 406.9445        | 0.0156        | 0.0000             | 407.3354        |
| Waste        |               |               |               |                    |               | 0.0000             | 0.0000        |                | 0.0000             | 0.0000        | 12.4088        | 0.0000          | 12.4088         | 0.7333        | 0.0000             | 30.7424         |
| Water        |               |               |               |                    |               | 0.0000             | 0.0000        |                | 0.0000             | 0.0000        | 1.3387         | 18.4537         | 19.7924         | 0.1387        | 3.4900e-003        | 24.2991         |
| <b>Total</b> | <b>0.2444</b> | <b>0.5977</b> | <b>1.2989</b> | <b>4.5200e-003</b> | <b>0.3780</b> | <b>5.1400e-003</b> | <b>0.3832</b> | <b>0.1015</b>  | <b>4.8800e-003</b> | <b>0.1064</b> | <b>13.7475</b> | <b>490.3862</b> | <b>504.1337</b> | <b>0.8911</b> | <b>4.4300e-003</b> | <b>527.7305</b> |

|                          | 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        |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|
| <b>Percent Reduction</b> | <b>0.26</b> | <b>0.95</b> | <b>0.37</b> | <b>0.66</b> | <b>0.00</b>   | <b>7.89</b>  | <b>0.11</b> | <b>0.00</b>    | <b>8.27</b>   | <b>0.41</b> | <b>47.44</b> | <b>2.31</b> | <b>4.55</b> | <b>45.16</b> | <b>3.90</b> | <b>7.44</b> |

## 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       | 1/1/2021   | 1/28/2021 | 5             | 20       |                   |
| 2            | Site Preparation | Site Preparation | 1/29/2021  | 2/11/2021 | 5             | 10       |                   |
| 3            | Grading          | Grading          | 2/12/2021  | 3/25/2021 | 5             | 30       |                   |

|   |                       |                       |           |           |   |     |
|---|-----------------------|-----------------------|-----------|-----------|---|-----|
| 4 | Building Construction | Building Construction | 3/26/2021 | 1/31/2022 | 5 | 222 |
| 5 | Paving                | Paving                | 2/1/2022  | 2/28/2022 | 5 | 20  |
| 6 | Architectural Coating | Architectural Coating | 3/1/2022  | 3/28/2022 | 5 | 20  |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 1.73**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 31,860; Non-Residential Outdoor: 10,620; Striped Parking Area:**

**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                | 3      | 8.00        | 158         | 0.38        |
| Demolition            | Rubber Tired Dozers       | 2      | 8.00        | 247         | 0.40        |
| Site Preparation      | Rubber Tired Dozers       | 3      | 8.00        | 247         | 0.40        |
| Site Preparation      | Tractors/Loaders/Backhoes | 4      | 8.00        | 97          | 0.37        |
| Grading               | Excavators                | 2      | 8.00        | 158         | 0.38        |
| Grading               | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Grading               | Rubber Tired Dozers       | 1      | 8.00        | 247         | 0.40        |
| Grading               | Scrapers                  | 2      | 8.00        | 367         | 0.48        |
| Grading               | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Building Construction | Cranes                    | 1      | 7.00        | 231         | 0.29        |
| Building Construction | Forklifts                 | 3      | 8.00        | 89          | 0.20        |
| Building Construction | Generator Sets            | 1      | 8.00        | 84          | 0.74        |
| Building Construction | Tractors/Loaders/Backhoes | 3      | 7.00        | 97          | 0.37        |
| Building Construction | Welders                   | 1      | 8.00        | 46          | 0.45        |
| Paving                | Pavers                    | 2      | 8.00        | 130         | 0.42        |
| Paving                | Paving Equipment          | 2      | 8.00        | 132         | 0.36        |
| Paving                | Rollers                   | 2      | 8.00        | 80          | 0.38        |
| Architectural Coating | Air Compressors           | 1      | 6.00        | 78          | 0.48        |

### 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            | 6                       | 15.00              | 0.00               | 34.00               | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Site Preparation      | 7                       | 18.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Grading               | 8                       | 20.00              | 0.00               | 375.00              | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Building Construction | 9                       | 291.00             | 114.00             | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Paving                | 6                       | 15.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Architectural Coating | 1                       | 58.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

### **3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### **3.2 Demolition - 2021**

#### 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 |               |               |               |                    | 3.6900e-003        | 0.0000        | 3.6900e-003   | 5.6000e-004        | 0.0000        | 5.6000e-004   | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0317        | 0.3144        | 0.2157        | 3.9000e-004        |                    | 0.0155        | 0.0155        |                    | 0.0144        | 0.0144        | 0.0000        | 34.0008        | 34.0008        | 9.5700e-003        | 0.0000        | 34.2400        |
| <b>Total</b>  | <b>0.0317</b> | <b>0.3144</b> | <b>0.2157</b> | <b>3.9000e-004</b> | <b>3.6900e-003</b> | <b>0.0155</b> | <b>0.0192</b> | <b>5.6000e-004</b> | <b>0.0144</b> | <b>0.0150</b> | <b>0.0000</b> | <b>34.0008</b> | <b>34.0008</b> | <b>9.5700e-003</b> | <b>0.0000</b> | <b>34.2400</b> |

#### 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      | 1.3000e-004        | 4.5900e-003        | 9.8000e-004        | 1.0000e-005        | 2.9000e-004        | 1.0000e-005        | 3.0000e-004        | 8.0000e-005        | 1.0000e-005        | 9.0000e-005        | 0.0000        | 1.2861        | 1.2861        | 7.0000e-005        | 0.0000        | 1.2878        |
| 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       | 4.6000e-004        | 3.2000e-004        | 3.3600e-003        | 1.0000e-005        | 1.1900e-003        | 1.0000e-005        | 1.1900e-003        | 3.2000e-004        | 1.0000e-005        | 3.2000e-004        | 0.0000        | 1.0020        | 1.0020        | 2.0000e-005        | 0.0000        | 1.0026        |
| <b>Total</b> | <b>5.9000e-004</b> | <b>4.9100e-003</b> | <b>4.3400e-003</b> | <b>2.0000e-005</b> | <b>1.4800e-003</b> | <b>2.0000e-005</b> | <b>1.4900e-003</b> | <b>4.0000e-004</b> | <b>2.0000e-005</b> | <b>4.1000e-004</b> | <b>0.0000</b> | <b>2.2881</b> | <b>2.2881</b> | <b>9.0000e-005</b> | <b>0.0000</b> | <b>2.2903</b> |

**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 |               |               |               |                    | 1.6600e-003        | 0.0000        | 1.6600e-003   | 2.5000e-004        | 0.0000        | 2.5000e-004   | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0317        | 0.3144        | 0.2157        | 3.9000e-004        |                    | 0.0155        | 0.0155        |                    | 0.0144        | 0.0144        | 0.0000        | 34.0007        | 34.0007        | 9.5700e-003        | 0.0000        | 34.2400        |
| <b>Total</b>  | <b>0.0317</b> | <b>0.3144</b> | <b>0.2157</b> | <b>3.9000e-004</b> | <b>1.6600e-003</b> | <b>0.0155</b> | <b>0.0172</b> | <b>2.5000e-004</b> | <b>0.0144</b> | <b>0.0147</b> | <b>0.0000</b> | <b>34.0007</b> | <b>34.0007</b> | <b>9.5700e-003</b> | <b>0.0000</b> | <b>34.2400</b> |

**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      | 1.3000e-004        | 4.5900e-003        | 9.8000e-004        | 1.0000e-005        | 2.9000e-004        | 1.0000e-005        | 3.0000e-004        | 8.0000e-005        | 1.0000e-005        | 9.0000e-005        | 0.0000        | 1.2861        | 1.2861        | 7.0000e-005        | 0.0000        | 1.2878        |
| 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       | 4.6000e-004        | 3.2000e-004        | 3.3600e-003        | 1.0000e-005        | 1.1900e-003        | 1.0000e-005        | 1.1900e-003        | 3.2000e-004        | 1.0000e-005        | 3.2000e-004        | 0.0000        | 1.0020        | 1.0020        | 2.0000e-005        | 0.0000        | 1.0026        |
| <b>Total</b> | <b>5.9000e-004</b> | <b>4.9100e-003</b> | <b>4.3400e-003</b> | <b>2.0000e-005</b> | <b>1.4800e-003</b> | <b>2.0000e-005</b> | <b>1.4900e-003</b> | <b>4.0000e-004</b> | <b>2.0000e-005</b> | <b>4.1000e-004</b> | <b>0.0000</b> | <b>2.2881</b> | <b>2.2881</b> | <b>9.0000e-005</b> | <b>0.0000</b> | <b>2.2903</b> |

### 3.3 Site Preparation - 2021

#### 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 |               |               |               |                    | 0.0903        | 0.0000        | 0.0903        | 0.0497         | 0.0000             | 0.0497        | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0194        | 0.2025        | 0.1058        | 1.9000e-004        |               | 0.0102        | 0.0102        |                | 9.4000e-003        | 9.4000e-003   | 0.0000        | 16.7179        | 16.7179        | 5.4100e-003        | 0.0000        | 16.8530        |
| <b>Total</b>  | <b>0.0194</b> | <b>0.2025</b> | <b>0.1058</b> | <b>1.9000e-004</b> | <b>0.0903</b> | <b>0.0102</b> | <b>0.1006</b> | <b>0.0497</b>  | <b>9.4000e-003</b> | <b>0.0591</b> | <b>0.0000</b> | <b>16.7179</b> | <b>16.7179</b> | <b>5.4100e-003</b> | <b>0.0000</b> | <b>16.8530</b> |

#### 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       | 2.8000e-004        | 1.9000e-004        | 2.0200e-003        | 1.0000e-005        | 7.1000e-004        | 0.0000        | 7.2000e-004        | 1.9000e-004        | 0.0000        | 1.9000e-004        | 0.0000        | 0.6012        | 0.6012        | 1.0000e-005        | 0.0000        | 0.6015        |
| <b>Total</b> | <b>2.8000e-004</b> | <b>1.9000e-004</b> | <b>2.0200e-003</b> | <b>1.0000e-005</b> | <b>7.1000e-004</b> | <b>0.0000</b> | <b>7.2000e-004</b> | <b>1.9000e-004</b> | <b>0.0000</b> | <b>1.9000e-004</b> | <b>0.0000</b> | <b>0.6012</b> | <b>0.6012</b> | <b>1.0000e-005</b> | <b>0.0000</b> | <b>0.6015</b> |

### 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 |               |               |               |                    | 0.0407        | 0.0000        | 0.0407        | 0.0223         | 0.0000             | 0.0223        | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0194        | 0.2025        | 0.1058        | 1.9000e-004        |               | 0.0102        | 0.0102        |                | 9.4000e-003        | 9.4000e-003   | 0.0000        | 16.7178        | 16.7178        | 5.4100e-003        | 0.0000        | 16.8530        |
| <b>Total</b>  | <b>0.0194</b> | <b>0.2025</b> | <b>0.1058</b> | <b>1.9000e-004</b> | <b>0.0407</b> | <b>0.0102</b> | <b>0.0509</b> | <b>0.0223</b>  | <b>9.4000e-003</b> | <b>0.0317</b> | <b>0.0000</b> | <b>16.7178</b> | <b>16.7178</b> | <b>5.4100e-003</b> | <b>0.0000</b> | <b>16.8530</b> |

### 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       | 2.8000e-004        | 1.9000e-004        | 2.0200e-003        | 1.0000e-005        | 7.1000e-004        | 0.0000        | 7.2000e-004        | 1.9000e-004        | 0.0000        | 1.9000e-004        | 0.0000        | 0.6012        | 0.6012        | 1.0000e-005        | 0.0000        | 0.6015        |
| <b>Total</b> | <b>2.8000e-004</b> | <b>1.9000e-004</b> | <b>2.0200e-003</b> | <b>1.0000e-005</b> | <b>7.1000e-004</b> | <b>0.0000</b> | <b>7.2000e-004</b> | <b>1.9000e-004</b> | <b>0.0000</b> | <b>1.9000e-004</b> | <b>0.0000</b> | <b>0.6012</b> | <b>0.6012</b> | <b>1.0000e-005</b> | <b>0.0000</b> | <b>0.6015</b> |

### 3.4 Grading - 2021

#### Unmitigated Construction On-Site



|              |               |               |               |                    |               |               |               |               |               |               |               |                |                |               |               |                |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Off-Road     | 0.0629        | 0.6960        | 0.4632        | 9.3000e-004        |               | 0.0298        | 0.0298        |               | 0.0274        | 0.0274        | 0.0000        | 81.7424        | 81.7424        | 0.0264        | 0.0000        | 82.4033        |
| <b>Total</b> | <b>0.0629</b> | <b>0.6960</b> | <b>0.4632</b> | <b>9.3000e-004</b> | <b>0.0586</b> | <b>0.0298</b> | <b>0.0884</b> | <b>0.0243</b> | <b>0.0274</b> | <b>0.0517</b> | <b>0.0000</b> | <b>81.7424</b> | <b>81.7424</b> | <b>0.0264</b> | <b>0.0000</b> | <b>82.4033</b> |

**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      | 1.4800e-003        | 0.0506        | 0.0108        | 1.5000e-004        | 3.1700e-003        | 1.6000e-004        | 3.3200e-003        | 8.7000e-004        | 1.5000e-004        | 1.0200e-003        | 0.0000        | 14.1852        | 14.1852        | 7.2000e-004        | 0.0000        | 14.2033        |
| 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       | 9.2000e-004        | 6.4000e-004   | 6.7300e-003   | 2.0000e-005        | 2.3700e-003        | 2.0000e-005        | 2.3900e-003        | 6.3000e-004        | 1.0000e-005        | 6.4000e-004        | 0.0000        | 2.0040         | 2.0040         | 4.0000e-005        | 0.0000        | 2.0051         |
| <b>Total</b> | <b>2.4000e-003</b> | <b>0.0512</b> | <b>0.0175</b> | <b>1.7000e-004</b> | <b>5.5400e-003</b> | <b>1.8000e-004</b> | <b>5.7100e-003</b> | <b>1.5000e-003</b> | <b>1.6000e-004</b> | <b>1.6600e-003</b> | <b>0.0000</b> | <b>16.1892</b> | <b>16.1892</b> | <b>7.6000e-004</b> | <b>0.0000</b> | <b>16.2084</b> |

**3.5 Building Construction - 2021**

**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     | 0.1910        | 1.7519        | 1.6658        | 2.7100e-003        |               | 0.0963        | 0.0963        |                | 0.0906        | 0.0906        | 0.0000        | 232.7955        | 232.7955        | 0.0562        | 0.0000        | 234.1996        |
| <b>Total</b> | <b>0.1910</b> | <b>1.7519</b> | <b>1.6658</b> | <b>2.7100e-003</b> |               | <b>0.0963</b> | <b>0.0963</b> |                | <b>0.0906</b> | <b>0.0906</b> | <b>0.0000</b> | <b>232.7955</b> | <b>232.7955</b> | <b>0.0562</b> | <b>0.0000</b> | <b>234.1996</b> |

**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       | 0.0364        | 1.1967        | 0.2987        | 3.0900e-003        | 0.0751        | 2.6000e-003        | 0.0777        | 0.0217         | 2.4900e-003        | 0.0242        | 0.0000        | 297.1304        | 297.1304        | 0.0146        | 0.0000        | 297.4955        |
| Worker       | 0.0898        | 0.0619        | 0.6559        | 2.1600e-003        | 0.2311        | 1.5100e-003        | 0.2326        | 0.0615         | 1.3900e-003        | 0.0629        | 0.0000        | 195.3570        | 195.3570        | 4.3800e-003   | 0.0000        | 195.4665        |
| <b>Total</b> | <b>0.1261</b> | <b>1.2586</b> | <b>0.9546</b> | <b>5.2500e-003</b> | <b>0.3062</b> | <b>4.1100e-003</b> | <b>0.3103</b> | <b>0.0832</b>  | <b>3.8800e-003</b> | <b>0.0871</b> | <b>0.0000</b> | <b>492.4874</b> | <b>492.4874</b> | <b>0.0190</b> | <b>0.0000</b> | <b>492.9621</b> |

**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     | 0.1910        | 1.7519        | 1.6658        | 2.7100e-003        |               | 0.0963        | 0.0963        |                | 0.0906        | 0.0906        | 0.0000        | 232.7952        | 232.7952        | 0.0562        | 0.0000        | 234.1993        |
| <b>Total</b> | <b>0.1910</b> | <b>1.7519</b> | <b>1.6658</b> | <b>2.7100e-003</b> |               | <b>0.0963</b> | <b>0.0963</b> |                | <b>0.0906</b> | <b>0.0906</b> | <b>0.0000</b> | <b>232.7952</b> | <b>232.7952</b> | <b>0.0562</b> | <b>0.0000</b> | <b>234.1993</b> |

**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       | 0.0364        | 1.1967        | 0.2987        | 3.0900e-003        | 0.0751        | 2.6000e-003        | 0.0777        | 0.0217        | 2.4900e-003        | 0.0242        | 0.0000        | 297.1304        | 297.1304        | 0.0146        | 0.0000        | 297.4955        |
| Worker       | 0.0898        | 0.0619        | 0.6559        | 2.1600e-003        | 0.2311        | 1.5100e-003        | 0.2326        | 0.0615        | 1.3900e-003        | 0.0629        | 0.0000        | 195.3570        | 195.3570        | 4.3800e-003   | 0.0000        | 195.4665        |
| <b>Total</b> | <b>0.1261</b> | <b>1.2586</b> | <b>0.9546</b> | <b>5.2500e-003</b> | <b>0.3062</b> | <b>4.1100e-003</b> | <b>0.3103</b> | <b>0.0832</b> | <b>3.8800e-003</b> | <b>0.0871</b> | <b>0.0000</b> | <b>492.4874</b> | <b>492.4874</b> | <b>0.0190</b> | <b>0.0000</b> | <b>492.9621</b> |

### 3.5 Building Construction - 2022

#### 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     | 0.0179        | 0.1640        | 0.1718        | 2.8000e-004        |               | 8.4900e-003        | 8.4900e-003        |                | 7.9900e-003        | 7.9900e-003        | 0.0000        | 24.3312        | 24.3312        | 5.8300e-003        | 0.0000        | 24.4769        |
| <b>Total</b> | <b>0.0179</b> | <b>0.1640</b> | <b>0.1718</b> | <b>2.8000e-004</b> |               | <b>8.4900e-003</b> | <b>8.4900e-003</b> |                | <b>7.9900e-003</b> | <b>7.9900e-003</b> | <b>0.0000</b> | <b>24.3312</b> | <b>24.3312</b> | <b>5.8300e-003</b> | <b>0.0000</b> | <b>24.4769</b> |

#### 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       | 3.5400e-003   | 0.1184        | 0.0293        | 3.2000e-004        | 7.8500e-003   | 2.4000e-004        | 8.0900e-003   | 2.2700e-003        | 2.3000e-004        | 2.5000e-003        | 0.0000        | 30.7391        | 30.7391        | 1.4600e-003        | 0.0000        | 30.7755        |
| Worker       | 8.7400e-003   | 5.8000e-003   | 0.0630        | 2.2000e-004        | 0.0241        | 1.5000e-004        | 0.0243        | 6.4200e-003        | 1.4000e-004        | 6.5700e-003        | 0.0000        | 19.6622        | 19.6622        | 4.1000e-004        | 0.0000        | 19.6724        |
| <b>Total</b> | <b>0.0123</b> | <b>0.1242</b> | <b>0.0923</b> | <b>5.4000e-004</b> | <b>0.0320</b> | <b>3.9000e-004</b> | <b>0.0324</b> | <b>8.6900e-003</b> | <b>3.7000e-004</b> | <b>9.0700e-003</b> | <b>0.0000</b> | <b>50.4012</b> | <b>50.4012</b> | <b>1.8700e-003</b> | <b>0.0000</b> | <b>50.4480</b> |

**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     | 0.0179        | 0.1640        | 0.1718        | 2.8000e-004        |               | 8.4900e-003        | 8.4900e-003        |                | 7.9900e-003        | 7.9900e-003        | 0.0000        | 24.3311        | 24.3311        | 5.8300e-003        | 0.0000        | 24.4769        |
| <b>Total</b> | <b>0.0179</b> | <b>0.1640</b> | <b>0.1718</b> | <b>2.8000e-004</b> |               | <b>8.4900e-003</b> | <b>8.4900e-003</b> |                | <b>7.9900e-003</b> | <b>7.9900e-003</b> | <b>0.0000</b> | <b>24.3311</b> | <b>24.3311</b> | <b>5.8300e-003</b> | <b>0.0000</b> | <b>24.4769</b> |

**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       | 3.5400e-003   | 0.1184        | 0.0293        | 3.2000e-004        | 7.8500e-003   | 2.4000e-004        | 8.0900e-003   | 2.2700e-003        | 2.3000e-004        | 2.5000e-003        | 0.0000        | 30.7391        | 30.7391        | 1.4600e-003        | 0.0000        | 30.7755        |
| Worker       | 8.7400e-003   | 5.8000e-003   | 0.0630        | 2.2000e-004        | 0.0241        | 1.5000e-004        | 0.0243        | 6.4200e-003        | 1.4000e-004        | 6.5700e-003        | 0.0000        | 19.6622        | 19.6622        | 4.1000e-004        | 0.0000        | 19.6724        |
| <b>Total</b> | <b>0.0123</b> | <b>0.1242</b> | <b>0.0923</b> | <b>5.4000e-004</b> | <b>0.0320</b> | <b>3.9000e-004</b> | <b>0.0324</b> | <b>8.6900e-003</b> | <b>3.7000e-004</b> | <b>9.0700e-003</b> | <b>0.0000</b> | <b>50.4012</b> | <b>50.4012</b> | <b>1.8700e-003</b> | <b>0.0000</b> | <b>50.4480</b> |

**3.6 Paving - 2022**

**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     | 0.0110        | 0.1113        | 0.1458        | 2.3000e-004        |               | 5.6800e-003        | 5.6800e-003        |                | 5.2200e-003        | 5.2200e-003        | 0.0000        | 20.0276        | 20.0276        | 6.4800e-003        | 0.0000        | 20.1895        |
| Paving       | 2.2700e-003   |               |               |                    |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| <b>Total</b> | <b>0.0133</b> | <b>0.1113</b> | <b>0.1458</b> | <b>2.3000e-004</b> |               | <b>5.6800e-003</b> | <b>5.6800e-003</b> |                | <b>5.2200e-003</b> | <b>5.2200e-003</b> | <b>0.0000</b> | <b>20.0276</b> | <b>20.0276</b> | <b>6.4800e-003</b> | <b>0.0000</b> | <b>20.1895</b> |

### 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       | 4.3000e-004        | 2.8000e-004        | 3.0900e-003        | 1.0000e-005        | 1.1900e-003        | 1.0000e-005        | 1.1900e-003        | 3.2000e-004        | 1.0000e-005        | 3.2000e-004        | 0.0000        | 0.9653        | 0.9653        | 2.0000e-005        | 0.0000        | 0.9658        |
| <b>Total</b> | <b>4.3000e-004</b> | <b>2.8000e-004</b> | <b>3.0900e-003</b> | <b>1.0000e-005</b> | <b>1.1900e-003</b> | <b>1.0000e-005</b> | <b>1.1900e-003</b> | <b>3.2000e-004</b> | <b>1.0000e-005</b> | <b>3.2000e-004</b> | <b>0.0000</b> | <b>0.9653</b> | <b>0.9653</b> | <b>2.0000e-005</b> | <b>0.0000</b> | <b>0.9658</b> |

### 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 | 0.0110  | 0.1113 | 0.1458 | 2.3000e-004 |               | 5.6800e-003  | 5.6800e-003 |                | 5.2200e-003   | 5.2200e-003 | 0.0000   | 20.0275   | 20.0275   | 6.4800e-003 | 0.0000 | 20.1895 |



|              |               |               |               |                    |  |                    |                    |  |                    |                    |               |                |                |                    |               |                |
|--------------|---------------|---------------|---------------|--------------------|--|--------------------|--------------------|--|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Paving       | 2.2700e-003   |               |               |                    |  | 0.0000             | 0.0000             |  | 0.0000             | 0.0000             | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| <b>Total</b> | <b>0.0133</b> | <b>0.1113</b> | <b>0.1458</b> | <b>2.3000e-004</b> |  | <b>5.6800e-003</b> | <b>5.6800e-003</b> |  | <b>5.2200e-003</b> | <b>5.2200e-003</b> | <b>0.0000</b> | <b>20.0275</b> | <b>20.0275</b> | <b>6.4800e-003</b> | <b>0.0000</b> | <b>20.1895</b> |

**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       | 4.3000e-004        | 2.8000e-004        | 3.0900e-003        | 1.0000e-005        | 1.1900e-003        | 1.0000e-005        | 1.1900e-003        | 3.2000e-004        | 1.0000e-005        | 3.2000e-004        | 0.0000        | 0.9653        | 0.9653        | 2.0000e-005        | 0.0000        | 0.9658        |
| <b>Total</b> | <b>4.3000e-004</b> | <b>2.8000e-004</b> | <b>3.0900e-003</b> | <b>1.0000e-005</b> | <b>1.1900e-003</b> | <b>1.0000e-005</b> | <b>1.1900e-003</b> | <b>3.2000e-004</b> | <b>1.0000e-005</b> | <b>3.2000e-004</b> | <b>0.0000</b> | <b>0.9653</b> | <b>0.9653</b> | <b>2.0000e-005</b> | <b>0.0000</b> | <b>0.9658</b> |

**3.7 Architectural Coating - 2022**

**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 | 0.2723        |               |               |                    |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Off-Road        | 2.0500e-003   | 0.0141        | 0.0181        | 3.0000e-005        |               | 8.2000e-004        | 8.2000e-004        |                | 8.2000e-004        | 8.2000e-004        | 0.0000        | 2.5533        | 2.5533        | 1.7000e-004        | 0.0000        | 2.5574        |
| <b>Total</b>    | <b>0.2743</b> | <b>0.0141</b> | <b>0.0181</b> | <b>3.0000e-005</b> |               | <b>8.2000e-004</b> | <b>8.2000e-004</b> |                | <b>8.2000e-004</b> | <b>8.2000e-004</b> | <b>0.0000</b> | <b>2.5533</b> | <b>2.5533</b> | <b>1.7000e-004</b> | <b>0.0000</b> | <b>2.5574</b> |

**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       | 1.6600e-003        | 1.1000e-003        | 0.0120        | 4.0000e-005        | 4.5800e-003        | 3.0000e-005        | 4.6100e-003        | 1.2200e-003        | 3.0000e-005        | 1.2500e-003        | 0.0000        | 3.7323        | 3.7323        | 8.0000e-005        | 0.0000        | 3.7343        |
| <b>Total</b> | <b>1.6600e-003</b> | <b>1.1000e-003</b> | <b>0.0120</b> | <b>4.0000e-005</b> | <b>4.5800e-003</b> | <b>3.0000e-005</b> | <b>4.6100e-003</b> | <b>1.2200e-003</b> | <b>3.0000e-005</b> | <b>1.2500e-003</b> | <b>0.0000</b> | <b>3.7323</b> | <b>3.7323</b> | <b>8.0000e-005</b> | <b>0.0000</b> | <b>3.7343</b> |

**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 | 0.2723        |               |               |                    |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Off-Road        | 2.0500e-003   | 0.0141        | 0.0181        | 3.0000e-005        |               | 8.2000e-004        | 8.2000e-004        |                | 8.2000e-004        | 8.2000e-004        | 0.0000        | 2.5533        | 2.5533        | 1.7000e-004        | 0.0000        | 2.5574        |
| <b>Total</b>    | <b>0.2743</b> | <b>0.0141</b> | <b>0.0181</b> | <b>3.0000e-005</b> |               | <b>8.2000e-004</b> | <b>8.2000e-004</b> |                | <b>8.2000e-004</b> | <b>8.2000e-004</b> | <b>0.0000</b> | <b>2.5533</b> | <b>2.5533</b> | <b>1.7000e-004</b> | <b>0.0000</b> | <b>2.5574</b> |

**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       | 1.6600e-003        | 1.1000e-003        | 0.0120        | 4.0000e-005        | 4.5800e-003        | 3.0000e-005        | 4.6100e-003        | 1.2200e-003        | 3.0000e-005        | 1.2500e-003        | 0.0000        | 3.7323        | 3.7323        | 8.0000e-005        | 0.0000        | 3.7343        |
| <b>Total</b> | <b>1.6600e-003</b> | <b>1.1000e-003</b> | <b>0.0120</b> | <b>4.0000e-005</b> | <b>4.5800e-003</b> | <b>3.0000e-005</b> | <b>4.6100e-003</b> | <b>1.2200e-003</b> | <b>3.0000e-005</b> | <b>1.2500e-003</b> | <b>0.0000</b> | <b>3.7323</b> | <b>3.7323</b> | <b>8.0000e-005</b> | <b>0.0000</b> | <b>3.7343</b> |

## 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   | 0.1220  | 0.5833 | 1.2857 | 4.4300e-003 | 0.3780        | 4.0500e-003  | 0.3821     | 0.1015         | 3.7900e-003   | 0.1053      | 0.0000   | 406.9445  | 406.9445  | 0.0156 | 0.0000 | 407.3354 |
| Unmitigated | 0.1220  | 0.5833 | 1.2857 | 4.4300e-003 | 0.3780        | 4.0500e-003  | 0.3821     | 0.1015         | 3.7900e-003   | 0.1053      | 0.0000   | 406.9445  | 406.9445  | 0.0156 | 0.0000 | 407.3354 |

### 4.2 Trip Summary Information

| Land Use                  | Average Daily Trip Rate |               |               | Unmitigated      | Mitigated        |
|---------------------------|-------------------------|---------------|---------------|------------------|------------------|
|                           | Weekday                 | Saturday      | Sunday        | Annual VMT       | Annual VMT       |
| City Park                 | 19.85                   | 238.88        | 175.77        | 156,720          | 156,720          |
| City Park                 | 6.24                    | 75.08         | 55.24         | 49,255           | 49,255           |
| Government (Civic Center) | 593.02                  | 0.00          | 0.00          | 809,743          | 809,743          |
| Other Asphalt Surfaces    | 0.00                    | 0.00          | 0.00          |                  |                  |
| <b>Total</b>              | <b>619.10</b>           | <b>313.95</b> | <b>231.01</b> | <b>1,015,717</b> | <b>1,015,717</b> |

### 4.3 Trip Type Information

| Land Use                  | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|---------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                           | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | 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       |
| City Park                 | 9.50       | 7.30       | 7.30        | 33.00     | 48.00      | 19.00       | 66             | 28       | 6       |
| Government (Civic Center) | 9.50       | 7.30       | 7.30        | 75.00     | 20.00      | 5.00        | 50             | 34       | 16      |
| Other Asphalt Surfaces    | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |

#### 4.4 Fleet Mix

| Land Use                  | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| City Park                 | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |
| Government (Civic Center) | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |
| Other Asphalt Surfaces    | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |

#### 5.0 Energy Detail

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Exceed Title 24

| Category                | 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    |
|-------------------------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|---------|
|                         | tons/yr     |        |        |             |               |              |             |                |               |             | MT/yr    |           |           |             |             |         |
| Electricity Mitigated   |             |        |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 49.3058   | 49.3058   | 3.1400e-003 | 6.5000e-004 | 49.5782 |
| Electricity Unmitigated |             |        |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 54.6966   | 54.6966   | 3.4900e-003 | 7.2000e-004 | 54.9988 |
| NaturalGas Mitigated    | 1.5800e-003 | 0.0144 | 0.0121 | 9.0000e-005 |               | 1.0900e-003  | 1.0900e-003 |                | 1.0900e-003   | 1.0900e-003 | 0.0000   | 15.6801   | 15.6801   | 3.0000e-004 | 2.9000e-004 | 15.7733 |
| NaturalGas Unmitigated  | 2.2100e-003 | 0.0201 | 0.0169 | 1.2000e-004 |               | 1.5300e-003  | 1.5300e-003 |                | 1.5300e-003   | 1.5300e-003 | 0.0000   | 21.9095   | 21.9095   | 4.2000e-004 | 4.0000e-004 | 22.0397 |

## 5.2 Energy by Land Use - Natural Gas

### Unmitigated

|                           | Natural Gas 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         |
| Government (Civic Center) | 410569          | 2.2100e-003        | 0.0201        | 0.0169        | 1.2000e-004        |               | 1.5300e-003        | 1.5300e-003        |                | 1.5300e-003        | 1.5300e-003        | 0.0000        | 21.9095        | 21.9095        | 4.2000e-004        | 4.0000e-004        | 22.0397        |
| Other Asphalt Surfaces    | 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         |
| <b>Total</b>              |                 | <b>2.2100e-003</b> | <b>0.0201</b> | <b>0.0169</b> | <b>1.2000e-004</b> |               | <b>1.5300e-003</b> | <b>1.5300e-003</b> |                | <b>1.5300e-003</b> | <b>1.5300e-003</b> | <b>0.0000</b> | <b>21.9095</b> | <b>21.9095</b> | <b>4.2000e-004</b> | <b>4.0000e-004</b> | <b>22.0397</b> |

### Mitigated

|                           | Natural Gas 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         |
| Government (Civic Center) | 293834          | 1.5800e-003        | 0.0144        | 0.0121        | 9.0000e-005        |               | 1.0900e-003        | 1.0900e-003        |                | 1.0900e-003        | 1.0900e-003        | 0.0000        | 15.6801        | 15.6801        | 3.0000e-004        | 2.9000e-004        | 15.7733        |
| Other Asphalt Surfaces    | 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         |
| <b>Total</b>              |                 | <b>1.5800e-003</b> | <b>0.0144</b> | <b>0.0121</b> | <b>9.0000e-005</b> |               | <b>1.0900e-003</b> | <b>1.0900e-003</b> |                | <b>1.0900e-003</b> | <b>1.0900e-003</b> | <b>0.0000</b> | <b>15.6801</b> | <b>15.6801</b> | <b>3.0000e-004</b> | <b>2.9000e-004</b> | <b>15.7733</b> |

## 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         |
| Government (Civic Center) | 265075          | 54.6966        | 3.4900e-003        | 7.2000e-004        | 54.9988        |
| Other Asphalt Surfaces    | 0               | 0.0000         | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>              |                 | <b>54.6966</b> | <b>3.4900e-003</b> | <b>7.2000e-004</b> | <b>54.9988</b> |

### Mitigated

|                           | Electricity Use | Total CO2      | CH4                | N2O                | CO2e           |
|---------------------------|-----------------|----------------|--------------------|--------------------|----------------|
| Land Use                  | kWh/yr          | MT/yr          |                    |                    |                |
| City Park                 | 0               | 0.0000         | 0.0000             | 0.0000             | 0.0000         |
| Government (Civic Center) | 238950          | 49.3058        | 3.1400e-003        | 6.5000e-004        | 49.5782        |
| Other Asphalt Surfaces    | 0               | 0.0000         | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>              |                 | <b>49.3058</b> | <b>3.1400e-003</b> | <b>6.5000e-004</b> | <b>49.5782</b> |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

---



|              |               |                    |                    |               |  |               |               |  |               |               |               |                    |                    |                    |               |                    |
|--------------|---------------|--------------------|--------------------|---------------|--|---------------|---------------|--|---------------|---------------|---------------|--------------------|--------------------|--------------------|---------------|--------------------|
| Landscaping  | 9.0000e-005   | 1.0000e-005        | 1.0100e-003        | 0.0000        |  | 0.0000        | 0.0000        |  | 0.0000        | 0.0000        | 0.0000        | 1.9700e-003        | 1.9700e-003        | 1.0000e-005        | 0.0000        | 2.1000e-003        |
| <b>Total</b> | <b>0.1208</b> | <b>1.0000e-005</b> | <b>1.0100e-003</b> | <b>0.0000</b> |  | <b>0.0000</b> | <b>0.0000</b> |  | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>1.9700e-003</b> | <b>1.9700e-003</b> | <b>1.0000e-005</b> | <b>0.0000</b> | <b>2.1000e-003</b> |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

|             | Total CO2 | CH4    | N2O         | CO2e    |
|-------------|-----------|--------|-------------|---------|
| Category    | MT/yr     |        |             |         |
| Mitigated   | 19.7924   | 0.1387 | 3.4900e-003 | 24.2991 |
| Unmitigated | 19.7924   | 0.1387 | 3.4900e-003 | 24.2991 |

### 7.2 Water by Land Use

#### Unmitigated

|                           | Indoor/Outdoor Use | Total CO2      | CH4           | N2O                | CO2e           |
|---------------------------|--------------------|----------------|---------------|--------------------|----------------|
| Land Use                  | Mgal               | MT/yr          |               |                    |                |
| City Park                 | 0 / 16.4424        | 11.8748        | 7.6000e-004   | 1.6000e-004        | 11.9404        |
| Government (Civic Center) | 4.21953 / 2.58616  | 7.9176         | 0.1379        | 3.3300e-003        | 12.3588        |
| Other Asphalt Surfaces    | 0 / 0              | 0.0000         | 0.0000        | 0.0000             | 0.0000         |
| <b>Total</b>              |                    | <b>19.7924</b> | <b>0.1387</b> | <b>3.4900e-003</b> | <b>24.2991</b> |



**Mitigated**

|                           | Indoor/Outdoor Use | Total CO2      | CH4           | N2O                | CO2e           |
|---------------------------|--------------------|----------------|---------------|--------------------|----------------|
| Land Use                  | Mgal               | MT/yr          |               |                    |                |
| City Park                 | 0 / 16.4424        | 11.8748        | 7.6000e-004   | 1.6000e-004        | 11.9404        |
| Government (Civic Center) | 4.21953 / 2.58616  | 7.9176         | 0.1379        | 3.3300e-003        | 12.3588        |
| Other Asphalt Surfaces    | 0 / 0              | 0.0000         | 0.0000        | 0.0000             | 0.0000         |
| <b>Total</b>              |                    | <b>19.7924</b> | <b>0.1387</b> | <b>3.4900e-003</b> | <b>24.2991</b> |

**8.0 Waste Detail**

---

**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

**Category/Year**

|             | Total CO2 | CH4    | N2O    | CO2e    |
|-------------|-----------|--------|--------|---------|
|             | MT/yr     |        |        |         |
| Mitigated   | 12.4088   | 0.7333 | 0.0000 | 30.7424 |
| Unmitigated | 24.8177   | 1.4667 | 0.0000 | 61.4847 |

**8.2 Waste by Land Use**

## Unmitigated

|                           | Waste Disposed | Total CO2      | CH4           | N2O           | CO2e           |
|---------------------------|----------------|----------------|---------------|---------------|----------------|
| Land Use                  | tons           | MT/yr          |               |               |                |
| City Park                 | 1.19           | 0.2416         | 0.0143        | 0.0000        | 0.5985         |
| Government (Civic Center) | 121.07         | 24.5761        | 1.4524        | 0.0000        | 60.8863        |
| Other Asphalt Surfaces    | 0              | 0.0000         | 0.0000        | 0.0000        | 0.0000         |
| <b>Total</b>              |                | <b>24.8177</b> | <b>1.4667</b> | <b>0.0000</b> | <b>61.4847</b> |

## Mitigated

|                           | Waste Disposed | Total CO2      | CH4           | N2O           | CO2e           |
|---------------------------|----------------|----------------|---------------|---------------|----------------|
| Land Use                  | tons           | MT/yr          |               |               |                |
| City Park                 | 0.595          | 0.1208         | 7.1400e-003   | 0.0000        | 0.2992         |
| Government (Civic Center) | 60.535         | 12.2881        | 0.7262        | 0.0000        | 30.4431        |
| Other Asphalt Surfaces    | 0              | 0.0000         | 0.0000        | 0.0000        | 0.0000         |
| <b>Total</b>              |                | <b>12.4088</b> | <b>0.7333</b> | <b>0.0000</b> | <b>30.7424</b> |

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

|                |        |                |                 |               |           |
|----------------|--------|----------------|-----------------|---------------|-----------|
| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|

**User Defined Equipment**

|                |        |
|----------------|--------|
| Equipment Type | Number |
|----------------|--------|

**11.0 Vegetation**

---

Bidwell/El Rancho Verde - San Francisco Bay Area Air Basin, Summer

**Bidwell/El Rancho Verde  
San Francisco Bay Area Air Basin, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses                 | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|---------------------------|-------|----------|-------------|--------------------|------------|
| Government (Civic Center) | 21.24 | 1000sqft | 0.00        | 21,240.00          | 0          |
| Other Asphalt Surfaces    | 75.20 | 1000sqft | 1.73        | 75,200.00          | 0          |
| City Park                 | 10.50 | Acre     | 10.50       | 457,380.00         | 0          |
| City Park                 | 3.30  | Acre     | 3.30        | 143,748.00         | 0          |

**1.2 Other Project Characteristics**

|                                 |                                |                                 |       |                                  |       |
|---------------------------------|--------------------------------|---------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>             | Urban                          | <b>Wind Speed (m/s)</b>         | 2.2   | <b>Precipitation Freq (Days)</b> | 64    |
| <b>Climate Zone</b>             | 5                              |                                 |       | <b>Operational Year</b>          | 2022  |
| <b>Utility Company</b>          | Pacific Gas & Electric Company |                                 |       |                                  |       |
| <b>CO2 Intensity (lb/MW hr)</b> | 454.91                         | <b>CH4 Intensity (lb/MW hr)</b> | 0.029 | <b>N2O Intensity (lb/MW hr)</b>  | 0.006 |

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Operational year 2022. CO2 intensity factor reduced based on PG&E Power Content Label.

Land Use - Acreage based on project site.

Construction Phase - Building construction was reduced to account for renovations

Demolition - Demolition of the southern classroom buildings at the Bidwell site.

Grading - 3,000 CY exported.

Energy Use - CalEEMod defaults.

Construction Off-road Equipment Mitigation - standard dust rule compliance.

Energy Mitigation - None applied.

Waste Mitigation - None applied.

| Table Name                | Column Name                  | Default Value | New Value |
|---------------------------|------------------------------|---------------|-----------|
| tblConstDustMitigation    | WaterUnpavedRoadVehicleSpeed | 0             | 15        |
| tblConstructionPhase      | NumDays                      | 300.00        | 222.00    |
| tblGrading                | MaterialExported             | 0.00          | 3,000.00  |
| tblLandUse                | LotAcreage                   | 0.49          | 0.00      |
| tblProjectCharacteristics | CO2IntensityFactor           | 641.35        | 454.91    |

## 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        |                   |                   |               |               |                   |
| 2021           | 4.3528         | 49.7449        | 32.0669        | 0.0811        | 18.2141        | 2.0454        | 20.2595        | 9.9699         | 1.8818        | 11.8517        | 0.0000        | 8,152.0935        | 8,152.0935        | 1.9984        | 0.0000        | 8,172.6470        |
| 2022           | 27.6041        | 27.2713        | 25.5624        | 0.0800        | 3.1622         | 0.8458        | 4.0080         | 0.8562         | 0.7958        | 1.6521         | 0.0000        | 8,036.4064        | 8,036.4064        | 0.8060        | 0.0000        | 8,056.5572        |
| <b>Maximum</b> | <b>27.6041</b> | <b>49.7449</b> | <b>32.0669</b> | <b>0.0811</b> | <b>18.2141</b> | <b>2.0454</b> | <b>20.2595</b> | <b>9.9699</b>  | <b>1.8818</b> | <b>11.8517</b> | <b>0.0000</b> | <b>8,152.0935</b> | <b>8,152.0935</b> | <b>1.9984</b> | <b>0.0000</b> | <b>8,172.6470</b> |

#### 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        |                   |                   |               |               |                   |
|----------------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| 2021           | 4.3528         | 49.7449        | 32.0669        | 0.0811        | 8.2777        | 2.0454        | 10.3231        | 4.5080        | 1.8818        | 6.3898        | 0.0000        | 8,152.0935        | 8,152.0935        | 1.9984        | 0.0000        | 8,172.6470        |
| 2022           | 27.6041        | 27.2713        | 25.5624        | 0.0800        | 3.1622        | 0.8458        | 4.0080         | 0.8562        | 0.7958        | 1.6521        | 0.0000        | 8,036.4064        | 8,036.4064        | 0.8060        | 0.0000        | 8,056.5572        |
| <b>Maximum</b> | <b>27.6041</b> | <b>49.7449</b> | <b>32.0669</b> | <b>0.0811</b> | <b>8.2777</b> | <b>2.0454</b> | <b>10.3231</b> | <b>4.5080</b> | <b>1.8818</b> | <b>6.3898</b> | <b>0.0000</b> | <b>8,152.0935</b> | <b>8,152.0935</b> | <b>1.9984</b> | <b>0.0000</b> | <b>8,172.6470</b> |

|                          | 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 |
|--------------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| <b>Percent Reduction</b> | 0.00 | 0.00 | 0.00 | 0.00 | 46.48         | 0.00         | 40.95      | 50.45          | 0.00          | 40.45       | 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              |
|-----------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|--------------------|-------------------|
| <b>Category</b> | lb/day        |               |                |               |               |               |               |                |               |               | lb/day   |                   |                   |               |                    |                   |
| Area            | 0.6624        | 1.0000e-004   | 0.0113         | 0.0000        |               | 4.0000e-005   | 4.0000e-005   |                | 4.0000e-005   | 4.0000e-005   |          | 0.0241            | 0.0241            | 6.0000e-005   |                    | 0.0257            |
| Energy          | 0.0121        | 0.1103        | 0.0926         | 6.6000e-004   |               | 8.3800e-003   | 8.3800e-003   |                | 8.3800e-003   | 8.3800e-003   |          | 132.3350          | 132.3350          | 2.5400e-003   | 2.4300e-003        | 133.1214          |
| Mobile          | 1.3547        | 5.4844        | 12.8388        | 0.0457        | 3.8324        | 0.0394        | 3.8717        | 1.0253         | 0.0368        | 1.0622        |          | 4,623.2029        | 4,623.2029        | 0.1673        |                    | 4,627.3842        |
| <b>Total</b>    | <b>2.0292</b> | <b>5.5948</b> | <b>12.9427</b> | <b>0.0464</b> | <b>3.8324</b> | <b>0.0478</b> | <b>3.8802</b> | <b>1.0253</b>  | <b>0.0453</b> | <b>1.0706</b> |          | <b>4,755.5620</b> | <b>4,755.5620</b> | <b>0.1699</b> | <b>2.4300e-003</b> | <b>4,760.5313</b> |

## 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 |
|-----------------|--------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|
| <b>Category</b> | lb/day |     |    |     |               |              |            |                |               |             | lb/day   |           |           |     |     |      |

|              |               |               |                |               |               |               |               |               |               |               |  |                   |                   |               |                    |                   |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|-------------------|-------------------|---------------|--------------------|-------------------|
| Area         | 0.6624        | 1.0000e-004   | 0.0113         | 0.0000        |               | 4.0000e-005   | 4.0000e-005   |               | 4.0000e-005   | 4.0000e-005   |  | 0.0241            | 0.0241            | 6.0000e-005   |                    | 0.0257            |
| Energy       | 8.6800e-003   | 0.0789        | 0.0663         | 4.7000e-004   |               | 6.0000e-003   | 6.0000e-003   |               | 6.0000e-003   | 6.0000e-003   |  | 94.7088           | 94.7088           | 1.8200e-003   | 1.7400e-003        | 95.2716           |
| Mobile       | 1.3547        | 5.4844        | 12.8388        | 0.0457        | 3.8324        | 0.0394        | 3.8717        | 1.0253        | 0.0368        | 1.0622        |  | 4,623.2029        | 4,623.2029        | 0.1673        |                    | 4,627.3842        |
| <b>Total</b> | <b>2.0257</b> | <b>5.5634</b> | <b>12.9164</b> | <b>0.0462</b> | <b>3.8324</b> | <b>0.0454</b> | <b>3.8778</b> | <b>1.0253</b> | <b>0.0429</b> | <b>1.0682</b> |  | <b>4,717.9358</b> | <b>4,717.9358</b> | <b>0.1691</b> | <b>1.7400e-003</b> | <b>4,722.6816</b> |

|                   | 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 | 0.17 | 0.56 | 0.20 | 0.41 | 0.00          | 4.98         | 0.06       | 0.00           | 5.26          | 0.22        | 0.00     | 0.79     | 0.79      | 0.42 | 28.40 | 0.80 |

### 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            | 1/1/2021   | 1/28/2021 | 5             | 20       |                   |
| 2            | Site Preparation      | Site Preparation      | 1/29/2021  | 2/11/2021 | 5             | 10       |                   |
| 3            | Grading               | Grading               | 2/12/2021  | 3/25/2021 | 5             | 30       |                   |
| 4            | Building Construction | Building Construction | 3/26/2021  | 1/31/2022 | 5             | 222      |                   |
| 5            | Paving                | Paving                | 2/1/2022   | 2/28/2022 | 5             | 20       |                   |
| 6            | Architectural Coating | Architectural Coating | 3/1/2022   | 3/28/2022 | 5             | 20       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 1.73

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 31,860; Non-Residential Outdoor: 10,620; Striped Parking Area:

#### 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               | 3      | 8.00        | 158         | 0.38        |

|                       |                           |   |      |     |      |
|-----------------------|---------------------------|---|------|-----|------|
| Demolition            | Rubber Tired Dozers       | 2 | 8.00 | 247 | 0.40 |
| Site Preparation      | Rubber Tired Dozers       | 3 | 8.00 | 247 | 0.40 |
| Site Preparation      | Tractors/Loaders/Backhoes | 4 | 8.00 | 97  | 0.37 |
| Grading               | Excavators                | 2 | 8.00 | 158 | 0.38 |
| Grading               | Graders                   | 1 | 8.00 | 187 | 0.41 |
| Grading               | Rubber Tired Dozers       | 1 | 8.00 | 247 | 0.40 |
| Grading               | Scrapers                  | 2 | 8.00 | 367 | 0.48 |
| Grading               | Tractors/Loaders/Backhoes | 2 | 8.00 | 97  | 0.37 |
| Building Construction | Cranes                    | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts                 | 3 | 8.00 | 89  | 0.20 |
| Building Construction | Generator Sets            | 1 | 8.00 | 84  | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97  | 0.37 |
| Building Construction | Welders                   | 1 | 8.00 | 46  | 0.45 |
| Paving                | Pavers                    | 2 | 8.00 | 130 | 0.42 |
| Paving                | Paving Equipment          | 2 | 8.00 | 132 | 0.36 |
| Paving                | Rollers                   | 2 | 8.00 | 80  | 0.38 |
| Architectural Coating | Air Compressors           | 1 | 6.00 | 78  | 0.48 |

### 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            | 6                       | 15.00              | 0.00               | 34.00               | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Site Preparation      | 7                       | 18.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Grading               | 8                       | 20.00              | 0.00               | 375.00              | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Building Construction | 9                       | 291.00             | 114.00             | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Paving                | 6                       | 15.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Architectural Coating | 1                       | 58.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

### 3.1 Mitigation Measures Construction

Water Exposed Area



Reduce Vehicle Speed on Unpaved Roads

**3.2 Demolition - 2021**

**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 |               |                |                |               | 0.3694        | 0.0000        | 0.3694        | 0.0559         | 0.0000        | 0.0559        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 3.1651        | 31.4407        | 21.5650        | 0.0388        |               | 1.5513        | 1.5513        |                | 1.4411        | 1.4411        |          | 3,747.9449        | 3,747.9449        | 1.0549        |     | 3,774.3174        |
| <b>Total</b>  | <b>3.1651</b> | <b>31.4407</b> | <b>21.5650</b> | <b>0.0388</b> | <b>0.3694</b> | <b>1.5513</b> | <b>1.9208</b> | <b>0.0559</b>  | <b>1.4411</b> | <b>1.4970</b> |          | <b>3,747.9449</b> | <b>3,747.9449</b> | <b>1.0549</b> |     | <b>3,774.3174</b> |

**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      | 0.0132        | 0.4498        | 0.0948        | 1.3300e-003        | 0.0297        | 1.4100e-003        | 0.0311        | 8.1400e-003    | 1.3500e-003        | 9.4900e-003   |          | 142.7847        | 142.7847        | 7.0900e-003        |     | 142.9618        |
| 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       | 0.0482        | 0.0282        | 0.3685        | 1.1900e-003        | 0.1232        | 7.8000e-004        | 0.1240        | 0.0327         | 7.1000e-004        | 0.0334        |          | 118.7939        | 118.7939        | 2.6600e-003        |     | 118.8603        |
| <b>Total</b> | <b>0.0615</b> | <b>0.4780</b> | <b>0.4633</b> | <b>2.5200e-003</b> | <b>0.1529</b> | <b>2.1900e-003</b> | <b>0.1551</b> | <b>0.0408</b>  | <b>2.0600e-003</b> | <b>0.0429</b> |          | <b>261.5786</b> | <b>261.5786</b> | <b>9.7500e-003</b> |     | <b>261.8221</b> |

**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 |               |                |                |               | 0.1662        | 0.0000        | 0.1662        | 0.0252         | 0.0000        | 0.0252        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 3.1651        | 31.4407        | 21.5650        | 0.0388        |               | 1.5513        | 1.5513        |                | 1.4411        | 1.4411        | 0.0000        | 3,747.9449        | 3,747.9449        | 1.0549        |     | 3,774.3174        |
| <b>Total</b>  | <b>3.1651</b> | <b>31.4407</b> | <b>21.5650</b> | <b>0.0388</b> | <b>0.1662</b> | <b>1.5513</b> | <b>1.7176</b> | <b>0.0252</b>  | <b>1.4411</b> | <b>1.4663</b> | <b>0.0000</b> | <b>3,747.9449</b> | <b>3,747.9449</b> | <b>1.0549</b> |     | <b>3,774.3174</b> |

### 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      | 0.0132        | 0.4498        | 0.0948        | 1.3300e-003        | 0.0297        | 1.4100e-003        | 0.0311        | 8.1400e-003    | 1.3500e-003        | 9.4900e-003   |          | 142.7847        | 142.7847        | 7.0900e-003        |     | 142.9618        |
| 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       | 0.0482        | 0.0282        | 0.3685        | 1.1900e-003        | 0.1232        | 7.8000e-004        | 0.1240        | 0.0327         | 7.1000e-004        | 0.0334        |          | 118.7939        | 118.7939        | 2.6600e-003        |     | 118.8603        |
| <b>Total</b> | <b>0.0615</b> | <b>0.4780</b> | <b>0.4633</b> | <b>2.5200e-003</b> | <b>0.1529</b> | <b>2.1900e-003</b> | <b>0.1551</b> | <b>0.0408</b>  | <b>2.0600e-003</b> | <b>0.0429</b> |          | <b>261.5786</b> | <b>261.5786</b> | <b>9.7500e-003</b> |     | <b>261.8221</b> |

### 3.3 Site Preparation - 2021

#### 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 |               |                |                |               | 18.0663        | 0.0000        | 18.0663        | 9.9307        | 0.0000        | 9.9307         |  |                   | 0.0000            |               |  | 0.0000            |
| Off-Road      | 3.8882        | 40.4971        | 21.1543        | 0.0380        |                | 2.0445        | 2.0445         |               | 1.8809        | 1.8809         |  | 3,685.6569        | 3,685.6569        | 1.1920        |  | 3,715.4573        |
| <b>Total</b>  | <b>3.8882</b> | <b>40.4971</b> | <b>21.1543</b> | <b>0.0380</b> | <b>18.0663</b> | <b>2.0445</b> | <b>20.1107</b> | <b>9.9307</b> | <b>1.8809</b> | <b>11.8116</b> |  | <b>3,685.6569</b> | <b>3,685.6569</b> | <b>1.1920</b> |  | <b>3,715.4573</b> |

**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       | 0.0579        | 0.0338        | 0.4421        | 1.4300e-003        | 0.1479        | 9.3000e-004        | 0.1488        | 0.0392         | 8.6000e-004        | 0.0401        |          | 142.5527        | 142.5527        | 3.1900e-003        |     | 142.6324        |
| <b>Total</b> | <b>0.0579</b> | <b>0.0338</b> | <b>0.4421</b> | <b>1.4300e-003</b> | <b>0.1479</b> | <b>9.3000e-004</b> | <b>0.1488</b> | <b>0.0392</b>  | <b>8.6000e-004</b> | <b>0.0401</b> |          | <b>142.5527</b> | <b>142.5527</b> | <b>3.1900e-003</b> |     | <b>142.6324</b> |

**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 |               |                |                |               | 8.1298        | 0.0000        | 8.1298         | 4.4688         | 0.0000        | 4.4688        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 3.8882        | 40.4971        | 21.1543        | 0.0380        |               | 2.0445        | 2.0445         |                | 1.8809        | 1.8809        | 0.0000        | 3,685.6569        | 3,685.6569        | 1.1920        |     | 3,715.4573        |
| <b>Total</b>  | <b>3.8882</b> | <b>40.4971</b> | <b>21.1543</b> | <b>0.0380</b> | <b>8.1298</b> | <b>2.0445</b> | <b>10.1743</b> | <b>4.4688</b>  | <b>1.8809</b> | <b>6.3497</b> | <b>0.0000</b> | <b>3,685.6569</b> | <b>3,685.6569</b> | <b>1.1920</b> |     | <b>3,715.4573</b> |

**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       | 0.0579        | 0.0338        | 0.4421        | 1.4300e-003        | 0.1479        | 9.3000e-004        | 0.1488        | 0.0392         | 8.6000e-004        | 0.0401        |          | 142.5527        | 142.5527        | 3.1900e-003        |     | 142.6324        |
| <b>Total</b> | <b>0.0579</b> | <b>0.0338</b> | <b>0.4421</b> | <b>1.4300e-003</b> | <b>0.1479</b> | <b>9.3000e-004</b> | <b>0.1488</b> | <b>0.0392</b>  | <b>8.6000e-004</b> | <b>0.0401</b> |          | <b>142.5527</b> | <b>142.5527</b> | <b>3.1900e-003</b> |     | <b>142.6324</b> |

**3.4 Grading - 2021**

**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 |               |                |                |               | 8.6847        | 0.0000        | 8.6847         | 3.5982         | 0.0000        | 3.5982        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 4.1912        | 46.3998        | 30.8785        | 0.0620        |               | 1.9853        | 1.9853         |                | 1.8265        | 1.8265        |          | 6,007.0434        | 6,007.0434        | 1.9428        |     | 6,055.6134        |
| <b>Total</b>  | <b>4.1912</b> | <b>46.3998</b> | <b>30.8785</b> | <b>0.0620</b> | <b>8.6847</b> | <b>1.9853</b> | <b>10.6700</b> | <b>3.5982</b>  | <b>1.8265</b> | <b>5.4247</b> |          | <b>6,007.0434</b> | <b>6,007.0434</b> | <b>1.9428</b> |     | <b>6,055.6134</b> |

**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      | 0.0974        | 3.3075        | 0.6972        | 9.8100e-003   | 0.2184        | 0.0104        | 0.2288        | 0.0599        | 9.9200e-003   | 0.0698        | 1,049.8871        | 1,049.8871        | 0.0521        | 1,051.1896        |
| 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       | 0.0643        | 0.0376        | 0.4913        | 1.5900e-003   | 0.1643        | 1.0300e-003   | 0.1653        | 0.0436        | 9.5000e-004   | 0.0445        | 158.3919          | 158.3919          | 3.5400e-003   | 158.4804          |
| <b>Total</b> | <b>0.1617</b> | <b>3.3451</b> | <b>1.1885</b> | <b>0.0114</b> | <b>0.3827</b> | <b>0.0114</b> | <b>0.3941</b> | <b>0.1034</b> | <b>0.0109</b> | <b>0.1143</b> | <b>1,208.2790</b> | <b>1,208.2790</b> | <b>0.0556</b> | <b>1,209.6700</b> |

**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 |               |                |                |               | 3.9081        | 0.0000        | 3.9081        | 1.6192         | 0.0000        | 1.6192        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 4.1912        | 46.3998        | 30.8785        | 0.0620        |               | 1.9853        | 1.9853        |                | 1.8265        | 1.8265        | 0.0000        | 6,007.0434        | 6,007.0434        | 1.9428        |     | 6,055.6134        |
| <b>Total</b>  | <b>4.1912</b> | <b>46.3998</b> | <b>30.8785</b> | <b>0.0620</b> | <b>3.9081</b> | <b>1.9853</b> | <b>5.8934</b> | <b>1.6192</b>  | <b>1.8265</b> | <b>3.4457</b> | <b>0.0000</b> | <b>6,007.0434</b> | <b>6,007.0434</b> | <b>1.9428</b> |     | <b>6,055.6134</b> |

**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  | 0.0974 | 3.3075 | 0.6972 | 9.8100e-003 | 0.2184        | 0.0104       | 0.2288     | 0.0599         | 9.9200e-003   | 0.0698      | 1,049.8871 | 1,049.8871 | 0.0521      | 1,051.1896 |     |      |
| 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   | 0.0643 | 0.0376 | 0.4913 | 1.5900e-003 | 0.1643        | 1.0300e-003  | 0.1653     | 0.0436         | 9.5000e-004   | 0.0445      | 158.3919   | 158.3919   | 3.5400e-003 | 158.4804   |     |      |

|              |               |               |               |               |               |               |               |               |               |               |  |                  |                   |               |  |                  |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|------------------|-------------------|---------------|--|------------------|
| <b>Total</b> | <b>0.1617</b> | <b>3.3451</b> | <b>1.1885</b> | <b>0.0114</b> | <b>0.3827</b> | <b>0.0114</b> | <b>0.3941</b> | <b>0.1034</b> | <b>0.0109</b> | <b>0.1143</b> |  | <b>1,208.279</b> | <b>1,208.2790</b> | <b>0.0556</b> |  | <b>1,209.670</b> |
|              |               |               |               |               |               |               |               |               |               |               |  | <b>0</b>         |                   |               |  | <b>0</b>         |

### 3.5 Building Construction - 2021

#### 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              |
|-----------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| <b>Category</b> | <b>lb/day</b> |                |                |               |               |               |               |                |               |               | <b>lb/day</b> |                   |                   |               |     |                   |
| Off-Road        | 1.9009        | 17.4321        | 16.5752        | 0.0269        |               | 0.9586        | 0.9586        |                | 0.9013        | 0.9013        |               | 2,553.3639        | 2,553.3639        | 0.6160        |     | 2,568.7643        |
| <b>Total</b>    | <b>1.9009</b> | <b>17.4321</b> | <b>16.5752</b> | <b>0.0269</b> |               | <b>0.9586</b> | <b>0.9586</b> |                | <b>0.9013</b> | <b>0.9013</b> |               | <b>2,553.3639</b> | <b>2,553.3639</b> | <b>0.6160</b> |     | <b>2,568.7643</b> |

#### 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              |
|-----------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| <b>Category</b> | <b>lb/day</b> |                |               |               |               |               |               |                |               |               | <b>lb/day</b> |                   |                   |               |     |                   |
| 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          | 0.3536        | 11.7809        | 2.7780        | 0.0311        | 0.7717        | 0.0255        | 0.7972        | 0.2221         | 0.0244        | 0.2466        |               | 3,294.1274        | 3,294.1274        | 0.1546        |     | 3,297.9926        |
| Worker          | 0.9357        | 0.5468         | 7.1479        | 0.0231        | 2.3905        | 0.0150        | 2.4055        | 0.6341         | 0.0139        | 0.6479        |               | 2,304.6022        | 2,304.6022        | 0.0515        |     | 2,305.8901        |
| <b>Total</b>    | <b>1.2892</b> | <b>12.3277</b> | <b>9.9259</b> | <b>0.0542</b> | <b>3.1622</b> | <b>0.0406</b> | <b>3.2027</b> | <b>0.8562</b>  | <b>0.0383</b> | <b>0.8945</b> |               | <b>5,598.7296</b> | <b>5,598.7296</b> | <b>0.2061</b> |     | <b>5,603.8827</b> |

#### 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     | 1.9009        | 17.4321        | 16.5752        | 0.0269        |               | 0.9586        | 0.9586        |                | 0.9013        | 0.9013        | 0.0000        | 2,553.3639        | 2,553.3639        | 0.6160        |     | 2,568.7643        |
| <b>Total</b> | <b>1.9009</b> | <b>17.4321</b> | <b>16.5752</b> | <b>0.0269</b> |               | <b>0.9586</b> | <b>0.9586</b> |                | <b>0.9013</b> | <b>0.9013</b> | <b>0.0000</b> | <b>2,553.3639</b> | <b>2,553.3639</b> | <b>0.6160</b> |     | <b>2,568.7643</b> |

### 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       | 0.3536        | 11.7809        | 2.7780        | 0.0311        | 0.7717        | 0.0255        | 0.7972        | 0.2221         | 0.0244        | 0.2466        |          | 3,294.1274        | 3,294.1274        | 0.1546        |     | 3,297.9926        |
| Worker       | 0.9357        | 0.5468         | 7.1479        | 0.0231        | 2.3905        | 0.0150        | 2.4055        | 0.6341         | 0.0139        | 0.6479        |          | 2,304.6022        | 2,304.6022        | 0.0515        |     | 2,305.8901        |
| <b>Total</b> | <b>1.2892</b> | <b>12.3277</b> | <b>9.9259</b> | <b>0.0542</b> | <b>3.1622</b> | <b>0.0406</b> | <b>3.2027</b> | <b>0.8562</b>  | <b>0.0383</b> | <b>0.8945</b> |          | <b>5,598.7296</b> | <b>5,598.7296</b> | <b>0.2061</b> |     | <b>5,603.8827</b> |

### **3.5 Building Construction - 2022**

#### 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     | 1.7062        | 15.6156        | 16.3634        | 0.0269        |  | 0.8090        | 0.8090        |  | 0.7612        | 0.7612        |  | 2,554.3336        | 2,554.3336        | 0.6120        |  | 2,569.6322        |
| <b>Total</b> | <b>1.7062</b> | <b>15.6156</b> | <b>16.3634</b> | <b>0.0269</b> |  | <b>0.8090</b> | <b>0.8090</b> |  | <b>0.7612</b> | <b>0.7612</b> |  | <b>2,554.3336</b> | <b>2,554.3336</b> | <b>0.6120</b> |  | <b>2,569.6322</b> |

**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       | 0.3297        | 11.1652        | 2.6127        | 0.0308        | 0.7717        | 0.0221        | 0.7938        | 0.2222         | 0.0212        | 0.2433        |          | 3,262.0473        | 3,262.0473        | 0.1478        |     | 3,265.7429        |
| Worker       | 0.8709        | 0.4905         | 6.5864        | 0.0223        | 2.3905        | 0.0147        | 2.4052        | 0.6341         | 0.0135        | 0.6476        |          | 2,220.0255        | 2,220.0255        | 0.0463        |     | 2,221.1821        |
| <b>Total</b> | <b>1.2006</b> | <b>11.6557</b> | <b>9.1990</b> | <b>0.0530</b> | <b>3.1622</b> | <b>0.0368</b> | <b>3.1990</b> | <b>0.8562</b>  | <b>0.0347</b> | <b>0.8909</b> |          | <b>5,482.0728</b> | <b>5,482.0728</b> | <b>0.1941</b> |     | <b>5,486.9250</b> |

**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     | 1.7062        | 15.6156        | 16.3634        | 0.0269        |               | 0.8090        | 0.8090        |                | 0.7612        | 0.7612        | 0.0000        | 2,554.3336        | 2,554.3336        | 0.6120        |     | 2,569.6322        |
| <b>Total</b> | <b>1.7062</b> | <b>15.6156</b> | <b>16.3634</b> | <b>0.0269</b> |               | <b>0.8090</b> | <b>0.8090</b> |                | <b>0.7612</b> | <b>0.7612</b> | <b>0.0000</b> | <b>2,554.3336</b> | <b>2,554.3336</b> | <b>0.6120</b> |     | <b>2,569.6322</b> |



**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       | 0.3297        | 11.1652        | 2.6127        | 0.0308        | 0.7717        | 0.0221        | 0.7938        | 0.2222         | 0.0212        | 0.2433        |          | 3,262.0473        | 3,262.0473        | 0.1478        |     |      | 3,265.7429        |
| Worker       | 0.8709        | 0.4905         | 6.5864        | 0.0223        | 2.3905        | 0.0147        | 2.4052        | 0.6341         | 0.0135        | 0.6476        |          | 2,220.0255        | 2,220.0255        | 0.0463        |     |      | 2,221.1821        |
| <b>Total</b> | <b>1.2006</b> | <b>11.6557</b> | <b>9.1990</b> | <b>0.0530</b> | <b>3.1622</b> | <b>0.0368</b> | <b>3.1990</b> | <b>0.8562</b>  | <b>0.0347</b> | <b>0.8909</b> |          | <b>5,482.0728</b> | <b>5,482.0728</b> | <b>0.1941</b> |     |      | <b>5,486.9250</b> |

**3.6 Paving - 2022**

**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     | 1.1028        | 11.1249        | 14.5805        | 0.0228        |               | 0.5679        | 0.5679        |                | 0.5225        | 0.5225        |          | 2,207.6603        | 2,207.6603        | 0.7140        |     |      | 2,225.5104        |
| Paving       | 0.2266        |                |                |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |          |                   | 0.0000            |               |     |      | 0.0000            |
| <b>Total</b> | <b>1.3295</b> | <b>11.1249</b> | <b>14.5805</b> | <b>0.0228</b> |               | <b>0.5679</b> | <b>0.5679</b> |                | <b>0.5225</b> | <b>0.5225</b> |          | <b>2,207.6603</b> | <b>2,207.6603</b> | <b>0.7140</b> |     |      | <b>2,225.5104</b> |

**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             | 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          |
| Worker       | 0.0449        | 0.0253        | 0.3395        | 1.1500e-003        | 0.1232        | 7.6000e-004        | 0.1240        | 0.0327        | 7.0000e-004        | 0.0334        | 114.4343 | 114.4343        | 2.3800e-003     | 114.4939           |                 |
| <b>Total</b> | <b>0.0449</b> | <b>0.0253</b> | <b>0.3395</b> | <b>1.1500e-003</b> | <b>0.1232</b> | <b>7.6000e-004</b> | <b>0.1240</b> | <b>0.0327</b> | <b>7.0000e-004</b> | <b>0.0334</b> |          | <b>114.4343</b> | <b>114.4343</b> | <b>2.3800e-003</b> | <b>114.4939</b> |

**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     | 1.1028        | 11.1249        | 14.5805        | 0.0228        |               | 0.5679        | 0.5679        |                | 0.5225        | 0.5225        | 0.0000        | 2,207.6603        | 2,207.6603        | 0.7140        |     | 2,225.5104        |
| Paving       | 0.2266        |                |                |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |               |                   | 0.0000            |               |     | 0.0000            |
| <b>Total</b> | <b>1.3295</b> | <b>11.1249</b> | <b>14.5805</b> | <b>0.0228</b> |               | <b>0.5679</b> | <b>0.5679</b> |                | <b>0.5225</b> | <b>0.5225</b> | <b>0.0000</b> | <b>2,207.6603</b> | <b>2,207.6603</b> | <b>0.7140</b> |     | <b>2,225.5104</b> |

**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   | 0.0449 | 0.0253 | 0.3395 | 1.1500e-003 | 0.1232        | 7.6000e-004  | 0.1240     | 0.0327         | 7.0000e-004   | 0.0334      | 114.4343 | 114.4343  | 2.3800e-003 | 114.4939 |     |        |

|              |               |               |               |                    |               |                    |               |               |                    |               |  |                 |                 |                    |  |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|--------------------|--|-----------------|
| <b>Total</b> | <b>0.0449</b> | <b>0.0253</b> | <b>0.3395</b> | <b>1.1500e-003</b> | <b>0.1232</b> | <b>7.6000e-004</b> | <b>0.1240</b> | <b>0.0327</b> | <b>7.0000e-004</b> | <b>0.0334</b> |  | <b>114.4343</b> | <b>114.4343</b> | <b>2.3800e-003</b> |  | <b>114.4939</b> |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|--------------------|--|-----------------|

### 3.7 Architectural Coating - 2022

#### 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 |                 |
|-----------------|----------------|---------------|---------------|--------------------|---------------|--------------|---------------|----------------|---------------|---------------|---------------|-----------|-----------------|-----------------|---------------|------|-----------------|
| <b>Category</b> | <b>lb/day</b>  |               |               |                    |               |              |               |                |               |               | <b>lb/day</b> |           |                 |                 |               |      |                 |
| Archit. Coating | 27.2260        |               |               |                    |               |              | 0.0000        | 0.0000         |               | 0.0000        |               |           | 0.0000          |                 |               |      | 0.0000          |
| Off-Road        | 0.2045         | 1.4085        | 1.8136        | 2.9700e-003        |               |              | 0.0817        | 0.0817         |               | 0.0817        |               |           | 281.4481        | 281.4481        | 0.0183        |      | 281.9062        |
| <b>Total</b>    | <b>27.4305</b> | <b>1.4085</b> | <b>1.8136</b> | <b>2.9700e-003</b> |               |              | <b>0.0817</b> | <b>0.0817</b>  |               | <b>0.0817</b> |               |           | <b>281.4481</b> | <b>281.4481</b> | <b>0.0183</b> |      | <b>281.9062</b> |

#### 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 |                 |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-----------|-----------------|-----------------|--------------------|------|-----------------|
| <b>Category</b> | <b>lb/day</b> |               |               |                    |               |                    |               |                |                    |               | <b>lb/day</b> |           |                 |                 |                    |      |                 |
| 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          |
| 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          |
| Worker          | 0.1736        | 0.0978        | 1.3128        | 4.4400e-003        | 0.4765        | 2.9300e-003        | 0.4794        | 0.1264         | 2.7000e-003        | 0.1291        |               |           | 442.4793        | 442.4793        | 9.2200e-003        |      | 442.7098        |
| <b>Total</b>    | <b>0.1736</b> | <b>0.0978</b> | <b>1.3128</b> | <b>4.4400e-003</b> | <b>0.4765</b> | <b>2.9300e-003</b> | <b>0.4794</b> | <b>0.1264</b>  | <b>2.7000e-003</b> | <b>0.1291</b> |               |           | <b>442.4793</b> | <b>442.4793</b> | <b>9.2200e-003</b> |      | <b>442.7098</b> |

#### 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 | 27.2260        |               |               |                    |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road        | 0.2045         | 1.4085        | 1.8136        | 2.9700e-003        |               | 0.0817        | 0.0817        |                | 0.0817        | 0.0817        | 0.0000        | 281.4481        | 281.4481        | 0.0183        |     | 281.9062        |
| <b>Total</b>    | <b>27.4305</b> | <b>1.4085</b> | <b>1.8136</b> | <b>2.9700e-003</b> |               | <b>0.0817</b> | <b>0.0817</b> |                | <b>0.0817</b> | <b>0.0817</b> | <b>0.0000</b> | <b>281.4481</b> | <b>281.4481</b> | <b>0.0183</b> |     | <b>281.9062</b> |

### 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       | 0.1736        | 0.0978        | 1.3128        | 4.4400e-003        | 0.4765        | 2.9300e-003        | 0.4794        | 0.1264         | 2.7000e-003        | 0.1291        |          | 442.4793        | 442.4793        | 9.2200e-003        |     | 442.7098        |
| <b>Total</b> | <b>0.1736</b> | <b>0.0978</b> | <b>1.3128</b> | <b>4.4400e-003</b> | <b>0.4765</b> | <b>2.9300e-003</b> | <b>0.4794</b> | <b>0.1264</b>  | <b>2.7000e-003</b> | <b>0.1291</b> |          | <b>442.4793</b> | <b>442.4793</b> | <b>9.2200e-003</b> |     | <b>442.7098</b> |

## 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   | 1.3547 | 5.4844 | 12.8388 | 0.0457 | 3.8324        | 0.0394       | 3.8717     | 1.0253         | 0.0368        | 1.0622      |          | 4,623.2029 | 4,623.2029 | 0.1673 |     | 4,627.3842 |
| Unmitigated | 1.3547 | 5.4844 | 12.8388 | 0.0457 | 3.8324        | 0.0394       | 3.8717     | 1.0253         | 0.0368        | 1.0622      |          | 4,623.2029 | 4,623.2029 | 0.1673 |     | 4,627.3842 |

#### 4.2 Trip Summary Information

| Land Use                  | Average Daily Trip Rate |          |        | Unmitigated | Mitigated  |
|---------------------------|-------------------------|----------|--------|-------------|------------|
|                           | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT |
| City Park                 | 19.85                   | 238.88   | 175.77 | 156,720     | 156,720    |
| City Park                 | 6.24                    | 75.08    | 55.24  | 49,255      | 49,255     |
| Government (Civic Center) | 593.02                  | 0.00     | 0.00   | 809,743     | 809,743    |
| Other Asphalt Surfaces    | 0.00                    | 0.00     | 0.00   |             |            |
| Total                     | 619.10                  | 313.95   | 231.01 | 1,015,717   | 1,015,717  |

#### 4.3 Trip Type Information

| Land Use                  | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|---------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                           | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | 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       |
| City Park                 | 9.50       | 7.30       | 7.30        | 33.00     | 48.00      | 19.00       | 66             | 28       | 6       |
| Government (Civic Center) | 9.50       | 7.30       | 7.30        | 75.00     | 20.00      | 5.00        | 50             | 34       | 16      |
| Other Asphalt Surfaces    | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |

#### 4.4 Fleet Mix

| Land Use                  | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| City Park                 | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |
| Government (Civic Center) | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |

|                        |          |          |          |          |          |          |          |          |          |          |          |          |          |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Other Asphalt Surfaces | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

Exceed Title 24

|                        | 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   | 8.6800e-003 | 0.0789 | 0.0663 | 4.7000e-004 |               | 6.0000e-003  | 6.0000e-003 |                | 6.0000e-003   | 6.0000e-003 |          | 94.7088   | 94.7088   | 1.8200e-003 | 1.7400e-003 | 95.2716  |
| NaturalGas Unmitigated | 0.0121      | 0.1103 | 0.0926 | 6.6000e-004 |               | 8.3800e-003  | 8.3800e-003 |                | 8.3800e-003   | 8.3800e-003 |          | 132.3350  | 132.3350  | 2.5400e-003 | 2.4300e-003 | 133.1214 |

## 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   |
| Government (Civic Center) | 1124.85        | 0.0121 | 0.1103 | 0.0926 | 6.6000e-004 |               | 8.3800e-003  | 8.3800e-003 |                | 8.3800e-003   | 8.3800e-003 |          | 132.3350  | 132.3350  | 2.5400e-003 | 2.4300e-003 | 133.1214 |
| Other Asphalt Surfaces    | 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 |  | 0.0121 | 0.1103 | 0.0926 | 6.6000e-004 |  | 8.3800e-003 | 8.3800e-003 |  | 8.3800e-003 | 8.3800e-003 |  | 132.3350 | 132.3350 | 2.5400e-003 | 2.4300e-003 | 133.1214 |
|-------|--|--------|--------|--------|-------------|--|-------------|-------------|--|-------------|-------------|--|----------|----------|-------------|-------------|----------|

### Mitigated

|                           | Natural Gas 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         |
| Government (Civic Center) | 0.805025        | 8.6800e-003        | 0.0789        | 0.0663        | 4.7000e-004        |               | 6.0000e-003        | 6.0000e-003        |                | 6.0000e-003        | 6.0000e-003        |          | 94.7088        | 94.7088        | 1.8200e-003        | 1.7400e-003        | 95.2716        |
| Other Asphalt Surfaces    | 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         |
| <b>Total</b>              |                 | <b>8.6800e-003</b> | <b>0.0789</b> | <b>0.0663</b> | <b>4.7000e-004</b> |               | <b>6.0000e-003</b> | <b>6.0000e-003</b> |                | <b>6.0000e-003</b> | <b>6.0000e-003</b> |          | <b>94.7088</b> | <b>94.7088</b> | <b>1.8200e-003</b> | <b>1.7400e-003</b> | <b>95.2716</b> |

## 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   | 0.6624 | 1.0000e-004 | 0.0113 | 0.0000 |               | 4.0000e-005  | 4.0000e-005 |                | 4.0000e-005   | 4.0000e-005 |          | 0.0241    | 0.0241    | 6.0000e-005 |     | 0.0257 |
| Unmitigated | 0.6624 | 1.0000e-004 | 0.0113 | 0.0000 |               | 4.0000e-005  | 4.0000e-005 |                | 4.0000e-005   | 4.0000e-005 |          | 0.0241    | 0.0241    | 6.0000e-005 |     | 0.0257 |

## 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 | 0.1492        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Consumer Products     | 0.5121        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Landscaping           | 1.0500e-003   | 1.0000e-004        | 0.0113        | 0.0000        |               | 4.0000e-005        | 4.0000e-005        |                | 4.0000e-005        | 4.0000e-005        |          |           | 0.0241        | 0.0241        | 6.0000e-005        | 0.0257        |
| <b>Total</b>          | <b>0.6624</b> | <b>1.0000e-004</b> | <b>0.0113</b> | <b>0.0000</b> |               | <b>4.0000e-005</b> | <b>4.0000e-005</b> |                | <b>4.0000e-005</b> | <b>4.0000e-005</b> |          |           | <b>0.0241</b> | <b>0.0241</b> | <b>6.0000e-005</b> | <b>0.0257</b> |

### 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 | 0.1492        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Consumer Products     | 0.5121        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Landscaping           | 1.0500e-003   | 1.0000e-004        | 0.0113        | 0.0000        |               | 4.0000e-005        | 4.0000e-005        |                | 4.0000e-005        | 4.0000e-005        |          |           | 0.0241        | 0.0241        | 6.0000e-005        | 0.0257        |
| <b>Total</b>          | <b>0.6624</b> | <b>1.0000e-004</b> | <b>0.0113</b> | <b>0.0000</b> |               | <b>4.0000e-005</b> | <b>4.0000e-005</b> |                | <b>4.0000e-005</b> | <b>4.0000e-005</b> |          |           | <b>0.0241</b> | <b>0.0241</b> | <b>6.0000e-005</b> | <b>0.0257</b> |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water



## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

---

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

## 10.0 Stationary Equipment

---

### Fire Pumps and Emergency Generators

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

### Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

### User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

## 11.0 Vegetation

---

Bidwell/EI Rancho Verde - San Francisco Bay Area Air Basin, Winter

**Bidwell/EI Rancho Verde**  
**San Francisco Bay Area Air Basin, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses                 | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|---------------------------|-------|----------|-------------|--------------------|------------|
| Government (Civic Center) | 21.24 | 1000sqft | 0.00        | 21,240.00          | 0          |
| Other Asphalt Surfaces    | 75.20 | 1000sqft | 1.73        | 75,200.00          | 0          |
| City Park                 | 10.50 | Acre     | 10.50       | 457,380.00         | 0          |
| City Park                 | 3.30  | Acre     | 3.30        | 143,748.00         | 0          |

**1.2 Other Project Characteristics**

|                                 |                                |                                 |       |                                  |       |
|---------------------------------|--------------------------------|---------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>             | Urban                          | <b>Wind Speed (m/s)</b>         | 2.2   | <b>Precipitation Freq (Days)</b> | 64    |
| <b>Climate Zone</b>             | 5                              |                                 |       | <b>Operational Year</b>          | 2022  |
| <b>Utility Company</b>          | Pacific Gas & Electric Company |                                 |       |                                  |       |
| <b>CO2 Intensity (lb/MW hr)</b> | 454.91                         | <b>CH4 Intensity (lb/MW hr)</b> | 0.029 | <b>N2O Intensity (lb/MW hr)</b>  | 0.006 |

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Operational year 2022. CO2 intensity factor reduced based on PG&E Power Content Label.

Land Use - Acreage based on project site.

Construction Phase - Building construction was reduced to account for renovations

Demolition - Demolition of the southern classroom buildings at the Bidwell site.

Grading - 3,000 CY exported.

Energy Use - CalEEMod defaults.

Construction Off-road Equipment Mitigation - standard dust rule compliance.

Energy Mitigation - None applied.

Waste Mitigation - None applied.

| Table Name                | Column Name                  | Default Value | New Value |
|---------------------------|------------------------------|---------------|-----------|
| tblConstDustMitigation    | WaterUnpavedRoadVehicleSpeed | 0             | 15        |
| tblConstructionPhase      | NumDays                      | 300.00        | 222.00    |
| tblGrading                | MaterialExported             | 0.00          | 3,000.00  |
| tblLandUse                | LotAcreage                   | 0.49          | 0.00      |
| tblProjectCharacteristics | CO2IntensityFactor           | 641.35        | 454.91    |

## 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        |                   |                   |               |               |                   |
| 2021           | 4.3593         | 49.8311        | 32.0866        | 0.0785        | 18.2141        | 2.0454        | 20.2595        | 9.9699         | 1.8818        | 11.8517        | 0.0000        | 7,886.8650        | 7,886.8650        | 2.0007        | 0.0000        | 7,907.6479        |
| 2022           | 27.6149        | 27.4707        | 25.5019        | 0.0774        | 3.1622         | 0.8466        | 4.0088         | 0.8562         | 0.7966        | 1.6528         | 0.0000        | 7,778.2219        | 7,778.2219        | 0.8147        | 0.0000        | 7,798.5903        |
| <b>Maximum</b> | <b>27.6149</b> | <b>49.8311</b> | <b>32.0866</b> | <b>0.0785</b> | <b>18.2141</b> | <b>2.0454</b> | <b>20.2595</b> | <b>9.9699</b>  | <b>1.8818</b> | <b>11.8517</b> | <b>0.0000</b> | <b>7,886.8650</b> | <b>7,886.8650</b> | <b>2.0007</b> | <b>0.0000</b> | <b>7,907.6479</b> |

#### 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        |                   |                   |               |               |                   |
|----------------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| 2021           | 4.3593         | 49.8311        | 32.0866        | 0.0785        | 8.2777        | 2.0454        | 10.3231        | 4.5080        | 1.8818        | 6.3898        | 0.0000        | 7,886.8650        | 7,886.8650        | 2.0007        | 0.0000        | 7,907.6479        |
| 2022           | 27.6149        | 27.4707        | 25.5019        | 0.0774        | 3.1622        | 0.8466        | 4.0088         | 0.8562        | 0.7966        | 1.6528        | 0.0000        | 7,778.2219        | 7,778.2219        | 0.8147        | 0.0000        | 7,798.5903        |
| <b>Maximum</b> | <b>27.6149</b> | <b>49.8311</b> | <b>32.0866</b> | <b>0.0785</b> | <b>8.2777</b> | <b>2.0454</b> | <b>10.3231</b> | <b>4.5080</b> | <b>1.8818</b> | <b>6.3898</b> | <b>0.0000</b> | <b>7,886.8650</b> | <b>7,886.8650</b> | <b>2.0007</b> | <b>0.0000</b> | <b>7,907.6479</b> |

|                          | 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 |
|--------------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| <b>Percent Reduction</b> | 0.00 | 0.00 | 0.00 | 0.00 | 46.48         | 0.00         | 40.94      | 50.45          | 0.00          | 40.44       | 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         | 0.6624        | 1.0000e-004   | 0.0113         | 0.0000        |               | 4.0000e-005   | 4.0000e-005   |                | 4.0000e-005   | 4.0000e-005   |          | 0.0241            | 0.0241            | 6.0000e-005   |                    | 0.0257            |
| Energy       | 0.0121        | 0.1103        | 0.0926         | 6.6000e-004   |               | 8.3800e-003   | 8.3800e-003   |                | 8.3800e-003   | 8.3800e-003   |          | 132.3350          | 132.3350          | 2.5400e-003   | 2.4300e-003        | 133.1214          |
| Mobile       | 1.1653        | 5.7279        | 13.1382        | 0.0428        | 3.8324        | 0.0397        | 3.8721        | 1.0253         | 0.0372        | 1.0625        |          | 4,327.0521        | 4,327.0521        | 0.1722        |                    | 4,331.3558        |
| <b>Total</b> | <b>1.8398</b> | <b>5.8383</b> | <b>13.2421</b> | <b>0.0434</b> | <b>3.8324</b> | <b>0.0481</b> | <b>3.8805</b> | <b>1.0253</b>  | <b>0.0456</b> | <b>1.0709</b> |          | <b>4,459.4112</b> | <b>4,459.4112</b> | <b>0.1748</b> | <b>2.4300e-003</b> | <b>4,464.5029</b> |

## 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         | 0.6624        | 1.0000e-004   | 0.0113         | 0.0000        |               | 4.0000e-005   | 4.0000e-005   |               | 4.0000e-005   | 4.0000e-005   |  | 0.0241            | 0.0241            | 6.0000e-005   |                    | 0.0257            |
| Energy       | 8.6800e-003   | 0.0789        | 0.0663         | 4.7000e-004   |               | 6.0000e-003   | 6.0000e-003   |               | 6.0000e-003   | 6.0000e-003   |  | 94.7088           | 94.7088           | 1.8200e-003   | 1.7400e-003        | 95.2716           |
| Mobile       | 1.1653        | 5.7279        | 13.1382        | 0.0428        | 3.8324        | 0.0397        | 3.8721        | 1.0253        | 0.0372        | 1.0625        |  | 4,327.0521        | 4,327.0521        | 0.1722        |                    | 4,331.3558        |
| <b>Total</b> | <b>1.8363</b> | <b>5.8069</b> | <b>13.2158</b> | <b>0.0432</b> | <b>3.8324</b> | <b>0.0457</b> | <b>3.8781</b> | <b>1.0253</b> | <b>0.0432</b> | <b>1.0685</b> |  | <b>4,421.7850</b> | <b>4,421.7850</b> | <b>0.1740</b> | <b>1.7400e-003</b> | <b>4,426.6531</b> |

|                   | 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 | 0.19 | 0.54 | 0.20 | 0.44 | 0.00          | 4.95         | 0.06       | 0.00           | 5.22          | 0.22        | 0.00     | 0.84     | 0.84      | 0.41 | 28.40 | 0.85 |

### 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            | 1/1/2021   | 1/28/2021 | 5             | 20       |                   |
| 2            | Site Preparation      | Site Preparation      | 1/29/2021  | 2/11/2021 | 5             | 10       |                   |
| 3            | Grading               | Grading               | 2/12/2021  | 3/25/2021 | 5             | 30       |                   |
| 4            | Building Construction | Building Construction | 3/26/2021  | 1/31/2022 | 5             | 222      |                   |
| 5            | Paving                | Paving                | 2/1/2022   | 2/28/2022 | 5             | 20       |                   |
| 6            | Architectural Coating | Architectural Coating | 3/1/2022   | 3/28/2022 | 5             | 20       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 1.73

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 31,860; Non-Residential Outdoor: 10,620; Striped Parking Area:

#### 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               | 3      | 8.00        | 158         | 0.38        |

|                       |                           |   |      |     |      |
|-----------------------|---------------------------|---|------|-----|------|
| Demolition            | Rubber Tired Dozers       | 2 | 8.00 | 247 | 0.40 |
| Site Preparation      | Rubber Tired Dozers       | 3 | 8.00 | 247 | 0.40 |
| Site Preparation      | Tractors/Loaders/Backhoes | 4 | 8.00 | 97  | 0.37 |
| Grading               | Excavators                | 2 | 8.00 | 158 | 0.38 |
| Grading               | Graders                   | 1 | 8.00 | 187 | 0.41 |
| Grading               | Rubber Tired Dozers       | 1 | 8.00 | 247 | 0.40 |
| Grading               | Scrapers                  | 2 | 8.00 | 367 | 0.48 |
| Grading               | Tractors/Loaders/Backhoes | 2 | 8.00 | 97  | 0.37 |
| Building Construction | Cranes                    | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts                 | 3 | 8.00 | 89  | 0.20 |
| Building Construction | Generator Sets            | 1 | 8.00 | 84  | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97  | 0.37 |
| Building Construction | Welders                   | 1 | 8.00 | 46  | 0.45 |
| Paving                | Pavers                    | 2 | 8.00 | 130 | 0.42 |
| Paving                | Paving Equipment          | 2 | 8.00 | 132 | 0.36 |
| Paving                | Rollers                   | 2 | 8.00 | 80  | 0.38 |
| Architectural Coating | Air Compressors           | 1 | 6.00 | 78  | 0.48 |

### 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            | 6                       | 15.00              | 0.00               | 34.00               | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Site Preparation      | 7                       | 18.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Grading               | 8                       | 20.00              | 0.00               | 375.00              | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Building Construction | 9                       | 291.00             | 114.00             | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Paving                | 6                       | 15.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Architectural Coating | 1                       | 58.00              | 0.00               | 0.00                | 10.80              | 7.30               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

### 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Demolition - 2021**

**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 |               |                |                |               | 0.3694        | 0.0000        | 0.3694        | 0.0559         | 0.0000        | 0.0559        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 3.1651        | 31.4407        | 21.5650        | 0.0388        |               | 1.5513        | 1.5513        |                | 1.4411        | 1.4411        |          | 3,747.9449        | 3,747.9449        | 1.0549        |     | 3,774.3174        |
| <b>Total</b>  | <b>3.1651</b> | <b>31.4407</b> | <b>21.5650</b> | <b>0.0388</b> | <b>0.3694</b> | <b>1.5513</b> | <b>1.9208</b> | <b>0.0559</b>  | <b>1.4411</b> | <b>1.4970</b> |          | <b>3,747.9449</b> | <b>3,747.9449</b> | <b>1.0549</b> |     | <b>3,774.3174</b> |

**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      | 0.0136        | 0.4603        | 0.1018        | 1.3100e-003        | 0.0297        | 1.4400e-003        | 0.0311        | 8.1400e-003    | 1.3700e-003        | 9.5100e-003   |          | 140.3708        | 140.3708        | 7.4300e-003        |     | 140.5565        |
| 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       | 0.0511        | 0.0348        | 0.3447        | 1.1000e-003        | 0.1232        | 7.8000e-004        | 0.1240        | 0.0327         | 7.1000e-004        | 0.0334        |          | 109.4305        | 109.4305        | 2.4800e-003        |     | 109.4924        |
| <b>Total</b> | <b>0.0647</b> | <b>0.4952</b> | <b>0.4465</b> | <b>2.4100e-003</b> | <b>0.1529</b> | <b>2.2200e-003</b> | <b>0.1551</b> | <b>0.0408</b>  | <b>2.0800e-003</b> | <b>0.0429</b> |          | <b>249.8013</b> | <b>249.8013</b> | <b>9.9100e-003</b> |     | <b>250.0489</b> |

**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 |               |                |                |               | 0.1662        | 0.0000        | 0.1662        | 0.0252         | 0.0000        | 0.0252        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 3.1651        | 31.4407        | 21.5650        | 0.0388        |               | 1.5513        | 1.5513        |                | 1.4411        | 1.4411        | 0.0000        | 3,747.9449        | 3,747.9449        | 1.0549        |     | 3,774.3174        |
| <b>Total</b>  | <b>3.1651</b> | <b>31.4407</b> | <b>21.5650</b> | <b>0.0388</b> | <b>0.1662</b> | <b>1.5513</b> | <b>1.7176</b> | <b>0.0252</b>  | <b>1.4411</b> | <b>1.4663</b> | <b>0.0000</b> | <b>3,747.9449</b> | <b>3,747.9449</b> | <b>1.0549</b> |     | <b>3,774.3174</b> |

### 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      | 0.0136        | 0.4603        | 0.1018        | 1.3100e-003        | 0.0297        | 1.4400e-003        | 0.0311        | 8.1400e-003    | 1.3700e-003        | 9.5100e-003   |          | 140.3708        | 140.3708        | 7.4300e-003        |     | 140.5565        |
| 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       | 0.0511        | 0.0348        | 0.3447        | 1.1000e-003        | 0.1232        | 7.8000e-004        | 0.1240        | 0.0327         | 7.1000e-004        | 0.0334        |          | 109.4305        | 109.4305        | 2.4800e-003        |     | 109.4924        |
| <b>Total</b> | <b>0.0647</b> | <b>0.4952</b> | <b>0.4465</b> | <b>2.4100e-003</b> | <b>0.1529</b> | <b>2.2200e-003</b> | <b>0.1551</b> | <b>0.0408</b>  | <b>2.0800e-003</b> | <b>0.0429</b> |          | <b>249.8013</b> | <b>249.8013</b> | <b>9.9100e-003</b> |     | <b>250.0489</b> |

### **3.3 Site Preparation - 2021**

#### 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 |               |                |                |               | 18.0663        | 0.0000        | 18.0663        | 9.9307        | 0.0000        | 9.9307         |  |                   | 0.0000            |               |  | 0.0000            |
| Off-Road      | 3.8882        | 40.4971        | 21.1543        | 0.0380        |                | 2.0445        | 2.0445         |               | 1.8809        | 1.8809         |  | 3,685.6569        | 3,685.6569        | 1.1920        |  | 3,715.4573        |
| <b>Total</b>  | <b>3.8882</b> | <b>40.4971</b> | <b>21.1543</b> | <b>0.0380</b> | <b>18.0663</b> | <b>2.0445</b> | <b>20.1107</b> | <b>9.9307</b> | <b>1.8809</b> | <b>11.8116</b> |  | <b>3,685.6569</b> | <b>3,685.6569</b> | <b>1.1920</b> |  | <b>3,715.4573</b> |

**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       | 0.0613        | 0.0418        | 0.4137        | 1.3200e-003        | 0.1479        | 9.3000e-004        | 0.1488        | 0.0392         | 8.6000e-004        | 0.0401        |          | 131.3166        | 131.3166        | 2.9700e-003        |     | 131.3909        |
| <b>Total</b> | <b>0.0613</b> | <b>0.0418</b> | <b>0.4137</b> | <b>1.3200e-003</b> | <b>0.1479</b> | <b>9.3000e-004</b> | <b>0.1488</b> | <b>0.0392</b>  | <b>8.6000e-004</b> | <b>0.0401</b> |          | <b>131.3166</b> | <b>131.3166</b> | <b>2.9700e-003</b> |     | <b>131.3909</b> |

**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 |               |                |                |               | 8.1298        | 0.0000        | 8.1298         | 4.4688         | 0.0000        | 4.4688        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 3.8882        | 40.4971        | 21.1543        | 0.0380        |               | 2.0445        | 2.0445         |                | 1.8809        | 1.8809        | 0.0000        | 3,685.6569        | 3,685.6569        | 1.1920        |     | 3,715.4573        |
| <b>Total</b>  | <b>3.8882</b> | <b>40.4971</b> | <b>21.1543</b> | <b>0.0380</b> | <b>8.1298</b> | <b>2.0445</b> | <b>10.1743</b> | <b>4.4688</b>  | <b>1.8809</b> | <b>6.3497</b> | <b>0.0000</b> | <b>3,685.6569</b> | <b>3,685.6569</b> | <b>1.1920</b> |     | <b>3,715.4573</b> |

**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       | 0.0613        | 0.0418        | 0.4137        | 1.3200e-003        | 0.1479        | 9.3000e-004        | 0.1488        | 0.0392         | 8.6000e-004        | 0.0401        |          | 131.3166        | 131.3166        | 2.9700e-003        |     | 131.3909        |
| <b>Total</b> | <b>0.0613</b> | <b>0.0418</b> | <b>0.4137</b> | <b>1.3200e-003</b> | <b>0.1479</b> | <b>9.3000e-004</b> | <b>0.1488</b> | <b>0.0392</b>  | <b>8.6000e-004</b> | <b>0.0401</b> |          | <b>131.3166</b> | <b>131.3166</b> | <b>2.9700e-003</b> |     | <b>131.3909</b> |

**3.4 Grading - 2021**

**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 |               |                |                |               | 8.6847        | 0.0000        | 8.6847         | 3.5982         | 0.0000        | 3.5982        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 4.1912        | 46.3998        | 30.8785        | 0.0620        |               | 1.9853        | 1.9853         |                | 1.8265        | 1.8265        |          | 6,007.0434        | 6,007.0434        | 1.9428        |     | 6,055.6134        |
| <b>Total</b>  | <b>4.1912</b> | <b>46.3998</b> | <b>30.8785</b> | <b>0.0620</b> | <b>8.6847</b> | <b>1.9853</b> | <b>10.6700</b> | <b>3.5982</b>  | <b>1.8265</b> | <b>5.4247</b> |          | <b>6,007.0434</b> | <b>6,007.0434</b> | <b>1.9428</b> |     | <b>6,055.6134</b> |

**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      | 0.1000        | 3.3848        | 0.7485        | 9.6400e-003   | 0.2184        | 0.0106        | 0.2289        | 0.0599        | 0.0101        | 0.0700        | 1,032.1382        | 1,032.1382        | 0.0546        |  | 1,033.5039        |
| 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       | 0.0681        | 0.0464        | 0.4596        | 1.4600e-003   | 0.1643        | 1.0300e-003   | 0.1653        | 0.0436        | 9.5000e-004   | 0.0445        | 145.9073          | 145.9073          | 3.3000e-003   |  | 145.9899          |
| <b>Total</b> | <b>0.1681</b> | <b>3.4313</b> | <b>1.2081</b> | <b>0.0111</b> | <b>0.3827</b> | <b>0.0116</b> | <b>0.3943</b> | <b>0.1034</b> | <b>0.0111</b> | <b>0.1145</b> | <b>1,178.0456</b> | <b>1,178.0456</b> | <b>0.0579</b> |  | <b>1,179.4938</b> |

**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 |               |                |                |               | 3.9081        | 0.0000        | 3.9081        | 1.6192         | 0.0000        | 1.6192        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 4.1912        | 46.3998        | 30.8785        | 0.0620        |               | 1.9853        | 1.9853        |                | 1.8265        | 1.8265        | 0.0000        | 6,007.0434        | 6,007.0434        | 1.9428        |     | 6,055.6134        |
| <b>Total</b>  | <b>4.1912</b> | <b>46.3998</b> | <b>30.8785</b> | <b>0.0620</b> | <b>3.9081</b> | <b>1.9853</b> | <b>5.8934</b> | <b>1.6192</b>  | <b>1.8265</b> | <b>3.4457</b> | <b>0.0000</b> | <b>6,007.0434</b> | <b>6,007.0434</b> | <b>1.9428</b> |     | <b>6,055.6134</b> |

**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  | 0.1000 | 3.3848 | 0.7485 | 9.6400e-003 | 0.2184        | 0.0106       | 0.2289     | 0.0599         | 0.0101        | 0.0700      | 1,032.1382 | 1,032.1382 | 0.0546      |     |     | 1,033.5039 |
| 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   | 0.0681 | 0.0464 | 0.4596 | 1.4600e-003 | 0.1643        | 1.0300e-003  | 0.1653     | 0.0436         | 9.5000e-004   | 0.0445      | 145.9073   | 145.9073   | 3.3000e-003 |     |     | 145.9899   |

|              |               |               |               |               |               |               |               |               |               |               |  |                   |                   |               |  |                   |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|-------------------|-------------------|---------------|--|-------------------|
| <b>Total</b> | <b>0.1681</b> | <b>3.4313</b> | <b>1.2081</b> | <b>0.0111</b> | <b>0.3827</b> | <b>0.0116</b> | <b>0.3943</b> | <b>0.1034</b> | <b>0.0111</b> | <b>0.1145</b> |  | <b>1,178.0456</b> | <b>1,178.0456</b> | <b>0.0579</b> |  | <b>1,179.4938</b> |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|-------------------|-------------------|---------------|--|-------------------|

### 3.5 Building Construction - 2021

#### 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              |
|-----------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| <b>Category</b> | <b>lb/day</b> |                |                |               |               |               |               |                |               |               | <b>lb/day</b> |                   |                   |               |     |                   |
| Off-Road        | 1.9009        | 17.4321        | 16.5752        | 0.0269        |               | 0.9586        | 0.9586        |                | 0.9013        | 0.9013        |               | 2,553.3639        | 2,553.3639        | 0.6160        |     | 2,568.7643        |
| <b>Total</b>    | <b>1.9009</b> | <b>17.4321</b> | <b>16.5752</b> | <b>0.0269</b> |               | <b>0.9586</b> | <b>0.9586</b> |                | <b>0.9013</b> | <b>0.9013</b> |               | <b>2,553.3639</b> | <b>2,553.3639</b> | <b>0.6160</b> |     | <b>2,568.7643</b> |

#### 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              |
|-----------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| <b>Category</b> | <b>lb/day</b> |                |               |               |               |               |               |                |               |               | <b>lb/day</b> |                   |                   |               |     |                   |
| 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          | 0.3745        | 11.8822        | 3.1931        | 0.0303        | 0.7717        | 0.0264        | 0.7981        | 0.2221         | 0.0253        | 0.2474        |               | 3,210.5495        | 3,210.5495        | 0.1673        |     | 3,214.7311        |
| Worker          | 0.9912        | 0.6754         | 6.6875        | 0.0213        | 2.3905        | 0.0150        | 2.4055        | 0.6341         | 0.0139        | 0.6479        |               | 2,122.9516        | 2,122.9516        | 0.0480        |     | 2,124.1526        |
| <b>Total</b>    | <b>1.3657</b> | <b>12.5576</b> | <b>9.8806</b> | <b>0.0516</b> | <b>3.1622</b> | <b>0.0415</b> | <b>3.2036</b> | <b>0.8562</b>  | <b>0.0391</b> | <b>0.8953</b> |               | <b>5,333.5011</b> | <b>5,333.5011</b> | <b>0.2153</b> |     | <b>5,338.8837</b> |

#### 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     | 1.9009        | 17.4321        | 16.5752        | 0.0269        |               | 0.9586        | 0.9586        |                | 0.9013        | 0.9013        | 0.0000        | 2,553.3639        | 2,553.3639        | 0.6160        |     | 2,568.7643        |
| <b>Total</b> | <b>1.9009</b> | <b>17.4321</b> | <b>16.5752</b> | <b>0.0269</b> |               | <b>0.9586</b> | <b>0.9586</b> |                | <b>0.9013</b> | <b>0.9013</b> | <b>0.0000</b> | <b>2,553.3639</b> | <b>2,553.3639</b> | <b>0.6160</b> |     | <b>2,568.7643</b> |

**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       | 0.3745        | 11.8822        | 3.1931        | 0.0303        | 0.7717        | 0.0264        | 0.7981        | 0.2221         | 0.0253        | 0.2474        |          | 3,210.5495        | 3,210.5495        | 0.1673        |     | 3,214.7311        |
| Worker       | 0.9912        | 0.6754         | 6.6875        | 0.0213        | 2.3905        | 0.0150        | 2.4055        | 0.6341         | 0.0139        | 0.6479        |          | 2,122.9516        | 2,122.9516        | 0.0480        |     | 2,124.1526        |
| <b>Total</b> | <b>1.3657</b> | <b>12.5576</b> | <b>9.8806</b> | <b>0.0516</b> | <b>3.1622</b> | <b>0.0415</b> | <b>3.2036</b> | <b>0.8562</b>  | <b>0.0391</b> | <b>0.8953</b> |          | <b>5,333.5011</b> | <b>5,333.5011</b> | <b>0.2153</b> |     | <b>5,338.8837</b> |

**3.5 Building Construction - 2022**

**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     | 1.7062        | 15.6156        | 16.3634        | 0.0269        |  | 0.8090        | 0.8090        |  | 0.7612        | 0.7612        |  | 2,554.3336        | 2,554.3336        | 0.6120        |  | 2,569.6322        |
| <b>Total</b> | <b>1.7062</b> | <b>15.6156</b> | <b>16.3634</b> | <b>0.0269</b> |  | <b>0.8090</b> | <b>0.8090</b> |  | <b>0.7612</b> | <b>0.7612</b> |  | <b>2,554.3336</b> | <b>2,554.3336</b> | <b>0.6120</b> |  | <b>2,569.6322</b> |

**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       | 0.3492        | 11.2494        | 3.0016        | 0.0300        | 0.7717        | 0.0229        | 0.7946        | 0.2222         | 0.0219        | 0.2441        |          | 3,178.7635        | 3,178.7635        | 0.1598        |     | 3,182.7580        |
| Worker       | 0.9252        | 0.6056         | 6.1368        | 0.0205        | 2.3905        | 0.0147        | 2.4052        | 0.6341         | 0.0135        | 0.6476        |          | 2,045.1248        | 2,045.1248        | 0.0430        |     | 2,046.2000        |
| <b>Total</b> | <b>1.2744</b> | <b>11.8550</b> | <b>9.1385</b> | <b>0.0505</b> | <b>3.1622</b> | <b>0.0376</b> | <b>3.1998</b> | <b>0.8562</b>  | <b>0.0355</b> | <b>0.8917</b> |          | <b>5,223.8883</b> | <b>5,223.8883</b> | <b>0.2028</b> |     | <b>5,228.9581</b> |

**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     | 1.7062        | 15.6156        | 16.3634        | 0.0269        |               | 0.8090        | 0.8090        |                | 0.7612        | 0.7612        | 0.0000        | 2,554.3336        | 2,554.3336        | 0.6120        |     | 2,569.6322        |
| <b>Total</b> | <b>1.7062</b> | <b>15.6156</b> | <b>16.3634</b> | <b>0.0269</b> |               | <b>0.8090</b> | <b>0.8090</b> |                | <b>0.7612</b> | <b>0.7612</b> | <b>0.0000</b> | <b>2,554.3336</b> | <b>2,554.3336</b> | <b>0.6120</b> |     | <b>2,569.6322</b> |

**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       | 0.3492        | 11.2494        | 3.0016        | 0.0300        | 0.7717        | 0.0229        | 0.7946        | 0.2222         | 0.0219        | 0.2441        |          | 3,178.7635        | 3,178.7635        | 0.1598        |     | 3,182.7580        |
| Worker       | 0.9252        | 0.6056         | 6.1368        | 0.0205        | 2.3905        | 0.0147        | 2.4052        | 0.6341         | 0.0135        | 0.6476        |          | 2,045.1248        | 2,045.1248        | 0.0430        |     | 2,046.2000        |
| <b>Total</b> | <b>1.2744</b> | <b>11.8550</b> | <b>9.1385</b> | <b>0.0505</b> | <b>3.1622</b> | <b>0.0376</b> | <b>3.1998</b> | <b>0.8562</b>  | <b>0.0355</b> | <b>0.8917</b> |          | <b>5,223.8883</b> | <b>5,223.8883</b> | <b>0.2028</b> |     | <b>5,228.9581</b> |

**3.6 Paving - 2022**

**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     | 1.1028        | 11.1249        | 14.5805        | 0.0228        |               | 0.5679        | 0.5679        |                | 0.5225        | 0.5225        |          | 2,207.6603        | 2,207.6603        | 0.7140        |     | 2,225.5104        |
| Paving       | 0.2266        |                |                |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |          |                   | 0.0000            |               |     | 0.0000            |
| <b>Total</b> | <b>1.3295</b> | <b>11.1249</b> | <b>14.5805</b> | <b>0.0228</b> |               | <b>0.5679</b> | <b>0.5679</b> |                | <b>0.5225</b> | <b>0.5225</b> |          | <b>2,207.6603</b> | <b>2,207.6603</b> | <b>0.7140</b> |     | <b>2,225.5104</b> |

**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             |  | 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          |
| Worker       | 0.0477        | 0.0312        | 0.3163        | 1.0600e-003        | 0.1232        | 7.6000e-004        | 0.1240        | 0.0327        | 7.0000e-004        | 0.0334        | 0.0334        | 105.4188        | 105.4188        | 2.2200e-003        |  | 105.4742        |
| <b>Total</b> | <b>0.0477</b> | <b>0.0312</b> | <b>0.3163</b> | <b>1.0600e-003</b> | <b>0.1232</b> | <b>7.6000e-004</b> | <b>0.1240</b> | <b>0.0327</b> | <b>7.0000e-004</b> | <b>0.0334</b> | <b>0.0334</b> | <b>105.4188</b> | <b>105.4188</b> | <b>2.2200e-003</b> |  | <b>105.4742</b> |

**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     | 1.1028        | 11.1249        | 14.5805        | 0.0228        |               | 0.5679        | 0.5679        |                | 0.5225        | 0.5225        | 0.0000        | 2,207.6603        | 2,207.6603        | 0.7140        |     | 2,225.5104        |
| Paving       | 0.2266        |                |                |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |               |                   | 0.0000            |               |     | 0.0000            |
| <b>Total</b> | <b>1.3295</b> | <b>11.1249</b> | <b>14.5805</b> | <b>0.0228</b> |               | <b>0.5679</b> | <b>0.5679</b> |                | <b>0.5225</b> | <b>0.5225</b> | <b>0.0000</b> | <b>2,207.6603</b> | <b>2,207.6603</b> | <b>0.7140</b> |     | <b>2,225.5104</b> |

**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   | 0.0477 | 0.0312 | 0.3163 | 1.0600e-003 | 0.1232        | 7.6000e-004  | 0.1240     | 0.0327         | 7.0000e-004   | 0.0334      |          | 105.4188  | 105.4188  | 2.2200e-003 |     | 105.4742 |



|              |               |               |               |                    |               |                    |               |               |                    |               |  |                 |                 |                    |  |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|--------------------|--|-----------------|
| <b>Total</b> | <b>0.0477</b> | <b>0.0312</b> | <b>0.3163</b> | <b>1.0600e-003</b> | <b>0.1232</b> | <b>7.6000e-004</b> | <b>0.1240</b> | <b>0.0327</b> | <b>7.0000e-004</b> | <b>0.0334</b> |  | <b>105.4188</b> | <b>105.4188</b> | <b>2.2200e-003</b> |  | <b>105.4742</b> |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|--------------------|--|-----------------|

### 3.7 Architectural Coating - 2022

#### 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 |                 |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------|-----------------|-----------------|---------------|------|-----------------|
| <b>Category</b> | <b>lb/day</b>  |               |               |                    |               |               |               |                |               |               | <b>lb/day</b> |           |                 |                 |               |      |                 |
| Archit. Coating | 27.2260        |               |               |                    |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |               |           | 0.0000          |                 |               |      | 0.0000          |
| Off-Road        | 0.2045         | 1.4085        | 1.8136        | 2.9700e-003        |               | 0.0817        | 0.0817        |                | 0.0817        | 0.0817        |               |           | 281.4481        | 281.4481        | 0.0183        |      | 281.9062        |
| <b>Total</b>    | <b>27.4305</b> | <b>1.4085</b> | <b>1.8136</b> | <b>2.9700e-003</b> |               | <b>0.0817</b> | <b>0.0817</b> |                | <b>0.0817</b> | <b>0.0817</b> |               |           | <b>281.4481</b> | <b>281.4481</b> | <b>0.0183</b> |      | <b>281.9062</b> |

#### 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 |                 |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-----------|-----------------|-----------------|--------------------|------|-----------------|
| <b>Category</b> | <b>lb/day</b> |               |               |                    |               |                    |               |                |                    |               | <b>lb/day</b> |           |                 |                 |                    |      |                 |
| 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          |
| 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          |
| Worker          | 0.1844        | 0.1207        | 1.2232        | 4.0900e-003        | 0.4765        | 2.9300e-003        | 0.4794        | 0.1264         | 2.7000e-003        | 0.1291        |               |           | 407.6194        | 407.6194        | 8.5700e-003        |      | 407.8337        |
| <b>Total</b>    | <b>0.1844</b> | <b>0.1207</b> | <b>1.2232</b> | <b>4.0900e-003</b> | <b>0.4765</b> | <b>2.9300e-003</b> | <b>0.4794</b> | <b>0.1264</b>  | <b>2.7000e-003</b> | <b>0.1291</b> |               |           | <b>407.6194</b> | <b>407.6194</b> | <b>8.5700e-003</b> |      | <b>407.8337</b> |

#### 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 | 27.2260        |               |               |                    |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road        | 0.2045         | 1.4085        | 1.8136        | 2.9700e-003        |               | 0.0817        | 0.0817        |                | 0.0817        | 0.0817        | 0.0000        | 281.4481        | 281.4481        | 0.0183        |     | 281.9062        |
| <b>Total</b>    | <b>27.4305</b> | <b>1.4085</b> | <b>1.8136</b> | <b>2.9700e-003</b> |               | <b>0.0817</b> | <b>0.0817</b> |                | <b>0.0817</b> | <b>0.0817</b> | <b>0.0000</b> | <b>281.4481</b> | <b>281.4481</b> | <b>0.0183</b> |     | <b>281.9062</b> |

### 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       | 0.1844        | 0.1207        | 1.2232        | 4.0900e-003        | 0.4765        | 2.9300e-003        | 0.4794        | 0.1264         | 2.7000e-003        | 0.1291        |          | 407.6194        | 407.6194        | 8.5700e-003        |     | 407.8337        |
| <b>Total</b> | <b>0.1844</b> | <b>0.1207</b> | <b>1.2232</b> | <b>4.0900e-003</b> | <b>0.4765</b> | <b>2.9300e-003</b> | <b>0.4794</b> | <b>0.1264</b>  | <b>2.7000e-003</b> | <b>0.1291</b> |          | <b>407.6194</b> | <b>407.6194</b> | <b>8.5700e-003</b> |     | <b>407.8337</b> |

## 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   | 1.1653 | 5.7279 | 13.1382 | 0.0428 | 3.8324        | 0.0397       | 3.8721     | 1.0253         | 0.0372        | 1.0625      |          | 4,327.0521 | 4,327.0521 | 0.1722 |     | 4,331.3558 |
| Unmitigated | 1.1653 | 5.7279 | 13.1382 | 0.0428 | 3.8324        | 0.0397       | 3.8721     | 1.0253         | 0.0372        | 1.0625      |          | 4,327.0521 | 4,327.0521 | 0.1722 |     | 4,331.3558 |

#### 4.2 Trip Summary Information

| Land Use                  | Average Daily Trip Rate |               |               | Unmitigated      | Mitigated        |
|---------------------------|-------------------------|---------------|---------------|------------------|------------------|
|                           | Weekday                 | Saturday      | Sunday        | Annual VMT       | Annual VMT       |
| City Park                 | 19.85                   | 238.88        | 175.77        | 156,720          | 156,720          |
| City Park                 | 6.24                    | 75.08         | 55.24         | 49,255           | 49,255           |
| Government (Civic Center) | 593.02                  | 0.00          | 0.00          | 809,743          | 809,743          |
| Other Asphalt Surfaces    | 0.00                    | 0.00          | 0.00          |                  |                  |
| <b>Total</b>              | <b>619.10</b>           | <b>313.95</b> | <b>231.01</b> | <b>1,015,717</b> | <b>1,015,717</b> |

#### 4.3 Trip Type Information

| Land Use                  | Miles      |            |             | Trip %    |            |             | Trip Purpose % |          |         |
|---------------------------|------------|------------|-------------|-----------|------------|-------------|----------------|----------|---------|
|                           | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C- | 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       |
| City Park                 | 9.50       | 7.30       | 7.30        | 33.00     | 48.00      | 19.00       | 66             | 28       | 6       |
| Government (Civic Center) | 9.50       | 7.30       | 7.30        | 75.00     | 20.00      | 5.00        | 50             | 34       | 16      |
| Other Asphalt Surfaces    | 9.50       | 7.30       | 7.30        | 0.00      | 0.00       | 0.00        | 0              | 0        | 0       |

#### 4.4 Fleet Mix

| Land Use                  | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| City Park                 | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |
| Government (Civic Center) | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |

|                        |          |          |          |          |          |          |          |          |          |          |          |          |          |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Other Asphalt Surfaces | 0.576985 | 0.039376 | 0.193723 | 0.112069 | 0.016317 | 0.005358 | 0.017943 | 0.025814 | 0.002614 | 0.002274 | 0.005874 | 0.000887 | 0.000768 |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

Exceed Title 24

|                        | 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   | 8.6800e-003 | 0.0789 | 0.0663 | 4.7000e-004 |               | 6.0000e-003  | 6.0000e-003 |                | 6.0000e-003   | 6.0000e-003 |          | 94.7088   | 94.7088   | 1.8200e-003 | 1.7400e-003 | 95.2716  |
| NaturalGas Unmitigated | 0.0121      | 0.1103 | 0.0926 | 6.6000e-004 |               | 8.3800e-003  | 8.3800e-003 |                | 8.3800e-003   | 8.3800e-003 |          | 132.3350  | 132.3350  | 2.5400e-003 | 2.4300e-003 | 133.1214 |

## 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   |
| Government (Civic Center) | 1124.85        | 0.0121 | 0.1103 | 0.0926 | 6.6000e-004 |               | 8.3800e-003  | 8.3800e-003 |                | 8.3800e-003   | 8.3800e-003 |          | 132.3350  | 132.3350  | 2.5400e-003 | 2.4300e-003 | 133.1214 |
| Other Asphalt Surfaces    | 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 |  | 0.0121 | 0.1103 | 0.0926 | 6.6000e-004 |  | 8.3800e-003 | 8.3800e-003 |  | 8.3800e-003 | 8.3800e-003 |  | 132.3350 | 132.3350 | 2.5400e-003 | 2.4300e-003 | 133.1214 |
|-------|--|--------|--------|--------|-------------|--|-------------|-------------|--|-------------|-------------|--|----------|----------|-------------|-------------|----------|

### Mitigated

|                           | Natural Gas 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         |
| Government (Civic Center) | 0.805025        | 8.6800e-003        | 0.0789        | 0.0663        | 4.7000e-004        |               | 6.0000e-003        | 6.0000e-003        |                | 6.0000e-003        | 6.0000e-003        |          | 94.7088        | 94.7088        | 1.8200e-003        | 1.7400e-003        | 95.2716        |
| Other Asphalt Surfaces    | 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         |
| <b>Total</b>              |                 | <b>8.6800e-003</b> | <b>0.0789</b> | <b>0.0663</b> | <b>4.7000e-004</b> |               | <b>6.0000e-003</b> | <b>6.0000e-003</b> |                | <b>6.0000e-003</b> | <b>6.0000e-003</b> |          | <b>94.7088</b> | <b>94.7088</b> | <b>1.8200e-003</b> | <b>1.7400e-003</b> | <b>95.2716</b> |

## 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   | 0.6624 | 1.0000e-004 | 0.0113 | 0.0000 |               | 4.0000e-005  | 4.0000e-005 |                | 4.0000e-005   | 4.0000e-005 |          | 0.0241    | 0.0241    | 6.0000e-005 |     | 0.0257 |
| Unmitigated | 0.6624 | 1.0000e-004 | 0.0113 | 0.0000 |               | 4.0000e-005  | 4.0000e-005 |                | 4.0000e-005   | 4.0000e-005 |          | 0.0241    | 0.0241    | 6.0000e-005 |     | 0.0257 |

## 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 | 0.1492        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Consumer Products     | 0.5121        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Landscaping           | 1.0500e-003   | 1.0000e-004        | 0.0113        | 0.0000        |               | 4.0000e-005        | 4.0000e-005        |                | 4.0000e-005        | 4.0000e-005        |          |           | 0.0241        | 0.0241        | 6.0000e-005        | 0.0257        |
| <b>Total</b>          | <b>0.6624</b> | <b>1.0000e-004</b> | <b>0.0113</b> | <b>0.0000</b> |               | <b>4.0000e-005</b> | <b>4.0000e-005</b> |                | <b>4.0000e-005</b> | <b>4.0000e-005</b> |          |           | <b>0.0241</b> | <b>0.0241</b> | <b>6.0000e-005</b> | <b>0.0257</b> |

### 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 | 0.1492        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Consumer Products     | 0.5121        |                    |               |               |               | 0.0000             | 0.0000             |                | 0.0000             | 0.0000             |          |           | 0.0000        |               |                    | 0.0000        |
| Landscaping           | 1.0500e-003   | 1.0000e-004        | 0.0113        | 0.0000        |               | 4.0000e-005        | 4.0000e-005        |                | 4.0000e-005        | 4.0000e-005        |          |           | 0.0241        | 0.0241        | 6.0000e-005        | 0.0257        |
| <b>Total</b>          | <b>0.6624</b> | <b>1.0000e-004</b> | <b>0.0113</b> | <b>0.0000</b> |               | <b>4.0000e-005</b> | <b>4.0000e-005</b> |                | <b>4.0000e-005</b> | <b>4.0000e-005</b> |          |           | <b>0.0241</b> | <b>0.0241</b> | <b>6.0000e-005</b> | <b>0.0257</b> |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

---

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

## 10.0 Stationary Equipment

---

### Fire Pumps and Emergency Generators

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

### Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

### User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

## 11.0 Vegetation

---





# Appendix B

---

## Biological Resources Report

August 7, 2020

12036

Mr. William Fee  
Carducci & Associates, Inc.  
555 Beach Street, 4th Floor  
San Francisco, California 94133

**Subject:** *Biological Resources Assessment for the Bidwell and El Rancho Verde Parks Master Plan, City of Hayward and City of Union City, Alameda County, California*

*[Note: Although this Biological Resources Assessment includes both the proposed Bidwell Park Master Plan project and the El Rancho Verde Park Master Plan project, the El Rancho Verde Park will now undergo separate environmental review and is not included in the Mitigated Negative Declaration.]*

Dear Mr. Fee:

This letter report summarizes the biological resources assessment conducted by Dudek for the proposed Bidwell and El Rancho Verde Parks Master Plan (proposed project) located within the cities of Hayward and Union City in Alameda County, California (Figure 1).

This report describes the following: (1) existing conditions on the two project sites; (2) existing biological resources in terms of vegetation, plants, wildlife, and habitats; (3) summary of the methods used for the assessment; (4) survey and research results; (5) potential impacts to biological resources that would result from project implementation based on the California Environmental Quality Act (CEQA) Environmental Checklist Form for Biological Resources (Appendix G to the CEQA Guidelines and CEQA Guidelines Section 15064(b)); and (6) mitigation measures to minimize potential impacts to special-status biological resources, as necessary. For purposes of this assessment, the biological study area is defined as the project sites (described below) and a 100-foot buffer around each site resulting in a total of 25.03 acres (the biological study area).

## Project Site Descriptions

The biological study area is comprised of two, non-contiguous properties that are sited in the southcentral part of the City of Hayward and the City of Union City, in the western central portion of Alameda County. Regionally, the City is bordered by the cities of Union City and Fremont to the south, San Leandro to the north, Pleasanton to the east, and the San Francisco Bay to the west.

- Proposed Bidwell Park – This project site is the former Bidwell Elementary School, located at 175 Fairway Street (APN 78G-2704-002-01) within the City of Hayward. The site consists of a 10.56-acre square parcel that is located in the Fairway Park neighborhood of Hayward. It is bounded by Fairway Street to the northwest, Rousseau Street to the southeast, and the back ends of the residential properties that front Meadowbrook Avenue to the northeast, and Carroll Avenue to the southwest (Figure 2a). The topography of the project site is generally flat with elevations that range from approximately 26 to 34 feet above mean sea level. The project site can be found within Sections 1 and 2, Township 4 South, Range 2 West of the U.S. Geological Survey (USGS) 7.5-minute Newark, California quadrangle map.

- El Rancho Verde Park – This project site is located at 32399 Trevor Avenue (APNs 78G-2921-001-01 and 87-0040-006-02) within the cities of Hayward and Union City. The existing park is composed of two irregular parcels totaling 3.27 acres, located on the southern edge of the El Rancho Verde Park neighborhood in Hayward. It is bounded by Amelia Avenue to the west, the Chapel of the Chimes Memorial Park to the west, south and east, Trevor Avenue to the northeast, and the Conley-Caraballo High School and baseball field to the northwest (Figure 2b). Topography of the El Rancho Verde Park project site is generally flat with elevations that range from approximately 71 to 83 feet above mean sea level. El Rancho Verde Park can be found within Section 1, Township 4 South, Range 2 West and Section 6, Township 4 South, Range 1 West of the U.S. Geological Survey (USGS) 7.5-minute Newark, California quadrangle map.

## Methods

The biological resources assessment began with a review of available literature and data to evaluate the environmental setting and identify potential special-status biological resources that may be found within the biological study area. The review included the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base (CNDDDB)<sup>1</sup>, U.S. Fish and Wildlife Service's (USFWS) Environmental Conservation Online System<sup>2</sup>, and California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants data (CNPS Inventory)<sup>3</sup>. A 5-mile buffer around the project site was queried in the USFWS data using geographic information systems (GIS) software, and a "nine-quad" query was conducted of the CNDDDB and CNPS Inventory. The nine-quad query included the USGS 7.5-minute Newark quadrangle and the surrounding eight USGS quadrangles (San Leandro, Hayward, Dublin, Niles, Milpitas, Mountain View, Palo Alto, and Redwood Point). These databases provided information regarding special-status plants, wildlife, and habitats recorded for the project site and vicinity. Dudek also reviewed soil survey maps<sup>4</sup>, USGS National Hydrography Dataset (NHD) of aquatic resources, USFWS' National Wetlands Inventory (NWI) maps<sup>5</sup>, City of Hayward's General Plan<sup>6</sup>, City of Union City's General Plan<sup>7</sup>, and other in-house documentation, GIS layers, and sources for locations of special-status species and water resources.

On November 15, 2019, Dudek Biologist Ryan Henry performed a general biological investigation of the biological study area. The purpose of the general survey was to identify vegetation communities and land covers, and identify potential

- 
- <sup>1</sup> California Department of Fish and Wildlife. 2019. RareFind 5, Version 5.2.14. Biogeographic Data Branch. Sacramento, California: California Natural Diversity Database. Website <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx> [accessed March 2019].
  - <sup>2</sup> U.S. Fish and Wildlife Service. 2019. Environmental Conservation Online System, Information for Planning and Conservation Report (online edition). Website <http://ecos.fws.gov/ipac/> [accessed March 2019].
  - <sup>3</sup> California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, California. Website <http://www.rareplants.cnps.org/> [accessed March 2019].
  - <sup>4</sup> U.S. Department of Agriculture. 2019. Web Soil Survey. Natural Resources Conservation Service. Accessed March 2019. <http://websoilsurvey.nrcs.usda.gov>.
  - <sup>5</sup> U.S. Fish and Wildlife Service. 2019. National Wetlands Inventory, Wetlands Mapper (online edition). Website <http://www.fws.gov/wetlands/Data/Mapper.html> [accessed March 2019].
  - <sup>6</sup> City of Hayward. 2014. Hayward 2040 General Plan. Adopted July 1, 2014.
  - <sup>7</sup> City of Union City. 2002. 2002 General Plan Policy Document. Adopted February 12, 2002.

habitat for any threatened, endangered, or otherwise special-status species that may occur within the biological study area. No focused, protocol-level surveys for plants or wildlife were conducted.

Vegetation community and land cover mapping was conducted according to the CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*<sup>8</sup> and *List of Vegetation Alliances and Associations*<sup>9</sup>, also referred to as the Natural Communities List. Vegetation communities and land covers were mapped in the field directly onto 1:1,200-scale (1 inch = 100 feet) aerial photographic maps. Non-natural vegetation communities or land covers not listed in the Natural Communities List followed generic categories and were identified as mapping units (e.g., Developed Mapping Unit). Following completion of the fieldwork, all vegetation polygons were digitized using ArcGIS and a GIS coverage was created.

During the field survey, a general inventory of plant and wildlife species detected by sight, calls, tracks, scat, or other signs was compiled; and the potential for special-status species to occur within the biological study area was determined. Observable special-status resources including perennial plants and conspicuous wildlife (e.g., birds and some reptiles) commonly accepted as regionally sensitive by the USFWS, CDFW, and/or CNPS were recorded and later digitized into a project-specific GIS coverage.

In addition, a preliminary investigation of the extent and distribution of U.S. Army Corps of Engineers (Corps) jurisdictional "waters of the U.S.," Regional Water Quality Control Board (RWQCB) jurisdictional "waters of the State," and CDFW jurisdictional streambed and associated riparian habitat was conducted.

## Results

### Soil Survey Review

The Web Soil Survey was reviewed to identify soil mapping units as well as indicators of streams and the historic mapping of wetlands, seeps, springs, or hydric soils. One soil series was identified as occurring within the biological study area (both sites): Rincon clay loam, 0-2% slopes. This soil was formed in material weathered from sandstone and occur on mountainous uplands. Additionally, these soils are moderately well-drained, slowly permeable. Runoff is slow and the erosion hazard is slight. No historic drainage features were identified on the soil map within the biological study area.

### Hydrologic Setting Review

The biological study area occurs within the San Francisco Bay RWQCB's (Region 2) portion of the South Bay Hydrologic Unit, and more specifically within the East Bay Cities Hydrologic Area and Undefined Hydrologic Subarea

---

<sup>8</sup> California Department of Fish and Game. 2009. *Protocols for Surveying and Evaluating Impacts to Special-Status Native Populations and Natural Communities*. November 24. [http://www.dfg.ca.gov/wildlife/nongame/survey\\_monitor.html](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html).

<sup>9</sup> California Department of Fish and Game. 2010. *List of Vegetation Alliances and Associations*. Natural Communities List, Vegetation Classification and Mapping Program. Sacramento, California: CDFG. September 2010. [http://www.dfg.ca.gov/biogeodata/vegcamp/natural\\_communities.asp](http://www.dfg.ca.gov/biogeodata/vegcamp/natural_communities.asp).

(206.50). The watershed is approximately 83,633 acres in size and includes portions of several East Bay cities, and unincorporated County lands. This watershed is drained by streams such as Alameda Creek, Coyote Creek, and San Lorenzo Creek, which drain directly into the southern and eastern portion of the Bay. No significant tributaries from the NHD dataset occur within the biological study area.

A review of the NWI dataset revealed no aquatic resources within the biological study area.

## General Plan and Habitat Conservation Plan Review

According to the City of Hayward's General Plan, the proposed Bidwell Park site is designated as Public and Quasi-Public (PQP), which includes government, educational, cultural, and healthcare facilities. The park is part of the Hayward Area Recreation and Park District (HARD), which is an independent special district that manages several parks throughout the cities of Hayward, surrounding cities, and unincorporated regions of Castro Valley and San Lorenzo. The park does not support any waterways or drainage features.

According to the City of Union City's General Plan, El Rancho Verde Park is designated as Open Space (OS), which includes conserved lands for passive and active recreation uses, resource management, flood control management and public safety. The park is also part of the HARD. The park does support any waterways or drainage features.

Neither park occurs within the Coastal Zone or an Environmental Sensitive Habitat Area, as defined and governed by the California Coastal Act. Additionally, neither park occurs within the boundaries of an approved habitat conservation plan.

## Vegetation Communities and Floral Diversity

One non-natural land cover was mapped within the biological study area based on general physiognomy and species composition. Both project sites are characterized as landscaped areas. This land cover type is described below.

### Landscaped Area

The landscaped area mapping unit includes areas occupied by introduced plantings of exotic, and sometimes native, species as landscaping that are actively maintained. This land cover is frequently maintained for passive and active recreation. Several planted species of shrubs and trees, as well as ground cover, occur within the biological study area.

- Proposed Bidwell Park. Some of the overstory species that occur within the proposed Bidwell Park site include California sycamore (*Platanus racemosa*), glossy privet (*Ligustrum lucidum*), redwood (*Sequoia sempervirens*), silver wattle (*Acacia dealbata*), and sweetgum (*Liquidambar styraciflua*). Other ground cover species include Bermudagrass (*Cynodon dactylon*), California brome (*Bromus carinatus*), dallisgrass (*Paspalum dilatatum*), English ivy (*Hedera helix*), field bindweed (*Convolvulus arvensis*), mallow (*Malva* sp.), and wild oat (*Avena fatua*).
- El Rancho Verde Park. Some of the species that occur within El Rancho Verde Park include olive (*Olea europaea*), redwood, sweet bay (*Laurus nobilis*), and sweetgum. Other tree species that occur just south of the park near the fence line included a few individuals of red willow (*Salix laevigata*) and coast live oak (*Quercus agrifolia*). Ground cover species within the park include bentgrass, Bermudagrass, cotoneaster

(*Cotoneaster* sp.), dallisgrass, English ivy, saltgrass (*Distichlis spicata*), scarlet pimpernel (*Lysimachia arvensis*), wild oat, and wild radish (*Raphanus raphanistrum*).

The low native plant diversity reflects the ornamental setting of the biological study area and its proximity to adjacent disturbed and developed areas.

## Wildlife

Wildlife species detected within the biological study area was limited to the following urban-adapted species: American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), California towhee (*Melospiza crissalis*), cedar waxwing (*Bombocilla cedrorum*), domestic dog (*Canis lupus familiaris*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), and northern mockingbird (*Mimus polyglottos*). No active bird nesting was observed during the field survey, but the various trees and shrubs within the study area could support nesting birds. The parks also provides limited habitat for other common, urban-adapted wildlife species, such as Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel (*Spermophilus [Otospermophilus] beecheyi*). No amphibian, reptile, or fish species were detected within the study area.

## Special-Status Biological Resources

The presence of protected or regulated vegetation communities, plant species, and wildlife species occurring or potentially occurring within the biological study area was based on a literature review and evaluation of the habitat found within the biological study area. Special-status biological resources are classified by either state or federal resource management agencies, or both. Special-status vegetation communities include habitats considered “sensitive” by the CNDDDB that are unique, of relatively limited distribution, or of particular value to wildlife. Special-status plant and wildlife species include those listed as threatened or endangered under provisions of the State and federal Endangered Species Acts, or as California Species of Concern (SSC) or Fully Protected (FP) by the CDFW. The species discussed below have been afforded special recognition by local, state, or federal resource conservation agencies and organizations, principally due to the species’ declining or limited population sizes usually resulting from habitat loss.

### Sensitive Vegetation Communities

No natural vegetation communities considered sensitive by the CNDDDB were identified within the biological study area.

### Special-Status Plants

Special-status plants include those listed, or candidates for listing, as threatened or endangered by the USFWS and CDFW, and species identified as rare by the CNPS (particularly California Rare Plant Rank [CRPR] 1A – Presumed extinct in California; CRPR 1B – Rare, threatened, or endangered throughout its range; and CRPR 2 – Rare or Endangered in California, more common elsewhere). A total of 48 special-status plant species were reported in the CNDDDB, USFWS, and CNPS databases as occurring in the vicinity of the biological study area. However, no special-status plant species were observed within the biological study area during the field survey. Additionally, based on the species ranges, and vegetation communities/land covers and soils present on the project site, there is little to no potential for special-status plants to occur.

## Special-Status Wildlife

Special-status wildlife include those listed, or candidates for listing, as threatened or endangered by the USFWS and CDFW, and designated as SSC by CDFW. A total of 35 special-status wildlife species were reported in the CNDDDB and USFWS databases as occurring in the vicinity of the biological study area. However, no special-status wildlife species were observed within the biological study area during the field survey. Based on the species ranges and vegetation communities/land covers within the biological study area, there is little to no potential for special-status wildlife to occur.

## Nesting Birds

Both project sites support foraging and nesting habitat for birds that are protected under the federal Migratory Bird Treaty Act (16 U.S.C. 703) (MBTA) and California Fish and Game Code (CFGF) Section 3503. Disturbing or destroying active nests is a violation of the MBTA. In addition, nests, live young, and eggs are protected under the CFGF. However, no active bird nests were detected during the field survey.

## Jurisdictional Aquatic Resources

The biological study area does not support any aquatic resources regulated by the Corps, RWQCB, or the CDFW as jurisdictional wetlands, waters of the U.S., or waters of the State.

## Designated Critical Habitat

The biological study area does not overlap with any federally-designated critical habitat for listed plants or wildlife species.

## Wildlife Corridors and Habitat Linkages

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

The biological study area does not occur within a designated open space. Although no wildlife corridors or habitat linkages were identified near the biological study area, limited wildlife movement may occur between El Rancho Verde Park and the open space located to the northeast.

## Impacts and Mitigation

This section addresses the anticipated impacts (direct, indirect, and cumulative) to biological resources that would result from implementation of the proposed project. The significance determinations for proposed or potential impacts follow the thresholds provided in the CEQA Guidelines Section 15064(b) and Appendix G Environmental Checklist. The evaluation of the proposed project's impacts is organized by the resource potentially affected as follows: special-status species; riparian and sensitive vegetation communities; jurisdictional wetlands and waters; and wildlife movement.



## Impacts to Sensitive Vegetation Communities

The proposed project would result in the grading and removal of landscaped areas that are not considered sensitive. As a result, there would be no direct, indirect, or cumulative impacts to sensitive vegetation communities and no compensatory mitigation would be required.

## Impacts to Special-Status Plant Species

Special-status plant species are not expected within the biological study area because of the urban setting, current amount of disturbance within the project sites, non-native plant competition, and existing surrounding development. As a result, there would be no direct, indirect, or cumulative impacts to special-status plant species and no compensatory mitigation would be required.

## Impacts to Special-Status Wildlife

Special-status wildlife species are not expected within the biological study area because of the urban setting, known species ranges, and lack of habitat. However, the biological study area supports suitable habitat for nesting bird species. Nesting birds are protected under the Migratory Bird Treaty Act and California Fish and Game Code Section 3500, and compliance with these regulations is required. Project construction would be limited to existing access roads and/or landscaped areas, but removal of existing trees and other potential nesting habitat could occur and result in direct impacts to nesting birds if conducted during the bird nesting season (i.e., February 15 through August 31). Indirect impacts to nesting birds from short-term construction-related noise could result in decreased reproductive success or abandonment of an area as nesting habitat if conducted during the nesting season. If feasible, project activities should be conducted outside the nesting season. If construction is deemed necessary during the nesting season, implementation of the project shall include conducting a nesting bird survey prior to the commencement of construction activities to avoid and minimize potential impacts to nesting birds (e.g., pre-construction clearance survey, avoidance buffers) in compliance with the Migratory Bird Treaty Act and California Fish and Game Code.

As a result, there would be no direct, indirect, or cumulative impacts to special-status wildlife species and no compensatory mitigation would be required.

## Impacts to Jurisdictional Wetlands and Waters

No potentially jurisdictional wetlands or waters occur within the biological study area. Furthermore, the proposed project will not result in alterations to the land that could impact jurisdictional features in the vicinity of the study area. As a result, there would be no direct, indirect, or cumulative impacts to jurisdictional wetlands and waters, and no compensatory mitigation would be required.

## Impacts to Wildlife Corridors and Migratory Routes

No significant direct permanent impacts would occur on wildlife movement or use of native wildlife nursery sites associated with the proposed project. Existing habitat linkages and wildlife corridor functions would remain intact during project construction activities and park operation. Project activities would not result in impacts to wildlife



movement because construction of the proposed project would not impede wildlife movement through the area due to the relatively limited size of the project footprint. Additionally, opportunities for local wildlife movement, primarily common bird species, would remain intact. As a result, there would be no direct, indirect, or cumulative impacts to wildlife corridors and migratory routes, and no compensatory mitigation would be required.

## Impacts to Local Policies and Ordinances

The City of Hayward and the City of Union City have adopted tree protection policies (Municipal Code Article 15, Section 10-15 and Municipal Code Chapter 12.16, respectively). The City of Hayward's policies protect (1) trees with a minimum trunk diameter of 8 inches measured 54 inches above the ground; (2) street trees or other required trees per a condition of approval, use permit, or other zoning requirement; (3) all memorial trees or specimen trees; (4) trees with a minimum of 4 inches diameter trunk size of species such as big leaf maple, California buckeye, madrone, western dogwood, etc.; and (5) all trees of any size planted as a replacement for a protected tree. The City of Union City's policies protect (1) all trees with a minimum trunk circumference of 35 inches that are located on residential property; (2) all trees with a minimum trunk circumference of 12 inches that are planned for removal as part of zoning or subdivision approval; (3) any tree that existed at the time of a zoning or subdivision approval and required of such approval; (4) any tree that was required to be planted by the terms of a zoning or subdivision approval; (5) all trees with a minimum circumference of 12 inches that are located on a vacant lot or undeveloped property; and (6) all trees with a minimum circumference of 12 inches that are located on commercial, office, or industrial developed property.

The biological study area contains several mature trees regulated by the City of Hayward and the City of Union City. Based on the preliminary project design, removal of individual trees that are protected by these tree ordinances may result from implementation of the proposed project. Therefore, it is anticipated that tree removal permits would be needed for the proposed project. At a minimum, trees that are removed must be replaced with like-sized, like-kind trees or an equal value tree(s) as determined by each city's Landscape Architect or Public Works Director.

With implementation of this project design feature, impacts to local policies and ordinances from construction-related activities would be less than significant.

## Impacts to Conservation Planning Context

The proposed project is not within the boundaries of an adopted habitat conservation plan or other local, regional, or state conservation plan. As a result, no impacts to any conservation planning effort, and no compensatory mitigation would be required.

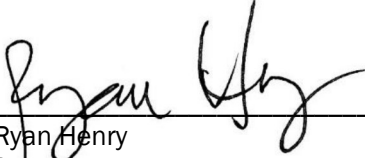
Mr. William Fee

Subject: *Biological Resources Assessment for the Bidwell and El Rancho Verde Parks Master Plan*

---

If you have any question regarding the information provided within this letter report, please do not hesitate to contact me at 949.812.8968.

Sincerely,



---

Ryan Henry  
Senior Biologist/Project Manager

Att: *Attachment A: Figures 1, 2a, and 2b*

cc: *Hannah Young, Dudek  
Kara Laurenson-Wright, Dudek*

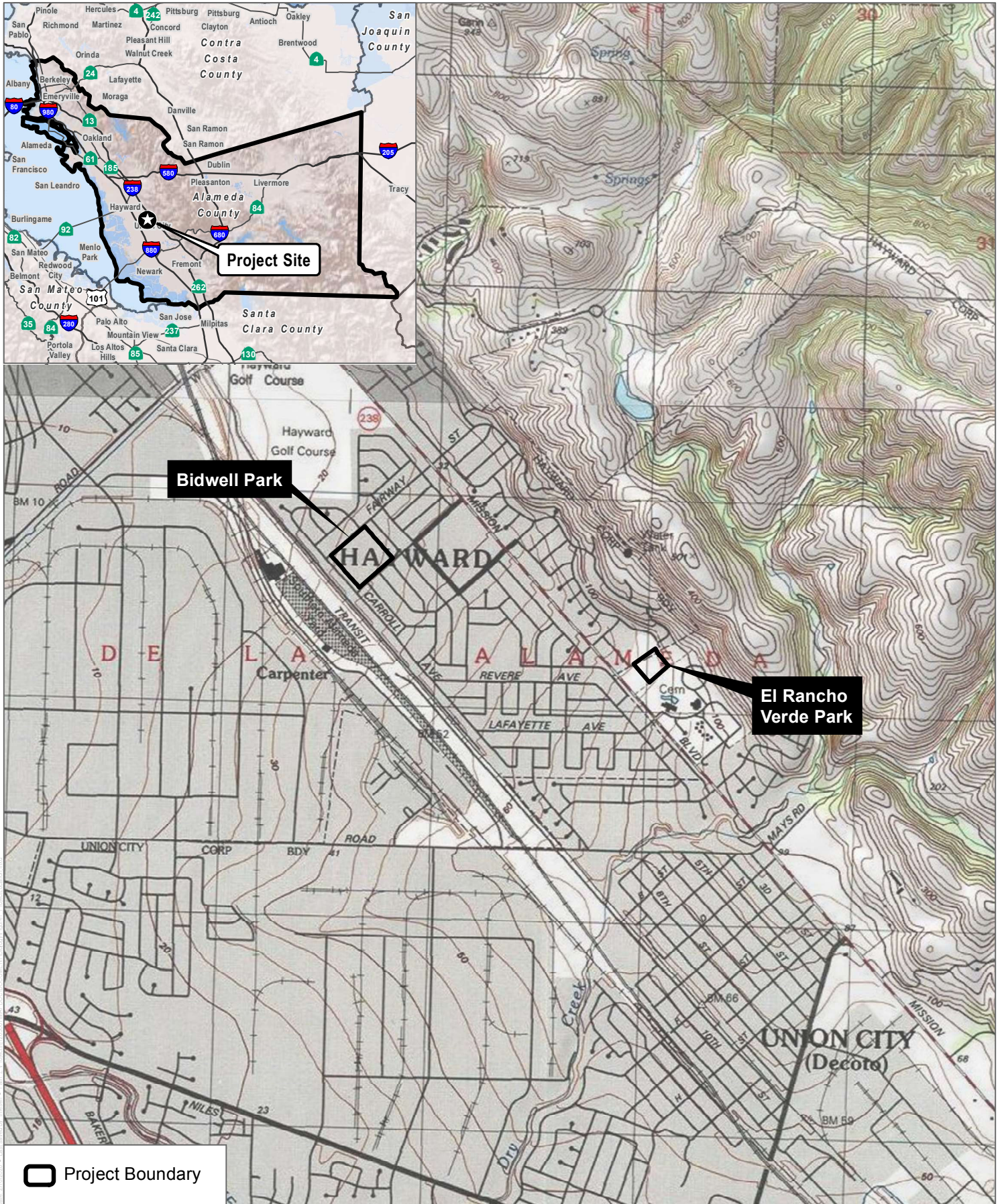


# Attachment A

---

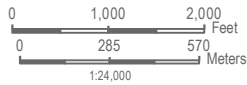
Figures





SOURCE: USGS 7.5 minute series Newark Quadrangle  
 Township 4S / Range 2W / Sections 01 & 02  
 Township 4S / Range 1W / Section 06

**DUDEK**



**FIGURE 1**

**Project Location**

Bidwell and El Rancho Verde Parks





**FIGURE 2A**  
**Bidwell Park Project Area**  
 Bidwell and El Rancho Verde Park





SOURCE: Bing 2018



**FIGURE 2B**  
**El Rancho Verde Park Project Area**  
 Bidwell and El Rancho Verde Park

# Appendix C

---

## Cultural Resources Report

**CULTURAL RESOURCES TECHNICAL REPORT FOR THE BIDWELL  
AND EL RANCHO VERDE PARKS MASTER PLAN, CITIES OF  
HAYWARD AND UNION CITY, ALAMEDA COUNTY, CALIFORNIA**

*Prepared for:*

**Carducci & Associates, Inc.**

San Francisco, CA  
*Contact: William Fee*

*Prepared by:*

*Fallin Steffen, MPS, Kathryn Haley, MA, Adam Giacinto, MA, RPA, and William Burns, MS, RPA*

**DUDEK**

1630 San Pablo Avenue  
Oakland, California 94612

**AUGUST 2020**



## NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

|                           |   |
|---------------------------|---|
| <b>Authors:</b>           | Fallin Steffen, MPS, Kathryn Haley, MA, Adam Giacinto, MA, RPA, and William Burns, MS, RPA  |
| <b>Firm:</b>              | Dudek   |
| <b>Project Proponent:</b> | Hayward Area Recreation and Park District (HARD)  |
| <b>Report Date:</b>       | August 2020   |
| <b>Report Title:</b>      | Cultural Resources Technical Report for the Bidwell and El Rancho Verde Parks Master Plan   |
| <b>Type of Study:</b>     | Cultural Resources Inventory, Significance Evaluation   |
| <b>New Resources:</b>     | N/A   |
| <b>Updated Sites:</b>     | N/A   |
| <b>USGS Quads:</b>        | Property 1: Newark 7.5' T4S/R5W/S 32<br>Property 2: Newark 7.5' T4S/R2W, 1W/S01, 06   |
| <b>Acreage:</b>           | Approximately 13.80 gross acres   |
| <b>Permit Numbers:</b>    | N/A   |
| <b>Keywords:</b>          | California Environmental Quality Act (CEQA); City of Hayward; City of Union City; cultural resources inventory; pedestrian survey |

Note: Although this Cultural Resources Technical Report includes both the proposed Bidwell Park Master Plan project and the El Rancho Verde Park Master Plan project, the El Rancho Verde Park will now undergo separate environmental review and is not included in the Mitigated Negative Declaration.

INTENTIONALLY LEFT BLANK

# Table of Contents

---

| <b><u>SECTION</u></b>  | <b><u>PAGE NO.</u></b> |
|--|------------------------|
| <b>EXECUTIVE SUMMARY .....</b>   | <b>6</b>               |
| <b>1 INTRODUCTION .....</b>  | <b>8</b>               |
| 1.1 Project Description .....  | 8                      |
| 1.1.1 Project Background .....   | 8                      |
| 1.1.2 HARD Recreation and Parks Master Plan .....  | 9                      |
| 1.1.3 Bidwell Park.....  | 9                      |
| 1.1.4 El Rancho Verde Park .....   | 11                     |
| 1.2 Regulatory Setting.....  | 18                     |
| 1.3 Cultural Resources Study Area .....  | 26                     |
| 1.4 Project Personnel .....  | 26                     |
| <b>2 BACKGROUND RESEARCH.....</b>  | <b>27</b>              |
| 2.1 CHRIS Records Search.....  | 27                     |
| 2.2 Native American Coordination.....  | 29                     |
| 2.3 Building Development and Archival Research.....  | 30                     |
| <b>3 HISTORIC CONTEXT.....</b>   | <b>33</b>              |
| 3.1 Prehistoric Overview.....  | 33                     |
| 3.2 Ethnographic Overview.....   | 36                     |
| 3.3 Historic Period Overview .....   | 38                     |
| 3.4 City of Hayward Historic Context.....  | 39                     |
| 3.5 Development Overview of Property 1: Proposed Bidwell Park (Bidwell Elementary School)..... | 42                     |
| 3.6 Architectural Style: Mid-Century Modern with International Style Elements .....            | 44                     |
| 3.7 Architects: Anderson and Simonds (1945-1962) .....   | 46                     |
| 3.8 Builder: Wallace Webb & Son Construction Co. ....  | 47                     |
| <b>4 FIELD SURVEY.....</b>   | <b>48</b>              |
| 4.1 Methods.....   | 48                     |
| 4.2 Results .....  | 48                     |
| <b>5 SIGNIFICANCE EVALUATION.....</b>  | <b>50</b>              |
| 5.1 Property 1: Bidwell Elementary School Buildings (APN 78G-2704-002-01) .....                | 50                     |
| 5.1.1 Building A: Main Building.....   | 51                     |
| 5.1.2 Building B: Rear Building.....   | 55                     |
| 5.2 NRHP/CRHR Statement of Significance .....  | 58                     |
| 5.3 City of Hayward Statement of Significance.....   | 60                     |

6 FINDINGS AND CONCLUSIONS ..... 61  
 6.1 Summary of Findings ..... 61  
 7 BIBLIOGRAPHY..... 63

**APPENDICES**

A Preparer’s Qualifications  
 B **Confidential** Records Search Results (provided separately)  
 C DPR forms  
 D Native American Coordination Documentation

**FIGURES**

Figure 1. Project Location Map..... 14  
 Figure 2. Property 1 and Property 2 Location Detail ..... 15  
 Figure 3. Property 1..... 16  
 Figure 4. Property 2..... 17  
 Figure 5. Haywards Hotel, c. 1870s (Alamedainfo.com)..... 40  
 Figure 6. A 1995 map of the Fairway Park neighborhood showing the areas annexed by the City of Hayward with corresponding dates. Property 1 indicated in red (City of Hayward)..... 43  
 Figure 7. Rear view of Buildings A (at left and background) and B (right foreground), view looking north (DSCN3830) ..... 51  
 Figure 8. Western half of the north (main) elevation, looking SE (DSCN3867) ..... 52  
 Figure 9. South (rear) elevations of Building A showing roof heights and types, looking NE (DSCN3785) ..... 52  
 Figure 10. Recessed entry on the north (main) elevation showing sienna CMU details, looking SE (DSCN3750).. 53  
 Figure 11. Protruding windows on east-facing section of rear elevation, looking NW (DSCN3793)..... 53  
 Figure 12. Brise soleils on south and east elevations, looking NW (DSCN3801) ..... 54  
 Figure 13. North (main) and east elevation showing protruding framed entry, looking SW (DSCN3853) ..... 54  
 Figure 14. Covered Walkway connecting Buildings A and B, looking N towards Building A (DSCN3790)..... 55  
 Figure 15. Western elevation showing covered walkway connection, looking E (DSCN3822)..... 56  
 Figure 16. North east elevation showing window configurations, looking SW (DSCN3816) ..... 56  
 Figure 17. South elevation view showing brise soleils, view looking NW (DSCN3790) ..... 57  
 Figure 18. East elevation showing slatted screen and cantilevered overhang above the double entry door, looking NW (DSCN3837) ..... 57

**TABLES**

Table 1. Previous Cultural Resources Investigations within 0.5-mile of the Study Area..... 27  
 Table 2. Aerial Photograph Review..... 31  
 Table 3. Summary of Chronologic Sequences ..... 34

# Executive Summary

---

Dudek was retained by Carducci Associates to conduct a cultural resources study in support of the proposed Bidwell Park and El Rancho Verde Park Master Plan Project (referred to as the proposed project), both project sites are located in Alameda County, California. The subject properties addressed in this study include Property 1: Proposed Bidwell Park (Bidwell Elementary School Buildings) (Assessor Parcel Number [APN] 78G-2704-002-01) and Property 2: El Rancho Verde Park (APNs 78G-2921-001-01 and 87-0040-006-02).

This cultural resources study includes the following components: (1) a California Historical Resources Information System (CHRIS) records search conducted at the Northwest Information Center (NWIC) addressing the proposed project site plus a 0.5-mile radius; (2) a review of the California Native American Heritage Commission's (NAHC's) Sacred Lands File (SLF); (3) a pedestrian survey of the project site for archaeological and built environment resources; (4) a historical significance evaluation of one property within the project site that is over 45 years of age; and (5) recommendations.

This study is compliant with California Public Resources Code (PRC) Section 5024.1, Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) (PRC Section 21000 et seq.), and Section 15064.5 of the CEQA Guidelines (14 CCR Section 15000 et seq.). PRC Section 5024.1 requires the identification and evaluation of historical resources that may be affected by a proposed project.

Dudek completed a CHRIS records search at the NWIC on October 14, 2019. No previously recorded cultural resources were identified within the project site, nor within the surrounding 0.5-mile search radius. The records search identified sixteen previously conducted cultural resources technical investigations within the records search area. Of these, none overlap the project site.

Dudek contacted the NAHC on September 26, 2019 requesting a search of the SLF records. In their response dated October 3, 2019, the NAHC stated that the results of the SLF search were negative and provided a Tribal Consultation List of NAHC-listed tribal representatives who have been identified as possibly having additional information relating to Native American resources (Tribal Cultural Resources) in the vicinity of the project area. Pursuant to Assembly Bill 52, letters were sent to these NAHC-listed tribal representatives on August 4, 2020. Katherine Erolinda Perez of the North Valley Yokuts Tribe responded on August 19, 2020, inquiring if a literature search had been completed and, if so, if it could be shared with her. No other responses have been received to date.

Based on the results of the CHRIS records search, Native American coordination, and pedestrian survey completed November 18, 2019, the proposed project will not affect any known archaeological resources and is considered to be of low-moderate sensitivity for the presence of unanticipated resources. In consideration of these findings, no additional archaeological effort, including monitoring, is recommended to be required in support of the project. Recommended management strategies for unanticipated archaeological resources and human remains has been provided to ensure regulatory compliance.

Dudek conducted an intensive-level pedestrian survey of the project site on August 30, 2019 for historic built environment resources. Dudek identified and recorded two built environment buildings over 45 years of age sited on Property 1: Proposed Bidwell Park (Bidwell Elementary School Buildings) Property 2: El Rancho Verde Park did

not contain any buildings or structures over 45 years of age and thus recordation and evaluation under applicable significance criteria were not necessary under CEQA. Property 1: Proposed Bidwell Park (Bidwell Elementary School Buildings) was evaluated under National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), or local Hayward designation criteria. The Bidwell Elementary School Buildings, were not found to eligible under any applicable criteria. As such, there are no properties containing buildings or structures that are considered built environment historical resources for the purposes of CEQA. No further management recommendations are required.

# 1 Introduction

---

Dudek was retained by Carducci Associates to conduct a cultural resources study in support of the proposed Bidwell Park and El Rancho Verde Park Master Plan Project (proposed project). Bidwell and El Rancho Verde Parks Master Plan (proposed project) proposed by the Hayward Area Recreation Park District (HARD) in Alameda County. The proposed Bidwell Park (Property 1) would be constructed on the site of the former Bidwell Elementary School in the City of Hayward and the existing El Rancho Verde Park (Property 2), primarily in the City of Union City, would be renovated and improved. These two sites are approximately 1 mile apart, along Mission Boulevard (State Route 238) (see Figure 1. Project Location).

This cultural resources study included the following components: (1) a California Historical Resources Information System (CHRIS) records search conducted at the Northwest Information Center (NWIC) addressing the proposed project site plus a 0.5-mile radius; (2) a review of the California Native American Heritage Commission's (NAHC's) Sacred Lands File (SLF); (3) a reconnaissance-level pedestrian survey of the proposed project site for archaeological and built environment resources; (4) a historical significance evaluation of one property within the proposed project site that is over 45 years of age; and (5) recommendations.

This study is compliant with California Public Resources Code (PRC) Section 5024.1, Section 5097.5, and Section 30244 and Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) (PRC Section 21000 et seq.), and Section 15064.5 of the CEQA Guidelines (14 CCR Section 15000 et seq.).

## 1.1 Project Description

### 1.1.1 Project Background

This section summarizes HARD's Recreation and Parks Master Plan that identified the need for the proposed project and describes the community engagement undertaken for the planning and design of the proposed project.

HARD was established as a Special District in 1944, with the purpose of providing recreation facilities and services for the residents of Hayward and the surrounding unincorporated areas. HARD's area encompasses 104 square miles in Alameda County including the City of Hayward, as well as the neighboring unincorporated areas of Ashland, Castro Valley, Cherryland, Fairview, and San Lorenzo. HARD's park system includes approximately 104 sites covering 1,357 acres, including a mix of urbanized areas and protected regional open space. The system includes local and community parks, school recreation sites, aquatic centers, and golf courses. HARD offers many programs including after-school programs, camps, arts classes, fitness classes, sports, and classes for seniors.<sup>1</sup>

---

<sup>1</sup> Hayward Area Recreation District (HARD), 2019. *Recreation and Parks Master Plan*. October.

## 1.1.2 HARD Recreation and Parks Master Plan

HARD's update to its 2006 Recreation and Parks Master Plan was completed in October 2019. The Recreation and Parks Master Plan establishes 10-year goals for HARD and provides a comprehensive overview of the parks and recreation system, summarizes the key issues HARD is facing, and identifies the park sites in need of improvement.

The proposed Bidwell Park is an approximately 10.5-acre site in the City of Hayward. The property is the location of the former Bidwell Elementary School operated by the Hayward Unified School District through the 2017-18 school year. The Recreation and Parks Master Plan designates the property as a Local Park, a combination of playground and park area designed primarily for non-supervised, non-organized recreation activities.

El Rancho Verde Park is an approximately 3.3-acre site primarily in the City of Union City, with a small portion of the site in the City of Hayward. It is an existing park with three little league baseball fields, and it is adjacent to the Conley-Caraballo High School, a continuation high school owned by the New Haven Unified School District. The Recreation and Parks Master Plan designates the park as a School Recreation Site, defined as a facility developed on school land and available for use by the public.

In November 2016, voters residing within HARD's service area passed Measure F1, a \$250 million bond measure authorizing funding for needed repairs, upgrades, and new construction projects for parks and facilities. Both parks are identified as being in poor condition and needing park improvements or renovations, with funding possible from Measure F1 and HARD's three-year Capital Improvements Projects program (2017-2020).

HARD created the Bidwell and El Rancho Verde Parks Master Plan, which is the subject of this CEQA document, to implement a vision and specific improvements for these two parks.

## 1.1.3 Bidwell Park

The location, existing conditions, and proposed improvements for Bidwell Park are described below.

### 1.1.3.1 Project Location and Surrounding Uses

The proposed Bidwell Park would be located on the former Bidwell Elementary School campus at 175 Fairway Street (Assessor Parcel Number [APN] 78G-2704-002-01), in the southeastern portion of the City of Hayward in Alameda County, as shown in Figure 2, Property 1 and Property 2 Location Detail. The Bidwell Park site is approximately 10.5 acres. HARD purchased the northern half of the site in December 2019 while the Hayward Unified School District retained ownership over the southern portion of the site and will lease it back to HARD for recreational use.

The Bidwell Park site is bounded by Fairway Street on the northwest, residences along Meadowbrook Avenue on the northeast, Rousseau Street on the southeast, and residences along Carroll Avenue on the southwest. The surrounding area is a predominately single-family residential neighborhood.

The Bidwell Park site is approximately 3 miles from Interstate 880, via Industrial Parkway to Mission Boulevard or Whipple Road. The San Francisco Bay Area Rapid Transit District (BART) train lines are approximately 320 feet to the west and BART's Hayward Maintenance Complex (yard and shop) is just beyond, farther to the west.



### 1.1.3.2 Existing Conditions

As shown on Figure 3, Property 1, the proposed Bidwell Park is the site of the former Bidwell Elementary School. The site includes the existing two school buildings, the parking lot, and recreational areas including the baseball fields. The school was constructed in the mid-1950s and the campus has a total of approximately 21,240 square feet as follows: main building with auditorium/kitchen building (3,320 square feet) and north classrooms (10,411 square feet) and rear building with south classrooms (7,506 square feet). The 9,900-square-foot parking lot is accessed from Fairway Street and contains 15 vehicle parking spaces. Pedestrian access through the site is provided at two gates along Fairway Street and two gates on Rousseau Street.

Recreational facilities include hardcourts on both the east and west sides of the buildings, a children's play area to the west of the buildings, and two baseball fields in the southern portion of the site. The site is generally fenced off and an approximately 18-foot-high chain link fence extends along Rousseau Street.

An abandoned community garden lies immediately to the east of the buildings and mature and ornamental trees are located throughout the site. London plane trees are located along the northeast and southwest boundaries to screen adjacent residential properties. Coast redwoods and cedars are along the western corner near the children's play area and parking lot.

The Bidwell Elementary School closed at the end of the 2017-18 school year and students from that site were relocated to the nearby Treeview Elementary School.<sup>2</sup> Since the school closed, the site has continued to informally serve as a community recreation space. The baseball fields and recreational facilities are open for use during daylight hours.

About 25% of the site, primarily along Fairway Street, is occupied by the buildings, parking lot, and blacktop/playground areas, resulting in approximately 108,250 square feet of impervious surface. The remainder of the site is field/open area.

The City of Hayward's General Plan land use designation for the site is Public and Quasi-Public (PQP). The PQP designation allows for community centers, recreational uses, schools, etc. and any redevelopment to these properties should include landscaping and building improvements. The site is zoned Single-Family Residential District (RS).

### 1.1.3.3 Project Characteristics

The proposed project would create a new park on the former school site. The existing facilities would be repurposed and reconfigured to create a community center with event and lawn space, play and picnic areas, multi-use courts, pedestrian paths, and dog parks. The site would be reconfigured to provide new access points from the neighborhood and paths through the site to integrate the park into the community.

---

<sup>2</sup> Hayward Unified School District, 2019. News- HUSD invites applicants for a 7-11 Bidwell Property Advisory Committee. January 31. Online: [www.husd.us/pf4/cms2/news\\_themed\\_display?id=1548930680405](http://www.husd.us/pf4/cms2/news_themed_display?id=1548930680405). Accessed February 13, 2020.

### 1.1.3.4 Construction

Construction is anticipated to start as early as 2021 and be completed by the end of 2025. Construction duration is anticipated to be approximately 15 months. Construction activities would include site preparation and mobilization, demolition, including demolition of the rear building (south classrooms), and earthwork, construction of improvements, renovation of the main building, and landscaping. Construction staging would occur on site although the contractor may apply for a City permit to encroach on the street during construction.

The project would demolish the existing rear building, the asphalt blacktop play areas, and remove the existing fencing along Fairway and Rousseau streets. Demolition and grading would include grubbing, removing, and disposing of the existing natural turf in areas that will be landscaped, decommissioning the irrigation, and removal of play equipment and site furnishings. Approximately 246,245 square feet of the project site would be cleared and graded. Grading and excavation would occur up to 12 inches below grade. Approximately 3,000 cubic yards of soils would be cut and off-hauled. No soil is anticipated to be imported.

Construction would include renovation of the main building. The kitchen would be remodeled with new appliances, the auditorium would receive new windows, new floors and surfaces, new lighting and possibly sliding doors would be installed on the northeast façade of the building.

The field and event space would be re-contoured and the fill for the up to 3-foot event berms would be from on-site unless it is determined after soil testing that the soil cannot be reused. Construction would include paving and restriping for the on-site parking lot, asphalt paving for the multi-use courts, concrete paving for pedestrian paths and fitness area, installation of play equipment, installation of fences for the kitchen garden and dog parks. Utilities would be upgraded throughout the site including storm water drainage, potable water lines for drinking fountains, and sanitary sewer connections. Electrical power would be extended on the site for night security lighting. Mature, healthy trees would be retained on site as feasible and landscaping, including woodland and redwood forest areas, would be installed.

Subject to the approval by the City of Hayward, off-site improvements would include the drop-off zone on Fairway Street, reconfiguration of parking areas along Fairway and Rousseau streets requiring realignment of the curb and sidewalk, and installation of landscaping including low-water-use ornamentals and grasses.

Per City of Hayward Municipal Code Chapter 4-1.03.4, construction hours would be Mondays through Saturday (7 a.m. to 7 p.m.) and Sundays/Holidays (10 a.m. to 6 p.m.).

## 1.1.4 El Rancho Verde Park

The location, existing conditions, and proposed improvements for the El Rancho Verde Park are described below.

### 1.1.4.1 Project Location and Surrounding Uses

As shown on Figure 2, El Rancho Verde Park is an existing 3.3-acre park at 32399 Trevor Avenue in the City of Hayward (APNs 78G-2921-001-01 and 87-0040-006-02). The majority of the El Rancho Verde Park site is in Union City (approximately 3.01 [APN 87-0040-006-02]), and a small portion is in the City of Hayward (approximately 0.25 acre [APN 78G-2921-001-01]). The park is owned by HARD and is occupied by three little league baseball fields, a

concession stand, and picnic area. The park can be accessed from Trevor Avenue to the north of the park and Amelia Avenue and the Conley-Caraballo High School parking lot on the west. The El Rancho Verde Park site is approximately 4 miles from Interstate 880, via Whipple Road to Mission Boulevard, then to Blanche Street.

Immediately adjacent uses include the Conley-Caraballo High School (a continuation high school), residences, and the Chapel of the Chimes Cemetery. The high school, which is owned by the New Haven Unified School District, is immediately to the northwest. The school's baseball field abuts the park. The Conley-Caraballo High School parking lot provides direct access to El Rancho Verde Park on the western corner of the site. Adjacent school buildings and recreational facilities lie beyond the parking lot and baseball field. The Chapel of the Chimes Cemetery is to the southwest, south, and east of the project site. The portion of the cemetery to the southwest is undeveloped and vegetated. A single-family residential neighborhood is immediately to the north along Trevor Avenue and in the project vicinity, along Bernice Way and Amelia Avenue. HARD's Taper Park and Dry Creek Pioneer Regional Park, owned by East Bay Regional Park District, are farther to the east.

#### 1.1.4.2 Existing Conditions

As shown in Figure 4, Property 2, the existing El Rancho Verde Park is occupied by three little league baseball fields—a majors, minors, and t-ball field.<sup>3</sup> The fields are oriented with each home plate at the park periphery, such that the outfields are oriented towards the center of the park. Both the majors and minors fields have spectator bleachers and a scorekeeper's booth behind home plate. An approximately 1,895-square-foot building is used for concessions, storage, and a restroom. There are four redwood trees and other ornamental trees on site. A retaining wall extends along the southeastern boundary of the El Rancho Verde Park site along the cemetery. A 6-foot-wide water line easement runs from the northwest corner of the park to Amelia Avenue.

On-street parking is provided on Trevor Avenue and Amelia Avenue. In addition, approximately 63 parking spaces are provided in the adjacent portion of the school parking lot. Parking on school property may not be available during school hours but can be used outside of school hours.

The Treeview Little League Association uses these baseball fields during their regular season and tournament games. The park is used during daylight hours; the field does not host night games and there is no lighting on the El Rancho Verde Park site.

The City of Union City's General Plan designates the park as Open Space and the zoning designation is also Open Space (OS) and the City of Hayward.<sup>4</sup> The Open Space designation allows for passive and active recreational uses, including public parks, playgrounds, and buffer zones separating urban development and ecologically sensitive resources.

#### 1.1.4.3 Project Characteristics

The proposed project would demolish the existing facilities, reconfigure, and update the facilities to support the existing uses and program at the park. The proposed project envisions improved circulation, with diagonal pathways through the site creating a central hub for the park.

---

<sup>3</sup> Baseball divisions generally consist of t-ball (ages 4-7), minor league (5-11), and majors league (ages 9-12).

<sup>4</sup> City of Union City, 2002. Zoning Ordinance, Zoning Map.

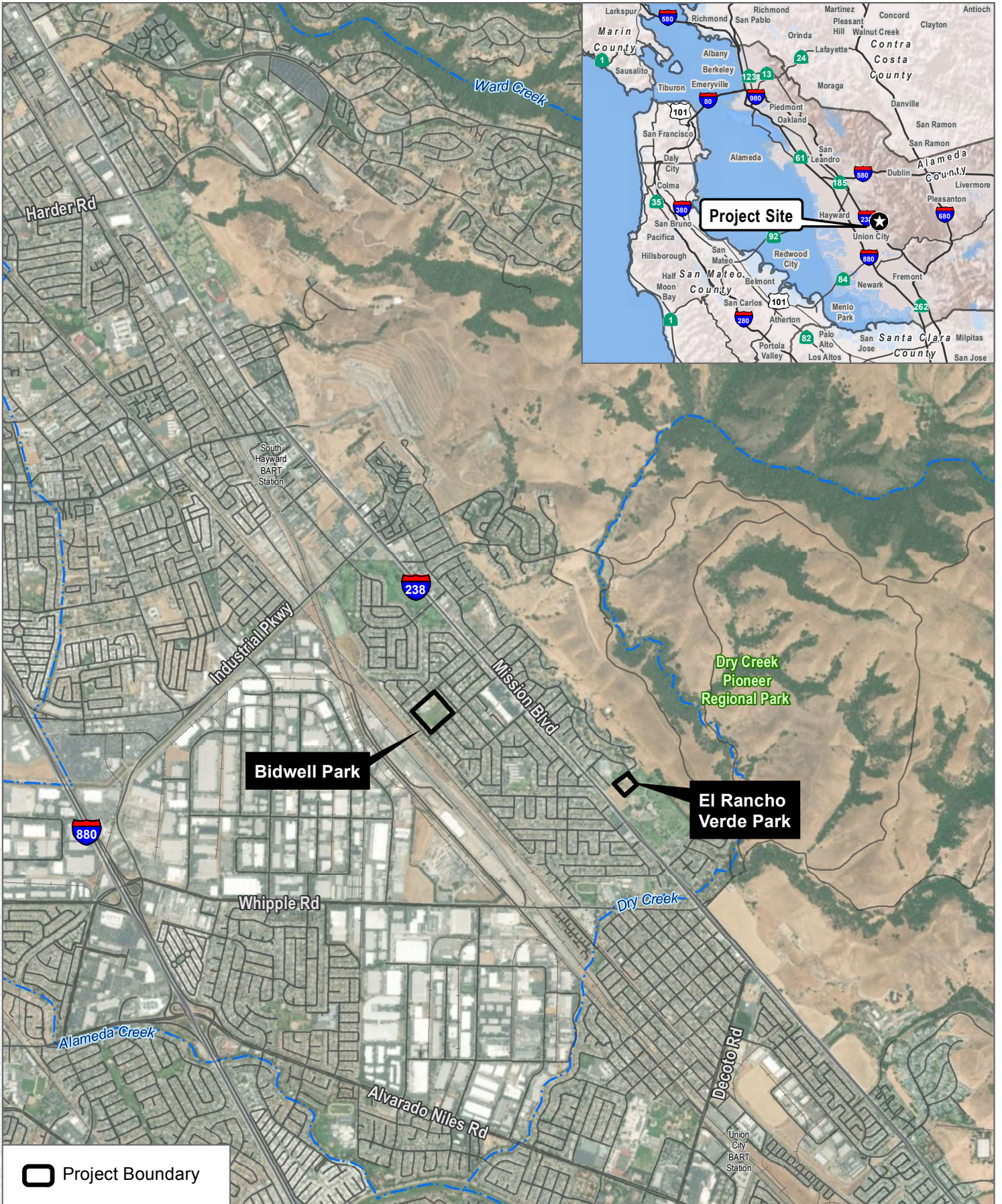
#### 1.1.4.4 Construction

Construction is anticipated to start in 2021 and would occur in over approximately 9 months, with primary construction occurring generally from March to November, followed by approximately three months for the installation of landscaping from November to January.

The project would demolish the existing facilities and fields to construct the new facilities. Demolition and grading would include removal of one redwood tree and grubbing, removing, and disposing of the existing turf, removal of chain link fence and gates, decommissioning the irrigation, removal of equipment. The three existing redwood trees, utilities, and bleachers would remain on the site and be protected during the construction period. Approximately 2,500 cubic yards of soils would be cut and repurposed on site; no export of soils is anticipated. Construction would include paving of a concrete field border along the fence, placement of decomposed gravel to stabilize the path, and installation of fences, gates, and baseball amenities, and the restroom/storage building. Construction staging would occur on site although the contractor may apply for a City permit to encroach on the street during construction.

Per City of Hayward Municipal Code Chapter 4-1.03.4, construction hours are Mondays through Saturday (7 a.m. to 7 p.m.) and Sundays/Holidays (10 a.m. to 6 p.m.). The construction hours for the City of Union City are Mondays through Fridays (8 a.m. to 8 p.m.), Saturdays (9 a.m. to 8 p.m.), and Sundays/Holidays (10 a.m. to 6 p.m.). The project would adhere to construction hours outlined in Union City Municipal Code Chapter 9 subchapter 40.053, which are more restrictive than the City of Hayward.





SOURCE: USGS 7.5 minute series Newark Quadrangle



**DUDEK**

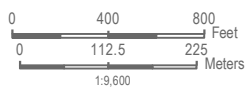
**FIGURE 1**  
**Project Location**

Bidwell and El Rancho Verde Parks Master Plan





SOURCE: Bing Maps 2019



**FIGURE 2**  
**Property 1 and Property 2 Location Detail**  
 Bidwell and El Rancho Verde Parks Master Plan





SOURCE: Bing Maps 2019

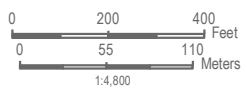
**FIGURE 3**  
 Property 1: Proposed Bidwell Park  
 Bidwell and El Rancho Verde Parks Master Plan





SOURCE: Bing Maps 2019

**DUDEK**



**FIGURE 4**

**Property 2: El Rancho Verde Park**

Bidwell and El Rancho Verde Parks Master Plan



## 1.2 Regulatory Setting

### **Federal**

While there is no federal nexus for this project, the subject properties were evaluated in consideration of the National Register of Historic Places (NRHP) designation criteria and integrity requirements.

### ***National Register of Historic Places***

The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act, as amended. Its listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP. For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important in prehistory or history.

Integrity is defined in NRHP guidance, "How to Apply the National Register Criteria," as "the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity" (NPS 1990). NRHP guidance further asserts that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be "exceptionally important" (criteria consideration to be considered for listing).

## State

### *California Register of Historical Resources*

In California, the term “historical resource” includes but is not limited to “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (California Public Resources Code Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (CRHR) “to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (California Public Resources Code Section 5024.1(a)). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below. According to California Public Resources Code Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains “substantial integrity,” and (ii) meets at least one of the following criteria:

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

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

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

### **California Environmental Quality Act**

As described further below, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- California Public Resources Code Section 21083.2(g) defines “unique archaeological resource.”
- California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a) define “historical resources.” In addition, CEQA Guidelines Section 15064.5(b) defines the phrase

“substantial adverse change in the significance of an historical resource.” It also defines the circumstances when a project would materially impair the significance of an historical resource.

- California Public Resources Code Section 21074(a) defines “tribal cultural resources.”
- California Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- California Public Resources Code Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause “a substantial adverse change in the significance of an historical resource” (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(b).) If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code Section 5024.1(q)), it is a “historical resource” and is presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A “substantial adverse change in the significance of an historical resource” reflecting a significant effect under CEQA means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (CEQA Guidelines Section 15064.5(b)(1); California Public Resources Code Section 5020.1(q)). In turn, CEQA Guidelines section 15064.5(b)(2) states the significance of an historical resource is materially impaired when a project:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any “historical resources,” then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource’s historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (California Public Resources Code Section 21083.2[a], [b], and [c]).

California Public Resources Code Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (California Public Resources Code section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a non-unique archaeological resource qualifies as tribal cultural resource (California Public Resources Code Section 21074(c), 21083.2(h)), further consideration of significant impacts is required. CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in California Public Resources Code Section 5097.98.

#### **California Health and Safety Code Section 7050.5**

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the county coroner has examined the remains (Health and Safety Code Section 7050.5(b)). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the county coroner determines or has reason to believe the remains are those of a Native American, the county coroner must contact the NAHC within 24 hours (Health and Safety Code Section 7050.5(c)). The NAHC will notify the most likely descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

## Local

### *City of Hayward*

#### Historic Preservation Ordinance

The City of Hayward adopted a Historic Preservation Ordinance on July 15, 2010. The ordinance established the purpose, definitions, nomination and designation program for historic resources within the City.

From *SEC. 10-11.030 DEFINITIONS*:

- a. "Adopted Survey List" means a list of resources (e.g., object, building, structure, site, area, place, record, or manuscript), adopted by the City of Hayward, which the City has determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of Hayward but which have not been officially designated on the local register of historical resources. Resources listed on the adopted survey list shall be considered historical resources, as that term is hereinafter defined.
- e. "Buildings" means structures created to shelter human activity. Historic buildings are considered in their entirety. A building that has lost its basic structural elements is usually considered a "ruin" and is a site, as that term is hereinafter defined.
- i. "Evaluation" means an intensive survey to determine the historical significance of a resource. An evaluation consists of completed Department of Parks and Recreation (DPR) 523 series survey forms, including: 1) Primary Record (523A); 2) Building, Structure, Object Record (523B); and 3) any additional survey form appropriate for documentation of the subject resource.
- k. "Historical Resources" means any buildings, structures, sites, objects, historic district and archaeological resources that have been determined to have a) age; b) integrity; and c) historical significance. For the purposes of this Article and of the California Environmental Quality Act (CEQA), the term "historical resources" shall include the following:
  - (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the National Register or the California Register of Historical Resources.
  - (2) A resource designated in a local register of historical resources or identified as historically significant in an adopted survey list.
  - (3) Any object, building, structure, site, area, place, record, or manuscript that the City of Hayward determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California or of Hayward.
- m. "Historic District" means a geographically-definable area – urban or rural, small or large – possessing a significant concentration, linkage, or continuity of sites, buildings, structures and/or objects united by past events or aesthetically by plan or physical development. An historic district may also comprise individual elements separated geographically but linked by association or history. A contributing resource within an

historic district is an historical resource which contributes to the character of a historic district as described in National Register Bulletin 15.

n. "Historical Significance" means, in national, state or local history, architecture, archaeology, engineering and culture that is present in districts, sites, buildings, structures and objects, which possess age, integrity and association with an important historical context with reference to the following:

- (1) An association with events that have made a significant contribution to the broad patterns of national, state and/or local history and cultural heritage; or
- (2) An association with the lives of persons significant in national, state and/or local past; or
- (3) The embodiment of the distinctive characteristics of a type, period, region, or method of construction, or that represent the work of a master or important creative individual, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (4) Details that have yielded, or may be likely to yield, information important in prehistory or history.

p. "Integrity" means the ability of a property to convey its historical significance. Evaluation of integrity is grounded in an understanding of a property's physical features and how they relate to its historical significance. There are seven aspects or qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling and association. To retain historic integrity, a property will possess several, and usually most, of the aspects. Determining which of the seven aspects are most important to a property requires knowing why, where and when the property is significant.

cc. "Site" means the location of a significant event, a prehistoric or historic occupation or activity, or a building, structure or landscape, whether standing, existing, ruined or vanished, where the location itself possesses historic, cultural, or archaeological value, regardless of the value of any existing structure. A site can possess associative significance or information potential or both, and can be significant under any or all of the four criteria for historical significance identified above.

From *SEC. 10-11.080 HISTORICAL RESOURCES DESIGNATION CRITERIA*:

For the purposes of this Article, an object, building, structure, site, area, district, unique archaeological resource, place, record, or manuscript may be classified a designated historical resource and placed on the local register by the Planning Commission pursuant to Section 10-11.090, if the resource is determined through survey and documentation to be an "Historical Resource" as defined in this Article.

### **Hayward 2040 General Plan**

The Hayward 2040 General Plan was adopted in 2014 and includes an entire goal chapter devoted to Historic Districts and Resources under the Land Use and Community Character Goals section. The introduction to the chapter indicates the following objectives for the community of Hayward moving forward:

"This goal and its supporting policies strive to preserve Hayward's many unique historic resources, including its civic and commercial buildings, and colonial, Victorian and Queen Anne homes and cottages. The policies also support

the establishment of historic districts to preserve the character of Downtown Hayward, the Upper B Street District, the B Street Historic Streetcar District, and the Prospect Hill Historic Neighborhood (City of Hayward 2019).”

### *City of Union City*

#### **Union City Municipal Code**

The Union City Municipal Code outlines the definitions and designation procedures for Cultural Resources as follows.

#### **18.106.110 Definitions.**

- A. “Cultural resource” means improvements, buildings, structures, signs, features, sites, scenic areas, views and vistas, places, areas, landscapes, trees, or other objects of scientific, aesthetic, educational, cultural, architectural or historical significance to the citizens of the City and the State of California, or the nation which may be eligible for designation or designated and determined to be appropriate for historic preservation pursuant to the provisions of this chapter.
- B. “Demolition” means any act or process that destroys in part or in whole an individual cultural resource, landmark or other structure within a historic district.
- C. “Historic district” means any delineated geographic area having historical significance, special character or aesthetic value which serves as an established neighborhood, community center, or distinct section of the City, possessing a significant concentration, linkage, or continuity of site, buildings, structures or objects united historically or aesthetically by plan or physical development; and which has been designated a historic district pursuant to this title.
- D. “Landmark” means any site, including significant trees or other significant permanent landscaping located on a site, place, building, structure, street improvement, street furniture, sign, work of art, natural feature or other object representative of the historical, archaeological, cultural, architectural, community, aesthetic or artistic heritage of the City and which has been designated a landmark pursuant to this Code.
- E. “Noncontributing property” means a building, site, structure or object that does not add to the historic architectural qualities, historic association or archaeological values for which a historic district is significant because the property:
  - 1. Was not present during the period of the district or the area’s historic significance; or
  - 2. No longer possesses historic architectural integrity due to alterations, disturbances, additions or other changes; or
  - 3. Does not independently meet the designation criteria as defined in this chapter.
- F. “Qualified historic property” means a property must be listed on any official Federal, State, County, or City register.

(Ord. 670-06 § 3, 2006; Ord. 510-98 § 2, 1998)

**18.106.240 Designation Findings.**

The Planning Commission may approve a nomination application for, and the City Council may designate, a structure, improvement, natural feature, object or area for designation as a cultural resource or historic district if it finds that the structure, improvement, natural feature, object or area meets the following criteria:

- A. It exemplifies or reflects a special element of the City’s cultural, social, economic, political, aesthetic, architectural or natural history and possesses an integrity of location, design, setting, materials, workmanship, feeling and association, and
  - 1. It embodies distinctive characteristics of style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship, or
  - 2. It contributes to the significance of a historic area being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties or properties which contribute to each other and are unified aesthetically by plan or physical development, or
  - 3. It embodies elements of architectural design, detail materials or craftsmanship that represents a significant structural or architectural achievement or innovation, or
  - 4. It has a unique location or singular physical characteristic or is a view or vista representing an established and familiar visual feature of a neighborhood, community or the City of Union City, or
  - 5. It is at least forty-five (45) years of age;
- B. It is one (1) of the few remaining examples in the City, region, state or nation possessing distinguishing characteristics of an architectural or historical type or specimen;
- C. It is identified with persons or events significant in local, state, or national history.



## 1.3 Cultural Resources Study Area

The study areas for cultural resources are depicted in Figure 2, Property 1 and Property 2 Location Detail. Each property is further detailed in Figure 3 for Bidwell Park (Property 1) and Figure 4 for El Rancho Verde (Property 2). The study area for each project site accounts for potential impacts to both archaeological and built environment resources as follows: for archaeology it accounts for the largest possible area of direct impacts resulting from proposed construction; for built environment it accounts for potential direct impacts from demolition, construction, or rehabilitation and indirect impacts such as alteration of setting, visual, vibration, or noise to previously identified historical resources and/or buildings or structures 45 years old or older.

Based on the proposed project, which seeks to create a new park at a school site on Property 1 and enhance park features on Property 2, there does not appear to be any potential to impact built environment properties outside of the proposed project boundaries. Therefore, potential impacts to both archaeological and the built environment resources are limited to the proposed project sites.

Property 1: Proposed Bidwell Park (Bidwell Elementary School), contains buildings over the age of 45 that were recorded and evaluated as part of this study to assess the proposed project's potential impacts to historical resources under CEQA. Property 2 (El Rancho Verde) contains one building constructed between 1988 and 2002 determined based on a review of historical aerial photographs. As this building is not yet 45 years of age, Property 2 did not require recordation and evaluation to assess potential impacts to historical resources under CEQA as part of this study. Therefore, the built environment component of this study was limited to the recordation and evaluation of Property 1 (NETR 2019).

## 1.4 Project Personnel

This report and associated property evaluation was prepared by Dudek staffing as follows: Architectural Historian, Fallin Steffen, MPS; Senior Archaeologist Adam Giacinto, MA, Registered Professional Archaeologist (RPA); and Archaeologist William Burns, MS, RPA. The report was reviewed for quality assurance/quality control by Dudek Senior Architectural Historian Kathryn Haley, MA and Adam Giacinto for regulatory compliance and adequacy of methodological standards. All authors and reviewers meet the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) for architectural history or archaeology (see Appendix A, Preparer's Qualifications, for more detail on project personnel).

## 2 Background Research

### 2.1 CHRIS Records Search

On October 14, 2019, Dudek completed a search of the CHRIS at the NWIC, located on the campus of California State University Sonoma, of the study area, which consists of Property 1 and Property 2, and the surrounding 0.5-mile-radius of the study area. This search included their collections of mapped prehistoric, historic, and built environment resources, Department of Parks and Recreation Site Records, and technical reports. Additional consulted sources include historical maps of the study area, the NRHP, the CRHR, the California Historic Property Data File, the lists of California State Historical Landmarks, California Points of Historical Interest, and the Archaeological Determinations of Eligibility. The results of the records search, including information related to historical buildings, are presented in Confidential Appendix B.

#### Previously Conducted Cultural Resources Investigations

The NWIC records indicate that 16 cultural resources investigations have been conducted within 0.5-mile of the study area; however, none of these cultural resources investigations have included any portion of the study areas. Table 1, below, summarizes all 16 previous cultural resources.

**Table 1. Previous Cultural Resources Investigations within 0.5-mile of the Study Area**

| NWIC Report Number | Title   | Author   | Year | Proximity to Proposed Project Study Areas |
|--------------------|---|--|------|---|
| S-009201           | Cultural Resources Assessment of Flood Control FC-5-138 Line L Dry Creek, Located Between Railroad Avenue and Mission Boulevard, Union City, Alameda County, California | Rebecca L. Anastasio, Donna M. Garaventa, Sturat A. Guedon, and Robert M. Harmon | 1987 | Outside                                   |
| S-014067           | Archaeological Survey Report, Widening of Mission Boulevard in Hayward, Union City, and Fremont, Alameda County   | Suzanne Baker  | 1992 | Outside                                   |
| S-022820           | Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project, Segment WS07: Oakland to San Jose  | Wendy J. Nelson, Tammara Norton, Larry Chiea, and Eugenia Mitsanis               | 2000 | Outside                                   |
| S-026045           | Cultural Resources Reconnaissance Survey and Inventory Report for the Metromedia Fiberoptic Cable Project, San Francisco Bay Area and Los Angeles Basin Networks        | Richard Carrico, Theodore Cooley, and William Eckhardt                           | 2000 | Outside                                   |
| S-030575           | Cultural Resources Assessment, Chapel of the Chimes Memorial Park & Funeral Home Expansion, Union City, Alameda County, California.                                     | Colin I. Busby   | 2003 | Outside                                   |

**Table 1. Previous Cultural Resources Investigations within 0.5-mile of the Study Area**

| NWIC Report Number | Title   | Author   | Year | Proximity to Proposed Project Study Areas |
|--------------------|---|--|------|---|
| S-033061           | Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California  | Nancy Sikes, Cindy Arrington, Bryon Bass, Chris Corey, Kevin Hunt, Steve O'Neil, Catherine Pruett, Tony Sawyer, Michael Tuma, Leslie Wagner, and Alex Wesson | 2006 | Outside                                   |
| S-033061a          | Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California  |  | 2006 | Outside                                   |
| S-033061b          | Final Report of Monitoring and Findings for the Qwest Network Construction Project (letter report)  | Nancy E. Sikes   | 2007 | Outside                                   |
| S-036481           | Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California  | Adrian Whitaker, Phil Kajjankowski, Jack Meyer, and Brian Byrd   | 2009 | Outside                                   |
| S-036481a          | Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California  | Adrian R. Whitaker, Philip Kajjankoski, Jack Meyer, Brian F. Byrd, and Sharon A. Waechter  | 2012 | Outside                                   |
| S-047533           | Cultural Resources Survey Report, Mission Boulevard Streetscape Project, Hayward, California  | Daniel Shoup   | 2016 | Outside                                   |
| S-048490           | Proposed Negative Declaration and Draft Initial Study Route 238 (Mission Boulevard) Improvement Project in Hayward, Union City and Fremont, Alameda County, 4-ALA-238 3.1/9.5 4185-233020   | Dottie Odell   | 1994 | Outside                                   |
| S-050910           | Historic Property Survey Report for the Proposed Hybrid Pedestrian Beacons Project, Alameda County, California, 04-ALA-VAR, E-FIS 0414000287, EA 1J600  | Jennifer Blake   | 2017 | Outside                                   |
| S-050910a          | Archaeological Survey Report for the Proposed Hybrid Pedestrian Beacons Project, Alameda County, California, SR 92 PM 7.26, 7.68; SR 112 PM 1.646.; SR 238 PM 7.93, SR 185 PM 1.35, 4.235, 4.94, 5.94, 7.58, 10.23, EA 1J600/0414000287 | Jennifer Blake   | 2017 | Outside                                   |
| S-050910b          | Extended Phase I Archaeological Testing for the Hybrid Pedestrian Beacons Project, Various Locations in Alameda County, California, EA 1J600/0414000287   | Jennifer Blake   | 2017 | Outside                                   |

**Table 1. Previous Cultural Resources Investigations within 0.5-mile of the Study Area**

| NWIC Report Number | Title   | Author    | Year | Proximity to Proposed Project Study Areas |
|--------------------|---|-----------|------|---|
| S-050910c          | Geoarchaeological Methods and Findings from the Extended Phase I Archaeological Evacuations for the Proposed Hybrid Pedestrian Beacons Project (EA IJ600/0414000287) Alameda County, California | Dina Ryan | 2017 | Outside                                   |

Source: NWIC, Confidential Appendix B

**Previously Recorded Cultural Resources**

NWIC records did not identify any previously recorded cultural resources within the study area, nor any within the surrounding 0.5-mile radius of the study area.

## 2.2 Native American Coordination

Dudek contacted the NAHC on September 26, 2019 with a request to search its Sacred Lands File. The NAHC replied via email on October 3, 2019, stating that the results of the SLF search were negative. The NAHC also provided a Tribal Consultation List of NAHC-listed tribal representatives who have been identified as possibly having additional information relating to Native American resources (Tribal Cultural Resources) in the vicinity of the study area:

- Irenne Zwierlein, Amah Mutsun Tribal Band of Mission San Juan Bautista
- Tony Cerda, Costanoan Rumsen Carmel Tribe
- Corrina Gould, The Confederated Villages of Lisjan
- Andrew Galvan, The Ohlone Indian Tribe
- Ann Marie Sayers, Indian Canyon Mutsun Band of Costanoan
- Charlene Nijmeh, Muwekma Ohlone Indian Tribe of the SF Bay
- Katherine Erolinda Perez, North Valley Yokuts Tribe

The project is subject to compliance with Assembly Bill (AB) 52, which requires lead agencies to provide tribes (who have requested notification) with early notification of the proposed project and, if requested, consultation to inform the CEQA process with respect to tribal cultural resources. In accordance with AB 52, letters and follow up emails were sent to all NAHC-listed tribal representatives on August 4, 2020, requesting comments or concerns regarding potential impacts to tribal cultural resources (as defined in Public Resources Code § 21074) in relation to the proposed project. Katherine Erolinda Perez of the North Valley Yokuts Tribe responded on August 19, 2020, inquiring if a literature search had been completed and, if so, if it could be shared with her. No other responses have been received to date.

## 2.3 Building Development and Archival Research

The following section summarizes the building development research endeavors utilized to prepare the historic period context sections of this document (Historic Context, Sections 3.3 through 3.7). As Property 1 is the only property within the study area that contains built environment resources over 45 years of age, the following section addresses only property specific research efforts relevant to this property.

### **Alameda County Assessor's Office**

Dudek accessed the Alameda County Assessor's Office online Parcel Viewer on August 27, 2019 and downloaded copies of the available reports and assessor maps. The information was used in the preparation of Section 3, Historic Context.

### **Hayward County Planning**

Dudek visited the Hayward County Planning Department on August 30, 2019 and requested to see information about the subject property dating to the period before it was annexed by the City of Hayward. The County representative informed Dudek that the County no longer maintains files and information associated with annexed parcels that were formerly located in unincorporated County territory.

### **City of Hayward Public Library, Weekes Branch**

Dudek visited the Weekes Branch of the City of Hayward Public Library on August 30, 2019 and worked with a research librarian there to locate materials related to the development of the project site. This information was used in the preparation of Section 3, Historic Context.

### **Hayward Unified School District Administration**

Dudek visited the Hayward Unified School District (HUSD) Administration on August 30, 2019 and worked with the Director of Public Information & Governmental Relations, Dionicia Ramos, to submit a Public Record Acts request for any materials related to the planning and construction of the Bidwell Elementary School. Ms. Ramos responded on September 20, 2019 and again on October 4, 2019 stating that they did not have any records related to the development of the school or the architects, Anderson and Simonds.

### **Hayward Area Historical Society**

Dudek contacted the Hayward Area Historical Society (HAHS) on August 26, 2019 to see if they maintained any materials related to the history of Fairway Park and the Bidwell School. The HAHS Archives and Properties Manager, John Christian responded on August 26, 2019 with several articles they have regarding the planning and construction of the school. These materials were used in the preparation of Section 3, Historic Context.

### **Archival Newspaper Research**

Dudek reviewed historical newspapers from Hayward and Oakland covering the neighborhood surrounding the subject properties in an effort to understand their development and the biographies of the individuals associated

with their planning and construction. These documents were essential in establishing a history of the property and were used in the preparation of Section 3, Historic Context.

**Aerial Photograph and Historic Map Review**

Historic aerial photographs of the Bidwell subject property were available from Nationwide Environmental Title Research LLC maps for the years 1946, 1948, 1949, 1958, 1960, 1966, 1968, 1979, 1980, 1988, 1993, 2002, 2005, 2009, 2010, 2012, 2014, and 2016, and from the University of California, Santa Barbara, FrameFinder Maps for the years 1938, 1946, 1957, 1965, 1980, 1999.

**Table 2. Aerial Photograph Review**

| Year | Observations and Findings  |
|------|--|
| 1938 | The Bidwell subject property appears as a section of a large agricultural property surrounded by modest farms. A small residential area is situated just north of Industrial Parkway and the gridded layout of Decoto to the south of present-day Whipple Road.  |
| 1946 | No discernable change.   |
| 1948 | No discernable change.   |
| 1949 | No discernable change.   |
| 1957 | The Bidwell School buildings appear on the property in their present configuration in 1957 including the long, narrow walkway connecting the two buildings and the play yard extending off the southeastern sides of the northern-most building. Also present is a small parking lot and a square recreation center to the west of the main school buildings. The open-area of the park appears undeveloped at this time, as there is no evidence of a baseball diamond. The surrounding Fairway Park neighborhood is in place on either side of Mission Boulevard, complete with paved streets, sidewalks and landscaping. The Fairway Park Golf course is taking shape to the north and the cars are visible in the parking spaces of the new Fairway Park Shopping Center fronting Mission Boulevard. |
| 1958 | No discernable change.   |
| 1960 | The residential development on the eastern side of Mission Boulevard has spread towards the north beside the golf course. Agricultural properties still dominate the landscape to the west of the Fairway Park neighborhood and the subject property.  |
| 1965 | The blacktop play yard surrounding the school buildings on the south and eastern sides have expanded and the painted lines of a basketball court are just visible. A small play area appears to have been added to the west of the recreation building beside the parking lot. The residential development to the east of the golf course is now completed many of the houses feature maturing vegetation. The grass of the golf course has also filled in and small trees are visible demarcating the various areas of the course. A new row of large apartment buildings has been added to the rear (west) section of the Fairview Park Shopping center lot  |
| 1966 | The play area next to the recreation building has been completed and play equipment is now visible. The asphalt area between the school and the recreation building has been expanded towards the west.  |
| 1968 | Two footpaths now cross the large open space of the park to the south of the school building, and a rectangular grid is visible in the southwestern corner of the park. The school buildings maintain the same appearance as in 1966.  |

**Table 2. Aerial Photograph Review**

| Year | Observations and Findings  |
|------|--|
| 1979 | The square recreation building has been demolished and is no longer present on the subject property and the parking lot has been expanded. Two circular dirt home plate areas of a baseball field are visible in the east and south corners of the park. The residential development to the east of Mission Boulevard has continued to expand northwards and the agricultural land that once sat to the west has been developed into a large industrial complex. |
| 1980 | No discernable change.   |
| 1993 | Poor image quality makes it difficult to discern changes, however the subject property appears to maintain a consistent appearance and configuration as the 1980 photograph.   |
| 1999 | A modest rectangular building with three gables is now present to the southwest of the main school buildings beside the play area. Backstops of metal fencing are now visible behind each of the two baseball diamonds in the park area.   |
| 2002 | A modest rectangular building with three gables is no longer present. Otherwise, no discernable changes.   |
| 2005 | No discernable change.   |
| 2009 | A small area has been fenced off and planted beside the east entrance of the southern-most school building. Otherwise, no discernable changes to the property.   |
| 2010 | No discernable change.   |
| 2012 | No discernable change.   |
| 2014 | No discernable change.   |
| 2016 | No discernable change.   |

## 3 Historic Context

---

The following historic context addresses relevant themes concerning the history of the subject property. It begins with an overview of the prehistoric and ethnographic history of both properties, followed by an overview of the development of Alameda County and the City of Hayward, and concludes with a discussion of the historical development of Property 1: Proposed Bidwell Park (Bidwell Elementary School).

### 3.1 Prehistoric Overview

The level of attention that has been dedicated through previous archaeological technical studies of the Bay Area is considerably higher than many other regions throughout California. These studies have yielded a large body of data that has served to inform our knowledge of archaeological patterns. The vast majority of previously recorded sites date from the Late Holocene, or the last 4,000 calendar years before present (cal BP). The relative abundance of sites dating to this period is largely because earlier populations were smaller, producing less archaeological material, and the landscape has substantially changed during the more than 10,000 years since people first began to inhabit the region.

The Bay region's cultural sequence was synthesized by Beardsley (1948) from a number of previous findings to form the Central California Taxonomic System (CCTS). This describes three primary horizons (Early, Middle, and Late) based on analyses of artifact variation (particularly grave goods). Other archaeologists, notably Fredrickson (1973), have described the temporal sequence of the Bay Area region using the Archaic-Emergent structure that was derived through grouping periods by trends in economic and social adaptation. Table 1 below includes both of these chronologies, in addition to a summary of geologic sediment deposition over time.



**Table 3. Summary of Chronologic Sequences**

| Cal Years        | Epoch              | Archaic-Emergent                                | CCTS*   | Sediment Deposition**                 |
|------------------|--------------------|---|---|---------------------------------------|
| < 200 BP         | Historic-era       | Historic-era                                    | Historic-era  | Erosion and Development Related Fill  |
| 4,000 – 200 BP   | Late Holocene      | Emergent ( 1,000 - Historic era)                | Late Horizon Phase II (500 - Historic era)                              | Landform Stability (< 2,800 BP)       |
|                  |                    | Upper Archaic (2,500 - 1,000 BP)                | Late Horizon Phase I (1500 - 500 BP)                                    |                                       |
|                  |                    | Terminal Middle Archaic Period (4,500-2,500 BP) | Middle Horizon (3000 - 1000 BP); also Berkeley Pattern                  | Alluvial Deposition                   |
| 7,000-4,000 BP   | Middle Holocene    | Initial Middle Archaic (6000 - 4,500)           | Early Horizon (8000 - 2500 BP); also Windmiller Pattern (4,500-2500 BP) | Landform Stability (6,500 - 4,000 BP) |
|                  |                    |   |   | Alluvial Deposition                   |
| 10,000 -7,000 BP | Early Holocene     | Lower Archaic (10,000 - 6,000)                  |   | Landform Stability (10,500 - 7000 BP) |
| 10,000 >         | Latest Pleistocene | PaleoIndian                                     | PaleoIndian (Pre-8000 BP)   | Alluvial Deposition                   |

\* Adjusted CCTS to include Banks and Orlins 1979 dates

\*\* Based on Meyer 2011

Early discoveries of note within similar conditions as the present project include Agua Fria and Lorenzo Creeks that date 5,300-550 years cal BP (ALA-60, -566, 576, and -586); the “Sunnyvale Man” in Sunnyvale dating 5000-5100 years cal BP; and the Blood Alley Site (CA-SCL-178), dated between 11,000 and 9,500 years old (Erlandson et. al. 2007; Meyer 2011). Jack Meyer has identified 353 radiocarbon dates calibrated to calendar years before present

throughout the Bay Area (2011). This study indicates that 78.9 percent of dates are less than 4000 cal BP (Late Holocene); with the a 1,714 years cal BP mean age of samples from surface to 133 centimeters below the surface (cmbs), and a 4,679 years cal BP mean age of samples 133-444 cmbs (mean depth 283 cmbs; Meyer 2011).

### **Early Horizon (Lower – Terminal Archaic)**

Very few sites have been identified in association with the Lower Archaic Period. Early artifact assemblages include handstones, millingslabs and cobble-core tools, with burials found covered with stone cairns (Clay and Waechter 2009). These populations are indicated to have been highly mobile based on the variety of invertebrate shell observed from multiple coastal, bay, and estuary environments. Middle Archaic sites are also rare, and this interval has largely been established as a separate period in the Archaic-Emergence sequence based on climatic conditions associated with drought (also referred to as the Altithermal).

The Terminal Middle Archaic period, generally ending with the introduction of the large shell mound sites, overlaps Middle Horizon (Berkeley Pattern). It represents the first indication of sedentary or semi-sedentary settlement, and includes flexed burials with powdered red ochre, Olivella spire-lopped and rectangular (L-series) bead, geometric shell ornaments, side-notched and leaf-shaped projectile points, cobble-core tools, notched net weights, portable groundstone, bone whistles, scapula saws, and tule elk antler wedges (Clay and Waechter 2009; Meyer 2011). Obsidian from Sierran obsidian sources were commonly associated grave goods, with less Napa obsidian compared to later periods. Abalone and Olivella beads and ornaments were increasingly used as trade goods. Common foods included bay mussel and Pacific oyster, bay-environment fish, and high proportions of tule elk, deer, and canids.

It has been suggested that the Early Middle Horizon (Windmill) assemblage is related to a migration of peoples with adaptations to river-wetland environments (Martorana 2008). Sites associated with this period have been consistently documented to be found in riverine, marshland, and valley floors. Common mortuary practices include west-facing ventrally extended inhumations, with commonly associated artifacts that include fishing net weights, spear points, and bone hooks; large projectile points; and mammal remains.

### **Middle Horizon (Upper Archaic)**

The Middle Horizon (Berkeley Pattern) and Upper Archaic sequences are generally the same. This period overlaps late Windmill attributes, and related sites are regionally more represented within the archaeological record than previous periods. Berkeley Pattern sites in particular are much more common and well documented than previous Windmill sites. Sites contain deep and well-developed midden deposits with groundstone and smaller projectile points. Assemblages include increased frequencies of bone tools and ornaments, saucer and saddle-shaped Olivella beads, abalone ornaments and pendants, and mortars and pestles. Projectile points are smaller than in previous periods, and include lanceolate forms, side-notched and contracting stemmed types. Artifacts such as steatite beads, slate pendants, stone tubes, and ear ornaments emerge during this period (Martorana 2008). Burials are flexed, and have less associated goods. Obsidian artifacts increase in frequency, with Sierra and the Napa sources both well represented (Clay and Waechter 2009). Banks and Orlins (1979) assign the majority of the large mound sites within San Pablo and Richmond to this period; including P-07-000146, P-07-000149, P-07-000150, and P-07-000151 of which the latter two sites also have Late Horizon assemblages.

### Late Horizon (Emergent Period)

Banks and Orlins (1979) describe the Late Horizon to have initiated 1,500 years BP, whereas Fredrickson has defined this period as beginning 1,000 BP (calling it the Augustine Pattern). All cultural sequences (including the Archaic-Emergent system) terminate during the historic-era. The pattern included intensive hunting, fishing, and gathering, with a focus on acorn processing. Early Late Horizon sites showed population increases, additional trade, and the practice of both cremation and flexed burials. Common artifacts include bone pipes and awls for basketry, small notched and serrated projectile points consistent with the introduction of bow and arrow technology, and some pottery (Clay and Waechter 2008). Other artifacts of note include charmstones, stone mortars, rectangular and disc-shaped Olivella beads, tubular steatite pipes, banjo-shaped Haliotis ornaments, small, prismatic obsidian tinklers, and unfired clay effigies (Banks and Orlins 1979)..

Barker and Orlin (1979) suggest that the end of the Middle Horizon is marked by the appearance of *Macoma nasut* (Bent-nosed Clam) in large quantities. This is interpreted to be a result of changes in the estuarine environment that resulted in the expansion of marshland and increased salinity. The reduced frequency of California Oyster was noted to decline, likely due to reduction in the presence of gravely sediments and deeper waters that characterize its habitat (Banks and Orlins 1979). There was a noted reduction large mammals such as tule elk in favor of smaller animals for food. Smaller species of fish remains were observed to be more prevalent, as noted by analysis of materials recovered from the nearby Emeryville Shellmound vertebrate assemblage (Broughton 1999), and small seeded plant foods were increasingly consumed (Clay and Waechter 2009). Lightfoot and Luby (2002) suggest that many mounds were abandoned during the Late Horizon, possibly as a result of revised habitation strategies resulting from environmental shifts.

## 3.2 Ethnographic Overview

The history of Native American communities prior to the mid-1700s has largely been reconstructed through later mission-period and early ethnographic accounts. The first records of the Native American inhabitants of the region come predominantly from European merchants, missionaries, military personnel, and explorers. These brief, and generally peripheral, accounts were prepared with the intent of furthering respective colonial and economic aims and were combined with observations of the landscape. They were not intended to be unbiased accounts regarding the cultural structures and community practices of the newly encountered cultural groups. The establishment of the missions in the region brought more extensive documentation of Native American communities, though these groups did not become the focus of formal and in-depth ethnographic study until the early twentieth century. The principal intent of these researchers was to record the pre-contact, culturally specific practices, ideologies, and languages that had survived the destabilizing effects of missionization and colonialism. This research, often understood as “salvage ethnography,” was driven by the understanding that traditional knowledge was being lost due to the impacts of modernization and cultural assimilation. Alfred Kroeber applied his “memory culture” approach (Lightfoot 2005: 32) by recording languages and oral histories within the region.

Based on ethnographic information, it is believed that at least 88 different languages were spoken from Baja California Sur to the southern Oregon state border at the time of Spanish contact (Johnson and Lorenz 2006). The distribution of recorded Native American languages has been dispersed as a geographic mosaic across California through six primary language families (Golla 2007).

The Ethnohistoric inhabitants of the project area spoke a variety of San Francisco Bay Costanoan (Golla 2011). Early documentation of Native American languages in this area was performed through interviews with individuals from at California Missions (1821), and well as by Curtis, Kroeber, Merriam, Mason, and Harrington with members of Mission San Jose in the early twentieth century (Golla 2011: 164). As an alternative to the term "Costanoan", which was popularized through use by Kroeber (1925), other researchers such as Merriam use "Ohlone" because it was the self-identifying term used by inhabitants of the region during interviews. Throughout this section "Costanoan" is used to reference the language community, while "Ohlone" is used to describe the people.

Victor Golla has contended that one can interpret the amount of variability within specific language groups as being associated with the relative "time depth" of the speaking populations (Golla 2007). A large amount of variation within the language of a group represents a greater time depth than a group's language with less internal diversity. One method that he has employed is by drawing comparisons with historically documented changes in Germanic and Romantic language groups. Golla has observed that the "absolute chronology of the internal diversification within a language family" can be correlated with archaeological dates (2007). This type of interpretation is modeled on concepts of genetic drift and gene flows that are associated with migration and population isolation in the biological sciences. Costanoan is a subgroup of the Pinutian linguistic group spoken by populations that moved south from Oregon, displacing Hokan speaking groups (Golla 2011). Miwok, Yokut, and Costanoan represent three subfamilies of this initial Pinutian linguistic flow; of which Costanoan and Miwok are a distinct subbranch ("Utian") from Yokut (Golla 2007). The Golla has interpreted the split between Miwok and Costanoan populations based on archaeological evidence and the amount of internal diversity within these language-speaking communities to reflect a time depth of approximately 4,500-4,000 years (Golla 2007). This is considered consistent with the archaeologically documented emergence of the Early Middle Horizon Windmill Pattern (Moratto 1984) within the Bay Area, which generally dates 4,500 to 2,500 BP. This information suggests a migration of Utian populations into the Bay Area from the Sacramento-San Joaquin River Delta (Delta) region during this period, displacing Hokan speaking populations. This is further substantiated by the documented presence of the Karkin Costanoan dialect along the Carquinez Strait, which Golla has suggested is the likely oldest variant in the region (Golla 2011).

Due to the effects of missionization, relatively little is known about the Ohlone ethnographically. The material culture of these people has largely been reconstructed from the archaeological record. Ohlone communities were generally organized into autonomous tribelets, with one or more permanent habitation areas near the coast or major drainages and a limited number of more peripheral semi-permanent villages situated near other important resources. As previously noted, these groups spoke different dialects of a broader mutually intelligible language. It has also been contended that the majority of Costanoan populations in the Bay Area had shifted primarily to hunter-gatherer subsistence strategies by the time of European contact (Lightfoot and Luby 2002; Clay and Waechter 2009). The population within each tribelet generally numbered 200 to 400 people, and was overseen by a headman and council of elders (Levy 1978). Permanent villages were established near the coast and river drainages, while temporary camps were located in prime resource collecting areas. Kroeber estimated the indigenous population of the San Francisco Bay Area and the coast range valleys to be approximately 7,000 individuals, with approximately 1,000 people per dialect group (Kroeber 1925). The most common burial practice at the time of European contact was cremation. Peter Banks suggests that this portion of the Huchiun territory was likely occupied by 300-600 people between Rodeo Creek and Temescal Creek, west of the San Pablo Hills (Banks 1979b).

The diet of tribes in the area included a large proportion of marine resources. These most notably included Bent-nosed Clams in elevated frequencies relative California Oyster (Banks and Orlins 1979). Terrestrial vegetal food sources included acorn, nuts, seeds, greens and bulbs. Game included g deer, pronghorn, tule elk, rabbit, sea mammals and waterfowl. Ohlone people managed the seasonal seed production through controlled annual burning

(Levy 1978:491). The house structure is poorly documented due to the influences of missionization, however has been described by Kroeber as a pole structure with a roof of brush or tule matting (Kroeber 1925: 468). Additional structures included sweathouses (which was visited daily), dance houses, and assembly houses. Lithic tools produced through imported obsidian and local cherts were manufactured. As acorn from coast live oak (*Quercus agrifolia*) and valley oak (*Quercus lobata*) was an important staple, groundstone handstones, pestles, portable mortars, and milling slabs were common. Bedrock milling was also common where bedrock was of sufficient quality. The Ohlone traded shell ornaments, animal furs, salt, shellfish, and other items with neighboring Miwok, Yokut and Patwin for bows and arrows, basketry materials, pigments, and feather blankets (Clay and Waechter 2009). Olivella and abalone shell beads was also used as currency. It has been suggested that archaeological information and mission records provide evidence that the Huchiun of this area maintained close cultural ties with tribelets to the east, as well as with Coast Miwok groups to the northwest, through both trade and intermarriage (1979b).

### 3.3 Historic Period Overview

As Property 1: Proposed Bidwell Park (Bidwell Elementary School) (APN 78G-2704-002-01) is the only property of the two within the project sites that contains built environment resources over 45 years of age, the following context section is limited to providing a historical overview of Alameda County and the City of Hayward as it is related to the development of Property 1.

#### **Spanish Period (1769–1822)**

The Spanish mission system in Alta California began with the establishment of the Mission San Diego de Alcalá in San Diego in 1769. From there, Spanish explorers ventured north in search of favorable locations for subsequent missions and accessible ports. The first Spanish expedition to enter the greater San Francisco Bay Area occurred under Gaspar de Portola in 1769. Portola's chronicler, Fray Juan Crespi, detailed the journey of the group as it ventured up the coast, however he failed to describe the present-day Hayward or Castro Valley in detail.

Subsequent over-land expeditions into the territory on the eastern coast of the San Francisco Bay, termed *Contra Costa* ("coast opposite"; Kyle 2002: 4) by Spanish explorers, were led by Pedro Fages in 1770 and in 1772, and by Captain Juan Bautista de Anza in 1776. Exploration efforts began again in 1795 with Sergeant Pedro Amador's visit to the region, where he recorded the first use of the phrase "the Alameda" in reference to the Alameda Creek, named thusly for its resemblance to a tree-lined avenue called (Kyles 2002: 7). Amador's official report recounting his visit prompted a renewed effort to establish Missions there, and so Hermenegildo Sal and Father Antonio Danti set out to find a suitable site north of the Mission Santa Clara de Asís in 1795. Overall, a total of 21 missions were constructed by the Dominican and Franciscan orders between 1769 and 1823, including Mission San José de Guadalupe, which was established in the Fremont area of Alameda County in 1797 (Kyle 2002: 4, 7).

#### **Mexican Period (1822–1848)**

A major emphasis during the Spanish Period in California was the construction of missions and associated presidios to convert the Native American population to Christianity and integrated communal enterprise. Incentives were also provided to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish Period, only two of which were successful and grew into California cities (San José and Los Angeles). Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain

(Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955).

Extensive land grants were established in the interior during the Mexican period, as well as several during the Spanish period, in part to increase the population inland from the more settled coastal areas where the Spanish first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos.

The ranchos deeded within the future Alameda County included Rancho San Antonio (encompassing the cities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont and a portion of San Leandro), granted to Luís María Peralta's by the last Spanish Governor Pablo Vicente de Solá in 1820; Rancho San Leandro (City of San Leandro) was granted to José Joaquín Estudillo in 1836; Rancho Agua Caliente (City of Fremont) granted to Fulgencio Higuera in 1839; Rancho Las Positas (City of Livermore) granted to José Noriega in 1839; Rancho El Valle De San José (Cities of Pleasanton and Sunol) granted to Antonio María Pico, Agustín Bernal, Juan Pablo Bernal and María Dolores Bernal de Suñol in 1839; Rancho San Lorenzo (Castro Valley and City of Hayward) granted to Guillermo Castro in 1841 and 1843, and the Rancho Potrero de Los Cerritos (Union City) granted to Agustín Alviso and Tomás Pacheco in 1844 Kyle 2002: 9, 11, 12-16).

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of non-native inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants.

### **American Period (1848–Present)**

The Mexican–American War ended with the Treaty of Guadalupe Hidalgo in 1848, ushering California into its American Period. Following the establishment the 27 original counties of California on February 18, 1850, Alameda County formed in 1853 from a combination of territory drawn from Contra Costa and Santa Clara counties. The new State of California recognized the ownership of lands that were granted under the Mexican land grants of the previous several decades (Cleland 2005; Waugh 2003).

When the Gold Rush began in 1848, cattle became a valuable source of food for the influx of people pouring into California cities seeking gold. During the 1850s, rancho *vaqueros* drove large herds from Southern to Northern California to feed that region's burgeoning mining and commercial boom (Cleland 2005). Entrepreneurs also arrived in soon-to-be Alameda County during the Gold Rush, seeking to profit from the many peripheral economic opportunities presented by the arrival of hopeful miners. Marine salt production was a lucrative industry along the western coastline while agriculture took hold as the leading economic venture in the fertile soils located in the eastern sections of the County (Wood 1883: 34-39).

## 3.4 City of Hayward Historic Context

In 1841, Mexican Governor, Juan B. Alvarado (1841) granted the 27,000-acre Rancho San Lorenzo to a former soldier and surveyor named Guillermo Castro (TSP 2019; Kyle 2002: 16). Rancho San Lorenzo was a section of the

former Native American encampment and pasturelands associated with Mission San José (Encyclopaedia Britannica 2019).

In 1852, a failed American prospector named William Hayward arrived on Rancho San Lorenzo and set up camp with plans to cultivate several acres (Wood 1883: 438-9). Initially unaware that he was squatting on another man's land, Hayward purportedly fashioned a pair of boots for Castro to make up for his illegal occupation on the Rancho (Phelps 2004: 7). Impressed by this gesture, Castro allowed Hayward to remain on his property (Fenton 2002: 14).

Hayward set up a general store on the site of the present intersection of Mission Boulevard and A Street, located then along an important major road between San José and Oakland. Hayward's continued success allowed him to expand the general store into the Haywards Hotel (Figure 5), which became a resort destination for wealthy residents of San Francisco and Oakland by the 1880s (City of Hayward 2019; Fenton 2002: 14).



Figure 5. Haywards Hotel, c. 1870s (Alamedainfo.com)

As the Gold Rush continued, Castro witnessed more settlers arrive on his Rancho. In an effort to stay ahead of the encroaching settlement of his land, Castro laid out the gridded pattern of a town he called San Lorenzo in 1854 and attempted to sell off the parcels to arriving pioneers. Over the next ten years, Castro was able to sell some of these parcels, but he lost the remainder to squatters and in repayment for his gambling debts to a man named Faxon Atherton. Atherton subdivided the blocks laid out by Castro and attracted buyers with the smaller parcels. Although the name San Lorenzo was shortly replaced by 'Haywards' after William Hayward, Castro's town design forms the heart of downtown Hayward today. The City of Hayward was officially designated as a City by Governor William Irwin on March 31, 1876, and the population of the small community only continued to grow (Fenton 2002: 25).

In the early twentieth-century, settlement in Hayward was propelled by growth in the manufacturing and industrial sectors throughout the Alameda County and the greater Bay Area. Major manufacturing companies like Western

Electric, Sherwin-Williams, Detroit Steel and Shell Oil invested in and built plants in Alameda County, causing the county to become one of the fastest growing in the nation during the 1920s (Willard 1988: 61).

As the Bay Area cities grew and demand for housing intensified, many of the large stone fruit and pear orchards belonging to the initial generation of American settlers in Hayward were subdivided and advertised for sale in larger Bay Area cities (Oakland Tribune 1923: 22; Fenton 2002: 59). As a result of these factors, the population of Hayward doubled from 2,750 to 5,530 between 1920 and 1930 (Bay Area Census 2018). Pre-war housing tracts were often speculative ventures created by businessperson(s) subdividing a large lot into undeveloped parcels, which perhaps included some measure of public infrastructure like piped utilities, streets, or sidewalks. Property owners would then hire a builder to construct a home on the land, resulting in an eclectic mix of styles and construction dates in these neighborhoods (CalTrans 2011: 4).

The growing population throughout the Bay Area prompted a number of highway improvements to alleviate mounting traffic congestion between cities. In 1929, a bridge connecting Hayward with San Mateo was completed (known then as the San Francisco Bay Toll Bridge), making Hayward readily accessible to other areas of the Bay (Willard 1988: 61). Subsequent transportation projects completed during the 1930s including the Golden Gate Bridge, the Caldeott Tunnel and the Bay Bridge "...helped to tie the Bay Area's cities and towns into a single metropolis (Caltrans 2011: 8)."

### **World War II Expansion and Growth**

During World War II, the San Francisco Bay Area featured the densest constellation of shipbuilding yards in the United States which were responsible for producing goods to meet federal wartime contracts totaling over three billion dollars (Caltrans 2011: 9). While the increased industrial output created no shortage of jobs, it did not account for increased housing needs, causing many laborers to make due with cars, tents and other temporary living situations. This left many municipalities scrambling to provide ample accommodations to avoid high turnover. In an August 1944 meeting planned to orchestrate a smooth transition to a peacetime economy in California, the state legislators reported that nearly three-fourths of the new arrivals to the state planned to make California their permanent home following the close of the war (Willard 1988: 81). The influx of service members and laborers required for manufacturing and industry on this scale in Alameda County initiated another wave of settlement in the Hayward Area during and following the war. Additionally, the national rate of marriage and births increased during the post-war period, with nearly 2.8 million new households being established during the first two years after the war alone (Caltrans 2011: 15). As a result of these factors, the population of Hayward more than doubled between the years 1940 to 1950 from 6,736 to 14,272 residents, with this number increasing fivefold by 1960 to 72,700 residents (Bay Area Census 2019).

As Hayward was conveniently located near other Bay Area cities and industrial corridors, the City became an accessible bedroom community for laborers and professionals during the post-war economic boom who wished to live and raise their families outside the hustle and bustle of congested Bay Area cities where they worked (Caltrans 2011: 44). Unlike the sub-dividers of the pre-war housing tracts, a new generation of builders arrived in the prosperous post-war economy, prepared to develop entire communities in order to attract homeowners. Although many of these communities were developed on the seeming fringes of existing cities, city-planning historian Greg Hise notes that "...private home builders sited their new neighborhoods in close proximity to employment [and] aggressively marketed their projects' location as a primary inducement for sales (Hise 1999: 125-6)."



The housing tract model of construction, or simultaneous development on a large, community scale, was the manner in which the post-war builders were able to offset the cost of installing piped utilities far-ranging potential buyers. These distant areas were often annexed by the City just prior to their actual development (Caltrans 2011:43). In the City of Hayward, a development company known as the Oliver Rousseau Organization was responsible for at least three major residential sub developments during the 1950s: Southgate, Woodland Estates, and Fairway Park (Fenton 2002: 88-9).

The Oliver Rousseau Organization was started in 1950 by San Francisco developer, Oliver M. Rousseau, his nephew, Dennis Jordan, and a young property developer named Irving Kay. Together, the Oliver Rousseau Organization developed large residential tracts in other California cities including Sacramento, Danville, Concord, Pleasanton, Fremont, Newark, Santa Clara, Cupertino, and Marin County.

### **Public Education in Hayward**

Between 1870 and 1880, the population of Hayward increased quickly from 504 persons to 1,230 persons (Bay Area Census 2019). With this also came an increase in the number of school-aged children in Hayward requiring an education. In 1875, Hayward received a new school facility to replace the 1853 building in downtown Hayward serving as the grammar school. The new, two-story, Laurel School building was located on Foothill Boulevard between B and C Streets and cost approximately \$3,500 to construct. Subsequent schools were constructed in Hayward what was thenceforth known as the Laurel School District, and as the population of Hayward continued to grow, the district was eventually renamed the Hayward School District by a vote in 1905 (Fenton 2002: 33, 120).

In his book, *Hayward: The Heart of the Bay*, Hayward historian, Banning Fenton notes that the post-war period in Hayward was “A school administrator’s dream come true (Fenton 2002: 120).” The influx of new students in Hayward brought about by an increased birthrate and the advent of increased housing stock following the war resulted in the passage of every tax measure and bond election related to schools during this timeframe. This translated directly into increased school development in many of the new, outlying housing tracts as Hayward’s once rural community transitioned into a suburban city (Fenton 2002: 120).

In July 1963, the Hayward School District merged with the La Vista, Mt. Eden, and Hayward Union High School districts to form the Hayward Unified School District (HUSD) (Fenton 2002: 120). Today, the HUSD maintains a student body of roughly 20,000 students in (21) Elementary Schools, (5) Middle Schools and (3) High Schools (HUSD 2017).

## 3.5 Development Overview of Property 1: Proposed Bidwell Park (Bidwell Elementary School)

A review of historical aerial photographs (see Section 2.3, Building Development and Archival Research) suggests that Property 1: Proposed Bidwell Park (Bidwell Elementary School) maintained an agricultural use until it was initially developed in the mid-1950s, at which point it was developed as a community park within the Fairway Park residential sub development designed and built by the Oliver Rousseau Organization. The unincorporated Alameda County territory on which the Fairway Park neighborhood was designed was gradually annexed by the City of Hayward between 1954 and 1957 (See Figure 6), with the area encompassing Property 1 annexed in 1954 (City of Hayward 1995).

While archival research did not reveal information specifically related to the development of Property 1, advertisements touting Fairway Park’s best attributes reference the park as early as 1955. A March 1955 advertisement in the Oakland Tribune for the community claimed “Don’t Take just our word (Fairway Park is SO convenient, 20 minutes from either Oakland or San Jose), you must see these beautiful homes yourself to believe it! ... Mothers...you may inspect at leisure at Fairway Park for we have a completely equipped play park for your children (Oakland Tribune 1955: 41)!”

As families purchased the overwhelming majority of properties within the Fairway Park community, the population of school aged-children in the neighborhood climbed quickly during the mid-1950s. Recognizing this growth, plans for an elementary school within Fairway Park emerged in 1955, which would end the conventional practice of community homes serving as classrooms up until that point (Daily Review c.1955-1956: NP). It was the first of three schools initiated by the La Vista Elementary School district during 1955 (Daily Review 1955: 9).

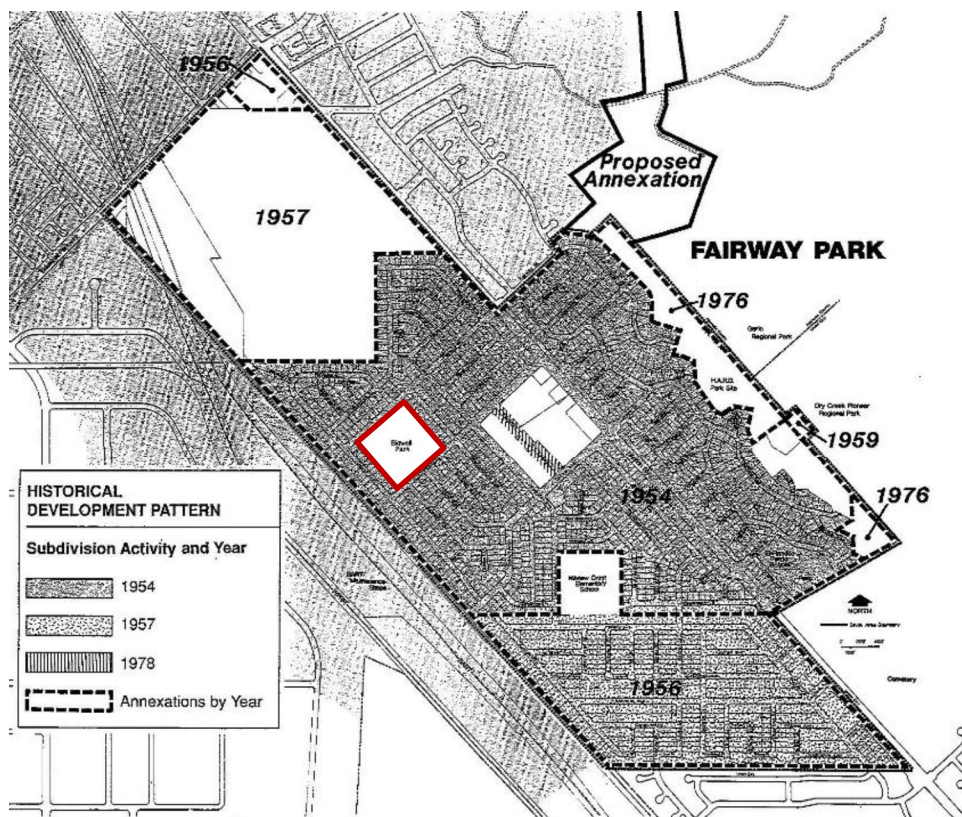


Figure 6. A 1995 map of the Fairway Park neighborhood showing the areas annexed by the City of Hayward with corresponding dates. Property 1 indicated in red (City of Hayward)

The Bidwell Elementary School (Property 1) was designed by Oakland architects, Anderson and Simonds, who specialized in the design of schools, and were responsible for the design of the majority of the Mid-Century school buildings in Haywood (Daily Review 1972: NP). In October 1955, the San Francisco Examiner reported that the Haywood contractor, Wallace Webb & Son, had been submitted a low bid of \$226,000 for the construction services for the project (The San Francisco Examiner 1955: 63). By November 1955, the construction of the Bidwell School had begun and was scheduled to be complete prior to the start of the 1956 fall term. The school was named for George and Nellie Bidwell, who were pioneering residents of this region of Alameda County, and at the time of its

completion the school contained, "...seven classrooms, a multipurpose room and administrative space to accommodate 250 pupils (Daily Review 1955: 9)." (Daily Review 1955: 9).

In 1958, the Hayward Area Recreation and Park District (HARD) entered into a period of expanded program and facility development throughout the City. This expanded development included allocating funds for the purpose of constructing recreation centers within several parks that presently leased their property from HARD, including the Bidwell School. A square recreation center was constructed to the west of the new school buildings to the south of the parking lot area between 1958 and 1959 (Oakland Tribune 1958: 85). Historical aerial photography indicates that the recreation center was demolished between 1968 and 1979.

The Bidwell School operated as an elementary school until the end of the 2017-2018 school term, at which time the HUSD website indicates that the school closed permanently and students in the vicinity relocated to the Treeview Elementary School campus. The Bidwell and Treeview schools briefly served as a single school split between two campuses, known as the Treeview School, prior to the closure of the Bidwell campus altogether in 2018 (HUSD 2019; EBT 2017).

## 3.6 Architectural Style: Mid-Century Modern with International Style Elements

The Bidwell School buildings display a combination of the Mid-Century Modern with added elements of the International style. While these styles were both popular throughout the United States and globally, the following section provides an overview of these styles and their corresponding characteristics within the context of architectural style development in the Bay Area and Northern California.

### **Mid-Century Modern (1933-1965)**

Following World War II, the United States focused on progress and modernity, which prompted bold architectural movements such as Mid-Century Modern. In addition to a focus on new construction techniques pioneered by practitioners of the style, Mid-Century Modern style aesthetics focused on the contemporary, cutting-edge materials that were being developed and mass-produced during the period.

As in other cities in the United States, the Mid-Century Modern movement in San Francisco, and the greater Bay Area was characterized by simplistic and clear uses of materials and structural components, open interior planning, and large expanses of glass. Mid-Century Modern in the San Francisco Bay Area was influenced by the International Style and the Second Bay Tradition while also incorporating a more relaxed style of architecture which reflected post-World War II attitudes. The cost-effective nature of the style and the ability to mass-produce Mid-Century Modern building materials like concrete, wood, steel, and glass made it the perfect style for growing cities like San Francisco and surrounding cities in the Bay Area that were growing at a rapid pace following the end of World War II (SFPD 2010).

Characteristics of the Mid-Century Modern style include the following:

- Cantilevered overhangs
- Flat, shed or low-pitched gable roof forms
- Vaulted roofs and overhangs

- Articulated primary facades
- Stucco, wood (often vertical), or corrugated siding
- Stacked Roman brick or stone often used as accent material
- Expressed post and beam construction
- Strong right angles and simple cubic forms
- Projecting vertical elements
- Large steel- or wood-framed windows
- Canted windows
- Painted finish is often stained, earth tone, or brightly colored
- Projecting boxes that en-frame the upper stories
- Atrium or courtyard entryways
- Overhanging trellises, sunshades, and pergolas

### **International Style (1935 -1970)**

The International Style came to the United States in the 1930s after gaining popularity in Germany, Holland and France through architects such as Walter Gropius and Ludwig Mies van der Rohe. The style soon spread to the United States in the 1930s, due in part to Henry-Russell Hitchcock and Philip Johnson's 1932 book titled *The International Style: Architecture Since 1922* for the New York Museum of Modern Art's exhibition. In their book, Hitchcock and Johnson introduced the term International and identified the three principles as architecture as volume, regularity, and avoiding the application of ornament. The style was introduced to the Bay Area in a subdued form during the 1930s by architects William W. Wurster and Gardener Dailey, and then by German-born architect, Eric Mendelsohn in the 1940s. The style became very popular in the mid-20th century in almost all forms of architecture, using precise and universal materials and techniques that allowed the style to be used anywhere in the world. The most common application was as the corporate office, creating walls of glass with sharp angles located in the downtowns of many cities including San Francisco.

The main difference between International Style buildings and their predecessors was their lack of exterior support of solid masonry. They often depended on a metal interior skeleton and utilized the curtain wall to clad walls in glass. This dependency on the metal frame resulted in windows hung in repeating patterns which brought another level of order to these already stripped down buildings. Mies van der Rohe's designs specifically focused on perfection through mathematics, generating rectangular curtail wall designs displaying strong roots in the philosophy of the Bauhaus. This movement incorporated simple and precise designs and incorporated mass-produced materials such as concrete, steel, and glass paired with functionality in design (SFPD 2010; McAlester 2015).

Characteristics of the International style:

- Vertical box
- Often set on "pilotis" or stilts, giving the appearance of floating
- Windows and wall surfaces are on the same plane, providing the look of a taut skin
- Tinted and/or mirrored glass
- Repeating pattern of fenestration
- The seamless façade often appears sleek and slippery
- Flat roof structure, usually without parapets
- Little decoration or ornamentation

- Open interior spaces
- Smooth wall surfaces, usually clad with stucco
- Large concrete expanses
- Use of modern materials such as metal windows, concrete, and steel
- Flush-mounted metal windows

### 3.7 Architects: Anderson and Simonds (1945-1962)

George Patton Simonds was born in Knoxville, TN in 1905 but relocated to Berkeley, California with his family in the early 1920s. Simonds began attending classes at UC Berkeley, where he briefly flirted with bio-chemistry before settling on architecture (Daily Review 1972: NP). He graduated from Berkeley with an architecture A.B in 1927, an architecture M.A. in 1928. Simonds worked as a draftsman under architect Charles McCall between 1927 and 1930, helping to design the Valle Vista School in Oakland, California (Daily Review 1946: 1; PCAD 2018b). Simonds also worked as a draftsman for architect William Hays in 1928, assisting with the plans for Giannini Hall on the UC Berkeley campus and Fremont High School in Oakland (Daily Review 1946: 1).

He became a State-licensed architect in 1931 and moved to Hayward with his new wife, Merle Strickland, where he started a private practice and busied himself with small residential commissions for the majority of the 1930s (University of California 1980: 236). He also completed several municipal commissions for the City of Hayward during this period, including the Hayward Municipal Plunge, an indoor pool facility in a Hayward Area Park (Oakland Tribune 1961: 61). In 1939, Simonds began a six-year position as a planner and regional technical advisor to the United States Public Housing Authority in San Francisco where he worked on increasing low-income and war housing, such as the Hunters' Point naval shipyard housing project that opened in 1943 (Daily Review 1972: NP). Simonds went on to teach architecture at UC Berkeley from 1948 through 1972, and is also acknowledged as one of the first architects in the State who recognized the importance of seismic considerations in the design of buildings (University of California 1980: 236-7).

In 1945, Simonds teamed up with architect, James Harlow Anderson, to form the Oakland-based Architecture firm, Anderson and Simonds. Anderson was also a Berkeley-educated architect (A.B., 1925) who originally hailed from San Francisco (PCAD 2018a). In Anderson's early career, he worked with Ward and Bholm, a San Francisco firm specializing in public buildings and schools. During World War II, Anderson held a position at the Federal Housing Authority where he helped to design public community amenities including housing and schools in Honolulu, Hawai'i (Daily Review 1946: 1).

A short time after the firm was created, Anderson and Simonds became known as an authority on school planning and design. Anderson and Simonds were contracted in 1946 by the Hayward Elementary School District for the design and construction of multiple new buildings in the Hayward Elementary School District (Daily Review 1946: 1). A 1961 article in the Oakland Tribune claims that Anderson and Simonds "...designed and directed construction of 18 Hayward Elementary and six Hayward High School District plants. [They] also designed an additional 40 schools throughout the state, including Southern Alameda plants at Fremont, Independent, Palomares, Dublin, La Vista and Livermore districts (Oakland Tribune 1961: 61)." Additionally, Larry Ramm, the Hayward High School District superintendent in 1961 claimed that the schools designed by Anderson and Simonds, "...have brought each area a real cultural center with maximum use (Oakland Tribune 1961: 61)."

In 1962, Anderson and Simonds added two new partners, architects Alvin K. Dusel and Robert W. Campini, and the firm was reestablished as Anderson and Simonds, Dusel and Campini (PCAD 2018d).

A sample of Anderson and Simonds known work is included in the list below (PCAD 2018c; Oakland Tribune 1956: 3; Oakland Tribune 1961: 61; San Francisco Examiner 1956: 21;

- Rockridge School, Oakland, California (1952)
- Winton School, Hayward, California (c. 1953)
- Arroyo High School, Hayward, California (1953-54)
- Bret Harte High School, Hayward, California (1954)
- Cherryland High School, Hayward, California (1956)
- Harder School, Hayward, California (c. 1956)
- Frick Junior High, Oakland, California (1956)
- William Schurmer Elementary, Oakland, California (1956)
- Prescott Elementary, Oakland, California (1956)
- National Primate Center, University of California, Davis Campus, Davis, California (1962)

### 3.8 Builder: Wallace Webb & Son Construction Co.

Wallace Webb and his son, William F Webb, started the Wallace Webb and Son Construction Company in 1945 in Hayward, California. The company specialized in large commercial, academic, and liturgical construction projects in the Hayward and greater Alameda County area. Wallace retired from the company in 1960, leaving it in the control of his son who ran the company until 1974 (Daily Review 1970: NP). A sample of known work completed by Wallace Webb and Son Construction Company is included in the list below (Oakland Tribune 1957:40, 1960a:42, 1960b:65, 1961:8, 1970:42; Argus 1971:23, 1973:2; San Francisco Examiner 1958:59, 1960:37):

- Bank of America, San Leandro, California (1957)
- Sequoia Elementary School, Oakland, California (1958)
- Bank of America, Berkeley, California (1960)
- Air Traffic Tower, Hayward Municipal Airport, Hayward California (1960)
- Alameda County Library Branch, Castro Valley, California (1960)
- Oakland Fire Department Station 6, Oakland, California (1961)
- Diablo Systems Inc. Headquarters, Oakland, California (1970)
- Bank of America, Newark, California (1971)
- Pacific School of Dentistry Community Dental Clinic, Union City, California (1973)

## 4 Field Survey

---

### 4.1 Methods

**Archaeological Resources:** Dudek Archaeologist William Burns, MS, RPA, conducted an intensive-level survey within the study area (Properties 1 and 2) on November 18, 2019. The survey was conducted using standard archaeological procedures and techniques. All field practices met the Secretary of Interior's standards and guidelines for a cultural resources inventory. Pedestrian transects were spaced at no more than 10-meter intervals. All areas of exposed soils including ground disturbances such as burrows, cut banks, and drainages as well as landscaped areas, were visually inspected for exposed subsurface materials. No artifacts were collected during the surveys. Location-specific photographs were taken using an Apple Generation 6 iPhone equipped with an 8-megapixel camera and georeferenced PDF maps of the proposed project site. All field notes, photographs, and records related to the current study are on file at the Dudek Oakland, California, office.

**Built Environment Resources:** Dudek Architectural Historian Fallin Steffen, MPS, conducted a pedestrian survey of the subject property (Property 1) on August 30, 2019. The survey entailed walking all portions of the exterior of the property and documenting the building on site with notes and photographs, specifically noting character-defining features, spatial relationships, observed alterations, and examining any historic landscape features on the property. Dudek documented the fieldwork using field notes, digital photography, close-scale field maps, and aerial photographs. Photographs of the subject property were taken with a digital camera. All field notes, photographs, and records related to the current study are on file at Dudek's Sacramento, California, office.

### 4.2 Results

**Archaeological Resources:** Intensive-level pedestrian survey of all undeveloped areas did not result in the identification of archaeological resources. Survey of areas occupied by existing structures and parking areas was not warranted given that the ground surface is obscured. Visibility of the ground surface varied from approximately 80 percent of the ground being obscured by low grasses within athletic fields and up to 50 percent of the ground surface being obscured in other areas where vegetation is less dense. Subsurface exposures and rodent burrows were opportunistically sought in order to look for evidence of subsurface deposits. Developed areas have been subject to substantial disturbance. Existing park and athletic fields have been less disturbed, however ground preparation and other work for these areas is evident and would have required earth-moving activities as well. No archaeological material was observed within the study area. The area appears to have a low potential to contain unanticipated archaeological material or deposits in the vicinity of existing structures and other developed areas, and a low-moderate potential in less developed park areas.

**Built Environment Resources:** Based on the pedestrian survey for historic built environment resources, Dudek identified and recorded two built environment resources over 45 years of age sited on Property 1: Proposed Bidwell Park (APN 78G-2704-002-01). Property 2: El Rancho Verde Park (APNs 78G-2921-001-01 and 87-0040-006-02) contained no built environment resources over 45 years of age. Therefore, the Significance Evaluation (Section 5)

provides a detailed physical description of Property 1 and its associated resources, as well as a significance evaluation for the property under all applicable criteria. A full DPR 523 form set is located in Appendix C.



## 5 Significance Evaluation

---

In order to assess the property's historical significance and integrity, Property 1: Proposed Bidwell Park (Bidwell Elementary School Buildings) was recorded and evaluated in consideration of NRHP, CRHR, and local City of Hayward designation criteria and integrity requirements. A physical description of the property and its development history is provided below.

The property significance evaluation was prepared by Dudek architectural historian Fallin Steffen, MPS, who meets the Secretary of the Interior's Professional Qualification Standards for architectural history. The evaluation considers NRHP, CRHR, and City significance criteria and integrity requirements. For a property to be listed in or determined eligible for listing in the NRHP, it must be demonstrated to possess integrity and to meet at least one of four criteria. The CRHR was designed to reflect the same criteria and integrity as those identified for the NRHP. Therefore, the NRHP and CRHR significance evaluations are presented together.

### 5.1 Property 1: Bidwell Elementary School Buildings (APN 78G-2704-002-01)

#### **Property Description**

The subject property, the Bidwell Elementary School Buildings, located within Bidwell Park, at 175 Fairway Street in Hayward, CA (APN 78G-2704-002-01) contains two educational buildings designed by Oakland architects, Anderson and Simonds in the Mid-Century Modern Style with some International-style elements (Figure 7). The buildings, identified in this description as Buildings A and B, were completed in 1956 for use as an elementary school, and continued to serve in this capacity until the school was closed in 2018. The buildings are located on a large square parcel surrounded by the rows of residential properties that line Meadowbrook and Carrol Avenues. The school buildings front Fairway Street and sit in the northwestern segment of the city block. Over half of the parcel contains open greenspace (south of the buildings). Other features of the site include baseball fields and a children's play area. See Figure 3 for locations of Buildings A and B described in more detail below.



Figure 7. Rear view of Buildings A (at left and background) and B (right foreground), view looking north (DCSN3830)

### 5.1.1 Building A: Main Building

Building A is a one-story building designed in the Mid-Century Modern style with elements of the International Style. The irregular L-shaped building is comprised of three distinct building sections that fronts Fairway Street (Figures 7 and 8). The roof structure displays a combination of gabled and flat roof sections that are clad in grey rolled composition roofing material. Both the flat and pitched sections of the roof feature wide, boxed eaves and wood fascia board. The eastern section of the building includes an open-air trough cut away at the center of the gabled roof that allows light to penetrate through clerestory windows at the center of the building. Building A is entirely clad in stucco except for the recessed entry area on the north (main) elevation (Figure 9), which contains sienna-colored concrete masonry units (CMU) arranged in square columns and set in a simple checkerboard relief pattern astride the primary entrance doors (Figure 10).

Fenestration across the building consists of repeating groups of metal framed windows in various sizes and arrangements. Some windows feature operable lower sections, while others are fixed, and some window groups project slightly from the flat surface of the building (Figure 11). The west, south (rear) and east elevations of the building feature horizontal, metal brise soleils that shade the windows (Figure 12). In the space below the gable on the east elevation, a projecting concrete border frames the access door and a slatted screen leading to the recessed light trough and running through the center of this section of the building (Figure 13).

A wide, covered walkway supported by concrete columns extends from the central section of the south (rear) elevation and connects with Building B's west elevation (Figure 14).



Figure 8. Western half of the north (main) elevation, looking SE (DSCN3867)



Figure 9. South (rear) elevations of Building A showing roof heights and types, looking NE (DSCN3785)



Figure 10. Recessed entry on the north (main) elevation showing sienna CMU details, looking SE (DSCN3750)



Figure 11. Protruding windows on east-facing section of rear elevation, looking NW (DSCN3793)





Figure 12. Brise soleils on south and east elevations, looking NW (DSCN3801)



Figure 13. North (main) and east elevation showing protruding framed entry, looking SW (DSCN3853)



Figure 14. Covered Walkway connecting Buildings A and B, looking N towards Building A (DSCN3790)

### ***Identified Alterations***

Neither the Hayward Unified School District, nor the City of Hayward maintain records or permits related to the alterations to Hayward Unified School District properties. Therefore, the alterations summarized below were observed during the course of the pedestrian survey and do not have associated dates:

- Window above primary entrance replaced with plywood
- Primary entrance doors replaced
- Installation of updated mechanical systems and associated hardware

## 5.1.2 Building B: Rear Building

Building B is a one-story, rectangular building designed in the Mid-Century Modern style with some elements of the International Style. It is sited to the south of Building A, and connected to the central section of Building A via a covered walkway that is affixed to the western entrance of Building B (Figure 15). The gabled roof structure is clad in grey rolled composition roofing material and features an open-air trough cut away at the center of the gabled roof that allows light to penetrate through clerestory windows at the center of the building. Building B is entirely clad in stucco. Fenestration across the building consists of repeating groups of metal framed windows in various sizes and arrangements (Figure 16). Some windows feature operable lower sections, while others are fixed. The south (rear) elevation of the building features horizontal, metal brise soleils that shade the windows from direct exposure to the sun (Figure 17). Beneath the gable end on the east elevation, a slatted screen reveals the recessed central channel of the building. Below, a cantilevered overhang protects the double entry doors (Figure 18).



Figure 15. Western elevation showing covered walkway connection, looking E (DSCN3822)



Figure 16. North east elevation showing window configurations, looking SW (DSCN3816)





Figure 17. South elevation view showing brise soleils, view looking NW (DSCN3790)



Figure 18. East elevation showing slatted screen and cantilevered overhang above the double entry door, looking NW (DSCN3837)



### **Identified Alterations**

Neither the Hayward Unified School District, nor the City of Hayward maintain records or permits related to the alterations to Hayward Unified School District properties. Therefore, the alterations summarized below were observed during the course of the pedestrian survey and do not have associated dates:

- Installation of updated mechanical systems and associated hardware

## 5.2 NRHP/CRHR Statement of Significance

- **Criterion A/1:** *That are associated with events that have made a significant contribution to the broad patterns of our history.*

The Bidwell Elementary School buildings located on Property 1 were constructed in the mid-1950s during the Post World War II population boom and suburban expansion that occurred in cities throughout the Nation and in the State of California following World War II. The national rate of marriage and births increased exponentially during the post-war period, with nearly 2.8 million new households being established during the first two years after the war alone (Caltrans 2011: 15). In Hayward specifically, the population more than doubled between 1940 to 1950 from 6,736 to 14,272 residents, with this number increasing fivefold by 1960 to 72,700 residents (Bay Area Census 2019). In response to the evident need for housing and associated neighborhood amenities throughout Hayward, the developing company, the Oliver Rousseau Organization, subdivided multiple new residential neighborhoods in Hayward during the 1950s, including the neighborhood in which Property 1 is located, Fairway Park. The population surge in these outlying neighborhoods resulted in an influx of new students requiring adjacent educational institutions. The community responded with passage of tax measures and bond elections related to schools during this timeframe, resulting in simultaneous school development during the post-war period throughout the City of Hayward.

As such, the Bidwell School was just one of multiple elementary schools developed in designated greenspaces in these new, post-WWII suburban neighborhoods during the 1950s. Other nearby examples in Hayward displaying similar development patterns include the Hillview-Crest Elementary School, also located in Fairway Park (0.6-mi from Property 1) and completed in 1953, and the Treeview Elementary School located in the Mission-Garin neighborhood (0.7-mi from Property 1) completed in 1960 (Oakland Tribune 1953: 16; 1960c: 38).

Other than being one of many representations of incremental development of education institutions supporting residential suburban growth in this area during the 1950s, the property is not otherwise associated with any local, state, or national historical events. The Bidwell Elementary School is one of many schools established in similar neighborhoods throughout the Hayward area during the same timeframe. Archival research did not indicate that the Bidwell School was the first or last such campus to be developed, and as the school was constructed in the park following the completion of the Fairway Park neighborhood, the school cannot be seen as the stimulus for the initial development of the Fairway Park neighborhood. Therefore, it is not known to be directly associated with events that have made a significant contribution to the history of the City of Hayward, Alameda County, the State of California, or the Nation. Therefore, the property does not appear to meet Criterion A of the NRHP, Criterion 1 of the CRHR.

- **Criterion B/2:** *That are associated with the lives of persons significant in our past.*

To be found eligible under B/2 the property has to be directly tied to an important person and the place where that individual conducted or produced the work for which he or she is known. Although the school was named after George and Nellie Bidwell, they were pioneering residents of Alameda County, as such have no direct connection to the campus, Archival research failed to identify any associations with significant persons who were involved in the effort to develop the Bidwell School nor did the research indicate the school was the site of any individual's important historic work in the context of the City of Hayward, the County of Alameda, the State of California or the Nation. Due to a lack of identified significant associations with important persons in history, the subject property does not appear eligible under NRHP/CRHR Criterion B/2.

- **Criterion C/3:** *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.*

The Bidwell School buildings are modest Mid-Century Modern- style schools with International elements. Architecturally, the school campus buildings do not appear to be important for their design or construction value. Although the building convey some distinctive elements of the Mid-Century Modern and International styles including: cantilevered overhangs; flat, shed or low-pitched gable roof forms; vaulted roofs and overhangs; stucco siding; stacked brick or CMU; projecting vertical elements; large steel- or wood-framed windows; brise de soleils; and repeating patterns of fenestration. Despite the inclusion of these key elements, the design of the buildings is relatively unexceptional in consideration of the large body of excellent, surviving examples of each style located within the City of Hayward, Alameda County, and the State of California overall.

The buildings were designed by Oakland architects, Anderson and Simonds, and constructed by the Hayward contractor, Wallace Webb & Son, in 1956. At the time of its completion the school contained, "...seven classrooms, a multipurpose room and administrative space to accommodate 250 pupils (Daily Review 1955: 9)." The firm, Anderson and Simonds, was formed in 1945 by architects James Harlow Anderson and George Patton Simonds, and quickly became known for their school designs throughout the State. The firm was commissioned by the Hayward Elementary School District to design multiple new schools in the Hayward Elementary School District in 1946, designing 18 Hayward Elementary and six Hayward High Schools during the course of their partnership (Daily Review 1946: 1). They were also responsible for the design of approximately 40 other school campuses in counties throughout California (Oakland Tribune 1961: 61). For these reasons, Anderson and Simonds are recognized as ostensibly influential architects whose work is considered regionally significant in the context of Hayward, Alameda County and post-war Bay-area architecture. Simonds in particular is considered a prominent Bay-area architect, and is able to rise to the level of master architect because he is well recognized and awarded within the field of architecture for his contributions to the integration of seismic engineering standards in architecture.

Although the Bidwell School buildings display elements of Anderson and Simonds signature design aesthetic, and constitute an example of a design by a regionally significant architectural firm, the existence of other, more illustrative examples of their designs for the same use within the same geographic location that are still in operation today as educational facilities, indicates that the Bidwell School buildings are not notable, unique, or distinctive examples of their work. As such, these school buildings do not possess characteristics that suggest they are

important examples of the variation, evolution, or transition of school construction in the Hayward area. Lacking architectural distinction, the subject buildings do not appear to meet NRHP Criterion C or CRHR Criterion 3.

- **Criterion D/4:** *That have yielded, or may be likely to yield, information important in prehistory or history.*

The subject property does not appear to be significant as a source, or likely source, of important historical information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies.

## 5.3 City of Hayward Statement of Significance

As the City of Hayward criteria mirrors the NRHP/CRHR criteria, for all of the reasons detailed in the NRHP/CRHR evaluation above, the subject properties do not appear eligible under any of the City of Hayward's designation criteria.

### **Evaluation Summary**

*National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (2002) states that the integrity of a property is based upon the historical significance and character defining features of that property, and that "only after significance is fully established can you proceed to the issue of integrity." Upon conclusion that Bidwell School buildings located within Bidwell Park do not meet any of the required criteria for significance, the property's current state of integrity is inconsequential. As such, no assessment of integrity is provided in this evaluation.

The Bidwell School buildings located within the Property 1 do not appear to be eligible for listing in the NRHP or the CRHR due to their lack of historical and architectural significance. As such, the current evaluation has assigned a 6Z California Historical Resource Status Code to the property (6Z: Found ineligible for NR, CR, or Local designation through survey evaluation). Additionally, the property was evaluated in accordance with Section 15064.5(a) (2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Resources Code, and it does not appear to be a historical resource for the purposes of CEQA.

## 6 Findings and Conclusions

---

### 6.1 Summary of Findings

The following section presents a summary of eligibility conclusions for the properties evaluated in this study (Property 1: Proposed Bidwell Park (Bidwell School Buildings) [APN 78G-2704-002-01] and Property 2: El Rancho Verde Park [APNs 78G-2921-001-01 and 87-0040-006-02], based on Dudek's extensive research, field surveys, and property significance evaluation described above.

#### **Archaeological Findings and Recommendations**

Observation of the present conditions within the study area indicate that portions of the project area have been subject to a past disturbances, most notably those areas occupied by existing buildings. Areas within existing athletic fields and park areas have a higher relative potential to support the presence of archaeological resources. No newly identified archaeological resources were recorded during the pedestrian surveys. NAHC SLF and NWIC records searches did not identify the presence of archaeological resources within the study area or surrounding 0.5-mile radius. The proposed project as currently designed appears to have a low-moderate potential to encounter unanticipated intact archaeological resources during ground disturbing activities, and would not affect known archaeological resources.

Based on these negative findings and the observed conditions of the study area, no additional cultural resources efforts, including archaeological monitoring, are recommended to be necessary beyond standard protection measures for unanticipated discoveries of cultural resources and human remains, outlined below.

**Unanticipated Discovery of Archaeological Resources.** In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed Project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under CEQA (14 California Code of Regulations Section 15064.5(f); PRC Section 21082), the archaeologist may record the find to appropriate standards (thereby addressing any data potential) and allow work to continue. If the archaeologist observes the discovery to be potentially significant under CEQA, additional treatment may be required.

**Unanticipated Discovery of Human Remains.** In accordance with California Health and Safety Code Section 7050.5, if potential human remains are found, the lead agency staff and the County Coroner must be immediately notified of the discovery. The coroner would provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, Native American, the coroner would notify the NAHC within 24 hours. In accordance with PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the MLD from the deceased Native American. Within 48 hours of this notification, the MLD would recommend to the lead agency her/his preferred treatment of the remains and associated grave goods.

### **Built Environment Findings**

As a result of the pedestrian survey for historic built environment resources, Dudek identified and recorded two built environment resources over 45 years of age sited on Property 1: Proposed Bidwell Park (Bidwell Elementary School Buildings) (APN 78G-2704-002-01). Property 2: El Rancho Verde Park (APNs 78G-2921-001-01 and 87-0040-006-02) contained no built environment resources over 45 years of age and was therefore not evaluated as part of the Built Environment Study. Property 1: Proposed Bidwell Park does not appear eligible for listing in the NRHP, the CRHR, or the Hayward Register of Historic Resources. As such, Property 1 does not appear to be a historical resource for the purposes of CEQA. This resource has been assigned a California Historical Resource Status Code of 6Z (found ineligible for the NRHP, CRHR, or local designation through survey evaluation).

## 7 Bibliography

---

- Argus. 1971. "Bank of America's New Home in Newark." Newspapers.com: The Argus (Fremont, California). November 3, 1971: 23.
- Argus. 1973. "Dental Facility: Clinic ground breaking set." Newspapers.com: The Argus (Fremont, California). May 2, 1973: 2.
- Caltrans (California Department of Transportation). 2011. "Tract Housing in California, 1945-1973: A Context for National Register Evaluation." Sacramento, CA: Cultural Studies Office, Caltrans Division of Environmental Analysis. <http://www.dot.ca.gov/ser/guidance.htm#tracthouse>
- Cleland, R.G. 2005. *The Cattle on a Thousand Hills: Southern California, 1850–80*, second ed., sixth printing. The Huntington Library, San Marino, California.
- Dallas, S.F. 1955. *The Hide and Tallow Trade in Alta California 1822–1848*. Ph.D. dissertation, Indiana University, Bloomington Davis, E.L. (editor). 1978. *The Ancient Californians: RanchoLabrean Hunters of the Mohave Lakes Country*. Natural History Museum of Los Angeles County, Science Series No. 29.
- Bay Area Census. 2019. "Hayward." Accessed September 3, 2019. <http://www.bayareacensus.ca.gov/cities/Hayward50.htm#1940>
- City of Hayward. 1995. "Fairway Park Neighborhood Plan." Accessed September 6, 2019. <https://www.hayward-ca.gov/sites/default/files/documents/FairwayParkPoliciesStrategies.pdf>
- City of Hayward. 2019. "Land Use and community Character Goals: Goal 8 Historic Districts and Resources." In the Section of *Hayward 2040 General Plan*. Accessed September 6, 2019. <https://www.hayward2040generalplan.com/goal/LU8>
- Daily Review. 1946. "Architects Engaged; Board Votes Sale of Markham Property." Newspapers.com: *Daily Review* (Hayward, California). February 14, 1946: 1.
- Daily Review. 1955. "New \$226,000 Bidwell School Is Underway." Hayward Area Historical Society. *Daily Review* (Hayward, California). November 28, 1955: 9.
- Daily Review. C.1955-1956. "New Bidwell School Will Open in Fall." Hayward Area Historical Society. *Daily Review* (Hayward, California). No page number.
- Daily Review. 1970. "Contractor Wallace Webb dies." Hayward Area Historical Society. *Daily Review* (Hayward, California). April 27, 1970: No page number.
- Daily Review. 1972. "He's been a man with big plans for over 40 years." Hayward Area Historical Society. *Daily Review* (Hayward, California). July 30, 1972: No page number.

- EBT (East Bay Times). "Hayward School, Campus Closures Still Possible Amid Budget Crunch." Dan Moriki, Auth. East Bay Times (Walnut Creek, California). December 20, 2017.  
<https://www.eastbaytimes.com/2017/12/20/hayward-school-campus-closures-still-possible-amid-budget-crunch/>
- Gebhard, David, Eric Sandweiss, and Robert Winter. 1985. *Architecture in San Francisco and Northern California*. Salt Lake City, UT: Gibbs M. Smith, Inc. /Peregrine Smith Books.
- Hise, Greg. 1999. *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis*. Baltimore, Maryland: The Johns Hopkins University Press. Revised paperback edition.
- HUSD (Hayward Unified School District). 2017. "Demographics." Accessed September 3, 2019.  
<https://www.husd.us/Demographics>
- HUSD. 2019. "News. HUSD invites applicants for a 7-11 Bidwell Property Advisory Committee." Accessed September 9, 2019. [https://www.husd.us/pf4/cms2/news\\_themed\\_display?id=1548930680405](https://www.husd.us/pf4/cms2/news_themed_display?id=1548930680405)
- Kyle, D.E. 2002. *Historic Spots in California*. 5th ed. Stanford University Press, Stanford, California.
- McAlester, Virginia Savage. 2018. *A Field Guide to American Houses: the definitive guide to identifying and understanding America's domestic architecture*. New York City, New York: Alfred A. Knopf. Revised edition.
- NETR (Nationwide Environmental Title Research LLC). 2018a. *Historic Topographic Maps: 1946, 1948, 1949, 1958, 1960, 1966, 1968, 1979, 1980, 1988, 1993, 2002, 2005, 2009, 2010, 2012, 2014, and 2016*. Accessed July 9, 2019. <https://www.historicaerials.com/viewer>.
- NPS (Nation Park Service, U.S. Department of the Interior). 1990. *National Register Bulletin: Technical Information on the National Register of Historic Places: Survey, Evaluation, Registration, and Preservation of Cultural Resources. How to Apply the National Register Criteria for Evaluation*. Accessed July 2019.  
<https://www.nps.gov/nr/publications/bulletins/pdfs/nrb15.pdf>.
- Oakland Tribune. 1953. "Opening Delayed." Newspapers.com: Oakland Tribune (Oakland, California). January 13, 1955: p.16.
- Oakland Tribune. 1955. "They're Flying In From Everywhere!" Newspapers.com: Oakland Tribune (Oakland, California). March 13, 1955: p.41.
- Oakland Tribune. 1956. "Architects Get Go-ahead For 2 New Schools Here." Newspapers.com: Oakland Tribune (Oakland, California). October 3, 1956: 8.
- Oakland Tribune. 1957. "Wallace Webb and Son..." Newspapers.com: Oakland Tribune (Oakland, California). December 18, 1957: 40.
- Oakland Tribune. 1960a. "New Berkeley Office." Newspapers.com: Oakland Tribune (Oakland, California). April 11, 1960: 42.

- Oakland Tribune. 1960b. "Air Traffic Tower Nears Completion." Newspapers.com: Oakland Tribune (Oakland, California). June 16, 1960: 65.
- Oakland Tribune. 1960c. "Alameda County School Building Program Shows No Letup in 1960." Newspapers.com: Oakland Tribune (Oakland, California). January 7, 1960: 38.
- Oakland Tribune. 1961a. "Architect Practices What He Preaches." Newspapers.com: Oakland Tribune (Oakland, California). January 26, 1961: 61.
- Oakland Tribune. 1961b. "New Firehouse." Newspapers.com: Oakland Tribune (Oakland, California). June 9, 1961: 8.
- PCAD (Pacific Coast Architecture Database). 2018a. "James Harlow Anderson (Architect)." Accessed September 10, 2019. <http://pcad.lib.washington.edu/person/2821/>
- PCAD (Pacific Coast Architecture Database). 2018b. "George Patton Simonds (Architect)." Accessed September 10, 2019. <http://pcad.lib.washington.edu/person/2817/>
- PCAD (Pacific Coast Architecture Database). 2018a. "Anderson and Simonds, Architects (Partnership)." Accessed September 10, 2019. <http://pcad.lib.washington.edu/firm/2125/>
- San Francisco Examiner. 1955. "School Building Contract Given" Newspapers.com: The San Francisco Examiner (San Francisco, California). October 16, 1955: p.63.
- San Francisco Examiner. 1956. "Cherryland School" Newspapers.com: The San Francisco Examiner (San Francisco, California). September 7, 1956: p.21.
- San Francisco Examiner. 1958. "School Contract" Newspapers.com: The San Francisco Examiner (San Francisco, California). November 16, 1958: p.59.
- San Francisco Examiner. 1960. "New Library for Alameda" Newspapers.com: The San Francisco Examiner (San Francisco, California). November 7, 1960: p.37.
- SFPD. 2010. San Francisco Modern Architecture and Landscape Design: 1935-1970 Historic Context Statement. The City of San Francisco Planning Department. San Francisco, California.
- TSP (Town Square Publications). 2019. "Hayward History." Accessed August 29, 2019. <https://townsquarepublications.com/hayward-history/>
- University of California. 1980. *In Memoriam, 1980*. "George Patton Simonds, Architecture: Berkeley." Courtesy of University Archives, The Bancroft Library, University of California at Berkeley, Berkeley, CA. Accessed September 10, 2019. <http://content.cdlib.org/view?docId=hb1j49n6pv&brand=calisphere>
- UCSB (University of California, Santa Barbara). 2019. Map & Imagery Laboratory (MIL). UCSB Library, Electronic Resource: 1938, 1946, 1957, 1965, 1980, and 1999. <https://www.library.ucsb.edu/mil>. Accessed July 9, 2019. All images copyright UC Regents.



Waugh, J.C. 2003. On the Brink of Civil War: The Compromise of 1850 and How It Changed the Course of American History. Scholarly Resources Inc., Wilmington, Delaware.

# Appendix A

---

## Preparer's Qualifications

## Preparer's Qualifications

**Fallin Steffen, MPS** is an architectural historian with 4 years' experience in building survey, evaluation, documentation, materials analysis, restoration and conservation. Ms. Steffen served as a commissioner on the Santa Cruz City Historic Preservation Commission and has participated in archaeological fieldwork in the Bay Area. Ms. Steffen has worked on a wide variety of projects involving historic research, field inventory, and site assessment conducted for compliance with CEQA historical resources. She meets the Secretary of the Interior's Professional Qualification Standards for Architectural History.

**Kathryn Haley, MA** is a senior architectural historian with over 15 years' of professional experience in historic/cultural resource management. Ms. Haley has worked on a wide variety of projects involving historic research, field inventory, and site assessment conducted for compliance with Section 106, NEPA, and CEQA. Ms. Haley specializes in California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), evaluations of built environment resources, including water management structures (levees, canals, dams, ditches), buildings (residential, industrial, and commercial), and linear resources (railroad alignments, roads, and bridges). She specializes in managing large-scale surveys of built environment resources including historic district evaluations. She has prepared numerous Historic Resources Evaluation Reports (HREs) and Historic Property Survey Reports (HPSRs) for the California Department of Transportation (Caltrans). She meets the Secretary of the Interior's Professional Qualification Standards for historian and architectural historian. Ms. Haley has also assisted in preparation of Historic Properties Inspection Reports (condition assessments) under the direction of the Naval Facilities Engineering Command (NAVFAC) in accordance with Section 106 and Section 110 of the National Historic Preservation Act. Moreover, Ms. Haley has served as project manager, coordinator, historian, and researcher for a wide variety of project. She is also experienced in the preparation for National Register nominations, as well as, Historic American Building Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscape Survey (HALS) documents.

**William Burns, MS** is an archaeologist with 15 years' experience in cultural resource management. Mr. Burns is highly knowledgeable about the California Environmental Quality Act, the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, and the National Historic Preservation Act, particularly the Section 106 process. He evaluates buildings and districts for archaeological sensitivity and possible inclusion on the National Register of Historic Places. Mr. Burns assesses project and building plans for archaeological sensitivity and reviews archaeological reports on the state government regulatory end of the process. Mr. Burns possesses expertise about Pre-contact archaeological sites, paleo coastline reconstruction, and artifact identification and analysis. He applies this expertise to archaeological report writing and editing for Section 106 projects. He also serves on field crews and as a supervisor on archaeological projects, overseeing surveys, site examinations, data recoveries, and artifact database creation and maintenance.

**Adam Giacinto, MA, RPA** is an archaeologist with 13 years' experience preparing cultural resource reports, site records, and managing archaeological survey, evaluation, and data recovery-level investigations. His research interests include prehistoric hunter-gatherer cultures and contemporary conceptions of heritage. His current research focuses on the social, historical, archaeological, and political mechanisms surrounding heritage values. He has gained practical experience in archaeological and ethnographic field methods while conducting research in the Southwest, Mexico, and Eastern Europe. Mr. Giacinto brings specialized experience in cultural resources information processing gained while working at the South Coastal Information Center. He has worked as part of a nonprofit collaboration in designing and managing a large-scale, preservation-oriented, standardized database and conducting site and impact predictive Geographic Information Systems (GIS) analysis of the cultural resources landscape surrounding ancient Lake Cahuilla. He provides experience in ethnographic and applied anthropological methods gained in urban and rural settings, both in the United States and internationally.

# Appendix B

---

**Confidential** Records Search Results  
(Provided Separately)

# Appendix C

---

DPR forms

State of California & The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary #  
 HRI #  
 Trinomial  
 NRHP Status Code 6Z

Other Listings  
 Review Code

Reviewer

Date

Page 1 of 13 \*Resource Name or #: (Assigned by recorder) Bidwell Elementary School

P1. Other Identifier: Property 1: Proposed Bidwell Park

\*P2. Location:  Not for Publication  Unrestricted

\*a. County Alameda County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad Newark Date 1993 T 4S ; R 5W ;  of  of Sec 32 ; Mt. Diablo B.M.

c. Address 175 Fairway Street City Hayward Zip 94544

d. UTM: (Give more than one for large and/or linear resources) Zone 10S , 584504.66 mE/ 4163943.25 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

Assessor Parcel Number [APN] 78G-2704-002-01

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)  
 The Bidwell Elementary School, located within Bidwell Park, at 175 Fairway Street in Hayward, CA (APN 78G-2704-002-01) contains two educational buildings designed by Oakland architects, Anderson and Simonds in the Mid-Century Modern Style with some International-style elements (Figure 1, See Continuation Sheet). The buildings, identified in this description as Buildings A and B, were completed in 1956 for use as an elementary school, and continued to serve in this capacity until the school was closed in 2018.

See Continuation Sheet

\*P3b. Resource Attributes: (List attributes and codes) HP15. Educational Building

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)



P5b. Description of Photo: (view, date, accession #) View of Buildings A (at left and background) and B (right foreground), view looking north DCSN3830) 08/30/2019

\*P6. Date Constructed/Age and Source:  Historic  Prehistoric  Both 1956(Daily Review 1955: 9)

\*P7. Owner and Address: La Vista School District

\*P8. Recorded by: (Name, affiliation, and address) Fallin Steffen, MPS, Dudek 1630 San Pablo Avenue Oakland, California 94612

\*P9. Date Recorded: 08/30/2019

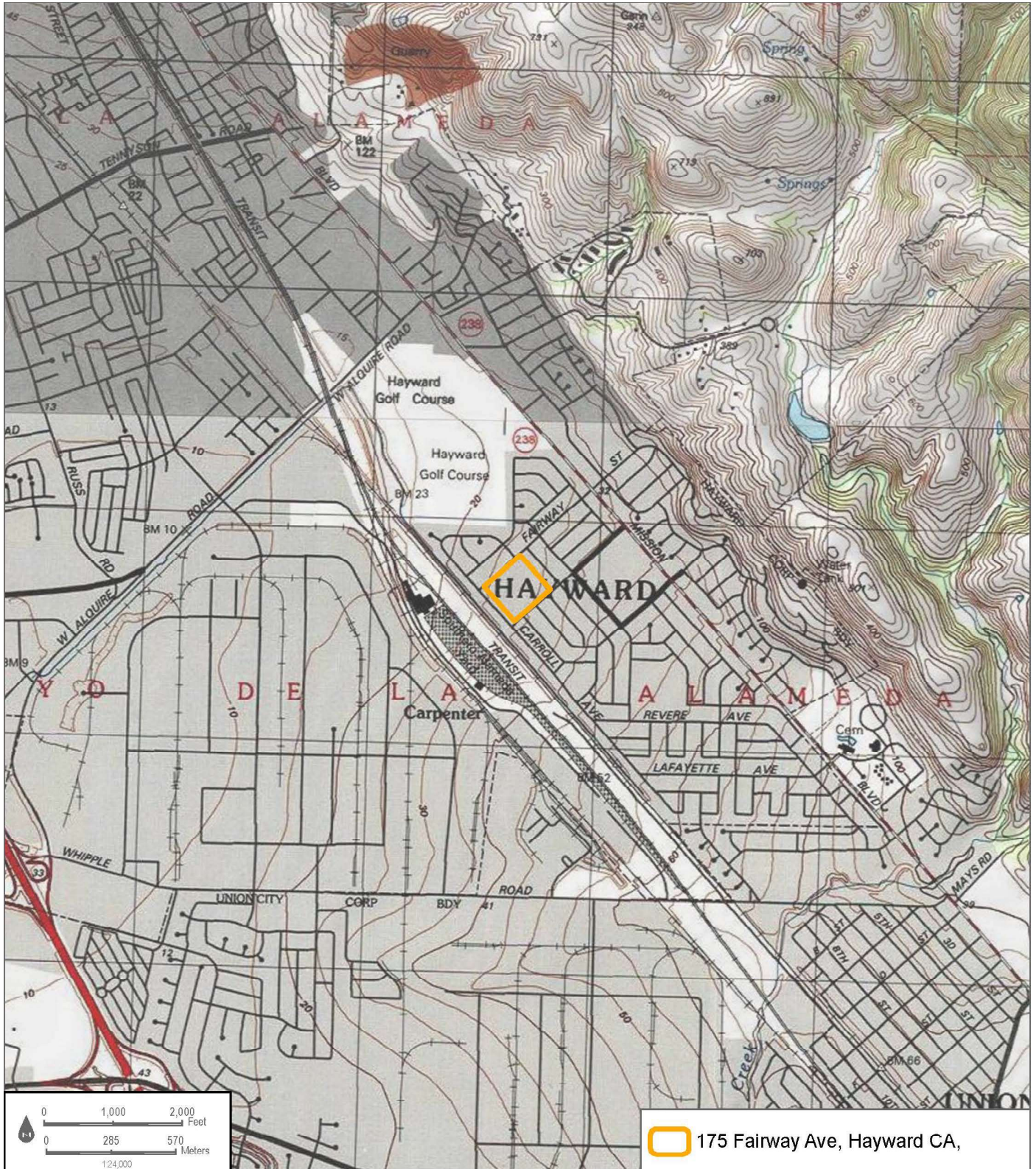
\*P10. Survey Type: (Describe) Intensive Pedestrian

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Dudek. 2020. Cultural Resources Technical Report For The Bidwell And El Rancho Verde Parks Master Plan, Cities Of Hayward And Union City, Alameda County, California

\*Attachments:  NONE  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List): \_\_\_\_\_



Page 2 of 13 \*Resource Name or # (Assigned by recorder) Bidwell Elementary School  
\*Map Name: Newark Topographic Quadrangle \*Scale: 1:24,000 \*Date of map: 1993





# BUILDING, STRUCTURE, AND OBJECT RECORD

\*Resource Name or # (Assigned by recorder) Bidwell Elementary School \*NRHP Status Code 6Z  
Page 3 of 13

B1. Historic Name: Bidwell School  
B2. Common Name: Bidwell Elementary School  
B3. Original Use: School B4. Present Use: Vacant  
\*B5. Architectural Style: Mid-Century Modern with elements of the International Style  
\*B6. Construction History: (Construction date, alterations, and date of alterations)

The two Bidwell School buildings, A and B, were designed by Oakland architects, Anderson and Simonds in the Mid-Century Modern Style with some International-style elements and completed in 1956 by Hayward contractor, Wallace Webb and Son Construction Company.

Identified Alterations to Building A (Dates Unknown): Window above primary entrance replaced with plywood; Primary entrance doors replaced; and Installation of updated mechanical systems and associated hardware.

Identified Alterations to Building B (Dates Unknown): Installation of updated mechanical systems and associated hardware.

\*B7. Moved?  No  Yes  Unknown Date: \_\_\_\_\_ Original Location: \_\_\_\_\_  
\*B8. Related Features: None.

B9a. Architect: Anderson and Simonds b. Builder: Wallace Webb and Son Construction Company  
\*B10. Significance: Theme N/A Area N/A

Period of Significance N/A Property Type N/A Applicable Criteria N/A  
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Bidwell Elementary School does not appear eligible for listing in the NRHP, the CRHR or the Hayward Register of Historic Resources. As such, the property does not appear to be a historical resource for the purposes of CEQA. This resource has been assigned a California Historical Resource Status Code of 6Z (found ineligible for the NRHP, CRHR, or local designation through survey evaluation).

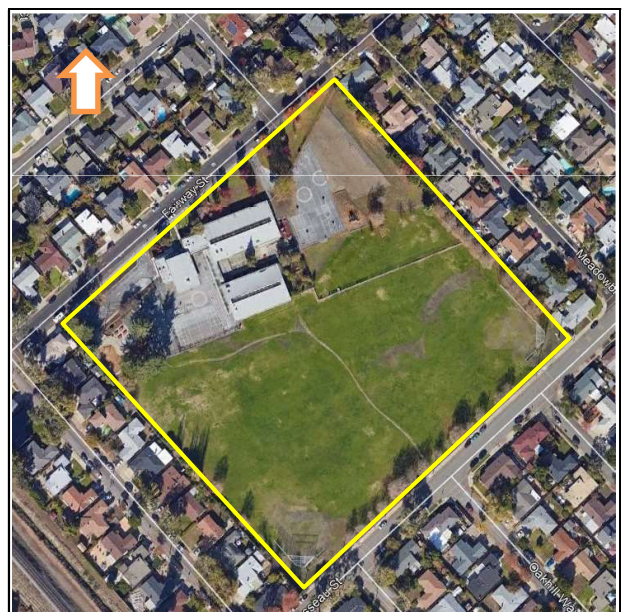
### See Continuation Sheet

B11. Additional Resource Attributes: (List attributes and codes) \_\_\_\_\_  
\*B12. References: See Continuation Sheet

B13. Remarks:

\*B14. Evaluator: Fallin Steffen, MPS  
\*Date of Evaluation: November 6, 2019

(This space reserved for official comments.)





## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 4 of 13

### \*P3a. Description:

The buildings are located on a large square parcel surrounded by the rows of residential properties that line Meadowbrook and Carrol avenues. The school buildings front Fairway Street and sit in the northwestern segment of the city block. Over half of the parcel contains open greenspace (south of the buildings). Other features of the site include baseball fields and a children's play area.



Figure 1. Rear view of Buildings A (at left and background) and B (right foreground), view looking north (DCSN3830)

### **Building A: Main Building**

Building A is a one-story building designed in the Mid-Century Modern style with elements of the International Style. The irregular L-shaped building is comprised of three distinct building sections that fronts Fairway Street (Figures 1 and 2). The roof structure displays a combination of gabled and flat roof sections that are clad in grey rolled composition roofing material. Both the flat and pitched sections of the roof feature wide, boxed eaves and wood fascia board. The eastern section of the building includes an open-air trough cut away at the center of the gabled roof that allows light to penetrate through clerestory windows at the center of the building. Building A is entirely clad in stucco except for the recessed entry area on the north (main) elevation (Figure 3), which contains sienna-colored concrete masonry units (CMU) arranged in square columns and set in a simple checkerboard relief pattern astride the primary entrance doors (Figure 4).

Fenestration across the building consists of repeating groups of metal framed windows in various sizes and arrangements. Some windows feature operable lower sections, while others are fixed, and some window groups project slightly from the flat surface of the building (Figure 5). The west, south (rear) and east elevations of the building feature horizontal, metal brise soleils that shade the windows (Figure 6). In the space below the gable on the east elevation, a projecting concrete border frames the access door and a slatted screen leading to the recessed light trough at the running through the center of this section of the building (Figure 7).

A wide, covered walkway supported by concrete columns extends from the central section of the south (rear) elevation and connects with Building B's west elevation (Figure 8).

## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 5 of 13



Figure 2. Western half of the north (main) elevation, looking SE (DSCN3867)



Figure 3. South (rear) elevations of Building A showing roof heights and types, looking NE (DSCN3785)

## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 6 of 13



Figure 4. Recessed entry on the north (main) elevation showing sienna CMU details, looking SE (DSCN3750)



Figure 5. Protruding windows on east-facing section of rear elevation, looking NW (DSCN3793)



## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 7 of 13



Figure 6. Brise soleils on south and east elevations, looking NW (DSCN3801)



Figure 7. North (main) and east elevation showing protruding framed entry, looking SW (DSCN3853)

## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 8 of 13



Figure 8. Covered Walkway connecting Buildings A and B, looking N towards Building A (DSCN3790)

### **Building B: Rear Building**

Building B is a one-story, rectangular building designed in the Mid-Century Modern style with some elements of the International Style. It is sited to the south of Building A, and connected to the central section of Building A via a covered walkway that is affixed to the western entrance of Building B (Figure 9). The gabled roof structure is clad in grey rolled composition roofing material and features an open-air trough cut away at the center of the gabled roof that allows light to penetrate through clerestory windows at the center of the building. Building B is entirely clad in stucco. Fenestration across the building consists of repeating groups of metal framed windows in various sizes and arrangements (Figure 10). Some windows feature operable lower sections, while others are fixed. The south (rear) elevation of the building features horizontal, metal brise soleils that shade the windows from direct exposure to the sun (Figure 11). Beneath the gable end on the east elevation, a slatted screen reveals the recessed central channel of the building. Below, a cantilevered overhang protects the double entry doors (Figure 12).

## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 9 of 13



Figure 9. Western elevation showing covered walkway connection, looking E (DSCN3822)



Figure 10. North east elevation showing window configurations, looking SW (DSCN3816)



## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 10 of 13



Figure 11. South elevation view showing brise soleils, view looking NW (DSCN3790)



Figure 12. East elevation showing slatted screen and cantilevered overhang above the double entry door, looking NW (DSCN3837)

## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 11 of 13

### \*B10. Significance:

#### NRHP/CRHR Statement of Significance

Criterion A/1: That are associated with events that have made a significant contribution to the broad patterns of our history.

The Bidwell School buildings located on Property 1 were constructed in the mid-1950s during the Post World War II population boom and suburban expansion that occurred in cities throughout the Nation and in the State of California following World War II. The national rate of marriage and births increased exponentially during the post-war period, with nearly 2.8 million new households being established during the first two years after the war alone (Caltrans 2011: 15). In Hayward specifically, the population more than doubled between 1940 to 1950 from 6,736 to 14,272 residents, with this number increasing fivefold by 1960 to 72,700 residents (Bay Area Census 2019). In response to the evident need for housing and associated neighborhood amenities throughout Hayward, the developing company, the Oliver Rousseau Organization, subdivided multiple new residential neighborhoods in Hayward during the 1950s, including the neighborhood in which Property 1 is located, Fairway Park. The population surge in these outlying neighborhoods resulted in an influx of new students requiring adjacent educational institutions. The community responded with passage of tax measures and bond elections related to schools during this timeframe, resulting in simultaneous school development during the post-war period throughout the City of Hayward.

As such, the Bidwell School was just one of multiple elementary schools developed in designated greenspaces in these new, post-WWII suburban neighborhoods during the 1950s. Other nearby examples in Hayward displaying similar development patterns include the Hillview-Crest Elementary School, also located in Fairway Park (0.6-mi from Property 1) and completed in 1953, and the Treeview Elementary School located in the Mission-Garin neighborhood (0.7-mi from Property 1) completed in 1960 (Oakland Tribune 1953: 16; 1960: 38).

Other than being one of many representations of incremental development of education institutions supporting residential suburban growth in this area during the 1950s, the property is not otherwise associated with any local, state, or national historical events. The Bidwell Elementary School is one of many schools established in similar neighborhoods throughout the Hayward area during the same timeframe. Archival research did not indicate that the Bidwell School was the first or last such campus to be developed, and as the school was established in the park following the completion of the Fairway Park neighborhood, the school cannot be seen as the stimulus for the initial development of the Fairway Park neighborhood. Therefore, is not known to be directly associated with events that have made a significant contribution to the history of the City of Hayward, Alameda County, the State of California, or the Nation. Therefore, the property does not appear to meet Criterion A of the NRHP, Criterion 1 of the CRHR.

Criterion B/2: That are associated with the lives of persons significant in our past.

To be found eligible under B/2 the property has to be directly tied to an important person and the place where that individual conducted or produced the work for which he or she is known. Although the school was named after George and Nellie Bidwell, they were pioneering residents of Alameda County, as such have no direct connection to the campus, Archival research failed to identify any associations with significant persons who were involved in the effort to develop the Bidwell School nor did the research indicate the school was the site of any individual's important historic work in the context of the City of Hayward, the County of Alameda, the State of California or the Nation. Due to a lack of identified significant associations with important persons in history, the subject property does not appear eligible under NRHP/CRHR Criterion B/2.

Criterion C/3: That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic



## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 12 of 13

values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

The Bidwell School buildings are modest Mid-Century Modern- style schools with International elements. Architecturally, the school campus buildings do not appear to be important for their design or construction value. Although the building convey some distinctive elements of the Mid-Century Modern and International styles including: cantilevered overhangs; flat, shed or low-pitched gable roof forms; vaulted roofs and overhangs; stucco siding; stacked brick or CMU; projecting vertical elements; large steel- or wood-framed windows; brise de soleils; and repeating patterns of fenestration. Despite the inclusion of these key elements, the design of the buildings is relatively unexceptional in consideration of the large body of excellent, surviving examples of each style located within the City of Hayward, Alameda County, and the State of California overall.

The buildings were designed by Oakland architects, Anderson and Simonds, and constructed by the Hayward contractor, Wallace Webb & Son, in 1956. At the time of its completion the school contained, "...seven classrooms, a multipurpose room and administrative space to accommodate 250 pupils (Daily Review 1955: 9)." The firm, Anderson and Simonds, was formed in 1945 by architects James Harlow Anderson and George Patton Simonds, and quickly became known for their school designs throughout the State. The firm was commissioned by the Hayward Elementary School District to design multiple new schools in the Hayward Elementary School District in 1946, designing 18 Hayward Elementary and six Hayward High Schools during the course of their partnership (Daily Review 1946: 1). They were also responsible for the design of approximately 40 other school campuses in counties throughout California (Oakland Tribune 1961: 61). For these reasons, Anderson and Simonds are recognized as ostensibly influential architects whose work is considered regionally significant in the context of Hayward, Alameda County and post-war Bay-area architecture. Simonds in particular is considered a prominent Bay-area architect, and is able to rise to the level of master architect because he is well recognized and awarded within the field of architecture for his contributions to the integration of seismic engineering standards in architecture.

Although the Bidwell School buildings display elements of Anderson and Simonds signature design aesthetic, and constitute an example of a design by a regionally significant architectural firm, the existence of other, more illustrative examples of their designs for the same use within the same geographic location that are still in operation today as educational facilities, indicates that the Bidwell School buildings are not notable, unique, or distinctive examples of their work. As such, these school buildings do not possess characteristics that suggest they are important examples of the variation, evolution, or transition of school construction in the Hayward area. Lacking architectural distinction, the subject buildings do not appear to meet NRHP Criterion C or CRHR Criterion 3.

Criterion D/4: That have yielded, or may be likely to yield, information important in prehistory or history.

The subject property does not appear to be significant as a source, or likely source, of important historical information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies.

### **City of Hayward Statement of Significance**

As the City of Hayward criteria mirrors the NRHP/CRHR criteria, for all of the reasons detailed in the NRHP/CRHR evaluation above, the subject properties do not appear eligible under any of the City of Hayward's designation criteria.

### **Evaluation Summary**

National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation

## CONTINUATION SHEET

Property Name: Bidwell Elementary School

Page 13 of 13

(2002) states that the integrity of a property is based upon the historical significance and character defining features of that property, and that "only after significance is fully established can you proceed to the issue of integrity." Upon conclusion that Bidwell School buildings located within Bidwell Park do not meet any of the required criteria for significance, the property's current state of integrity is inconsequential. As such, no assessment of integrity is provided in this evaluation.

The Bidwell School buildings located within the Property 1 do not appear to be eligible for listing in the NRHP or the CRHR due to their lack of historical and architectural significance. As such, the current evaluation has assigned a 6Z California Historical Resource Status Code to the property (6Z: Found ineligible for NR, CR, or Local designation through survey evaluation). Additionally, the property was evaluated in accordance with Section 15064.5(a) (2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Resources Code, and it does not appear to be a historical resource for the purposes of CEQA.

### \*B12. References:

- Bay Area Census. 2019. "Hayward." Accessed September 3, 2019.  
<http://www.bayareacensus.ca.gov/cities/Hayward50.htm#1940>
- Caltrans (California Department of Transportation). 2011. "Tract Housing in California, 1945-1973: A Context for National Register Evaluation." Sacramento, CA: Cultural Studies Office, Caltrans Division of Environmental Analysis.  
<http://www.dot.ca.gov/ser/guidance.htm#tracthouse>
- Daily Review. 1946. "Architects Engaged; Board Votes Sale of Markham Property." Newspapers.com: Daily Review (Hayward, California). February 14, 1946: 1.
- Daily Review. 1955. "New \$226,000 Bidwell School Is Underway." Hayward Area Historical Society. Daily Review (Hayward, California). November 28, 1955: 9.
- Dudek. 2020. Cultural Resources Technical Report For The Bidwell And El Rancho Verde Parks Master Plan, Cities Of Hayward And Union City, Alameda County, California.
- NPS (Nation Park Service, U.S. Department of the Interior). 2002. National Register Bulletin: Technical Information on the National Register of Historic Places: Survey, Evaluation, Registration, and Preservation of Cultural Resources. How to Apply the National Register Criteria for Evaluation. Accessed July 2019.  
<https://www.nps.gov/nr/publications/bulletins/pdfs/nrb15.pdf>.
- Oakland Tribune. 1953. "Opening Delayed." Newspapers.com: Oakland Tribune (Oakland, California). January 13, 1955: p.16.
- Oakland Tribune. 1960c. "Alameda County School Building Program Shows No Letup in 1960." Newspapers.com: Oakland Tribune (Oakland, California). January 7, 1960: 38.
- Oakland Tribune. 1961. "Architect Practices What He Preaches." Newspapers.com: Oakland Tribune (Oakland, California). January 26, 1961: 61.

# Appendix D

---

## Native American Coordination Documentation

# **Sacred Lands File & Native American Contacts List Request**

## **Native American Heritage Commission**

1550 Harbor Blvd, Suite 100

West Sacramento, CA 95691

916-373-3710

916-373-5471 – Fax

[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

*Information Below is Required for a Sacred Lands File Search*

**Project: Bidwell & El Rancho Verde Parks Project (Dudek #12036)**

**County: Alameda**

**USGS Quadrangle Name: Newark, CA**

**Township: 4 South; Range: 2 West; Section(s): 1**

**Company/Firm/Agency: Dudek**

**Street Address: 1630 San Pablo Avenue**

**City:Oakland Zip: 94612**

**Phone: 760-334-1156**

**Fax: N/A**

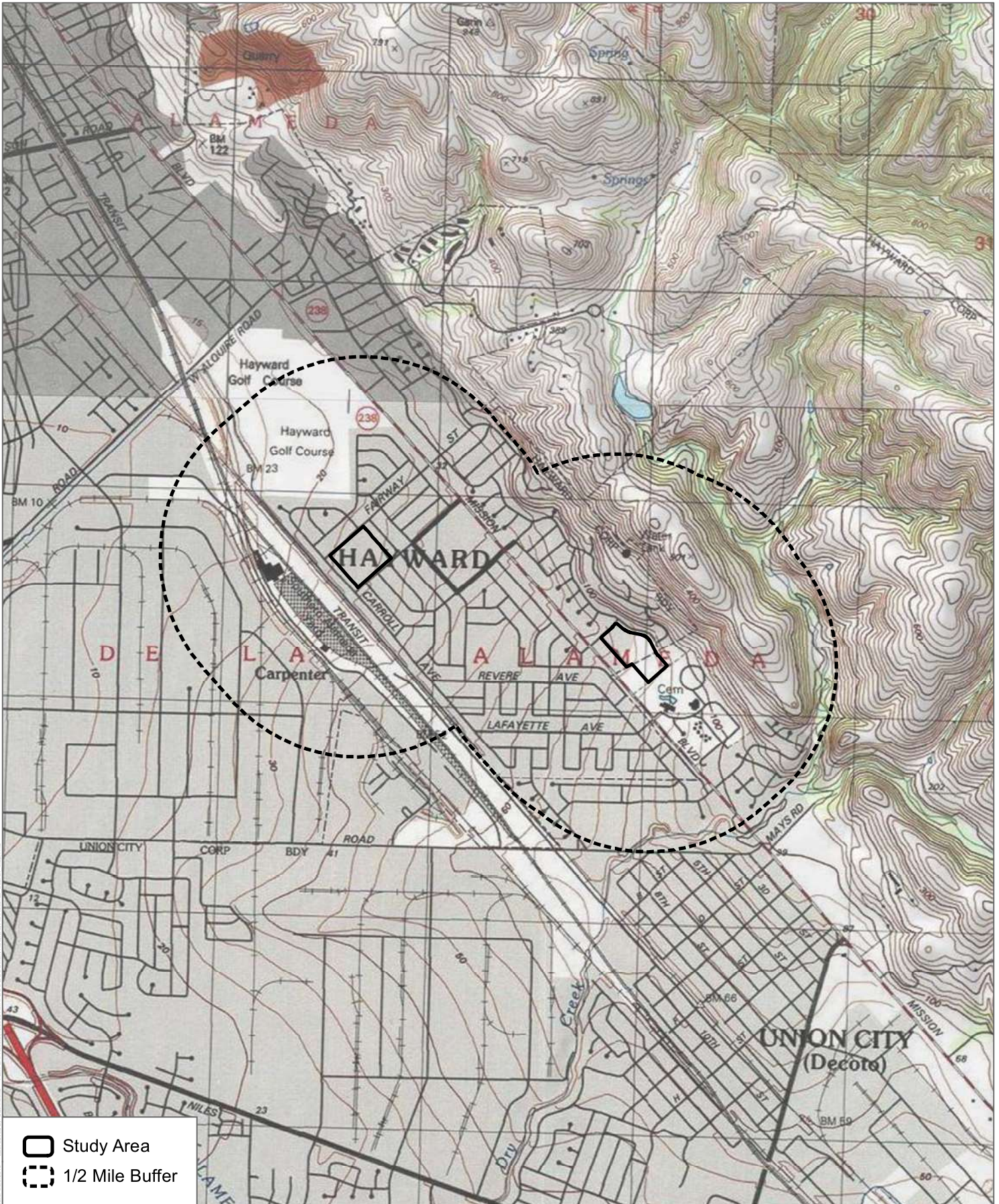
**Email: [wburns@dudek.com](mailto:wburns@dudek.com)**

### **Project Description:**

The Bidwell Park and School site is a 10.5-acre area which is currently owned by the Hayward Unified School District (HUSD). The Hayward Area Recreation and Park District is in the process of purchasing the northern half of the site, approximately 5-acres, including the school buildings and other amenities. The District desires to develop a park master plan for the entire 10.5-acre site that considers the current and potential future uses of the combined sites.

El Rancho Verde Park is an existing 3.1-acre park located Trevor Avenue in Union City at the southernmost border of the District. It consists of two ball fields and a snack bar and restroom building. The park needs a major renovation to upgrade the sports fields and facilities.





SOURCE: USGS 7.5-Minute Series Hayward & Newark Quadrangles  
 Township 3S, 4S; Range 2W, 1W; Sections 1, 2, 6, 7, 12, 31, 35, 36



**DUDEK**

Records Search

Bidwell and El Rancho Verde Park





**Native American Heritage Commission  
Native American Contacts List  
October 3, 2019**

Amah Mutsun Tribal Band of Mission San Juan Bautista  
Irene Zwierlein, Chairperson  
789 Canada Road  
Woodside CA 94062  
amahmutsuntribal@gmail.com  
(650) 851-7489 Cell  
(650) 332-1526 Fax

Ohlone/Costanoan

The Confederated Villages of Lisjan  
Corrina Gould, Chairperson  
10926 Edes Avenue  
Oakland CA 94603  
corrinagould@gmail.com  
(510) 575-8408

Ohlone/Costanoan

Costanoan Rumsen Carmel Tribe  
Tony Cerda, Chairperson  
244 E. 1st Street  
Pomona CA 91766  
rumsen@aol.com  
(909) 524-8041 Cell  
(909) 629-6081

Ohlone/Costanoan

The Ohlone Indian Tribe  
Andrew Galvan  
P.O. Box 3388  
Fremont CA 94539  
chochenyo@AOL.com  
(510) 882-0527 Cell  
(510) 687-9393 Fax

Ohlone  
Bay Miwok  
Plains Miwok  
Patwin

Indian Canyon Mutsun Band of Costanoan  
Ann Marie Sayers, Chairperson  
P.O. Box 28  
Hollister CA 95024  
ams@indiancanyon.org  
(831) 637-4238

Ohlone/Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area  
Charlene Nijmeh, Chairperson  
20885 Redwood Road, Suite 232  
Castro Valley CA 94546  
cnihmeh@muwekma.org  
(408) 464-2892  
(408) 205-9714

Ohlone / Costanoan

North Valley Yokuts Tribe  
Katherine Erolinda Perez, Chairperson  
P.O. Box 717  
Linden CA 95236  
canutes@verizon.net  
(209) 887-3415  
(209) 649-8972

Ohlone/Costanoan  
Northern Valley Yokuts  
Bay Miwok

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed:  
Bidwell & El Rancho Verde Parks Project (Dudek #12036), Alameda County.