

**Indian Valley Campus  
Jonas Community Center and Miwok Wellness  
Center Projects  
Initial Study and  
Proposed Mitigated Negative Declaration**

The following Initial Study has been prepared in compliance with the  
California Environmental Quality Act.

**Prepared For:**

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## INTRODUCTION

### Initial Study

Pursuant to Section 15063 of the *California Environmental Quality Act (CEQA) Guidelines* (Title 14, California Code of Regulations, Sections 15000 et seq.), an Initial Study is a preliminary environmental analysis that is used by the lead agency (the public agency principally responsible for approving or carrying out the proposed project) as a basis for determining whether an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration is required for a project. The *State CEQA Guidelines* require that an Initial Study contain a project description, description of environmental setting, identification of environmental effects by checklist or other similar form, explanation of environmental effects, discussion of mitigation for significant environmental effects, evaluation of the project's consistency with existing, applicable land use controls, and the name of persons who prepared the study.

The purpose of this Initial Study is to evaluate the potential environmental impacts of the proposed Jonas Community Center and Miwok Wellness Center Projects ("proposed projects") to determine what level of additional environmental review, if any, is appropriate. As shown in the Determination in Section IV of this document, and based on the analysis contained in this Initial Study, it has been determined that the proposed projects would not result in any significant impacts that cannot be mitigated to less than significant levels. The analysis contained in this Initial Study concludes that the proposed projects would result in the following categories of impacts, depending on the environmental resource involved: no impact; less than significant impact; or less than significant impact with the implementation of project-specific mitigation measures. Therefore, preparation of a Mitigated Negative Declaration is appropriate (the Proposed Mitigated Negative Declaration is presented in **Appendix A**).

### Public and Agency Review

This Initial Study/Proposed Mitigated Negative Declaration will be circulated for public and agency review from July 6, 2018 to August 6, 2018. Copies of this document are available for review at the Indian Valley Campus Library, 800 Ignacio Blvd, Novato, California, and on the District's website at <http://www1.marin.edu>. Comments on this Initial Study/Proposed Mitigated Negative Declaration must be received no later than 5:00 PM on August 6, 2018 and can be mailed or emailed to:

Greg Nelson  
Vice President for Finance & College Operations  
Marin Community College District  
835 College Avenue  
Kentfield, CA 94904  
GNelson@marin.edu

## **Organization of the Initial Study**

This Initial Study is organized into the following sections.

**Section I – Project Information:** provides summary background information about the proposed projects, including project location, lead agency, and contact information.

**Section II – Project Location and Description:** includes a description of the proposed projects, including the need for the projects, the project objectives, and the elements included in the projects.

**Section III – Environmental Factors Potentially Affected:** identifies what environmental resources, if any, would involve at least one significant or potentially significant impact that cannot be reduced to a less than significant level.

**Section IV – Determination:** indicates whether impacts associated with the proposed projects would be significant, and what, if any, additional environmental documentation is required.

**Section V – Evaluation of Environmental Impacts:** contains the Environmental Checklist form for each resource and presents an explanation of all checklist answers. The checklist is used to assist in evaluating the potential environmental impacts of the proposed projects and determining which impacts, if any, need to be further evaluated in an EIR.

**Section VI – Supporting Information Sources:** lists references used in the preparation of this document.

**Section VII – Initial Study Preparers:** lists the names of individuals involved in the preparation of this document.

**Appendices:** present the technical studies used in the preparation of this Initial Study.

## **I. PROJECT INFORMATION**

1. Project title:

Jonas Community Center and Miwok Wellness Center Projects

2. Lead agency name and address:

Marin Community College District  
835 College Avenue  
Kentfield, CA 94904

3. Contact person and phone number:

Greg Nelson  
Vice President for Finance & College Operations  
(415) 884-3101

4. Project location:

Indian Valley Campus  
1800 Ignacio Boulevard, Novato, CA 94949

5. Project sponsor's name and address:

Same as Lead Agency

6. City of Novato General Plan Designation:

Community Facility

7. City of Novato Zoning:

Community Facility

## II. PROJECT LOCATION AND DESCRIPTION

### 1. Description of Project:

**Location:** The Indian Valley Campus is one of two campuses owned and operated by the Marin Community College District. The Indian Valley Campus is located in the southwestern portion of Novato in northern Marin County. The location of the campus within Marin County and the City of Novato is shown in **Figure 1, Regional and Site Location**. The campus is accessed via Ignacio Boulevard, which intersects U.S. Highway 101 to the east. The campus is located at the western terminus of this roadway.

**Existing Conditions:** The Indian Valley Campus encompasses approximately 333 acres. Of the total acreage, only 87 acres are developed with college facilities. The Indian Valley Campus includes approximately 208,050 gross square feet (gsf) of building space in 27 buildings. In Spring 2015, the campus had an enrollment of approximately 1,150 students (COM 2015). Ignacio Creek forms a major natural feature that flows through the center of the campus. Numerous pedestrian and service vehicular bridges provide access across the creek to the main campus. A majority of the buildings on the campus are located south of the creek while all parking is located to the north of the creek. The buildings on the campus are sited in four clusters that are connected via a pedestrian pathway network. The corporation yard, swimming pool, and sports fields are located in the western part of the campus.

A perimeter road, with restricted access, encircles the majority of campus buildings and other facilities with the exception of the corporation yard, sports fields, and hard courts, which are located west of the Ignacio Boulevard terminus.

The campus has extensive tree coverage. Oak and bay-covered hillsides surround the main campus and form a “bowl” around the western portion of the campus, which serves as the main watershed of Ignacio Creek.

**Project Features and Operations:** The College of Marin Facilities Master Plan (FMP) 2016-2021 includes a number of improvements for the Indian Valley Campus. The improvements contained in the FMP address current and projected needs on the Indian Valley Campus through 2021 and would serve the existing student population as well as the existing community population within the City of Novato and Marin County. No substantial increase in student population on campus and community population off campus is expected to occur due to the implementation of the FMP.

The College approved three of the FMP improvement projects in November 2017. These projects included an outdoor amphitheater, classrooms and other facilities at the Organic Farm site, and demolition of two buildings at the Ohlone Cluster. The demolition of the two buildings at the Ohlone Cluster was completed in late 2017 while the classrooms and other facilities at the Organic Farm site were recently completed; the outdoor amphitheater has been put on hold indefinitely due to a lack of funds.

The College plans on constructing two more of the improvement projects listed in the FMP over the next 12-24 months. The remaining improvement projects listed in the FMP are not scheduled for implementation at this time and will undergo separate environmental review in the future. The proposed projects for purposes of CEQA include two improvement projects scheduled for implementation at this time. The location of each of the improvement projects on the campus is provided in **Figure 2, Aerial View – Indian Valley Campus**. A detailed description of each improvement project is provided below:

- **Jonas Community Center** – This improvement project is located in the central portion of the campus north of the Career Study Center, south of Ignacio Creek, and west of the Administrative Services buildings. The facility would provide meeting space for a minimum of 250 people and include a raised stage, state-of-the-art audio and visual equipment, commercial equipment and counter area, patio or deck areas, and at least one room for flex space.

This project is a joint-venture between the College of Marin and the Rotary Club of Novato with the College hosting the center and the Rotary Club contributing funds for the construction of the facility. In return the Rotary club will have use of the center rent-free for its weekly lunch meetings and other activities. The College will have use of the center during non-Rotary Club times and will be responsible for scheduling the facility's use.

As shown in **Figure 3, Aerial View –Jonas Community Center Site**, the project site is located within the former Ohlone cluster. Since the aerial was taken, two of the structures have been demolished (Buildings 19 and 20) with only the foundation of one structure (Building 20) remaining. The remaining structure (Building 18) is still present on the project site and is currently vacant. Building 18 includes approximately 2,000 square feet of space. As indicated in **Figure 4, Proposed Site Plan – Jonas Center Community Facility**, Building 18 would be renovated as part of the project while a new building would be constructed on the foundation Building 20. The new building would include a total of about 5,635 square feet and be approximately 30 feet in height. Overall the Jonas Community Center would include 7,635 square feet of space, including a 4,966 square foot banquet hall and 1,038 square foot production kitchen. A parking lot that would provide 17 regular parking spaces and three accessible parking spaces would be constructed on the site of Building 19. Additional parking for events will be available in the existing Parking Lot 4 to the north across Ignacio Creek. Although not a part of the project at this time, the College does plan on constructing a pedestrian foot bridge from Parking Lot 4 to the Jonas Center in the future.

Approximately four to eight community events (including Rotary Club meetings) would take place in the facility per month. Most of these community events would take place during the day time. It is expected that evening events at the facility would be held less than once per month. It is also expected that attendees would come from the local community and other communities within Marin County. The College plans on holding four to six events at the facility per month. Events will be held in both the daytime and evening hours and will be attended by existing students.



- **Miwok Wellness Center**– This improvement project is located in the south central portion of campus south of the Administrative Services buildings, east of the Pomo cluster, and west of the Career Study Center. The project would support wellness, kinesiology, aquatics, and athletics programs for students and the surrounding community. The facility would include an Olympic-sized swimming pool and lap pool, a workout room, and a fitness center. Locker rooms, classrooms, offices, a lobby, and space for storage would also be included in the facility. The proposed pools will replace the existing pool located approximately 900 feet to the northwest of the site. The existing pool currently serves about 200 to 250 students and community members (i.e., swim clubs) per day.

As shown in **Figure 5, Aerial View –Miwok Wellness Center Site**, four existing buildings (Buildings 13-16) are located on the project site. These buildings would be demolished as part of the project. The buildings are almost entirely vacant (85 percent) and provide approximately 27,100 square feet of space. The uses that still remain in the buildings are art and farming classes. The art classes will move into the Pomo cluster while the farming classes will move into new class rooms on the Organic Farm site that have recently been completed.

The proposed project would construct a new main building in the northern portion of the site that would include approximately 14,228 square feet of space and would be 18 feet in height. As shown on **Figure 6, Proposed Site Plan – Miwok Wellness Center**, the fitness center would be housed in this building. The Olympic-sized swimming pool and lap pool would be located to the south of the main building. A second small building for pool materials storage and mechanical equipment would be constructed to the south of the pools and would include approximately 1,712 square of space and would be 16 feet in height.

The new facility is expected to serve 200 to 300 students and community members (including existing pool users) per day for a net increase of up to 100 users per day; approximately 50 to 75 users (i.e., 25 percent) will be new to the campus. In addition, special events, such as swim meets, will also be held at the center six to eight times per season. These meets will typically be held on Saturdays and will include up to 500 athletes and spectators.

## 2. **Surrounding Land Uses and Environmental Setting:**

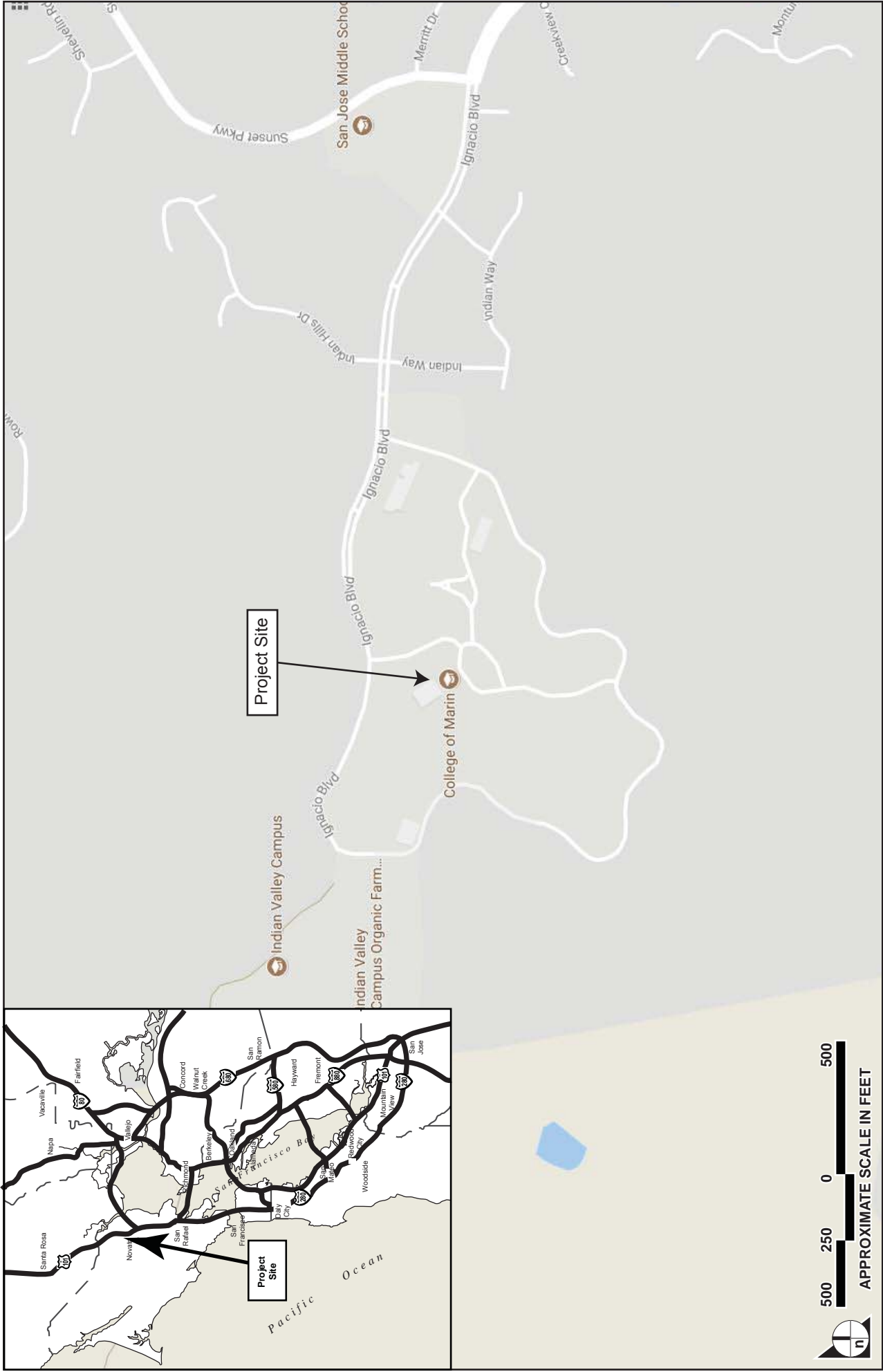
The Indian Valley Campus is surrounded by open space and residential development. A dense residential area that includes both single-family and multi-family residential development, a park and a middle school is located to the east of the campus. Open space that is owned and maintained by both private and public entities is located to the north, south and west.

## 3. **Discretionary approval authority and other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

As a public agency principally responsible for approving or carrying out the proposed projects, the Marin Community College District is the Lead Agency under CEQA. The Marin Community College District Board of Trustees would be responsible for reviewing and certifying the adequacy of the environmental document and approving the proposed project.

The following additional agencies would be involved in discretionary approvals and permits required for various project components:

- The **Division of State Architect (DSA)** reviews community college project designs to determine compliance with the California Building Code (CBC), fire safety, and Americans with Disabilities Act (ADA) requirements.
- The **State Fire Marshal's Office** has delegated fire code regulatory responsibilities for community college facilities to DSA.



SOURCE: Google Earth, 2018

FIGURE 1

# Regional and Site Location



1304-003-06/18



SOURCE: Google Earth, 2018

FIGURE 2

## Aerial View – Indian Valley Campus



NOT TO SCALE

SOURCE: Google Earth, 2018

FIGURE 3

## Aerial View – Jonas Community Center Site

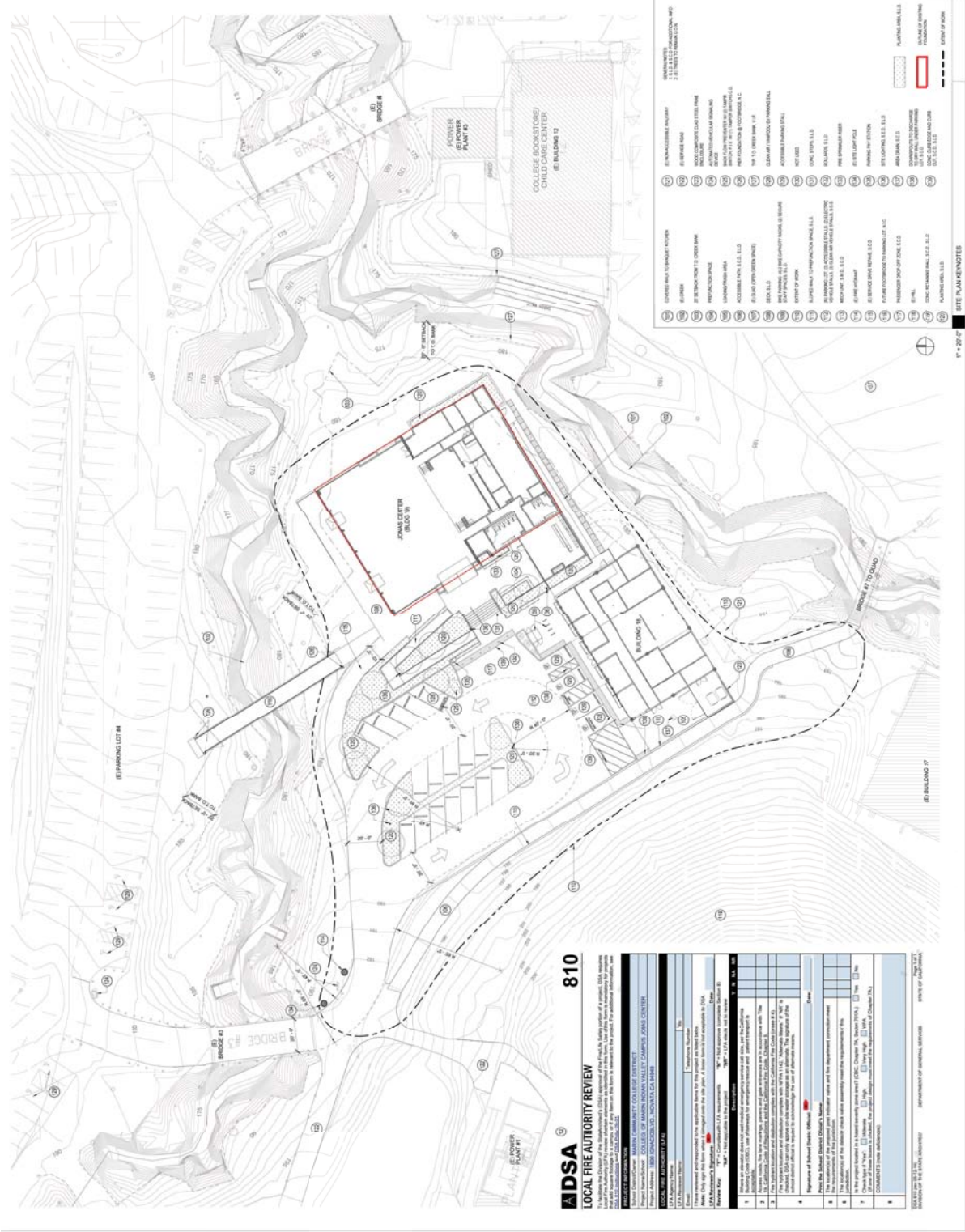


FIGURE 4

Proposed Site Plan - Jonas Center Community Facility

**DSA 810**

**LOCAL FIRE AUTHORITY REVIEW**

FOR THE CITY OF MARIETTA, GEORGIA

PROJECT: JONAS CENTER COMMUNITY FACILITY

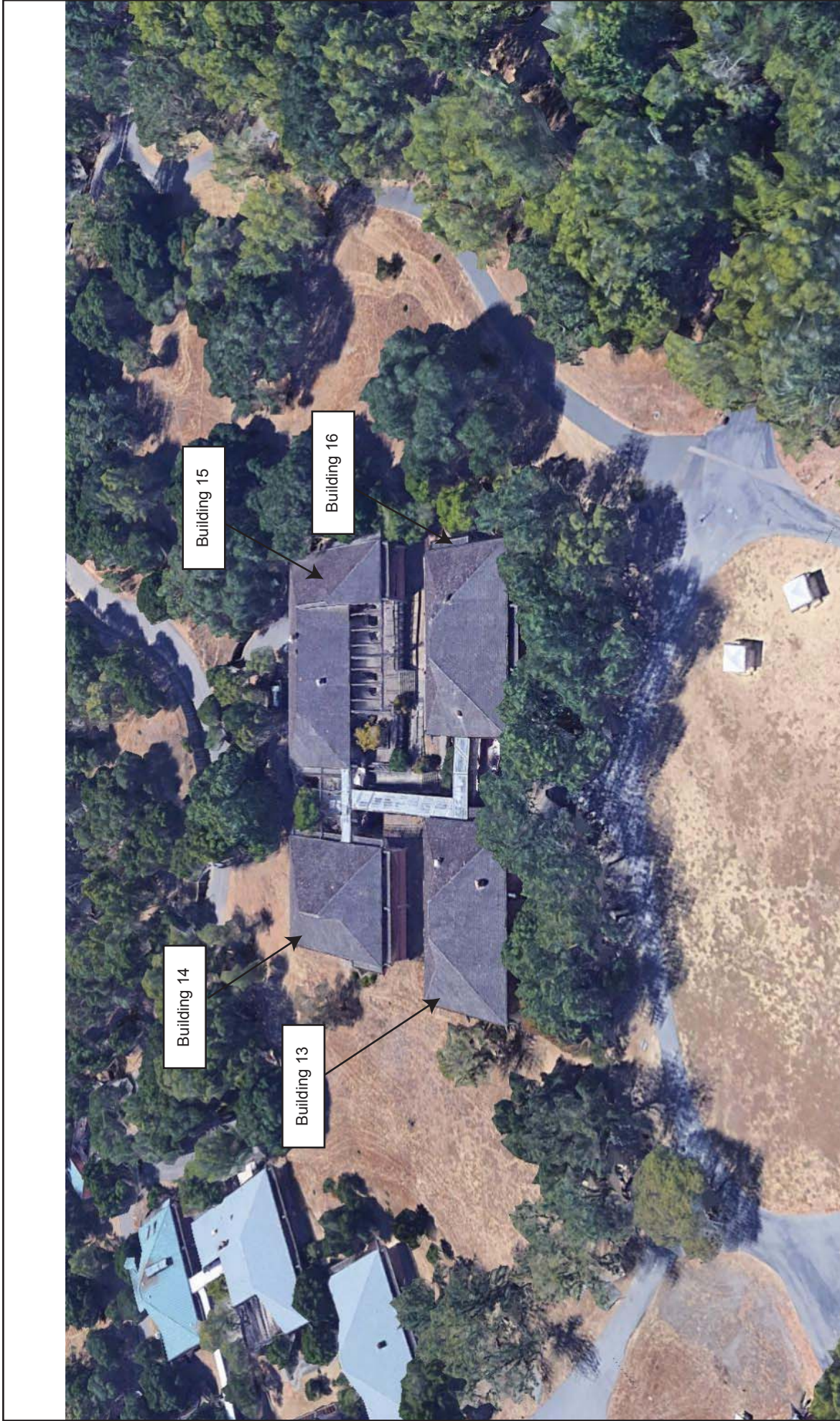
OWNER: COLLEGE OF MARIETTA

DATE: 10/15/2017

REVISIONS:

NO.	DESCRIPTION	DATE
1	Initial Review	10/15/2017
2	Revised Review	10/25/2017
3	Final Review	11/05/2017
4	Final Review	11/15/2017
5	Final Review	11/25/2017
6	Final Review	12/05/2017
7	Final Review	12/15/2017
8	Final Review	12/25/2017
9	Final Review	01/05/2018
10	Final Review	01/15/2018
11	Final Review	01/25/2018
12	Final Review	02/05/2018
13	Final Review	02/15/2018
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51	Final Review	03/05/2019
52	Final Review	03/15/2019
53	Final Review	03/25/2019
54	Final Review	04/05/2019
55	Final Review	04/15/2019
56	Final Review	04/25/2019
57	Final Review	05/05/2019
58	Final Review	05/15/2019
59	Final Review	05/25/2019
60	Final Review	06/05/2019

SOURCE: Brick, Inc., 2017



NOT ACCORDING TO SCALE

SOURCE: Google Earth, 2018

FIGURE 5

Aerial View - Miwok Wellness Center Site





### **III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

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

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


#### IV. DETERMINATION

On the basis of the initial evaluation that follows:

- I find that the proposed project WOULD 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 would not be a significant effect in this case because revisions in the project have been made that would avoid or reduce any potential significant effects to a less than significant level. A MITIGATED NEGATIVE DECLARATION will be prepared.

- I find that the proposed project MAY have a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

 FOR  
GREG NELSON

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Greg Nelson Date 7/5/2018  
Vice President for Finance & College Operations

## **V. EVALUATION OF ENVIRONMENTAL IMPACTS**

During the completion of the environmental evaluation, the College relied on the following categories of impacts, noted as column headings in the IS checklist. All impact determinations are explained, and supported by the information sources cited.

- A) “Potentially Significant Impact” is appropriate if there is substantial evidence that the project’s effect may be significant. If there are one or more “Potentially Significant Impacts” for which effective mitigation may not be possible, a Project EIR will be prepared.
- B) “Less Than Significant With Mitigation Incorporated” applies where the incorporation of project-specific mitigation would reduce an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” All mitigation measures must be described, including a brief explanation of how the measures would reduce the effect to a less than significant level.
- C) “Less Than Significant Impact” applies where the project would not result in a significant effect (i.e., the project impact would be less than significant without the need to incorporate mitigation).
- D) “No Impact” applies where the project would not result in any impact in the category or the category does not apply. This may be because the impact category does not apply to the proposed project (for instance, the project site is not within a surface fault rupture hazard zone), or because of other project-specific factors.

## Impact Questions and Responses

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>1. AESTHETICS – Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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) Substantially degrade the existing visual character or quality of the site and its surroundings?	<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"/>

### Environmental Setting

Most of the Indian Valley Campus is located on steep terrain. The topography of the main campus generally slopes up to the south from Ignacio Creek. A dense residential area lies to the east of the campus. Open space consisting of steep hillsides covered in chaparral and oak woodlands encircle the campus on the north, west, and south. Stretching east to form part of Novato’s southwestern border, the hillsides to the south and west are designated as scenic resources in the *City of Novato General Plan (1996)* and the *Draft City of Novato General Plan 2035*. Due to the topography and the wooded nature of the area, publically accessible views of the two project sites on the campus are available intermittently from segments of nearby roadways.

### Discussion of Potential Project Impacts

a) **Less than Significant Impact.** A scenic vista is generally defined as an expansive view of highly valued landscape as observable from a publicly accessible vantage point. As discussed above, publically accessible views of the two project sites are available only intermittently from segments of nearby campus roadways due to topography and vegetation. Hillsides to the west and south are designated as scenic resources in the *City of Novato General Plan (1996)* and the *Draft City of Novato General Plan 2035*. However, as the proposed structures would only be 22- to 30-feet high and not higher than existing or former buildings on the project sites, the proposed projects would not substantially block views of the hills from nearby roadways. For these reasons, the impact of the proposed projects on scenic vistas would be less than significant.

b) **No Impact.** The campus is not located adjacent to a state scenic highway (Caltrans 2018) and does not contain scenic resources. As a result, the proposed project would have no impact with regard to this criterion.

c) *Less than Significant Impact.* The project sites are located in developed portions of the campus, and thus the proposed changes would not adversely affect the visual quality and character of the campus. Both projects would be located within the campus core with the proposed Jonas Community Center located on the site of the former Ohlone cluster in the northwestern portion of the campus and the proposed Miwok Wellness Center located on the site of the existing Miwok cluster in the southern portion of the campus. The campus is a mix of architectural styles without a dominating design or aesthetic. As such, the proposed building would be compatible with the visual character of the area, and the impact of the proposed project with regard to visual character would be less than significant.

d) *Less than Significant Impact.* Lighting associated with both projects would consist of interior and security lighting. The pool area that is a part of the Miwok Wellness Center will have deck lighting and lights in the pools; no stadium lighting is proposed. All lighting would be directed downward and thus is not expected to create substantial new illumination in the area. In addition, the nearest residences to the project sites are located approximately a half mile to the east of the closest site (Miwok Wellness Center) and thus would not be affected by the lighting associated with the proposed projects. For these reasons, potential light and glare impact generated by the proposed projects would be less than significant.

### *Discussion of Potential Cumulative Impacts*

As noted in **Section II**, the College of Marin Facilities Master Plan (FMP) 2016-2021 includes a number of improvement projects for the Indian Valley Campus. These improvements address current and projected needs on the Indian Valley Campus through 2021 and would serve the existing student population as well as the existing community population within the City of Novato and Marin County. No substantial increase in student enrollment is expected to occur due to the implementation of the FMP. The College approved three of the FMP improvement projects in November 2017 and two of the projects have been completed while the third project has been put on indefinite hold. The College plans on constructing two more of the improvement projects listed in the FMP over the next 12-24 months. The remaining improvement projects listed in the FMP are not scheduled for implementation. However, the remaining improvement projects are expected to be designed to be consistent with the existing campus setting, and thus when combined with the improvements to be constructed under the two proposed projects, would not result in adverse effects with regard to aesthetics. In addition, the remaining improvement projects listed in the 2016-2021 FMP would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts with regard to aesthetics. As a result, the cumulative impact of campus development with respect to aesthetics would be less than significant.

There are no planned or recently approved off-site developments in the immediate vicinity of the campus. The closest planned or recently approved project in the City of Novato is the Oakmont Senior Living project, located over one mile to the north of the campus at 1461 South Novato Boulevard. As a result, the visual impacts of the proposed projects would not combine with other planned or recently approved projects in the city to have a substantial adverse effect on scenic vista, scenic resources, and the existing visual character of the surrounding area. In addition, the less than significant light and glare impacts of the proposed projects would not combine with other planned or recently approved projects in the city to create new sources of substantial light or glare that may adversely affect day or nighttime views in the area. There would be no cumulative impacts with regard to aesthetics.

<b>Issues</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>2. AGRICULTURE AND FORESTRY RESOURCES –</b>				
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"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?	<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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Setting**

The campus is designated as Urban and Built-Up Land and Other Land on maps prepared by the California State Department of Conservation pursuant to the Farmland Mapping and Monitoring Program (FMMP) (FMMP 2014). The only agricultural activities on the campus occur on the Organic Farm site; no portion of the campus is devoted to large-scale agricultural use. The Natural Resources Conservation Service (NRCS) Web Soil Survey designates the soils on the campus as Not Prime Farmland. Residential areas border the campus to the east, and steep hillsides border the campus to the north, south, and west.

**Discussion of Potential Project Impacts**

a) **No Impact.** The campus is designated as Urban and Built-up Land and Other Land by the FMMP (FMMP 2014). As a result, implementation of the proposed projects would not result in the conversion of land designated either as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. There would be no impact with regard to this criterion.

b) **No Impact.** No part of the campus is under Williamson Act contract and no part of the campus is zoned for agricultural use (DOC 2014). There would be no impact with regard to this criterion.

c-d) **No Impact.** Timberland is defined in PRC Section 4526 as “land designated by the board<sup>1</sup> as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees” while forest land is defined in PRC Section 12220(g) as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.” The campus contains no mapped timberland, and although the proposed projects are located in a wooded area, both sites have been previously developed with buildings and no forest land would be converted to non-forest use with construction of the proposed projects. There would be no impacts with regard to these criteria.

e) **No Impact.** No designated farmland is present in the vicinity of the project sites. Therefore, the proposed projects would not involve any changes that could indirectly cause conversion of Farmland to non-agricultural use. There would be no impact with regard to this criterion.

### ***Discussion of Potential Cumulative Impacts***

The campus and the City of Novato are urban in nature, and do not contain designated Farmland based on maps prepared pursuant to the FMMP. As a result, the improvement projects listed in the 2016-2021 FMP, including the two proposed projects, and planned or recently approved development in the city would not result in the loss of farmland. In addition, lands on the campus and in the city are zoned for urban uses. Therefore, future development on the campus and in the city would not displace land zoned for agricultural use or forest land or timberland, and would not conflict with land under Williamson Act contract. There would be no cumulative impact with regard to agriculture and forestry resources.

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<sup>1</sup> Board of Forestry and Fire Protection

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>3. AIR QUALITY</b> – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation (e.g., induce mobile source carbon monoxide (CO) emissions that would cause a violation of the CO ambient air quality standard)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Environmental Setting

The project area is subject to air quality planning programs developed in response to both the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Marin County is in the San Francisco Bay Area Basin and is regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the Bay Area Air Quality Management District (BAAQMD).

The campus is located in the City of Novato, which is included in the San Francisco Bay Area Air Basin (SFBAAB or Air Basin). Air quality in the Air Basin is monitored by the BAAQMD and CARB. Based on pollutant concentrations measured at monitoring stations within the Air Basin, the SFBAAB is classified as being either in attainment or non-attainment of federal and state air quality standards. The Air Basin is designated nonattainment for the federal and state ozone 8-hour standard, the state ozone 1-hour standard, the state Particulate Matter 10 microns or less (PM10) standard, and the state and federal Particulate Matter 2.5 microns (PM2.5) standards. For all other pollutants, the Air Basin is in attainment or unclassified.



Some groups of people are considered more sensitive to adverse effects from air pollution than the general population. These groups are termed “sensitive receptors.” Sensitive receptors in the vicinity of the campus include residences and San Jose Middle School, which are located approximately 1,200 feet and 1,750 feet, respectively, to the east of the closest project site (Miwok Wellness Center).

The BAAQMD CEQA Air Quality Guidelines (“BAAQMD Guidelines”) set forth methodologies and quantitative significance thresholds that a lead agency may use to estimate and evaluate the significance of a project’s air emissions. The BAAQMD Guidelines present thresholds for evaluating the significance of a project’s construction-phase and operational emissions, and include numeric thresholds for criteria pollutants and health-based evaluation criteria for toxic air contaminants (TAC). The BAAQMD Guidelines do not recommend quantification of fugitive dust emissions but note that the impact from a project’s fugitive dust emissions during construction would be significant unless dust control measures and other best management practices are implemented.

### *Discussion of Potential Project Impacts*

a) *Less than Significant Impact.* The most recent clean air plan is the *Bay Area 2010 Clean Air Plan* that was adopted by the BAAQMD in September 2010. A project would be considered to conflict with or obstruct implementation of the regional air quality plans if it would be inconsistent with the emissions inventories contained in the regional air quality plans. Emission inventories are developed based on projected increases in population and vehicle miles traveled (VMT) within the region. The proposed projects would not result in an increase in campus population or population in the City of Novato or Marin County or a related increase in vehicle miles traveled within the region. Since air pollutants would be generated mainly by project grading, construction, and related vehicle trips to and from the site by construction workers and not by a permanent increase in the population of the area, the proposed projects would have a less than significant impact.

b-c) *Less than Significant Impact with Mitigation.* Implementation of the proposed projects would result in short-term emissions associated with ground disturbance and use of construction equipment and vehicles. Minimal operational emissions are anticipated after the construction activities are completed, for reasons presented below.

### **Construction**

Construction of the Jonas Community Center is anticipated to begin in March 2019 and finish in September 2020. Construction of the Miwok Wellness Center is anticipated to begin in November 2018 and finish in November 2020. The Jonas Community Center, while smaller in scale, is on a more compressed construction schedule as compared to the Miwok Wellness Center, and has more overlapping construction phases, which results in a slightly higher rate of emissions as compared to the Miwok Wellness Center. Implementation of the proposed projects would result in short-term emissions associated with ground disturbance, use of construction equipment and vehicles, and demolition activities. Emissions of criteria pollutants from construction activities were estimated using the CalEEMod model. A conservative scenario was modeled that assumed that both proposed projects would be under construction at the same time. Detailed assumptions associated with construction and demolition associated with the proposed projects is included in **Appendix B**. The estimated construction emissions are provided below in **Table 1, Estimated Daily Construction Emissions**.

**Table 1**  
**Estimated Daily Construction Emissions (pounds/day)**

	CO	NO <sub>x</sub>	ROG	PM10 (Fugitive Dust)	PM10 (Exhaust)	PM2.5 (Exhaust)
Improvement Projects						
Jonas Community Center	7	8	1	<1	1	<1
Miwok Wellness Center	6	8	1	<1	1	<1
<i>Total Average Emissions</i>	<i>13</i>	<i>16</i>	<i>2</i>	<i>&lt;1</i>	<i>1</i>	<i>1</i>
<b>Significance Thresholds</b>	<b>None</b>	<b>54</b>	<b>54</b>	<b>None</b>	<b>82</b>	<b>54</b>
Exceedance?	No	No	No	No	No	No

*Source: Impact Sciences, Inc. 2018.*

As shown in **Table 1**, the proposed projects individually and combined would not result in emissions that exceed any of the thresholds of significance for criteria pollutants. The impact from air pollutant emissions during the construction-phase of the proposed projects would be less than significant.

### ***Fugitive Dust***

As mentioned above, movement of construction equipment, especially on unpaved surfaces, during construction activities and off-haul of excavated materials (if needed) could temporarily generate fugitive dust, including PM10 and PM2.5 emissions. Unless properly controlled, vehicles leaving the sites would deposit mud on local roadways, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction sites. The BAAQMD Guidelines consider the impact from a project's construction-phase dust emissions to be less than significant if best management practices listed in the guidelines are implemented. Without these BMPs, the impact from fugitive dust emissions would be potentially significant. Thus, to ensure that construction-phase emissions are controlled and minimized, **Mitigation Measure AIR-1** is included which requires that dust control and other BMPs put forth by the BAAQMD are implemented by each proposed project.

**Mitigation Measure AIR-1:** The construction contractor(s) shall implement the following BMPs during project construction:

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

- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five 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.
- 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.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

### ***Community Health Risk***

In addition to an evaluation of the potential impacts from a project's construction-phase emissions of criteria pollutants and fugitive dust, the BAAQMD Guidelines recommend an evaluation of potential community health risk and hazards from a project's construction emissions of TACs. The proposed projects would involve the use of diesel-fueled construction equipment which would result in diesel particulate matter (DPM) emissions which are considered a TAC in the vicinity of the work areas. For assessing community risks and hazards, a 1,000 foot radius around the project boundary is recommended in the BAAQMD Guidelines. There are no sensitive receptors located on the campus. With respect to off-campus sensitive receptors such as residences and the nearest school, those are located more than 1,000 feet from where nearest project construction activities would occur. Therefore, no off-site sensitive receptors would be exposed to significant TAC emissions generated during the construction of the two projects. As a result, this impact is considered to be less than significant.

### **Operation**

Operational air emission impacts are associated with any change in permanent use of the campus, as a land use change can add new on-site stationary or area sources to the campus or increase the number of vehicles trips to and from the campus. Although there would be some energy and area source emissions associated with the new facilities, it is anticipated that the majority of operational emissions would be due to increases in vehicle trips to the project sites. It is anticipated that the Jonas Community Center would generate a maximum of approximately 167 new trips per day, and the Miwok Wellness Center would generate approximately 75 new trips per day for a combined total of 242 new trips per day. Emissions associated with project operations are shown in **Table 2, Estimated Daily Operational Emissions**, below.

**Table 2**  
**Estimated Daily Operational Emissions (pounds/day)**

	CO	NOx	ROG	PM10	PM2.5
Improvement Projects					
Jonas Community Center	4	1	1	1	<1
Miwok Wellness Center	1	<1	1	<1	<1
<i>Total</i>	6	2	1	2	<1
<b>Significance Thresholds</b>	<b>None</b>	<b>54</b>	<b>54</b>	<b>82</b>	<b>54</b>
Exceedance?	No	No	No	No	No

Source: Impact Sciences, Inc. 2018.

As shown in **Table 2**, emissions from operation of the proposed projects both individually and combined would not exceed BAAQMD significance thresholds for operational emissions. The impact from air pollutant emissions during operation would be less than significant.

d) *Less than Significant Impact.* The potential for project construction activities to affect sensitive receptors is analyzed under **Item 3(b)** above. A community health risk impact would not occur during project construction due to the distance between neighboring sensitive receptors and the project sites. Project operations are not anticipated to include any sources of TAC emissions. This impact would be less than significant.

e) *Less than Significant Impact.* The proposed project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. The odor from these emissions may be noticeable from time to time to adjacent receptors. However, they would be localized and are not likely to adversely affect people off site, and result in confirmed odor complaints. The project would not include any sources of significant odors that would cause complaints from surrounding uses. This impact would be less than significant.

### ***Discussion of Potential Cumulative Impacts***

According to the BAAQMD's Guidelines, project emissions that do not exceed the BAAQMD emission thresholds would not have a significant cumulative impact. The mass-based significance thresholds published by the BAAQMD include impacts from projected growth in the SFBAAB, so that cumulative impacts are addressed by the significance threshold. As shown in **Table 1**, above, the proposed projects would not result in emissions during construction that exceed BAAQMD emission thresholds. As shown in **Table 2**, above, the proposed projects would also not result in emissions during operation that exceed BAAQMD emission thresholds.

The recently approved improvement projects have either been completed or have been placed on indefinite hold and none of the remaining improvement projects listed in the 2016-2021 FMP are scheduled to be constructed at this time. In addition, there are no planned or recently approved off-site developments within the immediate vicinity of the campus. The closest planned or recently approved project in the City of Novato is the Oakmont Senior Living project, located over one mile to the north of

the campus at 1461 South Novato Boulevard. As a result, the proposed projects would not combine with other planned or recently approved projects on the campus or in the city to expose sensitive receptors to substantial pollutant concentrations, such as TAC emissions during construction, or objectionable odors.

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>4. 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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 applicable policies protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A Biological Habitat Evaluation was prepared for the proposed improvement projects by Vollmar Natural Lands Consulting in June 2018. The evaluation included a database search of special-status wildlife and plant species that could occur on or near the campus and a visit to each of the project sites to document existing conditions. A copy of the Biological Habitat Evaluation is provided in **Appendix C**.

## Environmental Setting

### Existing Conditions

The project sites were visited on June 8, 2018 to gain 100 percent visual coverage of each site. During the site visit, all observed flora and wildlife species, general conditions, and notable habitat features were recorded. In addition, a search was conducted for jurisdictional features (wetlands and other waters, etc.), sensitive habitats (native grasslands, etc.), and habitat potential for special-status species (nesting potential, burrows, etc.). A description of existing conditions on each of the project sites based on the site visit is presented below.

#### Jonas Community Center

The proposed Jonas Community Center would be located on the site of the former Ohlone cluster. The site includes one structure (Building 18), one building foundation (Building 20) and an open site where a third structure (Building 19) has been completely demolished. The site is bounded to the north by Ignacio Creek and to the south by a tributary that feeds into the main stem to the east of the site. A cement walkway surrounds the entire cluster. One swallow nest was observed under the eaves of Building 18.

A large portion of the site is devoid of vegetation due to the demolition of the Building 19 including the foundation. The vegetation that does exist consists of the ruderal non-native grass and herbaceous species, interspersed with occasional native grasses, that include soft chess (*Bromus hordeaceus*), rip-gut brome (*Bromus diandrus*), dallisgrass (*Paspalum dilatatum*), English plantain (*Plantago lanceolata*), storks bill (*Erodium cicutarium*), bristly ox-tongue (*Helminthotheca echioides*), wild oat (*Avena barbata*), bird's foot trefoil (*Lotus corniculatus*), rattlesnake grass (*Briza maxima*), and Italian rye (*Festuca perennis*), velvet grass (*Holcus lanatus*), rose clover (*Trifolium hirtum*), spreading hedgeparsley (*Torilis arvensis*), and Italian thistle (*Carduus pycnocephalus*). Invasive, landscape species along the border include oleander (*Nerium oleander*) and English ivy (*Hedera helix*).

The site is bordered by mature coast live oak trees, and the main stem and southern tributary channel of Ignacio Creek. The southern tributary channel contains a dry bed with incised and steep banks of about 10-15 feet. Engineered gabens reinforce a portion of the right bank. The channel is covered by a moderately dense canopy of mature bay laurel and coast live oak trees. Several tree stumps exist within and near the channel where trees have been previously cut. The mid-level canopy consists of small patches of Himalayan blackberry (*Rubus armeniacus*), California blackberry (*Rubus ursinus*), and poison oak, with monkey flower (*Diplacus aurantiacus*) and honeysuckle (*Lonicera sp.*) interspersed along the banks.

The main stem Ignacio Creek runs along the northern perimeter of the project site. The channel is covered by a similar canopy as the southern tributary, with tall mature bay laurel and California buckeye trees. There exists very little shrub canopy, with no willows present. Plants observed within the channel include Himalayan blackberry, California blackberry, horsetail (*Equisetum arvense*), as well as some rushes and sedges (*Juncus sp.*), and (*Carex sp.*). A portion of the channel is composed of crumbling rip rap, and the geomorphology of the channel displays very small, shaded pools intermittent with riffles. The maximum depth of the pools is approximately 8 inches.

### *Miwok Wellness Center*

The site of the proposed Miwok Wellness Center is located centrally along the southern side of the campus within the Miwok cluster. The site consists of four buildings that surround a landscaped courtyard. The site is bounded to the south by a paved roadway and to north by a paved walkway. The eastern and western sides of the complex are dominated by non-native annual grassland species, which appear to be regularly mowed. These grassy areas support mature trees, including coast live oak (*Quercus agrifolia*), Oregon oak (*Quercus garryana*), and buckeye (*Aesculus californica*). Species observed within this grassland include soft chess, rip-gut brome, dallisgrass, English plantain, storks bill, bristly ox-tongue, wild oat, bird's foot trefoil, rattlesnake grass, and Italian rye.

The south side of the cluster supports madrone (*Arbutus menziesii*) and bay laurel (*Umbellularia californica*) trees, with an understory of poison oak (*Toxicodendron diversilobum*), as well as a handful of native species, including elegant clarkia (*Clarkia unguiculata*), purple needle grass (*Stipa pulchra*), California oat grass (*Danthonia californica*), and squirreltail (*Elymus elymoides*). These native plants were adjacent to the cluster, occurred very sparsely and covered a small area bordering a retainer wall, suggesting they could have been part of landscaping efforts. This area is too small and sparsely populated to be treated as a sensitive habitat.

In the areas between the buildings, the vegetation community is currently unmanaged and dominated by nonnative annual plants. Plant species observed within this area included silver hairgrass (*Aira caryophylla*), wild oat, soft chess, rough dogs tail (*Cynosurus echinatus*), bristly ox-tongue, rabbitfoot grass (*Polypogon monspeliensis*), wall barley (*Hordeum murinum*), and little hop clover (*Trifolium dubium*).

The courtyard of the four existing buildings contains the same ruderal species as the surrounding areas, with coast live oak and coyote brush (*Baccharis pilularis*) scattered throughout. In addition, there were several landscaping species such as Japanese maple (*Acer palmatum*), rosemary (*Rosmarinus officinalis*), and butterfly bush (*Buddleia davidii*).

Evidence of gopher burrows was present along the walkways and adjacent grassland areas. No squirrel burrow complexes were observed on site.

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

For purposes of this evaluation, special-status wildlife species include those taxa listed or proposed for listing as Threatened or Endangered under the federal or State Endangered Species Acts, State or federal candidates for listing, State Species of Special Concern, State Fully Protected Species, federal Birds of Conservation Concern, and other species included on the California Department of Fish and Wildlife (CDFW) Special Animals List.

Based on the habitat requirements of these species, six special-status wildlife species have potential to occur on, or immediately adjacent to, the project sites. These include Cooper's hawk (*Accipiter cooperii*), oak titmouse (*Baeolophus inornatus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western red bat (*Lasiurus blossevillii*), and hoary bat (*Lasiurus cinereus*).



## Migratory and Nesting Birds

The Migratory Bird Treaty Act (16 U.S.C. 704)<sup>2</sup> and the California Fish and Game Code (Section 3503) prohibits the take of migratory birds, or disturbance to the active nests of most native birds. As referenced above, special-status bird species Cooper's hawk and oak titmouse, could nest in the trees immediately surrounding both sites. Additionally, birds including swallows and black phoebes could nest on the buildings slated for demolition or renovation. One swallow nest was observed on the remaining structure (Building 18) on the Jonas Community Center site.

## Special-Status Plant Species and Sensitive Plant Communities

For purposes of this evaluation, special-status plant species include those species that are state or federally listed as Rare, Threatened or Endangered; federal candidates for listing, proposed for state or federal listing; or included on Lists 1, 2, 3, or 4 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plant of California (CNPS Inventory).

No special-status plant species, nor sensitive plant communities, were observed on the project sites. The project sites are mainly composed of existing building footprints, as well as a small stretch of Ignacio Creek where a footbridge leading to the Jonas Community Center would be constructed. The open areas between the buildings are mowed, planted, denuded, or otherwise in disturbed condition. These open areas are dominated by non-native species, and do not provide the habitat requirements for special-status species known from the surrounding region. Additionally, no special-status plant species were observed during the June 2018 site visit. Given the disturbed condition and lack of suitable habitat, no special-status plant species are expected to occur on the project site.

Sensitive plant communities are of limited distribution statewide or within a county or region, and may or may not support special-status species. The project sites are heavily disturbed and dominated by non-native species, with open areas occurring between buildings and access ways. Though some native plant species were observed on-site, they were in very low abundance and did not constitute a sensitive plant community.

The only area proposed for development that contains a sensitive plant community is the small area proposed for construction of a footbridge across Ignacio Creek. This area includes limited riparian vegetation, including a shrub layer comprised mainly of poison oak and blackberries, as well as a canopy of bay and oak woodland, with some trees rooted in the bank of the creek.

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<sup>2</sup> The MBTA (16 USC § 703), administered by the USFWS, states that it is unlawful to: pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver; or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product unless permitted by regulations. A December 2017 opinion from the Office of the Solicitor for the U.S. Department of the Interior (M-opinion) concluded the MBTA restrictions apply only to affirmative and purposeful actions, such as hunting and poaching that reduce migratory birds and their nests and eggs, by killing or capturing, to human control and not incidental taking. April 2018 guidance from the Principal Deputy Director of the USFWS provides further guidance on revisions to past policies and guidance regarding the MBTA. This guidance concludes the MBTA's prohibitions on take of migratory birds apply only when the purpose of the action is to take migratory birds, their eggs, or their nests.

## Wetlands or Waters of the U.S.

During the June 2018 site visit, a search was conducted for wetlands, Waters of the U.S. and waters of the state, including drainages, creeks, and streams, or any other feature that could be subject to the jurisdiction of the U.S. Army Corps of Engineers under Section 404 of the Federal Clean Water Act, or the California Department of Fish and Wildlife under Sections 1602-1603 of the California Fish and Game Code.

Ignacio Creek and tributary features occur adjacent to both project sites and these features fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps) and the California Department of Fish and Wildlife. No other potentially jurisdictional features were observed within the footprints of each project. The areas immediately surrounding downspouts from the roof gutters supported a small amount of hydrophytic vegetation, but did not possess the natural hydrology, soils, or extent of vegetation indicative of a potentially jurisdictional wetland feature. The most pronounced of these drainage areas included a small drainage located along the western side of the Miwok cluster, and terminates at the southern corner of the foundation of Building 15. This feature appears to be completely fed from a gutter downspout, and does not appear to function as a natural wetland feature.

## Discussion of Potential Project Impacts

a) *Less than Significant Impact with Mitigation.* No special-status plant species have the potential to occur on any of the project sites while six special-status wildlife species have the potential to occur on the project sites. A discussion of how the proposed projects could affect these species is provided below.

### Nesting Birds

Two special-status bird species (i.e., Cooper's hawk and oak titmouse) and several common bird species could nest on the project sites and/or in nearby areas. These species have the potential to be impacted by building demolition or renovations. In addition, construction-related noise could result in the abandonment of an active nest in trees adjacent to the project sites, including nests of special-status bird species. Therefore, in the absence of avoidance measures, the proposed projects could result in the loss of an active nest of a special-status bird species or of a species protected under the Migratory Bird Treaty Act and/or California Fish and Game Code. This represents a potentially significant impact. However, with the implementation of **Mitigation Measure BIO-1**, which requires that a pre-construction survey for nesting birds be conducted if construction occurs during nesting/breeding season, this impact would be reduced to a less than significant level.

**Mitigation Measure BIO-1:** A pre-construction survey for nesting birds shall be conducted by a qualified biologist within two weeks prior to start of construction activities, if activities are to occur within nesting/breeding season of native bird species (February-August). If active nests are identified within 300 feet of construction, and would be exposed to prolonged construction-related noise, a buffer shall be implemented around nests during the breeding season, or until a biologist determines the young have fledged. The size of the buffer will depend on the multiple factors, including relative change in noise and disturbance during construction activity, amount of vegetative screening between activity and nest, and sensitivity of species. The qualified biologist will identify the appropriate buffer size and monitor implementation and compliance.

## Bats

Special-status bat species have the potential to be impacted by the project activities (building renovation and demolition and removal of trees), or construction-related noise. Therefore, in the absence of avoidance measures, construction of the proposed projects could result in harm to roosting bats. This represents a potentially significant impact. However, with the implementation of **Mitigation Measure BIO-2**, which requires that pre-construction assessment of buildings slated for demolition or remodel, and of any large tree to be removed, be conducted, this impact would be reduced to a less than significant level.

**Mitigation Measure BIO-2:** A pre-construction assessment of buildings slated for demolition or remodel shall be conducted by a qualified bat biologist. If no bats or signs of roosting are observed, no further action is necessary. If bats or signs of bats are observed, a qualified bat biologist shall prepare specific recommendations to cause bats to abandon the roost, or be evicted humanely.

If any large trees will be removed or directly impacted by the construction activities, the potential of these trees to provide suitable roosting habitat shall also be assessed, and a roosting bat protection plan shall be implemented.

b) *Less than Significant Impact.* As no sensitive plant communities were observed on the project sites, there would be no impact on sensitive plant communities from the construction of the proposed facilities. The construction of the small footbridge across Ignacio Creek would require the removal of a limited amount of riparian vegetation. However due to the small acreage affected, the impact would be less than significant. Furthermore, as the footbridge construction may require a Notification of a Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code, the permit would require that upon completion of bridge installation, the disturbed riparian habitat be restored and the loss of riparian area be compensated by the Campus. This would further reduce the project's less than significant impact on riparian habitat.

c) *Less than Significant Impact.* As there are no jurisdictional waters present on the two project sites, there would be no impact to jurisdictional waters from the construction of the proposed facilities. At the present time, it is anticipated that the proposed footbridge across Ignacio Creek would clear span the creek and it is not expected to affect the bed and bank of the creek and therefore not affect jurisdictional waters or require permits from Corps or the Regional Water Quality Control Board. However, should the bridge design change such that the bed and bank of the creek would be affected, due to the small size of the bridge, the total amount of fill to be placed within jurisdictional waters would not be substantial and the impact would be less than significant. Furthermore, the Campus will obtain appropriate permits from the Corps, Regional Board, and CDFW and comply with permit requirements. This would further reduce the project's less than significant impact on jurisdictional waters.

d) *Less than Significant Impact.* Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or manmade obstacles such as urbanization. The project sites are located on a college campus and the proposed structures would be constructed near existing buildings. Therefore, the proposed projects would not substantially interfere with the local or regional movement of wildlife species, and this impact would be less than significant.

e) **No Impact.** The Jonas Community Center would result in the removal of three trees and the addition of 14 new trees while the Miwok Wellness Center would result in the removal of 18 trees and provide no new trees. No local policies protecting biological resources, such as tree protection ordinances, apply to the campus as the Marin Community College District is constitutionally exempt from local land use regulations whenever using property under its control in furtherance of its educational purposes. There would be no impact with regard to this criterion.

f) **No Impact.** The campus is not located within any applicable habitat conservation plan, natural community conservation plan, or related plan (CDFW 2015). There would be no impact with regard to this criterion.

### ***Discussion of Potential Cumulative Impacts***

The remaining improvement projects listed in the 2016-2021 FMP could adversely affect biological resources on the campus. Anticipated future development in some portions of Novato also has the potential to adversely affect biological resources in the City. However, each improvement project would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts related to biological resources. With respect to new development within the City of Novato, numerous federal and State laws, regulations, and statutes seek to protect biological resources, and these would apply to all development within the City. In addition, the current *City of Novato General Plan (1996)* and the *Draft City of Novato General Plan 2035* include policies for the protection of biological resources from unnecessary impacts. Therefore, in general, significant cumulative impacts on biological resources are not anticipated. Furthermore, as discussed above, with mitigation, the proposed projects would have less than significant project-level impacts with respect to biological resources. Therefore, the contribution of the proposed project to the cumulative impact on biological resources would not be cumulatively considerable.

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>5. CULTURAL RESOURCES</b> – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 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 Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### *Environmental Setting*

The buildings on the campus were constructed in the 1970s and are less than 50 years old. For this reason, there are no historical structures on the Indian Valley Campus. There are three documented archaeological sites on the campus, Sites C-113, C-114, and PA-06-44, and shell midden (COM 2007). Human remains were discovered at Site C-113 while a small concrete footing, a metal wire embedded in two bay trees, a concrete water trough, concrete fragments, and the remains of a small water tank were found at Site C-114. In addition, midden containing shell, bone, obsidian, and heat-affected rock was identified in the vicinity of both sites. Parking lots currently exist at both sites. Site PA-06-44 is located on the western edge of the campus and consists of chert debitage and chert core (COM 2007).

There are also two prehistoric archaeological sites, CA-MRN-471 and CA-MRN-488, within a quarter-mile of the Indian Valley Campus. It is believed that the Arroyo San Jose watershed was occupied and utilized intensively from approximately A.D. 1350. Site CA-MRN-471, also known as the San Jose Village, was excavated in the early 1970s, resulting in the discovery of four semi-subterranean structures, tools, and ornaments. Site CA-MRN-488 consists of chert and obsidian debitage and tools (COM 2007).

### *Discussion of Potential Project Impacts*

a) **No Impact.** There are no historical architectural resources on the Indian Valley Campus due to the age of the buildings. Therefore, the demolition of Miwok cluster would not result in the loss of historical resources. There would be no impact with regard to this criterion.

b, d) **Less than Significant Impact.** As discussed above, the Indian Valley Campus and vicinity are known to contain prehistoric archaeological sites. However, none of the proposed projects are located on or near these sites. The Jonas Community Center would require minimal ground disturbance or excavation as it would be constructed on the foundation of Building 20. The fitness center associated with

the Miwok Wellness Center project would include shallow excavation (e.g., 1 to 2 feet) while the proposed pools would require deeper excavation (e.g., up to 8 feet). For these reasons, there is some potential to negatively affect unknown archaeological resources, including human remains, as the Indian Valley Campus is considered a sensitive area for archaeological resources. The proposed projects would be subject to Policy AP 6580 of the Marin Community College District Administrative Procedures, which includes procedures and practices that the campus requires all construction contractors to implement in order to protect archaeological resources, including human remains, from inadvertent damage. As a result, the impact to unknown archaeological resources, including human remains, would be less than significant.

c) **Less than Significant Impact with Mitigation.** The Indian Valley Campus is underlain by Quaternary-aged alluvial deposits (COM 2007). Geologic formations, including various Quaternary subunits have a high to moderate potential for paleontological resources. Therefore, excavation on the project sites could potentially inadvertently unearth and damage paleontological resources. Impacts to paleontological resources would be potentially significant. **Mitigation Measure CUL-1** would be implemented to reduce the impact on paleontological resources to a less than significant level.

**Mitigation Measure CUL-1:** Prior to project construction, construction personnel shall be informed of the potential for encountering significant paleontological resources. All construction personnel shall be informed of the need to stop work in the vicinity of a potential discovery until a qualified paleontologist has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed of the requirements that unauthorized collection of resources is prohibited.

### ***Discussion of Potential Cumulative Impacts***

The remaining improvement projects listed in the 2016-2021 FMP could adversely affect cultural resources on campus. However, each project would adhere to Policy AP 6580 and would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts related to cultural resources. With respect to foreseeable future development in Novato, while it would have the potential to adversely affect cultural resources, however, numerous federal and State laws, regulations, and statutes seek to protect cultural resources, and would apply to all development within the City. In addition, the current *City of Novato General Plan* and the *Draft City of Novato General Plan 2035* include policies for the protection of cultural resources from unnecessary impacts. Therefore, in general, significant cumulative impacts on cultural resources are not anticipated. Furthermore, as discussed above, with adherence to Policy AP 6580 and mitigation, the proposed projects would have less than significant project-level impacts on cultural resources. Therefore, the contribution of the proposed projects to the cumulative impact on cultural resources would not be cumulatively considerable.

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>6. GEOLOGY AND SOILS – Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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) (California Building Code), creating substantial 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"/>

### *Environmental Setting*

The San Francisco Bay Area is a seismically active region and there are three major faults in the vicinity of the Indian Valley Campus. The San Andreas fault runs approximately 10 miles southwest of the campus,

Rodgers Creek fault is 9 miles to the north of the campus and Hayward fault passes approximately 11 miles to the east. The Napa and Concord-Green Valley faults are also in the surrounding area. However, there are no known active faults on the campus itself and the campus is not within an Alquist-Priolo Earthquake Fault Zone (DOC 2010). The campus is located within Seismic Zone 4 per the CBC, which is considered to be the most seismically-active zone.

The soils on the campus are mostly made of up Tocaloma-Saurin association and Tocaloma-McMullin complex. These soils are common in hilly areas and consist of loam on top of weathered bedrock. The soils are well-drained and do not contain expansive clay soils and have very low susceptibility to hazards such as liquefaction and densification. Saurin-Bonnydoon complex and Xerorthents-Urban land complex are also present on the campus (NRCS 2018).

### ***Discussion of Potential Project Impacts***

a)(i) ***No Impact.*** Neither of the project sites is located within an Alquist-Priolo Earthquake Fault Zone, and while the proposed structures would be located in a seismically active region, there are no known active faults crossing the campus (COM 2007). For these reasons, the proposed projects would not expose people or structures to adverse effects involving rupture of a known earthquake fault. There would be no impact with respect to this criterion.

a)(ii) ***Less than Significant Impact.*** Due to the seismically-active nature of the San Francisco Bay Area, the campus will likely experience strong seismically-induced ground shaking within the design life of the proposed projects. The proposed structures would be designed and constructed in accordance with the CBC and adhere to all applicable standards regarding structural engineering and seismic safety. With proper design and construction, the proposed projects would not expose people or structures to adverse effects involving strong seismic ground shaking. This impact is considered less than significant.

a)(iii) ***Less than Significant Impact.*** Liquefaction is the temporary transformation of saturated and very low cohesion or cohesion-less soils into a viscous liquid as a result of ground shaking. The susceptibility of liquefaction on the Indian Valley Campus is very low due to the underlying materials (COM 2007). Therefore, the proposed projects would not expose people or structures to adverse effects involving seismic-related ground failure, including liquefaction. This impact is considered less than significant.

a)(iv) ***No Impact.*** Active landslides have been mapped in the surrounding area, over 1,000 feet away from the Indian Valley Campus (COM 2007). According to data compiled by the Association of Bay Area Governments, the project sites are not located adjacent to or in the vicinity of areas where known landslides have occurred (ABAG 2018). Therefore, the proposed projects would not expose people or structures to adverse effects involving landslides. There would be no impact with respect to this criterion.

b) ***Less than Significant Impact.*** Construction of the proposed projects would require grading and excavation, which would expose soil to erosion, and off-site sedimentation could adversely affect Ignacio Creek. An Erosion and Sediment Control Plan would be prepared and implemented for each project. Each plan would include measures to control on-site erosion and off-site sedimentation. In addition, each plan would include measures to keep construction pollutants from coming into contact with storm water. With these plans in place, impacts related to substantial soil erosion is expected to be less than significant.

c) ***Less than Significant Impact.*** Issues related to seismically induced and non-seismic landslide hazards are discussed in response to **Item 6(a)(iv)**, above. Issues related to liquefaction and related hazards are



discussed in response to **Item 6(a)(iii)**, above. Issues related to soil properties are discussed in response to **Item 6(d)**, below. With the exception of the proposed pools, construction of the proposed projects would require either shallow or limited excavation. Excavation of the pools would reach a depth of 8 feet. Excavated (cut) slopes could become unstable and subject to failure over the short term if they are improperly designed or implemented. However, as identified above, development would be designed and constructed in accordance with the current CBC, which includes provisions that specifically address good grading practices and cut and fill slope stability. Impacts related to unstable cut or fill slopes are therefore expected to be less than significant.

d) *Less than Significant Impact*. Geologic maps of the campus show that expansive clays and soils with high plasticity are not included in campus geology. As discussed above, the proposed project will adhere to the current CBC, which includes detailed provisions to ensure that the design of new facilities is appropriate to site soil conditions, including requirements to address expansive and otherwise problematic soils. With adherence to the CBC, impacts related to site soil conditions—including but not limited to expansive soils, if any are present—would be less than significant.

e) *No Impact*. The proposed projects would not involve the installation of septic tanks or alternative wastewater disposal systems. There would be no impact with regard to this criterion.

### *Discussion of Potential Cumulative Impacts*

Most geologic impacts such as those related to risk from faults, liquefaction potential, slope stability, landslide potential, expansive and compressible soils are site specific and do not cumulate. Therefore, improvement projects listed in the 2016-2021 FMP, including the proposed projects, and projects in the City of Novato would not result in a significant cumulative impact related to geologic risks. The one area where the impacts of the proposed projects may cumulate with other projects on the campus and in the City is related to soil erosion and discharge of sediment into receiving waters during construction. The proposed projects would implement erosion and sediment control plans during construction. Furthermore, the recently approved improvement projects have either been completed or have been placed on indefinite hold and the remaining improvement projects listed in the 2016-2021 FMP are not scheduled for construction at this time. In addition, there are no planned or recently approved off-site developments within the immediate vicinity of the campus. The closest planned or recently approved project in the City of Novato is the Oakmont Senior Living project, located over one mile to the north of the campus at 1461 South Novato Boulevard. As a result, the proposed projects would not combine with other planned or recently approved projects on campus or in the city to negatively affect water quality from erosion and sedimentation, and no cumulative impact with respect to soil erosion would occur.

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>7. GREENHOUSE GAS EMISSIONS –</b>				
Would the project:				
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 any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Environmental Setting

#### General

Global climate change refers to any significant change in climate measurements, such as temperature, precipitation, or wind, lasting for an extended period (i.e., decades or longer). Climate change may result from:

- natural factors, such as changes in the sun’s intensity or slow changes in the Earth’s orbit around the sun;
- natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of greenhouse gas (GHG) and other gases to the atmosphere from volcanic eruptions); and
- human activities that change the atmosphere’s composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

The primary change in global climate has been a rise in the average global tropospheric temperature of 0.2 degree Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur, which would induce further changes in the global climate system during the current century (IPCC 2007). Changes to the global climate system and ecosystems, and to California, could include declining sea ice and mountain snowpack levels, rising average global sea levels, and many other potentially severe problems (IPCC 2007).

The natural process through which heat is retained in the troposphere<sup>3</sup> is called the “greenhouse effect.” The greenhouse effect traps heat in the troposphere through a threefold process as follows: (1) short-wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave

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<sup>3</sup> The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth’s surface to 10 to 12 kilometers).

radiation is re-emitted by the Earth; and (3) GHGs in the upper atmosphere absorb or trap the long-wave radiation and re-emit it back towards the Earth and into space. This third process is the focus of current climate change actions.

While water vapor and carbon dioxide (CO<sub>2</sub>) are the most abundant GHGs, other trace GHGs have a greater ability to absorb and re-radiate long-wave radiation. To gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-emit long-wave radiation over a specific period. The GWP of a gas is determined using carbon dioxide (CO<sub>2</sub>) as the reference gas, which has a GWP of 1 over 100 years (IPCC 2014).<sup>4</sup> For example, a gas with a GWP of 10 is 10 times more potent than CO<sub>2</sub> over 100 years. The use of GWP allows GHG emissions to be reported using CO<sub>2</sub> as a baseline. The sum of each GHG multiplied by its associated GWP is referred to as “carbon dioxide equivalent” (CO<sub>2</sub>e). This essentially means that 1 metric ton of a GHG with a GWP of 10 has the same climate change impacts as 10 metric tons of CO<sub>2</sub>.

### Regulatory Setting

In 2005, in recognition of California’s vulnerability to the effects of climate change, then-Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 MMTCO<sub>2</sub>e); by 2020, reduce emissions to 1990 levels (estimated at 427 MMTCO<sub>2</sub>e); and by 2050 reduce statewide GHG emissions to 80 percent below 1990 levels (approximately 85 MMTCO<sub>2</sub>e).

In response, the California legislature passed Assembly Bill No. 32 in 2006 (California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction from forecast emission levels) (OPR 2008).

Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, outlining measures to meet the 2020 GHG reduction limits. Assembly Bill 32 (AB 32) *Climate Change Scoping Plan* indicates how reductions in significant GHG sources will be achieved through regulations, market mechanisms, and other actions. The AB 32 Scoping Plan recommendations are intended to curb projected business-as-usual growth in GHG emissions and reduce those emissions to 1990 levels.

In 2015 and 2016, additional laws were enacted setting GHG reduction targets for the state of California for years beyond 2020. In April 2015, Governor Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. In October 2015, Senate Bill 350 (SB 350) was signed into law, establishing new clean energy, clean air and greenhouse gas reduction goals for 2030 and beyond. Building off of AB 32, SB 350 established California’s 2030 greenhouse gas reduction target of 40 percent below 1990 levels. In August 2016, Senate Bill 32 (SB 32) was signed into law which requires CARB to adopt rules and regulations to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030.

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<sup>4</sup> All Global Warming Potentials are given as 100-year values.

On June 2, 2010, the Bay Area Air Quality Management District (BAAQMD) adopted updated CEQA Guidelines. These guidelines were last updated on May 9, 2017.<sup>5</sup> These guidelines contain GHG operational emissions significance thresholds and recommended methodologies and models to be used for assessing the impacts of project-specific GHG emissions on global climate change. The updated BAAQMD *CEQA Air Quality Guidelines* state that thresholds of significance for GHG emissions should be related to AB 32's GHG reduction goals or the state's strategy to achieve the 2020 GHG emissions limit, and also include measures for reducing GHG emissions from land use development projects and stationary sources. The BAAQMD bright-line threshold of 1,100 MTCO<sub>2e</sub> is designed for compliance with AB 32 and does not provide for the additional reductions in Bay Area GHG emissions needed to comply with SB 32. However, because a new threshold has not been put forth by the BAAQMD, that threshold is used in this Initial Study to evaluate the impacts of the two projects.

### ***Discussion of Potential Project Impacts***

a) ***Less than Significant Impact.*** Implementation of the proposed projects would result in small increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to the proposed projects would be primarily associated with short-term, temporary increases of CO<sub>2</sub> from mobile sources including construction haul trucks (to off-haul excavated materials), and equipment used during the construction of the proposed projects. There would be minimal operational GHG emissions for the reasons presented below.

#### **Construction**

During construction and demolition activities, GHGs would be emitted from the operation of construction equipment and from construction worker vehicles and haul truck trips to and from the campus. GHG emissions during construction were estimated using the CalEEMod model. Based on CalEEMod, construction activities on the project sites would generate approximately 342 MTCO<sub>2e</sub> per year. There are no quantitative thresholds put forth by the BAAQMD for the evaluation of the significance of a project's construction emissions. However, these estimated one-time emissions are lower than the 1,100 MTCO<sub>2e</sub> threshold that is put forth by the BAAQMD for the evaluation of the impact from a project's operational emissions. Therefore, the emissions are considered too small to result in a significant impact on global climate. The impact from the construction-phase GHG emissions associated with the proposed projects would be less than significant.

#### **Operation**

The proposed projects would serve the existing student population on the Indian Valley Campus as well as the existing community in the City of Novato and Marin County; thus the proposed projects would not induce population growth in the area. Although there would not be a growth in population, there would be a small increase in trips to the campus, as well as demand on GHG inducing utilities such as energy use, area sources (natural gas, coatings, consumer products, landscaping, etc.), solid waste disposal, and water usage. These emissions were modeled using CalEEMod and are shown in **Table 3, Estimated Yearly Operational Emissions**, below.

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<sup>5</sup> BAAQMD, *CEQA Air Quality Guidelines*, May 2017. <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.

**Table 3**  
**Estimated Yearly Operational Emissions (MTCO<sub>2</sub>e/year)**

	MTCO <sub>2</sub> e
Improvement Projects	
<b>Jonas Community Center</b>	
Area	<1
Energy	38
Mobile	220
Waste	5
Water	2
Total Jonas GHG Emissions	<b>265</b>
<b>Miwok Wellness Center</b>	
Area	<1
Energy	50
Mobile	51
Waste	79
Water	6
Total Miwok GHG Emissions	<b>187</b>
Total Combined GHG Emissions	<b>452</b>
<b>Significance Thresholds</b>	<b>1,100 MMTCO<sub>2</sub>e</b>
Exceedance?	No

*Source: Impact Sciences, Inc. 2018.*

GHG emissions associated with build out of the proposed projects, both individually and combined, would not exceed BAAQMD significance threshold. As a result, the proposed project would not significantly increase GHG emissions, and the impact would be less than significant.

b) *Less than Significant Impact.* The proposed projects would result in a minimal increase in GHG emissions, as described above. Therefore, the proposed projects would not conflict with AB 32 or other state laws and regulations related to GHG emissions and the impact would be less than significant.

### ***Discussion of Potential Cumulative Impacts***

As the impact of the project's GHG emissions is essentially a cumulative impact, the analysis presented above provides an adequate analysis of the cumulative impacts related to GHG emissions that are associated with the proposed projects.

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>8. HAZARDS AND HAZARDOUS MATERIALS</b> – Would the project:				
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input 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 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### ***Environmental Setting***

The California Department of Toxic Substances Control (DTSC) and the State Water Quality Regional Control Board (SWQRCB) maintain updated maps of hazardous materials sites. The Indian Valley Campus and surrounding zip code area are not included on either web database. Hazards on the campus primarily comprise the maintenance supplies used on the campus and hazardous materials such as lead-containing paint and asbestos-containing materials that may be present in older buildings. There were six underground storage tanks (USTs) on the Indian Valley Campus. In 1989 and 1991, four tanks were removed around the Pomo cluster, three contained gasoline and the fourth was a waste oil tank. Sampling in the area beneath the gasoline tanks showed only minor amounts of petroleum hydrocarbons but contamination was present down to 7 feet. Another large gas tank was located at the corporation yard and was removed in 1991. In 1993, a large diesel fuel tank was removed near the swimming pool complex. There were no measurable contaminants at the site or adjacent areas after either tank was removed (COM 2007).

There is one aboveground storage tank, situated in a code-compliant, double-walled containment system, located near the corporation yard. There may be PCBs in the hydraulic fluid in hydraulic lifts and elevators across the campus, although these materials do not pose a hazard to humans. Additional hazardous material risks may occur from the collection and disposal of hazardous materials during building renovations and/or daily campus operation, including the operation of the existing campus swimming pool.

### ***Discussion of Potential Project Impacts***

a-b) ***Less than Significant Impact with Mitigation.*** There are no known environmental hazards on the campus. With the exception of the pools, operation of the proposed projects would not involve the routine use, storage, transport, and disposal of hazardous materials in any significant quantities. Maintenance of the proposed pools would involve the storage and use of hazardous materials (i.e., chlorine and other chemicals). However, the Campus would follow all applicable regulations associated with the storage and use of the hazardous materials. Small quantities of hazardous materials would potentially be used on the project sites during construction activities. As all construction activities would comply with state and federal hazard and hazardous material regulations, the risk associated with the routine handling, transport, use, and disposal of hazardous materials during construction would be minimal.

Asbestos containing materials (ACM) and lead-based paint (LBP) may be present in some of the buildings on the campus due to their age. Other hazardous materials that are commonly found in building materials include fluorescent lighting, electrical switches, heating/cooling equipment, and thermostats

that can contain hazardous materials. Building 18 that is to be renovated as part of the Jonas Community Center project has already been abated for hazardous materials while the Miwok cluster is currently in the process of being abated for hazardous materials, which would be completed before construction of the Miwok Wellness Center begins. Therefore, renovation or demolition of these structures would not pose a health risk, and this impact is less than significant.

c) *Less than Significant Impact.* San Jose Middle School is the nearest school to the Indian Valley Campus and is located approximately 1,750 feet (0.33 mile) to the northeast of the closest project site (Miwok Wellness Center). Maintenance of the proposed pools would involve the storage and use of hazardous materials (i.e., chlorine and other chemicals). However, as the proposed project is located more than 0.25 mile from the school and the Campus would follow all applicable regulations associated with the storage and use of the hazardous materials, it would not pose a threat to the school, and this impact is considered less than significant.

d) *No Impact.* Based on CERCLIS, Geotracker, and EnviroStor database searches for known hazardous materials contamination, the project sites are not located on a property associated with a hazardous site listed under Government Code Section 65962.5, also known as the Cortese List (DTSC 2018). As a result, the proposed projects would not create a significant hazard to the public or the environment associated with a hazardous site listed under Government Code Section 65962.5. There would be no impact with regard to this criterion.

e-f) *No Impact.* The campus is not located within 2 miles of an airport or private airstrip. The nearest airport is the Gness Field Airport, approximately 4.7 miles north of the campus. As such, there would be no impact with regard to these criteria.

g) *No Impact.* The Campus Police has developed emergency response plans, including an Emergency Operations Plan as well as other emergency or hazard response plans. Construction of the proposed projects would occur within the boundary of the campus, and street closures during project construction are not anticipated. Therefore, the proposed projects would not impede any emergency routes and there would be no impact with regard to this criterion.

h) *Less than Significant Impact.* The campus is located in a Moderate Fire Hazard Severity Zone area and is designated as a Local Responsibility Area (CalFire 2007). All of the structures would be built according to the Fire Code and National Fire Protection Agency requirements and would be inspected by the DSA for conformance. Additionally, the location of the project sites on the campus is not directly adjacent to wildlands. With adherence to applicable building regulations, impacts regarding wildland fires would be less than significant.

### ***Discussion of Potential Cumulative Impacts***

The remaining improvement projects listed in the 2016-2021 FMP have the potential to expose the public and the environment to risks associated with hazards and hazardous materials. Each project would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts related to hazards and hazardous materials. There are no planned or recently approved off-site developments within the immediate vicinity of the campus. The closest planned or recently approved project in the City of Novato is the Oakmont Senior Living project, located more than 1 mile to the north of the campus at 1461 South Novato Boulevard. As a result, the proposed projects would not combine with other planned or recently approved projects in the city to



create a significant hazard to the public or the environment with respect to the use or accidental release of hazardous materials or expose people to aircraft safety hazards, impair the implementation of an adopted emergency response plan or emergency evacuation plan, and expose people or structures to a significant risk of loss, injury, or death involving wildland fires. There would be no cumulative impacts with regard to hazards and hazardous materials.

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>9. HYDROLOGY AND WATER QUALITY – Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input 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, in a manner which would result in substantial erosion or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or 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"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundate by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### ***Environmental Setting***

The Indian Valley Campus is located within the Novato Creek watershed. Ignacio Creek runs parallel to Ignacio Boulevard across the full length of the campus. Approximately 0.8 miles southeast of the campus, Ignacio Creek converges with Arroyo San Jose before joining Novato Creek, which flows into San Pablo Bay. Throughout the campus, a concrete pipe storm drain system collects the runoff and directs flows into Ignacio Creek. Parking lot runoff also enters the creek via small pipe drop inlets and pipelines. Flows from the northern part of the campus flow in a large pipe under Ignacio Boulevard, Parking Lot 2, and a residential neighborhood before discharging into the creek downstream of the campus (COM 2007).

The campus is underlain by the Novato Valley Basin. A shallow groundwater table runs roughly parallel to Ignacio Creek and numerous seeps are found between the overlying sediment and bedrock in the creek channel. On the campus, water quality in Ignacio Creek is good but worsens downstream of the campus. Runoff from campus parking lots and residential subdivisions contribute oils, herbicides and pesticides, heavy metals, etc. to the creek. Diazinon is a pesticide used in landscape areas and is found in detrimental levels in Novato Creek (COM 2007).

The campus is not located within a 100-year flood zone. The campus is located within Flood Zone X, which is defined as an area of minimal flood hazard, usually above the 500-year flood level (FEMA 2009).

### ***Discussion of Potential Project Impacts***

a, f) ***Less than Significant Impact.*** During construction of the proposed project, there is a potential for increased erosion, sedimentation, and discharge of polluted runoff from the project sites. However, as identified in response to Geology and Soils **Item 6(b)**, an Erosion and Sediment Control Plan would be prepared and implemented for each project, which would include measures to control on-site erosion and off-site sedimentation. As a result, development of the proposed projects would not result in storm water discharges that would violate water quality standards or waste discharge requirements during construction, and this impact would be less than significant.

The Jonas Community Center would add approximately 8,900 square feet of impervious surface to the campus while the Miwok Wellness Center would add approximately 10,000 square feet of impervious surface to the campus. During operation, run-off from the project sites would be routed to the College's storm drain system and into Ignacio Creek. This drainage is subject to requirements listed in provision C.3 of the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (Regional Water Quality Board Order R2-2009-0074; and Order R2-2011-0083). This permit requires permittees to comply with the discharge prohibitions and receiving water limitations through the timely implementation of

control measures and other actions as specified in the permit (San Francisco Bay RWQCB 2009). The projects are required by law to comply with applicable NPDES requirements for stormwater quality. Therefore, operation of the proposed projects would not result in storm water discharges that would violate water quality standards or waste discharge requirements, and this impact would be less than significant.

b) *Less than Significant Impact.* The proposed projects would not use groundwater as a source of supply. Natural recharge in the basin occurs principally as infiltration from streambeds that flow from the upland areas within the drainage basin and from direct percolation of precipitation that falls on the basin floor (DWR 2004). Development of the Jonas Community Center would add approximately 8,900 square feet of impervious surface to the campus while development of the Miwok Wellness Center would add approximately 10,000 square feet of impervious surface to the campus. As the increase in impervious surface on campus would be small (i.e., less than 0.5 acre), there would not be a substantial reduction in the amount of land available for groundwater recharge. The impact would be less than significant.

c) *Less than Significant Impact.* Storm water generated on each of the project sites would be directed toward existing storm drainage facilities serving the campus. As discussed in response to **Item 6(a)** above, the proposed projects would be required to control soil erosion or siltation during construction through the preparation and implementation of Erosion and Sediment Control Plans. Implementation of the plans would reduce the potential for erosion on the project sites and minimize the discharge of sediment into the storm drain system. As the proposed projects would be located on sites that have been previously disturbed and paved, existing drainage on the campus would be sufficient to handle increased stormwater flows. As such, the existing drainage pattern of the area and the courses of any streams or creeks in the area would not be affected. Therefore, the impact on drainage patterns resulting in substantial erosion would be less than significant.

d) *Less than Significant Impact.* The proposed projects would result in a small increase in the amount of impervious surface on each site and thus would increase the volume of runoff generated at these locations. As the amount of impervious surface added by the proposed projects would be small, relative to the ground cover of the entire campus (87 developed acres), no increased flooding hazards are anticipated, and the impact would be less than significant.

e) *Less than Significant Impact* As discussed in response to **Items 9(c–d)**, above, the amount of impervious surfaces added to the campus would be small, and thus would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. See response to **Item 9(a)**, above, with regard to water quality. The proposed project would not provide substantial additional sources of polluted runoff. Therefore, this impact is considered less than significant.

g-h) *No Impact.* The campus is not located within a 100-year flood zone. As a result, development of the proposed projects would not place housing or structures within an area at risk of flood flows. There would be no impact with regard to these criteria.

i) *No Impact.* The closest dam to the Indian Valley Campus is Novato Creek Dam, located approximately 4.5 miles to the northwest of the campus on Stafford Lake. The campus is not located within the inundation area for the Novato Creek Dam or any other dam. Therefore, development of the proposed project would not expose people or structures to a significant risk of loss, injury or death involving

flooding, including flooding as a result of the failure of a levee or dam. There would be no impact with regard to this criterion.

j) **No Impact.** The campus is located well inland from the San Francisco Bay and no bodies of water are located in the vicinity of the site. As a result, the campus is not at risk of seiche or tsunami inundation. In addition, as the project sites are not located adjacent to or in the vicinity of areas where known landslides have occurred, they would not be affected by landslide hazards, including mudflows. There would be no impact with respect to this criterion.

### ***Discussion of Potential Cumulative Impacts***

As discussed above, the proposed projects would have less than significant project-level impacts with respect to hydrology and water quality. The remaining improvement projects listed in the 2016-2021 FMP could adversely affect hydrology and water quality on campus. However, each project would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts related to hydrology and water quality. There are no planned or recently approved off-site developments within the immediate vicinity of the campus. The closest planned or recently approved project in the City of Novato is the Oakmont Senior Living project, located over one mile to the north of the campus at 1461 South Novato Boulevard. As a result, the proposed projects would not combine with other planned or recently approved projects in the City to negatively affect water quality, groundwater supplies, and existing drainage patterns. In addition, the proposed projects would not combine with other planned or recently approved projects in the city to place housing or structures with a 100-year flood hazard area or expose people or structures to significant risk involving the failure of a levee or dam and inundation by a seiche, tsunami, or mudflow. There would be no cumulative impact with regard to hydrology and water quality.

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>10. 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) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Setting**

The Indian Valley Campus has been an educational facility since the 1970s and is designated “Community Facility” in the *City of Novato General Plan (1996)*. The property is also zoned Community Facility, which allows for public use buildings, government offices, schools, and other municipal uses. The Marin Community College District is constitutionally exempt from local land use regulations whenever using property under its control in furtherance of its educational purposes. However, the use of the campus as a community college is consistent with the City’s general plan and zoning designations. Surrounding land uses consist of a dense residential area to the east and open space consisting of steep hillsides covered in chaparral and oak woodlands to the north, west, and south.

**Discussion of Potential Project Impacts**

- a) **No Impact.** There is no established community located on the Indian Valley Campus. The project sites are located within the campus core, and construction would not involve the vacation of any public areas or streets. For these reasons, the proposed projects would not physically divide an established community. There would be no impact with regard to this criterion.
- b) **No Impact.** As stated above, the Indian Valley Campus is designated “Community Facility” in the *City of Novato General Plan (1996)* and zoning code. The proposed projects would further the educational mission of the Indian Valley Campus and would not involve a land use change. There would be no impact with regard to this criterion.
- c) **No Impact.** The campus is not located within a habitat conservation plan or natural community conservation plan. There would be no impact with regard to this criterion.

**Discussion of Potential Cumulative Impacts**

The remaining improvement projects listed in the 2016-2021 FMP would be consistent with the existing land uses on campus setting, and thus when combined with the proposed projects, would not result in

adverse effects with regard to land use. As a result, the cumulative impact of campus development with respect to land use and planning would be less than significant. Anticipated future development in the City of Novato would be reviewed for consistency with adopted land use plans and policies by the City. For this reason, pending and approved projects are anticipated to be consistent with the General Plan and zoning requirements, or be subject to an allowable exception, and further, would be subject to review under CEQA, mitigation requirements, and design review. As the proposed projects would be consistent with the General Plan designations for the Indian Valley Campus, the cumulative impact of the proposed project and future development in the city would be less than significant.

<b>Issues</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>11. MINERAL RESOURCES –</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<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"/>

**Relevant Elements of the Project and its Setting**

According to the *Draft City of Novato General Plan 2035*, there are four state-designated mineral resource sectors (MRZ-2 zones) located in the Novato area. Three of these sectors - Rush Creek Open Space preserve, the Black Point area, and Burdell Mountain – are located in the northern half of the city while the fourth sector – Bowman Canyon – is located just outside the city’s northwestern boundary (City of Novato 2018). None of these mineral resource sectors are located on or in the vicinity of the Indian Valley Campus.

**Discussion of Potential Project Impacts**

a-b) **No Impact.** No known or potential mineral resources have been identified on the Indian Valley Campus. In addition, existing zoning and land uses preclude the use of the campus for mineral extraction (for example, sand and gravel extraction). Therefore, construction of the proposed projects would not impede extraction or result in the loss of availability of a known mineral resource. There would be no impacts with regard to these criteria.

**Discussion of Potential Cumulative Impacts**

As discussed above, there are four state-designated mineral resource sectors located in the Novato area. Three of these sectors are designated as open space in the *Draft City of Novato General Plan 2035* and the *Marin County General Plan*. As a result, they are protected from future development in the City and County. The last sector – the Black Point area – is designated for low density residential development in the *Draft City of Novato General Plan 2035*, and future development on this site would result in the loss of availability of a known mineral resource. However, as no known or potential mineral resources have been identified on the Indian Valley Campus, construction of the improvement projects listed in the 2016-2021 FMP, including the proposed projects, would not contribute to the loss in availability of a known mineral resource. The cumulative impact of the proposed projects would be less than significant.



<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>12. NOISE</b> – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (including construction)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, 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"/>

## *Environmental Setting*

### **Noise Fundamentals**

When assessing community reaction to noise, there is an obvious need for a scale that averages varying noise exposures over time and that quantifies the result in terms of a single number descriptor. Several scales have been developed that address community noise level. Those that are applicable to this analysis are the Equivalent Noise Level (Leq), Maximum Noise Level (Lmax), the Day-Night Noise Level (Ldn or DNL), and the Community Noise Equivalent Level (CNEL).

- Leq is the average A-weighted sound level measured over a given time interval. Leq can be measured over any period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.

- Lmax is the single highest sampled level of sound.
- Ldn or DNL is a 24-hour Leq with a “penalty” of 10 dB added during the nighttime hours (10:00 PM to 7:00 AM), which is normally sleeping time.
- CNEL is another average A-weighted sound level measured over a 24-hour period. However, the CNEL noise scale is adjusted to account for the increased sensitivity of some individuals to noise levels during the evening as well as the nighttime hours. A CNEL noise measurement is obtained after adding a “penalty” of 5 dB to sound levels occurring during the evening from 7:00 PM to 10:00 PM, and a penalty of 10 dB to sound levels occurring during the nighttime from 10:00 PM to 7:00 AM.<sup>6</sup>

### Existing Noise Environment

The Indian Valley Campus is in a relatively quiet area with primary ambient noise levels resulting from occasional traffic, natural sounds (water, birds, wind), and activities on the campus. Ambient noise levels on the campus ranged from 47 to 50 dB(A) Ldn in 2007 (COM 2007), and are not substantially higher at this time.

### Noise Sensitive Land Uses

Noise-sensitive land uses include residences, hospitals, schools, libraries, places of worship, parks, and assisted-living centers. Sensitive receptors in the vicinity of the campus include residences and San Jose Middle School, which are located approximately 1,200 feet and 1,750 feet, respectively, to the east of the closest project site (Miwok Wellness Center).

### Discussion of Potential Project Impacts

a) *Less than Significant Impact.* According to the State Land Use Compatibility Guidelines for Noise, exterior noise levels up to 70 dB(A) CNEL are “normally acceptable” for school uses. The most recent noise level readings were conducted in 2007, with a sound level measurement of approximately 47 to 50 dB(A) Ldn. As noted above, according to the State Land Use Compatibility Guidelines, sound levels at school land uses are normally acceptable up to 70 dB(A) CNEL. Enrollment on campus during the 2006-07 school year when the noise measurements mentioned above were taken was approximately 970 students. As of Spring 2015 the campus had an enrollment of about 1,150 students. Given that campus enrollment has not substantially increased since 2007 and the location of the project in a suburban setting, ambient sound levels are not anticipated to exceed that of a typical school land use.

The proposed projects could introduce some sound level increases from the operation of HVAC equipment or parking noise (e.g., car doors shutting) at the small parking lot located at the Jonas Community Center. However, as discussed in more detail below, the improvements to be constructed under the proposed projects are compatible with the existing uses on the campus, and are not expected to increase noise levels on the campus substantially. The proposed projects are not expected to increase

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<sup>6</sup> The logarithmic effect of adding these penalties to the peak-hour Leq measurement results in a CNEL measurement that is within approximately 3 dB(A) (plus or minus) of the peak-hour Leq. California Department of Transportation, *Technical Noise Supplement: A Technical Supplement to the Traffic Noise Analysis Protocol*, October 1998, pp. N51-N54.

noise to such an extent that exterior noise levels at nearby classroom buildings on the campus would exceed the 70 dB(A) CNEL standard established by the State. For these reasons, the proposed projects would not expose persons to or generate noise levels in excess of established standards, and this impact is considered less than significant.

b) *Less than Significant Impact.* Construction of the proposed projects would not require pile-driving, blasting, or other activities that could cause substantial groundborne vibration or noise. Project construction activities would include the use of tractors, loaders, excavators, graders, which are not sources of significant groundborne vibration or noise. Furthermore, the nearest sensitive receptor is off-campus at approximately 1,200 feet from the construction activity. Haul trucks could result in some level of vibration while hauling materials off-site. However, the vibrations would be in the typical range that is experienced in urban areas from truck movement, and occur on smooth paved roads. Therefore, the construction vibration impact would be less than significant.

c) *Less than Significant Impact.* The proposed projects would primarily serve the existing student population on the Indian Valley Campus and existing community population in the City of Novato and Marin County. Although there would be a small increase in vehicle traffic associated with both projects, it would not be enough of an increase to cause an audible increase in traffic noise.<sup>7</sup> As a result, the proposed project would not result in a substantial permanent increase in noise levels due to vehicle trips, and a less than significant impact would occur.

The proposed projects would include new stationary sources of noise such as mechanical HVAC equipment, which could generate noise levels that average 69 to 73 dB(A) CNEL at 50 feet when the equipment is operating. Sound generated by a point source typically attenuates at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor. Thus, at 100 feet, new stationary equipment would average 63 to 67 dB(A) CNEL, while at 200 feet new stationary equipment would average 57 to 61 dB(A) CNEL. The nearest on-site classroom building to either of the proposed projects is approximately 150 feet away, and the nearest off-site receptor is approximately 1,200 feet from the nearest project building. At these distances the noise levels from mechanical HVAC equipment would average from under 59.5 to 63.5 dB(A) CNEL for nearby on-site classrooms, and 41.4 to 45.4 dB(A) CNEL for the nearest off-site receptor. On-site noise levels would therefore not exceed the 70 dB(A) CNEL standard established by the State, and off-site receptors would not experience an audible noise increase. Therefore, the proposed project would not result in a substantial permanent increase in noise levels due to stationary sources, and this impact would be less than significant.

The Miwok Wellness Center includes the construction and operation of outdoor swimming pools. The reference noise level for swimming activities is approximately 62 dB(A) Leq at 45 feet (County of San Diego 2014). As noted above, sound typically attenuates at a rate of 6 dB(A) for each doubling of distance from the source to receptor. The nearest classroom building to the swimming pools is approximately 150 feet to the east in the Miwok Wellness Center. At this distance the noise levels at this sensitive receptor from pool activities would be approximately 51.5 dB(A) Leq, which is not an audible increase from existing noise levels on the campus. Thus, sound generated by the outdoor pools is not anticipated to cause a significant noise level increase at any nearby sensitive receptors, or result in sound levels exceeding State Land Use Compatibility Guidelines. Therefore, the proposed project would not result in a

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<sup>7</sup> According to the California Department of Transportation, a doubling of traffic would result in a 3 dB increase in traffic noise. Increases of less than 3 dB are not considered audible to the human ear. Source: California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Protocol*, September 2013.

substantial permanent increase in noise levels due to activities at the proposed pools, and this impact would be less than significant.

d) *Less than Significant Impact with Mitigation.* Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance and shielding between construction noise sources and noise sensitive areas. **Table 4, Construction Equipment Noise Emission Levels**, summarizes noise levels produced by commonly used construction equipment. Individual types of construction equipment are expected to generate noise levels ranging from 74 to 89 dB(A) at a distance of 50 feet.

**Table 4**  
**Construction Equipment Noise Emission Levels**

Equipment	Typical Noise Level (dB(A)) 50 feet from Source
Pile Driver	101
Grader	85
Bulldozers	85
Truck	88
Loader	85
Roller	74
Air Compressor	81
Backhoe	80
Pneumatic Tool	85
Paver	89
Concrete Pump	82

*Source: Federal Transit Administration 2006.*

Noise generated during construction of the proposed projects is anticipated to be the greatest during ground disturbance activities, such as excavation and grading, and demolition activities. Maximum noise levels would typically range from of 70 to 90 dB(A) during ground disturbance activities. Hourly average construction noise levels are typically 75 dB(A) to 85 dB(A) measured at a distance of 50 feet from the center of the site during busy construction periods.

The nearest off-site sensitive receptors include residences and a middle school, which are located approximately 1,200 feet and 1,750 feet, respectively, to the east of the closest project site (Miwok Wellness Center). Given that sound generated by a point source, such at a construction site, typically diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically “hard” sites and 7.5 dB at acoustically “soft” sites (U.S. BOT 1998), the residences and the middle school near the site of the proposed outdoor amphitheater could experience maximum noise levels ranging from less than 58 dB(A) during construction.

The nearest on-site classroom buildings are approximately 150 feet from construction activities. Classroom buildings near these construction activities could experience maximum noise levels up to 76 dB(A) during construction.

The College would implement several mitigation measures that would minimize construction noise impacts to on-campus locations and off-site sensitive receptors. **Mitigation Measure NOI-1a** is proposed to limit construction to the daytime period. **Mitigation Measure NOI-1b** is proposed to further reduce significant noise impacts from construction activities. Given that the noise from construction of the proposed project would be temporary and of short duration, that intervening structures and vegetation are located between the project sites and sensitive receptors which would block noise, and that mitigation has been proposed to reduce construction noise to the maximum extent feasible, the impact of construction noise would be reduced to a less than significant level.

**Mitigation Measure NOI-1a:** Construction activities shall be restricted to between the hours of 7:00 AM and 5:00 PM on weekdays and Saturdays. No construction shall occur on Sundays and holidays.

**Mitigation Measure NOI-1b:** Prior to initiation of construction, the Campus shall approve a construction noise mitigation program including but not limited to the following.

- All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with exhaust mufflers and air-inlet silencers where appropriate, in good operating condition that meet or exceed original factory specification.
- Mobile or fixed “package” equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- All mobile or fixed noise producing equipment used on the project, which is regulated for noise output by local, state or federal agency, shall comply with such regulation while engaged in project-related activities.
- Material stockpiles and mobile equipment staging, construction vehicle parking and maintenance areas shall be located as far as practicable from noise-sensitive land uses.
- Stationary noise sources such as generators or pumps shall be located away from noise-sensitive land uses as feasible.
- The erection of temporary noise barriers shall be considered where project activity is unavoidably close to noise-sensitive receptors.
- Construction vehicle trips shall be routed as far as practical from existing sensitive uses.
- The loudest campus construction activities, such as demolition and pile driving, shall be considered for scheduling during academic breaks when fewer people would be disturbed by construction noise.
- Whenever possible, academic, administrative, and sensitive use areas that will be subject to construction noise shall be informed prior to the start of each construction project.

e-f) **No Impact.** The campus is not located within 2 miles of a public or private airport. The nearest airport is the Gness Field Airport, approximately 4.7 miles north of the campus. As such, there would be no impact with regard to these criteria.

### ***Discussion of Potential Cumulative Impacts***

The remaining improvement projects listed in the 2016-2021 FMP have the potential to increase in traffic-generated noise over the long term. Anticipated future development in some portions of Novato also has the potential to increase in traffic-generated noise over the long term in the City. Each project would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts related to long-term traffic-generated noise. Furthermore, as discussed above, the proposed projects would have less than significant project-level impacts with respect to traffic-generated noise over the long term. Therefore, the contribution of the proposed project to the cumulative impact with respect to long-term traffic-generated noise would not be cumulatively considerable.

Impacts associated with cumulative construction noise and vibration would occur only if other development projects on campus or in the immediate vicinity of campus were to be under construction at the same time as the proposed projects and if these concurrent projects would be in close proximity of the same sensitive receptors adjacent to the project sites and would expose those receptors to their construction noise. None of the recently approved improvement project would be under construction at the same time as the proposed projects as they have either been completed or have been placed on indefinite hold. In addition, there are no planned or recently approved off-site developments within the immediate vicinity of the campus. The closest planned or recently approved project in the City of Novato is the Oakmont Senior Living project, located over one mile to the north of the campus at 1461 South Novato Boulevard. For these reasons, significant cumulative impacts with respect to short-term construction-generated noise not anticipated. Furthermore, as discussed above, with mitigation, the proposed projects would have less than significant project-level impacts with respect to short-term construction-generated noise. Therefore, the contribution of the proposed project to the cumulative impact with respect to short-term construction-generated noise on biological resources would not be cumulatively considerable.

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>13. POPULATION AND HOUSING – Would the Project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Setting**

Surrounding land uses consist of a dense residential area to the east and open space consisting of steep hillsides covered in chaparral and oak woodlands to the north, west and south. The Indian Valley Campus is a community college and does not include any housing.

**Discussion of Potential Project Impacts**

a) **No Impact.** The proposed projects would serve the existing student population on the Indian Valley Campus and existing residents in Novato and Marin County; thus they would not induce population growth in the area. Furthermore, there are no housing units or businesses incorporated in the proposed projects. As a result, the proposed projects would not induce substantial population growth in the area, either directly or indirectly. There would be no impact with regard to this criterion.

b-c) **No Impact.** There are no residences or people currently living on the Indian Valley Campus. As a result, the proposed projects would not displace any housing or people. There would be no impact with regard to these criteria.

**Discussion of Potential Cumulative Impacts**

Anticipated future development in some portions of Novato would result in an increase in population throughout the City. The improvement projects listed in the 2016-2021 FMP, including the proposed projects, would serve existing students already utilizing the campus and existing residents in the area and would not induce population growth in the City. Therefore, the contribution of the proposed projects to the cumulative impact would not be cumulatively considerable.

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
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**14 PUBLIC SERVICES –**

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

a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

***Environmental Setting***

Fire protection and emergency medical services to the campus are provided by the Novato Fire Protection District (NFPD). The NFPD services include but are not limited to structural fire suppression, wildland fire suppression, response to hazardous materials incidents, urban search and rescue, water rescue, vehicle extrication, technical rescue, and basic life support and advanced life support medical services. Police services are provided by the Marin Community College Police Department, which may contract with other agencies as needed to augment services.

San Jose Middle School is the nearest school to the Indian Valley Campus, approximately 1,350 feet east along Ignacio Boulevard. Novato High School is also in the vicinity of the campus, about one mile to the north. Also situated north of the site is the Novato library, located just over 2 miles from the campus. The South Novato library is approximately 3 miles southeast of the campus.

The Indian Valley Preserve borders the northern end of the campus. The Josef Hoog Park is the closest park to the campus, approximately 0.8 miles southwest. Hillside Park is located just beyond that, approximately 1 mile east of the campus, in a residential area.

***Discussion of Potential Project Impacts***

a) **No Impact.** The proposed projects would serve the existing student population on the Indian Valley Campus and existing residents in Novato and Marin County; thus they would not induce population growth in the area. Furthermore, all of the proposed structures would be built according to the Fire Code and National Fire Protection Agency requirements and would be inspected by the DSA for conformance. Therefore, construction and operation of the proposed projects would not affect NFPD services or



response times. As discussed in the response to **Item 8(h)** above, the Indian Valley Campus is located in a Moderate Fire Hazard Severity Zone and is designated as a Local Responsibility Area. However, as noted above, all of the proposed structures would be built according to the Fire Code and National Fire Protection Agency requirements. Additionally, the project sites are not located directly adjacent to wildlands so the spreading of a potential fire is unlikely. There would be no impact with regard to this criterion.

b-e) **No Impact.** The proposed projects would serve the existing student population on the Indian Valley Campus and existing residents in Novato and Marin County; thus they would not induce population growth in the area. Therefore, construction and operation of the proposed project would not affect Marin Community College Police Department services or response times. Furthermore, construction and operation of the proposed projects would not increase the need for school or park facilities, or other facilities such as public libraries. There would be no impact with regard to these criteria.

### ***Discussion of Potential Cumulative Impacts***

Although substantial portions of Novato are built out, future development would increase population in the City, thus resulting in an increase in demand for fire, police, schools, parks, and other public facilities such as libraries. As a result of the increased demand, future growth in the City may require new or physically altered public facilities to accommodate staff and equipment to meet increased demand, the construction of which could cause significant environmental impacts. The improvement projects listed in the 2016-2021 FMP, including the proposed projects, do not include a residential component. As a result, the proposed projects would not increase the City's population either directly or indirectly, and thus would not have any direct or indirect impacts on fire, police, schools, parks, or libraries. Therefore, the contribution of the proposed projects to cumulative impacts on public services would not be cumulatively considerable.

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>15. 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Environmental Setting**

Parks and recreation facilities within 1 mile of the Indian Valley Campus include the Josef Hoog Park and Hillside Park. The Marin Country Club is situated approximately 1 mile southeast of the site. The Indian Valley Campus is currently developed with educational facilities and athletic fields.

**Discussion of Potential Project Impacts**

a) **No Impact.** The proposed projects would serve the existing student population on the Indian Valley Campus and existing residents in Novato and Marin County; thus they would not induce population growth in the area. As a result there would be no increase in demand for nearby recreational facilities. There would be no impact with respect to this criterion.

b) **Less than Significant Impact with Mitigation.** As the proposed Miwok Wellness Center would include a fitness center and pools, it would result in the construction of new recreational facilities. The environmental effects associated with the construction and operation of this facility have been disclosed in other sections of this Initial Study. As the analysis shows, with mitigation measures set forth in **Air Quality, Biological Resources, Cultural Resources** and **Noise** sections, the impacts of the proposed Miwok Wellness Center would be less than significant.

**Discussion of Potential Cumulative Impacts**

Anticipated future development in Novato would increase the extent of development in the City, thus resulting in a cumulative increase in the use of recreational facilities. As a result, future growth in the City may cause substantial physical deterioration of recreational facilities to occur or be accelerated, or may require the construction or expansion of recreational facilities, the construction of which could cause significant environmental impacts. No residential population is associated with the improvement projects listed in the 2016-2021 FMP, including the proposed projects. As a result, the proposed projects would not require parks or other City recreational facilities. In addition, as documented in this Initial Study, construction of the recreational facilities associated with the Miwok Wellness Center would not in adverse physical effects on the environment with mitigation. Therefore, the contribution of the proposed

projects to a cumulative impact related to new recreation facilities would not be cumulatively considerable.

<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>16. TRANSPORTATION/TRAFFIC</b> – Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **Environmental Setting**

Access to the Indian Valley Campus is provided by Ignacio Boulevard, a four lane road that transitions to a two lane road on the campus. The roadway extends in an easterly direction from the campus and connects with U.S. Highway 101 (U.S. 101). There is an all-way stop where Sunset Parkway intersects Ignacio Boulevard from the north, approximately a quarter mile east of the campus. In 2007, the intersection operated at an unacceptable level of service (LOS) during the AM peak hour, due to traffic generated by the San Jose Middle School, which is located on the northwestern corner of the intersection

(COM 2007). As the intersection of Sunset Parkway and Ignacio Boulevard remains unsignalized and a limited amount of growth has occurred on campus and in the surrounding area, the intersection continues to operate an unacceptable level during the AM peak hour.

Pedestrian pathways exist throughout the campus. Although pathways in the central campus are in good condition, many further away are in need of repair.

### ***Discussion of Potential Project Impacts***

a-b) ***Less than Significant Impact.*** While the proposed projects would serve the existing student population on the Indian Valley Campus and existing residents in Novato and Marin County, it is anticipated that the Jonas Community Center would generate a maximum of approximately 167 new trips per day<sup>8</sup> while the Miwok Wellness Center would generate approximately 75 new trips per day<sup>9</sup> for a combined total of 242 new daily trips.

As discussed above in the project description, the Jonas Community Center is a joint-venture between the College of Marin and the Rotary Club of Marin. The Rotary Club plans on using the center for its weekly lunch meetings and other activities which would likely occur during the evening hours. As a result, most of the new trips generated by the center would occur during off-peak hours. The Miwok Wellness Center would also be in use throughout the day and it is also expected that most of the new trips generated would occur during the off-peak hours.

Typically 25 percent of trips generated by a given land use would occur during a given peak hour. Assuming a worst-case scenario, the Jonas Community Center would generate approximately 42 new trips during either the AM or PM peak hours while the Miwok Wellness Center would generate about 19 new trips during either the AM or PM peaks hours for combined total of 61 new peak hour trips.

The two main signal controlled intersections between U.S. 101 and the Indian Valley campus are Ignacio Boulevard/Alameda del Prado, which is currently operating at LOS B, and U.S. 101 South/Ignacio Boulevard-Enfrente Road, which is currently operating at LOS C. The *City of Novato General Plan (1996)* states that intersections with traffic signals or four-way stop signs should operate at LOS D or better. As a result, both of these intersections are currently operating at an acceptable LOS.

Average hourly capacity for signalized intersections is about 1,800 vehicles per hour per lane for suburban locations. As both the intersection of Ignacio Blvd/Alameda del Prado and the intersection of U.S. 101 South/Ignacio Boulevard-Enfrente Road include two lanes of traffic in each direction, these intersections could handle 3,600 vehicles per hour during the peak. As both projects combined would add only 61 peak hour trips to each intersection, the addition of these trips is not expected to substantially alter existing conditions at each of the intersections during the peak hours or cause them to operate at unacceptable LOS.

As discussed above, the intersection of Ignacio Boulevard/Sunset Parkway, which is the closest intersection to the campus entrance, currently operates at an unacceptable level during the AM peak hour due to traffic generated by the San Jose Middle School, and the addition of traffic generated by the

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<sup>8</sup> 250 new visitors (maximum capacity) X 1.5 trips per vehicle (50 percent drive alone/50 percent carpool) = 167 trips

<sup>9</sup> 75 new visitors X 1.0 trips per vehicle = 75 trips

proposed projects would exacerbate this unacceptable condition. However, this condition does not occur throughout the entire peak hour period. Classes at the middle school start at 8:20 AM, and thus congestion at the intersection occurs approximately 15 minutes before the start of classes and up to 15 minutes after the start of classes. As discussed above, new trips generated by the proposed projects are expected to occur during non-peak hours, and if they were to occur during the peak hour, they would likely not occur when the intersection of Ignacio Boulevard/Sunset Parkway is acutely affected.

For the reasons listed above, the proposed projects would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, and this impact would be less than significant.

c) *No Impact*. The proposed project does not include uses that would affect air traffic or result in changes to air patterns. There would be no impact with regard to this criterion.

d-f) *No Impact*. The proposed project does not include the construction of roads or infrastructure, and therefore would not adversely impact nearby roadways. Emergency access to nearby residences as well as public transit, bicycle, and pedestrian facilities would not be impeded by implementation of the proposed project. There would be no impact with regard to these criteria.

### ***Discussion of Potential Cumulative Impacts***

The improvement projects listed in the 2016-2021 FMP, including the proposed projects, would not induce population growth in the City of Novato or elsewhere in Marin County. However, construction and operation of the proposed projects would generate some new trips that would add traffic to nearby roadways. As discussed above, these new trips would not substantially affect nearby intersections. As a result, cumulative impacts related to traffic generated by campus development would be less than significant.

There are no planned or recently approved off-site developments within the immediate vicinity of the campus. The closest planned or recently approved project in the City of Novato is the Oakmont Senior Living project, located over one mile to the north of the campus at 1461 South Novato Boulevard. As a result, the proposed project would not combine with other planned or recently approved projects in the City to conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or conflict with an applicable congestion management program. In addition, the proposed improvements would not combine with other planned or recently approved projects in the City to adversely affect air traffic patterns, increase traffic hazards, result in inadequate emergency access, and conflict with adopted policies, plans, or programs promoting alternative transportation.

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<p><b>17. 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::</p>				
<p>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</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Relevant Elements of the Project and its Setting**

The Indian Valley Campus is known to contain a Native American burial site and the campus is in constant and close connection with affiliated tribes so as to minimize any potential impacts on tribal cultural resources (TRC).

**Discussion of Potential Project Impacts**

a-b) **Less than Significant Impact.** Assembly Bill (AB) 52, which came into effect on July 1, 2015, requires that lead agencies consider the effects of projects on tribal cultural resources and conduct notification and consultation with federally and non-federally recognized Native American tribes early in the environmental review process. According to AB 52, it is the responsibility of the tribes to formally request of a lead agency that they be notified of projects in the lead agency’s jurisdiction so that they may request consultation. As of the publication of this Initial Study, no tribes have formally requested to be notified of projects on the campus. However, as discussed above, the campus does consult with local tribes in the area on a consistent basis.

As discussed in the response to **Item 5(b)** above, the Jonas Community Center would require minimal ground disturbance or excavation as it would be constructed on the foundation of Building 20. The fitness

center associated with the Miwok Wellness Center project would include shallow excavation (e.g., 1 to 2 feet) while the proposed pools would require deeper excavation (e.g., up to 8 feet). Therefore the potential to affect archaeological resources, including TRCs, is low. However, as the Indian Valley Campus is considered a culturally sensitive area, the proposed projects would be subject to Policy AP 6580 of the Marin Community College District Administrative Procedures, which includes procedures and practices that the Campus requires all construction contractors to implement in order to protect archaeological resources, including human remains, from inadvertent damage. As a result, the Campus has determined that there would be a less than significant impact with respect to TRCs.

### ***Discussion of Potential Cumulative Impacts***

The remaining improvement projects listed in the 2016-2021 FMP could adversely affect TRCs on the campus. However, each project would adhere to Policy AP 6580 and would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts related to TRCs. With respect to anticipated future development in Novato, that development has the potential to adversely affect TRCs that might be present within the City. However, AB 52 requires that the City work with Native American tribes to avoid or minimize impacts to TRCs. As discussed above, no tribes have formally requested to be notified of projects on the campus. However, with adherence to Policy AP 6580, the proposed projects would have less than significant project-level impacts on TRCs, and the contribution of the proposed projects to a cumulative impact on TRCs would not be cumulatively considerable.



<b>Issues</b>	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<b>18. UTILITIES AND SERVICE SYSTEMS – Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### ***Environmental Setting***

Water service to Novato, including to the Indian Valley Campus, is provided by the North Marin Water District (NMWD). Approximately 80 percent of NMWD water is purchased from the Sonoma County Water Agency, which is sourced from the Russian River. The remaining 20 percent comes from the Stafford Lake in Novato. Beneath the perimeter road and Ignacio Boulevard run two main water lines that deliver water to the campus (NMWD 2017).

Wastewater service to the Indian Valley Campus is provided by the Novato Sanitary District (NSD), which maintains the 6-inch main collection line on the campus. The NSD operates the Novato Wastewater Treatment Plant (WWTP), which provides primary and secondary treatment, as well as ammonia removal and filtration. Currently, the Novato WWTP has a design capacity of 7.0 million

gallons per day (mgd) average dry weather flow, and treats 3.4 million mgd. The treatment plant is expected to reach capacity by 2025 (Hoover 2017).

Solid waste from the Indian Valley Campus and most of Marin County in general, is disposed of at the Redwood Landfill, a permitted Class III disposal site situated north of Novato. The landfill has a total capacity of 26,770,000 cubic yards and as of February 2016, there is approximately 17,834,000 cubic yards of capacity remaining. Redwood Landfill is projected to close in 2036 (McCutcheon 2017).

### ***Discussion of Potential Project Impacts***

a, e) ***Less than Significant Impact.*** The proposed projects would generate wastewater, which would be treated at the Novato WWTP. The San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality and quantity of effluent discharged from the Novato WWTP. The existing design capacity of the Novato WWTP is approximately 7.0 mgd average dry weather flow. As the Novato WWTP is currently treating 3.4 mgd, the plant has approximately 3.6 mgd of excess treatment capacity. As discussed in response to **Item 18(b)** below, the volume of wastewater generated by the proposed projects could be accommodated by the excess treatment capacity at the Novato WWTP. Consequently, wastewater discharged from the proposed projects is not expected to contribute to an exceedance of applicable wastewater treatment requirements. The impact would be less than significant.

b) ***Less than Significant Impact.*** The proposed projects would demand potable water, which would be provided by supplies from the NMWD. Approximately 80 percent of the NMWD water supply water comes from the Russian River while about 20 percent of the NMWD water supply comes from Stafford Lake. Water from the Russian River does not require treatment while water from Lake Novato is treated at the Stafford Lake Water Treatment Plant (WTP), which has a treatment capacity of 6.0 mgd (City of Novato 2013). Water demand associated with the Jonas Community Center would be approximately 2,653 gallons per day (gpd) while water demand associated with the Miwok Wellness Center, which includes water needed for the pools, would be about 7,247 gpd, for a combined total of 9,900 gpd. The combined total is a fraction of the treatment capacity of the Stafford Lake WTP. Therefore, there is enough capacity at the Stafford Lake WTP to serve the proposed project, and this impact would be less than significant.

As discussed in response to **Item 18(a)**, above, the proposed projects would be served by the Novato WWTP. The WWTP's treatment capacity is approximately 7.0 mgd which, based on current sewage flows, leaves approximately 3.6 mgd of excess treatment capacity. Wastewater generation associated with the Jonas Community Center would be approximately 2,388 gpd while wastewater generation associated with the Miwok Wellness Center would be about 3,347 gpd, for a combined total of 5,735 gpd.<sup>10,11</sup> Therefore, there is enough excess capacity at the WWTP to serve the proposed projects, and no expansion of the WWTP would be required. The impact would be less than significant.

c) ***Less than Significant Impact.*** The Jonas Community Center would result in approximately 8,900 square foot increase in impervious surfaces on the campus while the Miwok Wellness Center would result in about 10,000 square foot increase in impervious surfaces on the campus. As the increase in impervious surface on the campus would be small (i.e., less than 0.5 acre), development of the proposed

<sup>10</sup> Based on 90 percent of campus water demand 4,531 gpd X 90 percent = 4,078 gpd.

<sup>11</sup> Does not include water required for the proposed pools as it would be lost to evaporation and thus would not require treatment.

projects would not require or result in the construction of new storm water drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, this impact is considered less than significant.

d) *Less than Significant Impact.* Potable water demand associated with the Jonas Community Center would be approximately 2,653 gpd while water demand associated with the Miwok Wellness Center would be about 7,247 gpd for a combined total of 9,900 gpd.<sup>12</sup> Detailed information on the City's water supply and water demands is documented in the NMWD's 2015 Urban Water Management Plan (UWMP). Water demand projections in the 2015 UWMP are based upon growth assumptions in the City's general plan and water use factors for various land uses. The 2015 UWMP documents that there is sufficient water supply for all existing and planned growth from existing and planned future sources (NMWD 2016). As the proposed projects are consistent with the general plan designation for the campus, it is reasonable to assume that the projects are included in the growth assumptions used in the NMWD's 2015 UWMP. Based on the 2015 UWMP, sufficient water supplies are available to serve the projects from existing entitlements and resources, and this impact is considered less than significant.

f, g) *Less than Significant Impact.* Solid waste generation associated with the Jonas Community Center would be approximately 53.4 pounds per day while solid waste generation associated with the Miwok Wellness Center would be about 355.7 pounds per day for a combined total of 409.1 pounds per day.<sup>13</sup> As noted above, Redwood Landfill has a remaining capacity of 17,834,000 cubic yards, or approximately 67 percent of its permitted capacity (McCutcheon 2017). Under current projected development conditions, the landfill has a projected lifespan extending through 2036. Given the available capacity at the landfill, the additional solid waste generated by the projects is not anticipated to cause the facility to exceed its daily permitted capacity. Therefore, solid waste impacts would be less than significant.

### ***Discussion of Potential Cumulative Impacts***

The remaining improvement projects listed in the 2016-2021 FMP could adversely affect utilities and service systems. However, each project would undergo additional environmental review when they are scheduled to be constructed, and if required, mitigation would be provided to reduce impacts to utilities and service systems. Similarly, anticipated future development in Novato would result in the demand for additional potable and non-potable water, water and wastewater treatment capacity, and solid waste disposal capacity. However, as indicated above, the increase in water demand, and the wastewater and solid waste generated by the proposed projects would be small and would be accommodated by existing water supplies, available WTP and WWTP treatment capacity, and available landfill capacity. As a result, the contribution of the proposed projects to these impacts would not be cumulative considerable.

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<sup>12</sup> Obtained from estimates provided by CalEEMod (see **Appendix B**)

<sup>13</sup> Based on a solid waste generation rate of 7 pounds/1,000 square feet for community centers (7,635 square feet X 7 pounds/1,000 square feet = 53.4 pounds/day) and a solid waste generation rate of 2.5 pounds/100 square feet for fitness clubs (14,228 square feet X 2.5 pounds/100 square feet = 355.7 pounds/day).

Issues	Potentially Significant Impact	Less than Significant with Project Mitigation	Less Than Significant Impact	No Impact
<p><b>19. MANDATORY FINDINGS OF SIGNIFICANCE</b> – The lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur. Where prior to commencement of the environmental analysis a project proponent agrees to mitigation measures or project modifications that would avoid any significant effect on the environment or would mitigate the significant environmental effect, a lead agency need not prepare an EIR solely because without mitigation the environmental effects would have been significant (per Section 15065 of the <i>State CEQA Guidelines</i>):</p>				
<p>a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion of Potential Project Impacts**

a) **Less than Significant Impact with Mitigation.** Please refer to responses under Biological Resources **Items 4(a)** through **4(f)**, and Cultural Resources **Items 5(a)** through **5(e)**, above. Development of the proposed projects on the Indian Valley Campus would not significantly affect fish or wildlife habitat, nor would it eliminate examples of California history or prehistory. With the implementation of **Mitigation Measures BIO-1** and **BIO-2**, identified above in this Initial Study, and adherence to Policy AP 6580 of the Marin Community College District Administrative Procedures, all impacts would be reduced to a less than significant level and the proposed projects would not degrade the quality of the environment. Impacts under this criterion would be less than significant.

b) *Less than Significant Impact*. Cumulative impacts for each environmental factor are addressed in the checklist above. As that discussion shows, the proposed projects would not result in significant cumulative impacts. Furthermore, with the mitigation identified in this Initial Study, the contribution of the proposed projects to cumulative impacts would not be cumulatively considerable.

c) *Less than Significant Impact*. The proposed projects would be required to conform to a wide variety of mandatory obligations related to human safety and the quality of their environment, and the specific mitigation measures identified in this Initial Study would reduce all impacts to a less than significant level. Therefore, implementation of the proposed projects would not cause substantial adverse effects on human beings, and the impact under this criterion would be less than significant.

## VI. SUPPORTING INFORMATION SOURCES

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## **VII. INITIAL STUDY PREPARERS**

### **College of Marin**

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**APPENDIX A**

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**Proposed Mitigated Negative Declaration**

## PROPOSED MITIGATED NEGATIVE DECLARATION

- Lead Agency:** Marin Community College District  
835 College Avenue  
Kentfield, CA 94904
- Project Proponent:** Marin Community College District  
835 College Avenue  
Kentfield, CA 94904
- Project Location:** Indian Valley Campus, located in northern Marin County in the incorporated community of Novato.
- Project Description:** The College of Marin Facilities Master Plan (FMP) 2016-2021 includes a number of improvements for the Indian Valley campus. The improvements contained in the FMP address current and projected needs on the Indian Valley Campus through 2021. The District approved three of the FMP improvement projects in November 2017 and they are currently under construction. The District plans on constructing two more of the improvement projects listed in the FMP over the next 12-24 months. A description of each project is provided below:
- **Jonas Community Center** – This improvement project is located in the central portion of the campus north of the Career Study Center, south of Ignacio Creek and west of the Administrative Services buildings. The facility would provide meeting space for a minimum of 250 people and include a raised stage, state-of-the-art audio and visual equipment, commercial equipment and counter area, patio or deck areas, and at least one room for flex space. The facility would include the renovation on an existing structure (Building 18) and the construction of a new structure on the foundation of a demolished structure (Building 20). Overall the Jonas Community Center would include 7,635 square feet of space and would be 30 feet in height.
  - **Miwok Wellness Center**– This improvement project is located in the south central portion of campus south of the Administrative Services buildings, east of the Pomo cluster, and west of the Career Study Center. The project would support wellness, kinesiology, aquatics, and athletics programs for students and the surrounding community. The facility would include a main building, an Olympic-sized swimming pool and lap pool, and a smaller pool storage and mechanical building. The main building would include 14,228 square feet of space and be 22 feet in height and would house a fitness center. Locker rooms, classrooms, offices, a lobby, and space for storage will also be included in the main building. The pool storage/mechanical building would include 1,712 square of space and would be 16 feet in height. The Miwok Wellness Center would require the demolition of the existing Miwok cluster.

**Mitigation Measures:**

**Mitigation Measure AIR-1:** The construction contractor(s) shall implement the following BMPs during project construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil stockpiles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five 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.
- 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.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

**Mitigation Measure BIO-1:** A pre-construction survey for nesting birds shall be conducted by a qualified biologist within two weeks prior to start of construction activities, if activities are to occur within nesting/breeding season of native bird species (February-August). If active nests are identified within 300 feet of construction, and would be exposed to prolonged construction-related noise, a buffer shall be implemented around nests during the breeding season, or until a biologist determines the young have fledged. The size of the buffer will depend on the multiple factors, including relative change in noise and disturbance during construction activity, amount of vegetative screening between activity and nest, and sensitivity of species. The qualified

biologist will identify the appropriate buffer size and monitor implementation and compliance.

**Mitigation Measure BIO-2:** A pre-construction assessment of buildings slated for demolition or remodel shall be conducted by a qualified bat biologist. If no bats or signs of roosting are observed, no further action is necessary. If bats or signs of bats are observed, a qualified bat biologist shall prepare specific recommendations to cause bats to abandon the roost, or be evicted humanely.

If any large trees will be removed or directly impacted by the construction activities, the potential of these trees to provide suitable roosting habitat shall also be assessed, and a roosting bat protection plan shall be implemented.

**Mitigation Measure CUL-1:** Prior to project construction, construction personnel shall be informed of the potential for encountering significant paleontological resources. All construction personnel shall be informed of the need to stop work in the vicinity of a potential discovery until a qualified paleontologist has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed of the requirements that unauthorized collection of resources is prohibited.

**Mitigation Measure NOI-1a:** Construction activities shall be restricted to between the hours of 7:00 AM and 5:00 PM on weekdays and Saturdays. No construction shall occur on Sundays and holidays.

**Mitigation Measure NOI-1b:** Prior to initiation of construction, the Campus shall approve a construction noise mitigation program including but not limited to the following.

- All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with exhaust mufflers and air-inlet silencers where appropriate, in good operating condition that meet or exceed original factory specification.
- Mobile or fixed “package” equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- All mobile or fixed noise producing equipment used on the project, which is regulated for noise output by local, state or federal agency, shall comply with such regulation while engaged in project-related activities.

*Proposed Mitigated Negative Declaration*

- Material stockpiles and mobile equipment staging, construction vehicle parking and maintenance areas shall be located as far as practicable from noise-sensitive land uses.
- Stationary noise sources such as generators or pumps shall be located away from noise-sensitive land uses as feasible.
- The erection of temporary noise barriers shall be considered where project activity is unavoidably close to noise-sensitive receptors.
- Construction vehicle trips shall be routed as far as practical from existing sensitive uses.
- The loudest campus construction activities, such as demolition and pile driving, shall be considered for scheduling during academic breaks when fewer people would be disturbed by construction noise.
- Whenever possible, academic, administrative, and sensitive use areas that will be subject to construction noise shall be informed prior to the start of each construction project.

**APPENDIX B**

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**Air Quality Calculations**

**Legend**

- 1,000 Foot Radius
- Indian Valley College
- Proposed Project
- San Jose Middle School
- Sensitive Receptors



Miwok Wellness Center - Marin County, Annual

**Miwok Wellness Center**  
**Marin County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	14.23	1000sqft	0.33	14,230.00	100
Recreational Swimming Pool	13.50	1000sqft	0.31	13,500.00	100

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	69
<b>Climate Zone</b>	5			<b>Operational Year</b>	2020
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<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**



Miwok Wellness Center - Marin County, Annual

Project Characteristics -

Land Use - 14,228sf fitness center, 1,712sf pool building, and olympic sized swimming pool (25x50m).

Construction Phase - Based on Miwok Construction Schedule document dated 3.31.2018

Demolition -

Grading - Total disturbance area is 3.2 acres. Fine grading est. 1 acre.

Architectural Coating - Interior and exterior coatings performed in separate phases.

Vehicle Trips - 75 total new trips.

Construction Off-road Equipment Mitigation - Mitigation reflects BAAQMD CEQA Guidelines Table 8-2 Basic Mitigation required for all projects.

Area Coating -

Energy Use -

Water And Wastewater -

Solid Waste -

## Miwok Wellness Center - Marin County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	7,971.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	23,913.00	0.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	12.00
tblConstructionPhase	NumDays	2.00	44.00
tblConstructionPhase	NumDays	100.00	337.00
tblConstructionPhase	NumDays	5.00	30.00
tblConstructionPhase	NumDays	5.00	43.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblGrading	AcresOfGrading	0.00	3.20
tblGrading	AcresOfGrading	0.00	1.00
tblLandUse	Population	0.00	100.00
tblLandUse	Population	0.00	100.00
tblVehicleTrips	ST_TR	20.87	5.30
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	26.73	5.30
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	32.93	5.30
tblVehicleTrips	WD_TR	33.82	0.00

## 2.0 Emissions Summary

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Miwok Wellness Center - Marin County, Annual

**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					
2018	0.0244	0.2237	0.1799	3.2000e-004	0.0294	0.0135	0.0429	9.3400e-003	0.0129	0.0222	0.0000	29.2131	29.2131	4.7200e-003	0.0000	29.3312
2019	0.1945	1.3993	1.1028	1.8600e-003	0.0233	0.0824	0.1057	7.4100e-003	0.0762	0.0836	0.0000	167.7040	167.7040	0.0431	0.0000	168.7823
2020	0.0911	0.5908	0.5260	9.0000e-004	0.0161	0.0333	0.0494	6.3700e-003	0.0310	0.0373	0.0000	78.8546	78.8546	0.0198	0.0000	79.3485
<b>Maximum</b>	<b>0.1945</b>	<b>1.3993</b>	<b>1.1028</b>	<b>1.8600e-003</b>	<b>0.0294</b>	<b>0.0824</b>	<b>0.1057</b>	<b>9.3400e-003</b>	<b>0.0762</b>	<b>0.0836</b>	<b>0.0000</b>	<b>167.7040</b>	<b>167.7040</b>	<b>0.0431</b>	<b>0.0000</b>	<b>168.7823</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					
2018	0.0244	0.2237	0.1799	3.2000e-004	0.0147	0.0135	0.0282	4.6100e-003	0.0129	0.0175	0.0000	29.2130	29.2130	4.7200e-003	0.0000	29.3311
2019	0.1945	1.3993	1.1028	1.8600e-003	0.0197	0.0824	0.1021	5.8300e-003	0.0762	0.0821	0.0000	167.7038	167.7038	0.0431	0.0000	168.7822
2020	0.0911	0.5908	0.5260	9.0000e-004	0.0117	0.0333	0.0450	4.0600e-003	0.0310	0.0350	0.0000	78.8545	78.8545	0.0198	0.0000	79.3484
<b>Maximum</b>	<b>0.1945</b>	<b>1.3993</b>	<b>1.1028</b>	<b>1.8600e-003</b>	<b>0.0197</b>	<b>0.0824</b>	<b>0.1021</b>	<b>5.8300e-003</b>	<b>0.0762</b>	<b>0.0821</b>	<b>0.0000</b>	<b>167.7038</b>	<b>167.7038</b>	<b>0.0431</b>	<b>0.0000</b>	<b>168.7822</b>

## Miwok Wellness Center - Marin County, Annual

	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
Percent Reduction	0.00	0.00	0.00	0.00	33.04	0.00	11.48	37.28	0.00	6.02	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-1-2018	1-31-2019	0.3588	0.3588
2	2-1-2019	4-30-2019	0.3653	0.3653
3	5-1-2019	7-31-2019	0.3771	0.3771
4	8-1-2019	10-31-2019	0.4128	0.4128
5	11-1-2019	1-31-2020	0.4835	0.4835
6	2-1-2020	4-30-2020	0.5021	0.5021
7	5-1-2020	7-31-2020	0.0148	0.0148
		Highest	0.5021	0.5021

Miwok Wellness Center - Marin County, Annual

**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	0.0706	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	50.0902	50.0902	1.7800e-003	6.4000e-004	50.3246
Mobile	0.0198	0.0599	0.1965	5.6000e-004	0.0483	6.7000e-004	0.0489	0.0130	6.3000e-004	0.0136	0.0000	51.0684	51.0684	1.9400e-003	0.0000	51.1169
Waste						0.0000	0.0000		0.0000	0.0000	32.0848	0.0000	32.0848	1.8962	0.0000	79.4886
Water						0.0000	0.0000		0.0000	0.0000	0.5203	3.6051	4.1254	0.0536	1.3000e-003	5.8516
<b>Total</b>	<b>0.0923</b>	<b>0.0771</b>	<b>0.2113</b>	<b>6.6000e-004</b>	<b>0.0483</b>	<b>1.9800e-003</b>	<b>0.0503</b>	<b>0.0130</b>	<b>1.9400e-003</b>	<b>0.0149</b>	<b>32.6051</b>	<b>104.7642</b>	<b>137.3693</b>	<b>1.9535</b>	<b>1.9400e-003</b>	<b>186.7822</b>

Miwok Wellness Center - Marin County, Annual

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0706	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	50.0902	50.0902	1.7800e-003	6.4000e-004	50.3246
Mobile	0.0198	0.0599	0.1965	5.6000e-004	0.0483	6.7000e-004	0.0489	0.0130	6.3000e-004	0.0136	0.0000	51.0684	51.0684	1.9400e-003	0.0000	51.1169
Waste						0.0000	0.0000		0.0000	0.0000	32.0848	0.0000	32.0848	1.8962	0.0000	79.4886
Water						0.0000	0.0000		0.0000	0.0000	0.5203	3.6051	4.1254	0.0536	1.3000e-003	5.8516
<b>Total</b>	<b>0.0923</b>	<b>0.0771</b>	<b>0.2113</b>	<b>6.6000e-004</b>	<b>0.0483</b>	<b>1.9800e-003</b>	<b>0.0503</b>	<b>0.0130</b>	<b>1.9400e-003</b>	<b>0.0149</b>	<b>32.6051</b>	<b>104.7642</b>	<b>137.3693</b>	<b>1.9535</b>	<b>1.9400e-003</b>	<b>186.7822</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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2018	11/16/2018	5	12	
2	Grading	Grading	11/19/2018	1/17/2019	5	44	
3	Trenching	Trenching	12/5/2018	1/17/2019	5	32	
4	Building Construction	Building Construction	1/18/2019	5/4/2020	5	337	
5	Exterior Architectural Coating	Architectural Coating	10/7/2019	11/15/2019	5	30	
6	Interior Architectural Coating	Architectural Coating	12/4/2019	1/31/2020	5	43	
7	Fine Grading	Grading	2/18/2020	3/16/2020	5	20	
8	Paving	Paving	3/17/2020	4/13/2020	5	20	

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

**Acres of Grading (Grading Phase): 3.2**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 7,971; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Miwok Wellness Center - Marin County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Exterior Architectural Coating	Air Compressors	1	6.00	78	0.48
Interior Architectural Coating	Air Compressors	1	6.00	78	0.48
Fine Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Fine Grading	Rubber Tired Dozers	1	1.00	247	0.40
Fine Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37

**Trips and VMT**



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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	4	10.00	0.00	123.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	12.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Exterior Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching			0.00	0.00	10.80	7.30				
Interior Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	4	10.00	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 - 2018**

**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					0.0133	0.0000	0.0133	2.0100e-003	0.0000	2.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3900e-003	0.0566	0.0467	7.0000e-005		3.7400e-003	3.7400e-003		3.5700e-003	3.5700e-003	0.0000	6.3649	6.3649	1.2300e-003	0.0000	6.3956
<b>Total</b>	<b>6.3900e-003</b>	<b>0.0566</b>	<b>0.0467</b>	<b>7.0000e-005</b>	<b>0.0133</b>	<b>3.7400e-003</b>	<b>0.0170</b>	<b>2.0100e-003</b>	<b>3.5700e-003</b>	<b>5.5800e-003</b>	<b>0.0000</b>	<b>6.3649</b>	<b>6.3649</b>	<b>1.2300e-003</b>	<b>0.0000</b>	<b>6.3956</b>

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**3.2 Demolition - 2018**

**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	6.6000e-004	0.0203	6.3600e-003	5.0000e-005	1.0300e-003	9.0000e-005	1.1200e-003	2.8000e-004	8.0000e-005	3.7000e-004	0.0000	4.7981	4.7981	2.8000e-004	0.0000	4.8051
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	2.5000e-004	1.8000e-004	1.7800e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4486	0.4486	1.0000e-005	0.0000	0.4489
<b>Total</b>	<b>9.1000e-004</b>	<b>0.0205</b>	<b>8.1400e-003</b>	<b>5.0000e-005</b>	<b>1.5000e-003</b>	<b>9.0000e-005</b>	<b>1.6000e-003</b>	<b>4.1000e-004</b>	<b>8.0000e-005</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>5.2467</b>	<b>5.2467</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>5.2540</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					5.9800e-003	0.0000	5.9800e-003	9.1000e-004	0.0000	9.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3900e-003	0.0566	0.0467	7.0000e-005		3.7400e-003	3.7400e-003		3.5700e-003	3.5700e-003	0.0000	6.3649	6.3649	1.2300e-003	0.0000	6.3956
<b>Total</b>	<b>6.3900e-003</b>	<b>0.0566</b>	<b>0.0467</b>	<b>7.0000e-005</b>	<b>5.9800e-003</b>	<b>3.7400e-003</b>	<b>9.7200e-003</b>	<b>9.1000e-004</b>	<b>3.5700e-003</b>	<b>4.4800e-003</b>	<b>0.0000</b>	<b>6.3649</b>	<b>6.3649</b>	<b>1.2300e-003</b>	<b>0.0000</b>	<b>6.3956</b>

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**3.2 Demolition - 2018**

**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	6.6000e-004	0.0203	6.3600e-003	5.0000e-005	1.0300e-003	9.0000e-005	1.1200e-003	2.8000e-004	8.0000e-005	3.7000e-004	0.0000	4.7981	4.7981	2.8000e-004	0.0000	4.8051
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	2.5000e-004	1.8000e-004	1.7800e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4486	0.4486	1.0000e-005	0.0000	0.4489
<b>Total</b>	<b>9.1000e-004</b>	<b>0.0205</b>	<b>8.1400e-003</b>	<b>5.0000e-005</b>	<b>1.5000e-003</b>	<b>9.0000e-005</b>	<b>1.6000e-003</b>	<b>4.1000e-004</b>	<b>8.0000e-005</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>5.2467</b>	<b>5.2467</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>5.2540</b>

**3.3 Grading - 2018**

**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					0.0134	0.0000	0.0134	6.6000e-003	0.0000	6.6000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0165	0.1462	0.1205	1.9000e-004		9.6500e-003	9.6500e-003		9.2100e-003	9.2100e-003	0.0000	16.4427	16.4427	3.1700e-003	0.0000	16.5219
<b>Total</b>	<b>0.0165</b>	<b>0.1462</b>	<b>0.1205</b>	<b>1.9000e-004</b>	<b>0.0134</b>	<b>9.6500e-003</b>	<b>0.0230</b>	<b>6.6000e-003</b>	<b>9.2100e-003</b>	<b>0.0158</b>	<b>0.0000</b>	<b>16.4427</b>	<b>16.4427</b>	<b>3.1700e-003</b>	<b>0.0000</b>	<b>16.5219</b>

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**3.3 Grading - 2018**

**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	6.4000e-004	4.8000e-004	4.5900e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1588	1.1588	3.0000e-005	0.0000	1.1596
<b>Total</b>	<b>6.4000e-004</b>	<b>4.8000e-004</b>	<b>4.5900e-003</b>	<b>1.0000e-005</b>	<b>1.2200e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.1588</b>	<b>1.1588</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.1596</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					6.0100e-003	0.0000	6.0100e-003	2.9700e-003	0.0000	2.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0165	0.1462	0.1205	1.9000e-004		9.6500e-003	9.6500e-003		9.2100e-003	9.2100e-003	0.0000	16.4426	16.4426	3.1700e-003	0.0000	16.5219
<b>Total</b>	<b>0.0165</b>	<b>0.1462</b>	<b>0.1205</b>	<b>1.9000e-004</b>	<b>6.0100e-003</b>	<b>9.6500e-003</b>	<b>0.0157</b>	<b>2.9700e-003</b>	<b>9.2100e-003</b>	<b>0.0122</b>	<b>0.0000</b>	<b>16.4426</b>	<b>16.4426</b>	<b>3.1700e-003</b>	<b>0.0000</b>	<b>16.5219</b>

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**3.3 Grading - 2018**

**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	6.4000e-004	4.8000e-004	4.5900e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1588	1.1588	3.0000e-005	0.0000	1.1596
<b>Total</b>	<b>6.4000e-004</b>	<b>4.8000e-004</b>	<b>4.5900e-003</b>	<b>1.0000e-005</b>	<b>1.2200e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.1588</b>	<b>1.1588</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.1596</b>

**3.3 Grading - 2019**

**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					6.5900e-003	0.0000	6.5900e-003	2.8700e-003	0.0000	2.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1900e-003	0.0559	0.0500	8.0000e-005		3.4900e-003	3.4900e-003		3.3300e-003	3.3300e-003	0.0000	6.8382	6.8382	1.3000e-003	0.0000	6.8708
<b>Total</b>	<b>6.1900e-003</b>	<b>0.0559</b>	<b>0.0500</b>	<b>8.0000e-005</b>	<b>6.5900e-003</b>	<b>3.4900e-003</b>	<b>0.0101</b>	<b>2.8700e-003</b>	<b>3.3300e-003</b>	<b>6.2000e-003</b>	<b>0.0000</b>	<b>6.8382</b>	<b>6.8382</b>	<b>1.3000e-003</b>	<b>0.0000</b>	<b>6.8708</b>

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**3.3 Grading - 2019**

**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	2.5000e-004	1.8000e-004	1.7100e-003	1.0000e-005	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4714	0.4714	1.0000e-005	0.0000	0.4717
<b>Total</b>	<b>2.5000e-004</b>	<b>1.8000e-004</b>	<b>1.7100e-003</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>5.2000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4714</b>	<b>0.4714</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4717</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					2.9700e-003	0.0000	2.9700e-003	1.2900e-003	0.0000	1.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1900e-003	0.0559	0.0500	8.0000e-005		3.4900e-003	3.4900e-003		3.3300e-003	3.3300e-003	0.0000	6.8381	6.8381	1.3000e-003	0.0000	6.8707
<b>Total</b>	<b>6.1900e-003</b>	<b>0.0559</b>	<b>0.0500</b>	<b>8.0000e-005</b>	<b>2.9700e-003</b>	<b>3.4900e-003</b>	<b>6.4600e-003</b>	<b>1.2900e-003</b>	<b>3.3300e-003</b>	<b>4.6200e-003</b>	<b>0.0000</b>	<b>6.8381</b>	<b>6.8381</b>	<b>1.3000e-003</b>	<b>0.0000</b>	<b>6.8707</b>







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**3.4 Trenching - 2019**

**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
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
Worker					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>0.0000</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>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.5 Building Construction - 2019**

**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	0.1187	1.2178	0.9354	1.4100e-003		0.0751	0.0751		0.0691	0.0691	0.0000	126.8526	126.8526	0.0401	0.0000	127.8560
<b>Total</b>	<b>0.1187</b>	<b>1.2178</b>	<b>0.9354</b>	<b>1.4100e-003</b>		<b>0.0751</b>	<b>0.0751</b>		<b>0.0691</b>	<b>0.0691</b>	<b>0.0000</b>	<b>126.8526</b>	<b>126.8526</b>	<b>0.0401</b>	<b>0.0000</b>	<b>127.8560</b>

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**3.5 Building Construction - 2019**

**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	3.3700e-003	0.0754	0.0293	1.7000e-004	4.0500e-003	5.5000e-004	4.6100e-003	1.1700e-003	5.3000e-004	1.7000e-003	0.0000	16.0038	16.0038	8.5000e-004	0.0000	16.0251
Worker	5.6300e-003	4.0100e-003	0.0391	1.2000e-004	0.0117	8.0000e-005	0.0118	3.1200e-003	8.0000e-005	3.1900e-003	0.0000	10.7922	10.7922	2.8000e-004	0.0000	10.7993
<b>Total</b>	<b>9.0000e-003</b>	<b>0.0794</b>	<b>0.0684</b>	<b>2.9000e-004</b>	<b>0.0158</b>	<b>6.3000e-004</b>	<b>0.0164</b>	<b>4.2900e-003</b>	<b>6.1000e-004</b>	<b>4.8900e-003</b>	<b>0.0000</b>	<b>26.7960</b>	<b>26.7960</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>26.8244</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	0.1187	1.2178	0.9354	1.4100e-003		0.0751	0.0751		0.0691	0.0691	0.0000	126.8524	126.8524	0.0401	0.0000	127.8558
<b>Total</b>	<b>0.1187</b>	<b>1.2178</b>	<b>0.9354</b>	<b>1.4100e-003</b>		<b>0.0751</b>	<b>0.0751</b>		<b>0.0691</b>	<b>0.0691</b>	<b>0.0000</b>	<b>126.8524</b>	<b>126.8524</b>	<b>0.0401</b>	<b>0.0000</b>	<b>127.8558</b>

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**3.5 Building Construction - 2019**

**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	3.3700e-003	0.0754	0.0293	1.7000e-004	4.0500e-003	5.5000e-004	4.6100e-003	1.1700e-003	5.3000e-004	1.7000e-003	0.0000	16.0038	16.0038	8.5000e-004	0.0000	16.0251
Worker	5.6300e-003	4.0100e-003	0.0391	1.2000e-004	0.0117	8.0000e-005	0.0118	3.1200e-003	8.0000e-005	3.1900e-003	0.0000	10.7922	10.7922	2.8000e-004	0.0000	10.7993
<b>Total</b>	<b>9.0000e-003</b>	<b>0.0794</b>	<b>0.0684</b>	<b>2.9000e-004</b>	<b>0.0158</b>	<b>6.3000e-004</b>	<b>0.0164</b>	<b>4.2900e-003</b>	<b>6.1000e-004</b>	<b>4.8900e-003</b>	<b>0.0000</b>	<b>26.7960</b>	<b>26.7960</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>26.8244</b>

**3.5 Building Construction - 2020**

**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	0.0384	0.3939	0.3287	5.1000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	44.5269	44.5269	0.0144	0.0000	44.8869
<b>Total</b>	<b>0.0384</b>	<b>0.3939</b>	<b>0.3287</b>	<b>5.1000e-004</b>		<b>0.0233</b>	<b>0.0233</b>		<b>0.0214</b>	<b>0.0214</b>	<b>0.0000</b>	<b>44.5269</b>	<b>44.5269</b>	<b>0.0144</b>	<b>0.0000</b>	<b>44.8869</b>

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**3.5 Building Construction - 2020**

**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	9.7000e-004	0.0245	9.0900e-003	6.0000e-005	1.4500e-003	1.3000e-004	1.5800e-003	4.2000e-004	1.2000e-004	5.4000e-004	0.0000	5.7105	5.7105	2.9000e-004	0.0000	5.7177
Worker	1.8600e-003	1.2800e-003	0.0126	4.0000e-005	4.2100e-003	3.0000e-005	4.2400e-003	1.1200e-003	3.0000e-005	1.1500e-003	0.0000	3.7517	3.7517	9.0000e-005	0.0000	3.7539
<b>Total</b>	<b>2.8300e-003</b>	<b>0.0258</b>	<b>0.0217</b>	<b>1.0000e-004</b>	<b>5.6600e-003</b>	<b>1.6000e-004</b>	<b>5.8200e-003</b>	<b>1.5400e-003</b>	<b>1.5000e-004</b>	<b>1.6900e-003</b>	<b>0.0000</b>	<b>9.4622</b>	<b>9.4622</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>9.4716</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	0.0384	0.3939	0.3287	5.1000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	44.5269	44.5269	0.0144	0.0000	44.8869
<b>Total</b>	<b>0.0384</b>	<b>0.3939</b>	<b>0.3287</b>	<b>5.1000e-004</b>		<b>0.0233</b>	<b>0.0233</b>		<b>0.0214</b>	<b>0.0214</b>	<b>0.0000</b>	<b>44.5269</b>	<b>44.5269</b>	<b>0.0144</b>	<b>0.0000</b>	<b>44.8869</b>

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**3.5 Building Construction - 2020**

**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	9.7000e-004	0.0245	9.0900e-003	6.0000e-005	1.4500e-003	1.3000e-004	1.5800e-003	4.2000e-004	1.2000e-004	5.4000e-004	0.0000	5.7105	5.7105	2.9000e-004	0.0000	5.7177
Worker	1.8600e-003	1.2800e-003	0.0126	4.0000e-005	4.2100e-003	3.0000e-005	4.2400e-003	1.1200e-003	3.0000e-005	1.1500e-003	0.0000	3.7517	3.7517	9.0000e-005	0.0000	3.7539
<b>Total</b>	<b>2.8300e-003</b>	<b>0.0258</b>	<b>0.0217</b>	<b>1.0000e-004</b>	<b>5.6600e-003</b>	<b>1.6000e-004</b>	<b>5.8200e-003</b>	<b>1.5400e-003</b>	<b>1.5000e-004</b>	<b>1.6900e-003</b>	<b>0.0000</b>	<b>9.4622</b>	<b>9.4622</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>9.4716</b>

**3.6 Exterior Architectural Coating - 2019**

**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	0.0277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-003	0.0275	0.0276	4.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	3.8299	3.8299	3.2000e-004	0.0000	3.8380
<b>Total</b>	<b>0.0317</b>	<b>0.0275</b>	<b>0.0276</b>	<b>4.0000e-005</b>		<b>1.9300e-003</b>	<b>1.9300e-003</b>		<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>0.0000</b>	<b>3.8299</b>	<b>3.8299</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>3.8380</b>

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**3.6 Exterior Architectural Coating - 2019**

**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	1.1000e-004	8.0000e-005	7.9000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2176	0.2176	1.0000e-005	0.0000	0.2177
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2176</b>	<b>0.2176</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2177</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	0.0277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-003	0.0275	0.0276	4.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	3.8299	3.8299	3.2000e-004	0.0000	3.8380
<b>Total</b>	<b>0.0317</b>	<b>0.0275</b>	<b>0.0276</b>	<b>4.0000e-005</b>		<b>1.9300e-003</b>	<b>1.9300e-003</b>		<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>0.0000</b>	<b>3.8299</b>	<b>3.8299</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>3.8380</b>

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**3.6 Exterior Architectural Coating - 2019**

**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	1.1000e-004	8.0000e-005	7.9000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2176	0.2176	1.0000e-005	0.0000	0.2177
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2176</b>	<b>0.2176</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2177</b>

**3.7 Interior Architectural Coating - 2019**

**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	0.0258					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
<b>Total</b>	<b>0.0284</b>	<b>0.0184</b>	<b>0.0184</b>	<b>3.0000e-005</b>		<b>1.2900e-003</b>	<b>1.2900e-003</b>		<b>1.2900e-003</b>	<b>1.2900e-003</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.5587</b>

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**3.7 Interior Architectural Coating - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1451	0.1451	0.0000	0.0000	0.1452
<b>Total</b>	<b>8.0000e-005</b>	<b>5.0000e-005</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1451</b>	<b>0.1451</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1452</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	0.0258					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
<b>Total</b>	<b>0.0284</b>	<b>0.0184</b>	<b>0.0184</b>	<b>3.0000e-005</b>		<b>1.2900e-003</b>	<b>1.2900e-003</b>		<b>1.2900e-003</b>	<b>1.2900e-003</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.5586</b>



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**3.7 Interior Architectural Coating - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1451	0.1451	0.0000	0.0000	0.1452
<b>Total</b>	<b>8.0000e-005</b>	<b>5.0000e-005</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1451</b>	<b>0.1451</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1452</b>

**3.7 Interior Architectural Coating - 2020**

**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	0.0296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0194	0.0211	3.0000e-005		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	2.9362	2.9362	2.3000e-004	0.0000	2.9419
<b>Total</b>	<b>0.0324</b>	<b>0.0194</b>	<b>0.0211</b>	<b>3.0000e-005</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>2.9362</b>	<b>2.9362</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>2.9419</b>

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**3.7 Interior Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.4000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1616	0.1616	0.0000	0.0000	0.1617
<b>Total</b>	<b>8.0000e-005</b>	<b>5.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.1616</b>	<b>0.1616</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1617</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	0.0296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0194	0.0211	3.0000e-005		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	2.9362	2.9362	2.3000e-004	0.0000	2.9419
<b>Total</b>	<b>0.0324</b>	<b>0.0194</b>	<b>0.0211</b>	<b>3.0000e-005</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>2.9362</b>	<b>2.9362</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>2.9419</b>

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**3.7 Interior Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.4000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1616	0.1616	0.0000	0.0000	0.1617
<b>Total</b>	<b>8.0000e-005</b>	<b>5.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.1616</b>	<b>0.1616</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1617</b>

**3.8 Fine Grading - 2020**

**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					8.0600e-003	0.0000	8.0600e-003	4.2000e-003	0.0000	4.2000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6700e-003	0.0787	0.0762	1.2000e-004		4.6700e-003	4.6700e-003		4.4600e-003	4.4600e-003	0.0000	10.4075	10.4075	1.9700e-003	0.0000	10.4567
<b>Total</b>	<b>8.6700e-003</b>	<b>0.0787</b>	<b>0.0762</b>	<b>1.2000e-004</b>	<b>8.0600e-003</b>	<b>4.6700e-003</b>	<b>0.0127</b>	<b>4.2000e-003</b>	<b>4.4600e-003</b>	<b>8.6600e-003</b>	<b>0.0000</b>	<b>10.4075</b>	<b>10.4075</b>	<b>1.9700e-003</b>	<b>0.0000</b>	<b>10.4567</b>

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**3.8 Fine Grading - 2020**

**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	3.5000e-004	2.4000e-004	2.3600e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.7026	0.7026	2.0000e-005	0.0000	0.7030
<b>Total</b>	<b>3.5000e-004</b>	<b>2.4000e-004</b>	<b>2.3600e-003</b>	<b>1.0000e-005</b>	<b>7.9000e-004</b>	<b>1.0000e-005</b>	<b>7.9000e-004</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.7026</b>	<b>0.7026</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7030</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					3.6300e-003	0.0000	3.6300e-003	1.8900e-003	0.0000	1.8900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6700e-003	0.0787	0.0762	1.2000e-004		4.6700e-003	4.6700e-003		4.4600e-003	4.4600e-003	0.0000	10.4075	10.4075	1.9700e-003	0.0000	10.4567
<b>Total</b>	<b>8.6700e-003</b>	<b>0.0787</b>	<b>0.0762</b>	<b>1.2000e-004</b>	<b>3.6300e-003</b>	<b>4.6700e-003</b>	<b>8.3000e-003</b>	<b>1.8900e-003</b>	<b>4.4600e-003</b>	<b>6.3500e-003</b>	<b>0.0000</b>	<b>10.4075</b>	<b>10.4075</b>	<b>1.9700e-003</b>	<b>0.0000</b>	<b>10.4567</b>

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**3.8 Fine Grading - 2020**

**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	3.5000e-004	2.4000e-004	2.3600e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.7026	0.7026	2.0000e-005	0.0000	0.7030
<b>Total</b>	<b>3.5000e-004</b>	<b>2.4000e-004</b>	<b>2.3600e-003</b>	<b>1.0000e-005</b>	<b>7.9000e-004</b>	<b>1.0000e-005</b>	<b>7.9000e-004</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.7026</b>	<b>0.7026</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7030</b>

**3.9 Paving - 2020**

**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	7.7200e-003	0.0723	0.0711	1.1000e-004		3.9500e-003	3.9500e-003		3.6700e-003	3.6700e-003	0.0000	9.3929	9.3929	2.7400e-003	0.0000	9.4613
Paving	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>7.7200e-003</b>	<b>0.0723</b>	<b>0.0711</b>	<b>1.1000e-004</b>		<b>3.9500e-003</b>	<b>3.9500e-003</b>		<b>3.6700e-003</b>	<b>3.6700e-003</b>	<b>0.0000</b>	<b>9.3929</b>	<b>9.3929</b>	<b>2.7400e-003</b>	<b>0.0000</b>	<b>9.4613</b>

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**3.9 Paving - 2020**

**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	6.3000e-004	4.3000e-004	4.2600e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2646	1.2646	3.0000e-005	0.0000	1.2654
<b>Total</b>	<b>6.3000e-004</b>	<b>4.3000e-004</b>	<b>4.2600e-003</b>	<b>1.0000e-005</b>	<b>1.4200e-003</b>	<b>1.0000e-005</b>	<b>1.4300e-003</b>	<b>3.8000e-004</b>	<b>1.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.2646</b>	<b>1.2646</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.2654</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	7.7200e-003	0.0723	0.0711	1.1000e-004		3.9500e-003	3.9500e-003		3.6700e-003	3.6700e-003	0.0000	9.3929	9.3929	2.7400e-003	0.0000	9.4613
Paving	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>7.7200e-003</b>	<b>0.0723</b>	<b>0.0711</b>	<b>1.1000e-004</b>		<b>3.9500e-003</b>	<b>3.9500e-003</b>		<b>3.6700e-003</b>	<b>3.6700e-003</b>	<b>0.0000</b>	<b>9.3929</b>	<b>9.3929</b>	<b>2.7400e-003</b>	<b>0.0000</b>	<b>9.4613</b>

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**3.9 Paving - 2020**

**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	6.3000e-004	4.3000e-004	4.2600e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2646	1.2646	3.0000e-005	0.0000	1.2654
<b>Total</b>	<b>6.3000e-004</b>	<b>4.3000e-004</b>	<b>4.2600e-003</b>	<b>1.0000e-005</b>	<b>1.4200e-003</b>	<b>1.0000e-005</b>	<b>1.4300e-003</b>	<b>3.8000e-004</b>	<b>1.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.2646</b>	<b>1.2646</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.2654</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	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	0.0198	0.0599	0.1965	5.6000e-004	0.0483	6.7000e-004	0.0489	0.0130	6.3000e-004	0.0136	0.0000	51.0684	51.0684	1.9400e-003	0.0000	51.1169
Unmitigated	0.0198	0.0599	0.1965	5.6000e-004	0.0483	6.7000e-004	0.0489	0.0130	6.3000e-004	0.0136	0.0000	51.0684	51.0684	1.9400e-003	0.0000	51.1169

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Health Club	75.42	75.42	75.42	130,299	130,299
Recreational Swimming Pool	0.00	0.00	0.00		
Total	75.42	75.42	75.42	130,299	130,299

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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.586103	0.042797	0.200835	0.113384	0.018054	0.005119	0.010148	0.010539	0.002013	0.003657	0.005892	0.000682	0.000777
Recreational Swimming Pool	0.586103	0.042797	0.200835	0.113384	0.018054	0.005119	0.010148	0.010539	0.002013	0.003657	0.005892	0.000682	0.000777



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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	31.2959	31.2959	1.4200e-003	2.9000e-004	31.4185
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	31.2959	31.2959	1.4200e-003	2.9000e-004	31.4185
NaturalGas Mitigated	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.7943	18.7943	3.6000e-004	3.4000e-004	18.9060
NaturalGas Unmitigated	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.7943	18.7943	3.6000e-004	3.4000e-004	18.9060

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Health Club	352193	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.7943	18.7943	3.6000e-004	3.4000e-004	18.9060
Recreational Swimming Pool	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>1.9000e-003</b>	<b>0.0173</b>	<b>0.0145</b>	<b>1.0000e-004</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>18.7943</b>	<b>18.7943</b>	<b>3.6000e-004</b>	<b>3.4000e-004</b>	<b>18.9060</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Health Club	352193	1.9000e-003	0.0173	0.0145	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.7943	18.7943	3.6000e-004	3.4000e-004	18.9060
Recreational Swimming Pool	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>1.9000e-003</b>	<b>0.0173</b>	<b>0.0145</b>	<b>1.0000e-004</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>18.7943</b>	<b>18.7943</b>	<b>3.6000e-004</b>	<b>3.4000e-004</b>	<b>18.9060</b>

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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Health Club	107579	31.2959	1.4200e-003	2.9000e-004	31.4185
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>31.2959</b>	<b>1.4200e-003</b>	<b>2.9000e-004</b>	<b>31.4185</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Health Club	107579	31.2959	1.4200e-003	2.9000e-004	31.4185
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>31.2959</b>	<b>1.4200e-003</b>	<b>2.9000e-004</b>	<b>31.4185</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	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	0.0706	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Unmitigated	0.0706	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0623					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
<b>Total</b>	<b>0.0706</b>	<b>0.0000</b>	<b>2.6000e-004</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>5.0000e-004</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.3000e-004</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0623					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
<b>Total</b>	<b>0.0706</b>	<b>0.0000</b>	<b>2.6000e-004</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>5.0000e-004</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.3000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.1254	0.0536	1.3000e-003	5.8516
Unmitigated	4.1254	0.0536	1.3000e-003	5.8516

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Health Club	0.841607 / 0.515824	2.1170	0.0275	6.6000e-004	3.0028
Recreational Swimming Pool	0.798432 / 0.489362	2.0084	0.0261	6.3000e-004	2.8488
<b>Total</b>		<b>4.1254</b>	<b>0.0536</b>	<b>1.2900e-003</b>	<b>5.8516</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Health Club	0.841607 / 0.515824	2.1170	0.0275	6.6000e-004	3.0028
Recreational Swimming Pool	0.798432 / 0.489362	2.0084	0.0261	6.3000e-004	2.8488
<b>Total</b>		<b>4.1254</b>	<b>0.0536</b>	<b>1.2900e-003</b>	<b>5.8516</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	32.0848	1.8962	0.0000	79.4886
Unmitigated	32.0848	1.8962	0.0000	79.4886

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Health Club	81.11	16.4646	0.9730	0.0000	40.7903
Recreational Swimming Pool	76.95	15.6202	0.9231	0.0000	38.6983
<b>Total</b>		<b>32.0848</b>	<b>1.8962</b>	<b>0.0000</b>	<b>79.4886</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Health Club	81.11	16.4646	0.9730	0.0000	40.7903
Recreational Swimming Pool	76.95	15.6202	0.9231	0.0000	38.6983
<b>Total</b>		<b>32.0848</b>	<b>1.8962</b>	<b>0.0000</b>	<b>79.4886</b>

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**Jonas Community Center  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	5.70	1000sqft	0.13	5,700.00	250
Junior College (2Yr)	2.00	1000sqft	0.05	2,000.00	0
Parking Lot	17.00	Space	0.15	6,800.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	69
<b>Climate Zone</b>	5			<b>Operational Year</b>	2020
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<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**

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Project Characteristics -

Land Use - New construction of 5,635sf. 2,000sf existing building to be refurbished. 17 parking spaces. New building would accommodate 250 people.

Construction Phase - Based on Preliminary Construction Schedule for Jonas Center provided by client.

Trips and VMT - Default trips

Demolition -

Grading - Total disturbance area 0.95 acres. 0.15 fine grading for parking.

Architectural Coating - Interior and Exterior coatings performed in separate phases.

Vehicle Trips - Worst case 167 new trips added per day.

Construction Off-road Equipment Mitigation - Reflect Table 8-2 of the BAAQMD CEQA Guidelines.

Fleet Mix -

Area Coating -

## Jonas Community Center - Marin County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	3,850.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	3,850.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	11,550.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	11,550.00	0.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	6.00
tblConstructionPhase	NumDays	5.00	8.00
tblConstructionPhase	NumDays	5.00	6.00
tblConstructionPhase	NumDays	5.00	11.00
tblConstructionPhase	NumDays	100.00	277.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	10.00	12.00
tblConstructionPhase	NumDays	2.00	7.00
tblConstructionPhase	NumDays	5.00	27.00
tblConstructionPhase	NumDays	1.00	12.00
tblGrading	AcresOfGrading	0.00	0.15
tblGrading	AcresOfGrading	6.00	0.95
tblLandUse	Population	0.00	250.00
tblVehicleTrips	ST_TR	11.23	29.30
tblVehicleTrips	SU_TR	1.21	29.30
tblVehicleTrips	WD_TR	27.49	29.30

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2019	5-31-2019	0.5462	0.5462
2	6-1-2019	8-31-2019	0.4234	0.4234
3	9-1-2019	11-30-2019	0.5357	0.5357
4	12-1-2019	2-29-2020	0.3954	0.3954
5	3-1-2020	5-31-2020	0.1818	0.1818
		Highest	0.5462	0.5462

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	0.0347	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004
Energy	1.4200e-003	0.0129	0.0108	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	37.6382	37.6382	1.3400e-003	4.8000e-004	37.8141
Mobile	0.0669	0.2306	0.7670	2.4100e-003	0.2122	2.8300e-003	0.2151	0.0570	2.6600e-003	0.0596	0.0000	220.1731	220.1731	7.8500e-003	0.0000	220.3693
Waste						0.0000	0.0000		0.0000	0.0000	2.0319	0.0000	2.0319	0.1201	0.0000	5.0340
Water						0.0000	0.0000		0.0000	0.0000	0.1198	1.1960	1.3158	0.0124	3.0000e-004	1.7148
<b>Total</b>	<b>0.1030</b>	<b>0.2436</b>	<b>0.7780</b>	<b>2.4900e-003</b>	<b>0.2122</b>	<b>3.8100e-003</b>	<b>0.2160</b>	<b>0.0570</b>	<b>3.6400e-003</b>	<b>0.0606</b>	<b>2.1518</b>	<b>259.0077</b>	<b>261.1595</b>	<b>0.1416</b>	<b>7.8000e-004</b>	<b>264.9326</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0347	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004
Energy	1.4200e-003	0.0129	0.0108	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	37.6382	37.6382	1.3400e-003	4.8000e-004	37.8141
Mobile	0.0669	0.2306	0.7670	2.4100e-003	0.2122	2.8300e-003	0.2151	0.0570	2.6600e-003	0.0596	0.0000	220.1731	220.1731	7.8500e-003	0.0000	220.3693
Waste						0.0000	0.0000		0.0000	0.0000	2.0319	0.0000	2.0319	0.1201	0.0000	5.0340
Water						0.0000	0.0000		0.0000	0.0000	0.1198	1.1960	1.3158	0.0124	3.0000e-004	1.7148
<b>Total</b>	<b>0.1030</b>	<b>0.2436</b>	<b>0.7780</b>	<b>2.4900e-003</b>	<b>0.2122</b>	<b>3.8100e-003</b>	<b>0.2160</b>	<b>0.0570</b>	<b>3.6400e-003</b>	<b>0.0606</b>	<b>2.1518</b>	<b>259.0077</b>	<b>261.1595</b>	<b>0.1416</b>	<b>7.8000e-004</b>	<b>264.9326</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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## Jonas Community Center - Marin County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/5/2019	3/20/2019	5	12	
2	Site Demolition	Demolition	3/21/2019	4/18/2019	5	21	Demo
3	Grading	Grading	3/28/2019	4/5/2019	5	7	
4	Building Construction	Building Construction	3/29/2019	4/20/2020	5	277	
5	Demolition Building 18 Exterior	Demolition	5/31/2019	6/17/2019	5	12	18 Exterior
6	Architectural Coating 18 Interior	Architectural Coating	9/20/2019	10/1/2019	5	8	
7	Paving	Paving	10/17/2019	11/22/2019	5	27	
8	Architectural Coating Jonas Exterior	Architectural Coating	10/23/2019	10/30/2019	5	6	Exterior
9	Architectural Coating Jonas Interior	Architectural Coating	12/2/2019	12/16/2019	5	11	Interior
10	Architectural Coating 18 Exterior	Architectural Coating	12/3/2019	12/10/2019	5	6	Exterior

**Acres of Grading (Site Preparation Phase): 0.95**

**Acres of Grading (Grading Phase): 0.15**

**Acres of Paving: 0.15**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 11,550; Non-Residential Outdoor: 0; Striped Parking Area: 408 (Architectural Coating – sqft)**

**OffRoad Equipment**



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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Site Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Site Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Site Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Site Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition Building 18 Exterior	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition Building 18 Exterior	Rubber Tired Dozers	1	1.00	247	0.40
Demolition Building 18 Exterior	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Architectural Coating 18 Interior	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating Jonas Exterior	Air Compressors	1	6.00	78	0.48
Architectural Coating Jonas Interior	Air Compressors	1	6.00	78	0.48
Architectural Coating 18 Exterior	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

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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
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Demolition	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Demolition	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	6.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition Building 18 Exterior	4	10.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 18 Interior	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 18 Exterior	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 18 Interior	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 18 Exterior	1	1.00	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

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**3.2 Site Preparation - 2019**

**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					5.0000e-004	0.0000	5.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3200e-003	0.0535	0.0248	6.0000e-005		2.2000e-003	2.2000e-003		2.0300e-003	2.0300e-003	0.0000	5.2535	5.2535	1.6600e-003	0.0000	5.2951
<b>Total</b>	<b>4.3200e-003</b>	<b>0.0535</b>	<b>0.0248</b>	<b>6.0000e-005</b>	<b>5.0000e-004</b>	<b>2.2000e-003</b>	<b>2.7000e-003</b>	<b>5.0000e-005</b>	<b>2.0300e-003</b>	<b>2.0800e-003</b>	<b>0.0000</b>	<b>5.2535</b>	<b>5.2535</b>	<b>1.6600e-003</b>	<b>0.0000</b>	<b>5.2951</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	1.1000e-004	8.0000e-005	7.9000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2176	0.2176	1.0000e-005	0.0000	0.2177
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2176</b>	<b>0.2176</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2177</b>

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**3.2 Site Preparation - 2019**

**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					2.3000e-004	0.0000	2.3000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3200e-003	0.0535	0.0248	6.0000e-005		2.2000e-003	2.2000e-003		2.0300e-003	2.0300e-003	0.0000	5.2535	5.2535	1.6600e-003	0.0000	5.2951
<b>Total</b>	<b>4.3200e-003</b>	<b>0.0535</b>	<b>0.0248</b>	<b>6.0000e-005</b>	<b>2.3000e-004</b>	<b>2.2000e-003</b>	<b>2.4300e-003</b>	<b>2.0000e-005</b>	<b>2.0300e-003</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>5.2535</b>	<b>5.2535</b>	<b>1.6600e-003</b>	<b>0.0000</b>	<b>5.2951</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	1.1000e-004	8.0000e-005	7.9000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2176	0.2176	1.0000e-005	0.0000	0.2177
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2176</b>	<b>0.2176</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2177</b>

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**3.3 Site Demolition - 2019**

**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					9.8000e-004	0.0000	9.8000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0200	0.1807	0.1615	2.5000e-004		0.0113	0.0113		0.0108	0.0108	0.0000	22.0925	22.0925	4.2100e-003	0.0000	22.1978
<b>Total</b>	<b>0.0200</b>	<b>0.1807</b>	<b>0.1615</b>	<b>2.5000e-004</b>	<b>9.8000e-004</b>	<b>0.0113</b>	<b>0.0123</b>	<b>1.5000e-004</b>	<b>0.0108</b>	<b>0.0109</b>	<b>0.0000</b>	<b>22.0925</b>	<b>22.0925</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>22.1978</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	9.0000e-005	2.8200e-003	8.3000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.6950	0.6950	4.0000e-005	0.0000	0.6960
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	1.5900e-003	1.1300e-003	0.0110	3.0000e-005	6.1700e-003	2.0000e-005	6.1900e-003	1.5800e-003	2.0000e-005	1.6000e-003	0.0000	3.0462	3.0462	8.0000e-005	0.0000	3.0482
<b>Total</b>	<b>1.6800e-003</b>	<b>3.9500e-003</b>	<b>0.0119</b>	<b>4.0000e-005</b>	<b>6.4300e-003</b>	<b>3.0000e-005</b>	<b>6.4700e-003</b>	<b>1.6500e-003</b>	<b>3.0000e-005</b>	<b>1.6800e-003</b>	<b>0.0000</b>	<b>3.7412</b>	<b>3.7412</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>3.7442</b>

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**3.3 Site Demolition - 2019**

**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					4.4000e-004	0.0000	4.4000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0200	0.1807	0.1615	2.5000e-004		0.0113	0.0113		0.0108	0.0108	0.0000	22.0925	22.0925	4.2100e-003	0.0000	22.1978
<b>Total</b>	<b>0.0200</b>	<b>0.1807</b>	<b>0.1615</b>	<b>2.5000e-004</b>	<b>4.4000e-004</b>	<b>0.0113</b>	<b>0.0117</b>	<b>7.0000e-005</b>	<b>0.0108</b>	<b>0.0108</b>	<b>0.0000</b>	<b>22.0925</b>	<b>22.0925</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>22.1978</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	9.0000e-005	2.8200e-003	8.3000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.6950	0.6950	4.0000e-005	0.0000	0.6960
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	1.5900e-003	1.1300e-003	0.0110	3.0000e-005	6.1700e-003	2.0000e-005	6.1900e-003	1.5800e-003	2.0000e-005	1.6000e-003	0.0000	3.0462	3.0462	8.0000e-005	0.0000	3.0482
<b>Total</b>	<b>1.6800e-003</b>	<b>3.9500e-003</b>	<b>0.0119</b>	<b>4.0000e-005</b>	<b>6.4300e-003</b>	<b>3.0000e-005</b>	<b>6.4700e-003</b>	<b>1.6500e-003</b>	<b>3.0000e-005</b>	<b>1.6800e-003</b>	<b>0.0000</b>	<b>3.7412</b>	<b>3.7412</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>3.7442</b>

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**3.4 Grading - 2019**

**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					2.7100e-003	0.0000	2.7100e-003	1.4600e-003	0.0000	1.4600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3400e-003	0.0301	0.0269	4.0000e-005		1.8800e-003	1.8800e-003		1.7900e-003	1.7900e-003	0.0000	3.6821	3.6821	7.0000e-004	0.0000	3.6996
<b>Total</b>	<b>3.3400e-003</b>	<b>0.0301</b>	<b>0.0269</b>	<b>4.0000e-005</b>	<b>2.7100e-003</b>	<b>1.8800e-003</b>	<b>4.5900e-003</b>	<b>1.4600e-003</b>	<b>1.7900e-003</b>	<b>3.2500e-003</b>	<b>0.0000</b>	<b>3.6821</b>	<b>3.6821</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>3.6996</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	1.3000e-004	9.0000e-005	9.2000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2539	0.2539	1.0000e-005	0.0000	0.2540
<b>Total</b>	<b>1.3000e-004</b>	<b>9.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>2.8000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2539</b>	<b>0.2539</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2540</b>

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**3.4 Grading - 2019**

**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					1.2200e-003	0.0000	1.2200e-003	6.6000e-004	0.0000	6.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3400e-003	0.0301	0.0269	4.0000e-005		1.8800e-003	1.8800e-003		1.7900e-003	1.7900e-003	0.0000	3.6821	3.6821	7.0000e-004	0.0000	3.6996
<b>Total</b>	<b>3.3400e-003</b>	<b>0.0301</b>	<b>0.0269</b>	<b>4.0000e-005</b>	<b>1.2200e-003</b>	<b>1.8800e-003</b>	<b>3.1000e-003</b>	<b>6.6000e-004</b>	<b>1.7900e-003</b>	<b>2.4500e-003</b>	<b>0.0000</b>	<b>3.6821</b>	<b>3.6821</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>3.6996</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	1.3000e-004	9.0000e-005	9.2000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2539	0.2539	1.0000e-005	0.0000	0.2540
<b>Total</b>	<b>1.3000e-004</b>	<b>9.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>2.8000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2539</b>	<b>0.2539</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2540</b>



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**3.5 Building Construction - 2019**

**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	0.0948	0.9723	0.7468	1.1300e-003		0.0599	0.0599		0.0551	0.0551	0.0000	101.2775	101.2775	0.0320	0.0000	102.0785
<b>Total</b>	<b>0.0948</b>	<b>0.9723</b>	<b>0.7468</b>	<b>1.1300e-003</b>		<b>0.0599</b>	<b>0.0599</b>		<b>0.0551</b>	<b>0.0551</b>	<b>0.0000</b>	<b>101.2775</b>	<b>101.2775</b>	<b>0.0320</b>	<b>0.0000</b>	<b>102.0785</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	1.0800e-003	0.0241	9.3600e-003	5.0000e-005	1.2900e-003	1.8000e-004	1.4700e-003	3.7000e-004	1.7000e-004	5.4000e-004	0.0000	5.1109	5.1109	2.7000e-004	0.0000	5.1177
Worker	2.2500e-003	1.6000e-003	0.0156	5.0000e-005	4.6800e-003	3.0000e-005	4.7100e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	4.3082	4.3082	1.1000e-004	0.0000	4.3110
<b>Total</b>	<b>3.3300e-003</b>	<b>0.0257</b>	<b>0.0250</b>	<b>1.0000e-004</b>	<b>5.9700e-003</b>	<b>2.1000e-004</b>	<b>6.1800e-003</b>	<b>1.6200e-003</b>	<b>2.0000e-004</b>	<b>1.8200e-003</b>	<b>0.0000</b>	<b>9.4191</b>	<b>9.4191</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>9.4287</b>

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**3.5 Building Construction - 2019**

**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	0.0948	0.9723	0.7468	1.1300e-003		0.0599	0.0599		0.0551	0.0551	0.0000	101.2773	101.2773	0.0320	0.0000	102.0784
<b>Total</b>	<b>0.0948</b>	<b>0.9723</b>	<b>0.7468</b>	<b>1.1300e-003</b>		<b>0.0599</b>	<b>0.0599</b>		<b>0.0551</b>	<b>0.0551</b>	<b>0.0000</b>	<b>101.2773</b>	<b>101.2773</b>	<b>0.0320</b>	<b>0.0000</b>	<b>102.0784</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	1.0800e-003	0.0241	9.3600e-003	5.0000e-005	1.2900e-003	1.8000e-004	1.4700e-003	3.7000e-004	1.7000e-004	5.4000e-004	0.0000	5.1109	5.1109	2.7000e-004	0.0000	5.1177
Worker	2.2500e-003	1.6000e-003	0.0156	5.0000e-005	4.6800e-003	3.0000e-005	4.7100e-003	1.2500e-003	3.0000e-005	1.2800e-003	0.0000	4.3082	4.3082	1.1000e-004	0.0000	4.3110
<b>Total</b>	<b>3.3300e-003</b>	<b>0.0257</b>	<b>0.0250</b>	<b>1.0000e-004</b>	<b>5.9700e-003</b>	<b>2.1000e-004</b>	<b>6.1800e-003</b>	<b>1.6200e-003</b>	<b>2.0000e-004</b>	<b>1.8200e-003</b>	<b>0.0000</b>	<b>9.4191</b>	<b>9.4191</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>9.4287</b>

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**3.5 Building Construction - 2020**

**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	0.0340	0.3497	0.2918	4.5000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	39.5239	39.5239	0.0128	0.0000	39.8435
<b>Total</b>	<b>0.0340</b>	<b>0.3497</b>	<b>0.2918</b>	<b>4.5000e-004</b>		<b>0.0206</b>	<b>0.0206</b>		<b>0.0190</b>	<b>0.0190</b>	<b>0.0000</b>	<b>39.5239</b>	<b>39.5239</b>	<b>0.0128</b>	<b>0.0000</b>	<b>39.8435</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	3.4000e-004	8.7100e-003	3.2300e-003	2.0000e-005	5.2000e-004	4.0000e-005	5.6000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0276	2.0276	1.0000e-004	0.0000	2.0301
Worker	8.3000e-004	5.7000e-004	5.6000e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6651	1.6651	4.0000e-005	0.0000	1.6660
<b>Total</b>	<b>1.1700e-003</b>	<b>9.2800e-003</b>	<b>8.8300e-003</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>5.0000e-005</b>	<b>2.4400e-003</b>	<b>6.5000e-004</b>	<b>5.0000e-005</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>3.6926</b>	<b>3.6926</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>3.6962</b>

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**3.5 Building Construction - 2020**

**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	0.0340	0.3497	0.2918	4.5000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	39.5239	39.5239	0.0128	0.0000	39.8434
<b>Total</b>	<b>0.0340</b>	<b>0.3497</b>	<b>0.2918</b>	<b>4.5000e-004</b>		<b>0.0206</b>	<b>0.0206</b>		<b>0.0190</b>	<b>0.0190</b>	<b>0.0000</b>	<b>39.5239</b>	<b>39.5239</b>	<b>0.0128</b>	<b>0.0000</b>	<b>39.8434</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	3.4000e-004	8.7100e-003	3.2300e-003	2.0000e-005	5.2000e-004	4.0000e-005	5.6000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0276	2.0276	1.0000e-004	0.0000	2.0301
Worker	8.3000e-004	5.7000e-004	5.6000e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6651	1.6651	4.0000e-005	0.0000	1.6660
<b>Total</b>	<b>1.1700e-003</b>	<b>9.2800e-003</b>	<b>8.8300e-003</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>5.0000e-005</b>	<b>2.4400e-003</b>	<b>6.5000e-004</b>	<b>5.0000e-005</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>3.6926</b>	<b>3.6926</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>3.6962</b>

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**3.6 Demolition Building 18 Exterior - 2019**

**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					9.8000e-004	0.0000	9.8000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7200e-003	0.0516	0.0462	7.0000e-005		3.2200e-003	3.2200e-003		3.0700e-003	3.0700e-003	0.0000	6.3121	6.3121	1.2000e-003	0.0000	6.3422
<b>Total</b>	<b>5.7200e-003</b>	<b>0.0516</b>	<b>0.0462</b>	<b>7.0000e-005</b>	<b>9.8000e-004</b>	<b>3.2200e-003</b>	<b>4.2000e-003</b>	<b>1.5000e-004</b>	<b>3.0700e-003</b>	<b>3.2200e-003</b>	<b>0.0000</b>	<b>6.3121</b>	<b>6.3121</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>6.3422</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	4.0000e-005	1.4100e-003	4.2000e-004	0.0000	8.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3475	0.3475	2.0000e-005	0.0000	0.3480
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	2.3000e-004	1.6000e-004	1.5800e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4352	0.4352	1.0000e-005	0.0000	0.4355
<b>Total</b>	<b>2.7000e-004</b>	<b>1.5700e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>5.5000e-004</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>1.5000e-004</b>	<b>1.0000e-005</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.7827</b>	<b>0.7827</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7835</b>

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**3.6 Demolition Building 18 Exterior - 2019**

**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					4.4000e-004	0.0000	4.4000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7200e-003	0.0516	0.0462	7.0000e-005		3.2200e-003	3.2200e-003		3.0700e-003	3.0700e-003	0.0000	6.3121	6.3121	1.2000e-003	0.0000	6.3422
<b>Total</b>	<b>5.7200e-003</b>	<b>0.0516</b>	<b>0.0462</b>	<b>7.0000e-005</b>	<b>4.4000e-004</b>	<b>3.2200e-003</b>	<b>3.6600e-003</b>	<b>7.0000e-005</b>	<b>3.0700e-003</b>	<b>3.1400e-003</b>	<b>0.0000</b>	<b>6.3121</b>	<b>6.3121</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>6.3422</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	4.0000e-005	1.4100e-003	4.2000e-004	0.0000	8.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3475	0.3475	2.0000e-005	0.0000	0.3480
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	2.3000e-004	1.6000e-004	1.5800e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4352	0.4352	1.0000e-005	0.0000	0.4355
<b>Total</b>	<b>2.7000e-004</b>	<b>1.5700e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>5.5000e-004</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>1.5000e-004</b>	<b>1.0000e-005</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.7827</b>	<b>0.7827</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7835</b>

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**3.7 Architectural Coating 18 Interior - 2019**

**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	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0700e-003	7.3400e-003	7.3700e-003	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	1.0213	1.0213	9.0000e-005	0.0000	1.0235
<b>Total</b>	<b>0.0293</b>	<b>7.3400e-003</b>	<b>7.3700e-003</b>	<b>1.0000e-005</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>1.0213</b>	<b>1.0213</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0235</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	2.0000e-005	1.0000e-005	1.1000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0290	0.0290	0.0000	0.0000	0.0290
<b>Total</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0290</b>	<b>0.0290</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0290</b>

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**3.7 Architectural Coating 18 Interior - 2019**

**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	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0700e-003	7.3400e-003	7.3700e-003	1.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	1.0213	1.0213	9.0000e-005	0.0000	1.0235
<b>Total</b>	<b>0.0293</b>	<b>7.3400e-003</b>	<b>7.3700e-003</b>	<b>1.0000e-005</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>1.0213</b>	<b>1.0213</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0235</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	2.0000e-005	1.0000e-005	1.1000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0290	0.0290	0.0000	0.0000	0.0290
<b>Total</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0290</b>	<b>0.0290</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0290</b>



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**3.8 Paving - 2019**

**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	0.0112	0.1059	0.0965	1.5000e-004		5.9700e-003	5.9700e-003		5.5400e-003	5.5400e-003	0.0000	12.9228	12.9228	3.6900e-003	0.0000	13.0152
Paving	2.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0114</b>	<b>0.1059</b>	<b>0.0965</b>	<b>1.5000e-004</b>		<b>5.9700e-003</b>	<b>5.9700e-003</b>		<b>5.5400e-003</b>	<b>5.5400e-003</b>	<b>0.0000</b>	<b>12.9228</b>	<b>12.9228</b>	<b>3.6900e-003</b>	<b>0.0000</b>	<b>13.0152</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	9.2000e-004	6.6000e-004	6.3900e-003	2.0000e-005	1.9100e-003	1.0000e-005	1.9300e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.7624	1.7624	5.0000e-005	0.0000	1.7636
<b>Total</b>	<b>9.2000e-004</b>	<b>6.6000e-004</b>	<b>6.3900e-003</b>	<b>2.0000e-005</b>	<b>1.9100e-003</b>	<b>1.0000e-005</b>	<b>1.9300e-003</b>	<b>5.1000e-004</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>1.7624</b>	<b>1.7624</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7636</b>

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**3.8 Paving - 2019**

**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	0.0112	0.1059	0.0965	1.5000e-004		5.9700e-003	5.9700e-003		5.5400e-003	5.5400e-003	0.0000	12.9228	12.9228	3.6900e-003	0.0000	13.0152
Paving	2.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0114</b>	<b>0.1059</b>	<b>0.0965</b>	<b>1.5000e-004</b>		<b>5.9700e-003</b>	<b>5.9700e-003</b>		<b>5.5400e-003</b>	<b>5.5400e-003</b>	<b>0.0000</b>	<b>12.9228</b>	<b>12.9228</b>	<b>3.6900e-003</b>	<b>0.0000</b>	<b>13.0152</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	9.2000e-004	6.6000e-004	6.3900e-003	2.0000e-005	1.9100e-003	1.0000e-005	1.9300e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.7624	1.7624	5.0000e-005	0.0000	1.7636
<b>Total</b>	<b>9.2000e-004</b>	<b>6.6000e-004</b>	<b>6.3900e-003</b>	<b>2.0000e-005</b>	<b>1.9100e-003</b>	<b>1.0000e-005</b>	<b>1.9300e-003</b>	<b>5.1000e-004</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>1.7624</b>	<b>1.7624</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7636</b>

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**3.9 Architectural Coating Jonas Exterior - 2019**

**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	0.0148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-004	5.5100e-003	5.5200e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	0.7660	0.7660	6.0000e-005	0.0000	0.7676
<b>Total</b>	<b>0.0156</b>	<b>5.5100e-003</b>	<b>5.5200e-003</b>	<b>1.0000e-005</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>0.7660</b>	<b>0.7660</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.7676</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	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0218	0.0218	0.0000	0.0000	0.0218
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0218</b>	<b>0.0218</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0218</b>

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**3.9 Architectural Coating Jonas Exterior - 2019**

**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	0.0148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-004	5.5100e-003	5.5200e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	0.7660	0.7660	6.0000e-005	0.0000	0.7676
<b>Total</b>	<b>0.0156</b>	<b>5.5100e-003</b>	<b>5.5200e-003</b>	<b>1.0000e-005</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>0.7660</b>	<b>0.7660</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.7676</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	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0218	0.0218	0.0000	0.0000	0.0218
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0218</b>	<b>0.0218</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0218</b>

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**3.10 Architectural Coating Jonas Interior - 2019**

**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	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4700e-003	0.0101	0.0101	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.4043	1.4043	1.2000e-004	0.0000	1.4073
<b>Total</b>	<b>0.0297</b>	<b>0.0101</b>	<b>0.0101</b>	<b>2.0000e-005</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>1.4043</b>	<b>1.4043</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.4073</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	2.0000e-005	1.0000e-005	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0399	0.0399	0.0000	0.0000	0.0399
<b>Total</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0399</b>	<b>0.0399</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0399</b>

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**3.10 Architectural Coating Jonas Interior - 2019**

**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	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4700e-003	0.0101	0.0101	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.4043	1.4043	1.2000e-004	0.0000	1.4073
<b>Total</b>	<b>0.0297</b>	<b>0.0101</b>	<b>0.0101</b>	<b>2.0000e-005</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>1.4043</b>	<b>1.4043</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.4073</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	2.0000e-005	1.0000e-005	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0399	0.0399	0.0000	0.0000	0.0399
<b>Total</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0399</b>	<b>0.0399</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0399</b>

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**3.11 Architectural Coating 18 Exterior - 2019**

**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	0.0148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-004	5.5100e-003	5.5200e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	0.7660	0.7660	6.0000e-005	0.0000	0.7676
<b>Total</b>	<b>0.0156</b>	<b>5.5100e-003</b>	<b>5.5200e-003</b>	<b>1.0000e-005</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>0.7660</b>	<b>0.7660</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.7676</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	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0218	0.0218	0.0000	0.0000	0.0218
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0218</b>	<b>0.0218</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0218</b>

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**3.11 Architectural Coating 18 Exterior - 2019**

**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	0.0148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-004	5.5100e-003	5.5200e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	0.7660	0.7660	6.0000e-005	0.0000	0.7676
<b>Total</b>	<b>0.0156</b>	<b>5.5100e-003</b>	<b>5.5200e-003</b>	<b>1.0000e-005</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>0.7660</b>	<b>0.7660</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.7676</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	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0218	0.0218	0.0000	0.0000	0.0218
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0218</b>	<b>0.0218</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0218</b>

**4.0 Operational Detail - Mobile**



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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	0.0669	0.2306	0.7670	2.4100e-003	0.2122	2.8300e-003	0.2151	0.0570	2.6600e-003	0.0596	0.0000	220.1731	220.1731	7.8500e-003	0.0000	220.3693
Unmitigated	0.0669	0.2306	0.7670	2.4100e-003	0.2122	2.8300e-003	0.2151	0.0570	2.6600e-003	0.0596	0.0000	220.1731	220.1731	7.8500e-003	0.0000	220.3693

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	167.01	167.01	167.01	424,128	424,128
Junior College (2Yr)	58.60	58.60	58.60	148,817	148,817
Parking Lot	0.00	0.00	0.00		
Total	225.61	225.61	225.61	572,945	572,945

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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

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**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.586103	0.042797	0.200835	0.113384	0.018054	0.005119	0.010148	0.010539	0.002013	0.003657	0.005892	0.000682	0.000777
Parking Lot	0.586103	0.042797	0.200835	0.113384	0.018054	0.005119	0.010148	0.010539	0.002013	0.003657	0.005892	0.000682	0.000777

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.5854	23.5854	1.0700e-003	2.2000e-004	23.6778
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.5854	23.5854	1.0700e-003	2.2000e-004	23.6778
NaturalGas Mitigated	1.4200e-003	0.0129	0.0108	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0528	14.0528	2.7000e-004	2.6000e-004	14.1363
NaturalGas Unmitigated	1.4200e-003	0.0129	0.0108	8.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	14.0528	14.0528	2.7000e-004	2.6000e-004	14.1363

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	68400	3.7000e-004	3.3500e-003	2.8200e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.6501	3.6501	7.0000e-005	7.0000e-005	3.6718
Junior College (2Yr)	194940	1.0500e-003	9.5600e-003	8.0300e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	10.4027	10.4027	2.0000e-004	1.9000e-004	10.4646
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.4200e-003</b>	<b>0.0129</b>	<b>0.0109</b>	<b>8.0000e-005</b>		<b>9.8000e-004</b>	<b>9.8000e-004</b>		<b>9.8000e-004</b>	<b>9.8000e-004</b>	<b>0.0000</b>	<b>14.0528</b>	<b>14.0528</b>	<b>2.7000e-004</b>	<b>2.6000e-004</b>	<b>14.1363</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	194940	1.0500e-003	9.5600e-003	8.0300e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	10.4027	10.4027	2.0000e-004	1.9000e-004	10.4646
Junior College (2Yr)	68400	3.7000e-004	3.3500e-003	2.8200e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.6501	3.6501	7.0000e-005	7.0000e-005	3.6718
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.4200e-003</b>	<b>0.0129</b>	<b>0.0109</b>	<b>8.0000e-005</b>		<b>9.8000e-004</b>	<b>9.8000e-004</b>		<b>9.8000e-004</b>	<b>9.8000e-004</b>	<b>0.0000</b>	<b>14.0528</b>	<b>14.0528</b>	<b>2.7000e-004</b>	<b>2.6000e-004</b>	<b>14.1363</b>

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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	20440	5.9462	2.7000e-004	6.0000e-005	5.9695
Junior College (2Yr)	58254	16.9468	7.7000e-004	1.6000e-004	17.0132
Parking Lot	2380	0.6924	3.0000e-005	1.0000e-005	0.6951
<b>Total</b>		<b>23.5854</b>	<b>1.0700e-003</b>	<b>2.3000e-004</b>	<b>23.6778</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	20440	5.9462	2.7000e-004	6.0000e-005	5.9695
Junior College (2Yr)	58254	16.9468	7.7000e-004	1.6000e-004	17.0132
Parking Lot	2380	0.6924	3.0000e-005	1.0000e-005	0.6951
<b>Total</b>		<b>23.5854</b>	<b>1.0700e-003</b>	<b>2.3000e-004</b>	<b>23.6778</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0347	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004
Unmitigated	0.0347	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004
<b>Total</b>	<b>0.0347</b>	<b>0.0000</b>	<b>2.3000e-004</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>4.4000e-004</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004
<b>Total</b>	<b>0.0347</b>	<b>0.0000</b>	<b>2.3000e-004</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>4.4000e-004</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.3158	0.0124	3.0000e-004	1.7148
Unmitigated	1.3158	0.0124	3.0000e-004	1.7148

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	0.377678 / 0.590726	1.3158	0.0124	3.0000e-004	1.7148
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.3158</b>	<b>0.0124</b>	<b>3.0000e-004</b>	<b>1.7148</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	0.377678 / 0.590726	1.3158	0.0124	3.0000e-004	1.7148
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.3158</b>	<b>0.0124</b>	<b>3.0000e-004</b>	<b>1.7148</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.0319	0.1201	0.0000	5.0340
Unmitigated	2.0319	0.1201	0.0000	5.0340



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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	10.01	2.0319	0.1201	0.0000	5.0340
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.0319</b>	<b>0.1201</b>	<b>0.0000</b>	<b>5.0340</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	10.01	2.0319	0.1201	0.0000	5.0340
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.0319</b>	<b>0.1201</b>	<b>0.0000</b>	<b>5.0340</b>

**9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**APPENDIX C**

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**Biological Habitat Evaluation**



College of Marin  
Jonas Center Community Facility  
Miwok Wellness Center

Marin County, California

***2018 Biological Habitat Evaluation***

Prepared for:

Impact Sciences

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July 3, 2018

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Appendix A. Representative Site Photographs

Appendix B. Site Map, Project Descriptions, and Plans

## 1.0 INTRODUCTION

This report presents the methods and results of a biological habitat evaluation conducted by Vollmar Natural Lands Consulting, Inc. (VNLC) for two proposed improvement sites, Jonas Center Community Facility and the Miwok Wellness Center, located within the Indian Valley Campus of College of Marin, as detailed within The College of Marin Facilities Master Plan (FMP 2016-2021).

- **Jonas Center Community Facility**– This improvement project is located in the central portion of the campus north of the Career Study Center, south of Ignacio Creek and west of the Administrative Services buildings. The facility would provide meeting space for a minimum of 250 people and include a raised stage, state-of-the-art audio and visual equipment, commercial equipment and counter area, patio or deck areas, a footpath over Ignacio Creek, and at least one room for flex space.
- **Miwok Wellness Center** – This improvement project is located in the south central portion of campus south of the Administrative Services buildings, east of the Pomo cluster, and west of the Career Study Center. The project would support wellness, kinesiology, aquatics, and athletics programs for students and the surrounding community. The facility would include an Olympic-sized swimming pool and lap pool, and a fitness center. Locker rooms, classrooms, offices, a lobby, and space for storage will also be included in the facility. The proposed pool will replace the existing pool located approximately 900 feet to the northwest of the site. The existing pool currently serves about 200 to 250 students and community members (i.e. swim clubs) per day.

Additional details about these projects are included as **Appendix B**. This habitat evaluation was conducted to identify and characterize existing conditions, as well as assess the potential for special-status species, habitats, and jurisdictional features to occur within the project area.

In the absence of avoidance measures, these projects could result in disturbance to active nests of bird species protected by the Migratory Bird Treaty Act and California Fish and Game Code. Additionally, bat species could roost in buildings undergoing renovation. Best management practices should be in place to protect Ignacio Creek during the construction of the Jonas Center Community Facility. Additionally, consultation should be sought with regulatory agencies for any permits required for direct impacts to Ignacio Creek from the construction of the footpath crossing Ignacio Creek. The implementation of avoidance measures would ensure that these target species are not disturbed during construction.

## 2.0 PROJECT LOCATION

The Indian Valley Campus of College of Marin, located in Novato, Marin County, California, is situated west of Highway 101 at the terminus of Ignacio Boulevard within the USGS Novato 7.5-min. quadrangle map (**Figure 1**). Surrounding land uses include both dense residential development to the east and undeveloped open space to the north, south and west.

The geology of Indian Valley Campus is characterized by Holocene alluvium (Qha). The Indian Valley Campus is located within the Novato Creek Watershed. Ignacio Creek, a perennial stream, winds through the campus. The two sites of interest are located near the center of campus (**Figures 2A and 2B**). The two sites are connected by an asphalt walkway and are separated by a tributary of Ignacio Creek.

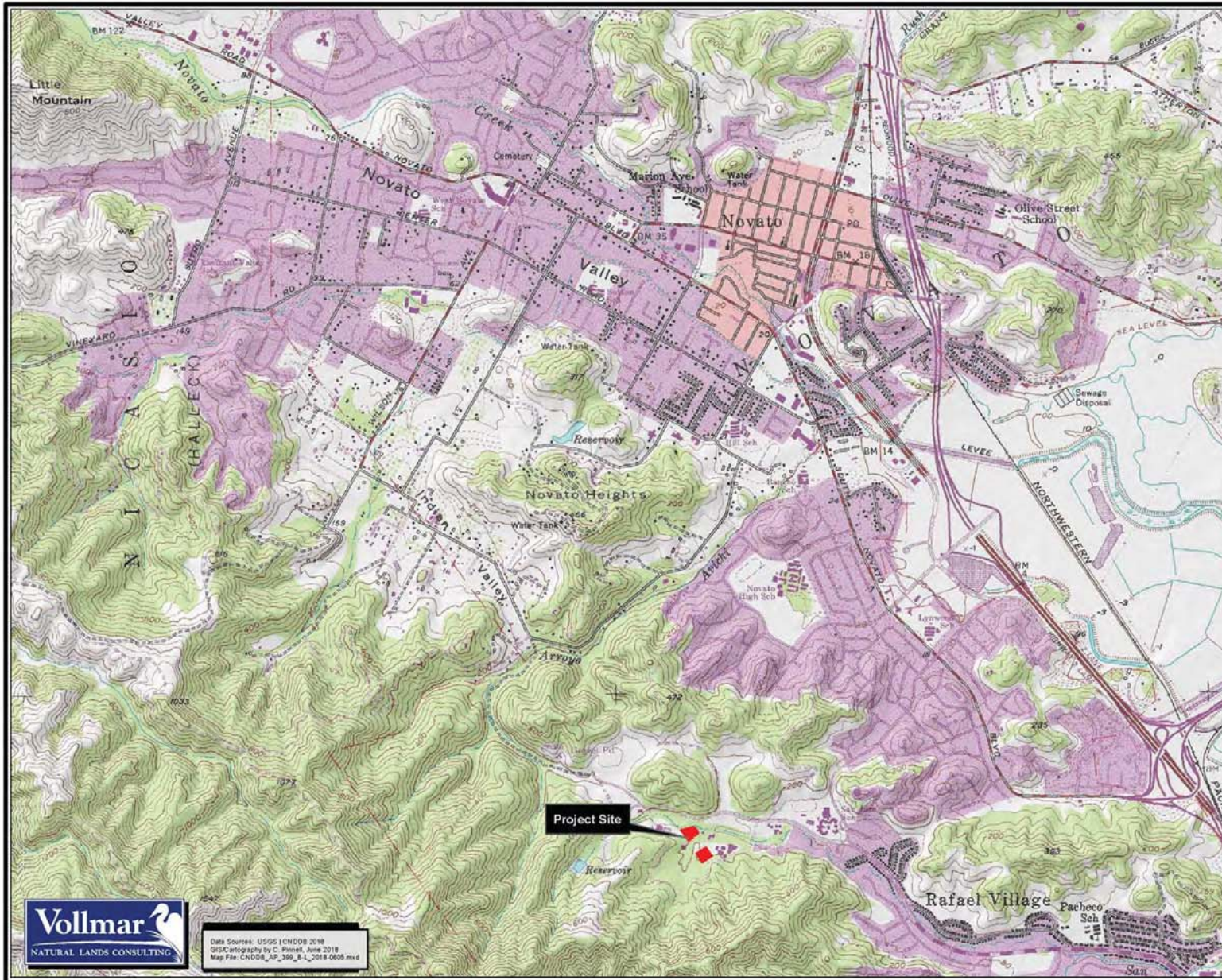
## 3.0 METHODS

### *3.1 Preliminary Review*

Prior to the site visit, the latest version of the California Natural Diversity Database (CNDBB 2018) was reviewed to identify special-status plants and wildlife observations in the project vicinity. Additionally, the US Fish and Wildlife Service Information Planning and Consultation System (IPAC) was also reviewed to assess which federally listed species could occur in the vicinity of the project area. Sire aerial imagery, project descriptions, and general regional conditions were also reviewed prior to the site visit.

### *3.2 Site Visit*

VNLC Senior Ecologist, Cassie Pinnell, and Staff Biologist, Jessica Anderson, conducted a site visit to the Jonas and Miwok Project Areas at the College of Marin, Indian Valley Campus on June 8, 2018. VNLC staff walked the proposed project areas to gain visual coverage of the entire project area. During the site visit, all observed flora and wildlife species, general conditions, and notable habitat features were recorded. A search was conducted for jurisdictional features (wetlands and other waters, etc), sensitive habitats (native grasslands, etc), and habitat potential for special-status species (nesting potential, burrows, etc). Photographs detailing representative site conditions were also collected from across the site (**Appendix A**).



**FIGURE 1**  
**VICINITY MAP**  
**College of Marin**

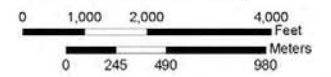
Marin County, California

**Legend**

 Project Site



**1:2,400**  
 (1 in. = 200 ft. at tabloid layout)



Data Sources: USGS | CHDOB 2018  
 GIS Cartography by C. Probst, June 2018  
 Map File: CND08\_AP\_399\_B\_L\_2018-0605.mxd



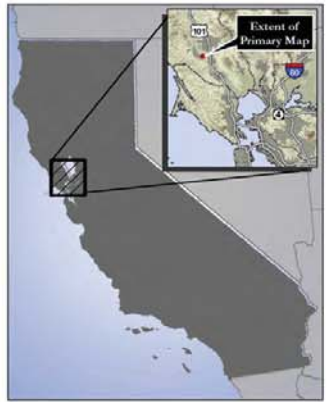


**FIGURE 2A  
JONAS CENTER  
COMMUNITY FACILITY  
PROJECT SITE MAP**

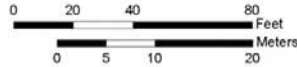
**College of Marin  
Marin County, California**

**Legend**

 Project Site



**1:2,400**  
(1 in. = 200 ft. at tabloid layout)



Data Sources: USDA 2016  
GIS/ Cartography by Cassie Pinnell, June 2016  
Map File: Fig2A\_Site\_AP\_399\_S-L\_2019-0605.mxd

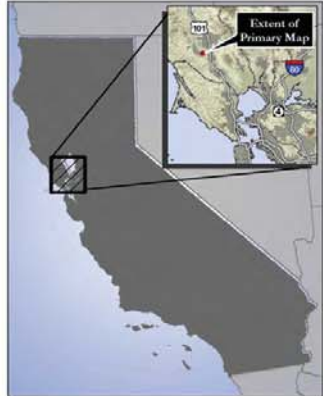


**FIGURE 2B  
MIWOK WELLNESS CENTER  
PROJECT SITE MAP**

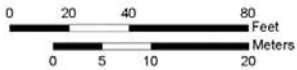
**College of Marin**  
Marin County, California

**Legend**

 Project Site



**1:2,400**  
(1 in. = 200 ft. at tabloid layout)



Data Sources: USDA 2016  
GIS/ Cartography by Cassie Pinnell, June 2016  
Map File: Fig2B\_Site\_AP\_399\_S-L\_2019-0625.mxd

## 4.0 RESULTS

### 4.1 Existing Conditions

#### Jonas Center Community Facility

The Jonas Center Community Facility site was previously three buildings (**Figure 2A**), but currently is comprised of one building (Building 18), one foundation with rebar, and one open site where the third building has been completely demolished (**Appendix A, Photos 1-3**). The project area is bounded to the north by Ignacio Creek (**Appendix A, Photos 4, 5**) and to the south by a tributary that feeds into the main stem to the east of the site (**Appendix A, Photo 6**). With a cement walkway that surrounds the entire complex. One swallow nest was observed under the eaves of Building 18 (**Appendix A, Photo 7**).

A large portion of the site is an un-vegetated, construction zone. The vegetation that does exist consists of the ruderal non-native grass and herbaceous species, including soft chess (*Bromus hordeaceus*), rip-gut brome (*Bromus diandrus*), dallisgrass (*Paspalum dilatatum*), English plantain (*Plantago lanceolata*), storks bill (*Erodium cicutarium*), bristly ox-tongue (*Helminthotheca echioides*), wild oat (*Avena barbata*), bird's foot trefoil (*Lotus corniculatus*), rattlesnake grass (*Briza maxima*), and Italian rye (*Festuca perennis*), velvet grass (*Holcus lanatus*), rose clover (*Trifolium hirtum*), spreading hedgeparsley (*Torilis arvensis*), and Italian thistle (*Carduus pycnocephalus*). Invasive, landscape species along the border include oleander (*Nerium oleander*) and English ivy (*Hedera helix*).

The site is bordered by mature coast live oak trees, and the main stem and southern tributary channel of Ignacio Creek. The southern tributary channel contains a dry bed with incised and steep banks of about 10-15 feet. Engineered grabens reinforce a portion of the right bank. The channel is covered by a moderately dense canopy of mature bay laurel and coast live oak trees. Several tree stumps exist within and near the channel where trees have been previously cut (not part of this project). The midlevel canopy consists of small patches of Himalayan blackberry (*Rubus armeniacus*), California blackberry (*Rubus ursinus*), and poison oak, with monkey flower (*Diplacus aurantiacus*) and honeysuckle (*Lonicera* sp.) interspersed along the banks.

The mainstem Ignacio Creek runs along the northern perimeter of the complex. The channel is covered by a similar canopy as the southern tributary, with tall mature bay laurel and California buckeye trees. There exists very little shrub canopy, with no willows present. Plants observed within the channel include Himalayan blackberry, California blackberry, horsetail (*Equisetum arvense*), as well as some rushes and sedges (*Juncus* sp.), and (*Carex* sp.). A portion of the channel is composed of crumbling rip rap, and the geomorphology of the channel displays very small, shaded pools intermittent with riffles. The maximum depth of the pools is approximately 8 inches. The main building site is currently protected from the Creek by existing silt fencing, however, site plans also include a footpath crossing Ignacio Creek.

## Miwok Wellness Center

The proposed Miwok Wellness Center is located centrally along the southern side of the campus. There currently exists four buildings that surround a landscaped courtyard (**Figure 2A**). The site is bounded to the south by a paved roadway and to north by a paved walkway. The eastern and western sides of the complex are dominated by non-native annual grassland species, which appear to be regularly mowed. These grassy areas support mature trees, including coast live oak (*Quercus agrifolia*), Oregon oak (*Quercus garryana*), and buckeye (*Aesculus californica*). Species observed within this grassland include soft chess, rip-gut brome, dallisgrass, English plantain, storks bill, bristly ox-tongue, wild oat, bird's foot trefoil, rattlesnake grass, and Italian rye (**Appendix A, Photo 8**).

The south side of the complex supports madrone (*Arbutus menziesii*) and bay laurel (*Umbellularia californica*) trees, with an understory of poison oak (*Toxicodendron diversilobum*), as well as a handful of native species including elegant clarkia (*Clarkia unguiculata*), purple needle grass (*Stipa pulchra*), California oat grass (*Danthonia californica*), and squirreltail (*Elymus elymoides*). These native plants were adjacent to the complex, occurred very sparsely and covered a small area bordering a retainer wall, suggesting they could have been part of landscaping efforts. This area is too small and sparsely populated to be treated as a sensitive habitat (**Appendix A, Photo 9**).

In the areas between the buildings, the vegetation community is currently unmanaged and dominated by nonnative annual plants. Plant species observed within this area included silver hairgrass (*Aira caryophylla*), wild oat, soft chess, rough dogs tail (*Cynosurus echinatus*), bristly ox-tongue, rabbitfoot grass (*Polypogon monspeliensis*), wall barley (*Hordeum murinum*), and little hop clover (*Trifolium dubium*). Piles of debris from the building demolition were present in the areas between the buildings (**Appendix A, Photo 10**).

The courtyard of the four existing buildings contains the same ruderal species as the surrounding areas, with coast live oak and coyote brush (*Baccharis pilularis*) scattered throughout. In addition, there were several landscaping species such as Japanese maple (*Acer palmatum*), rosemary (*Rosmarinus officinalis*), and butterfly bush (*Buddleia davidii*).

Evidence of gopher burrows was present along the walkways and adjacent grassland areas, no squirrel burrow complexes were observed on site.

## 4.2 Special-status Species

### 4.2.1 Special-status Wildlife Species

For the purposes of this report, special-status wildlife species include those taxa listed or proposed for listing as Threatened or Endangered under the federal or State Endangered Species Acts, State or federal candidates for listing, State Species of Special Concern, State Fully Protected Species, federal Birds of Conservation Concern, and other species included on the California Department of Fish and Wildlife (CDFW) Special Animals List.

**Figure 3** shows the distribution of special-status wildlife species documented in the surrounding area. These and other special-status wildlife species known from the project region are identified in **Table 1**, along with their regulatory status, habitat requirements, and an evaluation of their potential to occur on or near the project site.

Based on the habitat requirements of these species, six special-status wildlife species have potential to occur on, or immediately adjacent to, the project site (see **Table 1**). These include Cooper's hawk (*Accipiter cooperii*), oak titmouse (*Baeolophus inornatus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western red bat (*Lasiurus blossevillii*), and hoary bat (*Lasiurus cinerus*). These species have the potential to be impacted by the direct project activities (building renovations), or construction related noise. No other special-status wildlife species are expected to occur on site (see **Table 1**).

### 4.2.2 Migratory and Nesting Birds

The Migratory Bird Treaty Act (16 U.S.C. 704) and the California Fish and Game Code (Section 3503) prohibits the take of migratory birds, or disturbance to the active nests of most native birds. As referenced above, special-status bird species Cooper's hawk and oak titmouse, as well as numerous common bird species, could nest in the trees immediately surrounding both the Miwok and Jonas project areas. Additionally, birds including swallows and black phoebes could nest on the building slated for demolition or renovation. One swallow nest was observed on the remaining Jonas Community Center building (**Appendix A, Photo 7**).

Therefore, building demolition or renovations, as well as tree removal associated with the Ignacio Creek footpath, could result in direct loss of birds protected by the Migratory Bird Treaty Act. Additionally, construction-related noise could result in the abandonment of an active nest in trees adjacent to the project area, including potential nests of special-status bird species.

### 4.2.3 Special-Status Plant Species and Communities

No special-status plant species were observed on the project site. The project areas are mainly comprised of existing building footprints, as well as a small stretch of Ignacio Creek. The open areas between the buildings are mowed, planted, denuded, or otherwise in disturbed condition.

These open areas are dominated by non-native species, and do not provide the habitat requirements for special-status species known from the surrounding region (**Table 1**). Additionally, no special-status plant species were observed during the June 2018 site visit. Given the disturbed condition and lack of suitable habitat, no special-status plant species are expected to occur on the project site.

Sensitive plant communities are of limited distribution statewide or within a county or region, and may or may not support special-status species. This site is heavily utilized and dominated by non-native species, with open areas occurring between buildings and access ways. Though some native plant species were observed on-site, they were in very low abundance and did not constitute a sensitive plant community.

The only area proposed for development that constitutes a sensitive plant community is the small area proposed for a footpath crossing Ignacio Creek. This area includes limited riparian vegetation, including a shrub layer comprised mainly of poison oak and blackberries, as well as a canopy of bay and oak woodland, with some trees rooted in the bank of the Creek.

#### **4.2.4 Wetlands or Waters of the U.S.**

During the June 2018 site visit, a search was conducted for wetlands and Waters of the U.S., including drainages, creeks, and streams, or any other feature that could be subject to the jurisdiction of the U.S. Army Corps of Engineers under Section 404 of the Federal Clean Water Act, or the California Department of Fish and Wildlife under Sections 1602-1603 of the California Fish and Game Code.

Ignacio Creek and tributary features occur adjacent to the project area. The Jonas Center project footprint includes a raised footpath crossing Ignacio Creek to provide direct access from the Center to the parking area (**Appendix A, Photos 4 and 5**). This footpath stream crossing may directly impact the bank of Ignacio Creek, including tree removal, and may require a Notification of a Lake and Streambed Alteration with California Department of Fish and Wildlife under Section 1602. If any impacts are planned for the bed or bank, permits from the Army Corps of Engineers (Section 404) and Regional Water Quality Control Board (Section 401) would likely be required. Additionally, best management practices should be implemented to minimize the impacts of the Creek from construction of the building site.

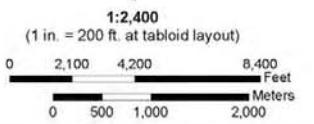
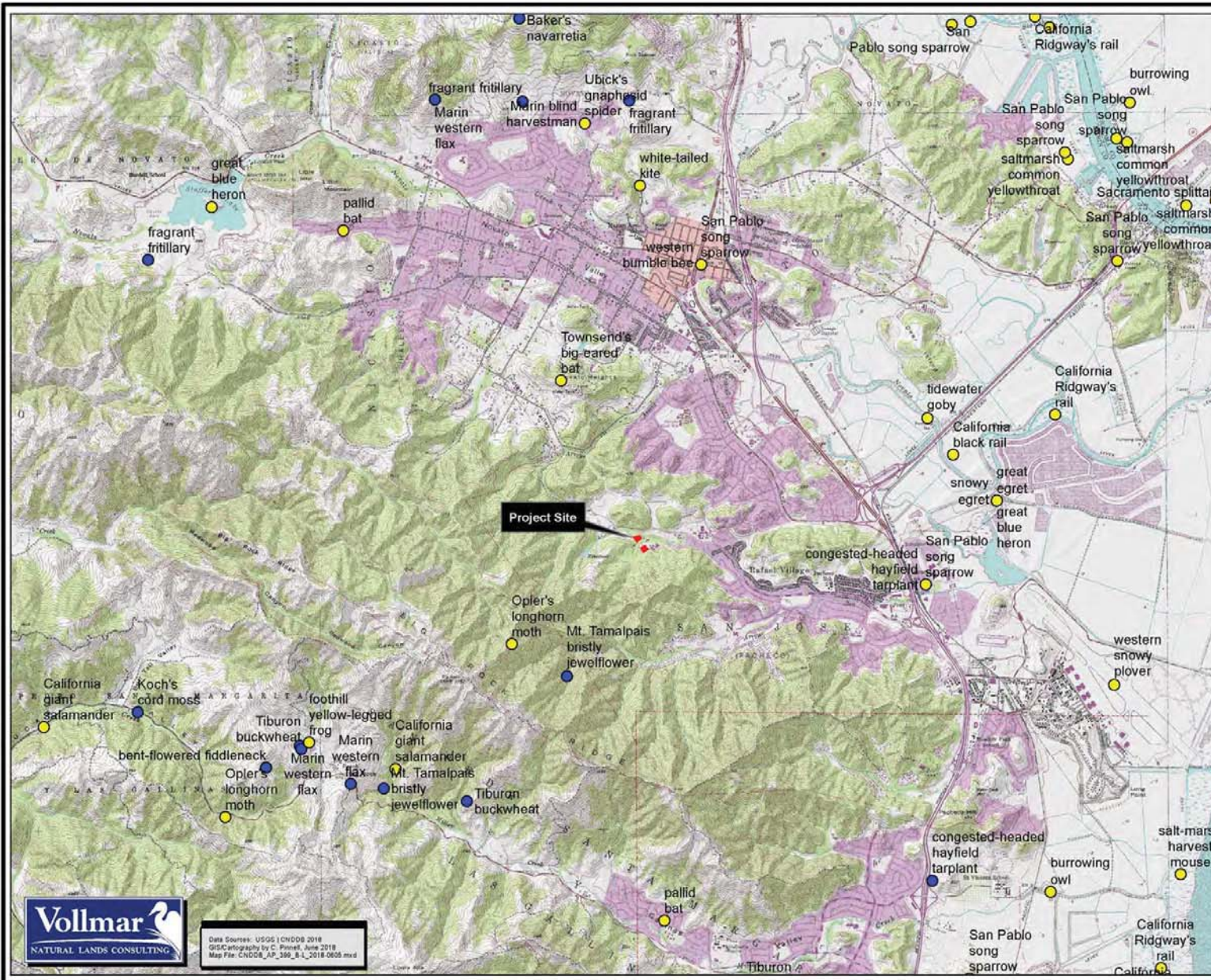
No other potentially jurisdictional features were observed within the proposed project footprint. The areas immediately surrounding downspouts from the roof gutters supported a small amount of hydrophytic vegetation, but did not possess the natural hydrology, soils, or extent of vegetation indicative of a potentially jurisdictional wetland feature. The most pronounced of these drainage areas include a small drainage located along the western side of the complex, and terminates at the southern corner of the foundation of Building 15. This feature appears to be completely fed from a gutter downspout, and does not appear to function as a natural wetland feature (**Appendix A, Photo 11**).

**FIGURE 3  
SPECIAL-STATUS SPECIES MAP  
College of Marin**

Marin County, California

**Legend**

- Project Site
- CNDDDB Animals
- CNDDDB Plants



Data Sources: USGS | CHDDB 2018  
GIS Cartography by C. Powell, June 2018  
Map File: CNDDDB\_AP\_399\_B-I\_2018-0605.mxd

**TABLE 1. Special-Status Species Documented within the Project Region**

FT –Federal Threatened; FE – Federal Endangered; ST – State Threatened; SE - State Endangered; SC- State Candidate; SSC – CDFW Species Special Concern; SA- CDFW Special Animal List; FP – CDFW Fully Protected; WL – CDFW Watch List; CNPS 1B – CA Native Plant Society – Plants Rare, Threatened, or Endangered in CA and Elsewhere; CI – Critically Imperiled

Species	Status	Habitat Description	Potential to Occur on Project Site
<b>Birds</b>			
Cooper’s hawk <i>Accipiter cooperii</i>	<b>SA</b>	Nests in coast live oaks and other forest habitat.	<b>Potential.</b> Suitable nesting habitat is present directly adjacent to both project sites.
Sharp-shinned hawk <i>Accipiter striatus</i>	<b>SA</b>	Nests in dense woodlands and mountain forests.	<b>Not Expected.</b> Does not nest in the area.
Tricolored Blackbird <i>Agelaius tricolor</i>	<b>SSC</b>	Large freshwater marshes. Forages in open habitats such as pastures and lawns.	<b>Not Expected</b> Site is disturbed and mowed. No wetlands are present.
Grasshopper sparrow <i>Ammodramus savannarum</i>	<b>SSC</b>	Nests in coastal prairie grasslands	<b>Not Expected.</b> Grasslands on site are regularly mowed and disturbed.
Burrowing owl <i>Athene cunicularia</i>	<b>SSC</b>	Open dry areas with little vegetation. Nests in subterranean animal burrows	<b>Not Expected.</b> No large burrow complexes observed, site is regularly mowed and otherwise heavily trafficked and disturbed.
Great blue heron (rookery) <i>Ardea herodias</i>	<b>SA</b>	Nests in large stands of trees near water	<b>Not Expected.</b> Creek on site appears to be seasonal, or very low flow during nesting season. No rookeries documented in area.
Oak titmouse <i>Baeolophus inornatus</i>	<b>FCC</b>	Nests in tree cavities in oak woodlands	<b>Potential.</b> Oaks present adjacent to both project sites.
Swainson’s Hawk <i>Buteo swainsoni</i>	<b>ST</b>	Open grasslands and prairies	<b>Not Expected.</b> Grasslands on site are heavily disturbed with moderately dense tree cover



Species	Status	Habitat Description	Potential to Occur on Project Site
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT, FP	Coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries.	<b>Not Expected.</b> Sites does not contain beach habitat.
Northern harrier <i>Circus cyaneus</i>	SSC	Nests in swales and low-lying grasslands	<b>Not Expected.</b> Site does not support foraging habitat, and grasslands are regularly mowed and disturbed.
Olive-sided Flycatcher <i>Contopus cooperi</i>	FCC	Nests in conifers and eucalyptus	<b>Not Expected.</b> Conifers and eucalyptus are not present surrounding the project area.
Yellow warbler <i>Dendroica petechia brewsteri</i>	FCC,SSC	Nests in riparian habitat	<b>Not Expected.</b> Riparian habitat on site does not support the type of required vegetation.
White-tailed kite <i>Elanus leucurus</i>	FP	Undisturbed open grasslands, meadows, farmlands, and emergent wetlands for foraging. Nests near top of dense oak, willow, or other tree stands.	<b>Not Expected.</b> Site is disturbed and not very open. The site does not appear to support adequate foraging habitat.
California horned lark <i>Eremophila alpestris actia</i>	SA	Nests in grassland habitat	<b>Not Expected.</b> Grasslands on site are mowed and heavily trafficked.
Saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	SSC	Freshwater marsh.	<b>Not Expected.</b> Site does not support marsh habitat.
California black rail <i>Laterallus jamaicensis coturniculus</i>	ST, SSC	Freshwater marshes and wetland meadows that are in close proximity to larger bay waters.	<b>Not Expected.</b> Site does not support marsh or wetland habitat.
San Pablo song sparrow <i>Melospiza melodia samuelis</i>	FCC, SSC	Salt marshes and tidal sloughs	<b>Not Expected.</b> Site does not support salt marsh habitat.

Species	Status	Habitat Description	Potential to Occur on Project Site
California Ridgway's rail <i>Rallus obsoletus obsoletus</i>	FE,SE,FP	Salt marshes and tidal sloughs	<b>Not Expected.</b> Site does not support salt marsh habitat.
Northern Spotted Owl <i>Strix occidentalis caurina</i>	FT, ST	Mature forests with dense canopy.	<b>Not Expected.</b> Site does not support old growth forests or diversity required for critical habitat.
California least tern <i>Sterna antillarum browni</i>	FE	Open beaches.	<b>Not Expected.</b> Sites does not contain beach habitat.
<b>Amphibians</b>			
California giant Salamander <i>Dicamptodon ensatus</i>	SSC	Wet coastal forests with cold permanent or near permanent streams	<b>Not Expected.</b> Creeks found near site are intermittent. The channel and banks are not within the proposed direct impact.
Foothill yellow-legged frog <i>Rana boylei</i>	SSC	Rocky streams in a variety of habitats.	<b>Not Expected.</b> The incised banks of channels near site do not have floodplain connectivity and does not have diversity typical of quality habitat. The channel and banks are not within the proposed direct impact.
California red-legged frog <i>Rana draytonii</i>	FT, SSC	Quiet pools of streams, marshes, and occasionally ponds.	<b>Not Expected.</b> The site does border a small stream with a pooled area, but this area is not within the proposed direct impact.
<b>Fish</b>			
Tidewater goby <i>Eucyclogobius newberryi</i>	FE,SSC	Coastal streams and lagoons	<b>Not Expected.</b> Site does not support coastal streams or lagoons, also, the channel and banks are not within the proposed direct impact.

Species	Status	Habitat Description	Potential to Occur on Project Site
Delta smelt <i>Hypomesus transpacificus</i>	FT	Streams, rivers, estuaries,	<b>Not Expected.</b> No records of occurrence within creek. The channel and banks are not within the proposed direct impact.
Tomales roach <i>Lavinia symmetricus</i>	SSC	Streams	<b>Not Expected.</b> No records of occurrence within creek. The channel and banks are not within the proposed direct impact.
Coho salmon - SONCC ESU <i>Oncorhynchus kisutch</i>	FE,SE, FP	Streams, rivers, estuaries, ocean	<b>Not Expected.</b> No records of salmonids within creek. The channel and banks are not within the proposed direct impact.
Steelhead - NC DPS <i>Oncorhynchus mykiss irideus</i>	FT	Streams, rivers, lakes, estuaries, ocean	<b>Not Expected.</b> No records of salmonids within creek. The channel and banks are not within the proposed direct impact.
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	SSC	Streams, rivers, estuaries,	<b>Not Expected.</b> No record of occurrence in seasonal creek. The channel and banks are not within the proposed direct impact.
Eulachon <i>Thaleichthys pacificus</i>	FE	Streams, rivers, ocean	<b>Not Expected.</b> No record of occurrence in seasonal creek. The channel and banks are not within the proposed direct impact
<b>Insects</b>			

Species	Status	Habitat Description	Potential to Occur on Project Site
Opler's longhorn moth <i>Adela oplerella</i>	SA	Host plant is <i>Platystemon californicus</i>	<b>Not Expected.</b> Open areas are mowed, or heavily disturbed. Host plant not expected to occur on site.
Marin blind harvestman <i>Calcina diminua</i>	SA	Rocky serpentine grasslands	<b>Not Expected.</b> Site does not include rocky serpentine grasslands.
Marin elfin butterfly <i>Callophrys mossii marinensis</i>	CI	North facing slopes in fogbelt. Requires host plant stonecrop ( <i>Sedum spathulifolium</i> )	<b>Not Expected.</b> Site is not on north facing slope and host plant occurrence was not observed.
Marin hesperian <i>Vespericola marinensis</i>	SA	Moist brushy areas or grasslands around seeps, in riparian forests	<b>Not Expected.</b> Site does not support seeps or extensive riparian forest.
<b>Mammals</b>			
Point Reyes Mountain Beaver <i>Aplodontia rufa phaea</i>	SSC	North facing skies in moderately dense coastal scrub	<b>Not Expected.</b> Site is disturbed, without moderately dense coastal scrub.
Pallid Bat <i>Antrozous pallidus</i>	SSC	Variety of habitats. Open grasslands, rocky mountainous areas.	<b>Potential.</b> Eaves of existing buildings may provide habitat
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	SSC	Prefers mesic habitats, maternity roosts in caves, tunnels, mines and buildings.	<b>Potential.</b> Eaves of existing buildings may provide habitat
Western red bat <i>Lasiurus blossevillii</i>	SSC	Forested habitat	<b>Potential.</b> Trees immediately adjacent to project area could provide habitat.
Hoary bat <i>Lasiurus cinereus</i>	SA	Forested habitat	<b>Potential.</b> Trees surrounding project areas could provide potential habitat.

Species	Status	Habitat Description	Potential to Occur on Project Site
Salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE, SE, FP	Salt Marshes	<b>Not Expected.</b> Site does not support salt marsh habitat.
Suisun shrew <i>Sorex ornatus sinuosus</i>	SSC	Tidal Marshes	<b>Not Expected.</b> Site does not support marsh habitat.
American badger <i>Taxidea taxus</i>	SC, SSC	Dry soils with herbaceous and shrub vegetation.	<b>Not Expected.</b> No dens were observed within the site.
<b>Reptiles</b>			
Western pond turtle <i>Actinemys marmorata</i>	FP	Ponds, lakes, streams, irrigation ditches, or permanent pools along intermittent streams, with basking sites.	<b>Not Expected.</b> Site borders a wetland feature, which could provide low-quality habitat. However, this area will not be directly impacted by the proposed action. Species not documented near project site.
<b>Mollusks and Crustaceans</b>			
California Freshwater Shrimp <i>Syncaris pacifica</i>	FE, SE	Low elevation streams.	<b>Not Expected.</b> Occurs in similar perennial streams throughout Marin county, though Ignacio Creek will not be impacted by the proposed action.
<b>Plants</b>			
Tiburon paintbrush <i>Castilleja affinis</i> var. <i>neglecta</i>	FE, ST	Serpentine bunch grass communities	<b>Not Expected.</b> No serpentine soils or plants associated with serpentine were observed on the project site.
Soft salty bird's beak <i>Chloropyron molle</i> ssp. <i>molle</i>	FE, SR	Areas of tidal action	<b>Not Expected.</b> Site does not undergo tidal action.
Baker's larkspur <i>Delphinium bakeri</i>	FE, CE	Top of sea cliffs within coastal scrub community	<b>Not Expected.</b> Site does not support coastal scrub.

Species	Status	Habitat Description	Potential to Occur on Project Site
Marin dwarf-flax <i>Hesperolinon congestum</i>	FT	Serpentine soils.	<b>Not Expected.</b> No serpentine soils or plants associated with serpentine were observed on the project site.
Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT, SE	Grasslands on coastal terraces	<b>Not Expected.</b> Site is not located on coastal terrace.
Pitkin marsh lily <i>Lilium pardalinum</i> ssp. <i>pitkinense</i>	FE, SE	Permanently saturated soils at wetland edges and riparian habitat	<b>Not Expected.</b> Creek is intermittent, dries seasonally.
White rayed pentachaeta <i>Pentachaeta bellidiflora</i>	FE, SE	Serpentine grassland.	<b>Not Expected.</b> No recorded occurrence outside single population in San Mateo county.
North Coast semaphore grass <i>Pleuropogon hooverianus</i>	ST	Open meadows within forest that are saturated part of the year.	<b>Not Expected.</b> Sites does not contain wetland habitat.

## 5.0 AVOIDANCE MEASURES

The following **avoidance measures** are recommended, as follows:

**Measure 1: To prevent loss of active bird nests.** A pre-construction survey for nesting birds should be conducted by a qualified biologist within two weeks of construction activities, if activities are to occur within nesting/breeding season of native bird species (February-August). If active nests are identified within 300 feet of construction, and would be exposed to prolonged construction-related noise, a buffer should be implemented around nests during the breeding season, or until a biologist determines the young have fledged. The size of the buffer, and the type of construction activity will depend on the multiple factors including relative change in noise and disturbance during construction activity, amount of vegetative screening between activity and nest, and sensitivity of species.

**Measure 2. To prevent loss of roosting habitat for bat species, including pallid bat and Townsend's bat.** A pre-construction assessment of buildings slated for demolition or remodel should be conducted by a qualified bat biologist. If no bats or signs of roosting are observed, no further action is necessary. If bats or signs of bats are observed, a qualified bat biologist will prepare specific recommendations to cause bats to abandon the roost, or be evicted humanely.

If any large trees will be removed or directly impacted by the construction activities, the potential of these trees to provide suitable roosting habitat should also be assessed, and a roosting bat protection plan should be implemented.

**Measure 3. To mitigate for loss of riparian habitat and impacts to Ignacio Creek.** Prior to the construction of the footpath crossing Ignacio Creek, and associated tree removal, consultation shall be sought from regulatory agencies to determine if permits are required for impacts to Ignacio Creek as follows:

- a. California Department of Fish and Wildlife – Notification of Lake and Streambed Alteration, Fish and Game Code Section 1602
- b. Army Corps of Engineers – Clean Water Act Section 404
- c. Regional Water Quality Control Board – Clean Water Act Section 401

**Measure 4. To prevent impacts to waters during construction.** Best Management Practices (BMPs) should be implemented to protect Ignacio Creek and its tributary during construction of the Jonas Center. Silt fencing is already in place surrounding the building pads, and should be maintained for the remainder of the project. Construction equipment should also be staged away from the Creek, and a spill prevention plan should be in place to prevent runoff into the Creek. Construction personnel should be educated on these avoidance measures and the sensitivity of the Creek.

## **6.0 REFERENCES**

California Department of Fish and Wildlife (CDFW). 2018. Special Animals List

California Natural Diversity Database (CNDDDB). 2018. California Department of Fish and Wildlife's CNDDDB Records within project vicinity

Information for Planning and Consultation (IPaC). 2018. United States Fish and Wildlife Service Environmental Conservation Online System



**APPENDIX A**  
**REPRESENTATIVE SITE PHOTOGRAPHS**



**Photo 1. Jonas remaining building (6/7/2018)**



**Photo 2. Jonas foundation with rebar (6/7/2018)**



**Photo 3. Jonas demolished building (6/7/2018)**



**Photo 4. Northern edge of Jonas construction site, view of site of future creek crossing for raised footpath (6/7/2018)**



**Photo 5. Ignacio creek bordering northern edge of Jonas construction site (6/7/2018)**



**Photo 6. Creek channel between Miwok and Jonas Centers (6/7/2018)**



**Photo 7. Swallow nest under eaves of Jonas remaining building (6/7/2018)**



**Photo 8. Grassy area along eastern edge of Miwok project site (6/7/2018)**



**Photo 9. Area to south of Miwok complex (6/7/2018)**



**Photo 10. Area between Miwok buildings 13 and 14 (6/7/2018)**

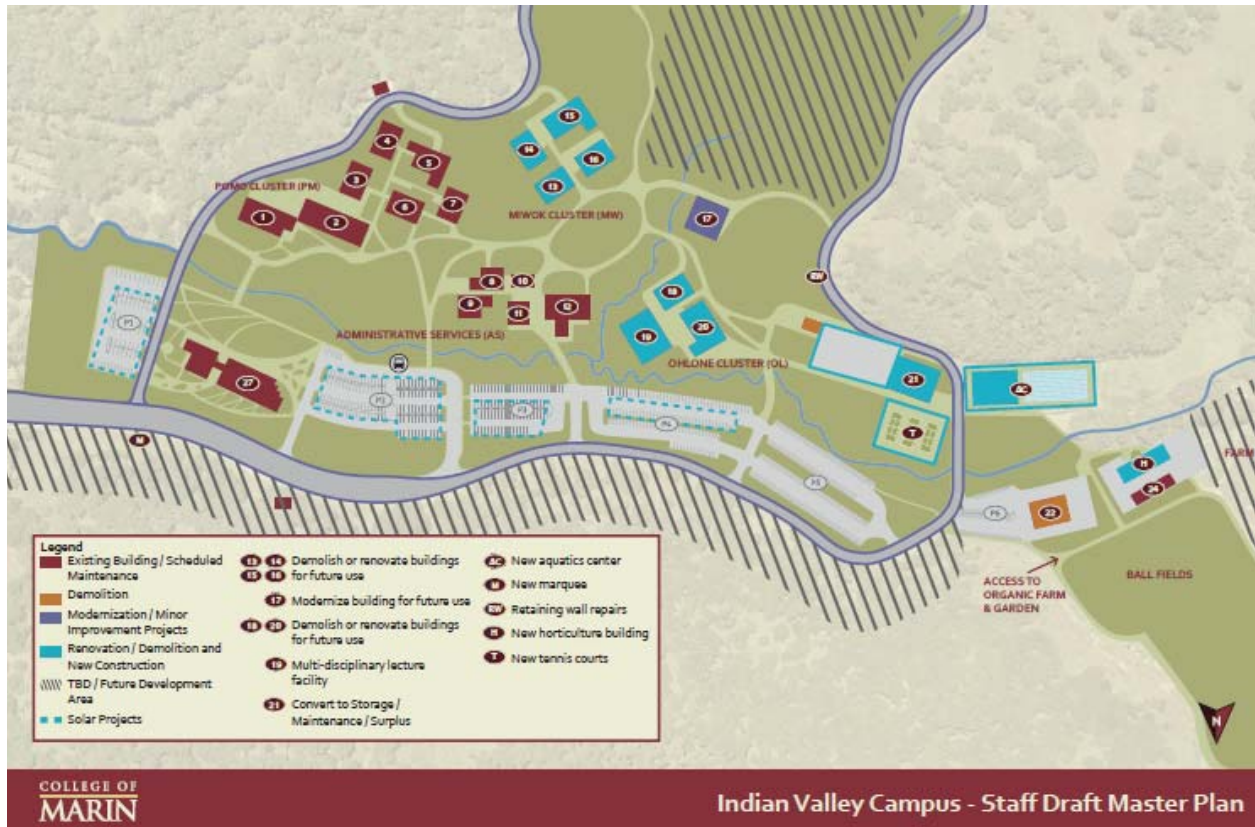


**Photo 11. Drain spout fed feature west side of Miwok complex (6/7/2018)**

**APPENDIX B**

**SITE MAP, PROJECT DESCRIPTIONS, AND PLANS**





## **I. Project Information**

1. Project title:

Jonas Center Community Facility and Miwok Wellness Center Projects

2. Lead agency name and address:

College of Marin  
835 College Avenue  
Kentfield, CA 94904

3. Contact person and phone number:

Greg Nelson  
Vice President for Finance & College Operations  
  
(415) 884-3101

4. Project location:

1800 Ignacio Boulevard, Novato, CA 94949

5. Project sponsor's name and address:

Same as Lead Agency

6. City of Novato General Plan Designation:

Community Facility

7. City of Novato Zoning:

Community Facility

## II. Project Location and Description

### 1. Description of Project:

**Location:** The Indian Valley Campus is located in the southwestern portion of Novato in northern Marin County. The location of the campus within Marin County and the City of Novato is shown in **Figure 1, Regional and Site Location**. The campus is accessed via Ignacio Boulevard, which intersects U.S. Highway 101 to the east. The campus is located at the western terminus of this roadway.

**Existing Conditions:** The Indian Valley Campus encompasses approximately 333 acres. Of the total acreage, only 87 acres are developed with college facilities. The Indian Valley Campus includes approximately 208,050 gross square feet (gsf) of building space in 27 buildings. In Spring 2015, the campus had an enrollment of approximately 1,150 students (COM 20015). Ignacio Creek forms a major natural feature that flows through the center of the campus. Numerous pedestrian and service vehicular bridges provide access across the creek to the main campus. A majority of the buildings on the campus are located south of the creek while all parking is located to the north of the creek. The buildings on the campus are sited in four clusters that are connected via a pedestrian pathway network. The corporation yard, swimming pool, and sports fields are located in the western part of the campus.

A perimeter road, with restricted access, encircles the majority of campus buildings and other facilities with the exception of the corporation yard, sports fields, and hard courts, which are located west of the Ignacio Boulevard terminus.

The campus has extensive tree coverage. Oak and bay-covered hillsides surround the main campus and form a “bowl” around the western portion of the campus, which serves as the main watershed of Ignacio Creek.

**Project Features and Operations:** The College of Marin Facilities Master Plan (FMP) 2016-2021 includes a number of improvements for the Indian Valley Campus. The improvements contained in the FMP address current and projected needs on the Indian Valley Campus through 2021 and would serve the existing student population. No substantial increase in student population on campus due to the implementation of the FMP is expected to occur.

The College recently approved three of the improvement projects in November 2017 and they are currently under construction. The College plans on constructing two more of the improvement projects listed in the FMP over the next 12-24 months. The remaining improvement projects listed in the FMP are not scheduled for implementation at this time and will undergo separate environmental review in the future. The proposed project for purposes of CEQA includes the two improvement projects scheduled for implementation at this time. The location of each of the improvement projects on the campus is provided in **Figure 2, Aerial View – Indian Valley Campus**. A detailed description of each improvement project is provided below:

- **Jonas Community Center** – This improvement project is located in the central portion of the campus north of the Career Study Center, south of Ignacio Creek and west of the Administrative Services buildings. The facility would provide meeting space for a minimum of 250 people and include a raised stage, state-of-the-art audio and visual equipment, commercial equipment and counter area, patio or deck areas, and at least one room for flex space.

This project is a joint-venture between the College of Marin and the Rotary Club of Marin with the College hosting the center and the Rotary Club contributing funds for the construction of the facility. In return the Rotary club will have use of the center rent-free for its weekly lunch and other activities. The College will have use of the center during non-Rotary times and will be responsible for scheduling facilities use.

As shown in **Figure 3, Aerial View –Jonas Community Center Site**, one existing structure (Building 18) and the foundations of recently demolished structures (Buildings 19 and 20) are currently located on the project site. Building 18 is currently vacant and includes approximately 2,000 square feet of space. As indicated in **Figure 4, Proposed Site Plan – Jonas Center Community Facility**, Building 18 would be renovated as part of the project while a new structure would be constructed on the foundation Building 19. The new structure would include a total 5,635 square feet and be approximately 30 feet in height. A parking lot that would provide 17 regular parking spaces and three accessible parking spaces would be constructed on the foundation of Building 20. Additional parking for events will be located in Parking Lot 4 to the north across Ignacio Creek. Although not a part of the project at this time, the campus does plan on constructing a pedestrian foot bridge from Parking Lot 4 to the Jonas Center in the future.

Approximately four to eight community events (including rotary club meetings) will take place in the facility per month. Most of these community events will take place during the day time. It is expected evening events at the facility will be held less than one per month. It is also expected that attendees will come from the local community and other communities within Marin County. The College plans on holding four to six events at the facility per month. Events will be held in both the daytime and evening hours and will be attended by existing students.

- **Miwok Wellness Center**– This improvement project is located in the south central portion of campus south of the Administrative Services buildings, east of the Pomo cluster, and west of the Career Study Center. The project would support wellness, kinesiology, aquatics, and athletics programs for students and the surrounding community. The facility would include an Olympic-sized swimming pool and lap pool and a fitness center. Locker rooms, classrooms, offices, a lobby, and space for storage will also be included in the facility. The proposed pool will replace the existing pool located approximately 900 feet to the northwest of the site. The existing pool currently serves about 200 to 250 students and community members (i.e. swim clubs) per day.

As shown in **Figure 5, Aerial View –Miwok Wellness Center Site**, four existing buildings (Buildings 13-16) are located on the project site. The buildings are almost entirely vacant (85 percent) and provide approximately 27,100 square feet of space. The uses that remain are used for instruction (Art and Farming classes). As indicated in **Figure 6, Proposed Site Plan – Miwok Wellness Center**, Buildings 13-16 would be demolished as part of the project. The art classes will move into the Pomo cluster while the farming classes will move into new classrooms on the Organic Farm site that our opening in Summer 2018. The fitness center and gymnasium will include -- square feet of space while the pool storage area will include 1,712 square of space.

The new facility is expected to serve 200 to 300 students and community members (including existing pool users) per day for a net increase of up to 100 users per day; approximately 50 to 75 users (i.e., 25 percent) will be new to campus. In addition, special events, such as swim meets, will also be held at the center six to eight times per season. These meets will typically be held on Saturdays and will include up to 500 athletes and spectators.

## **2. Surrounding Land Uses and Environmental Setting:**

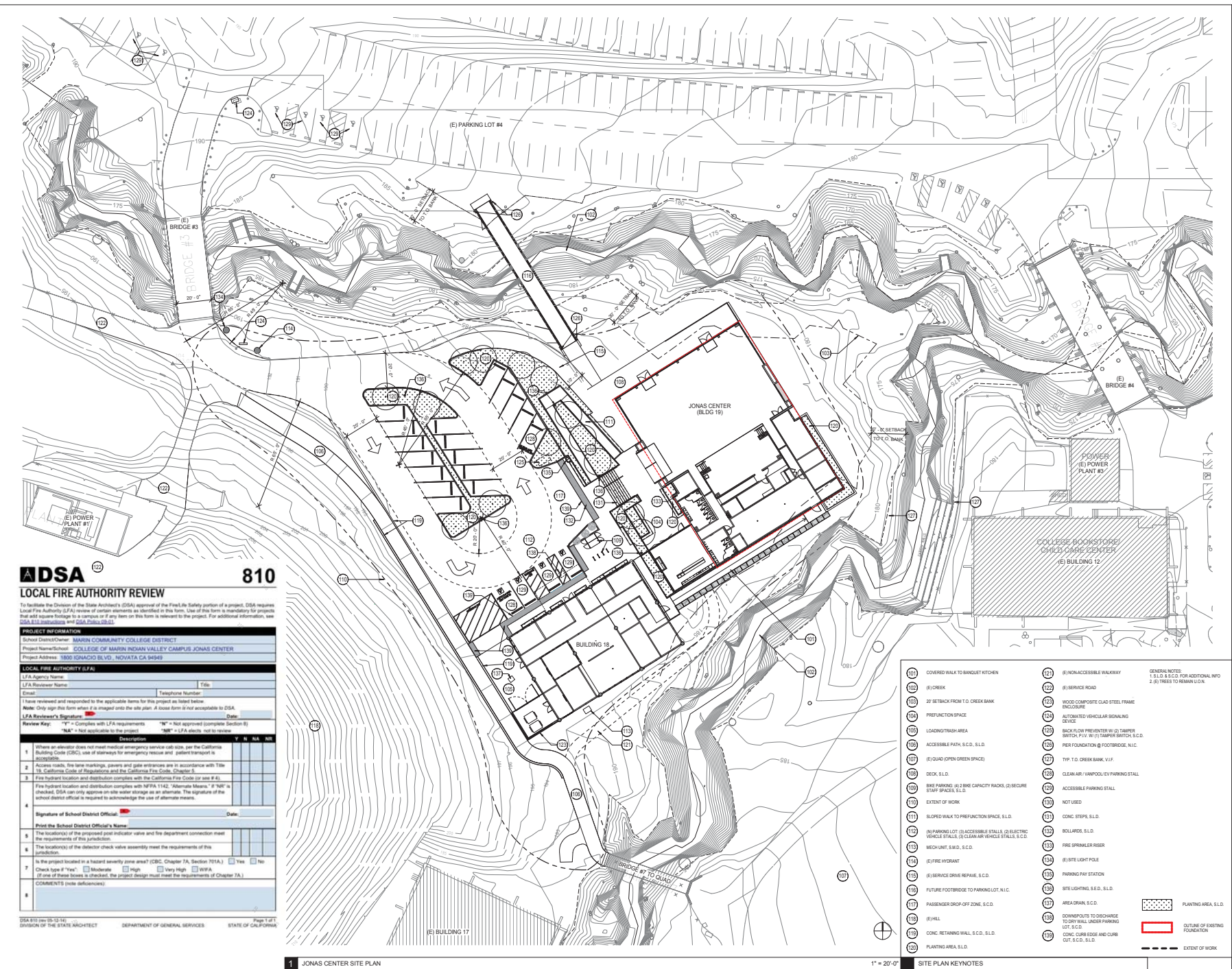
The Indian Valley Campus is surrounded by open space and residential development. A dense residential area that includes both single-family and multi-family residential development, a park and a middle school is located to the east. Open space that is owned and maintained by both private and public entities is located to the north, south and west.

## **3. Discretionary approval authority and other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

As a public agency principally responsible for approving or carrying out the proposed project, the College of Marin is the Lead Agency under CEQA. The College of Marin Board of Trustees would be responsible for reviewing and certifying the adequacy of the environmental document and approving the proposed project.

The following additional agencies would be involved in discretionary approvals and permits required for various project components:

- The **Division of State Architect (DSA)** reviews community college project designs to determine compliance with the California Building Code, fire safety, and Americans with Disabilities Act (ADA) requirements.
- The **State Fire Marshal's Office** has delegated fire code regulatory responsibilities for community college facilities to DSA.



**ADSA** 810  
**LOCAL FIRE AUTHORITY REVIEW**

To facilitate the Division of the State Architect's (DSA) approval of the Fire/Life Safety portion of a project, DSA requires Local Fire Authority (LFA) review of certain elements as identified in this form. Use of this form is mandatory for projects that will require footage in a campus or if any item on this form is relevant to the project. For additional information, see DSA 114 regulations and DSA Plans 08-19.

PROJECT INFORMATION  
School District/Owner: MARIN COMMUNITY COLLEGE DISTRICT  
Project Name/School: COLLEGE OF MARIN INDIAN VALLEY CAMPUS JONAS CENTER  
Project Address: 1800 IGNACIO BLVD., NOVATA CA 94949

LOCAL FIRE AUTHORITY (LFA)  
LFA Agency Name: Title:  
LFA Reviewer Name: Telephone Number:  
Email: \_\_\_\_\_

I have reviewed and responded to the applicable items for this project as listed below.  
Note: Only sign this form when imaged onto the site plan. A loose form is not acceptable to DSA.  
LFA Reviewer's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Review Key: "Y" = Complies with LFA requirements "N" = Not approved (complete Section 8)  
"NA" = Not applicable to this project "NR" = LFA electric not to review "Y, N, NA, NR"

#	Description	Y	N	NA	NR
1	When an elevator does not meet medical emergency service call, per the California Building Code (CBC), use of stairways for emergency rescue and patient transport is prohibited.				
2	Access roads, fire lane markings, gates and gate entrances are in accordance with Title 19, California Code of Regulations and the California Fire Code, Chapter 9.				
3	Fire hydrant location and distribution complies with the California Fire Code (or see #4).				
4	Fire hydrant location and distribution complies with NFPA 1142, "Alternate Means," if "NR" is checked, DSA optionally agrees on-site water storage as an alternate. The signature of the school district official is required to acknowledge the use of alternate means.				
5	Signature of School District Official: _____ Date: _____				
6	Print the School District Official's Name: _____				
7	The location(s) of the proposed gas indicator valve and fire department connection meet the requirements of this jurisdiction.				
8	The location(s) of the detector check valve assembly meet the requirements of this jurisdiction.				
9	Is the project located in a hazard severity zone area? (CBC, Chapter 9A, Section 904A.) Yes No Check one of Yes <input type="checkbox"/> Moderate <input type="checkbox"/> High <input type="checkbox"/> Very High <input type="checkbox"/> WFA (If one of these boxes is checked, the project design must meet the requirements of Chapter 9A.)				
10	COMMENTS (note references):				

JONAS CENTER SITE PLAN

KEYNOTE LEGEND

101 COVERED WALK TO BANQUET KITCHEN	124 (E)NON-ACCESSIBLE WALKWAY	GENERAL NOTES
102 (E)CREAK	125 (E)SERVICE ROAD	1. S.L.D. & E.C.D. FOR ADDITIONAL INFO
103 20' SETBACK FROM T.O. CREEK BANK	126 WOOD COMPOSITE CLAD STEEL FRAME ENCLOSURE	2. (E) TREES TO REMAIN ON CA
104 PREFUNCTION SPACE	127 AUTOMATED VEHICULAR SIGNALING DEVICE	
105 LOADING/TRASH AREA	128 BACKFLOW PREVENTER (W/ TAMPER SWITCH, P.V. W/ TAMPER SWITCH, S.C.D.)	
106 ACCESSIBLE PATH, S.C.D., S.L.D.	129 PER FOUNDATION @ FOOTBENCH, N.I.C.	
107 (E)QUAD (OPEN GREEN SPACE)	130 RVP TO CREEK BANK, V.I.F.	
108 DECK, S.L.D.	131 CLEAN AIR / VAPOR/UV PARKING STALL	
109 BIKE PARKING (4) BIKER CAPACITY RACKS (2) SECURE STAFF SPACES, S.L.D.	132 ACCESSIBLE PARKING STALL	
110 EXTENT OF WORK	133 NOT USED	
111 ISLOPED WALK TO PREFUNCTION SPACE, S.L.D.	134 CONC. STEPS, S.L.D.	
112 (IN PARKING LOT) (2) ACCESSIBLE STALLS (2) ELECTRIC VEHICLE STALLS (3) CLEAN VEHICLE STALLS, S.C.D.	135 BOLLARDS, S.L.D.	
113 MECHAN. S.M.D., S.C.D.	136 FIRE SPRINKLER RISER	
114 (E)FIRE HYDRANT	137 (E)SITE LIGHT POLE	
115 (E)SERVICE DRIVE REPAIR, S.C.D.	138 PARKING PAY STATION	
116 FUTURE FOOTBENCH TO PARKING LOT, N.I.C.	139 SITE LIGHTING, S.E.D., S.L.D.	
117 PASSENGER DROP OFF ZONE, S.C.D.	140 AREA DRAIN, S.C.D.	
118 (E)WELL	141 DOWNPOUTS TO DISCHARGE TO DRY WALL UNDER PARKING LOT, S.C.D.	
119 CONC. RETAINING WALL, S.C.D., S.L.D.	142 CONC. CURB EDGE AND CURB OUT, S.C.D., S.L.D.	
120 PLANTING AREA, S.L.D.		

PLANTING AREA, S.L.D. (Patterned area)  
OUTLINE OF EXISTING FOUNDATION (Red outline)  
EXTENT OF WORK (Dashed line)

REVISION		
NUMBER	DATE	DESCRIPTION

REV PLAN:

ISSUE:  
**50% DESIGN DEVELOPMENT**  
DATE:  
**MARCH 29, 2018**

STAMP:

**NOT FOR  
CONSTRUCTION**

SHEET TITLE:  
**SITE PLAN**

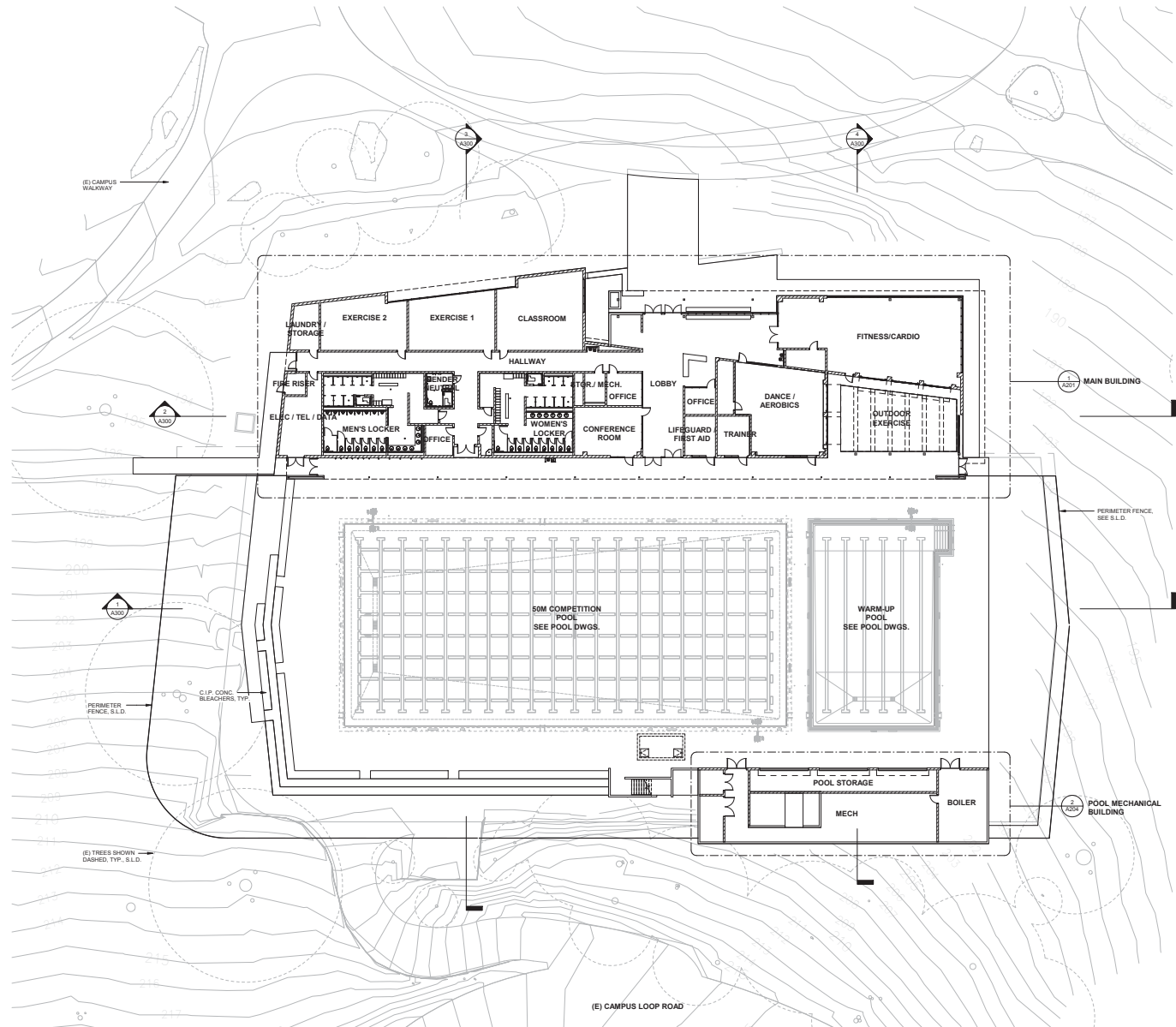
SHEET NUMBER:

**GENERAL NOTES**

1. THE PROJECT IS LOCATED IN A WILDLAND-URBAN INTERFACE FIRE AREA. EXTERIOR MATERIALS ARE REQUIRED TO MEET THE REQUIREMENTS OF CBC CHAPTER 7A. ALL GLAZING UNITS SHALL HAVE A MINIMUM OF ONE GLASS LITE THAT SHALL BE TEMPERED.
2. AUTOMATIC FIRE SPRINKLER SYSTEM THROUGHOUT BUILDING. SPRINKLERS SHALL BE DESIGNED TO COORDINATE WITH DUCTS, PIPING, CONDUIT, LIGHTING, ACCESS PANEL LOCATIONS AND OTHER CEILING ELEMENTS FOR A CLEAN, ARCHITECTURAL APPEARANCE. DESIGN BUILT SPRINKLER CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW BY ARCHITECT.
3. FFE - 42' - 0" x 119'000

**SHEET NOTES**

**KEYNOTES**



1 SITE PLAN  
3/16" = 1'-0"



**LEGEND**

- METAL STUD FRAMING
- CMU WALL