CEQA ENVIRONMENTAL CHECKLIST FORM

1.	**Project Title:**	Delta Bay Solar-Canopy RV & Boat Storage Project County File #CDLP22-02019
2.	**Lead Agency Name and Address:**	Contra Costa County Department of Conservation and Development 30 Muir Rd. Martinez, CA 94553
3.	**Contact Person and Phone Number:**	Adrian Veliz, Senior Planner; (925) 655-2879
4.	**Project Location:**	3777 Bixler Road Byron, CA 94514 Assessor's Parcel Number: 011-210-030
5.	**Project Sponsors' Names and Address:**	Scott Clare 362 La Questa Drive Danville, CA 94526
6.	**General Plan Designation:**	The subject property is located within the Agricultural Lands (AL) General Plan Land Use designation.
7.	**Zoning:**	The subject property is located within an A-3 Heavy Agricultural (A-3) District, Solar Energy Generation (-SG) Combining District, and Boat Storage (-BS) Combining District

8. Description of Project: The applicant is requesting approval of a land use permit for the purpose of constructing a solar-covered boat & recreational vehicle storage facility and commercial solar energy generating facility on the subject property. The proposed development is planned within a southerly 16-acre portion of a larger 38.5-acre parcel. The Project includes six covered parking canopies providing a total of 592 paved parking stalls for boats and recreational vehicles. The parking canopies would double as the support structure for ground-mounted solar panels comprising the proposed commercial solar energy generation land use. The aggregate area for the solar canopies/solar panel arrays is 349,494 square feet. The project would generate an estimated 10 Megawatts of clean energy per year which would be sold directly to residents and businesses in the County via either PG&E or the Marin Clean Energy (MCE) Feed-in-Tarriff program. The project would interconnect to Pacific Gas and Electric Company's (PG&E's) pre-existing electrical distribution system via existing utility poles located within the Bixler Road right-of-way to export solar energy generated on site into the existing utility grid. The project also includes a proposed two-story building consisting of a 1,476 s.f. first floor office area, and a 1,381 s.f. managers apartment unit.

The subject property is generally devoid of improvements; however, the project will require the demolition of the few buildings that do exist on site, including three barns and two small sheds located in the southwestern corner of the subject property. Additionally, 39 trees having a diameter of at least 6.5" (23 Oak, 7 Eucalyptus, 6 Ash, 2 Walnut, 1 Unspecified species) exist in this same general area and would need to be removed to accommodate the project. Thus, the project includes a request for a tree permit for the removal of these trees, as well as for construction activities

encroaching within the dripline of 9 additional trees (8 Eucalyptus, 1 Oak) that are to be preserved on site.

If the project is approved the construction phase of the project would entail approximately 6-7 months construction time for a small crew of ten or fewer persons. The developer must obtain building and/or grading permits to complete the project, which must include a construction debris recovery plan demonstrating compliance with CALGreen standards for recycling of construction materials.

Additionally, a demolition permit must be obtained prior to the removal of existing structures. The demolition permit is also subject to compliance with CALGreen standards for recycling of construction debris. CALGREEN compliance will be verified by County Building Inspection Division staff prior to the issuance of building/demolition permits, and further review of post-project documentation (e.g. receipts from approved recycling facilities) will ensure that debris, whether from the demolition of existing buildings and from the construction of the proposed facility, has been disposed of appropriately.

Following construction, access to the site would be computer controlled via gate keypads for both entering and exiting traffic. The site will be entirely fenced with 10' tall, stone-accented steel fencing intended to completely screen the parked boats and RVs from public view. The Project is proposing to provide additional screening through the use of landscaping (including trellis and vine features) and stone-accented metal fencing. LED lights will be installed under parking canopies but will be projected downward, such that light does not trespass onto adjacent properties. Approximately 10-20 people are expected to visit the site daily depending on the season, with higher activity anticipated during summer months.

The interior vehicular circulation is designed to meet the Fire Department turning radius requirements. The water and sewer demand for the Project are minimal and will be serviced by an on-site well and redundant septic systems. The Project will be designed to comply with all Contra Costa County Storm Water requirements and includes stormwater detention basins along the entire north and south boundary adjacent to the parking stalls.

The project includes an exception request from collect and convey requirements specified in Chapter 914-2 of the County Subdivision Ordinance for each Land Use Permit approval. The exception request would allow the existing drainage pattern to remain, where collection and conveyance, without diversion and within an adequate storm drainage system, to an adequate natural watercourse having a definable bed and banks or to an existing adequate public storm drainage system which conveys the storm water to an adequate natural watercourse is required.

9. **Surrounding Land Uses and Setting:** The project site is a ±38.6-acre agricultural-zoned parcel bounded by Bixler Road to the west and State Route 4 to the north, in the Byron area of unincorporated Contra Costa County. The overall topography of the subject property is flat, with elevations ranging from 12 to 16 feet above sea level. The project proposal is located within a southerly 16-acre portion of the subject property. The largely undeveloped site (APN: 011-121-030) predominantly consists of non-native ruderal vegetation and developed areas. Existing development on site includes several barn and shed buildings in the southwestern corner of the project site, which would be removed to accommodate the proposed facility. Existing buildings will be demolished, and all materials will be disposed of offsite in accordance with the County's recycling and demolition procedures. As detailed in the attached Biological Resources Assessment, the only sensitive community within the parcel is an approximately 0.54-acre saline wetland in the southeastern corner of the property; however, the Project has been intentionally designed to avoid this feature. Kellogg Creek occurs immediately to the north of the Project site but will not be impacted by Project activities. Vehicular access to the site exists via Bixler Road.

The surrounding areas consists of lands zoned Heavy Agricultural (A-3) and are presently used for farming, grazing, and/or single-family residential purposes. An unrelated boat and RV storage facility exists on a 30-acre parcel west of the project site on the opposite side of Bixler Road. The communities of Byron and Discovery Bay are located immediately south and north of the subject property respectively.

10. Other public agencies whose approval is required (e.g., permits, financing, approval, or participation agreement:

Contra Costa County Public Works Department, Contra Costa County Department of Health Services, East Contra Costa Fire Protection District, Pacific Gas & Electric.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Notice of the proposed project was sent to Native American tribes, as applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1. Letters were sent to the Confederated Villages of Lisjan and Wilton Rancheria on November 7, 2023 Neither tribal group provided comments to the Notices sent in relation to this project, nor was any consultation requested.

Environmental Factors Potentially Affected

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

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

Environmental Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Adrian Veliz
Senior Planner
Contra Costa County
Department of Conservation & Development

Date

ENVIRONMENTAL CHECKLIST

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

SUMMARY*:*

a) Would the project have a substantial adverse effect on a scenic vista? ***(Less Than Significant Impact)***

Figure 9-1 of the Open Space Element of the County General Plan identifies major scenic ridges and scenic waterways in the County. According to this map, the project site is not located adjacent to scenic resources in the county. Thus, a less than significant impact on a scenic vista is expected.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? ***(Less Than Significant Impact)***

The Scenic Routes Map (Figure 5-4) of the County General Plan's Transportation and Circulation Element identifies scenic routes in the County, including both State Scenic Highways and County designated Scenic Routes. The project site is bounded to the north by State Route 4, a County designated scenic highway. The scenic quality includes naturally pleasing elements such as the agricultural ranges and scattered native vegetation along the highway, as well as distant views of Mount Diablo and surrounding foothills. The project would be visible from State Route 4, however, the development would occur along a stretch of the highway where urbanized land uses transition to rural agricultural land uses. In the context of the urbanized development in the immediate vicinity, the project would have lower potential to result in significant aesthetic impacts relative to a more rural location. Additionally, the proposed facility would be setback over 700 feet from the highway, which would somewhat reduce its aesthetic impact when viewed from within the scenic highway. There are no rock outcroppings or historic buildings existing on the subject property that would be impacted by the development. The project includes the removal of

39 code protected trees, all of which are located in the southwestern portion of the subject property adjacent to existing agricultural buildings. The proposed tree removal would not expectedly result in a significant aesthetic impacts due to their distance from the highway and with the implementation of the project landscaping plan which includes planting numerous trees and shrubs in the same general area as that of the existing trees. In cumulative consideration of the above, the project would result in less than significant aesthetic impacts and would not substantially damage scenic resources.

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

The visual changes from the project improvements would be visible from nearby public rights-of-way and from surrounding properties. This could have an impact on the visual character of the site; however, the change from pastoral land use to solar panels would not expectedly degrade the scenic quality. This determination is based on the fact that the subject property lies in an area transitioning from urban to rural land uses. The most prominently visible element of the project will be the ground mounted solar panel arrays, which are considered compatible with agricultural land uses. Although the project is not agricultural in nature, it involves land uses which are conditionally permitted within the agricultural zoning district in which it is located. Further, the project site is located within the Solar Energy Generation (-SG) Combining District, which consists of agricultural lands within Contra Costa County where commercial solar energy generation facilities would expectedly have minimal impact on aesthetics. Therefore, the nature of the project and its proximity to urban development ensure that the project would have less than significant impacts degrading the existing visual character of the project site and surrounding area.

d) *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (**Less Than Significant Impact with Mitigation)***

The lighting and glare analysis in this section addresses the two issues of nighttime illumination and reflected light (glare). Nighttime illumination impacts are evaluated in terms of the project's net change in ambient lighting conditions and proximity to light sensitive land uses. Reflected light impacts are analyzed to determine if project related glare would create a visual nuisance or hazard.

Nighttime illumination is not expected from the proposed solar facility. As specified by the County Solar Ordinance, the facility may not include any type of lighted signals, lights, or other illumination, except as necessary for the operation of the facility. The projects compliance with the County Solar Ordinance will ensure that the project does not result in significant impacts relating to nighttime illumination.

The project involves the construction of solar arrays over approximately 16-acres of the subject property, which can create a new source of glare into the existing rural-residential visual landscape. However, due to the flat topography of the site the property is not prominently visible

when viewed from a distance. Additionally, the location of the project adjacent to urbanized development would further limit distant views of the site. As such, areas affected by glare these effects would expectedly be localized in the immediate project vicinity. Additionally, the solar panels are designed to absorb light with minimal reflection and would be oriented facing upward such that glare would expectedly be reflected primarily upward and not laterally. Further, the facility is not proximate to the Byron Airport, nor is it below the flight path of runways serving this nearby public airfield. As such potential impacts related to glare are expected to occur at less than significant levels, if at all.

Sources of Information

- Contra Costa County General Plan, 2005-2020. *Open Space Element*.
- Contra Costa County General Plan, 2005-2020. *Transportation and Circulation Element.*
- Discovery Bay Boat and RV Storage. (Project Plans). Received February 23, 2023.

2. ***AGRICULTURAL AND FOREST RESOURCES** – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to non-agricultural use?	☐	☐	☐	☒

***SUMMARY**:*

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ***(Less Than Significant Impact)***

As shown on the California Department of Conservation's Contra Costa County Important Farmland Finder map portal, the project site consists of land classified as "Farmland of Local Importance". Since the project site does not consist of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide importance to a non-agricultural use. Additionally, the proposed land uses are conditionally permitted within agricultural zoned land. Although the project is not agricultural in nature, it is considered compatible with agricultural land uses that exist in the project vicinity. Therefore, less than significant impact is expected in this regard.

b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?* ***(Less Than Significant Impact)***

The project site is within an A-3 Heavy Agricultural Zoning District and Solar Energy Generation (-SG) Combining District. Boat/RV storage is a conditionally permitted land use within agricultural zoning districts in unincorporated Contra Costa County. Within the -SG combining district, commercial solar facilities are allowed in agriculturally zoned districts. The property is not included in a Williamson Act contract, and there is no reason to believe the project would conflict with any existing agricultural uses. Furthermore, as required by the County's solar ordinance the sites would be required to be restored to their pre-project agricultural state, following the solar generation use. Therefore, a less than significant impact is expected from a conflict with existing agricultural uses.

c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g) or conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?* ***(No Impact)***

The project site is not considered forest land as defined by California Public Resources Code Section 12220(g), timberland as defined by California Public Resources Code Section 4526, or zoned Timberland Production as defined by Government Code section 51104(g). Furthermore, the project site is within the A-3 zoning district / -SG combining district, and the proposed use is a permitted use within the existing zoning. Thus, the project would not conflict with existing zoning for, or cause rezoning of forest land or timberland.

California Public Resources Code Section 12220, under the Forest Legacy Program Act, defines "forest land" 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.

Public Resources Code 4526, under the Forest Practice Act, defines "timberland" as land, other than land owned by the federal government and land designated by the State Board of Forestry and Fire Protection as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species are determined by the board on a district basis after consultation with the district committees and others.

California Government Code 51104, under the Timberland Productivity Act, defines "timberland" as privately owned land, or land acquired for state forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre. "Timberland production zone" or "TPZ" means an area which has been zoned pursuant to Section 51112 or 51113 of the Government Code and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in Public Resources Code 4526 or 12220. With respect to the general plans of cities and counties, "timberland preserve zone" means "timberland production zone." As stated in the Contra Costa County General Plan, no land is used for timber harvesting in the County. Therefore, the project will have no impact in this respect.

d) *Would the project involve or result in the loss of forest land or conversion of forest land to non-forest use?* ***(No Impact)***

The project site is not considered forest land, as discussed in "c" above, therefore, no impact.

e) *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to non-agricultural use?* ***(No Impact)***

Considering that the project does not involve land uses which are incompatible with policies and ordinances regulating development within agricultural lands, the project would not expectedly result in changes in the existing environment that encourage the conversion of farmland to non-agricultural use. The project does not involve the extension of new utilities or roadways in the vicinity which might encourage urban development on agricultural lands. Consequently, the project would have a less than significant impact in this regard.

Sources of Information

- Contra Costa County Code, Title 8, Zoning Ordinance.
- Contra Costa County General Plan 2005-2020. *Land Use Element*.
- California Department of Conservation. Accessed January 19, 2023. *California Important Farmland Finder*. *https://maps.conservation.ca.gov/DLRP/CIFF/*
- Contra Costa County *Renewable Resources Potential Study*
- Contra Costa County Department of Conservation and Development. Accessed October 23, 2023. *2016 Agricultural Preserves Map*. http://www.co.contra-costa.ca.us/DocumentCenter/View/882/Map-of-Properties-Under-Contract?bidId=

3. *AIR QUALITY – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

***SUMMARY**:*

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?* ***(Less Than Significant Impact)***

Discovery Bay is a Contra Costa County community located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB, therefore, the SFBAAB remains in nonattainment for 24-hour $PM_{2.5}$.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The

most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measure to be implemented in the region to attain State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. For development projects, BAAQMD establishes significance thresholds for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as exhaust PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr) noted in the table below:

Table 1: BAAQMD Thresholds of Significance

Pollutant	Construction Thresholds Daily Average	Operation Thresholds
ROG	54 lbs/day	54 lbs/day and 10 tons/yr
NO_x	54 lbs/day	54 lbs/day and 10 tons/yr
PM_{10}	82 lbs/day exhaust	82 lbs/day and 10 tons/yr
$PM_{2.5}$	54 lbs/day exhaust	54 lbs/day and 10 tons/yr
Source: BAAQMD, CEQA Guidelines, April 2022		

Construction Criteria Pollutant Emissions

The BAAQMD provides guidance on reviewing proposed project for air quality and climate impacts to assist developers and local jurisdictions comply with the California Environmental Quality Act. According to BAAQMD screening criteria, the project qualifies for screening out of the requirement to model emissions and is assumed to have a less than significant impact for construction related criteria pollutant emissions. Nevertheless, the project was modeled to provide estimated emissions associated with this project. As demonstrated in the following table, the project would not result in significant construction related criteria pollutant emissions and no mitigation is necessary.

Table 2: Average Daily Unmitigated Construction Emissions

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
ROG	1.59 lbs/day 2023 9.32 lbs/day 2024	54 lbs/day	No
NO_x	3.42 lbs/day 2023 1.00 lbs/day 2024	54 lbs/day	No
PM_{10} Exhaust	0.15 lbs/day 2023 0.04 lbs/day 2024	82 lbs/day exhaust	No

$PM_{2.5}$ Exhaust	0.14 lbs/day 2023 0.03 lbs/day 2024	54 lbs/day exhaust	No
Source: CalEEMod, July 2023			

Operational Criteria Pollutant Emissions

Operational emissions of ROG, NO_x, PM_{10} and $PM_{2.5}$ would be generated by the proposed project from mobile, area and energy usage sources. As with construction emissions, the project was modeled to provide estimated operational emissions. As demonstrated in the table below the project will result in less than significant operational criteria pollutant emissions and no mitigation is necessary.

Table 3: Average Daily Pounds and Annual Tons Unmitigated Operational Emissions

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
ROG	10.00 lbs/day and 1.89 tons/yr	54 lbs/day and 10 tons/yr	No
NO_x	0.73 lbs/day and 0.13 tons/yr	54 lbs/day and 10 tons/yr	No
PM_{10} Exhaust	0.31 lbs/day and 0.06 tons/yr	82 lbs/day and 15 tons/yr	No
$PM_{2.5}$ Exhaust	0.12 lbs/day and 0.02 tons/year	54 lbs/day and 10 tons/yr	No
Source: CalEEMod, July 2023			

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

The thresholds of significance presented in Table 1 represent the levels at which a project would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the regions existing air quality conditions.

Because the proposed project would result in both construction-related and operational emissions below the applicable thresholds of significance, construction and operations of the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation if needed, the project may be considered consistent with the air quality plans. As discussed above, the proposed project would result in construction and operational emissions below the applicable thresholds of significance and do not warrant mitigation. Therefore, the proposed project would

not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, and impacts would be considered less than significant.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?* ***(Less Than Significant Impact)***

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by existing health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor groups (i.e. children, the elderly, acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. Sensitive receptors in the project vicinity include sparsely single-family residences to the east and south, and a residential subdivision to the northwest.

The project proponent has provided an Air Quality and Greenhouse Gas Impact Analysis, prepared by Raney Planning & Management, Inc., which has identified localized CO emissions and toxic air contaminant (TAC) emissions to be the major pollutant concentrations of concern. The air quality analysis indicates that localized CO and operational TAC emissions would be attributable to vehicle traffic. Considering that the project would result in an estimated 60 daily vehicle trips, the report concludes that the project would not significantly increase traffic counts on nearby State Route 4 to a degree where localized CO or operational TAC emissions are a concern.

Short term, construction related activities could result in the generation of TACs, specifically diesel particulate matter (DPM) from on-road haul trucks and off-road equipment exhaust emissions. Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location for extended periods of time. Due to the temporary nature of construction, the relatively short duration of potential exposure to associated emissions, and the sparsely populated character of the project vicinity, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a substantially extended period of time would be low.

Based on the above, the proposed project would not expose sensitive receptors to substantial concentrations of localized CO or TACs associated with construction or operations of the project. Therefore, the proposed project would result in a less than significant impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

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

The proposed project would not produce any major sources of odor and is not located in an area with existing issues (e.g. landfills, treatment plants). Therefore, the operation of the project would have a less than significant impact in terms of odors.

During construction and grading, diesel powered vehicles and equipment used on the site could create localized odors. However, given the remote location of the project and that these odors would be temporary; the impact would be considered less than significant.

Sources of Information

- Bay Area Air Quality Management District. 2017. *Bay Area 2017 Clean Air Plan.*
- Bay Area Air Quality Management District. 2017. *Air Quality Guidelines.*
- Raney Planning & Management Inc. July, 2023. *Air Quality and Greenhouse Gas Impact Analysis – Discovery Bay RV & Boat Storage Project*

4. *BIOLOGICAL RESOURCES – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
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 wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

***SUMMARY**:*

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

The project proponent has engaged with environmental consultants WRA, Inc. to provide a biological resources assessment for the proposed project. The resultant August 2023 Biological Resources Assessment Report (BRA) was prepared based on field review, protocol-level rare plant surveys, formal wetland delineation, and review of relevant literary sources. The report identifies 45 special-status plant species that have been documented in the greater project vicinity, most of which were determined to be unlikely or have no potential to occur due to location as well as hydrologic, vegetative, or soil conditions observed on site. Seven special status plant species including alkali milk-vetch, heartscale, brittlescale, lesser salt scale, San Joaquin spearscale, California alkali grass, and long-styled sand-spurry were characterized as having moderate potential to occur on the property. As detailed in the BRA, WRA conducted four protocol-level rare plant surveys on the following dates: April 12, 2021, April 7, 2022, June 28, 2022, and August 12, 2022. Surveys were performed in accordance with the approved methods outlined by resource experts and agencies and were conducted during a period sufficient to identify all special-status wetland plant species known to occur in the general area. None of the seven species with potential to occur onsite were present during protocol-level plant surveys performed in connection with the project. Thus, no impacts to special-status plant species are anticipated to occur as a result of the project.

The report further identifies 37 special-status wildlife species documented in the vicinity of the subject property. Most have been determined to be unlikely or have no potential to occur on the subject property due to a lack of suitable habitat features. Seven special-status species have been identified as having potential to occur in the project site or its immediate vicinity: Swainson's hawk, western burrowing owl, white-tailed kite, loggerhead shrike, pallid bat, Townsend's big-eared bat, and vernal pool fairy shrimp. These species are discussed in greater detail below.

Swainson's hawk (*Buteo swainsoni*)

The Swainson's hawk is a state Threatened, USFWS Bird of Conservation Concern having moderate potential to occur on the project site or its vicinity. This species is a summer resident and migrant in California's Central Valley, and other scattered low-lying areas inland and near the Coast. Nests are constructed of sticks placed in trees located in otherwise largely open areas. Areas typically used for nesting include the edge of narrow bands of riparian vegetation, isolated patches of oak woodland, lone trees, and also planted and natural trees associated with roads, farmyards and sometimes adjacent residential areas. Foraging occurs in open habitats, including

grasslands, open woodlands, and agricultural areas. While breeding, adults feed primarily on rodents (and other vertebrates); for the remainder of the year, large insects (e.g. grasshoppers, dragonflies) comprise most of the diet. In many areas, Swainson's hawks have adapted to foraging primarily in and around agricultural plots (particularly alfalfa, wheat and row crops), as prey is both numerous and conspicuous at harvest and/or during flooding or burning. Suitable nest trees are present in the southwestern portion of the property and in the immediate vicinity. An active nest was documented on an adjacent property in 2006, approximately 0.4 miles southwest of the property.

Burrowing owl (*Athene cunicularia*)

The burrowing owl is a CDFW species of special concern with moderate potential to occur on the subject property. The burrowing owl occurs as a year-round resident and winter visitor in much of California's lowlands, inhabiting open areas with sparse or non-existent tree or shrub canopies. Typical habitat is annual or perennial grassland, although human-modified areas such as agricultural lands and airports are also used (Poulin et al. 1993). This species is dependent on burrowing mammals to provide the burrows that are characteristically used for shelter and nesting, and in northern California is typically found in close association with California ground squirrels (*Spermophilus beecheyi*). Manmade substrates such as pipes or debris piles may also be occupied in place of burrows. Prey consists of insects and small vertebrates. Breeding typically takes place from March to July. The Property contains ground squirrel burrows that are suitable for burrowing owl, although no burrowing owls or evidence of active use was observed during the site visits. The nearest documented breeding occurrence is approximately 3 miles south.

White-tailed kite (*Elanus leucurus*)

The white-tailed kite is a CDFW fully protected species having moderate potential to occur on the subject property. This species is a resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall. This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. White-tailed kite has been observed along Kellogg Creek immediately north of the property and is known to occur in the surrounding area. Trees in the southwestern portion of the property have potential to support nesting.

Loggerhead shrike (*Lanius ludovicanus*)

The loggerhead shrike is a CDFW species of special concern, and USFWS bird of conservation concern, having moderate potential to occur on the subject property. This species is a resident and winter visitor in lowlands and foothills throughout California. This species is associated with open country with short vegetation and scattered trees, shrubs, fences, utility lines and/or other perches. Although they are songbirds, shrikes are predatory and forage on a variety of invertebrates and

small vertebrates. Captured prey items are often impaled for storage purposes on suitable substrates, including thorns or spikes on vegetation, and barbed wire fences. This species nests in trees and large shrubs; nests are usually placed three to ten feet off the ground. Loggerhead shrike may nest within the property or immediate vicinity where tall shrubs or trees are present.

Pallid bat (*Antrozus pallidus*)

The pallid bat is a CDFW species of special concern and western bat working group (WBWG) high priority species, having moderate potential to occur on the subject property. Pallid bats are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas. Abandoned buildings within the property provide suitable roosting habitat. Additionally, trees within the property (primarily oaks) may contain cavities or snags suitable for roosting by this species.

Townsend's western big-eared bat (*Corynorhinus townsendii*)

Townsend's big-eared bat is a CDFW species of special concern and WBWG high priority species, having moderate potential to occur on the subject property. This species ranges throughout western North America from British Columbia to central Mexico. Its local distribution is strongly associated with the presence of caves, but roosting also occurs within man-made structures including mines and buildings. While many bat species wedge themselves into tight cracks and crevices, big-eared bats hang from walls and ceilings in the open. Males roost singly during the spring and summer months while females aggregate in the spring at maternity roosts to give birth. Females roost with their young until late summer or early fall, until the young become independent, flying and foraging on their own. In central and southern California, hibernation roosts tend to be made up of small aggregations of individual. Foraging typically occurs along edge habitats near streams and wooded areas, where moths are the primary prey. Abandoned buildings within the property provide suitable roosting habitat for this species.

Vernal pool fairy shrimp (*Branchinecta lynchi*)

The vernal pool fairy shrimp is a USFWS threatened species having moderate potential to occur on the subject property. This species is endemic to the eastern margin of the central coast mountains in seasonally astatic grassland vernal pools. They inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass bottomed pools in shallow swales. Several occurrences have been documented within a 5-mile radius of the project site, the nearest of which was mapped approximately 1 mile to the north at a site that has since been developed. The seasonal wetland in the southeastern portion of the project site may provide suitable habitat for this species.

The project has the potential to impact the seven previously identified special-status wildlife species. These potential project-related impacts will be reduced to less than significant levels with the implementation of each of the following mitigation measures:

Potential Impact (Swainson's hawk) BIO-1: *Project activities could result in direct impacts to Swainson's hawk through the destruction or abandonment of active nests, if present.*

Mitigation Measure BIO-1 (Swainson's hawk)*: Prior to any ground disturbance or tree removal activities that occur during the nesting season (March 1 – September 15), a CDFW-approved Qualified Biologist will conduct protocol-level surveys for Swainson's hawk nest sites within 5-miles of the project site. The survey period timing and methodology will be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (available at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols).*

If nesting Swainson's hawks are found during survey(s), or at any time during project activities, a 0.5 miles non-disturbance buffer will be established and implemented in the field by a Qualified Biologist. Buffers will be maintained until a Qualified Biologist has determined that all young have fully fledged and are able to self-provision. If site-specific conditions or the nature of the activity (e.g. steep topography, dense vegetation, limited activities) indicate that a reduced buffer could be used, the implementing entity will coordinate with CDFW to determine an appropriate buffer size.

If young fully fledge (are no longer dependent on the nest, disperse from their parent's territory, and are foraging independently) prior to September 15, Project activities can proceed within the buffer zone. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the implementing entity for a waiver of this avoidance measure. Any waiver must also be approved by CDFW. While the nest is occupied, activities outside of the buffer can take place.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent in a manner deemed adequate by the implementing agency.

Potential Impact (Swainson's hawk) BIO-2: *The proposed project could result in the loss of approximately 16-acres of suitable Swainson's Hawk foraging habitat.*

Mitigation Measure BIO-2 (Swainson's hawk)*:*

The project proponent shall mitigate for the loss of Swainson's hawk foraging habitat in a method consistent with the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California, CDFW 1994. If the project is within one mile of an active nest tree (the Swainson's Hawk Staff Report defines an active nest as used during one or more of the last five years), at least one acre of land for each acre of development authorized will be provided. If the project is within five miles of an active nest tree, but greater than one mile

from the nest tree, at least 0.75 acres of land for each acre of development authorized will be provided. Alternatively, the project proponent may elect to obtain take coverage via the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation plan.

Potential Impact (Burrowing Owl) BIO-3: *Project activities could result in direct or indirect impacts to burrowing owls via direct mortality, nest or burrow abandonment, or reduced health and vigor resulting from auditory or visual disturbance.*

Mitigation Measure BIO-3 (Burrowing Owl)*: A CDFW-approved biologist will follow the CDFW 2012 Staff Report on Burrowing Owl Mitigation (CDFW 2012 Staff Report) habitat assessment and survey methodology prior to initiating Project activities during the burrowing owl wintering season from September 1 to January 31. Surveys shall encompass a sufficient buffer zone to detect owls nearby that may be impacted, which shall be a minimum of 1,640 feet unless otherwise approved in writing by CDFW. Surveys shall include four non-breeding season surveys spread evenly throughout the nonbreeding season, pursuant to the CDFW 2012 Staff Report. Time lapses between surveys or Project activities shall trigger subsequent surveys, as determined by a qualified biologist, including, but not limited to, a final survey within 24 hours prior to ground disturbance and before construction equipment mobilizes to the project area. The Qualified Biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections.*

Detected burrowing owls shall be avoided pursuant to the buffer zone prescribed in the CDFW 2012 Staff Report, unless otherwise approved in writing by CDFW, and any eviction plan including off-site habitat compensation shall be subject to CDFW review.

Potential Impact (Burrowing Owl) BIO-4: *Project activities could result in the loss of suitable burrowing owl habitat.*

Mitigation Measure BIO-4 (Burrowing Owl)*: If preconstruction surveys determine that owls are occupying the Project site, the Project proponent should place a conservation easement (CE), onto any areas that are occupied by special-status species or adjacent to occupied properties. The CE should have a long-term management plan and include an endowment for funding of management and protection in perpetuity. CDFW should be named as the CE's third-party beneficiary. Alternatively, the project proponent may elect to obtain take coverage via the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation plan.*

Potential Impact (Roosting Bats) BIO-5: *Project activities, including demolition and tree removal associated with the proposed project could result in the direct removal of active bat roosts protected under California Fish and Game Code and the California Environmental Quality Act.*

Mitigation Measure BIO-5 (Roosting Bats)*: A preconstruction survey for bats will be conducted by a CDFW-approved Qualified Biologist prior to the initiation of project activities. The survey will include a visual inspection of any potential roosting features (e.g., cavities, crevices in wood and bark, exfoliating bark for colonial species, suitable canopy for foliage roosting species,*

culvert crevices, etc.) within the project footprint and surrounding 50 feet. Habitat features found during the survey(s) shall be flagged or clearly marked. If any habitat features will be altered or potentially disturbed by project activities, a phased disturbance strategy shall be employed to allow for nocturnal roost evacuation. Non-habitat trees or structural features shall be removed at least one (1) day prior to removal of habitat features. Potential roosting features shall not be directly disturbed (e.g., shaken, prodded, etc.).

Potential Impact (Nesting Birds) BIO-6: *Project activities could result in the destruction or abandonment of nests of special-status or non-special status bird species protected under the Migratory Bird Treaty Act, California Fish and Game Code, and California Environmental Quality Act.*

Mitigation Measure BIO-6 (Nesting Birds)*: To the extent feasible, Project-related activities shall be avoided during the nesting bird season, generally defined as February 15 – September 15. If project work must occur during the nesting bird season, a Qualified Biologist shall conduct a reconnaissance-level survey for active nests within the 14 days prior to the initiation of project-related activities. Surveys shall be conducted in all potential habitat located at, and adjacent to, project work sites and in staging and storage areas. The minimum survey radii surrounding the work area shall be the following: 250 feet for non-raptors, 1,000 feet for non-listed raptors, and 0.5 miles for special-status raptors. If a lapse in Project-related activities of seven (7) days or longer occurs, another focused survey will be required before Project activities can be reinitiated. If an active nest is found, Permittee shall consult with CDFW regarding appropriate action to comply with the Fish and Game Code of California.*

Active nest sites and protective buffer zones shall be designated as "Environmentally Sensitive Areas" where no project-related activities or personnel may enter until the Qualified Biologist determines that the young have fully fledged and will no longer be adversely affected by the project. These designated areas shall be protected during Project activities by surrounding the nest site with a wildlife-safe fence or flagging barrier. The Qualified Biologist shall determine the necessary buffer distance to protect nesting birds based on existing site conditions (such as construction activity and line of sight). For golden eagles, no construction shall occur within 0.5 mile of active nests (most activity late January through August). Buffer distance shall be increased to provide sufficient protection of nesting birds and their natural behaviors, as needed.

The Qualified Biologist shall monitor any identified active nests (including seasonally used nests of migratory raptors and ground nests) prior to the start of any construction-related activities to establish a behavioral baseline of the adults and any nestlings. Once work commences, all active nests shall be continuously monitored for a minimum of three consecutive workdays by the Qualified Biologist to detect any signs of disturbance and behavioral changes as a result of Project activities. In addition to direct impacts (such as nest destruction), nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. After the Qualified Biologist has determined that the nesting birds are attenuated to construction presence, the nest may be monitored by a Biological Monitor, provided there are no changes in site conditions (e.g., project activities, equipment used or noise levels) relative to the observation period. If signs of disturbance and behavioral changes are observed at any time, the biological personnel shall order work causing that behavioral change to cease and contact CDFW for guidance prior to resuming Project activities.

In addition to the measures for special-status species included above, the project will implement the following measures for general wildlife protection.

Mitigation Measure BIO-7 (No Stockpiling of Vegetation): *Vegetation removed and not used for slash shall be placed directly into a disposal vehicle and removed from the Project work site. Vegetation not used for slash shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the Qualified Biologist. Vegetation used for slash shall be stockpiled if placed within a biological exclusion area and shall be transferred under the supervision of the Qualified Biologist.*

Mitigation Measure BIO-8 (Open Trenches): *Any open trenches, pits, or holes with a depth larger than six (6) inches shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g., plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood planking, or installed as an earthen dirt fill with walls no greater than 30 degrees in slope in each open trench, hole, or pit that is capable of allowing large (e.g., deer) and small (e.g., snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, Qualified Biologist shall inspect the open trench, pit, or hole for wildlife. If wildlife is discovered it shall be allowed to leave on its own accord, if wildlife does not leave on its own accord consultation with CDFW is required before work can be initiated.*

Mitigation Measure BIO-9 (Open Pipes Restriction): *All pipes, culverts, or similar structures that are stored at the site for one (1) or more overnight periods shall be thoroughly inspected for wildlife by the Qualified Biologist prior to use at the Project site. All hollow pipes or posts installed as part of the Project and exposed to the environment shall be capped, screened, or filled with material by Permittee prior to the end of the workday in which the installation occurs.*

Mitigation Measure BIO-10 (Fence and Signpost Restriction): *Any fencing, signposts, or vertical poles installed temporarily or permanently throughout the course of the Project shall have the top capped and/or the top three (3) post holes covered or filled with screws or bolts to prevent the entrapment of wildlife.*

Mitigation Measure BIO-11 (Wildlife-friendly Fencing): *All new and repaired fencing shall be designed to facilitate wildlife passage to the maximum extent practicable. Wire fencing shall have a smooth top and bottom wire. Fencing shall not be constructed of materials deleterious to wildlife (e.g., sharp edges exposed at the top or bottom of chain-link fencing, braided wire where birds may become entangled, etc.). Permittee shall not install any fencing material which may ensnare, impale, or otherwise harm wildlife species. No barbed wire, or equivalent, shall be allowed where it may result in harm to birds and other wildlife (e.g., as top-wire or bottom-wire on tiered fencing).*

b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?* ***(Less Than Significant Impact)***

According to the California Department of Fish and Wildlife (CDFW) Public Access Lands map, the project site is not located in or adjacent to an area identified as a wildlife or ecological reserve by the CDFW. According to the Significant Ecological Areas and Selected Locations of Protected Wildlife and Plant Species Areas map (Figure 8-1) of the County General Plan, the project site is not located in or adjacent to, a significant ecological area. The below figure appears on page 45 of the BRA prepared by WRA Environmental Consultants and depicts potential jurisdictional features within a 52-acre study area that includes the approximately 38.5 acre project site.

Figure 3. Potential Jurisdictional Features Located within the Study Area

Delta Bay Solar-Canopy RV and Boat Storage Project
Contra Costa County, California

wra Environmental Consultants

Kellogg Creek is depicted along the northern extent of the study area; however, this portion of the study area predominantly consists of a 10-acre adjacent parcel that is not a part of the project site and which is under separate private ownership (APN 011-210-029). County staff has amended the above figure to include the dashed green rectangle, indicating the location of the adjacent parcel. The proposed area of work consists of a generally rectangular area encompassing the entire east-west width of the subject property, by 400 feet north-south as measured from the southernmost property line. The entire area of work is at least 500 feet south of the nearest boundary line common to the aforementioned adjacent 10-acre parcel (APN 011-210-029). Thus, since the project site is situated at least 800 feet south of Kellogg Creek and is physically separated therefrom by adjoining property, the project would expectedly have no impact on this nearby waterway.

One 0.54-acre saline wetland exists in the southeastern corner of the subject property. According to the project Biological Resources Assessment, the hydrology in this feature is sourced from direct precipitation, over-land sheet flow, and possibly a shallow groundwater table. Soil saturation is likely throughout the majority of the wet season into the growing season, while inundation is typically short-lived and shallow. The saline wetland feature is an "isolated" wetland, due to lack of hydrologic connectivity to navigable waters, and therefore, is not subject to the Corps jurisdiction; however, this wetland would be considered a potential water of the state, per the California State Wetland policy. The project would not expectedly result in a substantial adverse effect on the existing sensitive wetlands due to the fact that the proposed activities avoid this area completely. In addition, the Project will be designed to comply with all Contra Costa County Storm Water requirements. However, grading activities in the vicinity may result in indirect impacts through unintentional fill or discharge into this feature. The implementation of the below mitigation measure will reduce potential project-related impacts to sensitive natural communities to a less-than-significant level.

Potential Impact BIO-12*: Construction activities adjacent to the saline wetland may result in unintentional fill or discharge into this feature.*

Mitigation Measure BIO-12: *Prior to ground disturbing activities, sensitive habitats adjacent to the project construction areas will be flagged and silt fencing will be installed in the areas adjacent to wetlands.*

If suitable habitat for covered shrimp will be retained on site, project proponents will establish a buffer from the outer edge of all hydric vegetation associated with seasonal wetlands occupied (or assumed to be occupied) by covered shrimp. This buffer zone will be determined in the field by the biologists as the immediate watershed feeding the seasonal wetland or a minimum of 50 feet, whichever is greater. Buffers will be marked by brightly colored fencing or flagging throughout the construction process. Activities will be prohibited in this buffer in accordance with the minimization measure above.

Construction personnel will be trained to avoid affecting shrimp. A qualified biologist approved by USFWS will inform all construction personnel about the life history of covered shrimp, the importance of avoiding their habitat, and the terms and conditions of the take coverage permit related to avoiding and minimizing impact on covered shrimp.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ***(Less Than Significant Impact With Mitigation)***

As discussed above, an isolated wetland exists at the southeastern corner of the subject property. The project does not involve any construction, grading or tree removal activities in the wetland since the project has been intentionally designed to avoid this feature. Thus, the project will have no direct impact on the saline wetland. Additionally, flat topography is characteristic of the subject property and its vicinity. Since the proposed project grading/drainage plan would maintain the existing topography and drainage pattern, the project would not expectedly result in any hydrological interruption to the wetland area. Further, mitigation measure **BIO-12**, designed to

prevent indirect impacts to the saline wetland has been previously identified in this report in order to reduce the potential for indirect impacts to less than significant levels. Therefore, the project is expected to have less than significant impacts on state or federally protected wetlands with the incorporation of mitigation measure **BIO-12**.

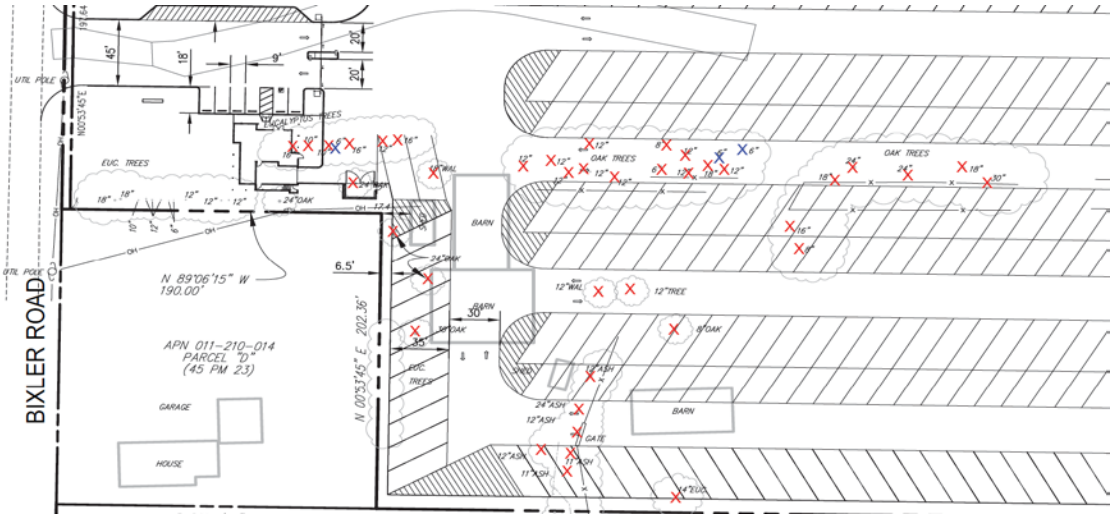
d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? ***(No Impact)***

The subject property does not provide corridor functions beyond connecting similar agricultural parcels in the surrounding area. Kellogg Creek to the north may facilitate the movement of aquatic species but is separated from the property by a northern adjacent parcel – and a raised levee beyond the adjoining parcel. Thus, Kellogg Creek would not will not be affected by the proposed project. For terrestrial species, the property is within a larger tract of agricultural and lightly developed lands that do not function as core habitat areas, as verified by the consulting biologist. Therefore, no project related impacts will occur to migratory corridors for terrestrial or aquatic species.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ***(No Impact)***

The Conservation Element of the County's General Plan addresses the County's policies regarding the identification, preservation and management of natural resources in the unincorporated County. Within the Conservation Element, the "Significant Ecological Areas and Selected Locations of Protected Wildlife and Plant Species Areas" (Figure 8-1) identifies significant resources throughout the County. The map shows no resources in the vicinity of the project site. The Biological Resources Analysis prepared for the project confirms that the project site lacks core habitat for any special-status plant or wildlife species. Mitigation measures have been designed to ensure that the project avoids direct or indirect impacts to any special status species having a potential to occur in the vicinity. Thus, the project is not expected to conflict with any local policies or ordinances protecting biological resources.

The Contra Costa County Tree Protection and Preservation Ordinance provides for the protection of certain trees by regulating tree removal while allowing for reasonable development of private property. On any undeveloped property, the Ordinance requires tree alteration or removal to be considered as part of the project application. Based on the Tree Inventory provided by the applicant, the project will require the removal of 39 code protected trees. All existing trees on site are primarily concentrated along southwesterly property lines near the Bixler Road frontage near remnants of the old farmstead, and would need to be removed to accommodate the proposed parking canopies and drive aisles.



The above figure depicts the location of all existing trees on site. Trees proposed for removal are indicated by an "X" through the trunk. The tree removal request associated with this project is consistent with the provisions of the County's tree protection and preservation ordinance. The applicant's compliance with applicable project conditions, including previously identified mitigations measures **BIO-1 – BIO-12**, as well as requirements to plant new trees to compensate for those removed, will ensure that the project does not conflict with the County's tree ordinance. Therefore, the project does not conflict with County policies protecting biological resources or tree resources and would have no impact in this regard.

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

There is one adopted habitat conservation plan in Contra Costa County: the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (HCP/NCCP). The plan was approved in May 2007 by the East Contra Costa County Habitat Conservancy, comprised of the cities of Brentwood, Clayton, Oakley, and Pittsburg, and Contra Costa County. The HCP/NCCP establishes a coordinated process for permitting and mitigating the incidental take of endangered species in East Contra Costa County. The plan lists Covered activities that fall into three distinct categories: (1) all activities and projects associated with urban growth within the urban development area (UDA); (2) activities and projects that occur inside the HCP/NCCP preserves; and (3) specific projects and activities outside the UDA. The project is located outside of the urban limit line and therefore is not required to obtain coverage under the plan. Nevertheless, take coverage for the project is available via the HCP/NCCP as a participating special entity, and the project proponent has specified their intent to obtain coverage through the ECCC HCP/NCCP. The project proponents compliance with all measures ECCC HCP/NCCP and there would be no impact resulting from conflicts with the ECC HCP/NCCP.

Sources of Information

- California Department of Fish and Wildlife. Accessed January 24, 2023. CDFW Lands Viewer (ca.gov).
- WRA Inc., Biological Resources Assessment Report. Dated August 2023.
- East Contra Costa County Habitat Conservancy. Accessed October 31, 2023. http://www.co.contra-costa.ca.us/depart/cd/water/HCP/.
- Discovery Bay Boat and RV Storage. (Project Plans). Received February 23, 2023.

5. *CULTURAL RESOURCES – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

SUMMARY:

a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to California Environmental Quality Act Guidelines Section 15064.5?* ***(Less Than Significant Impact With Mitigations)***

Historical resources are defined in the California Environmental Quality Act Guidelines Section 15064.5 as resources that fit any of the following definitions:

- Is listed in the California Register of Historic Places and has been determined to be eligible for listing by the State Historic Resources Commission;
- Is included in a local register of historic resources, and identified as significant in a historical resource survey that has been or will be included in the State Historic Resources Inventory; or
- Has been determined to be historically or culturally significant by a lead agency.

The project site primarily consists of fallow cropland, and is generally undeveloped with the exception of a few agricultural buildings, remnants of an old abandoned farmstead, located at southerly areas of the project site. These structures are of no historical significance. No resources on the site were found to be eligible for listing under any criteria for the California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), or local listing. Thus, the project would not impact any known historical or culturally significant resources.

The archaeological sensitivity map of the County's General Plan (Figure 9-2), identifies the project area as "Area of Medium Sensitivity", which may contain significant archeological resources. While unlikely since the project site has been fully disturbed by previous agricultural activities, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic and prehistoric resources. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. If during project construction, subsurface construction activities damaged previously undiscovered historic and prehistoric resources, there could be a potentially significant impact. The following mitigation measure would reduce the potentially significant impact to a less than significant level.

Potential Impact CUL-1: *Subsurface construction activities could potentially damage or destroy previously undiscovered historic and prehistoric resources.*

Mitigation Measure CUL-1*: The following Mitigation Measures shall be implemented during project related ground disturbance, and shall be included on all construction plans:*

i. *All construction personnel, including operators of equipment involved in grading, or trenching activities will be advised of the need to immediately stop work if they observe any indications of the presence of an unanticipated cultural resource discovery (e.g. wood, stone, foundations, and other structural remains; debris-filled wells or privies; deposits of wood, glass, ceramics). If deposits of prehistoric or historical archaeological materials are encountered during ground disturbance activities, all work within 50 feet of the discovery shall be redirected and a qualified archaeologist, certified by the Society for California Archaeology (SCA) and/or the Society of Professional Archaeology (SOPA), shall be contacted to evaluate the finds and, if necessary, develop appropriate treatment measures in consultation with the County and other appropriate agencies. If the cultural resource is also a tribal cultural resource (TCR) the representative (or consulting) tribe(s) will also require notification and opportunity to consult on the findings.*

   If the deposits are not eligible, avoidance is not necessary. If eligible, deposits will need to be avoided by impacts or such impacts must be mitigated. Upon completion of the archaeological assessment, a report should be prepared documenting the methods, results, and recommendations. The report should be submitted to the Northwest Information Center and appropriate Contra Costa County agencies.

ii. *Should human remains be uncovered during grading, trenching, or other on-site excavation(s), earthwork within 30 yards of these materials shall be stopped until the County coroner has had an opportunity to evaluate the significance of the human remains and determine the proper treatment and disposition of the remains. Pursuant to California Health and Safety Code Section 7050.5, if the coroner determines the remains may those of a Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code Section 5097.98, the NAHC will then determine a Most Likely Descendant (MLD) tribe and contact them. The MLD tribe has 48 hours from the time they are given access to the site to make recommendations to the land owner for treatment and disposition of the ancestor's*

remains. The land owner shall follow the requirements of Public Resources Code Section 5097.98 for the remains.

Implementation of these mitigations would ensure a less than significant adverse environmental impact on historical resources.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to California Environmental Quality Act Guidelines Section 15064.5?* ***(Less Than Significant Impact With Mitigation)***

As stated previously, the project site does not appear to host any historical resources. However, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic and prehistoric resources. In keeping with the CEQA guidelines, if archaeological remains are uncovered, work at the place of discovery should be halted immediately until a qualified archaeologist can evaluate the finds. If during project construction, subsurface construction activities damaged previously undiscovered historic and prehistoric resources, there could be a potentially significant impact. Mitigation Measure *CUL-1* would reduce the potentially significant impact to a less than significant level.

Potential Impact CUL-1: *Surface construction activities could potentially damage or destroy previously undiscovered archeological resource.*

Mitigation Measure CUL-1: *Implementation of mitigation measure* ***CUL-1*** *would reduce the impact on previously undiscovered archeological resources to a less than significant level.*

c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?* ***(Less Than Significant Impact With Mitigation)***

There is a possibility that human remains could be present and accidental discovery could occur. If during project construction, subsurface construction activities damaged previously undiscovered human remains, there could be a potentially significant impact. Mitigation Measure *Cultural Resources 1* would reduce the potentially significant impact to a less than significant level.

Potential Impact CUL-1: *Surface construction activities could potentially damage or destroy previously undiscovered human remains.*

Mitigation Measure CUL-1: *Implementation of mitigations measure* ***CUL-1*** *would reduce the impact on previously undiscovered human remains to a less than significant level.*

Sources of Information

- Contra Costa County General Plan 2005-2020. *Open Space Element*.

6. ***ENERGY – Would the project:***				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

***SUMMARY**:*

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

Environmental effects related to energy include a project's energy requirements and its energy use efficiencies by amount and fuel type during construction and operation; the effects of the project on local and regional energy supplies; the effects of the project on peak and base period demands for electricity and other forms of energy; the degree to which the project complies with existing energy standards; the effects of the project on energy resources; and the project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable. The following factors demonstrate a project's significance in relation to these effects: (1) Why certain measures were incorporated in the project and why other measures were dismissed; (2) The potential of siting, orientation, and design to minimize energy consumption, including transportation energy, increase water conservation and reduce solid-waste; (3) The potential for reducing peak energy demand; (4) Alternate fuels (particularly renewable ones) or energy systems; and (5) Energy conservation which could result from recycling efforts.

The solar project has been designed to provide solar energy sufficient for the operation of the Boat/RV storage facility and additional renewable energy to be exported into the existing PG&E electrical grid. The project would be interconnected to existing PG&E utility lines located on existing utility poles on and adjacent to the project site. Energy consumption related to the construction of the facilities would be temporary and are not expected to be significant, when considered in the context of the overall impact from the renewable energy project. Thus, given that the project would be self-sufficient in terms of energy consumption associated with the operation of the project and would also increase renewable energy generation within the County, the project would not be considered to be wasteful, inefficient, or have unnecessary consumption of energy resources. Therefore, a less than significant impact is expected.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ***(Less Than Significant Impact)***

The Contra Costa County Climate Action Plan (CAP) includes a number of Green House Gas (GHG) emission reduction strategies. The strategies include measures such as implementing standards for green buildings and energy-efficient buildings, reducing parking requirements, and reducing waste disposal. Furthermore, the CAP specifically calls for the development of additional solar energy production resources in the County.

The project would not conflict with the policies outlined in the CAP. Furthermore, as the polices in the CAP are recommendations and not requirements, the project would not conflict with the CAP. Thus, the project would not be considered to have a significant impact.

Sources of Information

- Contra Costa County, 2015. *Municipal Climate Action Plan*.

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

***SUMMARY**:*

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

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? ***(Less Than Significant Impact)***

The project site is not located within an Alquist-Priolo Fault Zone, as mapped by the California Department of Conservation. Additionally, the project proponent has provided a geotechnical analysis evaluating the generalized geology of the surrounding area based on literary sources and including exploratory test pits to evaluate site-specific soil conditions. The geotechnical investigation found no evidence of active faulting on site. Therefore, the potential for fault-related surface rupture at the site is considered low, and therefore, less than significant impacts are expected in this respect.

ii) Strong seismic ground shaking? ***(Less Than Significant Impact)***

The project geotechnical report includes an evaluation of seven Bay Area faults, ranging from 11 to 56 miles distant from the project site. The nearest active fault is the Greenville Fault, located 11.7 miles west of the subject property. Ground shaking from Bay Area faults at the site is expected to be "very moderate", as characterized by the consulting geotechnical engineer. Therefore, less than significant impacts from seismic ground shaking are expected to result from the proposed project.

iii) Seismic-related ground failure, including liquefaction? ***(Less Than Significant Impact)***

Published hazard maps indicate that the project site has a high potential for liquefaction. Exploration and laboratory results reported by the consulting geotechnical engineer suggest a moderate probability of liquefaction as the alternating layers of silty clay and sandy clays encountered during exploratory test pits have a fine content that will make it difficult for liquefaction to occur. The consulting geotechnical engineer indicates that based on the proximity of Bay Area faults, seismic induced vertical ground settlment could be approximately 3-4 inches over twenty feet. With appropriate foundation design, including all recommendations from the consulting geotechnical engineer, the project can be constructed in a manner that accounts for this settlement potential, and would not present a significant risk to people or property. Generally, there are three factors that need to take place for liquefaction to occur: 1.) Loose Granular Sediment, 2.) Saturation of the sediment 3.) Strong shaking. Considering that the underlying sediment encountered in exploratory test pits will make it difficult for liquefaction to occur, and that only moderate seismic shaking is expected to result from Bay Area fault activity, the risk of seismic-related ground failure, including liquefaction is considered less than significant.

iv) Landslides? ***(Less Than Significant Impact)***

In 1975 the United States Geological Survey (USGS) issued photo-interpretation maps of landslide and other surficial deposits of Contra Costa County. This mapping is presented on page 10-24 of the Safety Element of the County General Plan. According to this USGS map, there are no suspected landslides in proximity of the proposed project. It should be recognized that the USGS landslides are mapped solely on the basis of geologic interpretation of stereo pairs of aerial photographs analyzed by an experienced USGS geologist. The mapping was done without the benefit of a site visit or any subsurface data. Furthermore, landslides mapped by the USGS are not classified on the basis of the (a) activity status (i.e. active or dormant), (b) depth of slide plane (shallow or deep seated), or (c) type of landslide deposit, and they do not show landslides that have formed since 1975. Consequently the USGS map is not a substitute for a detailed site-specific investigation. Nevertheless, the map fulfills its function, which is to flag sites that may be at risk of landslide damage, where detailed geologic and geotechnical investigations are required to evaluate risks and develop measures to reduce risks to a practical minimum. Considering the flat topography that is characteristic of the project site and its vicinity, and the absence of nearby mapped landslides, a less than significant impact can be expected regarding landslide hazards.

b) *Would the project result in substantial soil erosion or the loss of topsoil?* ***(Less Than Significant Impact)***

The project site is essentially flat and the project would not substantially alter the existing topography. Presently, stormwater runoff from the project site drains in an easterly direction towards Frisk Creek, located approximately 750 feet east of the subject property. The proposed onsite grading is deigned to maintain the existing slight easterly slope across the impervious asphalt portion of the project and onto pervious pavement areas at the eastern extent of the project, which is also designed with a constant slight slope towards the eastern property line. The funoff will drain through the pervious pavement and into the underlying soils. Since the onsite soils are characterized as well-drained clay loams and silty clay loams, infiltration of the runoff into the underlying soils is not expected to be an issue. The depth of gravel within the pervious pavement section will be designed to accommodate runoff volume for larger storm events. Consequently, overland release for the project site will continue to drain easterly towards Frisk Creek at a rate substantially similar to existing conditions. Therefore, the project would not expectedly result in substantial soil erosion or the loss of topsoil since it would not result in a substantial alteration of existing drainage patterns. Therefore, less than significant impact from soil erosion or top soil loss is expected.

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

As discussed above, the project site is in an area that has “moderate” liquefaction potential. Additionally, the alternating layers of sand clays and silty clay thickness encountered during exploratory test pits suggest subsidence of up to 3-4 inches can be expected, though differential

or uneven settlement can occur based on structural load or variations in the soil properties beneath the development. The consulting geotechnical engineer opines that ground modification techniques can be applied to develop a uniform building pad and thereby reducing the possibility of differential movement. Considering that seismic risks are generally characterized as low or moderate by the consulting geotechnical engineer, the project is not expected to result in significant impacts resulting from unstable geologic unit or soil.

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

According to the consulting geotechnical engineer, surface soils are not considered to exhibit shrink and swell potential, implying that vertical surface movement is low with changes in moisture variations. Therefore, the project would have less than significant impacts related to expansive soils.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? ***(No Impact)***

The project proponent has provided a report titled *On Site Wastewater Treatment System Site Evaluation and Design Report*, prepared by Campi Engineering on May 4, 2020. The purpose of the report was to evaluate the property and to determine the feasibility of developing an onsite wastewater treatment system on the subject property. The report includes soil testing conducted over a total of 8 test pits at various locations on the property and percolation testing in the areas surrounding the test pits. Based on the percolation test results, it was concluded that the site meets the minimum requirements for development of the onsite waste disposal system. Therefore, the project site consists of soil capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, and the project would have no impact in this regard.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ***(Less Than Significant Impact)***

Similar to archaeological resources, there is a possibility that previously undiscovered buried fossils and other paleontological resources could be present and accidental discovery could occur. If during project construction, subsurface construction activities damaged previously undiscovered historic and prehistoric resources, there could be a potentially significant impact. Mitigation Measure **CUL-1** would reduce the potentially significant impact to a less than significant level. No unique geologic features exist on the site. Thus, a less than significant impact would be expected with the included mitigations.

Sources of Information

- California Department of Conservation. *EQ Zapp: California Earthquake Hazards Zone Application.* Accessed January 17, 2023.
- Contra Costa County General Plan, 2005-2020. *Safety Element.*

- *United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey. Accessed January 17, 2023.* http://websoilsurvey.nrcs.usda.gov

8. *GREENHOUSE GAS EMISSIONS □ Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

***SUMMARY**:*

a-b) Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential and agricultural sectors. Implementation of the project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO2 equivalents ($MTCO_2e/yr$).

The proposed project is located within the jurisdictional boundaries of the Bay Area Air Quality Management District (BAAQMD). The most recent BAAQMD Air Quality Guidelines were released in April, 2022. The updated GHG thresholds address recent climate change legislation, including SB 32, and provide qualitative thresholds related to Buildings and Transportation.
Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. The proposed projects construction GHG emissions, as well as operational emissions, have been estimated using CalEEMod under the same assumptions discussed in the Air Quality section of this document. The emissions estimates prepared for the proposed project determined that unmitigated construction of the project would result in total GHG emissions of $185MTCO_2e$ over the entire construction period.

Potential impacts related to operational GHG emissions resulting from implementation of the proposed project are considered in comparison with BAAQMD's adopted thresholds of significance. The 2022 BAAQMD CEQA Guidelines state that projects that demonstrate consistency with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines section15183.5(b) can be determined to result in less than significant contribution of GHG emissions. The 2015 Contra Costa County Climate Action Plan (CAP) has been adopted at the local level in compliance with State CEQA Guidelines section 15183.5(b). The GHG

reduction strategies incorporated therein include measures designed to increase energy efficiency, promote alternative modes of transportation, reduce vehicle miles traveled, and reduce reliance on fossil fuel energy sources.

The proposed project's operational GHG emissions were estimated using CalEEmod 2022. With no changes to the model's default energy inputs, the project's GHG emissions were estimated at 507 $MTCO_2e$/yr. Of the 507 $MTCO_2e$/yr, 457 $MTCO_2e$/yr were estimated from energy use. Because the project includes a 3,000 kWh solar farm (on 349,494 square feet of ground-mounted solar-panel canopies), the 457 $MTCO_2e$/yr would be avoided. Energy generated, but not consumed on site, will be exported to PG&E, providing clean power to the grid, further reducing GHG emissions from the energy sector in California. Thus, the project is consistent with the 2015 Contra Costa County CAP by exporting clean energy to the grid, thereby contributing to reduced reliance on fossil fuel energy sources. Additionally, the project is required to provide three EV capable spaces of the total six proposed off-street parking spaces, consistent with 2022 Cal Green code. Further, the proposed building includes all electric appliances and plumbing and excludes natural gas infrastructure. The proposed solar canopy will produce enough energy on site to offset all energy use by the project, and excess energy would be exported to the PG&E grid via existing overhead utility lines adjacent to the site. Based on the above, the project is considered consistent with the 2015 Contra Costa County CAP and would result in less than significant impacts with respect to GHG emissions.

Sources of Information

- Raney Planning & Management Inc. July, 2023. *Air Quality and Greenhouse Gas Impact Analysis – Discovery Bay RV & Boat Storage Project*
- Bay Area Air Quality Management District *2022 CEQA Guidelines*

9. HAZARDS AND HAZARDOUS MATERIALS – *Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☒	☐

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

***SUMMARY**:*

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

If the project is approved, construction activities associated with the Boat/RV and commercial solar energy generation facility would include associated use of fuels, lubricants, paints, and other construction materials during the construction period. The use and handling of hazardous materials during construction would occur in accordance with applicable federal, state, and local laws, including California Occupational Health and Safety Administration (Cal/OSHA) requirements. With compliance with existing regulations, the project would have a less than significant impact from construction.

The operation of the project does not involve the routine transport, use, or disposal of hazardous materials to any significant degree. Accordingly, less than significant impacts from hazardous materials would result from the operation of the project.

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

Since the project does not involve the transport, use, or disposal of hazardous materials, the release of hazardous materials into the environment is not reasonably expected to occur. Therefore, the project will have less than significant impact in this respect.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ***(No Impact)***

The nearest schools are the Vista Oaks Charter and Excelsior Middle Schools, located approximately 0.85 miles southwest of the project site. Given the distance from the proposed facility, and that the project would not be expected to release hazardous materials into the environment, no such impact on the schools is expected.

d) Would the project 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? ***(Less Than Significant Impact)***

A review of regulatory databases maintained by County, State, and federal agencies found no documentation of hazardous materials violations or discharge on the subject property. The site is not listed on the State of California Hazardous Waste and Substance Sites (Cortese) List. California Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Cortese List is a planning document with hazardous material contaminated site information, used by the State, local agencies and developers to comply with the California Environmental Quality Act. Thus, the project is not expected to result in a significant hazard to the public or the environment.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ***(No Impact)***

The project site is not located with the Byron Airport Influence Area and is located approximately 3.5 miles north of the Byron Airport. Therefore, there would not be any expected safety hazard or excessive noise impacts related to a public airport or public use airport.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ***(Less Than Significant Impact)***

The project site is bounded by Bixler Road to the west and State Route 4 to the north. The addition of the Boat/RV and solar energy generating facilities would not significantly increase area population and does not involve construction activity within a public right-of-way or highway. Thus, the project has little potential to affect emergency evacuation plans, or other emergency response plan. Therefore, less than significant impacts are anticipated in this regard.

With respect to proposed onsite improvements, the East Contra Costa Fire Protection District has reviewed the project plans and provided routine comments for the site. Furthermore, the Fire Protection District would review the construction drawings for the project at the time of submittal of a building permit application.

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

The Boat/RV storage facility includes onsite residential accommodations for the facility manager. The project site and surrounding area is designated as “non-wildland, non urban”, and therefore, is not within an area subject to an elevated risk of wildfire. Therefore, the project would result in a less than significant risk of exposing people or structures to hazards associated with wildland fires.

Sources of Information

- California Department of Forestry and Fire Protection (CalFire). 2009. *Very High Fire Hazard Severity Zones in LRA Map.*
- Contra Costa County, 2000. *Contra Costa County Airport Land Use Compatibility Plan.*
- Contra Costa County General Plan, 2005-2020. *Transportation and Circulation Element.*

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

***SUMMARY**:*

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? ***(Less Than Significant Impact)***

The proposed project would comply with applicable water quality and discharge requirements. Contra Costa County, the Contra Costa County Flood Control and Water Conservation District, and 16 incorporated cities in the county have formed the Contra Costa Clean Water Program. In

October 2009, the Regional Water Quality Control Board for the San Francisco Bay Region (RWQCB) adopted the National Pollutant Discharge Elimination System (NPDES) Municipal Regional Permit for the Program, which regulates discharges from municipal storm drains. Provision C.3 of the Municipal Regional Permit places requirements on site design to minimize creation of impervious surfaces and control stormwater runoff. The County has the authority to enforce compliance with its Municipal Regional Permit through the County's adopted C.3 requirements. The C.3 requirements stipulate that projects creating and/or redeveloping at least 10,000 square feet of impervious surface shall treat stormwater runoff with permanent stormwater management facilities, along with measures to control runoff rates and volumes.

The proposed project would exceed 10,000 square feet of new impervious surface area. Therefore, the project has submitted a preliminary Stormwater Control Plan (SWCP) with this planning permit application, as required by County drainage ordinances. The project drainage plan allows for onsite detention and infiltration of stormwaters on the subject property in a manner that maintains the established drainage pattern for the property. The project requires an exception to the collect and convey standards specified by County ordinance, which can only be approved with the appropriate findings. Based on the applicant's exception request and proposal, the necessary finding can be made to support the request. Furthermore, the preliminary stormwater control plan has been reviewed by the County's Public Works division and shows that all stormwater will be managed adequately on site. Thus, with implementation of the practicable stormwater controls, the project would be compliant with applicable water quality standards or waste discharge requirements, resulting in a less than significant impact.

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

Since the project includes on site detention and pervious pavement designed to allow stormwater to infiltrate the soils beneath the subject property, and the relatively low water usage associated with on-site storage of boat/RV and/or commercial solar energy generation the project would not substantially decrease groundwater supplies or interfere with groundwater recharge. The managers suite proposed for the storage facility will draw on well water as a potable water source, which is subject to permitting requirements administered by the County Environmental Health Division to verify water flow/quality is adequate for the proposed use. The project's compliance with applicable permit requirements for the use of well water, along with the implementation of the proposed grading/drainage plan, ensures less than significant project related impacts in this respect.

c) *Would the project substantially alter the existing drainage pattern of the area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

i) Result in substantial erosion or siltation on- or off-site? ***(Less Than Significant Impact)***

The proposed project would not substantially alter the drainage pattern of the site or area or result in substantial erosion or siltation. The grading necessary for the project would substantially maintain the existing drainage patterns on site. Accordingly, the proposed project would not result in substantial erosion or siltation relative to present conditions.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As described previously, the proposed project would not substantially alter the existing drainage pattern of the site or area. Thus, there would not be a significant risk due to an increase in the project-related volume of runoff that would result in onsite or off-site flooding.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? ***(No Impact)***

The project is located outside of the urban limit line. Consequently, the use of a public stormwater drainage system is unavailable to the project as such improvements are generally prohibited outside of the urban limit line. As such, the project requires an exception to County Drainage Ordinance in order to authorize the proposed grading/drainage plan which would detain and treat stormwaters on site. The County Public Works Department has reviewed the application submittal and determined that the proposed onsite surface drainage regimen would be appropriate for the area. Accordingly, the proposed project would not exceed the capacity of any existing stormwater system. Therefore, no impact to existing or planned stormwater drainage systems would result from the project.

iv) Impede or redirect flood flows? ***(No Impact)***

The improvements on the site are not expected to create any barrier that would impede or redirect flood flows, should flooding occur. Therefore, no impact.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? ***(Less Than Significant Impact)***

According to County GIS mapping, a portion of the development area is located in a Special Flood Hazard Zone (B), indicating that the area has a 0.2% annual chance flood hazard. The California Geological Survey (2009) has projected and mapped the tsunami hazard posed by a tidal wave that passes through the Golden Gate and into San Francisco Bay, San Pablo Bay and Carquinez Strait. The project site is not included in the inundation area on any tsunami hazard map. Thus, the proposed project would not be susceptible to inundation by seiche or tsunami.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ***(Less Than Significant Impact)***

As stated above, the proposed project would comply with applicable water quality and discharge requirements. Provision C.3 of the Municipal Regional Permit places requirements on site design to minimize creation of impervious surfaces and control stormwater runoff. Thus, the project would not conflict with or obstruct implementation of a water quality control plan.

The Sustainable Groundwater Management Act (SGMA), effective January 1, 2015, established a framework of priorities and requirements to facilitate sustainable groundwater management throughout the State. The intent of SGMA is for groundwater to be managed by local public agencies and newly-formed Groundwater Sustainability Agencies (GSAs) to ensure a groundwater basin is operated within its sustainable yield through the development and implementation of a Groundwater Sustainability Plans (GSP). The project is located near the San Joaquin Valley – East Contra Costa basin management area, which is Medium Priority groundwater basin based on the Groundwater Basin Prioritization by the State Department of Water Resources (DWR). Given that the project reliance on groundwater would be or impact water percolation, a less than significant impact to the basin is expected.

Sources of Information

- California Department of Water Resources. *https://water.ca.gov/Programs/Groundwater-Management*
- Federal Emergency Management Agency (FEMA). *National Flood Insurance Rate Map (FIRM). https://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping.*

11. *LAND USE AND PLANNING – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

SUMMARY:

a) Would the project physically divide an established community? ***(No Impact)***

Development of the proposed project would not physically divide an established community. The proposed project would occur on an agricultural parcel within a rural agricultural area. The community of Byron is approximately 0.75 south of the project and would not be impacted.

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

General Plan

The proposed project would conform to the applicable General Plan land use designation. The site's current land use designation is AL, Agricultural Lands. Boat/RV storage facilities and commercial solar energy generation are both considered compatible land uses which may be permitted on agricultural lands upon issuance of a land use permit.

The Contra Costa General Plan contains the following relevant policies related to the project.

3-68. Support the concept of allowing for multiple uses, compatible with the predominantly agricultural watershed and public purposes of the area. Preserve designated agricultural lands for agricultural use, and also to allow certain other uses in the area, such as wind energy farms, mineral extraction, and reservoirs.

3-69. The Southeast County area is almost exclusively planned for agricultural, watershed, or public purposes. New land uses within this plan area should be limited to those which are compatible to the primary agricultural and watershed purposes of the area (farming, ranching, poultry raising, animal breeding, aviaries, apiaries, horticulture, floriculture and similar agricultural uses and structures) and consistent with the multiple use philosophy enumerated by this plan. Subject to specific project review and the policies listed within this plan, the following uses are generally consistent with the planned agricultural areas:
(a) Public and private outdoor recreational facilities; (b) Dude ranches, riding academies, stables; (c) Wind energy conversion systems; (d) Single family residences on larger lots; (e) Mineral resources quarrying; (f) Oil and gas wells; (g) Pipelines and transmission lines; and (h) Veterinarian offices and kennels. (i) Public purpose uses.

9-31. Within the Southeast County area, applicants for subdivision or land use permits to allow nonresidential uses shall provide information to the County on the nature and extent of the archeological resources that exist in the area. The County Planning Agency shall be responsible for determining the balance between multiple use of the land and protection of resources.

These policies highlight the County's longstanding interest in preserving agricultural lands in east Contra Costa County. They also state that the County should balance the preservation of agricultural use with certain other beneficial uses. The provision of solar energy in the County has become a priority as utilization of renewable energy has become desirable. The project would utilize the area beneath the ground-mounted solar canopies to provide shaded storage areas for boats and recreational vehicles. Recreational facilities for public use are also consistent with the above-mentioned General Plan policies. The County has identified a select area of East County for solar development by applying filters to identify the lands most suitable for commercial solar development. These filters included slope, natural land cover, soil quality and classifications, zoning overlay status, General Plan land use designation, elevation, proximity to transmission

lines and substations, and other factors. By including properties with necessary attributes for commercial solar development and excluding major agricultural and sensitive habitat resources, the allowed area, as designated in the solar generation combining district, balances the County's interest in encouraging local renewable energy with its long-term planning considerations in East County. Since the proposed project is located within this area, the facility would not conflict with the County's policies related to preservation of agriculture in East County.

Zoning

Commercial solar energy generation facilities and boat/RV storage facilities are conditionally permitted in the A-3 agricultural zoning district and the Solar Energy Generation Combining District in which the subject property is located. Furthermore, as required by the County's solar ordinance, the sites would be required to be restored to their pre-project agricultural state, following the solar generation use.

Portions of the proposed canopy structures encroach within the southern side yard. Additionally, the project includes security fencing along the facilities perimeter, encroaching within the southern side yard and front setbacks area. Therefore, the land use permit includes a request for variance approval to accommodate these improvements. The facility otherwise complies with development standards applicable to the A-3 zoning district. a security would also meet the applicable setbacks for the underlying zoning districts. Specifically, the A-3 designation of the project site requires 25-foot side yard, front yard, and rear yard setbacks, which are all met by the proposed project. In accordance with the County's Solar Ordinance, no ground mounted array would exceed 25 feet in height. Additionally, the facility would avoid septic systems and aquatic habitat areas, as required by the ordinance. The A-3 zoning district ordinance allows for the granting of side yard variances at the discretion of the County ordinances. Thus, the granting of a variance to accommodate the development would not necessarily conflict with the provisions of applicable zoning development standards.

Based on the foregoing, the project is substantially consistent and compatible with applicable general plan and zoning policies and has less than significant potential to conflict with these provisions in a manner resulting in significant environmental impacts.

Sources of Information

- Contra Costa County Code, Title 8, Zoning Ordinance.
- Discovery Bay Boat and RV Storage. (Project Plans). Received February 23, 2023.
- Contra Costa County General Plan 2005-2020. *Land Use Element*.

12. *MINERAL RESOURCES – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

***SUMMARY**:*

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ***(No Impact)***

Known mineral resource areas in the County are shown on Figure 8-4 (Mineral Resource Areas) of the General Plan Conservation Element. No known mineral resources have been identified in the project vicinity, and therefore the proposed project would not result in the loss of availability of any known mineral resource.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ***(No Impact)***

The project site is not within an area of known mineral importance according to the Conservation Element of the General Plan, and therefore, the project would not impact any mineral resource recovery site.

Sources of Information

- Contra Costa County General Plan 2005-2020. *Conservation Element.*

13. *NOISE – Would the project result in:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

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

***SUMMARY**:*

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

Activities at the project site are not expected to expose persons to, or generate, noise levels in excess of the Community Noise Exposure Levels shown on Figure 11-6 of the General Plan Noise Element. Figure 11-6 shows that levels of 75 dB or less are normally acceptable and noise levels between 70 dB to 80 dB are conditionally acceptable in agricultural areas. Types and levels of noise generated from the uses associated with the future solar facility would be similar – if not quieter - to noise levels from the existing agricultural uses in the area.

Operation of construction equipment could result in temporary noise impacts in the immediate vicinity. However, no sensitive uses are located near the project sites. Furthermore, use of heavy equipment would be temporary and cease once construction is complete. Thus, project noise impacts to the existing surrounding land uses would be less than significant.

*b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels? **(Less Than Significant Impact)***

Operation of construction equipment could result in perceptible levels of ground-borne vibration in the immediate vicinity. However, no sensitive uses are located near the project sites. Furthermore, use of heavy equipment would be temporary and cease once construction is complete. Therefore, this impact would be less than significant.

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

The project does not include a significant residential component and the operation of the facility would largely managed by a single employee occupying the proposed caretakers residence atop the Boat/RV storage facility office. The project is approximately 3.5 miles north of the Byron Airport. Considering the distance from the airport and the fact that the property does not lie below runway flight paths for approaching/departing flights, the airport is not expected to expose people residing or working on the proposed facility to excessive noise. According to County GIS mapping layers, northerly portions of the subject property are presently experiencing ambient noise levels exceeding 60dB, whereas the southerly portion does not. The GIS mapping layer suggests that the

nearby State Route 4 corridor (abutting the site to the north) is a larger source of noise pollution than the Byron Airport. Thus, the project would have less than significant impacts exposing people residing or working in the project area to excessive noise levels related to the airport..

Sources of Information

- Contra Costa County General Plan, 2005-2020, Noise *Element.*
- Contra Costa County, 2000. *Contra Costa County Airport Land Use Compatibility Plan.*

14. *POPULATION AND HOUSING – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SUMMARY*:*

a) Would the project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? ***(Less Than Significant Impact)***

The proposed project would result in the development of a boat/RB storage facility and commercial solar energy generation facility in agricultural east County. The facility would not require a large number of employees and includes a single proposed dwelling unit to be occupied by the facility manager. The solar apparatus would largely be operated remotely and autonomously. Thus a significant addition to the population because of the project is not expected.

The electricity produced at the sites would be connected to the existing PG&E electrical grid and is expected to replace other non-renewable sources of electricity. Thus, the facilities would not be an extension of infrastructure in the area that could indirectly encourage population growth.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ***(No Impact)***

The project site is currently an agricultural property, and does not include any dwelling units. Thus, the proposed project would not displace any existing housing and does not affect housing inventory in the County.

15. *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:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Fire Protection?	☐	☐	☒	☐
b) Police Protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

SUMMARY*:*

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?****(Less Than Significant Impact)***

Fire protection and emergency medical response services for the project vicinity are provided by the East Contra Costa Fire Protection District (ECCFPD). The project was forwarded to the fire district with a request for comment, and staff did not receive a response indicating that the land use would negatively affect the provision of fire protection services in the area. The project is required to comply with the applicable provisions of the California Fire Code, the California Building Code, and applicable Contra Costa County Ordinances that pertain to emergency access, fire suppression systems, and fire detection/warning systems. Prior to the issuance of building permits, the construction drawings would be reviewed and approved by the ECCFPD. As a result, potential impacts of the proposed project relating to fire protection would be less than significant.

b) *Police Protection? **(Less Than Significant Impact)***

Police protection services in the project vicinity are provided by the Contra Costa County Sheriff's Office, which provides patrol service to the Byron area. The project would not expectedly affect the provision of police services to the area due to the lack of a substantial residential component. Therefore, the project would have less than significant impact on police services.

c) *Schools? **(Less Than Significant Impact)***

The project is not expected to have a substantial impact on population, thus, there would be a less than significant impact on the local school system.

d) *Parks?* ***(Less Than Significant Impact)***

As stated above, the project is not expected to induce population growth in the area; thus a less than significant impact on the provision of parks is expected.

e) Other public facilities? ***(Less Than Significant Impact)***

Impacts to other public facilities, such as hospitals and libraries are usually caused by substantial increases in population. Implementation of the proposed project is not anticipated to induce population growth. The project is not anticipated to create substantial additional service demands besides those which have been preliminarily reviewed by various agencies of Contra Costa County, or result in adverse physical impacts associated with the delivery of fire, police, schools, parks, or other public services. Therefore, the impact to hospitals, libraries or other public facilities would be less than significant.

16. *RECREATION*

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

SUMMARY*:*

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? ***(Less Than Significant Impact)***

As previously stated, the project is not expected to induce population growth in the area. Thus, the project would not expectedly result in an increase in the use of existing neighborhood or regional parks. The Boat/RV storage facility, located near existing public and private boat launch facilities, would provide a convenient location for storage of recreational vessels. However, the use of such boat launch facilities is typically associated with a per-use fee, which would generate revenue for the maintenance and operation of such facilities. Thus, the project is not expected to result in substantial physical deterioration of recreational facilities.

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? ***(Less Than Significant Impact)***

As stated above, the project is not expected to induce population growth in the area. The project does not require the expansion of existing recreational facilities and does not propose the construction of new recreational facilities. Therefore, the project would have less than significant impacts in this respect.

17. *TRANSPORTATION – Would the project:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

SUMMARY*:*

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

Policy 4-c of the Growth Management Element of the General Plan requires a traffic impact analysis of any project that is estimated to generate 100 or more AM or PM peak-hour trips. The applicant has provided a Trip Generation Analysis memo prepared by Abrams Associates Traffic Engineering Inc. evaluating traffic impacts associated with the proposed project. Trip generation estimates are based on the Institute of Transportation Engineers (ITE) taken from the 11th Edition of the ITE Trip Generation Manual. There are no ITE rates available for an RV/Boat storage facility and based on a review of the most similar rates in the ITE Trip Generation Manual. It was determined that using the "Self-Storage" trip generation rates (ITE Land Use Code 151) would provide the most accurate forecast of the project's potential trip generation. According to the Trip Generation Analysis, the project would expectedly result in up to 16 combined (AM/PM) peak hour trips. Since the project would yield less than 100 peak-hour AM or PM trips, the proposed project would have less than significant traffic impacts and therefore, would not conflict with the circulation system in the Byron area.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)? ***(Less Than Significant Impact)***

The project would result in an estimated 106 additional daily trips in the area. Since trips for these types of uses typically occur during off-peak hours and weekends, this would not result in a significant increase in peak hour trips. According to trip generation analysis provided by the project proponent, the project would result in an estimated 16 daily peak hour (AM & PM combined) trips. The consulting Traffic Engineers (Abrams Associates) note that the trip generation for storage facilities is generally low during peak commute hours because most trips to these types of facilities occur during off-peak hours, likely to avoid commute traffic. The data indicates that the peak trip generation of a storage facility is normally on weekends with Saturday afternoon typically being the peak trip generation period. The project would be forecast to generate no more than 17 trips per hour during the Saturday peak hour. The Boat/RV storage facility is expected to be consistent with the Self-Storage ITE rates in terms of peak trip generation.

The project has been evaluated with the California Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (December, 2018). Pursuant to OPR's published screening thresholds for land use projects, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less than significant transportation impact – absent substantial evidence indicating that a project would generate a potentially significant level of VMT or inconsistency with a Sustainable Communities Strategy or General Plan. There is no substantial evidence that the project would generate a potentially significant level of VMT. The project is consistent with the Contra Costa County General Plan. Therefore, based on the estimated 106 average daily trips, the project would have less than significant traffic impacts and is consistent with VMT analysis required under CEQA guidelines section 15064.3(b).

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

The project site is located on private property accessed from Bixler Road. The driveway would be constructed or improved to meet the County's design guidelines ingress and egress and, thus, would not be considered hazardous. Therefore, the project would result in a less than significant impact due to design features or incompatible uses.

d) *Would the project result in inadequate emergency access?* ***(Less Than Significant Impact)***

Construction activities would occur on the project site but would not restrict access for emergency vehicles traveling to or nearby the project site. During operation of the project, emergency access to the site would be provided by on site roadways. Therefore, operation of the proposed project would not result in inadequate emergency access, and a less than significant impacts would occur.

Sources of Information

- Contra Costa County Transportation Analysis Guidelines

- California Office of Planning and Research *Technical Advisory on Evaluating Transportation Impacts in CEQA* – December 2018
- Abrams Associates Traffic Engineering, Inc. *Trip Generation Analysis for the Discovery Bay Boat and RV Storage Project* - November 27, 2023

18. *TRIBAL CULTURAL RESOURCES – 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:*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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)?	☐	☒	☐	☐
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?	☐	☒	☐	☐

***SUMMARY**:*

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: ***(Less Than Significant Impact With Mitigations)***

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)? ***(Less Than Significant Impact With Mitigations)***

As discussed in Sections 5.a through 5.c above, no historical resources have been identified on the project site. Further, according to the County's Archaeological Sensitivities map, Figure 9-2, of the County General Plan, the subject site is located in a "Moderately Sensitive Area," which may contain significant archeological resources. While unlikely since the site is fully disturbed, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic and prehistoric resources.

Pertaining to the significance of tribal cultural resources, there are no onsite historical resources, pursuant to Public Resources Code section 5020.1(k) that are included in a local register of historic resources.

Nevertheless, the expected construction and grading could cause ground disturbance which may impact heretofore undocumented cultural resources. Implementation of Mitigation Measure *CUL-*

1 would reduce the impact on cultural resources during project related work to a level that would be considered less than significant.

Potential Impact: *Construction and grading could cause ground disturbance which may impact heretofore undocumented tribal cultural resources.*

Mitigation Measure: *Implementation of mitigations measure CUL-1 would reduce the impact on previously undiscovered tribal cultural resources to a less than significant level.*

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? ***(Less Than Significant Impact With Mitigations)***

As discussed in Sections 5.a through 5.c above, no historical resources have been identified on the project site. Further, according to the County's Archaeological Sensitivities map, Figure 9-2, of the County General Plan, the subject site is in a "Moderately Sensitive Area," which may contain significant archeological resources. While unlikely since the site is fully disturbed, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic and prehistoric resources.

Nevertheless, the expected construction and grading could cause ground disturbance which may impact heretofore undocumented cultural resources. Implementation of Mitigation Measure *Cultural Resources 1* would reduce the impact on cultural resources during project related work to a less than significant level.

Potential Impact: *The project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a 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. The expected construction and grading could cause ground disturbance which may impact heretofore undocumented cultural resources.*

Mitigation Measure: *Implementation of mitigations measure CUL-1 would reduce the impact on previously undiscovered tribal cultural resources to a less than significant level.*

19. ***UTILITIES AND SERVICE SYSTEMS – Would the project:***				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

***SUMMARY**:*

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

The project is not proposing to construct any new or expanded water, wastewater treatment, stormwater drainage, or telecommunications facilities. The electricity generated by the facilities would be provided to the PG&E grid from existing onsite infrastructure. Thus, the project would not result in any environmental effects from construction of these facilities. A less than significant impact would occur.

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

The project would not induce any growth because the project would not increase capacity over what is provided by the existing electrical grid. Rather, this project is meant to improve existing, aging non-renewable energy infrastructure. Because operation of the project would not induce substantial population growth, project operation would not increase demand for water supplies.

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

The project is not located within the service area of a wastewater treatment provided. The project would be required to treat any wastewater produced by the project on site via septic system or other private wastewater disposal system. Thus, the operation of the proposed project would not exceed wastewater treatment demand beyond the provider's existing commitments, and no impacts would occur.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? ***(Less Than Significant Impact)***

Construction waste would be hauled to one of the recycling centers and/or transfer stations located in the area. The recycling center and/or transfer station would sort through the material and pull out recyclable materials. Future construction of the proposed project would incrementally add to the construction waste headed to a landfill; however, the impact of the project-related incremental increase would be considered to be less than significant. Furthermore, construction on the project site would be subject to the CalGreen Construction and Demolition Debris Recovery Program administered by the CDD at the time of application for a building permit. The Debris Recovery Program would reduce the construction debris headed to the landfill by diverting materials that could be recycled to appropriate recycling facilities.

Operation of the project would generate municipal solid waste. Since the primary function of the proposed facility is storage, and does not involve residential or commercial retail activities, the solid waste generated by the project would be considered incidental and is not expected to be generated in substantial amounts. Commercial solid waste disposal service, including recycling and composting bins required by state law, is available from local service providers. Therefore, operations would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, less than significant operational impacts would occur.

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

Operation of the project would not expectedly be a significant contributor to municipal solid waste. Additionally, the use of local service providers to subject to monitoring/reporting by federal, state and local regulations ensures that operations would not conflict with any federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, less than significant operational impacts would occur.

20. *WILDFIRE –* *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones,* ***would the project:***				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

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

***SUMMARY**:*

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a-d) As discussed in section 9.g above, the project site is no located in a fire hazard area designated by the California Department of Forestry and Fire Protection. The Department of Forestry and Fire Protection's Very High Fire Hazard Severity Zone Map characterizes this area as a Non-Urban, Non Wildland. There are no lands on or near the project site having the "High" or "Very High" designation. Therefore, the project would have no impact relating to wildfire.

Sources of Information

- California Department of Forestry and Fire Protection (CalFire). 2009. *Very High Fire Hazard Severity Zones*

21. *MANDATORY FINDINGS OF SIGNIFICANCE*				
Environmental Issues	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

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

***SUMMARY**:*

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

As discussed in individual sections of this Initial Study, the project to establish a Boat/RV storage facility with an integrated commercial solar energy generation facility may impact the quality of the environment (Aesthetics, Air Quality, Biological Resources, Geology, Cultural Resources, and Tribal Cultural Resources) but the impact would be reduced to a less than significant level with the adoption of the recommended Mitigation Measures that are specified in the respective sections of this Initial Study. The project is not expected to threaten any wildlife population, impact endangered plants or animals, or affect state cultural resources with the already identified Mitigation Measures.

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

The proposed project would not create substantial cumulative impacts. The project site is located adjacent to existing high-power electrical lines and would be tied into the grid from existing infrastructure on the subject property and adjoining public right-of-way. The recreational vessel storage element of the project would provide a convenient storage location for owners of such vehicles. Additionally, the proposed project would be consistent with the existing surrounding agricultural development. Since most potential environmental impacts in this report are associated with the construction phase of the project, and considering the temporary nature of the construction phase, the project would not expectedly result in cumulatively considerable environmental impacts. Therefore, less than significant impacts are expected in this regard.

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

This Initial Study has disclosed impacts that would be less than significant with the implementation of Mitigation Measures. All identified Mitigation Measures would be included in the conditions of approval for the proposed project, and the applicant would be responsible for implementation of the measures. As a result, there would not be any environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

ATTACHMENTS

1. **Vicinity Map**
2. **Site Development Plans**
3. **Biological Resources Assessment**
4. **MMRP**

ATTACHMENT 1

VICINITY MAP

Aerial View

Legend

- City Limits
- Unincorporated
- Streets
- Water Bodies
- County Boundary
- Bay Area Counties
- Building Outlines
- Assessor Parcels
- Aerials 2019
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

1: 4,514

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

Notes

Contra Costa County -DOIT GIS

ATTACHMENT 2

SITE DEVELOPMENT PLANS

DISCOVERY BAY BOAT AND RV STORAGE

3777 BIXLER ROAD

DISCOVERY BAY, CA

PROJECT DIRECTORY

APPLICANT

Discovery Bay Ventures, LLC
23 Railroad Ave, Ste 164
Danville, CA 94526
Contact: Chris Koenig
Phone: (925) 314-3849
Cell: (925) 984-5683
Email: chris@pacificprop.net

ARCHITECT

FCGA Architecture
301 Hartz Ave. Suite 213
Danville, CA 94526
Contact: Mathew Mead
Phone: (925) 678-2038
Cell: (480) 287-0256
Email: matt@fcgainc.com

LANDSCAPE ARCHITECT

Great Valley Design, Inc.
1219 Spruce Lane
Davis, CA 95616
Contact: Scott Volmer
Phone: (530) 231-5890
Email: svolmer@grtvalley.com

CIVIL ENGINEER

Robert A. Karen & Associates, Inc
707 Beck Ave,
Fairfiled, CA 94533
Contact: Tony Perfetto
Phone: (707) 435-9988
Email: tperfetto@rakengineers.com

PROJECT DESCRIPTION

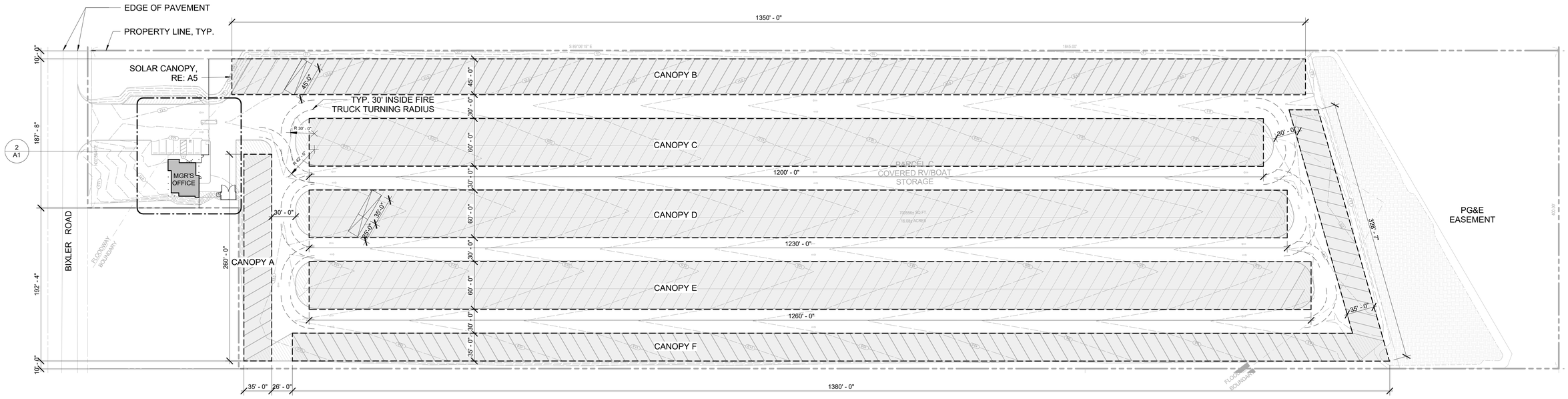
APROXIMATELY 655 RV/BOAT
STORAGE STALLS & MANAGERS
OFFICE, APARTMENT

TABLE OF CONTENTS

FCGA architecture

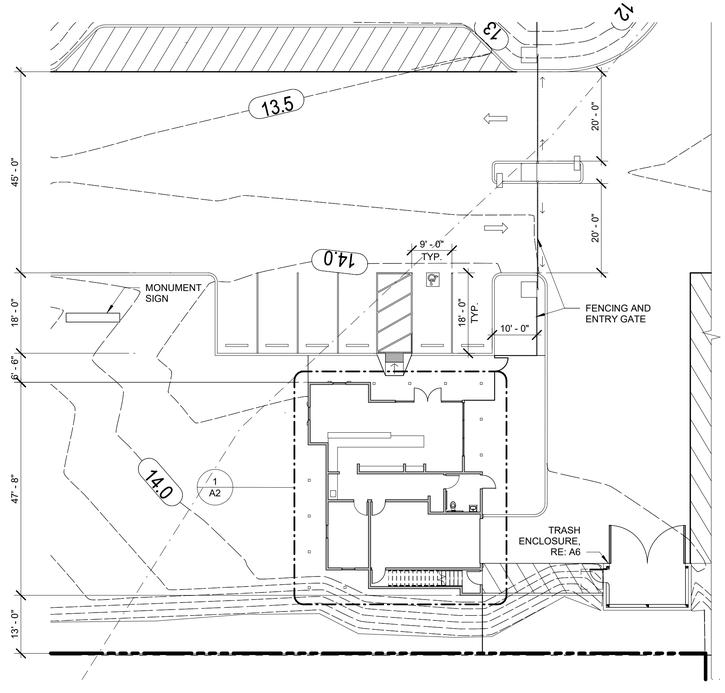
COVER SHEET A0

02.15.2023



1 PROPOSED SITE PLAN

1" = 60'-0"



2 ENLARGED ENTRANCE PLAN

1/16" = 1'-0"

PROJECT DATA:

GENERAL PLAN DESIGNATION:	A-3
ZONING DESIGNATION:	A-3
SITE AREA:	+/- 700,556 SF (16.08 AC)
TOTAL BUILDING AREA:	
1ST FLOOR OFFICE AREA:	1,476 SF
2ND FLOOR APT. AREA:	1,381 SF
FLOOR AREA RATIO:	
2,857 sqft / 700,556 sqft =	0.40%
BUILDING HEIGHTS:	29'- 6"
PERCENT LOT COVERAGE:	0.21%
TOTAL STORAGE STALLS:	655 STALLS (SEE NOTE 1)
PARKING SPACES:	6 PARKING SPACES (1 ACCESSIBLE SPACE)

NOTE 1: MAXIMUM OF 98 PARKING STALLS USED FOR RV STORAGE. ALL OTHER STALLS TO BE USED FOR BOAT STORAGE. FINAL LOCATION OF EACH STALL TYPE TO BE DETERMINED BY SITE OPPERATOR.

SOLAR PANEL CANOPY

SOLAR PANEL	
CANOPY	AREA
A	9,064 SF
B	60,863 SF
C	72,000 SF
D	73,800 SF
E	75,600 SF
F	58,167 SF
	349,494 SF

PARKING INFORMATION		
CANOPY	STALL SIZE	COUNT
A	35' x 13.8' - 60 DEG	15
B	45' x 13.8' - 60 DEG	83
C	25' x 13.8' - 60 DEG	74
C	35' x 13.8' - 60 DEG	74
D	25' x 13.8' - 60 DEG	76
D	35' x 13.8' - 60 DEG	76
E	25' x 13.8' - 60 DEG	78
E	35' x 13.8' - 60 DEG	78
F	35' x 13.8' - 60 DEG	101
		655

North

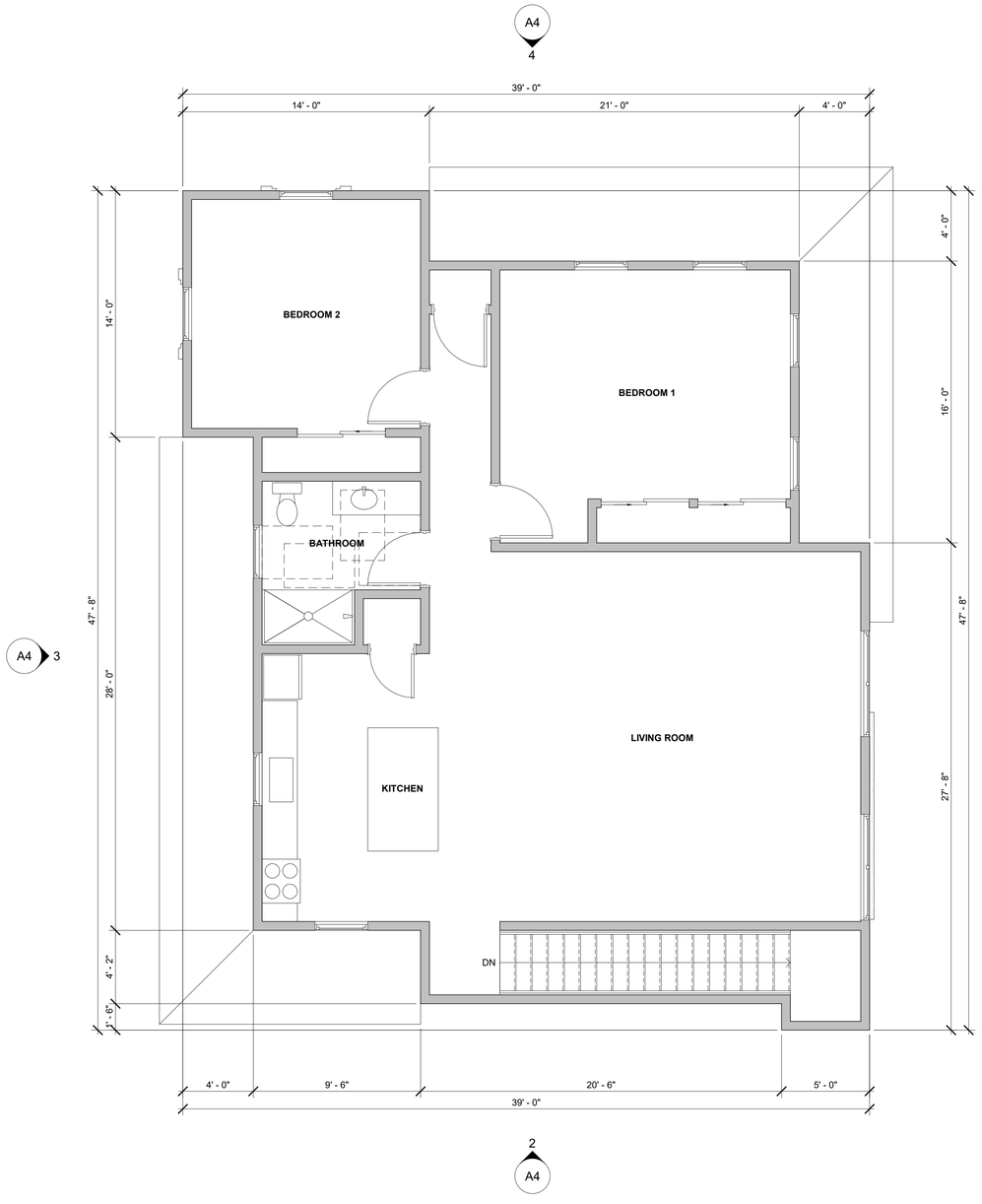
FCGA architecture

DISCOVERY BAY BOAT AND RV STORAGE

3777 BIXLER ROAD
DISCOVERY BAY, CA

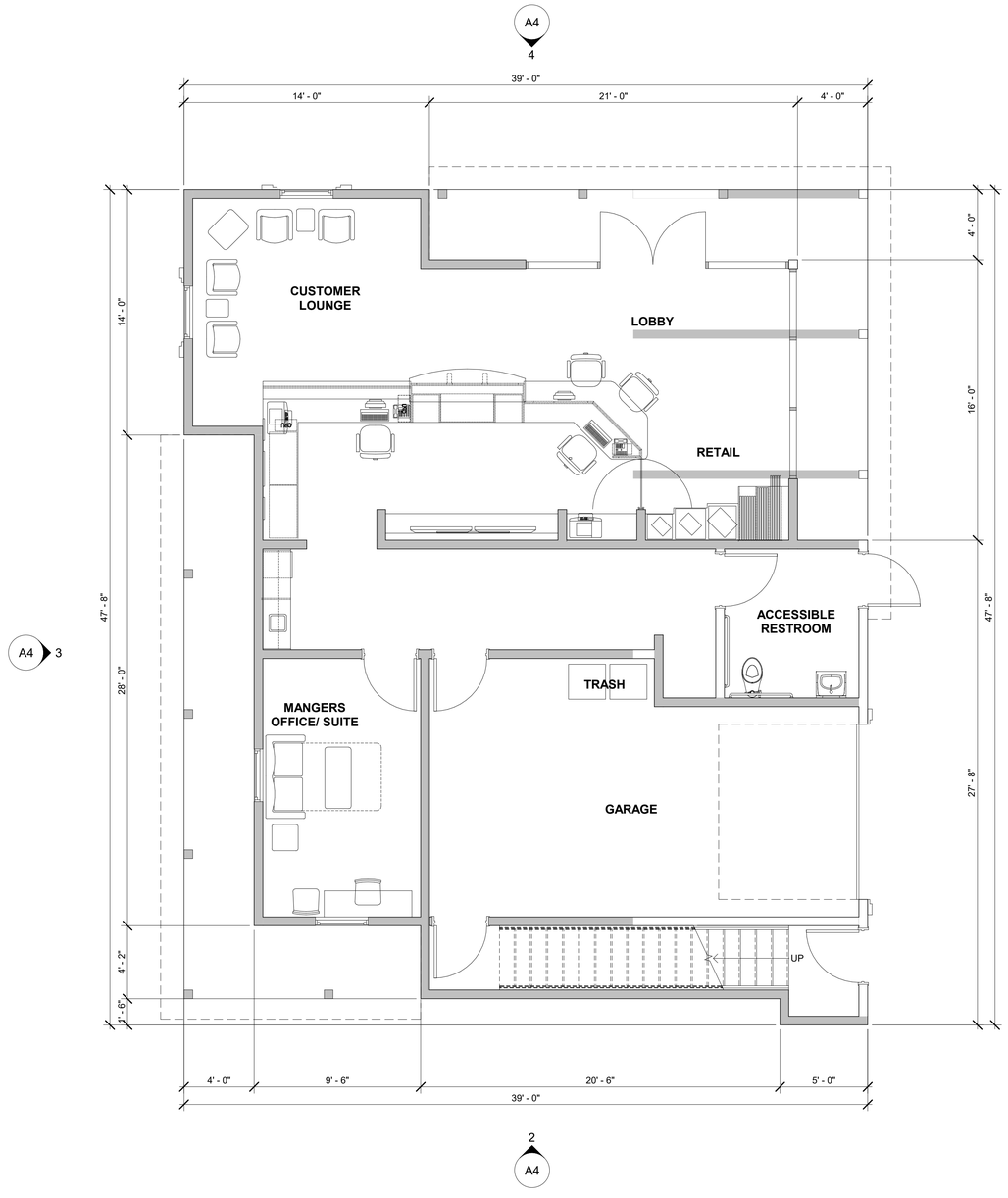
PROPOSED SITE PLAN
As indicated

A1
02.15.2023



2 2ND FLOOR PLAN- APARTMENT.

1/4" = 1'-0"



1 1ST FLOOR PLAN- OFFICE.

1/4" = 1'-0"

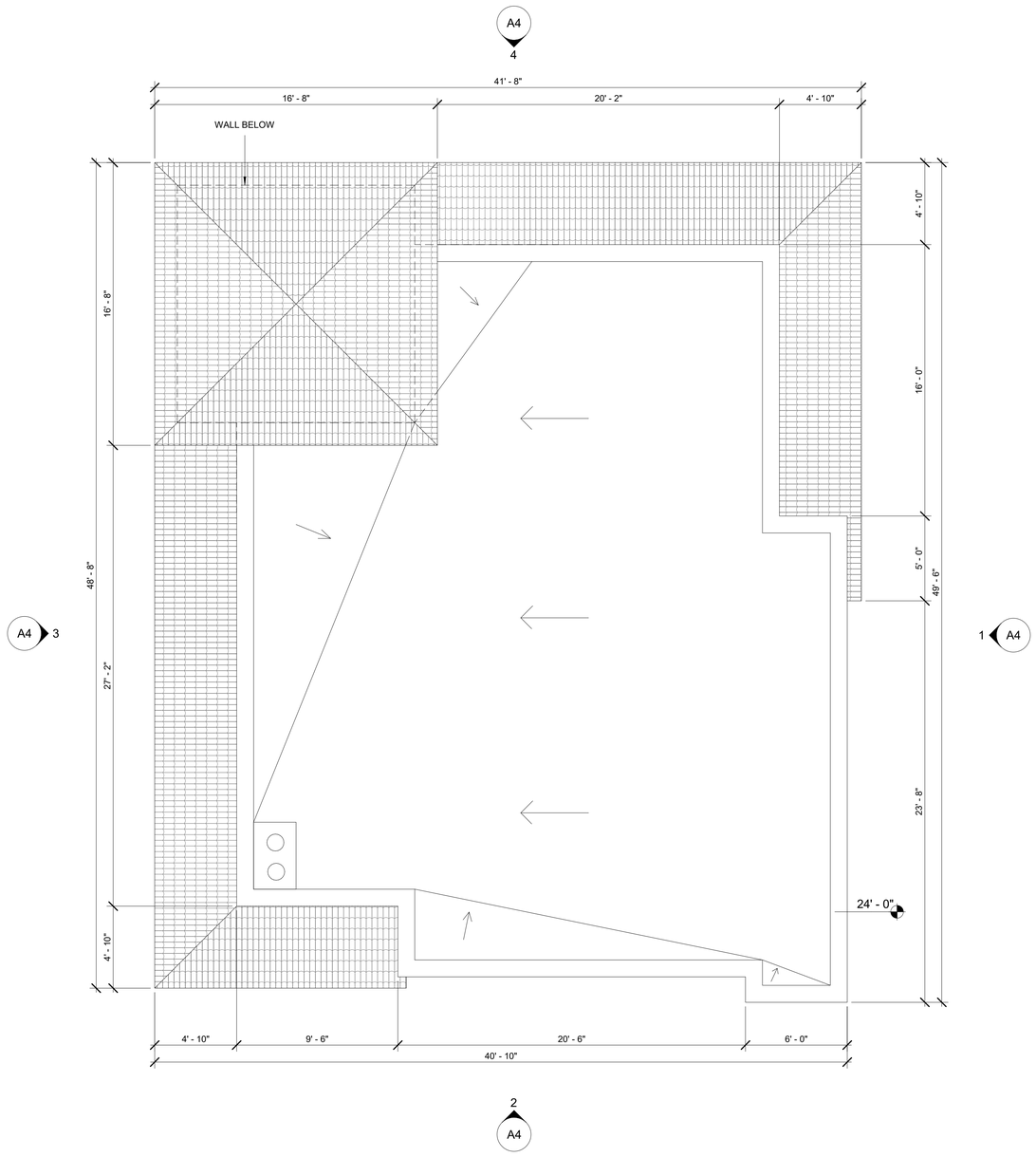
FCGA architecture

DISCOVERY BAY BOAT AND RV STORAGE

3777 BIXLER ROAD
DISCOVERY BAY, CA

OFFICE FLOOR PLANS
1/4" = 1'-0"

A2
02.15.2023



1 ROOF PLAN.
1/4" = 1'-0"

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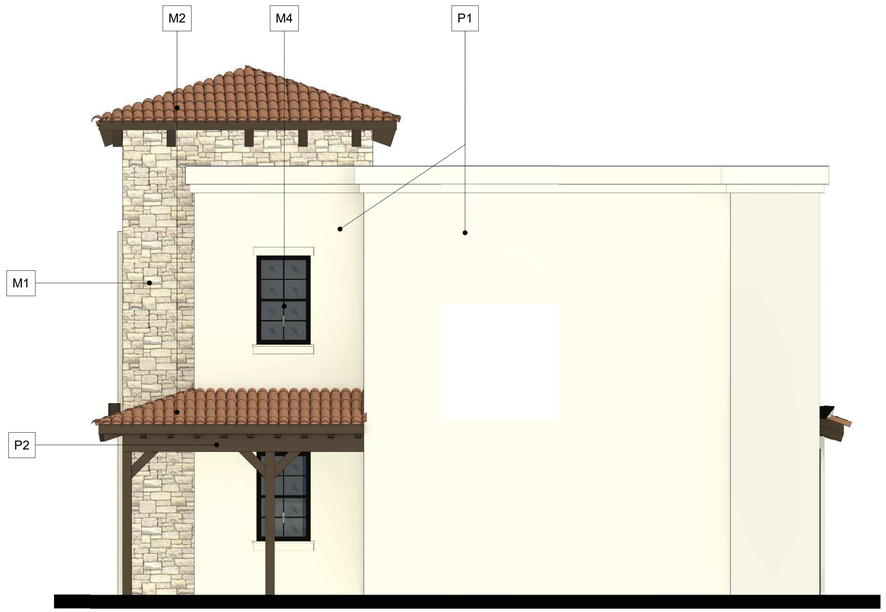
DISCOVERY BAY BOAT AND RV STORAGE

3777 BIXLER ROAD
DISCOVERY BAY, CA

OFFICE ROOF PLAN
1/4" = 1'-0"

A3
02.15.2023



2 SOUTH ELEVATION- OFFICE.

1/4" = 1'-0"

NOTE: FOR ALL MATERIALS, RE: A6-1

1 EAST ELEVATION- OFFICE.

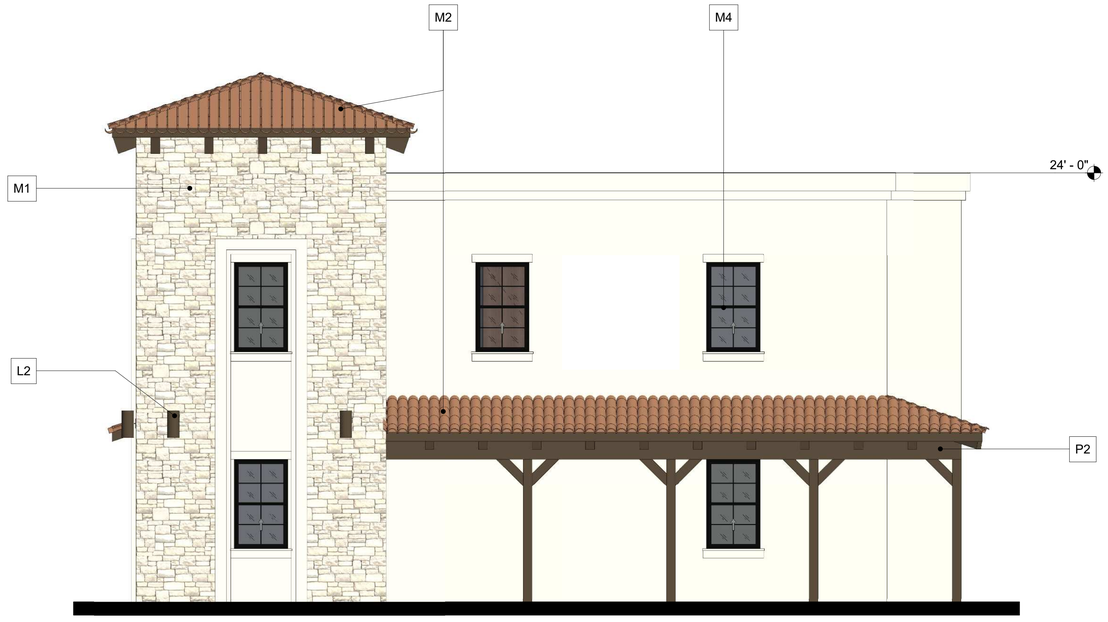
1/4" = 1'-0"

NOTE: FOR ALL MATERIALS, RE: A6-1

4 NORTH ELEVATION- OFFICE.

1/4" = 1'-0"

NOTE: FOR ALL MATERIALS, RE: A6-1



3 WEST ELEVATION- OFFICE.

1/4" = 1'-0"

NOTE: FOR ALL MATERIALS, RE: A6-1

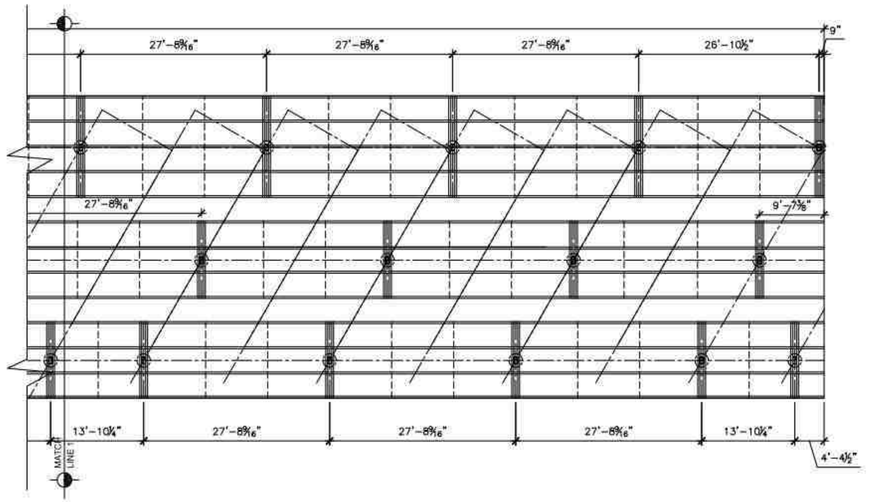
FCGA architecture

DISCOVERY BAY BOAT AND RV STORAGE

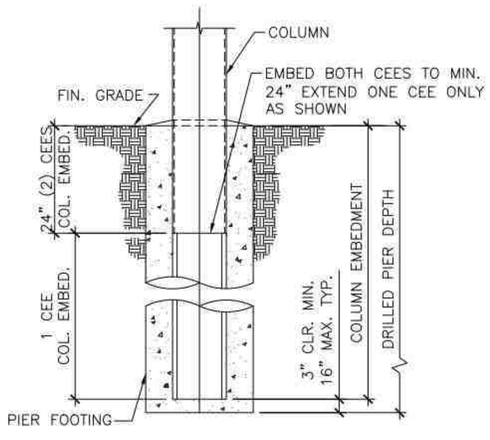
3777 BIXLER ROAD
DISCOVERY BAY, CA

OFFICE ELEVATIONS
1/4" = 1'-0"

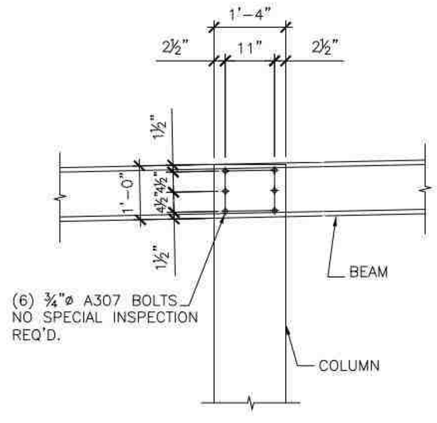
A4
02.15.2023



1 **TYPICAL SOLAR PLAN**
N/A



4 **PIER FOOTING DETAIL**
N/A



3 **COLUMN TO BEAM CONNECTION**
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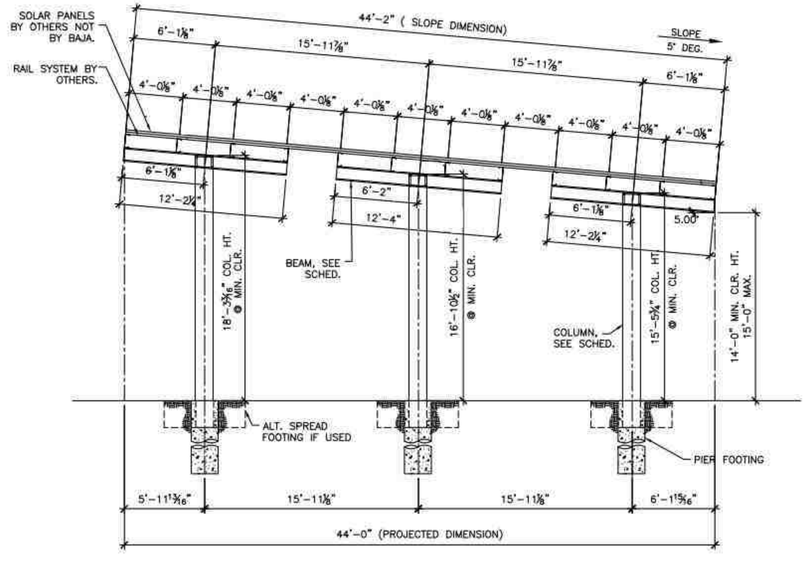

2 **TYPICAL CROSS**
N/A

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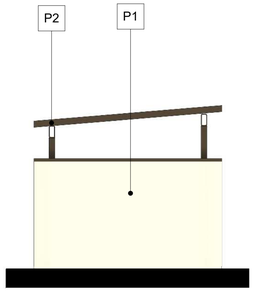
DISCOVERY BAY BOAT AND RV STORAGE

3777 BIXLER ROAD
DISCOVERY BAY, CA

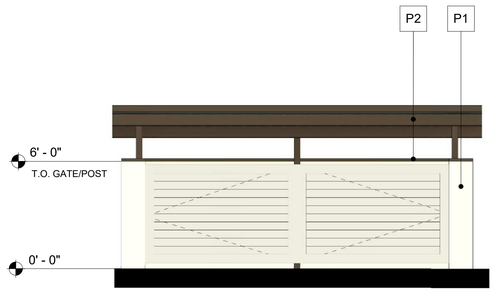
SOLAR DETAILS

A5

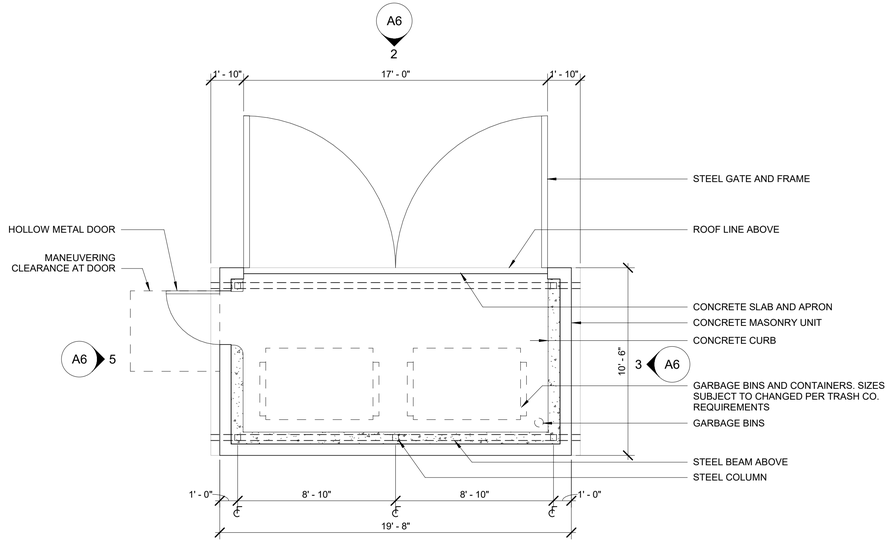
02.15.2023



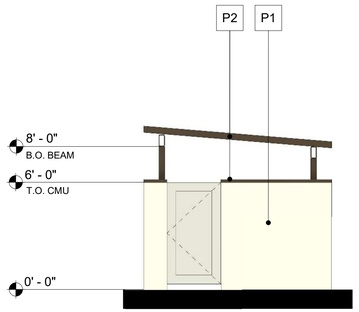
3 TRASH ENCLOSURE - EAST ELEVATION.
1/4" = 1'-0"



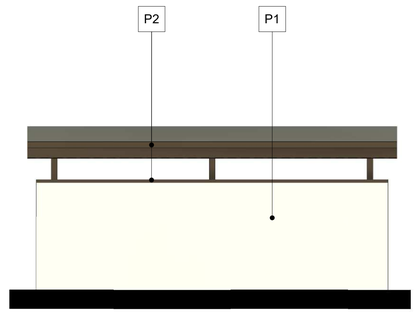
2 TRASH ENCLOSURE - NORTH ELEVATION.
1/4" = 1'-0"



1 TRASH ENCLOSURE - FLOOR PLAN
1/4" = 1'-0"



5 TRASH ENCLOSURE - WEST ELEVATION.
1/4" = 1'-0"



4 TRASH ENCLOSURE - SOUTH ELEVATION.
1/4" = 1'-0"

FCGA architecture

DISCOVERY BAY BOAT AND RV STORAGE

3777 BIXLER ROAD
DISCOVERY BAY, CA

TRASH ENCLOSURE DETAILS
1/4" = 1'-0"

A6
02.15.2023

TYPICAL FENCING DETAILS

SOLID ARTICULATED (VERTICAL or HORIZONTAL) METAL FENCING
w/ REQUIRED VINES

WROUGHT IRON SECURITY FENCING
w/ SCREEN BACKING REQUIRED

BLACK DECORATIVE WROUGHT IRON
FENCING w/ SHEET METAL BACKING

COLOR AND MATERIALS:

M1 - STONE MASONRY WALL
EL DORADO STONE -
LIMESTONE, GRAND BANKS

P1 - / PLASTER/ PAINT
SHERWIN WILLIAMS
SW 7558 MEDICI IVORY

M2 - CLAY ROOF TILE
VEREA
BARREL ROOF TILE
COLOR: PEACH

P2 - PAINT
SHERWIN WILLIAMS
SW3532 HILL COUNTRY

M3 - ALUMINUM STOREFRONT

M4 - ALUMINUM GRID WINDOW

LIGHT FIXTURES:

L1- WALL MOUNTED LED WALL PACK
- CREE LIGHTING
- C-LIGHT WALL PACK, LED
- BLACK

L2- SQUARE TUBULAR LED WALL
SCONCE W/ UP AND DOWN LIGHT
- BEGA LIGHTING
- 24-597 WALL LUMINAIRE
- BLACK

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DISCOVERY BAY BOAT AND RV STORAGE

3777 BIXLER ROAD
DISCOVERY BAY, CA

MATERIALS & LIGHTING
12" = 1'-0"

A7
02.15.2023

PRELIMINARY GRADING DRAINAGE AND
PAVING PLAN

RAK
CIVIL ENGINEERS
ROBERT A. KARN
& ASSOCIATES, INC.
707 BECK AVENUE
FAIRFIELD, CALIFORNIA 94533
Phone: (707) 435-9999
e-mail: rak@rakengineers.com

PLOT DATE: February 24, 2023

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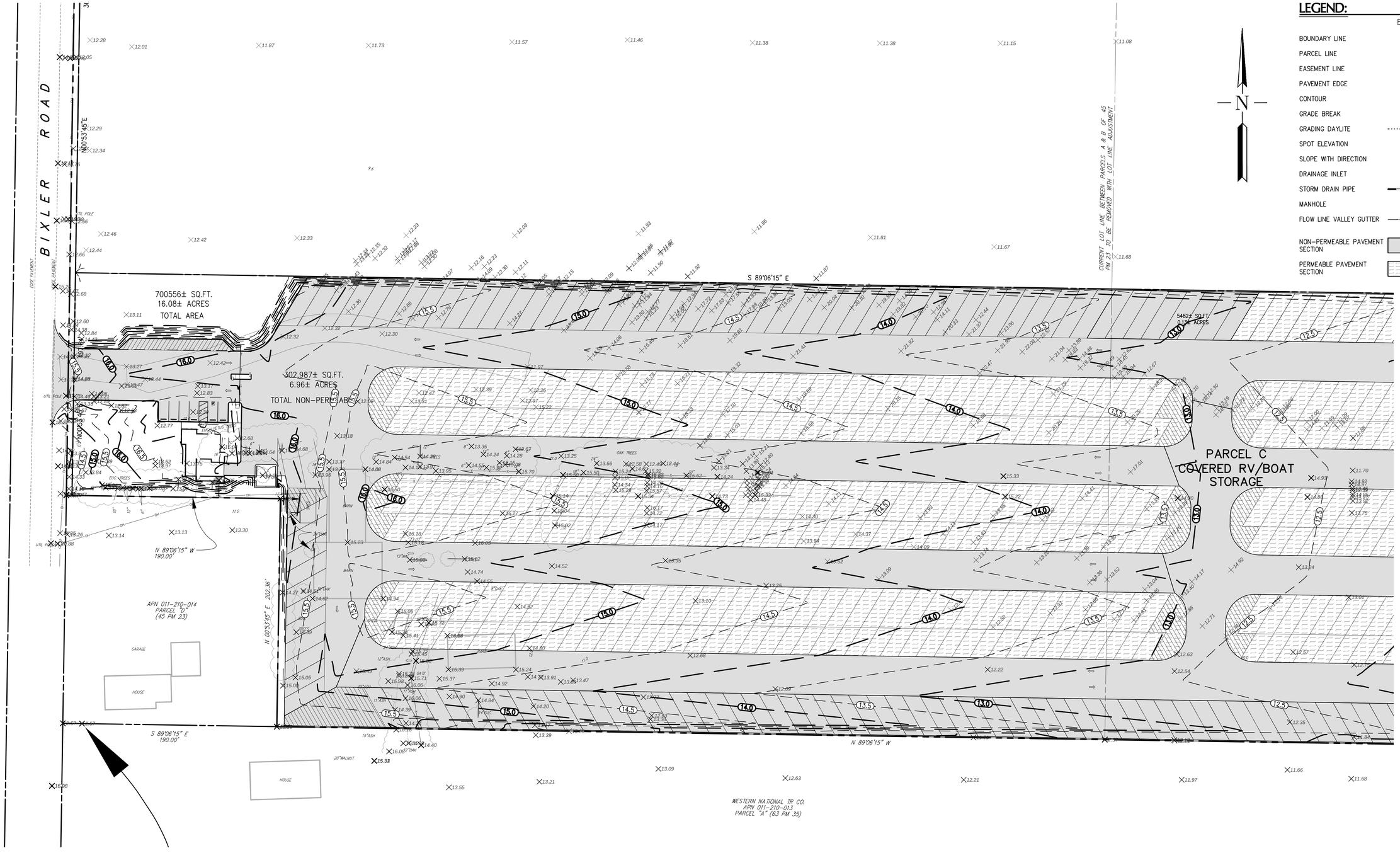
DISCOVERY BAY VENTURES, LLC

3777 BIXLER RD.

BYRON, CA

C1

05.01.2022



LEGEND:

	PROPOSED	EXISTING
BOUNDARY LINE		
PARCEL LINE		
EASEMENT LINE		
PAVEMENT EDGE		
CONTOUR		8.0
GRADE BREAK		
GRADING DAYLITE		
SPOT ELEVATION		× 8.40
SLOPE WITH DIRECTION	0.50 %	
DRAINAGE INLET	■	
STORM DRAIN PIPE		
MANHOLE	●	
FLOW LINE VALLEY GUTTER		
NON-PERMEABLE PAVEMENT SECTION		
PERMEABLE PAVEMENT SECTION		

PRELIMINARY GRADING DRAINAGE
AND PAVING PLAN

0 40 80 120
GRAPHIC SCALE

RAK CIVIL ENGINEERS
ROBERT A. KARN & ASSOCIATES, INC.
707 BECK AVENUE
FAIRFIELD, CALIFORNIA 94533
Phone: (707) 435-9999
e-mail: rak@rakengineers.com

PLOT DATE: February 21, 2023
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DISCOVERY BAY VENTURES, LLC
3777 BIXLER RD.
BYRON, CA

C2.1
□□.□□.2□22

PARCEL B
CURRENT LOT LINE BETWEEN PARCELS A & B OF 45 PM 23 TO BE REMOVED WITH LOT LINE ADJUSTMENT
PARCEL C
COVERED RV/BOAT STORAGE
5482± SQ.FT.
0.126 ACRES
41600± SQ.FT.
0.961± ACRES
1845.00'
1660.00'
250.00'
350.00' PG&E R/W (4702 O.R. 809)
50' PG&E GAS LINE EASEMENT
100.00'
50.00'
125.00'
400.00'
U.S.A. R/W (1663 O.R. 564)
U.S.A. R/W (1576 O.R. 407)
THOMAS
APN 011-210-018
PARCEL "C" (63 PM 35)
SEE SHEET C2.1 FOR CONTINUATION
LEGEND:
PROPOSED
EXISTING
BOUNDARY LINE
PARCEL LINE
EASEMENT LINE
PAVEMENT EDGE
CONTOUR
GRADE BREAK
GRADING DAYLITE
SPOT ELEVATION
SLOPE WITH DIRECTION
0.50 %
DRAINAGE INLET
STORM DRAIN PIPE
MANHOLE
FLOW LINE VALLEY GUTTER
NON-PERMEABLE PAVEMENT SECTION
PERMEABLE PAVEMENT SECTION

PRELIMINARY GRADING DRAINAGE
AND PAVING PLAN

0 40 80 120
GRAPHIC SCALE

RAK
CIVIL ENGINEERS
ROBERT A. KARN
& ASSOCIATES, INC.
707 BECK AVENUE
FAIRFIELD, CALIFORNIA 94533
Phone: (707) 435-9999
e-mail: rakerakengineers.com

PLOT DATE: February 21, 2023
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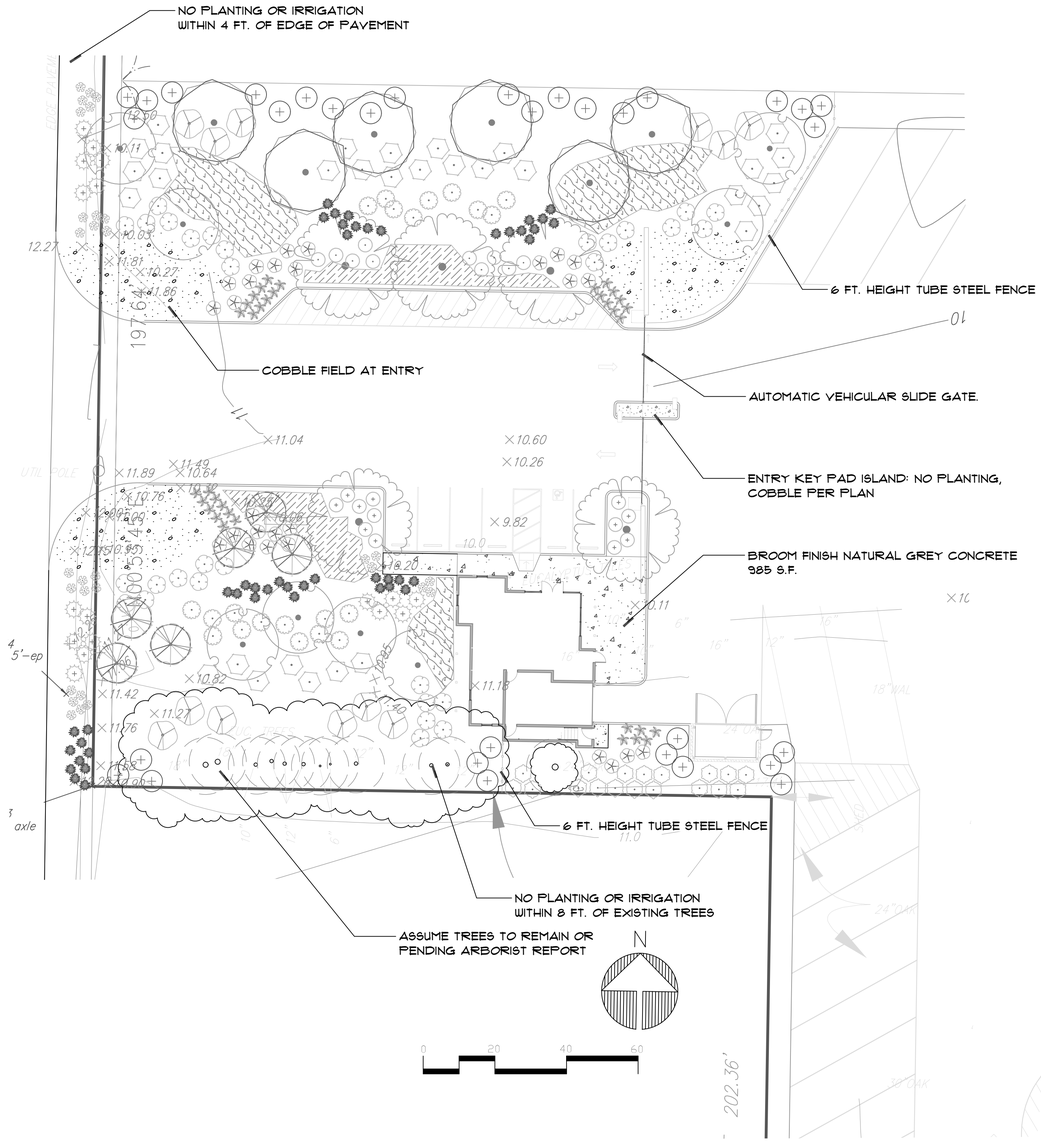
DISCOVERY BAY VENTURES, LLC

3777 BIXLER RD.
BYRON, CA

C2.2



PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	ACA PUR	ACACIA BAILEYANA 'PURPUREA' / PURPLE-LEAF BAILEY ACACIA	15 GAL	9
	ACE BRN	ACER NEGUNDO 'BARON' / BARON BOX ELDER	5 GAL	7
	JAC MIM	JACARANDA MIMOSIFOLIA / JACARANDA	15 GAL	6
	VIT CHA	VITEX AGNUS-CASTUS / CHASTE TREE	15 GAL	7

SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	CAL LJN	CALLISTEMON VIMINALIS 'LITTLE JOHN' / LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL	19
	DOD STG	DODONAEA VISCOSA 'SARATOGA' / SARATOGA HOPSEED BUSH	5 GAL	10
	GRE LON	GREVILLEA X 'LONG JOHN' / LONG JOHN GREVILLEA	5 GAL	1
	LAV TRE	LAVATERA MARITIMA / TREE MALLLOW	5 GAL	6
	LEO SST	LEONOTIS X 'SAVANNAH SUNSET' / SAVANNAH SUNSET LION'S TAIL	5 GAL	11
	LEU SAF	LEUCADENDRON X 'SAFARI SUNSET' / SAFARI SUNSET CONEBUSH	1 GAL	16
	PER NYJ	PEROVSKIA ATRIPLICIFOLIA 'BLUE JEAN BABY' / BLUE JEAN BABY RUSSIAN SAGE	1 GAL	19
	RHA PIS	RHAPHIOLEPIS INDICA 'PINK LADY' / PINK LADY INDIAN HAWTHORN	1 GAL	7

PERENNIALS	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	DIE LEM	DIETES X 'LEMON DROP' / FORTNIGHT LILY	1 GAL	37
	GAU SIS	GAURA LINDHEIMERI 'SISKIYOU PINK' / SISKIYOU PINK GAURA	1 GAL	12
	NEP SIX	NEPETA X 'SIX HILLS GIANT' / SIX HILLS GIANT CATMINT	1 GAL	14
	RUE PSH	RUELLIA SIMPLEX 'PURPLE SHOWERS' / PURPLE SHOWERS MEXICAN PETUNIA	1 GAL	10

SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	SIZE	SPACING	QTY
	JUN OC3	JUNCUS EFFUSUS 'OCCIDENTAL BLUE' / OCCIDENTAL BLUE COMMON RUSH	1 GAL	24" O.C.	8
	LAN HYB	LANTANA X 'NEW GOLD' / NEW GOLD LANTANA	1 GAL	48" O.C.	31

MATERIALS	CODE	BOTANICAL / COMMON NAME	SIZE	SPACING	QTY
	COB	COBBLE / 2"-4" LODI GOLD	---		2,410 SF

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BYRON, CA

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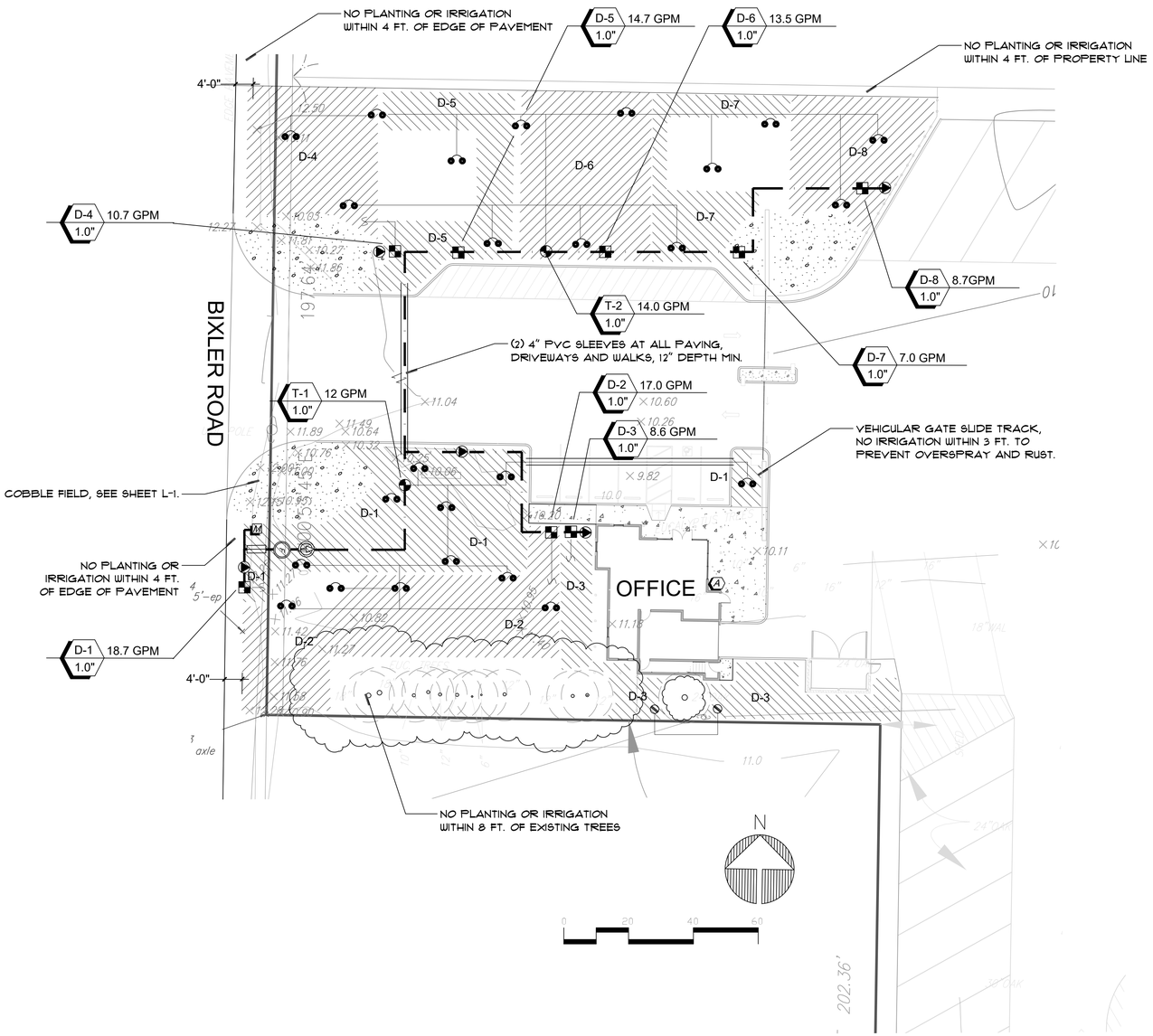
04.08.2022



IRRIGATION EQUIPMENT LEGEND

SYMBOL	MANUF.	MODEL	DESCRIPTION
			3/4" (A) WATER METER WITH SERVICE LINE PER CIVIL ENG. VERIFY LOCATION AND STATIC PRESSURE AT CONNECTION.
	-----	-----	LINE SIZE WILKINS BACKFLOW PREVENTER, APPROVED BY CONTRA COSTA COUNTY. CONTRACTOR TO PROVIDE THERMAL PROTECTION
CONTROLLER (A)	HUNTER PRO-C WITH SOLAR SYNC. MOUNT AT SOUTH OR WEST WALL		12-STATION WALL MOUNT IRRIGATION CONTROLLER FLOW SENSOR BOARD AND "TWICE" DECODING MODULE. INCLUDE 5 YR. WARRANTY OWNER/ARCH. TO COORDINATE 110 v POWER TO CONTROLLER LOCATION PER ALL SEE WALL MOUNT EXAMPLE, DETAIL X, SHEET L-X.
	APPROVED		LINE-SIZE BRASS BALL VALVE @12 ROUND VALVE BOX
	SUPERIOR/CST	GTFSV-200P +300	NORMALLY OPEN MASTER VALVE / 2" TEE MOUNT FLOW SENSOR
F	AMIAD		LINE-SIZE DISK FILTER
DRIP	HUNTER	ICZ-101	DRIP CONTROL ZONE KIT, INCLUDES 1" GLOBE VALVE, WYE FILTER, PRESET 20 PSI REGULATOR, STANDARD LID AND HANDLE
SPRAY/TREE	HUNTER	ICV-101G/151G	REMOTE CONTROL VALVE, STANDARD LID AND VAULT.
	TORO	DL 2000	LATERAL ROWS: 18" O.C. EMITTERS: 12" O.C., 0.6 GPH EACH EMITTER
	RAINBIRD	44NP	QUICK COUPLER PER DETAIL X, SHT. L-X
	APPROVED	CLASS 315	1" PRESSURIZED IRRIGATION MAINLINE, P.O.C. TO VALVES
	APPROVED	SCH 40-RCLM	PVC IRRIGATION LATERAL LINE, 3/4" MIN, SIZE PER CHART THIS SHEET.
			TREE BUBBLER MANIFOLD PER DETAIL X, SHEET L-X.
	DRIP GRID ATTACHEMENT		SEE DETAILS X-Y, SHEET L-X FOR DRIP GRIDS AND CONNECTIONS.
2-WIRE DECODER AT EACH VALVE NOT SHOWN	RAINMASTER	TWICE	TW-D-1 DECODERS DECODER WIRE: 14 AWG COMM. WIRE, TW WATER PROOF SPLICE

A — 3/4" — 16 GPM
- INDICATES STATION NUMBER/TYPE (T-TREE, D-DRIP, S-SPRAY)
- INDICATES GALLONS PER MINUTE
- INDICATES CONTROL VALVE SIZE
- INDICATES PROGRAM A - (CITY MAINT.), OR B- (HOA)

IRRIGATION NOZZLE LEGEND

SYMBOL	MANUF.	MODEL	DESCRIPTION
FULL	HUNTER	MP-1000	8'-15' R, .75 GPM @ 35 PSI W/ 12" PRS40-CV BODY "NON-POTABLE"
HALF	HUNTER	MP-1000	8'-15' R, .37 GPM @ 35 PSI W/ 12" PRS40-CV BODY "NON-POTABLE"
QUART.	HUNTER	MP-1000	8'-15' R, .19 GPM @ 35 PSI W/ 12" PRS40-CV BODY "NON-POTABLE"
SIDE STP.	HUNTER	MP-STRIP	5' X 15' PATTERN, .60 GPM @ 40 PSI W/ 12" PRS40-CV BODY

* NOTE: ALL SPRAY HEADS MUST BE 24" MIN. FROM CURBS AND PAVING, PER A.B. 1881
** NOTE: SPRAY HEAD LAYOUT IS SCHEMATIC, STANDARD HEAD LOCATIONS PER NOTES AND SPECIFICATIONS.
*** NOTE: THIS IS A POTABLE WATER SYSTEM THAT DOES NOT REQUIRE PURPLE PIPE, VALVE LIDS OR LABELS.

DISCOVERY BAY S.S. WATER USE

THE MAXIMUM APPLIED WATER ALLOWANCE (MAWA) IN GALLONS PER YEAR IS BASED ON THE FOLLOWING FORMULA:

MAWA = ETo x ETF x LA x 0.62 (ETF FOR COMMERCIAL IS .55)

THE ESTIMATED WATER USE (EWU) IS THE SUM TOTAL OF ESTIMATED WATER USE FOR EACH HYDROZONE IN GALLONS PER YEAR AND IS BASED ON THE FOLLOWING FORMULA:

EWU = ETo x PF x HA x 0.62

ETo = ANNUAL EVAPOTRANSPIRATION 53.3" (REFERENCE eTO - CIMIS ZONE 12, STOCKTON CA)
LA = TOTAL LANDSCAPE AREA (32,125 SQ. FT.)
HA = HYDROZONE PLANT AREA (% OF HI, MED., LOW AT PLANTING)
PF = PLANT FACTOR (0.65 FOR MED. SHRUBS AND TREES, .35 FOR LOW SHRUBS AND TREES, GRASSES)
ETF = 0.8 (EVAPOTRANSPIRATION FACTOR)
0.62 = CONVERSION FACTOR (TO GALLONS)

MAWA = 53.3" x 0.55 x 14,035 x 0.62 = 256,047 gallons/year

High EWU = 53.3" x .85 x 0,000 x 0.62 = 00,000 gallons/year
Mod. EWU = 53.3" x 0.65 x 3,508 x 0.62 = 75,351 gallons/year
Low EWU = 53.3" x 0.35 x 10,526 x 0.62 = 121,744 gallons/year

EWU = 197,095 gallons/year

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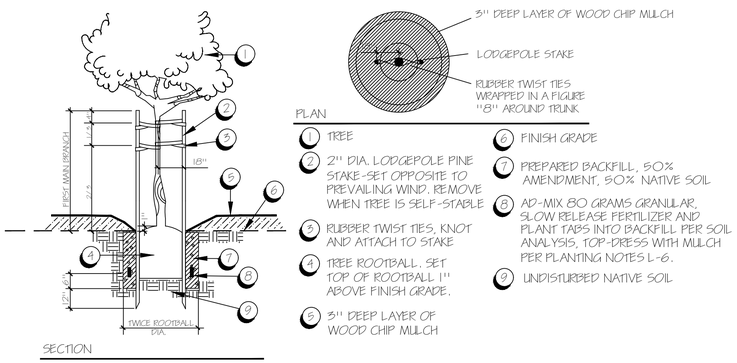
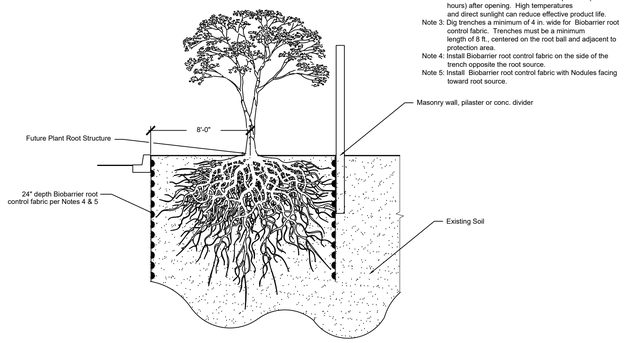


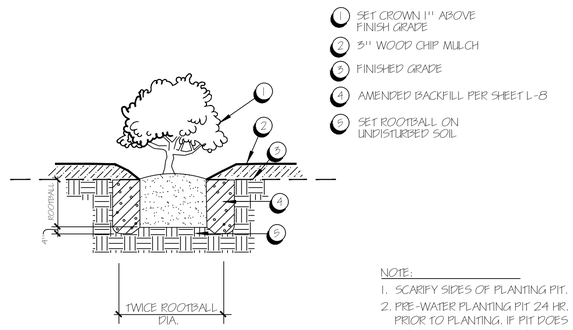
A TREE PLANTING
N.T.S.



NOTES:

Note 1: Contact Biobarrier at 1-800-541-5519 for information on active ingredients and warranty.
Note 2: Install & Cover Biobarrier as soon as possible (within 12 hours) after opening. High temperatures and direct sunlight can reduce effective product life.
Note 3: Dig trenches a minimum of 4 in. wide for Biobarrier root control fabric. Trenches must be a minimum length of 8 ft., centered on the root ball and adjacent to protection area.
Note 4: Install Biobarrier root control fabric on the side of the trench opposite the root source.
Note 5: Install Biobarrier root control fabric with Nodules facing toward root source.

B BIOBARRIER AT TREE PLANTING
NOT TO SCALE



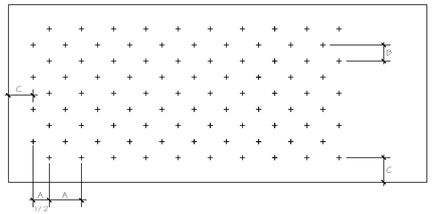
NOTE:
1. SCARIFY SIDES OF PLANTING PIT.
2. PRE-WATER PLANTING PIT 24 HR. PRIOR TO PLANTING. IF PIT DOES NOT DRAIN IN 24 HR., NOTIFY LANDSCAPE ARCHITECT.

C SHRUB PLANTING
N.T.S.

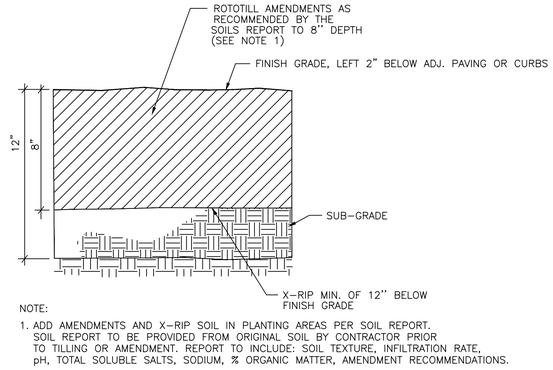
PLANT SPACING SCHEDULE:

A - TRIANGULAR SPACING	B- ROW SPACING	C-PERIMETER SET-BACK
6"	5 1/ 2"	4"
12"	10 1/ 2"	10"
18"	16"	12"
24"	21"	18"
36"	31"	24"

PLANTING GRID:

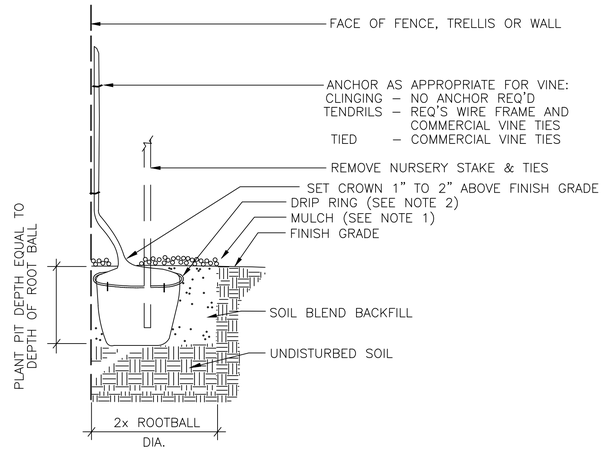


D G.C. LAYOUT
N.T.S.



NOTE:
1. ADD AMENDMENTS AND X-RIP SOIL IN PLANTING AREAS PER SOIL REPORT. SOIL REPORT TO BE PROVIDED FROM ORIGINAL SOIL BY CONTRACTOR PRIOR TO TILLING OR AMENDMENT. REPORT TO INCLUDE: SOIL TEXTURE, INFILTRATION RATE, pH, TOTAL SOLUBLE SALTS, SODIUM, % ORGANIC MATTER, AMENDMENT RECOMMENDATIONS.

E SOIL AMENDMENT: SECTION
N.T.S.



NOTE:

1. 3" DEEP LAYER OF MULCH MATERIAL AS PER SPECIFICATIONS. KEEP 3" AWAY FROM ROOT CROWN.
2. INSTALL AS PER TREE PLANTING DRIP RING.

F VINE PLANTING
N.T.S.

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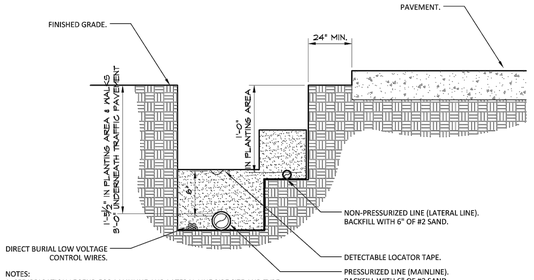


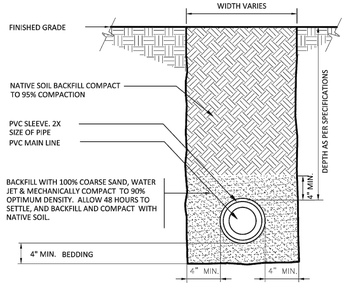
NOTES:
1- SEE IRRIGATION LEGEND FOR MAINLINE AND LATERAL LINE PIPE SIZE AND TYPE.

2- DIRECT BURIAL CONTROL WIRES SHALL BE INSTALLED IN SCH. 40 PVC ELECTRICAL CONDUIT IF REQUIRED.

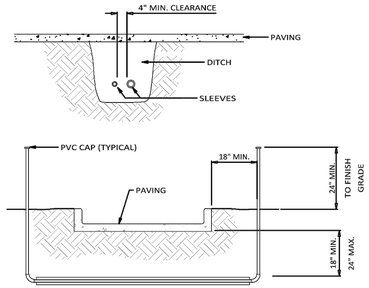
3- 2-WIRE IRRIGATION WIRE SHALL BE INSTALLED IN SCH. 40 PVC ELECTRICAL CONDUIT.

4- DETECTABLE LOCATOR TAPE SHALL BE LOCATED SIX INCHES (6") ABOVE THE ENTIRE MAINLINE RUN.

A IRRIGATION TRENCHING
NOT TO SCALE

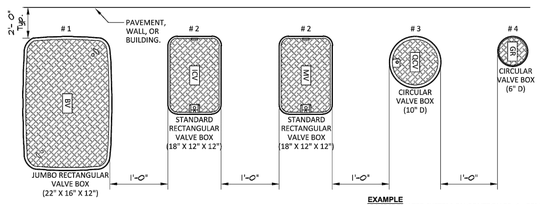


B MAIN LINE TRENCH AND SLEEVE
NOT TO SCALE



1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. ALL PVC IRRIGATION SLEEVES TO BE CLASS 200 PIPE.
4. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
5. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24" MINIMUM ABOVE FINISH GRADE.
6. MECHANICALLY TAMP TO 95% PROCTOR.
7. ALL SLEEVING ENDS TO BE FILLED WITH BLOCK DUCT SEAL COMPOUND TYPICAL.

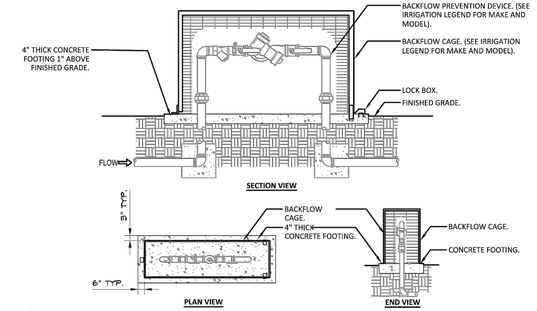
C IRRIGATION SLEEVE; STREET SECTION
NOT TO SCALE



EXAMPLE
POTABLE WATER SYSTEM ON CONTROLLER 'A', REMOTE CONTROL VALVE STATION # 3. (ALL NON POTABLE SHALL BE PURPLE)
NOTES:

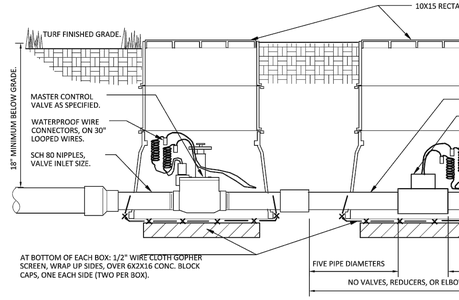
1- LOCK ALL VALVE BOXES WITH BOLT PROVIDED
2- VALVE BOXES SHALL BE LABELED BY HOT IRON BRANDING OR BRASS NUMBER TAG
3- LOCATE VALVE ASSEMBLIES IN PLANTING OR TURF AREA.
4- VALVE LOCATIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
5- VALVE BOXES SHALL BE CENTERED ABOVE VALVE ASSEMBLIES TO FACILITATE ACCESS AND MAINTENANCE.
6- VALVE BOXES SHALL BE FLUSH WITH TURF OR 3" ABOVE GRADE FOR MULCH INSTALLATION.
7- VALVE BOXES SHALL BE SET PARALLEL TO EACH OTHER AND PERPENDICULAR TO THE EDGE OF PAVEMENT.
8- SEE OTHER IRRIGATION DETAILS FOR FURTHER INFORMATION.

D VALVE PLACEMENT
NOT TO SCALE

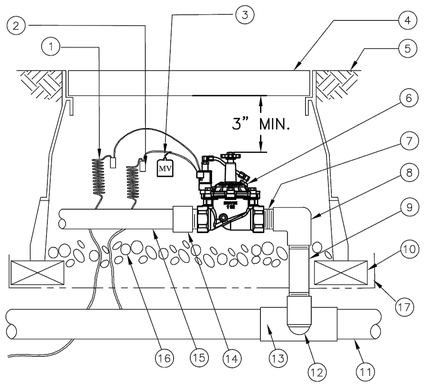


NOTES:
1- INSTALL BACKFLOW CAGE PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
2- SEE BACKFLOW PREVENTION DEVICE DETAIL FOR REFERENCE.
3- LOCK BOX SHALL BE LOCATED ABOVE CONCRETE FOOTING
4- CONTRACTOR SHALL PROVIDE A LOCK AS APPROVED BY THE OWNER'S REPRESENTATIVE
5- ALL FITTINGS TAPPING INTO MAINLINE SHALL BE GLUES UNTIL REACHING END OF FITTING

E BACKFLOW AND PROTECTION CAGE
NOT TO SCALE

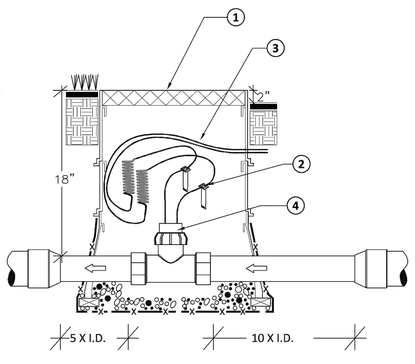


F FLOW SENSOR ASSEMBLY
NIOT TO SCALE



1. 30-INCH LINEAR LENGTH WIRE, COILED
2. WATERPROOF CONNECTION 3M DBYR
3. CHRISTY ID TAG
4. VALVE BOX WITH COVER PURPLE LID ON ALL NON POTABLE WATER PROJECTS
5. FINISH GRADE/OR TOP OF APPROVED DEPTH OF MULCH
6. CONTROL VALVE: SUPERIOR 3300 SERIES VALVE
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (AS REQD LENGTH)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
17. ½" GOPHER GALVANISED WIRE MESH WRAP UP SIDES

G MASTER SHUT-OFF VALVE
NOT TO SCALE



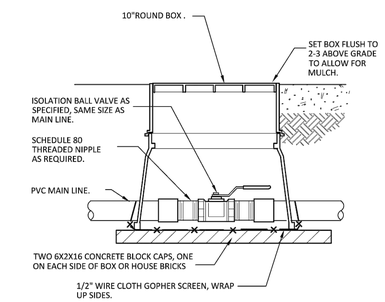
1. PLASTIC VALVE BOX TO PROVIDE ACCESS.
2. WATERPROOF WIRE SPLICE, 3M SCOTCHPACK OR EQUIVALENT.
3. DIRECT BURIAL 1 PAIR, TWISTED SHIELDED CABLE MINIMUM CONDUCTOR SIZE 20 AWG. DO NOT EXCEED 2,000 FEET IN LAYING DISTANCE FROM FLOW SENSOR TO IRRIGATION CONTROLLER.
4. FLOW SENSOR - MOUNTED IN BRASS TEE 1 1/2", LEAD FREE BRASS. CREATIVE SENSOR TECHNOLOGY SERIES PART NUMBER, FSI-B15-001. SIZE FLOW SENSOR FOR GPM REQUIREMENTS OF SYSTEM. SEE MATERIAL LEGEND FOR SIZE SPECIFIED.

NOTE: FOR FURTHER INSTALLATION INSTRUCTIONS REVIEW CREATIVE SENSOR TECHNOLOGY INSTALLATION LITERATURE. MAKE SURE DIRECTION ARROW POINTS IN DIRECTION OF FLOW.

SIZING MODEL#	CHART SIZE:	OPERATING RANGE-GPM
FSI-B15-001	1 1/2"	3-90 GPM

INSTALL TEE ON PIPE WITH AT LEAST 10 PIPE DIAMETERS OF STRAIGHT PIPE UPSTREAM
AND 5 PIPE DIAMETERS OF STRAIGHT PIPE DOWNSTREAM OF THE SENSOR.

H CST BRASS "TEE-MOUNT"
NOT TO SCALE



I LINE SIZE MANUAL SHUT-OFF VALVE
NOT TO SCALE

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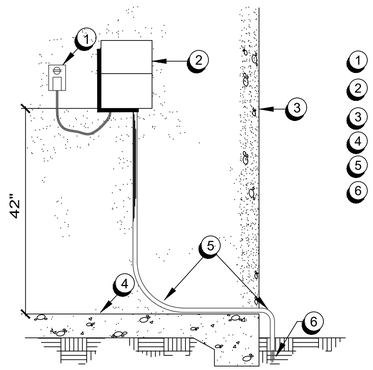
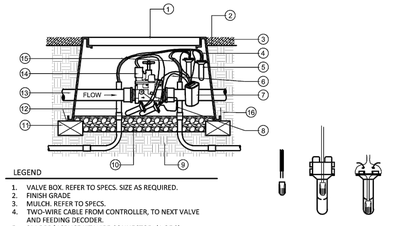


1. 110 v PLUG INTO GFCI OUTLET
2. IRRIGATION CONTROLLER PER LEGEND
3. BUILDING WALL
4. FINISH GRADE OR PAVING
5. PVC SWEEP ELL
6. U.F. DIRECT BURIAL WIRES (TO REMOTE CONTROL VALVES)

NOTE: ALL ELECTRICAL WORK SHALL COMPLY W/LOCAL AND STATE CODE.

A WALL MOUNT IRRIGATION CONTROLLER
NOT TO SCALE



LEGEND

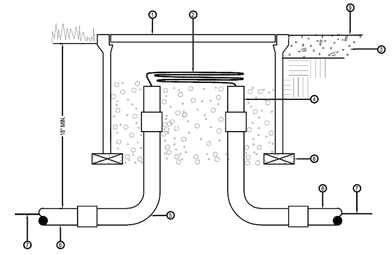
1. VALVE BOX. REFER TO SPECS. SIZE AS REQUIRED.
2. FINISH GRADE
3. MULCH. REFER TO SPECS.
4. TWO-WIRE CABLE FROM CONTROLLER, TO NEXT VALVE AND FEEDING DECODER.
5. 3M DBR/Y SPLICE KIT WIRE CONNECTOR: (1 OF 2)
6. WIRES FROM DECODER TO THE VALVE SOLENOID.
7. TWO-WIRE DECODER
8. I.D. TAG WITH STATION NUMBER PRINTED ON IT (CHRISTY'S #ID-STD-Y1)
9. 90% COMPACTED NATIVE
10. 12-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL OVER FILTER FABRIC
11. BRICK SUPPORT (1 OF 4)
12. 1.25" MIN SCH. 40 ELECTRICAL CONDUIT. (IF REQ.) ADJUST SIZE AS REQUIRED.
13. MAINLINE INTO VALVE. REFER TO PLAN.
14. REMOTE CONTROL VALVE. PER PLAN.
15. TWO-WIRE CABLE (PER MANUFACTURER). INSTALL EXTRA LENGTH OF WIRE LOOP SO AS TO ALLOW THE WIRE SPLICE TO REACH OUTSIDE OF VALVE BOX FOR SPLICE SERVICING OR REPAIR.
16. GALVANIZED WIRE $\frac{1}{2}$" MESH

WIRE SPLICE STEPS

1. STRIP WIRES 1/2" TO 5/8". USING LINEMANS PLIERS OR OTHER STYLE TOOL, TWIST ENDS TOGETHER MIN 3 TIMES. INSERT INTO SCOTCHLOK ELECTRICAL CONNECTOR AND ROTATE CLOCKWISE UNTIL ADDITIONAL FORCE IS REQUIRED.
2. INSERT THE SPLICE INTO THE GEL-FILLED INSULATOR TUBE. PUSH PAST THE LOCKING FINGERS TO HOLD THE SCOTHLOK CONNECTOR IN PLACE.
3. POSITION WIRE CHANNELS AND SNAP INSULATOR TUBE COVER CLOSED.

* WIRE CONNECTORS INCLDED WITH DECODERS*

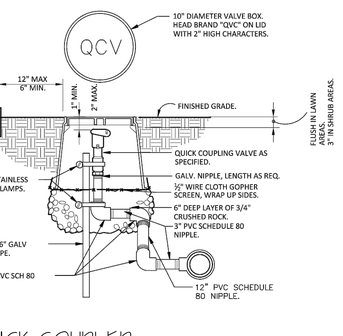
B TWO-WIRE DECODER
NOT TO SCALE



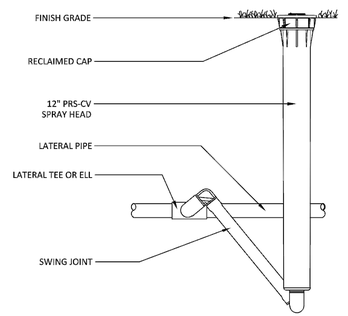
1. STANDARD RETANGULAR VALVE BOX EVERY 250' MAXIMUM. SET 3" ABOVE FINISH GRADE
2. 36" LOOP OF MAXICOM CABLE IN PULL BOX
3. FINISH GRADE
4. ENDS OF CONDUIT SEALED WITH WATERPROOF SILICONE (IF REQUIRED)
5. 90 DEGREE SWEEP ELL (IF REQUIRED)
6. 1-1/2" CONDUIT (MIMIMUM)
7. SPECIFIED MANUFACTURER CABLE
8. BRICK (1 OF 4)
9. MULCH LAYER

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

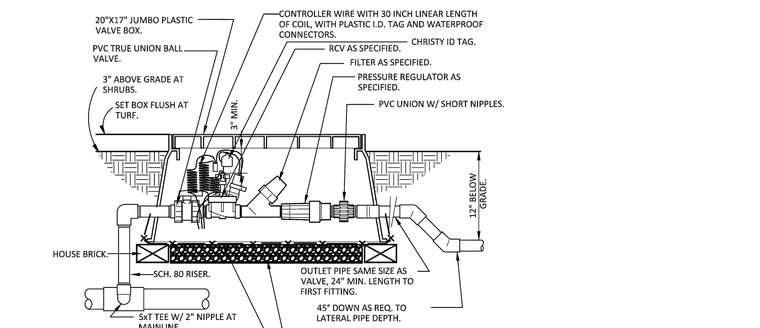
C TWO-WIRE PULL BOX
NOT TO SCALE



D QUICK COUPLER
NOT TO SCALE



E PRS-CV POP-UP WITH SWING JOINT
NOT TO SCALE



F 1" DRIP VALVE / FILTER / PRESSURE REGULATOR
NIOT TO SCALE

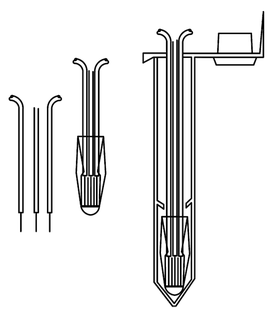
STEP 1: STRIP WIRES $\frac{1}{2}$" FROM ENDS.

STEP 2: APPLY SIZED WIRE NUT AND TURN CLOCKWISE DIRECTION.

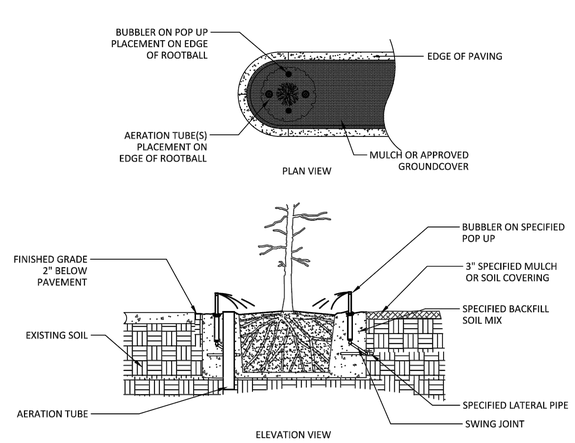
STEP 3: INSERT SPLICE INTO 3M GEL FILLED CLEAR TUBE. PUSH SO THAT THE WIRE NIT MAKES CONTACT WITH END OF TUBE.

STEP 4: POSITION WIRES IN CHANNELS AND CLOSE TUBE COVER.

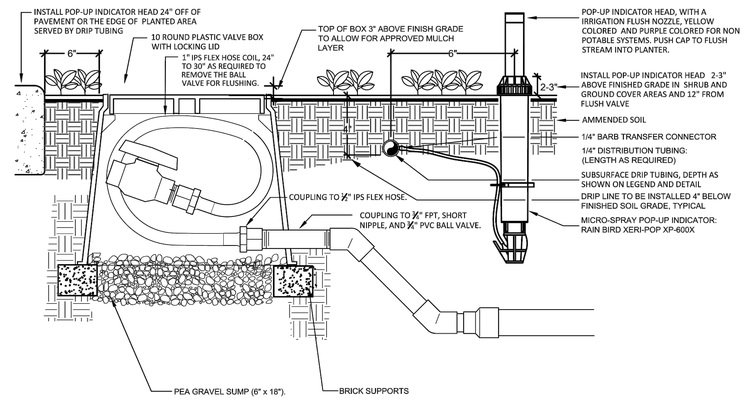
NOTE: MAXIMUM WIRES PER CONNECTOR ARE THREE EACH # 14's OR TWO EACH # 12's.



G TYPICAL 3M-DBYR WIRE SPLICE
NOT TO SCALE



H TREE BUBBLER
NOT TO SCALE



NOTE: INSTALL INDICATOR HEAD 24" MAX FROM THE EDGE OF PAVING OR THE PLANTER EDGE. INSTALL YELLOW COLORED INDICATOR CAP ON XERI POP HEAD. FOR RECYCLED WATER USE A PURPLE IRRIGATION CAP.

I POP-UP DRIP FUNCTION INDICATOR
NOT TO SCALE

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BYRON, CA

L5

04.08.2022

WORK CONDUCT AND PROCESS SPECIFICATIONS

1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS TO FURNISH AND INSTALL LANDSCAPE IMPROVEMENTS AS INDICATED BY THE DRAWINGS.

2. THE CONTRACTOR SHALL MAINTAIN THE PROJECT SITE THROUGHOUT THE PROCESS OF WORK (DEEMED ACCEPTED BY OWNER OR GOVERNING AGENCY) IN A REASONABLE, DRY, WORKABLE CONDITIONS, FREE OF SURFACE WATER OR NON-SOURCE POINT SEDIMENT. THE CONTRACTOR SHALL CONFORM TO THE TERMS OF ALL USE PERMITS, STORM WATER PERMITS, SITE ACCESS, SITE SECURITY, HOURS OF WORK AND SPECIAL PROVISIONS SUCH AS HABITAT PROTECTION, SWVP OR MWELO.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONS AND PROPERTY RELATED TO THE WORK, AND INITIATE MAINTAIN AND SUPERVISE ALL PRECAUTIONS AND PROGRAMS IN CONNECTION WITH PERFORMANCE OF THE CONTRACT. THE CONTRACTOR SHALL TAKE PRECAUTIONS FOR THE SAFETY OF, AND PROVIDE REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO: EMPLOYEES ON THE SITE AND OTHER PERSONS WHO MAY BE AFFECTED THEREBY; THE WORK, MATERIALS, EQUIPMENT AND PROCESSES TO BE INCORPORATED THEREIN, WHETHER IN TRANSPORT, STORAGE ON OR OFF SITE, UNDER CARE, CUSTODY OR CONTROL OF THE CONTRACTOR OR SUB-CONTRACTORS, OR FEATURES AT OTHER PROPERTY ADJACENT TO THE SITE SUCH AS PAVEMENT, ROADWAYS, STRUCTURES, UTILITIES, TREES, SHRUBS, TURF, IRRIGATION OR DRAINAGE.

4. THE CONTRACTOR SHALL CONFORM TO THE TERMS OF ALL TREE PROTECTION MEASURES PLACED ON THE PROJECT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND/OR PLACEMENT OF ALL SLEEVES AND PIPES, AS SHOWN ON LAYOUT AND IRRIGATION PLANS, OR IN RESPONSE TO AS-BUILT CONDITIONS, PRIOR TO THE INSTALLATION OF PAVING, FENCING, SOIL COMPACTION, OR OTHER SITE IMPROVEMENTS.

6. LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR DAMAGE TO HIS WORK CAUSED BY THE WORK, MATERIALS OR EQUIPMENT (VEHICLES, SCAFFOLDING, HOSES, ROOFING OR CLADDING) OF OTHER TRADES.

7. THE BOTTOM OF TRENCHES FOR DRAINAGE AND IRRIGATION SHALL BE GRADED AND COMPACTED TO PROVIDE AN EVEN, FIRM AND UNIFORM BEARING SURFACE THROUGHOUT THE ENTIRE LENGTH OF PIPE.

8. THE SITE PLAN IS NOT SURVEYED, SITE ELEMENTS ARE ASSUMED FROM PLANS AND INFORMATION PROVIDED BY OWNER. CONFIRM ALL ELEMENTS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION.

9. ALLOWABLE SLOPES FOR PAVING (CONCRETE AND COMPACTED AGGREGATE, D.G., MODIFIED SOILS) SHALL BE AS FOLLOWS:

	MINIMUM	MAXIMUM
LONGITUDINAL SLOPES:	.5%	5%
CROSS SLOPES:	1%	2%
DRAIN LINES:	0.5%	5%

10. GRADE BREAK TRANSITIONS CONSTRUCTED AT LANDSCAPE AND PAVED AREAS SHALL BE SMOOTH, WITHOUT ANY NOTICEABLE HINGE POINT. NO LANDSCAPE RETAINING UNLESS SHOWN ON PLANS IS ANTICIPATED, ANY SLOPES REQUIRED IN PLANTING AREAS OVER 20% NOTIFY LANDSCAPE ARCHITECT.

11. THE OWNER'S REPRESENTATIVE SHALL APPROVE IN PLACE ALL PAVING FORMS, LAYOUT, SECTION DEPTHS AND REINFORCING METHODS, PRIOR TO THE PLACEMENT OF CONCRETE, ASPHALT, D.G. OR MODIFIED SOIL.

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE INSTALLED BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS.

2. CONTRACTOR TO OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATED TO HIS WORK.

3. LOCATIONS OF UTILITIES SHOWN ARE INFORMATIONAL ONLY AND PROVIDED BY OTHERS. CONTRACTOR SHALL LOCATE AND STAKE LOCATIONS OR CONFIRM LOCATIONS PRIOR TO CONSTRUCTION BY CALLING U.S.A. NORTH 811 (800) 642-2444. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ALL DAMAGES INCURRED.

4. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, SURFACE OR CONDITION. ALL STAKING, SITE LAYOUT, BRACING, TEMPORARY SUPPORT, SHORING, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL DIMENSIONS ARE TAKEN FROM BACK OF CURB, FACE OF WALL OR PROPERTY LINE PROVIDED BY OTHERS UNLESS OTHERWISE NOTED ON PLANS. DIMENSIONS ARE SHOWN FOR RELATIONSHIP OF BUILT ELEMENTS AND TAKE PRECEDENT OVER SCALED DRAWINGS. ALL RADII AND CURVES SHALL HAVE CONTINUOUS AND SMOOTH TRANSITIONS WITHOUT ABRUPT CHANGES OR BENDS.

6. CONDITIONS NOT SPECIFICALLY SHOWN ON THE PLANS SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS FOR RESPECTIVE OR SIMILAR MATERIALS.

7. DESIGN, MATERIALS, PRODUCTS, FINISHES, APPLICATION METHODS OR EQUIPMENT OTHER THAN THOSE DESCRIBED IN THE PLANS, NOTES OR SPECIFICATIONS MAY BE CONSIDERED FOR USE PROVIDED PRIOR APPROVAL IS OBTAINED IN WRITING FROM THE OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT AND GOVERNING AGENCY. NO VARIATION FROM DESIGN, MATERIALS, PRODUCTS, FINISHES, APPLICATION METHODS OR EQUIPMENT SHALL BE ALLOWED WITHOUT SUCH APPROVALS.

GENERAL GRADING AND DRAINAGE NOTES

1. CONTRACTOR SHALL VERIFY ALL SPOT ELEVATIONS, FLOOR ELEVATIONS, PAD ELEVATIONS AND GRADES PER CIVIL ENGINEER AND LANDSCAPE ARCHITECT. CONTACT OWNER IMMEDIATELY IN THE CASE OF A DISCREPANCY.

2. EROSION CONTROL AND WATER QUALITY CONTROL MEASURES (SWVP) SHALL BE IN PLACE PRIOR TO LANDSCAPE MOBILIZATION, IN ACCORDANCE WITH LOCAL CODES AND CONDITIONS OF APPROVAL. CONTRACTOR SHALL NOT MODIFY OR REMOVE SUCH EROSION CONTROL MEASURES WITHOUT THE APPROVAL OF THE OWNER.

3. AFTER RAIN EVENTS, ALL SILT, DEBRIS AND STANDING WATER SHALL BE REMOVED FROM STREETS, GUTTERS, SIDEWALKS AND CATCH BASINS. THIS REQUIREMENT SHALL REMAIN IN EFFECT UNTIL FINAL ACCEPTANCE OF THE PROJECT.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING LANDSCAPE SURFACE DRAINAGE TO INLETS OR CURBS EVEN DURING INTERIM SITE PREPARATION. THE CONTRACTOR SHALL VERIFY IN WRITING THAT LANDSCAPE GRADING AND DRAINAGE WAS COMPLETED UNDER HIS DIRECTION, AND IN CONFORMANCE WITH THE PLANS AND LOCAL CODES.

5. ALL DRAINAGE FEATURES, SURFACE AND SUB-SURFACE SHALL BE KEPT FREE OF SILT AND DEBRIS TO ENSURE PROPER FLOW UNTIL PROJECT ACCEPTANCE.

6. GRADES AT SWALES AND FLOWLINES ARE TO BE CONSTANT AND UNIFORM BETWEEN SPOT ELEVATIONS AND DRAINAGE FEATURES. LIMITS OF DRAINAGE SWALES SHALL BE NO CLOSER THAN 3 FT. FROM WALKS, WALLS AND PROPERTY LINES.

7. THE CONTRACTOR SHALL CONSTRUCT FINISH GRADES OF LANDSCAPE AREAS TO DIRECT WATER TOWARDS DRAINAGE STRUCTURES AND SURFACE FLOW LINES AS APPLICABLE. PROVIDE 1% MIN. SLOPE IN ALL LANDSCAPE AREAS. NOTIFY LANDSCAPE ARCHITECT OF GRADES LESS THAN 1%.

8. LANDSCAPE GRADES IN PLANTER AREAS SHALL BE 3" BELOW TOP OF GRADE, CURB OR PAVING.

GENERAL PLANTING NOTES

1. CONTRACTOR SHALL VERIFY ALL PLANT MATERIALS QUANTITIES 30 WORKING DAYS PRIOR TO INSTALLATION. CONTRACTOR SHALL ARRIVE AT HIS OWN QUANTITIES REGARDLESS OF ANY QUANTITIES SHOWN ON PLANS.

2. ACTUAL NUMBER OF PLANT SYMBOLS SHALL TAKE PRECEDENCE OVER DESIGNATED QUANTITIES. WHILE PLANT SYMBOLS ARE SHOWN TO SCALE AND IN PROPER DENSITY, CONTRACTOR MUST REVIEW FIELD CONDITIONS AND NOTIFY LANDSCAPE ARCHITECT IF ANY MAJOR REVISIONS ARE REQUIRED.

3. PRIOR TO PLANTING, CONTRACTOR SHALL SUBMIT SOURCES OF ALL PLANT MATERIALS TO OWNER. ALL PLANT MATERIALS SHALL CONFORM TO ANSI Z60.1 (AMERICAN STAND FOR NURSERY STOCK). UPON AWARD OF CONTRACT, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY PLANT MATERIALS AREA UNAVAILABLE DUE TO SEASON, QUARANTINE OR OTHER REASONS. PLANT SUBSTITUTIONS SHALL NOT ALTER THE CONTRACTORS BID.

4. VERIFY FINISH/FINE GRADES IN THE FIELD PRIOR TO PLANTING AS CONDITIONS MAY CHANGE. CONTRACTOR SHALL LEAVE GRADES WITHIN ONE TENTH (1/10) OF A FOOT OF FINISH GRADE AS SHOWN ON PLANS. THE CONTRACTOR SHALL LEAVE GRADES WITHIN 1 INCH BELOW TOP OF CURB OR PAVING AT TURF AREAS, AND 3 INCHES BELOW TOP OF CURB OR PAVING AT SHRUB/GROUND COVER AREAS AND FREE OF WEEDS, ROCKS, CLODS, CONSTRUCTION DEBRIS. CONTRACTOR SHALL REMOVE ALL EXCESS SOIL FROM THE SITE NEEDED TO ACHIEVE DESCRIBED GRADES.

5. PRIOR TO PLANTING, IRRIGATION SYSTEMS SHALL BE FULLY OPERATIONAL. RUN THE IRRIGATION SYSTEM AS NEEDED TO THOROUGHLY SATURATE SOILS TO PLANTING DEPTHS (12 INCHES AT GROUNDCOVERS AND SHRUBS, 24 TO 36 INCHES AT TREES) AREAS AND SUPPLY SUPPLEMENTAL WATER AS NEEDED, PRIOR TO PLANTING. RE-SATURATE ALL PLANTING AT INSTALLATION TO INSURE EVEN MOISTURE AT ROOT BALLS AND AMENDED SOILS, OR IN RESPONSE TO EXTREME WEATHER EVENTS (HIGH WINDS, TEMPERATURES ABOVE 90 DEG. F, OR BELOW 36 DEG. F).

6. AT THE TIME OF PLANT DELIVERY TO THE SITE, ALL PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE. PLANT MATERIALS REJECTED FROM THE PROJECT DUE TO TRANSIT DAMAGE, ASYMMETRY, UNDER SIZING, ROOT BOUND CONDITIONS OR INCORRECT SPECIES OR VARIETY SHALL IMMEDIATELY BE REMOVED FROM THE SITE.

7. THE CONTRACTOR SHALL PROVIDE AN AGRICULTURAL ANALYSIS OF SITE SOILS IN A TIMELY MANNER ONCE SITE CONDITIONS ALLOW SAMPLING OF UNDISTURBED, UN-AMENDED SOILS, IN NUMBER AND LOCATION AS SPECIFIED BY THE OWNER. SOIL SAMPLE(S) SHALL BE SUBMITTED TO A CERTIFIED LABORATORY APPROVED BY THE OWNER. ANALYSIS SHALL INCLUDE AT MINIMUM: pH, SALINITY, SOIL TEXTURE (SAND, LOAM, CLAY) INFILTRATION RATE, EXISTING N-P-K, POTASSIUM, CALCIUM, IRON, MAGNESIUM AND ANY SIGNIFICANT MICRO-NUTRIENTS KNOWN TO CAUSE PLANT MORTALITY (e.g. BORON OR ARSENIC.) SOIL ANALYSIS SHALL INCLUDE RECOMMENDATIONS FOR TYPES AND QUANTITIES OF AMENDMENT SUFFICIENT TO PROVIDE GROWING MEDIUM FOR CONVENTIONAL LANDSCAPE SUCH AS THAT SHOWN ON PLANS. CONTRACTOR TO PROVIDE SAMPLES AND ANALYSIS OF AMENDMENTS TO OWNER FOR APPROVAL PRIOR TO INCORPORATION AT SITE.

8. THE FOLLOWING AMENDMENTS ARE FOR *BIDDING PURPOSES ONLY*. THE CONTRACTOR SHALL AMEND SITE SOILS PER THE RECOMMENDATIONS OF ANALYSIS PER #6, ABOVE.

   AMOUNT PER 1,000 SQ. FT.

   -4 CU. YDS. NITROGEN STABILIZED COMPOST
   -35 LBS. 6-20-20 GRANULAR FERTILIZER
   - 100 LBS. AGRICULTURAL GYPSUM
   - 13 LBS. PELLETIZED SULPHUR

9. PLANTING PITS FOR TREES AND SHRUBS SHALL BE EXCAVATED TO TWICE THE DIAMETER OF THE ROOTBALL, AS SHOWN ON PLANTING DETAILS. SIDES OF PLANTING PITS SHALL BE SCARIFIED AND THE ROOTBALL SHALL SET ON UNDISTURBED SITE SOIL. CROWN OF TREE OR SHRUB SHALL BE SET 1 INCH ABOVE FINISH GRADE AFTER COMPACTION AND SATURATION OF AMENDED BACKFILL. BACKFILLED PLANTING PITS SHALL BE MULCHED WITH 3 INCHES OF HARDWOOD CHIP MULCH.

   BACKFILL FOR TREES AND SHRUBS SHALL CONSIST OF THE FOLLOWING:

   -6 PARTS ON-SITE SOIL
   -4 PARTS AMENDMENT PER #7, ABOVE

10. THIRTY DAYS AFTER INSTALLATION, AND EVERY 60 DAYS THEREAFTER UNTIL ACCEPTANCE, LANDSCAPE AREAS SHALL BE FERTILIZED WITH 16-6-8 GRANULAR FERTILIZER APPLIED AT A RATE OF SIX LBS. PER 1,000 SQ. FT.

11. ALL TREES TO RECEIVE SLOW RELEASE FERTILIZER TABLETS PER PLANTING DETAILS, 21 GRAM TABLETS, 20-10-5, "AGRIFORM" OR EQUAL IN QUANTITIES AS FOLLOWS: 15 GALLON – 4 TABLETS, 24" BOX OR LARGER – 1 TABLET PER 4 INCHES OF BOX SIZE.

12. ALL AREAS OF TREE, SHRUB AND PERENNIAL PLANTING SHALL BE TOP-DRESSED WITH A CONTINUOUS 3 INCH DEPTH LAYER OF NATURAL COLOR HARDWOOD CHIP MULCH, NO CONSTRUCTION WASTE OR DYED BARK PRODUCTS. GROUNDCOVER AREAS SHALL BE MULCHED WITH 1 INCH WOOD CHIP MULCH, OR PER GOVERNING AGENCY. NO MULCH SHALL BE PLACED IN FLOW LINES, WATER QUALITY BASINS OR ON SLOPES GREATER THAN 4:1 WITHOUT NOTIFYING OWNER. LOCAL TREE CHIPPINGS ARE ACCEPTABLE BUT MUST BE BLENDED TO MATCH ACROSS THE ENTIRE SITE.

13. MIN. TREE SETBACKS SHALL BE:

    -3 FT. FROM CURBS AND PAVING
    -5 FT. FROM WATER METERS, JOINT TRENCH AND UTILITY VAULTS
    -10 FT. FROM PUBLIC LIGHT FIXTURES AND STORM DRAINS*
    -15 FT. FROM MAIN SANITARY SEWERS*

    *CAN BE LESS AT SINGLE FAMILY CONDITIONS WITH ADDITION OF ROOT BARRIER, SEE #13.

14. ALL TREES PLANTED WITHIN 8 FT. OF PAVING, WATER METERS OR JOINT TRENCH SHALL RECEIVE 24 INCH MIN. DEPTH "TYPAR" ROOT BARRIER OR SIMILAR, 10 LIN. FT. BOTH SIDES OF TREE.

IRRIGATION NOTES

1. THE IRRIGATION SYSTEM SHALL BE INSTALLED BY THE CONTRACTOR TO CONFORM WITH ALL APPLICABLE STATE LAWS AND WATER EFFICIENT LANDSCAPE ORDINANCES, WHICHEVER IS MORE STRINGENT.

2. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATED TO IRRIGATION WORK.

3. ALL IRRIGATION COMPONENTS SHOWN ARE SCHEMATIC, CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, SERVICES AND LABOR NECESSARY TO INSTALL A COMPLETE IRRIGATION SYSTEM INCLUDING: SERVICE MANUALS, RECORD DRAWINGS, CONNECTIONS, TIES, STAKES, NOZZLES AND EMITTERS, INSTALLATION AND GUARANTEE. GUARANTEE SHALL EXTEND ONE YEAR FROM ACCEPTANCE AND INCLUDE DEFECTS IN WORKMANSHIP, MATERIALS, EQUIPMENT. GUARANTEE SHALL ALSO INCLUDE REMEDY TO LEAKS AND SETTLING OF TRENCHES AND PROVIDE PROMPT REPAIR OF DEFECTS AND DAMAGE AT NO COST TO THE OWNER, INCLUDING THE RESTORATION OF PLANTING, PAVING, STRUCTURES OR THEIR IMPROVEMENTS. MANUFACTURER'S WARRANTIES DO NOT RELIEVE LIABILITY UNDER THE GUARANTEE.

4. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN IF OBSTRUCTIONS, UTILITIES, CHANGES TO ELECTRICAL OR WATER CONNECTION LOCATIONS, GRADE DIFFERENCES OR DIMENSIONAL DIFFERENCES EXIST THAT WERE NOT KNOWN AT THE TIME OF IRRIGATION SYSTEM DESIGN. NOTIFY OWNER OF SUCH DISCREPANCIES. IN THE EVENT NOTIFICATION OF SUCH DISCREPANCIES IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR NECESSARY REPAIRS OR REVISIONS TO IRRIGATION SYSTEM.

5. NO IRRIGATION LATERAL LINES, DRIP LINES IN AREAS LESS THAN 1 FT. IN WIDTH.

6. NO IRRIGATION SPRAY HEADS WITHIN 24 INCHES OF CURBS, PAVING, WALLS PER MWELO. ADJUST ALL IRRIGATION COMPONENTS FOR NO OVERSPRAY AT PAVING.

7. THE IRRIGATION SYSTEM DESIGN IS BASED ON A MINIMUM PRESSURE AND A MAXIMUM FLOW DEMAND, AS STATED ON THE PLANS FOR EACH POINT OF CONNECTION. VERIFY STATIC WATER PRESSURE, SERVICE LINE SIZE, AND WATER METER LOCATION AND SIZE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES BETWEEN THE ACTUAL WATER PRESSURE, SERVICE SIZE AND METER SIZE WITH THAT INDICATED ON THE PLANS SHALL BE IMMEDIATELY REPORTED TO THE OWNER PRIOR TO BEGINNING WORK.

8. ALL PRESSURE SUPPLY (MAIN) PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE PLANS. WHERE IRRIGATION LATERALS DOWNSTREAM FROM AN IRRIGATION CONTROL VALVE ARE NOT SIZED ON THE PLANS, 3/4 INCH PIPE SHALL BE USED. SUBSTITUTIONS OF SMALLER PVC PIPE SHALL NOT BE ALLOWED.

9. COMPACT ALL IRRIGATION TRENCHES WITH SUITABLE APPROVED SOIL WITHOUT CLODS OR ROCKS OVER 1 INCH IN SIZE. COMPACT TRENCHES TO 90% RELATIVE COMPACTION.

10. IRRIGATION MAINS AND IRRIGATION CONTROL WIRE SHALL BE SLEEVED SEPARATELY BENEATH PAVING AND WALLS IN SCH. 315 P.V.C. PIPE. MAINS SHALL BE SLEEVED IN PIPE TWICE THE DIAMETER OF THE MAIN OR PER DIRECTION OF GOVERNING AGENCY. REASONABLE LOCATIONS AND QUANTITIES OF SLEEVES FOR MAINS AND CONTROL WIRE ARE SHOWN ON THE PLANS, ADJUST OR ADD TO LOCATIONS AND DEPTH IN THE FIELD TO ACCOUNT FOR PAVING SECTION, SPECIAL CONDITIONS (ACCESS ROUTES FOR OVER-WEIGHT VEHICLES), ENHANCED COMPACTION, UNUSUAL SOIL OR FILL TYPES, SEPARATIONS FROM WATER, SEWER, GAS AND OTHER UTILITIES.

11. ALL NEW IRRIGATION CONTROL WIRE (18 GA. OR TWO-WIRE) SHALL HAVE 4 FT. LOOPS OF EXTRA WIRE AT EACH VALVE BOX. ALL SPLICES OF CONTROL WIRE SHALL BE MADE WITHIN VALVE BOXES MARKED "SB" (SPLICE BOX), NOT IN-GRADE. SPLICES SHALL BE MADE WITH COPPER CRIMP-TYPE CONNECTOR, INSTALLED WITHIN '3M' #DBY SEAL PACK OR MANUFACTURER APPROVED EQUAL. DO NOT SPLICE TWO-WIRE CONTROL IF POSSIBLE.

12. EXACT LOCATION OF CONTROL WIRE IS NOT SHOWN, RUN ATOP MAIN IF POSSIBLE.

13. CONTRACTOR TO CONDUCT PRESSURE (STATIC PRESSURE AT POINT OF CONNECTION) TEST AT THE COMPLETION OF PRESSURE SUPPLY AND CONTROL VALVES FOR THE DURATION OF ONE HOUR TO THE SATISFACTION OF THE OWNER PRIOR TO BACKFILLING TRENCHES.

14. IRRIGATION SYSTEM SHALL BE FULLY FLUSHED PRIOR TO INSTALLATION AND CONNECTION OF DRIP DISTRIBUTION COMPONENTS.

15. OWNER SHALL PROVIDE ELECTRICAL SUPPLY IN THE VOLTAGE AND LOCATION AS SHOWN ON PLANS. CONTRACTOR SHALL PROVIDE CONNECTION TO ELECTRICAL SUPPLY.

16. CONTRACTOR SHALL SUBMIT ALL MATERIALS, SAMPLES, MANUALS AND PRODUCT GUARANTEES TO THE OWNER FOR APPROVAL PRIOR TO INSTALLATION.

17. IRRIGATION EQUIPMENT, CONNECTIONS, MOUNTS AND FASTENINGS NOT OTHERWISE DETAILS IN THE PLANS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

18. CONTRACTOR SHALL PREPARE ACCURATE AS-BUILT DRAWINGS OF ALL IRRIGATION LAYOUT CHANGES, ADDITIONS AND DELETIONS PRIOR TO ACCEPTANCE OF THE WORK.

19. CONTACT IRRIGATION CONTROLLER MANUFACTURER FOR RECOMMENDED TRAINING AND INITIAL PROGRAMMING OF CONTROLLERS.

20. THE OWNER SHALL PROVIDE AUDIT OF FINISHED IRRIGATION SYSTEM PRIOR TO OCCUPANCY, BY A CERTIFIED THIRD PARTY PER THE PROVISIONS OF A.B. 1881 (MWELO). AUDIT TO INCLUDE RECOMMENDED MAX. SEASON (JULY) RUN TIMES FOR EACH VALVE, AND QUARTERLY ADJUSTMENTS TO IRRIGATION SCHEDULE FOR EACH VALVE.

    INCLUDE AUDIT IN CERTIFICATE OF LANDSCAPE COMPLETION INCLUDING: DATE, PROJECT NAME, APPLICANT OR OWNER NAME, CONTACT TELEPHONE AND MAILING ADDRESS, PROJECT LOCATION. ALSO INCLUDE SAMPLE IRRIGATION SCHEDULING FOR LANDSCAPE ESTABLISHMENT (YR. ONE), CYCLE/SOAK RECOMMENDATIONS TO ELIMINATE RUN-OFF BASED ON SOIL TYPE AND SLOPES, IRRIGATION AUDIT DATA, SITE OBSERVATIONS AND AS-BUILT IF ANY SIGNIFICANT CHANGES WERE MADE DURING CONSTRUCTION (SEE #12).

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DISCOVERY BAY VENTURES, LLC
3777 BIXLER RD.
BYRON, CA

ATTACHMENT 3

BIOLOGICAL RESOURCES ASSESSMENT

RECEIVED on 04/20/2022 CDLP22-02019
By Contra Costa County
Department of Conservation and Development

ENVIRONMENTAL CONSULTANTS

Biological Report
Discovery Bay RV & Boat Storage
Discovery Bay, California

To: Discovery Bay RV & Boat Storage LLC
185 Front St, Ste 207
Danville, California 94526

From: Hope Kingma
WRA, Inc.

Date: April 27, 2021

On April 12, 2021, WRA, Inc. performed a biological site assessment at the Discovery Bay RV & Boat Storage Project Site, in Discovery Bay, California (Figure 1, Attachment 1). The purpose of the assessment was to inspect the project site. This report provides a description of the existing site conditions and discusses future studies that will be conducted to satisfy the County's Findings and Conditions of Approval (County File # MS12-2009).

EXISTING CONDITIONS

At the time of the April 2021 site assessment, the majority of the site had recently been disked. The remaining pockets of remnant vegetation within the project site consist of native, non-native and invasive species, including common tarweed (*Centromadia pungens* ssp. *pungens*), common fiddleneck (*Amsinckia intermedia*), Lamb's quarters (*Chenopodium album*), mustard (*Brassica nigra*), bull thistle (*Cirsium vulgare*), perennial pepperweed (*Lepidium latifolium*), wild oat (*Avena barbata*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceous*), and wild radish (*Raphanus sativus*), among others. A remnant season saline wetland feature occurs in the southeastern corner of the property. This wetland is dominated by salt grass (*Distichlis spicata*), hyssop loosestrife (*Lythrum hyssopifolia*), curly dock (*Rumex crispus*), and iodine bush (*Allenrolfea occidentalis*). A complete list of plants observed during the site assessment in April of 2021 is provided as Attachment 2. Attachment 3 provides representative photographs of the existing site conditions.

The project site is currently used for hay or wheat (*Tricticum aestivum*) production, and historically was used for crop production, as illustrated in the historic aerial photographs (Attachment 4). The property currently supports an old, abandoned barn and other old farm-associated structures, and a large, unoccupied shed. Several trees are associated with the old farmstead, including valley oak (*Quercus lobata*), eucalyptus (*Eucalyptus* sp.), olive (*Olea europaea*), and ash (*Fraxinus* sp.), among others.

Transmission towers occur along the eastern portion of the project site. The man-made, above-ground concrete v-ditch that once bisected the southern portion of the site and along the eastern property boundary has been decommissioned and removed from the site. The adjacent roadside ditch along Bixler Road along the western property boundary, and the adjacent Kellogg Creek along the northern property boundary are both outside the project site boundaries.

FUTURE STUDIES

Since the majority of the site was disked at the time of the April 2021 site assessment, a wetland delineation and rare plant surveys will be conducted in 2022, prior to any ground disturbance associated with the proposed project, in accordance with the County Conditions of Approval #17 and #18. In addition, preconstruction wildlife special-status surveys, nesting bird surveys and bat surveys will be conducted in accordance with County Conditions of Approval #19, #23 and #25.

CONCLUSION

This concludes WRA's assessment of the current site conditions at the Discovery Bay RV & Boat Storage Project Site, in Discovery Bay, California. Please let me know if you have any questions.

Sincerely,

Hope Kingma
Senior Regulatory Permitting Specialist

Attachments:

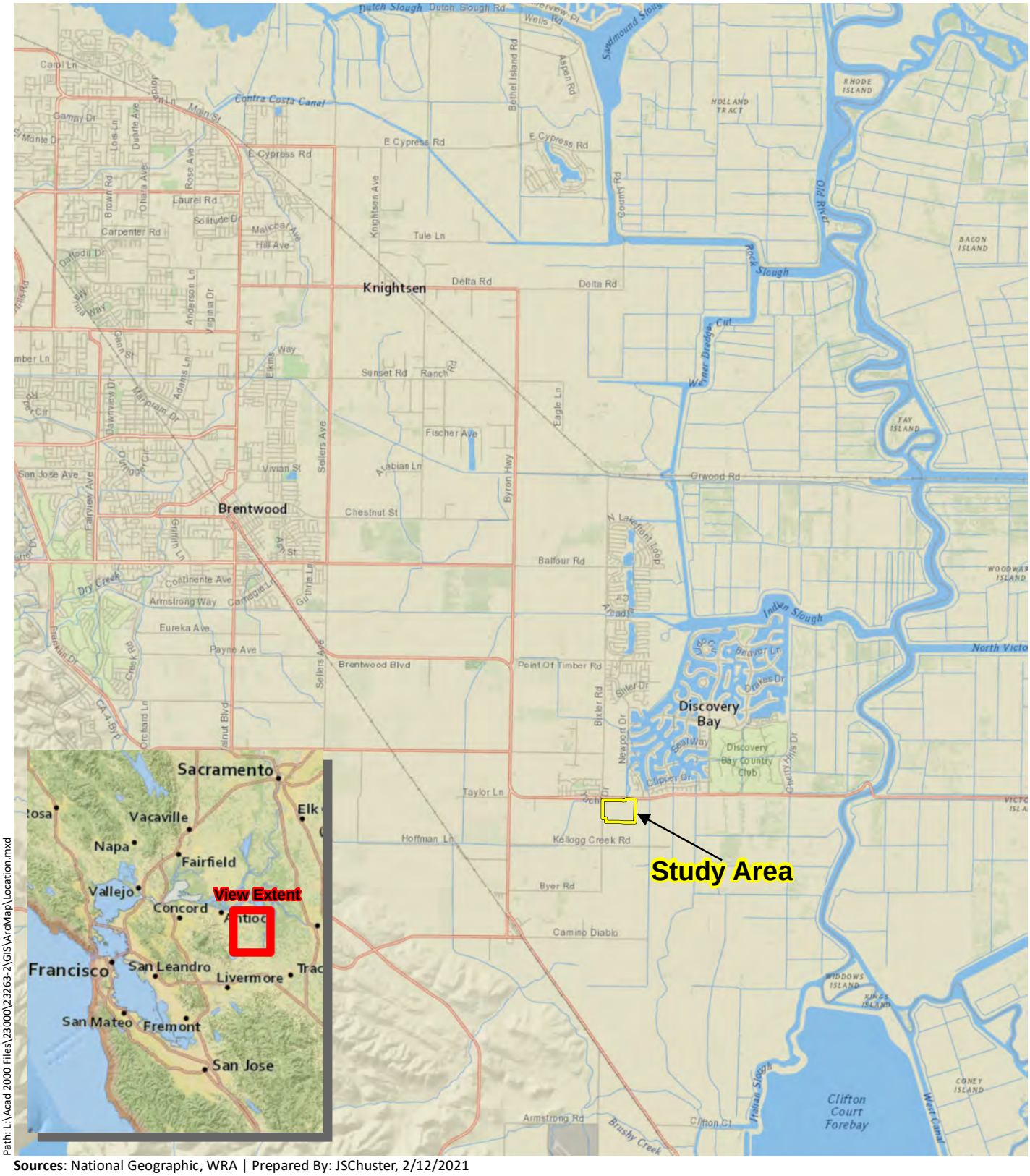
Attachment 1 - Figure 1. Location

Attachment 2 – Plant List

Attachment 3 - Site Photographs

Attachment 4 – Historic Aerial Photographs

Attachment 1 - Location and Study Area Figures



Sources: National Geographic, WRA | Prepared By: JSChuster, 2/12/2021

Figure 1. Study Area Regional Location Map

Bixler Road
Discovery Bay, Contra Costa County, California

0 1 2 Miles

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ENVIRONMENTAL CONSULTANTS

Attachment 2 – Plant List

23263-2. Discovery Bay - Plant species observed in the Project Area.

Scientific Name	Common Name
Ruderal Uplands	
Centromadia pungens ssp. pungens	*Common tarweed*
Hordeum murinum ssp. leporinum	*Foxtail barley*
Avena barbata	Slim oat
Festuca perennis	Italian ryegrass
Amsinckia intermedia	Common fiddleneck
Brassica nigra	Black mustard
Bromus diandrus	Ripgut brome
Bromus hordeaceus	*Soft chess*
Chenopodium album	*Lamb's quarters*
Conium maculatum,	Poison hemlock
Silybum marianum	*Milk thistle*
Raphanus sativus	*Wild radish*
Melilotus indicus	*Annual yellow sweetclover*
Lactuca serriola,	*Prickly lettuce*
Lepidium latifolium	*Perennial pepperweed*
Erodium cicutarium	*Redstem filaree*
Cynodon dactylon	*Bermuda grass*
Phalaris aquatica	*Harding grass*
Oxalis corniculata	*Creeping woodsorrel*
Convolvulus arvensis	*Field bindweed*
Polygonum aviculare	*Common knotgrass*
Cirsium vulgare	*Bull thistle*

Senecio vulgaris	*Groundsel*
Erigeron canadensis	*Horseweed*
Epilobium brachycarpum	*Willowherb*
Dipsacus fullonum,	*Wild teasel*
Trees	
Robinia pseudoacacia	*Black locus*
Olea europaea	*Olive tree*
Quercus lobata	*Valley Oak*
Fraxinus sp.	Ash
Aesculus californica	California buckeye
Eucalyptus sp.	Eucalyptus
Wetland	
Distichlis spicata	Salt grass
Lythrum hyssopifolia	Hyssop loosestrife
Rumex crispus	Curly dock
Allenrolfea occidentalis	*Iodine bush*
Adjacent Kellogg Creek	
Iris pseudacorus	*Yellow iris*
Juglans californica	*California Black Walnut*
Tamarix	Tamarisk

Attachment 3
Project Site Photographs

Photograph 1. Disked conditions on 4/12/21

Photograph 2. Pockets of ruderal vegetation

Photograph 3. Old farmstead with associated trees (Eucalyptus and oaks)

Photograph 4. Old abandoned barn

Photograph 5. Old livestock barn structure

Photograph 6. Mature oaks along southern boundary

Photograph 7. Transmission towers in eastern portion of the site.

Photograph 8. Roadside ditch along Bixler Road (outside project site boundaries)

Photograph 9. Bridge over Kellogg Creek at Bixler Road and Hwy 4 (outside project site boundaries)

Photograph 10. Kellogg Creek along northern project site boundary (outside project site boundaries)

Photograph 11. Photograph 9. Bridge over Kellogg Creek at Hwy 4 (outside project site boundaries)

Photograph 12. View of Kellogg Creek along northern boundary (outside project site boundaries)

Attachment 3
Historic Aerial Photographs

2020

2002

1993

ATTACHMENT 4

MMRP

Mitigation Monitoring and Reporting Program
County File #CDLP22-02019

3777 Bixler Road
Byron, CA 94514

May, 2024

SECTION 4: BIOLOGICAL RESOURCES

Potentially Significant Impacts:

Potential Impact (Swainson's Hawk) BIO-1: *Project activities could result in direct impacts to Swainson's Hawk through the destruction or abandonment of active nests, if present.*

Potential Impact (Swainson's Hawk) BIO-2: *The proposed project could result in the loss of approximately 16-acres of suitable Swainson's Hawk foraging habitat.*

Potential Impact (Burrowing Owl) BIO-3: *Project activities could result in direct impacts to burrowing owl through the destruction or abandonment of active nests, if present.*

Potential Impact (Burrowing Owl) BIO-4: *Project activities could result in the loss of suitable burrowing owl habitat.*

Potential Impact (Roosting Bats) BIO-5: *Project activities, including demolition and tree removal associated with the proposed project could result in the direct removal of active bat roosts protected under California Fish and Game Code and the California Environmental Quality Act.*

Potential Impact (Nesting Birds) BIO-6: *Project activities could result in the destruction or abandonment of nests of special-status or non-special status bird species protected under the Migratory Bird Treaty Act, California Fish and Game Code, and California Environmental Quality Act.*

Potential Impact BIO-12*:Construction activities adjacent to the saline wetland may result in unintentional fill or discharge into this feature.*

Mitigation Measures(s):

Mitigation Measure BIO-1 (Swainson's Hawk)*: Prior to any ground disturbance or tree removal activities that occur during the nesting season (March 1 – September 15), a CDFW-approved Qualified Biologist will conduct protocol-level surveys for Swainson's hawk nest sites within 5-miles of the project site. The survey period timing and methodology will be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (available at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols).*

If nesting Swainson's hawks are found during survey(s), or at any time during project activities, a 0.5 miles non-disturbance buffer will be established and implemented in the field by a Qualified Biologist. Buffers will be maintained until a Qualified Biologist has determined that all young have fully fledged and are able to self-provision. If site-specific conditions or the nature of the activity (e.g. steep topography, dense vegetation, limited activities) indicate that a reduced buffer could be used, the implementing entity will coordinate with CDFW to determine an appropriate buffer size.

If young fully fledge (are no longer dependent on the nest, disperse from their parent's territory, and are foraging independently) prior to September 15, Project activities can proceed within the buffer zone. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the implementing entity for a waiver of this avoidance measure. Any waiver must also be approved by CDFW. While the nest is occupied, activities outside of the buffer can take place.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent in a manner deemed adequate by the implementing agency.

***Mitigation Measure BIO-2 (Swainson's Hawk)**: The project proponent shall mitigate for the loss of Swainson's hawk foraging habitat in a method consistent with the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California, CDFW 1994. If the project is within one mile of an active nest tree (the Swainson's Hawk Staff Report defines an active nest as used during one or more of the last five years), at least one acre of land for each acre of development authorized will be provided. If the project is within five miles of an active nest tree, but greater than one mile from the nest tree, at least 0.75 acres of land for each acre of development authorized will be provided. Alternatively, the project proponent may elect to obtain take coverage via the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation plan.*

***Mitigation Measure BIO-3 (Burrowing Owl)**: A CDFW-approved biologist will follow the CDFW 2012 Staff Report on Burrowing Owl Mitigation (CDFW 2012 Staff Report) habitat assessment and survey methodology prior to initiating Project activities during the burrowing owl wintering season from September 1 to January 31. Surveys shall encompass a sufficient buffer zone to detect owls nearby that may be impacted, which shall be a minimum of 1,640 feet unless otherwise approved in writing by CDFW. Surveys shall include four non-breeding season surveys spread evenly throughout the nonbreeding season, pursuant to the*

CDFW 2012 Staff Report. Time lapses between surveys or Project activities shall trigger subsequent surveys, as determined by a qualified biologist, including, but not limited to, a final survey within 24 hours prior to ground disturbance and before construction equipment mobilizes to the project area. The Qualified Biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections.

Detected burrowing owls shall be avoided pursuant to the buffer zone prescribed in the CDFW 2012 Staff Report, unless otherwise approved in writing by CDFW, and any eviction plan including off-site habitat compensation shall be subject to CDFW review.

***Mitigation Measure BIO-4 (Burrowing Owl)**: If preconstruction surveys determine that owls are occupying the Project site, the Project proponent should place a conservation easement (CE), onto any areas that are occupied by special-status species or adjacent to occupied properties. The CE should have a long-term management plan and include an endowment for funding of management and protection in perpetuity. CDFW should be named as the CE's third-party beneficiary. Alternatively, the project proponent may elect to obtain take coverage via the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation plan.*

***Mitigation Measure BIO-5 (Roosting Bats)**: A preconstruction survey for bats will be conducted by a CDFW-approved Qualified Biologist prior to the initiation of project activities. The survey will include a visual inspection of any potential roosting features (e.g., cavities, crevices in wood and bark, exfoliating bark for colonial species, suitable canopy for foliage roosting species, culvert crevices, etc.) within the project footprint and surrounding 50 feet. Habitat features found during the survey(s) shall be flagged or clearly marked. If any habitat features will be altered or potentially disturbed by project activities, a phased disturbance strategy shall be employed to allow for nocturnal roost evacuation. Non-habitat trees or structural features shall be removed at least one (1) day prior to removal of habitat features. Potential roosting features shall not be directly disturbed (e.g., shaken, prodded, etc.).*

***Mitigation Measure BIO-6 (Nesting Birds)**: To the extent feasible, Project-related activities shall be avoided during the nesting bird season, generally defined as February 15 – September 15. If project work must occur during the nesting bird season, a Qualified Biologist shall conduct a reconnaissance-level survey for active nests within the 14 days prior to the initiation of project-related activities. Surveys shall be conducted in all potential habitat located at, and adjacent to, project work sites and in staging and storage areas. The minimum survey radii surrounding the work area shall be the following: 250 feet for non-raptors, 1,000 feet for non-listed raptors, and 0.5 miles for special-status raptors. If a lapse*

in Project-related activities of seven (7) days or longer occurs, another focused survey will be required before Project activities can be reinitiated. If an active nest is found, Permittee shall consult with CDFW regarding appropriate action to comply with the Fish and Game Code of California.

Active nest sites and protective buffer zones shall be designated as "Environmentally Sensitive Areas" where no project-related activities or personnel may enter until the Qualified Biologist determines that the young have fully fledged and will no longer be adversely affected by the project. These designated areas shall be protected during Project activities by surrounding the nest site with a wildlife-safe fence or flagging barrier. The Qualified Biologist shall determine the necessary buffer distance to protect nesting birds based on existing site conditions (such as construction activity and line of sight). For golden eagles, no construction shall occur within 0.5 mile of active nests (most activity late January through August). Buffer distance shall be increased to provide sufficient protection of nesting birds and their natural behaviors, as needed.

The Qualified Biologist shall monitor any identified active nests (including seasonally used nests of migratory raptors and ground nests) prior to the start of any construction-related activities to establish a behavioral baseline of the adults and any nestlings. Once work commences, all active nests shall be continuously monitored for a minimum of three consecutive workdays by the Qualified Biologist to detect any signs of disturbance and behavioral changes as a result of Project activities. In addition to direct impacts (such as nest destruction), nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. After the Qualified Biologist has determined that the nesting birds are attenuated to construction presence, the nest may be monitored by a Biological Monitor, provided there are no changes in site conditions (e.g., project activities, equipment used or noise levels) relative to the observation period. If signs of disturbance and behavioral changes are observed at any time, the biological personnel shall order work causing that behavioral change to cease and contact CDFW for guidance prior to resuming Project activities.

Mitigation Measure BIO-7 (General Wildlife Protection): *Vegetation removed and not used for slash shall be placed directly into a disposal vehicle and removed from the Project work site. Vegetation not used for slash shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the Qualified Biologist. Vegetation used for slash shall be stockpiled if placed within a biological exclusion area and shall be transferred under the supervision of the Qualified Biologist.*

Mitigation Measure BIO-8 (General Wildlife Protection): *Any open trenches, pits, or holes with a depth larger than six (6) inches shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g., plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood planking, or installed as an earthen dirt fill with walls no greater than 30 degrees in slope in each open trench, hole, or pit that is capable of allowing large (e.g., deer) and small (e.g., snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, Qualified Biologist shall inspect the open trench, pit, or hole for wildlife. If wildlife is discovered it shall be allowed to leave on its own accord, if wildlife does not leave on its own accord consultation with CDFW is required before work can be initiated.*

Mitigation Measure BIO-9 (General Wildlife Protection): *All pipes, culverts, or similar structures that are stored at the site for one (1) or more overnight periods shall be thoroughly inspected for wildlife by the Qualified Biologist prior to use at the Project site. All hollow pipes or posts installed as part of the Project and exposed to the environment shall be capped, screened, or filled with material by Permittee prior to the end of the workday in which the installation occurs.*

Mitigation Measure BIO-10 (General Wildlife Protection): *Any fencing, signposts, or vertical poles installed temporarily or permanently throughout the course of the Project shall have the top capped and/or the top three (3) post holes covered or filled with screws or bolts to prevent the entrapment of wildlife.*

Mitigation Measure BIO-11 (General Wildlife Protection): *All new and repaired fencing shall be designed to facilitate wildlife passage to the maximum extent practicable. Wire fencing shall have a smooth top and bottom wire. Fencing shall not be constructed of materials deleterious to wildlife (e.g., sharp edges exposed at the top or bottom of chain-link fencing, braided wire where birds may become entangled, etc.). Permittee shall not install any fencing material which may ensnare, impale, or otherwise harm wildlife species. No barbed wire, or equivalent, shall be allowed where it may result in harm to birds and other wildlife (e.g., as top-wire or bottom-wire on tiered fencing).*

Mitigation Measure BIO-12: *Prior to ground disturbing activities, sensitive habitats adjacent to the project construction areas will be flagged and silt fencing will be installed in the areas adjacent to wetlands.*

If suitable habitat for covered shrimp will be retained on site, project proponents will establish a buffer from the outer edge of all hydric vegetation associated with seasonal wetlands occupied (or assumed to be occupied) by covered shrimp. This buffer zone will be determined in the field by the biologists as the immediate watershed feeding the seasonal wetland or a minimum of 50 feet, whichever is greater. Buffers will be marked by brightly colored fencing or flagging throughout the construction process. Activities will be prohibited in this buffer in accordance with the minimization measure above.

Implementing Action:	COA
Timing of Verification:	Prior to ground disturbance, continuing throughout construction activities
Party Responsible for Verification:	CDD staff, Consulting Biologist.
Compliance Verification:	Review of Biologist's report, Mitigation measures and biologists recommendations printed on construction plans

SECTION 5: CULTURAL RESOURCES

Potentially Significant Impacts:

Potential Impact CUL-1: *Subsurface construction activities could potentially damage or destroy previously undiscovered historic and prehistoric resources.*

Potential Impact CUL-1: *Surface construction activities could potentially damage or destroy previously undiscovered archeological resource.*

Potential Impact CUL-1: *Surface construction activities could potentially damage or destroy previously undiscovered human remains*

Mitigation Measure(s):

Mitigation Measure CUL-1*: The following Mitigation Measures shall be implemented during project related ground disturbance, and shall be included on all construction plans:*

a. *All construction personnel, including operators of equipment involved in grading, or trenching activities will be advised of the need to immediately stop work if they observe any indications of the presence of an unanticipated cultural resource discovery (e.g. wood, stone, foundations, and other structural remains; debris-filled wells or privies; deposits of wood, glass, ceramics). If deposits of prehistoric or historical archaeological materials are encountered during ground disturbance activities, all work within 50 feet of the discovery shall be redirected and a qualified archaeologist, certified by the Society for California Archaeology (SCA) and/or the Society of Professional Archaeology (SOPA), shall be contacted to evaluate the finds and, if necessary, develop appropriate treatment measures in consultation with the County and other appropriate agencies. If the cultural resource is also a tribal cultural resource (TCR) the representative (or consulting) tribe(s) will also require notification and opportunity to consult on the findings.*

   If the deposits are not eligible, avoidance is not necessary. If eligible, deposits will need to be avoided by impacts or such impacts must be mitigated. Upon completion of the archaeological assessment, a report should be prepared documenting the methods, results, and recommendations. The report should be submitted to the Northwest Information Center and appropriate Contra Costa County agencies.

b. *Should human remains be uncovered during grading, trenching, or other on-site excavation(s), earthwork within 30 yards of these materials shall be stopped until the County coroner has had an opportunity to evaluate the significance of the human remains and determine the proper treatment and disposition of the remains. Pursuant to California Health and Safety Code Section 7050.5, if the coroner determines the remains may those of a Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code Section 5097.98, the NAHC will then determine a Most Likely Descendant (MLD) tribe and contact them. The MLD tribe has 48 hours from the time they are given access to the site to make recommendations to the land owner for treatment and disposition of the ancestor's remains. The land owner shall follow the requirements of Public Resources Code Section 5097.98 for the remains.*

Implementing Action:	COA
Timing of Verification:	Prior to CDD stamp approval of plans for the issuance of building/grading permits.
Party Responsible for Verification:	CDD staff

Compliance Verification:	Review of construction plans verifying that CUL-1 measures are included on plan notes printed thereon.

SECTION 18: TRIBAL CULTURAL RESOURCES

Potentially Significant Impacts:

Potential Impact: *Construction and grading could cause ground disturbance which may impact heretofore undocumented tribal cultural resources.*

Potential Impact: *The project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a 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. The expected construction and grading could cause ground disturbance which may impact heretofore undocumented cultural resources.*

Mitigation Measure: *Implementation of mitigations measure CUL-1 would reduce the impact on previously undiscovered tribal cultural resources to a less than significant level.*

Implementing Action:	COA
Timing of Verification:	Prior to CDD stamp approval of plans for the issuance of building/grading permits.
Party Responsible for Verification:	CDD staff
Compliance Verification:	Review of construction plans verifying that CUL-1 measures are included on plan notes printed thereon.