COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

NOTICE OF INTENT TO ADOPT
REVISED MITIGATED NEGATIVE DECLARATION

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.), that the following project: *Half Moon Grow Cannabis Cultivation License Application (Revised IS/MND)*, when adopted and implemented, will not have a significant impact on the environment.

FILE NO.: MNA2018-00022

OWNER: SKRRC LLC

APPLICANT:

Cultivation Licenses
Half Moon Grow, Inc.
3110 E. Garvey Ave S.
West Covina, CA 91791

Nursery License
Half Moon Grow Nursery, Inc.
37K Frenchman's Creek Road
Half Moon Bay, CA 94019

ASSESSOR'S PARCEL NO.: 048-320-020

LOCATION: 37 Frenchman's Creek Road, Half Moon Bay

PROJECT DESCRIPTION

Much of the existing site was developed in the 1960s for agricultural purposes. Several engineered greenhouses and metal barn/storage buildings have been constructed on the site (see attached civil plans – Attachment A). Additionally, associated roadways, parking areas, irrigation system, and other related infrastructure are present on the property and have been used historically to grow orchids, ornamental flowers, and cherry trees. The proposed project (cannabis cultivation) will occupy the existing mixed light greenhouses. Water will be obtained via an existing licensed in-stream diversion as described below. No new construction is proposed.

A total of five greenhouse buildings will be used as shown below (please see Attachment B (architectural plans) for location of referenced greenhouses):

Greenhouse Number	License Type	License Number	Size of Canopy
2	Nursery	TCA18-9557*	4,064 sq. ft.
3	Nursery	TCA18-9557*	37,779 sq. ft.
8	Small Mixed Light	TCA18-9561 TCA18-9564 TCA18-9566	5,940 sq. ft. 9,504 sq. ft. 9,504 sq. ft.
9S	Medium Mixed Light	TCA18-9567#	8,640 sq. ft.
9N	Medium Mixed Light	TCA18-9567#	8,640 sq. ft.

* The applicant for the Nursery license (Half Moon Grow Nursery, Inc.) is proposing to split this license between the two greenhouses.
\# The applicants propose to split the Medium Mixed Light license between the two greenhouses.

In addition to the greenhouses cited above, four existing warehouse buildings will be used for storage of fertilizer and other agricultural supplies, a drying shed, and office/personnel use.

The applicants propose using hydroponic growing practices to minimize water use. All water will be supplied from existing permitted sources. No new water sources are proposed. The applicants are proposing a workforce of eight full-time employees with up to an additional eight part-time employees during harvest periods. No new buildings are proposed.

Water Supply

The existing in-stream water diversion, which has been in place since 2009, is permitted by water right licenses 6556 and 10827 and an existing California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement (LSAA) for use in irrigating an orchid flower farm and fruit orchards present on the property for more than 30 years; both licenses were amended by the State Water Resources Control Board (SWQCB) in 2012 by the former owner/operator to improve efficiency and reduce long-term maintenance requirements that were detrimental to the stream corridor. Diversion under the existing amended licenses and LSAA is confined to the period of January 1 to March 31 of each year. During this period, the required minimum in-stream bypass flow rate has been set at 2.8 cubic feet second (cfs) and stream flow must increase above this rate in order for the applicants to divert water out of Frenchman's Creek. The maximum rate of diversion may not exceed 0.4 cfs (180 gallons per minute) and the total amount of water allowed to be diverted in a single season may not exceed 10.66-acre feet.

The existing state water right licenses will be transferred to the new property owner (Half Moon Grow) as part of the change in ownership/sale of property. The applicant provided written notification to CDFW pursuant to Section 1600 of the Fish and Game Code to apply for a new LSAA subject to the conditions of the former LSAA on September 20, 2018. As part of the notification, water calculations were submitted by the applicants to show that the total annual diversion is not expected to exceed 4.0-acre feet in most years, below the allowable 10.66-acre feet authorized under the existing state license and previous water diversions historically conducted by the prior owner.

Energy

The application materials indicate that the applicants intend to enroll in either PG&E's Solar Choice program or Peninsula Clean Energy's Eco100 clean energy program. Both programs provide electricity from 100% renewable sources. The applicants have stated that they intend to install a PV (solar) system at the site in the future to reduce their costs while still meeting the County's requirements.

FINDINGS AND BASIS FOR A NEGATIVE DECLARATION

The Current Planning Section has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that:

1. The project will not adversely affect water or air quality or increase noise levels substantially.

2. The project will not have adverse impacts on the flora or fauna of the area.

3. The project will not degrade the aesthetic quality of the area.

4. The project will not have adverse impacts on traffic or land use.

5. In addition, the project will not:

   a. Create impacts which have the potential to degrade the quality of the environment.

   b. Create impacts which achieve short-term to the disadvantage of long-term environmental goals.

   c. Create impacts for a project which are individually limited, but cumulatively considerable.

   d. Create environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The County of San Mateo has, therefore, determined that the environmental impact of the project is less than significant.

MITIGATION MEASURES included in the project to avoid potentially significant effects:

Mitigation Measure 1: Prior to the issuance of the requested Type 2B or 3B (Mixed Light, Cultivation) licenses, the applicant shall install a carbon filter system (or a comparable system) on the exhaust outlets for all buildings that will contain flowering cannabis plants or their product. This includes the greenhouses and the drying and processing buildings. The applicant shall also submit a maintenance plan (which includes record keeping) for review and approval prior to issuance of the requested licenses.

Mitigation Measure 2: From the California Department of Fish and Wildlife Lake and Streambed Alteration Agreement for the Half Moon Grow (37 Frenchman's Creek Road) cannabis cultivation license:

- The season of diversion (from Frenchman's Creek) shall be limited from January 1 to March 31 of each year ("forbearance period"). From April 1 to December 31, all water shall be allowed to pass the point of diversion.

- The maximum instantaneous rate of withdrawal (from Frenchman's Creek) shall not exceed 0.4 cubic feet per second (cfs) or 180 gallons per minute (gpm) at any time. The maximum amount of water to be diverted in any one year shall not exceed 10.66-acre feet.

- No water shall be diverted until at least 2.8 cfs is allowed to bypass the existing point of diversion (in Frenchman's Creek).

Mitigation Measure 3: If any buildings that may provide habitat for any species of bat will be significantly altered, modified, or if activities could result in a disturbance to roosting bats, a bat roost survey shall be performed during the appropriate roosting period (April 1 to September 15) prior to any modification, and if bats are present, CDFW shall be consulted before any change in use or modification of the building occurs.

RESPONSIBLE AGENCY CONSULTATION

Regional Water Quality Control Board
California Department of Fish and Wildlife

California Department of Food and Agriculture (CalCannabis Cultivation Licensing)
Bay Area Air Quality Management District

INITIAL STUDY

The San Mateo County Current Planning Section has reviewed the Environmental Evaluation of this project and has found that the probable environmental impacts are insignificant. A copy of the initial study is attached.

REVIEW PERIOD: June 12, 2019 – July 12, 2019

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County Planning and Building Department, 455 County Center, Second Floor, Redwood City, no later than **5:00 p.m., July 12, 2019**.

CONTACT PERSON

Michael Schaller
Project Planner, 650/363-1849
mschaller@smcgov.org

M. Schaller

Michael Schaller, Project Planner

County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** Half Moon Grow Cannabis Cultivation License application (Revised IS/MND)

2. **County File Number:** MNA2018-00022

3. **Lead Agency Name and Address:** San Mateo County Planning Department
455 County Center, 2nd Floor
Redwood City, CA 94063

4. **Contact Person and Phone Number:** Michael Schaller, Senior Planner
650/363-1849

5. **Project Location:** 37 Frenchman's Creek Road
Half Moon Bay, CA 94019

6. **Assessor's Parcel Number and Size of Parcel:** 048-320-020 (164.23 acres)

7. **Project Sponsor's Name and Address:**

Cultivation Licenses	Nursery License
Half Moon Grow, Inc.	Half Moon Grow Nursery, Inc.
3110 E. Garvey Ave S.	37K Frenchman's Creek Road
West Covina, CA 91791	Half Moon Bay, CA 94019

8. **Name of Person Undertaking the Project or Receiving the Project Approval (if different from Project Sponsor):** Same as above.

8. **General Plan Designation:** Agriculture (Rural)

9. **Zoning:** Planned Agricultural Development (PAD)

10. **Description of the Project:** (*Describe the whole action involved, including, but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation.*)

Much of the existing site was developed in the 1960s for agricultural purposes. Several engineered greenhouses and metal barn/storage buildings have been constructed on the site (see attached civil plans – Attachment A). Additionally, associated roadways, parking areas, irrigation system, and other related infrastructure are present on the property and have been used historically to grow orchids, ornamental flowers, and cherry trees. The proposed project (cannabis cultivation) will occupy the existing mixed light greenhouses. Water will be obtained via an existing licensed in-stream diversion as described below. No new construction is proposed.

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The application materials indicate that the applicants intend to enroll in either PG&E's Solar Choice program or Peninsula Clean Energy's Eco100 clean energy program. Both programs provide electricity from 100% renewable sources. The applicants have stated that they intend to install a PV (solar) system at the site in the future to reduce their costs while still meeting the County's requirements.

11. **Surrounding Land Uses and Setting:** Agricultural/Open Space. There is a residence approximately 400 feet west of the southernmost greenhouse on the project parcel. There is another residence approximately 1,000 feet north of the northernmost greenhouse proposed for use under this license application. All surrounding parcels are designated for agricultural or open space use. The nearest school (Half Moon Bay HS) is approximately 1.1 miles south of the Project site. There are no other known protected sites (i.e., day care centers, youth centers or playgrounds, drug or alcohol treatment centers, residentially-designated properties) within 600 feet of the project site.

    The project parcel is approximately 164 acres in size. The western property line is roughly contiguous with Frenchman's Creek. The Creek is bordered by typical Coastal Riparian habitat on both sides. The existing water diversion structure is located within the creek channel with the existing pump house and storage tanks adjacent, but outside the banks of the creek. These structures were constructed under permit in the 1960's. No alterations or modifications of these structures are proposed. Water from the creek diversion is pumped east and uphill to an existing reservoir (approximately 12.25 acre-foot capacity) that has been used historically to provide water storage for the greenhouse complex. The reservoir sits at the top of a ridge that bisects the project parcel. To the east of this ridge lies the canyon in which the greenhouse complex is located. Loess Creek, a tributary to Frenchman's Creek runs through this canyon. Much of Loess Creek was undergrounded sometime in the 1950s or 60s. To the east of this canyon lies a dominant ridge that occupies the entire eastern portion of the project parcel. No activities are proposed in this area of the parcel.

    As part of a separate permitting process to legalize buildings constructed approximately 10 years ago, the applicants have submitted a biological study prepared by Sol Ecology (Attachments C and D). The following information is from that report. Soils at the site are mapped as Miramar coarse sandy loam, Farrallone coarse sandy loam, and Gullied Land (alluvial soil material). The Miramar and Farrallone series consist of moderately deep, well drained soils that formed in material weathered from quartz diorite. These soil types are found on coastal hills and mountains with slopes between 9 to 75 percent, at elevations between 200 to 2,000 feet. Typical vegetation includes coastal shrubs such as monkey flower, sage, and poison oak. Elevations at the Project site range from 150 feet to 400 feet (45 to 120 meters). Vegetation on the developed portions of the Project site consists of disturbed ruderal grassland and ornamental varietals. Surrounding vegetation on the undeveloped areas of the parcel consists of mixed chaparral dominated by shrub species including: coyote brush, coffeeberry, blue blossom, and poison oak. Common wildlife species in these habitats include: Botta's pocket gopher, deer mouse, song sparrow, wrentit, spotted towhee, and western fence lizard.

    Arroyo willow vegetation is present along daylighted portions of Loess Creek both above and below the greenhouse complex. This sensitive community forms a nearly impenetrable thicket along the creek. Other plant species present in this community include California blackberry, white alder, horsetail, sedges, Pacific dogwood, Pacific wax myrtle, and western sword fern, as well as invasive species including English ivy, fennel, and poison hemlock. The project does not propose to alter these areas.

An approximately 0.6-acre perennial wetland is present in the center of the project site. This low-lying feature appears to be the result of man-made modifications including the discharge of steam from the adjacent boiler plant (abandoned) and the collapse of the underground pipe (that Loess Creek used to run through) in 1998. The wetland is characterized by a mix of sedges, rush, and seep monkeyflower. A small channel is also present and receiving water from an unknown source. This channel is surrounded by riparian species including willow, white alder, Pacific dogwood, and Pacific wax myrtle. These features (wetlands and riparian habitat) are more than 50 feet from the nearest structure to be used for cannabis cultivation. The applicants are not proposing to alter or disturb these features.

Based on the presence of biological communities described above and soils at the site, the project site has a low to moderate potential to support five (5) Special Status Plant species: Kellogg's horkelia, arcuate bush-mallow, Choris' popcornflower, chaparral ragwort, and San Francisco campion. All five of these species may be present in the surrounding chaparral habitat, including adjacent to the roadway within the project site. However, the applicants do not propose to disturb these areas as part of this cultivation application.

Seventeen (17) special-status wildlife species have been documented within five miles of the project site. Based on the presence of biological communities described above, the project site has a moderate to high potential to support four (4) of these species including: bats; Monarch butterfly; California red-legged frog (CRLF); San Francisco (saltmarsh) common yellowthroat; and San Francisco dusky-footed woodrat.

San Francisco garter snake is also documented in the Frenchman's Creek riparian corridor but is unlikely to occur on the site due to the large drop outfall located downstream at the confluence of Frenchman's Creek and Loess Creek. Topography at this outfall combined with the approximately 500 feet of undergrounding Loess Creek experiences before daylighting likely precludes most SFGS from moving upstream into habitats on the project site. The outfall is also a barrier to migrating fish, including protected steelhead known to occur in Frenchman's Creek.

There are numerous documented occurrences of CRLF both in Frenchman's Creek and the surrounding vicinity, and the species likely breeds in Frenchman's Creek. However, due to the seasonal nature of Loess Creek it is unlikely that CRLF breed there. While water was observed in the perennial wetland, this feature is not likely to provide breeding habitat due to the absence of open water habitat. A few small step-pools were observed elsewhere in Loess Creek; however, none were deep enough to provide suitable breeding habitat and no water was present during a site visit. Few aquatic invertebrates were seen due to lack of cobble substrate and thus, Loess Creek does not provide ideal foraging habitat for most amphibians. Based on this, adult CRLF may disperse into Loess Creek and its associated riparian habitat at the end of the wet season; though it's likely CRLF do not remain in Loess Creek during the summer and may instead disperse back into Frenchman's Creek or move further into surrounding upland habitats where perennial water sources (stock pond and springs) are present.

There are several special status birds that may also be present and/or nest in the riparian habitat on the project site (both the greenhouse complex and the Frenchman's Creek riparian corridor), including saltmarsh common yellowthroat. This species is also documented in Frenchman's Creek and may utilize willow riparian habitat on the property. San Francisco dusky-footed woodrat may also utilize willow riparian habitat or chaparral on the project site; though no stick houses have been observed during any of the site visits.

Evidence of an active bat roost was observed within one of the metal barns on the project site including guano (droppings) and urine staining. This structure appeared to be in regular use at the time of the assessment for material storage by the previous land owner and is therefore likely a night roost rather than a maternity day roost. Additional roost habitat was also identified on the exterior of an adjacent building (former labor housing), though no sign of active use was observed. The project does not propose demolition or modification to either building, nor does it propose any new or reuse of these two structures, and thus, no significant impact to bats is anticipated.

Lastly, one special status invertebrate, Monarch butterfly may potentially winter roost in trees located on the property. A winter roost site is documented within one mile downstream on Frenchman's Creek near Highway 1. Suitable roost trees are present on the project site, though most are north-facing rather than south-facing and there is no known historic use of these trees for butterfly roosting.

12. **Other Public Agencies Whose Approval is Required:** CalCannabis Cultivation Licensing, (a division of the California Department of Food and Agriculture); Regional Water Quality Control Board; Department of Fish and Wildlife; Bay Area Air Quality Management District

13. **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.?:** *(NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (see Public Resources Code Section 21080.3.2.). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality).*

No California Native American tribe has requested consultation pursuant to Public Resources Code section 21080.3.1. Additionally, the project site has been developed with greenhouses and other supporting buildings and structures for over 40 years. While the County is only obligated to engage in consultation when a California Native American tribe has requested such consultation, and none have done so, it is the County's policy to nonetheless initiate the consultation process when undeveloped land is proposed for development. However, because the project proposes only to reuse existing greenhouses, County staff has determined such outreach is not warranted in this particular instance.

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" or "Significant Unless Mitigated" as indicated by the checklist on the following pages.

	Aesthetics		Energy		Public Services
	Agricultural and Forest Resources		Hazards and Hazardous Materials		Recreation
X	Air Quality		Hydrology/Water Quality		Transportation
X	Biological Resources		Land Use/Planning		Tribal Cultural Resources
	Climate Change		Mineral Resources		Utilities/Service Systems
	Cultural Resources		Noise		Wildfire
	Geology/Soils		Population/Housing	X	Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other California Environmental Quality Act (CEQA) process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to

applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

1. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
1.a. Have a substantial adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?				X
Discussion: The proposed cultivation will occur within existing greenhouse buildings. No new structures are proposed. The Project site is located in a canyon and is not readily visible any existing residentially zoned areas. No public lands, water bodies or roads are adjacent to the Project site which might be impacted by the re-use of these existing buildings. **Source:** County of San Mateo, 1986, General Plan Policies; County of San Mateo Local Coastal Program; County GIS; Site Reconnaissance				
1.b. Substantially damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
Discussion: As stated above, no new buildings or other significant external structural changes are proposed on the Project site. The Project site is not within the view shed of a state scenic highway. There are no historic buildings on the Project site. **Source:** San Mateo County GIS				
1.c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings, such as significant change in topography or ground surface relief				X

	features, and/or development on a ridgeline? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				

Discussion: The Project site is within a non-urbanized area, however, the proposed project will occur entirely within existing greenhouse structures and therefore will not modify the existing visual character of the site. See discussion under Question 1(a).

Source: Project Applications, Site Reconnaissance

1.d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?			X	

Discussion: As discussed above in the project description section, cultivation activities will be divided amongst five existing greenhouse buildings. Plants that are in the "germination" or "seedling" stage start their lifecycles in the Nursery buildings (Buildings 2 and 3 on the site plan). These two buildings currently do not have artificial lighting (aka "grow lights"), however, the applicants are proposing to install such lighting into these two buildings. Once plants have grown into the "mature" stage, they will be transferred into one of the three other greenhouses (Buildings 8, 9S or 9N). These three greenhouses are already equipped with artificial lighting. There is a history of artificial "grow light" usage at the site, however, the site has been in a relatively low level of usage for the last 1-2 years and thus the use of the existing grow lights during this period has been limited.

The Environmental Impact Report adopted by the CalCannabis Cultivation Licensing Division during the creation of the State's cannabis cultivation regulations acknowledges the potential for new sources of nighttime light and included required screening measures to reduce potential impacts:

> "[M]ixed-light cultivation of cannabis involves the cultivation of cannabis using both natural and artificial light and darkness for the purpose of controlling the life cycle of the plant. Techniques used to manipulate light, such as using tarps or other measures to exclude natural light or using low- or high intensity artificial lighting systems, could be visible outside of greenhouses or other mixed light facilities during the daytime or at night and could create a nuisance to adjacent and nearby properties, residences, and/or motorists traveling on affected roadways. The degree to which such lighting would create adverse impacts on sensitive receptors would vary widely among proposed cultivation sites, but could be significant in some locations. The Proposed Program regulations, however, would include implementation of environmental protection measures requiring that artificial lighting used for the manipulation of plant growth cycles be shielded to minimize the visual effects of the presence of lighting and nighttime glare (Section 8314; see Appendix A). Therefore, visual impacts from the Proposed Program would be less than significant."
>
> California Department of Food and Agriculture, CalCannabis Cultivation Licensing, Final PEIR, November 2017

Consistent with this analysis, the State regulations (CalCannabis Regulations) contain the following requirement:

§ 8304. General Environmental Protection Measures.

(g) Mixed-light license types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare.

Because the project is required to satisfy this State requirement, Staff has determined that there will be no significant visual impact due to the use of grow lights at the facility.

Also, to address the potential for fugitive light to escape the Project site due to security lighting, the CalCannabis Regulations also require:

§ 8304 General Environmental Protection Measures.

(c) All outdoor lighting used for security purposes shall be shielded and downward facing.

The applicants have submitted preliminary architectural plans which show compliance with both of these State regulatory requirements.

Source: California Code Of Regulations, Title 3. Food And Agriculture, Division 8. Cannabis Cultivation, Chapter 1. Cannabis Cultivation Program (CalCannabis Regulations); Project Plans

1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?				X

Discussion: The Project site is not adjacent to or within the boundaries of a State or County Scenic Corridor.

Source: San Mateo County GIS

1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?				X

Discussion: The Project site is not within a Design Review District.

Source: San Mateo County GIS

1.g.	Visually intrude into an area having natural scenic qualities?				X

Discussion: The proposed project will occur entirely within existing greenhouse structures and therefore will not modify the existing visual character of the site. See discussion under Question 1(a).

Source: County of San Mateo, 1986, General Plan Policies; County of San Mateo Local Coastal Program; County GIS; Site Reconnaissance

2. AGRICULTURAL AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
2.a.	For lands outside the Coastal Zone, 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?				X

Discussion: The Project site is within the Coastal Zone. The proposed use of the existing under-utilized greenhouses to grow cannabis will revitalize their historic use as agricultural structures. The project will not convert any farmland to non-agricultural use.

Source: San Mateo County GIS

2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X

Discussion: The Project site is zoned for agricultural use; cultivation of cannabis is an agricultural activity consistent with this agricultural zoning. The proposed site is not subject to an existing Open Space Easement or Williamson Act contract.

Source: San Mateo County Zoning Regulations; San Mateo County GIS

2.c.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use?				X

Discussion: See discussion under Question 2(a) and (b).

Source:

2.d.	For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?				X
Discussion: The proposed project will utilize the existing greenhouses on the site. No new buildings are proposed. No lands will be converted or divided. **Source:** San Mateo County GIS					
2.e.	Result in damage to soil capability or loss of agricultural land?				X
Discussion: Because the project will be entirely located within existing greenhouse structures, there is no potential for damage to soil capability or loss of agricultural land. See discussion under Question 2(a) and (d). **Source:**					
2.f.	Conflict with existing zoning for, or cause rezoning of, forestland (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))? *Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.*				X
Discussion: The Project site does not contain forestland or timberland. **Source:** San Mateo County GIS					

3.	**AIR QUALITY**. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
3.a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
Discussion: Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the Bay Area Air Quality Management District (District) 2017 Bay Area Clean Air Plan. Currently, the Project site is occupied by vacant greenhouses that were historically used for production of greenhouse flowers. The proposed project is expected to require approximately eight full-time					

employees, and up to an additional eight part-time employees during harvest season. While the re-introduction of activities in the vacant greenhouses will increase operational vehicle trips above existing conditions, the proposed project is not expected to generate significant new operational vehicle trips above historic levels or those that could be expected with any other agricultural activity permitted by right at the site. In addition, a project of this size will not substantially affect housing, employment, and population projections within the region, which is the basis of the Bay Area Clean Air Plan projections.

Therefore, the proposed project is not considered a regionally significant project (under CEQA Guidelines Section 15206) that will affect regional vehicle miles traveled (VMT) and warrant intergovernmental review by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC).

Furthermore, the project falls under the threshold levels contained in BAAQMD's screening criteria, which is used to identify projects that have the potential to generate emissions that exceed the District's operational emissions thresholds. These thresholds were established to identify projects that have the potential to generate a substantial amount of criteria air pollutants. Because the project will not exceed these thresholds, the project is not considered by the District to be a substantial emitter of criteria air pollutants. Therefore, the Project will not conflict with or obstruct implementation of the 2017 Bay Area Clean Air Plan and any impacts are considered less than significant.

Source: Bay Area Air Quality Management District (BAAQMD), 2017. Bay Area 2017 Clean Air Plan. Project Plans

3.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?			X	

Discussion: The proposed project will utilize existing greenhouse buildings. There is no evidence to suggest that the cultivation activities will generate significant new levels of criteria air pollutants (ROG, NOx, PM_{10} and $PM_{2.5}$), or Toxic Air Contaminants (TAC), or Greenhouse Gases (GHGs). The proposed project does not include any construction activities which would generate criteria air pollutants, TACs or GHGs. Nor is there evidence to suggest that the cultivation process will generate significant levels of GHGs.

There are two small stationary diesel generators on the Project site. Both are contained within buildings on the site (Buildings 5 and 12 on the site plan). These generators were installed by previous property owners. At the present time, the applicants have not been able to ascertain whether the previous property owner has registered these generators with the BAAQMD in accordance with the District's Regulation 11, Rule 17 (*Limited Use Stationary Compression Ignition (Diesel) Engines in Agricultural Use*). This rule provides an exemption for very-low use (less than 20 hours per year) stationary engines. But the owner or operator of a stationary agricultural diesel engine must register the engine in the District's Agricultural Diesel Engine Registration Program, and renew registration annually. The program also requires an owner or operator to document the number of hours the generator is used during the year.

In addition to the Air District's regulations, Section 8306 (*Generator Requirements*) of the CalCannabis Regulations require license applicants using generators to demonstrate compliance with the above rule by providing "a Permit to Operate, or other proof of engine registration, obtained from the Local Air District with jurisdiction over the licensed premises." Additionally, Section 8306 requires:

(d) All generators shall be equipped with non-resettable hour-meters. If a generator does not come equipped with a non-resettable hour-meter an after-market non-resettable hour-meter shall be installed.

Any future use of the diesel generators for the proposed cultivation activities will be in compliance with the CalCannabis Regulations and subject to the registration and operating requirements of the District. Compliance with these requirements will ensure that the project will not generate a cumulatively considerable increase in criteria air pollutants.

Source: Bay Area Air Quality Management District (BAAQMD), 2017. Bay Area 2017 Clean Air Plan; Bay Area Air Quality Management District (BAAQMD), 2011: Regulation 11 (Hazardous Pollutants), Rule 17 - Limited Use Stationary Compression Ignition (Diesel) Engines In Agricultural Use; California Code Of Regulations, Title 3. Food And Agriculture, Division 8. Cannabis Cultivation, Chapter 1. Cannabis Cultivation Program (CalCannabis Regulations); Project Plans

3.c.	Expose sensitive receptors to substantial pollutant concentrations, as defined by the Bay Area Air Quality Management District?				X

Discussion: See discussion under Question 3(b).

Source:

3.d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?		X		

Discussion: Odors are not a regulated air pollutant such as PM10 or ROG. As such, the BAAQMD has developed qualitative parameters that should be considered when considering project level odor issues. The District has established odor screening thresholds for certain odor generating land uses. Cannabis cultivation operations are not on the list of odor generating land uses. However, Composting Operations are on the list. The District has established a threshold of one mile between this category of odor source (Compost Operations) and receptor. In other words, if the distance between the odor source and a receptor is less than one mile, then there will likely be an odor impact upon the receptor. As a proxy, the County proposes to use the "Composting Operations" category to establish whether there could be a potential odor impact upon nearby residences (to this proposed cannabis operation).

There are two residences within a one-mile radius of the project site. Both residences could be exposed to odor impacts due to the release of exhaust air from the greenhouses that will be utilized for the flowering plants. At the present time, there are no odor control devices on the exhaust fans of the project greenhouses. The following mitigation measure will mitigate this potentially significant impact:

> **Mitigation Measure 1:** Prior to the issuance of the requested Type 2B or 3B (Mixed Light, Cultivation) licenses, the applicant shall install a carbon filter system (or a comparable system) on the exhaust outlets for all buildings that will contain flowering cannabis plants or their product. This includes the greenhouses and the drying and processing buildings. The applicant shall also submit a maintenance plan (which includes record keeping) for review and approval prior to issuance of the requested licenses.

The odor associated with cannabis plants occurs during the flowering stage when buds begin to grow on each plant. This is not an issue during the plant's early "seedling" stage, when individual

plants are being propagated in the nursery greenhouses. Thus odor control measures are not necessary on the buildings proposed for nursery use.

With the installation of an odor control system on all buildings containing flowering cannabis plants and or their product, the odor that may be generated by the concentration of a large number of plants will be minimized to below a significant level.

Source: Bay Area Air Quality Management District (BAAQMD), CEQA Air Quality Guidelines (2017); CDFA CalCannabis DEIR, Vol. 1

4. BIOLOGICAL RESOURCES. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
4.a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		

Discussion: As discussed in the Surrounding Land Uses and Setting section, there are several plant and animal species that have the potential to occur on the project parcel, either in the riparian corridor adjacent to Frenchman's Creek, the fragmentary habitat within the greenhouse complex, or the intervening chaparral habitat on the dividing ridge. As discussed in the project description section, no disturbance or other modifications to these habitat areas are proposed. Because no activities are proposed in or immediately adjacent to these areas, there is no evidence to indicate that the project will have a significant impact on these fragmentary habitats or species relying upon them.

The stream withdrawal structure in Frenchman's Creek (which supports steelhead) does not need to be modified or improved to allow for continued water withdrawal out of this creek, so there will be no direct impact such as could be associated with construction within the creek. As discussed previously, the applicants hold an historic license to divert water (up to 10.66 acre-feet per year for off-stream storage). The previous nursery owner held a Lake and Streambed Alteration Agreement (LSAA) with the California Department of Fish & Game (now Fish & Wildlife or CDFW) which authorized water withdrawals consistent with these limits. The applicants have applied for a new LSAA under their name with no proposed changes to the withdrawal structures, amounts of water, or period of water withdrawals.

Withdrawing water from a creek that supports steelhead can have potentially significant impacts if such withdrawals occur during the dry season, when the potential to dewater a creek is more likely. To prevent such an occurrence, CDFW, in their proposed draft LSAA, included the following Avoidance and Minimization Measures, which are also imposed here as mitigation measure to ensure no significant impact will occur.

Mitigation Measure 2

- The season of diversion (from Frenchman's Creek) shall be limited from January 1 to March 31 of each year ("forbearance period"). From April 1 to December 31, all water shall be allowed to pass the point of diversion.

- The maximum instantaneous rate of withdrawal (from Frenchman's Creek) shall not exceed 0.4 cubic feet per second (cfs) or 180 gallons per minute (gpm) at any time. The maximum amount of water to be diverted in any one year shall not exceed 10.66-acre feet.

- No water shall be diverted until at least 2.8 cfs is allowed to bypass the existing point of diversion (in Frenchman's Creek).

Because there will be no change in the point of diversion, nor any of the infrastructure supporting said diversion, nor a change in the quantity or time of year in which water may be diverted (as required by Mitigation Measure 2 and to be required under the CDFW LSAA), there will be no new significant impact associated with continuation or resumption of historic water diversion from the creek.

As discussed under the Surrounding Land Uses and Settings section, the project site potentially provides habitat for several listed species, including bats, CRLF and San Francisco dusky footed woodrat. As previously discussed, no ground disturbance is proposed as part of this license application. Because no ground disturbance or development of new areas is proposed, there will be no new significant impact related to these species.

Regarding the potential presence of bats on the project site, as stated previously, evidence of an active roost was observed within one of the metal barns on the project site. Additional roosting habitat was also identified on the exterior of an adjacent building (former labor housing), though no sign of active habitation was observed. Removal or demolition of either building could result in a significant impact to bats. At this time, however, no demolition or modification to either building is proposed, nor does the project propose to reuse or occupy either of the buildings with indications of bat activity and thus, no significant impact to bats is anticipated. However, if, in the future, the applicants decide they wish to utilize said buildings or modify them in some way, then there could be a potential impact to bats if they are present at that time. To ensure that no unanticipated impacts to roosting bats occur, the applicants' biologist has recommended the following measure:

Mitigation Measure 3: If any buildings that may provide habitat for any species of bat will be significantly altered, modified, or if activities could result in a disturbance to roosting bats, a bat roost survey shall be performed during the appropriate roosting period (April 1 to September 15) prior to any modification, and if bats are present, CDFW shall be consulted before any change in use or modification of the building occurs.

Source: *Loess Creek Grading Violation & Restoration Project Biological Resources Report*, Sol Ecology, Inc., October 2018; *Biological Addendum Report for 37 Frenchman's Creek Road (for Half Moon Grow)*, Sol Ecology, Inc., April 2019

4.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 Wildlife or U.S. Fish and Wildlife Service?				X

Discussion: As discussed above, there will be no physical changes to the existing stream diversion structure on Frenchman's Creek. Nor will there be a change to the rate, total amount or time of year during which water can be withdrawn from the Creek. The project will not have a new, significant impact upon the riparian habitat of Frenchman's Creek. With regards to the fragmentary riparian habitat within the greenhouse complex, no cultivation activities or other potential ground disturbing activities are proposed under this cultivation license. All activities will continue to occur within the existing greenhouse buildings. **Source:** Project plans, site reconnaissance					
4.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?				X
Discussion: While there are fragmentary wetlands on the Project site as described in the Surrounding Land Uses and Setting section, no new activities will occur near these areas. No removal, filling, or hydrological interruption is proposed or required in order to conduct cultivation activities on the site. **Source:** *Loess Creek Grading Violation & Restoration Project Biological Resources Report*, Sol Ecology, Inc., October 2018; Project plans					
4.d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
Discussion: See discussion under Question 4(a). **Source:**					
4.e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?				X
Discussion: No vegetation or tree removal is proposed as part of this cultivation application. All activities associated with cultivation will occur within the existing greenhouses. **Source:** Project Plans					
4.f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?				X

Discussion: There are no adopted Habitat Conservation Plans or other such plans that include the Project site. The only adopted HCP in San Mateo County is the San Bruno Mountain HCP, located approximately 12 miles north of the Project site. **Source:** SMCo. GIS					
4.g.	Be located inside or within 200 feet of a marine or wildlife reserve?				X
Discussion: There are no marine or wildlife reserves near or adjacent to the Project site. **Source:** Project plans, SMCo. GIS					
4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X
Discussion: There are no oak woodlands or other non-timber woodlands on the Project site. **Source:** Project plans, SMCo. GIS, Site Reconnaissance					

5.	**CULTURAL RESOURCES**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
5.a.	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				X
Discussion: All proposed cultivation will occur within existing greenhouses. These buildings do not meet the definition of historical resources. No new buildings or land are proposed for development. Because all activities will occur within existing greenhouses, there is no evidence to suggest that any documented or undocumented cultural resources will be modified or adversely impacted. **Source:** Project plans, SMCo. GIS					
5.b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?				X
Discussion: See discussion under Question 5(a). **Source:**					
5.c.	Disturb any human remains, including those interred outside of formal cemeteries?				X
Discussion: As discussed above, all proposed cultivation will occur within existing greenhouses. The Project site has been developed with greenhouses and other support buildings for over 40					

years. No new buildings or land are proposed for development. There is no evidence to suggest that human remains are interred on the Project site. Regardless of the presence or lack of human remains on the site, the applicants are still subject to Section 8304 of the CalCannabis Regulations which state:

> § 8304. General Environmental Protection Measures.
>
> (d) Immediately halt cultivation activities and implement Section 7050.5 of the Health and Safety Code if human remains are discovered;

Source: California Code Of Regulations, Title 3. Food And Agriculture, Division 8. Cannabis Cultivation, Chapter 1. Cannabis Cultivation Program; Project Plans

6. ENERGY. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
6.a.	Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				X

Discussion: The greenhouse complex is in existence, and while some minimal physical improvements are proposed (security systems, fire hydrants, etc.) there is no evidence to indicate that these improvements will be constructed in a wasteful or inefficient manner. There is a cost benefit incentive for the applicants to construct these improvements in the most efficient manner possible. In addition, while the applicants have not yet contracted with a construction company to build these improvements, the applicants have committed to hiring a local construction firm, as opposed to hiring a firm from outside of the County which would have to bring their equipment and crews in from a farther distance, which would require more consumption of fuel to reach the Project site on a daily basis.

A review of the building plans submitted by the applicants does not indicate any unnecessary or wasteful energy consumption. The higher intensity lighting is confined to only those buildings where cannabis will be grown. No other large energy consuming uses are shown or proposed on the plans (for example, placing high energy lights in buildings where no cultivation is proposed). The applicants propose to install LED lighting which is currently the most efficient form of artificial lighting. There is no evidence to indicate that this proposed cultivation operation will be operated in a wasteful manner with regards to energy.

The primary source of energy consumption at the Project site will be associated with the use of grow lights within the greenhouses. The applicants propose installing LED grow lights in Buildings 2 & 3 (Nursery), Building 8 (small cultivation) and Buildings 9N and 9S (medium cultivation), as shown on the architectural plans included in Attachment B of this report. Energy consumption will range from 10 watts/sq. ft. (Buildings 2 & 3) to 5.2 watts/sq. ft. in the three mature plant buildings.

Section 5.148.160(n) of the County's Cannabis Cultivation Ordinance requires:

> All electrical power, including, without limitation, for illumination, heating, cooling, and ventilation, shall be provided by on-grid power with 100% renewable energy source or

on-site zero net energy renewable source such that annual consumed energy is less than or equal to the on-site renewable generated energy.

The application materials indicate that the applicants intend to enroll in either PG&E's Solar Choice program or Peninsula Clean Energy's Eco100 clean energy program. Both programs provide electricity from 100% renewable sources and are 100% carbon free. The applicants have stated that they intend to install a PV (solar) system at the site in the future to reduce their costs while still meeting the County's requirements.

Source: Project plans; PG&E Solar Choice; Peninsula Clean Energy.com/energy-choices; San Mateo County Cannabis Cultivation Ordinance

6.b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.				X

Discussion: There is no evidence to suggest that any aspect of the project will conflict with the County's Climate Action Plan (which incorporates Clean Energy policies) or the State's Title 24 building energy efficiency standards. As stated above, the project must utilize 100% renewable energy sources either from the electrical grid and/or generate sufficient renewable energy on-site to meet the requirements of the County's Cannabis Cultivation Ordinance.

Source: San Mateo County Cannabis Cultivation Ordinance

7. GEOLOGY AND SOILS. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in:			X	
	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? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*				X

Discussion: The nearest identified earthquake fault zone is located approximately 2.8 miles west of the project location. There is no additional evidence to conclude that the Project site is subject to fault rupture.

Source: Alquist-Priolo Earthquake Fault Zoning Map (Half Moon Bay Quad) – Calif. Dept. of Conservation

ii. Strong seismic ground shaking?			X	
Discussion: The nearest known fault zone to the Project site is the Seal Cove fault zone which is approximately 2.8 miles west of the Project site. The San Andreas fault zone lies approximately 4.5 miles northeast of the Project site. A major earthquake along either fault line could produce strong ground shaking. The proposed project will utilize the existing greenhouse buildings which were built in accordance with the building code at the time of their construction. These existing buildings are non-habitable and have withstood previous earthquake events, including the 1989 Loma Prieta earthquake. **Source:** Alquist-Priolo Earthquake Fault Zoning Map (Half Moon Bay Quad) – Calif. Dept. of Conservation; Project Plans				
iii. Seismic-related ground failure, including liquefaction and differential settling?				X
Discussion: The Project site is not within a mapped liquefaction hazard zone or on soils known to be susceptible to liquefaction or differential settling. **Source:** Calif. Geological Survey Seismic Hazards Zones maps; Project Plans				
iv. Landslides?				X
Discussion: The Project site is not within a mapped landslide hazard zone. No new buildings are proposed as part of this proposed project. There is no evidence to conclude that adjacent slopes will fail and damage the existing structures on the Project site. **Source:** Calif. Geological Survey Landslide Hazards Zones maps; Project Plans				
v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*				X
Discussion: The Project site is over a mile from the nearest coastal bluff. There is no evidence to suggest that instability of this bluff will have any impact upon the existing buildings on the Project site. **Source:** SMCo. GIS				
7.b. Result in substantial soil erosion or the loss of topsoil?				X
Discussion: No construction or soil disturbance is proposed as part of this application. All cultivation activities will occur within existing greenhouse buildings which have concrete floors. **Source:** Project Plans, Site visit				
7.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				X

	landslide, lateral spreading, subsidence, severe erosion, liquefaction or collapse?				
Discussion: There is no evidence to suggest that the underlying geology or surface soils on the Project site are unstable, nor are any activities proposed that would create new instability. All cannabis-related activities will occur within existing structures. **Source:** SMCo. GIS, Project plans					
7.d.	Be located on expansive soil, as defined in Table 18-1-B of Uniform Building Code, creating substantial direct or indirect risks to life or property?				X
Discussion: See discussion under Question 7(c). **Source:**					
7.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?				X
Discussion: As discussed previously, no new buildings are proposed. There is no evidence to suggest that the existing septic systems on the site need to be replaced or modified at this time. **Source:** Project plans					
7.f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
Discussion: There are no known paleontological resources on-site, nor have any unique geologic features been identified on or in the immediate vicinity of the Project site. **Source:** SMCo. GIS					

8.	**CLIMATE CHANGE**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
8.a.	Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?			X	

Discussion: San Mateo County lies within the boundaries of the Bay Area Air Quality Management District (BAAQMD or District) and all development within the County is subject to compliance with the District's Clean Air Plan. The District's approach to developing a *Threshold of Significance* for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. If a project will generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact, and would be considered significant. The District has established 1,100 metric tons per year of Carbon Dioxide Equivalent (CO_{2e}) as the threshold of significance.

No new structures or other significant construction is proposed as part of this license application. Direct carbon emissions from the Project site due to operational activities are limited. No significant activities involving the use of gasoline or diesel powered motors are proposed or anticipated. The applicants are not proposing to use carbon enrichment techniques as part of their cultivation process. Nearly all activities are electrically powered, including lighting, irrigation pumps and ventilation units.

The project utilizes greenhouses, as required by the County's ordinance. This means that the cultivation will rely upon sunlight for the majority of the photosynthesis process, unlike indoor growing operations which must rely entirely upon artificial light. For this proposed project, the amount of usage of grow lights will vary depending upon the time of year. Assuming a "worst case scenario" of electrical usage during the middle of December (shortest amount of daylight), it is estimated that maximum instantaneous power draw (lighting and ventilation units), at full site usage, will be 569 kW. This number assumes that every grow light and every exhaust fan are running at the same time, an unlikely scenario given the way that plants will be rotated through their growing cycles. Based upon a maximum instantaneous power draw of 569 kW and 14.5 hours of "night time" conditions during the worst case December growing period, estimated daily energy usage is 8,250 kilowatt hours (kWh). Using non-renewable sources of electricity, this level of energy usage could result in a significant impact related to GHG emissions necessary to produce the electricity. However, as stated above in the Energy section, the project is required to utilize 100% renewable energy, which has no associated operational GHG emissions.

Based on this analysis, the project is determined to have a less-than-significant impact in regard to either direct or indirect generation of GHG emissions.

Source: Bay Area Air Quality Management District (BAAQMD), 2017. Bay Area 2017 Clean Air Plan; Project Plans

8.b.	Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion: As discussed above, the BAAQMD has determined that a project that generates GHG emissions above the 1,100 metric ton threshold would be in violation of the District's Clean Air Plan. However, due to the Cannabis Ordinance's requirement that all electrical power for this project must be obtained from 100% renewable energy sources (either from the electrical grid and/or from on-site), the project will not be in violation of the Clean Air Plan.

Source: Bay Area Air Quality Management District (BAAQMD), 2017. Bay Area 2017 Clean Air Plan; Project Plans

8.c.	Result in the loss of forestland or conversion of forestland to non-forest				X

	use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?				
Discussion: The project involves the re-use of existing greenhouse buildings. No forestland will be lost or converted. **Source:** SMCo. GIS, Project plans					
8.d.	Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?				X
Discussion: The nearest coastal bluff is over one mile to the west of the Project site. There is insufficient evidence to suggest that sea level rise or bluff erosion will be severe enough to impact the Project site. **Source:** SMCo. GIS					
8.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X
Discussion: See discussion under Question 8(d). **Source:**					
8.f.	Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: As stated previously, the proposed project will utilize existing buildings and structures on the Project site. No new structures or buildings are proposed. **Source:** Project plans					
8.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See discussion under Question 8(f). **Source:**					

9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
9.a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?			X	

Discussion: The applicants propose to limit any chemical controls (products classified as pesticides or fungicides) to be used on their plants to those substances listed on the California Department of Pesticide Regulation's "Legal Pest Management Practices for Cannabis Growers in California" document. These substances are exempt from residue tolerance requirements and either exempt from registration requirements or registered for a use broad enough to include use on cannabis. This proposed practice is consistent with Section 8307 of the CalCannabis Regulations which states:

§ 8307. Pesticide Use Requirements.

(a) Licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide Regulation.

(b) For all pesticides that are exempt from registration requirements, licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide regulation and with the following pesticide application and storage protocols:

(1) Comply with all pesticide label directions;

(2) Store chemicals in a secure building or shed to prevent access by wildlife;

(3) Contain any chemical leaks and immediately clean up any spills;

(4) Apply the minimum amount of product necessary to control the target pest;

(5) Prevent offsite drift;

(6) Do not apply pesticides when pollinators are present;

(7) Do not allow drift to flowering plants attractive to pollinators;

(8) Do not spray directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies;

(9) Do not apply pesticides when they may reach surface water or groundwater; and

(10) Only use properly labeled pesticides. If no label is available consult the Department of Pesticide Regulation.

While cannabis is a newly legal agricultural crop in California, any pesticide or herbicide use associated with its production is subject to the same rules and regulations as any other agricultural crop. The California Department of Pesticide Regulation and the San Mateo County Agricultural Commissioner enforce the use and sale of pesticides under Divisions 6 and 7 of the California Food and Agricultural Code, and Title 3 of the California Code of Regulations and are reflected in Section 8307 (above) and Section 5.148.160(q) of the County's Commercial Cannabis Cultivation ordinance. These laws and regulations apply to all pesticide use; cannabis is no exception. The applicants are required to comply with the regulations regarding transportation, use and storage of all regulated pesticides and herbicides. Compliance with these State and local regulations is administered by the County's Agricultural Commissioner which is the local enforcement authority for the California Department of Food and Agriculture and the California Department of Pesticide Regulation. Compliance with these regulations will reduce any potential impact to a less-than-significant level.

In addition to pesticides and other chemical pest controls that are typically associated with agriculture, some forms of cannabis cultivation (primarily fully indoor grows) are known for the use of carbon dioxide enrichment. This is to off-set the sealed nature of a fully indoors growing environment. Because this license application will utilize mixed-light greenhouses (which have windows that can be opened to allow fresh air in), the use of carbon dioxide enrichment is not needed nor proposed by the applicants.

Source: California Code Of Regulations, Title 3. Food And Agriculture, Division 8. Cannabis Cultivation, Chapter 1. Cannabis Cultivation Program; California Department of Pesticide Regulations - "Legal Pest Management Practices for Cannabis Growers in California" (2017); San Mateo County Cannabis Cultivation Ordinance; Project Plans

9.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?			X	

Discussion: See discussion under Question 9(a).

Source:

9.c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X

Discussion: There are no existing or planned schools within .25 miles of the Project site.

Source: SMCo. GIS

9.d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X

Discussion: This question is in reference to the "Hazardous Waste and Substances Sites List" also known as the Cortese List. This list is a planning document used by the State, local agencies, and developers to comply with the California Environmental Quality Act requirements in providing

information about the location of hazardous materials release sites. The Project site is not on said list. **Source:** California Department of Toxic Substances Control "EnviroStor" website					
9.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?				X
Discussion: The Project site is outside of the adopted airport safety zone for the Half Moon Bay airport, which is located approximately 3.5 miles north-west of the Project site. **Source:** SMCo. GIS					
9.f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
Discussion: There is no evidence to suggest that the project will interfere with any emergency response plan. No work will occur that will impede or close a public road. **Source:** Project Plans, Site visit, County GIS database					
9.g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	
Discussion: See discussion under Questions 20(a) – (d). **Source:**					
9.h.	Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The Project site is not within a mapped 100-year flood hazard area, nor does the project contain a housing component. **Source:** Project Plans, County GIS database					
9.i.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: The Project site is not within a mapped 100-year flood hazard area. **Source:** County GIS database					

9.j.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
Discussion: There are no dams or levees on or adjacent to the Project site. See discussion under Question 8(j) for discussion of flood potential. **Source:** Project Plans, County GIS database					
9.k.	Inundation by seiche, tsunami, or mudflow?				X
Discussion: The Project site is outside of any mapped tsunami zones. There are no lakes or other water bodies on or immediately adjacent to the buildings on the Project site that could be susceptible to seiche (A short-term standing wave oscillation of the water level in a lake, characteristic of its geometry). There are no substantial rivers or creeks on the Project site that could serve as a transportation medium for a mudflow event. **Source:** Project Plans, County GIS database					

10.	**HYDROLOGY AND WATER QUALITY**. Would the project:	***Potentially Significant Impacts***	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
10.a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?			X	
Discussion: The applicants propose using a hydroponic growing system which minimizes the production of irrigation tail water. To maintain suitable growing conditions, wastewater is discharged from hydroponic systems when the irrigation water contains excessive salinity or nutrients. Irrigation tail water is generated when excess water drains from the growth media. Irrigation tail water or hydroponic wastewater may contain nutrients (e.g., phosphate or nitrate), salinity constituents (e.g., sodium, chloride, potassium, calcium, sulfate, magnesium), and other constituents (e.g., iron, manganese, zinc, molybdenum, boron, and silver). Other sanitation-based wastewaters may also be generated at commercial cannabis cultivation sites. These miscellaneous industrial wastewaters may contain biocides, bleach mixtures, or other chemical waste streams. The State Water Resources Control Board (SWRCB or Water Board) regulates the discharge of waste materials that could affect the quality of the waters of the state. Water Code section 13260					

requires that any person discharging waste or proposing to discharge waste that could affect the quality of the waters of the state must file a report of waste discharge to obtain coverage under waste discharge requirements (WDRs) or a waiver of WDRs. In establishing a regulatory program for cannabis cultivation, SWRCB has created a tiered system depending upon the type (indoor or outdoor) and size of cultivation. Commercial cannabis cultivation activities that occur within a structure with a permanent roof, a permanent impermeable floor (e.g., concrete or asphalt paved), and that discharge irrigation tail water, hydroponic wastewater, or other miscellaneous industrial wastewaters from indoor cannabis cultivation activities to an on-site wastewater treatment system (such as a septic tank and leach field), must obtain separate regulatory authorization (e.g., WDRs, conditional waiver of WDRs, or other permit mechanism) to discharge the wastewater.

Additionally, Section 5.148.160(k) of the County's Commercial Cannabis Cultivation ordinance requires all "runoff containing sediment or other waste or byproducts, including, without limitation, fertilizers and pesticides, shall not be allowed to drain to the storm drain system, waterways, or adjacent lands, and shall comply with all applicable State and federal regulations."

The applicants have applied for and received a Conditional Waiver of Water Quality from the Water Board. As such, the project has complied with the Water Board's "Cannabis Cultivation Policy" and "General Waste Discharge Requirements". The cultivation activities will not exceed the wastewater treatment requirement of the Water Board.

The proposed cultivation activities will produce relatively little wastewater. Irrigation tail water, hydroponic wastewater, or other miscellaneous industrial wastewater that is generated by the hydroponics growing system will be discharged to a collection tank. The wastewater in the collection tank will be regularly collected by an authorized waste hauler who will dispose of the wastewater at a licensed community sewer system treatment facility, consistent with the Water Board's sewer system requirements and as approved by the Water Board.

Source: *Cannabis Cultivation Policy - Principles and Guidelines for Cannabis Cultivation*, State Water Resources Control Board, October 2017; *Notice Of Applicability, Conditional Waiver Of Water Quality Order WQ-2017-0023-DWQ, Half Moon Grow, Inc, San Mateo County*, San Francisco Bay Regional Water Quality Control Board; San Mateo County Cannabis Cultivation Ordinance; Project Plans

10.b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X

Discussion: There is a well on the site. However, as discussed previously, this project will utilize surface water withdrawn from Frenchman's Creek as permitted by their historic license for diversion. Because the project will rely upon this surface water, there is no evidence to indicate that the project will utilize the groundwater well to such an extent as to substantially decrease local groundwater levels.

Source: Project Plans

10.c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				X

i. Result in substantial erosion or siltation on- or off-site;				X
Discussion: The proposed cannabis cultivation will occur within existing greenhouses. No new buildings or structures are proposed. The applicant is not proposing to alter the existing drainage patterns on the Project site. **Source:** Project Plans, Site visit				
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				X
Discussion: The proposed project will continue to utilize the existing greenhouse buildings/ structures on the site. No new buildings are proposed. Absent any physical alteration of the site, there is no evidence to conclude that cannabis cultivation will increase the rate or amount of surface runoff above existing levels. **Source:** Project Plans, Site visit				
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				X
Discussion: See discussion under Question 10(c)(ii). **Source:**				
iv. Impede or redirect flood flows?				X
Discussion: See discussion under Question 10(c)(i) and (ii). **Source:**				
10.d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
Discussion: See discussion under Questions 9(i), (j) and (k). **Source:**				
10.e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X
Discussion: As discussed previously, the project will rely primarily upon surface water diverted (primarily) from Frenchman's Creek. There is an existing agricultural well on the Project site, however, the applicants do not anticipate needing to use this well since the permitted water storage				

capacity exceeds their estimated water needs. At the present time, there is no groundwater management plan in this area of the County, nor is there a specific water quality control plan for this particular area of the County. As discussed previously, the project will comply with existing County stormwater control requirements as well as State requirements for handling and disposal of irrigation runoff from within the greenhouses.

Source: Project Plans, San Mateo County GIS

10.f.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide significant additional sources of polluted runoff?			X

Discussion: The proposed project will continue to utilize the existing greenhouse buildings/structures on the site. No new buildings are proposed. Absent any physical alteration of the site, there is no evidence to conclude that cannabis cultivation will increase the rate or amount of surface runoff above existing levels.

Source: Project Plans, Site visit

10.g.	Significantly degrade surface or ground-water water quality?			X

Discussion: See discussion under Question 10(a).

Source:

10.h.	Result in increased impervious surfaces and associated increased runoff?			X

Discussion: See discussion under Question 10(f).

Source:

11. LAND USE AND PLANNING. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
11.a.	Physically divide an established community?				X

Discussion: There is no community adjacent to the Project site.

Source: Project Plans, Site visit, County GIS database

11.b.	Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X
Discussion: The County's cannabis cultivation ordinance directs cannabis cultivation towards vacant/underutilized greenhouses to minimize any potential land use related conflicts and revitalize the struggling greenhouse agricultural industry. As such, this application furthers the County's goal of reusing the underutilized greenhouse market and ensuring continued employment opportunities within the County's agricultural workforce. **Source:** Project Plans, County Cannabis Cultivation Ordinance					
11.c.	Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?				X
Discussion: There is no evidence to suggest that approval of the proposed project (cultivation of cannabis within existing greenhouses) will encourage off-site development or require the need for new or expanded public utilities. **Source:** Project Plans					

12.	**MINERAL RESOURCES**. Would the project:	***Potentially Significant Impacts***	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
12.a.	Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X
Discussion: The proposed project will utilize existing greenhouses and does not propose to convert any new lands or areas. The Project site has not been identified as a site of known mineral resources. **Source:** Project Plans, SMCo. GIS					
12.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?				X

Discussion: See discussion under Question 12(b).

Source:

13. NOISE. Would the project result in:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
13.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?			X	
Discussion: The existing greenhouses are equipped with exhaust fans which generate, on average, 80 dB of noise, when measured ten feet from the source. There are two residences on agricultural parcels adjacent to the Project site. The closest residence, 840 Frenchman's Creek Road, is approximately 400 feet to the southwest of the nearest greenhouse. Sound pressure levels decrease by 6 dB with the doubling of the distance from noise source to receptor. Based upon this ratio, noise levels generated by the use of the exhaust fans in these closest greenhouses should be in the range of 45 to 50 dB. This is on par with the noise levels generated by a refrigerator within a home (typically 50 dB). The other nearby residence, 511 Frenchman's Creek Road, is approximately 800 feet away from the nearest greenhouse. Based upon the ratio, noise from exhaust fans in these greenhouses should be less than 45 dB. This level of noise does not violate County noise regulations (Ordinance Code Chapter 4.88) nor does it conflict with EPA noise limits designed to protect hearing. **Source:** SMCo. GIS; Center for Hearing and Communication, "Common Environmental Noise Levels"				
13.b. Generation of excessive ground-borne vibration or ground-borne noise levels?				X
Discussion: Typical sources of ground-borne vibration or noise include construction (i.e. – grading of a site prior to construction) or the use of manufacturing equipment (for example a metal lathe or grinding equipment). As stated previously, no new construction is proposed nor are the applicants proposing to utilize heavy industrial equipment that would generate ground-borne vibration or noise. **Source:** Project Plans, Site Visit				
13.c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?				X

Discussion: The Project site is not within an airport land use plan or within 2 miles of an airport or private airstrip.

Source: SMCo. GIS

14. POPULATION AND HOUSING. Would the project:					
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
14.a.	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
Discussion: The proposed project involves the re-use of existing agricultural buildings. No new public infrastructure such as roads or sewer lines are proposed. No new homes are proposed. The project would not generate a significant number of new employees. The applicants anticipate approximately eight full-time staff will be on-site each day with potentially eight more part-time staff on-site as needed during harvest periods. The applicants, based on information provided by the previous agricultural operator, estimate that approximately 10 to 20 people were actively employed at the Project site over the last five to ten years. In accordance with Section 5.148.060 of the County's Cannabis Cultivation Ordinance, the applicants plan to hire a majority of their labor force from within the existing Coastside agricultural labor pool. **Source:** Project Plans; County Cannabis Cultivation Ordinance					
14.b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X
Discussion: The Project site is an agricultural greenhouse complex. There is no existing housing on the Project site. **Source:** Project Plans					

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

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
15.a.	Fire protection?				X
15.b.	Police protection?				X
15.c.	Schools?				X
15.d.	Parks?				X
15.e.	Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?				X

Discussion: The proposed project does not include a residential component nor is it anticipated that the proposed business will cause a significant population increase such that existing schools, parks and other public facilities would be negatively impacted. The Project site is already developed and fire breaks and other fire prevention measures have been maintained by the previous owner. The current applicants have submitted a fire prevention plan which will be implemented on a regular basis to reduce the threat of wildland fire to the Project site as much as possible. The applicants have submitted a detailed surveillance and security plan as required by the County's cannabis ordinance. There is no evidence to suggest that permitting cultivation at this site will require an increase in Sheriff patrols or responses to calls such that additional Sheriff staffing would be required for this area of the County.

Source: Project Plans, Site Visit

16. RECREATION. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
16.a.	Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X

Discussion: As discussed previously, the proposed project does not include a residential component nor is it anticipated that the proposed business will cause a significant population

increase such that existing neighborhood or regional parks and other public facilities would be negatively impacted.

Source: Project Plans

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

Discussion: No new recreational facilities are proposed as part of this project, nor is it anticipated that the project will generate population growth which might require new or expanded recreational facilities.

Source: Project Plans

17. TRANSPORTATION. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
17.a.	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking?			X	

Discussion: As stated previously, the proposed project will re-use the existing greenhouse complex, where historically fruit, vegetables and flowers were grown both indoors and outdoors. Based upon information provided verbally by the previous property owner, 10 – 20 workers were employed at different times depending upon the season and market demand for the plants and fruit grown on the site. The applicants anticipate approximately eight full time staff will be on-site each day with potentially eight more part-time staff on-site as needed during harvest periods. Additionally, it is anticipated that 2 – 5 delivery vans/trucks will drive to the site on a daily basis. This activity level would result in an estimated 20 – 42 vehicle trips per day.

The public road which serves the Project site (Frenchman's Creek Road) is a two lane paved road that serves eight other residences/agricultural operations. There is no evidence to suggest that an increase of 20 - 42 trips per day will significantly impact the effectiveness of this road or the road network within the Mid-Coast area in general. In addition, the proposed re-use, while an increase from the current reduced activity level on site, is unlikely to generate significantly more traffic than historic levels at the site.

The Project site is at the end of Frenchman's Creek road, which is a rural residential/agricultural road. As such, the road does not provide dedicated pedestrian or bicycle facilities. However, there is no aspect of the project that would preclude the construction of such facilities in the future if the road were designated for such uses.

Source: Project Plans, San Mateo Co. GIS, Site visit

17.b. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) *Criteria for Analyzing Transportation Impacts*?				X

Discussion: CEQA Guidelines Section 15064.3 establishes a new method for analyzing certain transportation impacts created by a proposed project. Under the new requirements, circulation impacts must be analyzed based on vehicle miles traveled (VMT). For a land use project, if the estimated VMT exceeds an established threshold of significance, then it could be a significant impact. Each Lead Agency is responsible for establishing their own thresholds of significance and has until July 1, 2020 to do so. At this time, San Mateo County has not adopted VMT thresholds of significance, but the responsible County departments (Public Works and Planning) are working on this threshold with the aim of adopting a threshold by the required deadline. Until such time as the required threshold is established, the County's existing standard of analysis (Level of Service) is the applicable standard of review.

Source: Staff Analysis

17.c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X

Discussion: As stated previously, the project will re-use existing greenhouse structures on the Project site; as such there are no road or structural design features which could create a hazard. No activities will occur off site (such as movement of farm equipment).

Source: Project Plans, San Mateo Co. GIS

17.d. Result in inadequate emergency access?				X

Discussion: Access to the Project site is via Frenchman's Creek Road, which is an existing paved road 12 – 19 feet in width. This is the same road configuration that existed when previous building permits for greenhouses were approved by the Fire Department on the Project site. The applicants are not proposing to change this access. The project will not create any impediments to travel along this existing road. As can be seen in the Civil Engineering set of project plans (Attachment A – Pages 7 & 8), the applicants have demonstrated that an emergency vehicle can safely maneuver in and around the buildings on the Project site.

Source: Project Plans, San Mateo Co. GIS, Site visit

18. TRIBAL CULTURAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
18.a. Cause a substantial adverse change in the significance of a tribal cultural				X

	resource, defined in Public Resources Code Section 21074 as either a site, feature, place or 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:				
	i. 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)				X
Discussion: The Project site has been developed with greenhouses for over 30 years. There is no evidence that the site contains historic or cultural resources. The proposed license will re-use the existing greenhouses. No new development is proposed. **Source:** Project Plans, SMCo. GIS					
	ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1. (In applying the criteria set forth in Subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.)				X
Discussion: See discussion under Questions 5(c) and 18(a)(i). **Source:**					

19.	**UTILITIES AND SERVICE SYSTEMS**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
19.b.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or			X	

	telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				

Discussion: The applicants are proposing to use a hydroponic growing system which minimizes the production of irrigation tail water. To maintain suitable growing conditions, wastewater is discharged from hydroponic systems when the irrigation water contains excessive salinity or nutrients. Irrigation tail water is generated when excess water drains from the growth media. Irrigation tail water or hydroponic wastewater may contain nutrients (e.g., phosphate or nitrate), salinity constituents (e.g., sodium, chloride, potassium, calcium, sulfate, magnesium), and other constituents (e.g., iron, manganese, zinc, molybdenum, boron, and silver). Other sanitation-based wastewaters may also be generated at indoor commercial cannabis cultivation sites. These miscellaneous industrial wastewaters may contain biocides, bleach mixtures, or other chemical waste streams.

The proposed cultivation activities will not require the need for new water or wastewater facilities. With regards to wastewater, what little irrigation tail water, hydroponic wastewater, or other miscellaneous industrial wastewater that is generated by the hydroponics growing system will be discharged to a collection tank. The wastewater in the collection tank will be regularly collected by an authorized waste hauler who will dispose of the wastewater at a licensed community sewer system treatment facility, consistent with the Water Board's sewer system requirements and as approved by the Water Board.

The State Water Resources Control Board (SWRCB or Water Board) regulates the discharge of waste materials that could affect the quality of the waters of the state. Water Code section 13260 requires that any person discharging waste or proposing to discharge waste that could affect the quality of the waters of the state must file a report of waste discharge to obtain coverage under waste discharge requirements (WDRs) or a waiver of WDRs. In establishing a regulatory program for cannabis cultivation, SWRCB has created a tiered system depending upon the type (indoor or outdoor) and size of cultivation. Commercial cannabis cultivation activities that occur within a structure with a permanent roof, a permanent impermeable floor (e.g., concrete or asphalt paved), and that discharge irrigation tail water, hydroponic wastewater, or other miscellaneous industrial wastewaters from indoor cannabis cultivation activities to an on-site wastewater treatment system (such as a septic tank and leach field), must obtain separate regulatory authorization (e.g., WDRs, conditional waiver of WDRs, or other permit mechanism) to discharge the wastewater.

The applicants have applied for and received a Conditional Waiver of Water Quality from the Water Board. As such, the project has complied with the Water Board's "Cannabis Cultivation Policy" and "General Waste Discharge Requirements". The cultivation activities will not exceed the wastewater treatment requirement of the Water Board. The project does not require the upgrading of any existing storm or waste water treatment systems.

Source: *Cannabis Cultivation Policy - Principles and Guidelines for Cannabis Cultivation*, State Water Resources Control Board, October 2017; *Notice Of Applicability, Conditional Waiver Of Water Quality Order WQ-2017-0023-DWQ, Half Moon Grow, Inc, San Mateo County*, San Francisco Bay Regional Water Quality Control Board

19.d.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X

Discussion: The project parcel has established rights with the SWRCB to divert 10.66 acre-feet (3.5 million gallons) of water per year from Frenchman's Creek, which borders the project parcel to the north. Diversion is only allowed from January 1 through March 31 of each year. Surface water

from Frenchman's Creek is diverted via a weir with an adjustable height that is set each year based on the required bypass flow in the creek. The surface water that overtops the weir flows into a series of settling basins and is pumped to interim sedimentation storage tanks. From there, the main pump house pumps surface water to the reservoir and storage tanks on top of the hill (that overlooks the greenhouse complex). Additionally, during an average year, rainfall over the reservoir results in an additional 1.12 acre-feet (365,000 gallons) of water capture. This water collection system is already existing and was previously operated in the same manner for prior agricultural operations on the site.

Based upon records for other cannabis operations that the applicants maintain in Humboldt County, it is estimated that the project will generate the following water demand:

Nursery Stock

Proposed canopy area for nursery stock is 41,843 sq. ft. and requires 7.5 gallons per sq. ft. of irrigation each year. Total demand for nursery stock is 313,822 gallons per year.

Mature Cultivation Stock

Proposed canopy area for mature cultivation stock is 42,228 sq. ft. and requires 10 gallons per sq. ft. of irrigation each year. Total demand for mature cultivation stock is 422,280 gallons per year.

Incidental Use

Incidental use includes all other miscellaneous water uses, such as equipment washing, dust control, fire protection, domestic (treated) use, other agriculture use, etc. The water demand for incidental use is approximately 100,000 gallons per year.

Altogether, the total proposed water demand for cannabis cultivation operations is 836,102 gallons per year, where average yearly supply will be over 3.5 million gallons. Based upon these estimates, existing water supply facilities are adequate and there will be no impact.

The applicants are not proposing any additional greenhouse structures on the site. The ability to construct additional greenhouses is constrained by the proximity to biotic resource buffer areas.

Source: *Notice Of Applicability, Conditional Waiver Of Water Quality Order WQ-2017-0023-DWQ, Half Moon Grow, Inc, San Mateo County*, San Francisco Bay Regional Water Quality Control Board; *Water Supply Memorandum*, BKF Engineering, January 2019

19.e.	Result in a determination by the waste-water 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?				X

Discussion: The Project site is not connected to a municipal wastewater treatment system.

Source: Project Plans

19.f.	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?				X

Discussion: For all non-cannabis waste materials, disposal shall be at the County's only landfill – Ox Mountain, which currently has sufficient space to accommodate the anticipated waste stream

from this site. All cannabis-related plant waste (i.e. – regulated material) must be either disposed of at a regulated site or, as proposed for this project, composted on site for use as fertilizer.

Source: Project Plans

19.g. Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?				X

Discussion: See discussion under Question 19(f).

Source:

20. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	***Potentially Significant Impacts***	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
20.a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				X

Discussion: The Project site is located in an area designated as a "Very High Fire Hazard Risk" on the State's Fire Hazard Severity Zone maps. The Project site is accessed from Highway 1 via an approximately one mile long paved road (Frenchman's Creek Road). The road varies in width between 12 – 19 feet along its length. This access route has been reviewed and approved by the Coastside Fire Protection District (and its predecessor) at various times when reviewing building permit applications for construction of the various buildings on the Project site.

San Mateo County has an adopted emergency evacuation plan for the Urban Mid-Coast area. There is no component of this project that will interfere with this plan. The project will not create new residences that could increase the number of people that might be trapped during an emergency event. There are no residences further up the canyon or surrounding hills that utilize the segment of Frenchman's Creek Road that runs through the Project site. While there will be a secured gate at the entrance to the Project site, the Coastside County Fire Protection District will have access to the required Knox Box at the gate. This will allow the fire access into and through the Project site if necessary.

Source: Project Plans, Site visit, County GIS database

20.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?			X	

Discussion: The Project site sits within a canyon surrounded by hillsides covered with brush. For the Half Moon Bay area, prevailing winds tend to come from the west or north. Prevailing winds from the west would tend to diminish the threat of uncontrolled spread of wildfire towards the greenhouse complex. Generally, if a wildfire were to break on one of the adjacent hillsides and the

wind is coming from the west, it would push the fire and smoke away from the complex and towards the uninhabited surrounding hill country. It should be noted that the Project site has been developed with greenhouses and supporting buildings for over 40 years. No aspect of the project will exacerbate the existing level of fire hazard posed to the existing greenhouse structures or surrounding areas. In fact, the construction of additional fire protection measures, as described below, and the reintroduction of a regular employee presence may help report and contain wildfires if they were to break out on the surrounding hillsides.

Source: Weatherspark.com: "*Average Weather in Half Moon Bay area*"; Site Visit; County GIS database

20.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?			X	

Discussion: The greenhouse complex with its associated roads and water infrastructure (source and delivery to the site) exists now and have been described previously. No changes are required for these infrastructure components. In response to comments received from the Coastside Fire Protection District, the applicants are proposing to install additional fire hydrants within the complex to ensure adequate fire suppression water supply to all structures proposed for cultivation use. The additional hydrants are proposed in previously disturbed or paved areas. As required by the California Fire Code and Public Resources Code Section 4291, the applicants are required to maintain the existing defensible fuel break around all structures on the site. These measures will reduce fire risk on the site and there is no evidence to suggest that maintaining the existing fuel breaks will cause an ongoing impact to the environment.

Source: 2013 California Fire Code; California Public Resources Code Section 4291; Project Plans

20.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?			X	

Discussion: The slopes surrounding the greenhouse complex are covered primarily with low brush with some trees scattered within the brush. If a catastrophic wildfire were to burn through these hills, it could potentially leave the adjacent slopes denuded and susceptible to instability if heavy rains were to occur before replacement vegetation was able to take hold. The soils on the adjacent hillsides is primarily Farallone course sandy loam which has a rapid rate of permeability and low erosion hazard rating. While landslide hazard cannot be ruled out, given the soil characteristics, the more likely effect of heavy rainfall on these barren slopes would be accelerated erosion of sandy material.

The existing greenhouses are non-habitable structures and the number of persons predicted to be on the Project site at any time is relatively low. In terms of danger to occupants of these buildings, the risk is relatively low given the distance of the buildings to the base of the surrounding slopes (in the 30 – 40 foot range). Because of the distance of the existing buildings to the base of the surrounding slopes and the soil characteristics, risk due to post-fire landslide is less than significant.

Source: *Soil Survey, San Mateo County*, by U.S. Dept. of Agriculture Soil Conservation Service; Project Plans

21. MANDATORY FINDINGS OF SIGNIFICANCE.					
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
21.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?		X		
Discussion: A potentially significant impact related to odor was identified and mitigation measures were proposed which will reduce this impact to a less than significant level. Potential impacts to steelhead due to potential de-watering of Frenchman's Creek were discussed in the Biological Resources section of this report. A mitigation measure which matches the restrictions of the project's LSAA was included to address this potential impact. Potential impacts to roosting bats was also discussed and a mitigation measure to address any potential impacts to these species of concern was included. Because the project will re-utilize existing greenhouse buildings and no new construction is proposed, it is not expected to degrade the quality of the environment, or substantially reduce habitat or affect populations of any wildlife, fish, or plant species. It has been determined that re-use of the existing greenhouse buildings will not have any impact on any examples of the major periods of California history or prehistory. **Source:**				
21.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.)			X	
Discussion: The project will not have impacts to agriculture or forestry resources, mineral resources, or population and housing that would combine with other projects. The proposed cannabis cultivation activities could have potential impacts with respect to odors. However, such impacts would be limited to the Project site and, where necessary, mitigated such that they would not substantially combine with other off-site impacts.					

For the reasons presented in the above document, the proposed project is not expected to result in adverse impacts to human beings, either directly or indirectly. All impacts identified in this document are less than significant, or reduced to less than significant levels with implementation of mitigation measures, and the project's incremental contribution to potential cumulative impacts will not be cumulatively considerable. Therefore, the project's impact is considered less than significant. **Source:**				
22.c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	
Discussion: See Question 22(b) above. **Source:**				

RESPONSIBLE AGENCIES. Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
Bay Area Air Quality Management District	X		Limited Use Stationary Compression Ignition (Diesel) Engines in Agricultural Use registration
Caltrans		X	
City		X	
California Coastal Commission		X	
County Airport Land Use Commission (ALUC)		X	
Other: California Department of Food and Agriculture (CalCannabis Cultivation Licensing)	X		Annual Cannabis Cultivation License
Regional Water Quality Control Board	X		Notice of Applicability, Conditional Waiver of Water Quality Order WQ-2017-0023-DWQ
San Francisco Bay Conservation and Development Commission (BCDC)		X	
Sewer/Water District:		X	
State Department of Fish and Wildlife	X		Lake and Streambed Alteration Agreement
State Department of Public Health		X	
State Water Resources Control Board		X	

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)		X	
U.S. Environmental Protection Agency (EPA)		X	
U.S. Fish and Wildlife Service		X	

MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.		X
Other mitigation measures are needed.	X	

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: Prior to the issuance of the requested Type 2B or 3B (Mixed Light, Cultivation) licenses, the applicant shall install a carbon filter system (or a comparable system) on the exhaust outlets for all buildings that will contain flowering cannabis plants or their product. This includes the greenhouses and the drying and processing buildings. The applicant shall also submit a maintenance plan (which includes record keeping) for review and approval prior to issuance of the requested licenses.

Mitigation Measure 2: From the California Department of Fish and Wildlife Lake and Streambed Alteration Agreement for the Half Moon Grow (37 Frenchman's Creek Road) cannabis cultivation license:

- The season of diversion (from Frenchman's Creek) shall be limited from January 1 to March 31 of each year ("forbearance period"). From April 1 to December 31, all water shall be allowed to pass the point of diversion.
- The maximum instantaneous rate of withdrawal (from Frenchman's Creek) shall not exceed 0.4 cubic feet per second (cfs) or 180 gallons per minute (gpm) at any time. The maximum amount of water to be diverted in any one year shall not exceed 10.66-acre feet.
- No water shall be diverted until at least 2.8 cfs is allowed to bypass the existing point of diversion (in Frenchman's Creek).

Mitigation Measure 3: If any buildings that may provide habitat for any species of bat will be significantly altered, modified, or if activities could result in a disturbance to roosting bats, a bat roost survey shall be performed during the appropriate roosting period (April 1 to September 15) prior to any modification, and if bats are present, CDFW shall be consulted before any change in use or modification of the building occurs.

DETERMINATION (to be completed by the Lead Agency).

On the basis of this initial evaluation:

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

_____

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 of the mitigation measures in the discussion have been included as part of the proposed project. A

X 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.

_____

Michael Schaller

(Signature)

5/29/19

Date

SENIOR PLANNER

(Title)

ATTACHMENTS

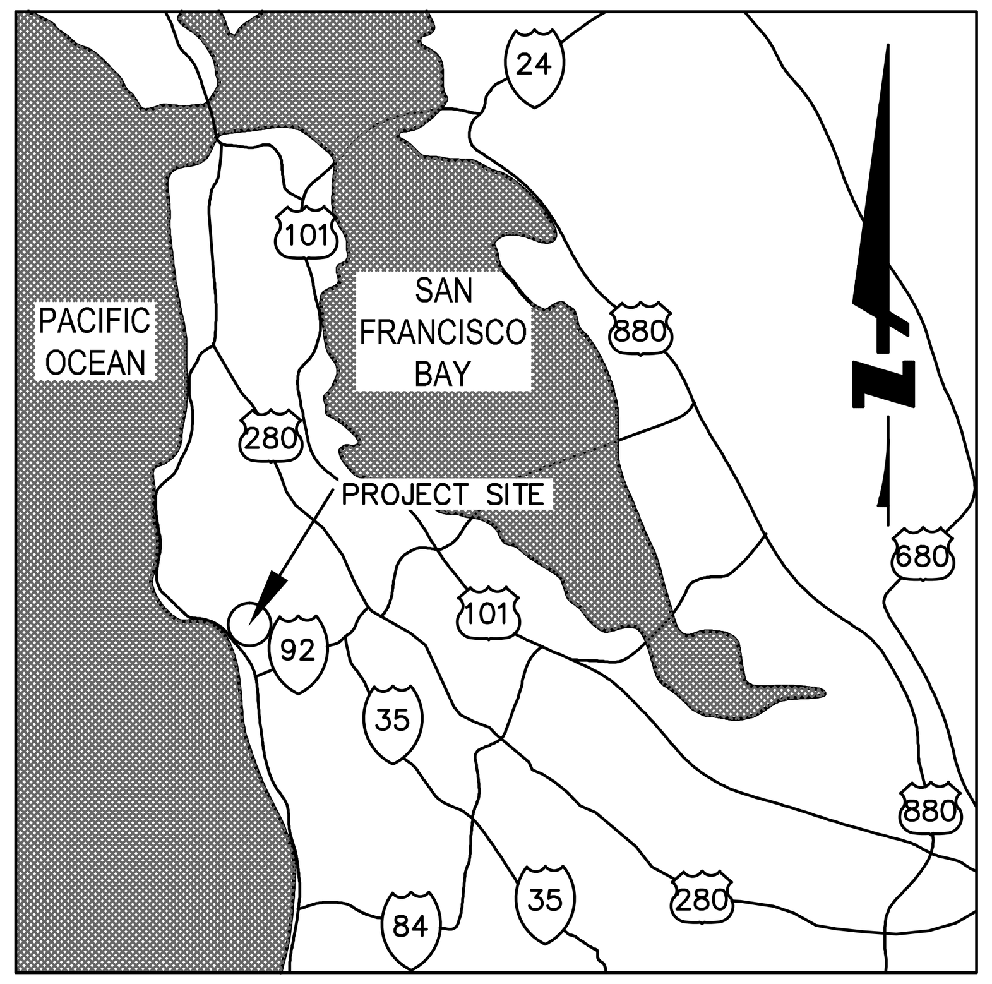
A. Project Plans (Civil)
B. Project Plans (Architectural)
C. *Loess Creek Grading Violation & Restoration Project Biological Resources Report*, Sol Ecology, Inc., October 2018
D. *Biological Addendum Report for 37 Frenchman's Creek Road (for Half Moon Grow)*, Sol Ecology, Inc., April 2019

County of San Mateo - Planning and Building Department

ATTACHMENT A

FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD
CITY OF HALF MOON BAY, CA

APN: 048-320-020

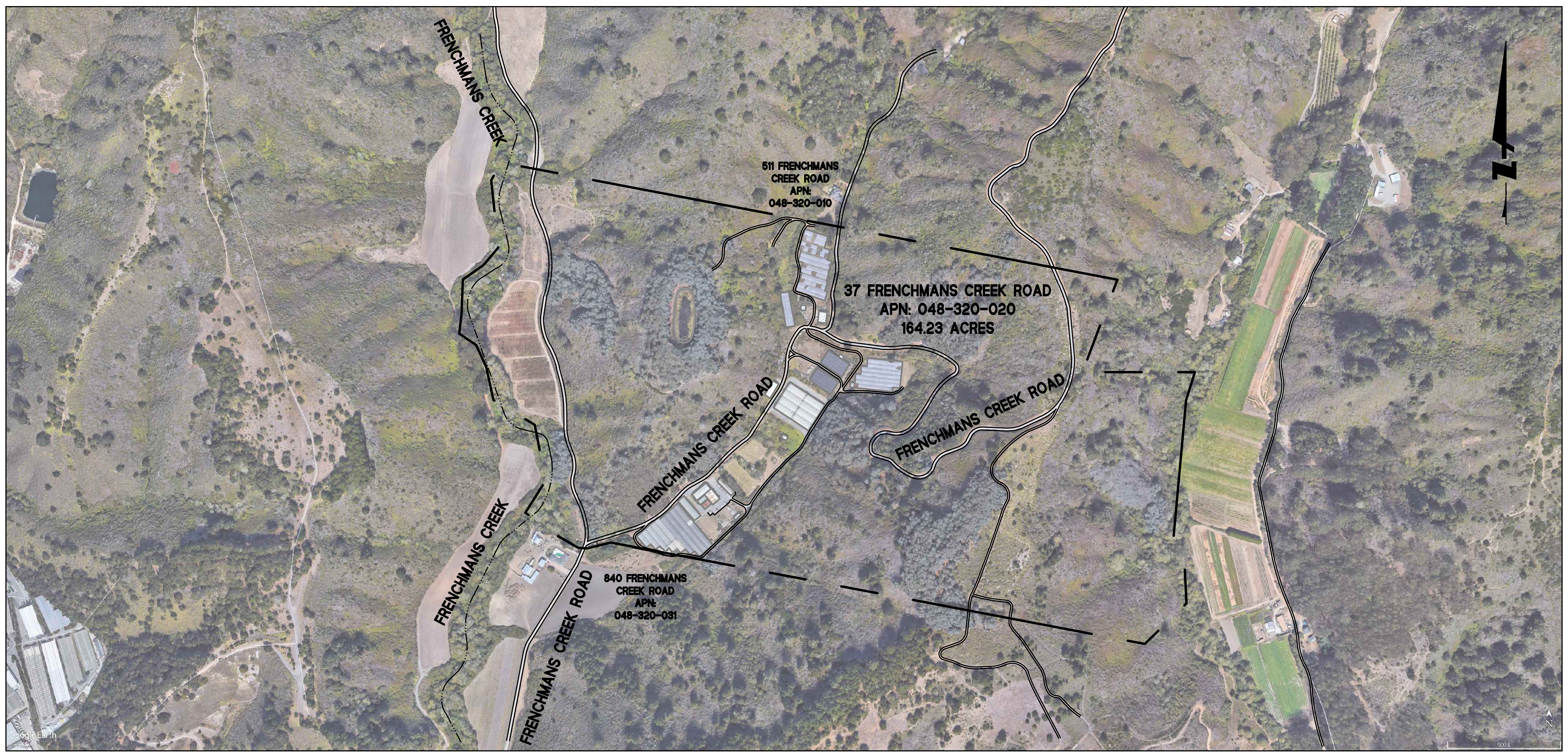


VICINITY MAP
N.T.S.

LOCATION MAP
N.T.S.

PROJECT CONSULTANT TEAM:

OWNERS/ REPRESENTATIVES	EDWARD WILKINSON ED.WILKINSON1990@GMAIL.COM ANEESE BISHARA ANEESETB@GMAIL.COM QUANTUM GENETICS, INC. 210 TRIPLE K PLACE FORTUNA, CA 95540
CIVIL:	ROLAND HAGA DALE LEDA BKF ENGINEERS 255 SHORELINE DR, SUITE 200 REDWOOD CITY, CA 94065 (650) 482-6300
ARCHITECT:	EDWARD LOVE EDWARD C. LOVE ARCHITECT 720 MILL STREET HALF MOON BAY, CA 94019 (650) 728-7615
BIOLOGIST:	DANA RIGGS SOL ECOLOGY, INC. P.O. BOX 5214 PETALUMA, CA 94955 (707) 241-7718
SECURITY SPECIALIST:	MICHAEL STRETTON SECURE ALARM SYSTEMS P.O. BOX 661750 ARCADIA, CA 91066-1750 (800) 444-5346
STRUCTURAL:	BRIAN DOTSON P.O. BOX 371022 MONTARA, CA 94037 (650) 722-0219
ELECTRICAL:	CANNA MECHANICAL CONTRACTOR'S LICENSE #1035326 (530) 768-1163
HVAC:	ANDY HILLARD BRADY AIR CONDITIONING 338 N. CANAL ST #5 S. SAN FRANCISCO, CA 94080 (650) 742-9640



LEGEND:

— · — · —	BOUNDARY
- - - -	FLOWLINE
SD	STORM DRAIN LINE
E	UNDERGROUND ELECTRICAL CONDUIT
GAS	GAS LINE
OH	OVERHEAD ELECTRICAL LINE

ABBREVIATIONS:

AC	ASPHALT CONCRETE
B1	BUILDING #1
CB	CATCH BASIN
(E)	EXISTING
EM	ELECTRICAL METER
GB	GRADE BREAK
(N)	NEW
SAP	SEE ARCHITECTURAL PLANS
SD	STORM DRAIN
TYP	TYPICAL

SHEET INDEX

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GRAPHIC SCALE

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TITLE SHEET
FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD
HALF MOON BAY SAN MATEO COUNTY CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER DALE J. LEDA C 78436 CIVIL STATE OF CALIFORNIA
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EXISTING SITE PLAN
37 FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD

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EXISTING UTILITY PLAN
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KEY NOTES:
1 RECONSTRUCT GATE ENTRY.
2 USE (E)STRUCTURE FOR STATE LICENSE: NURSERY. A NEW ENTITY IS IN THE PROCESS OF BEING ESTABLISHED FOR HOLDING BOTH NURSERY LICENSES IN BUILDINGS 2 AND 3. TCA18-9557. SAP FOR CANOPY AREAS.
3 USE (E)STRUCTURE FOR STATE LICENSE: NURSERY. A NEW ENTITY IS IN THE PROCESS OF BEING ESTABLISHED FOR HOLDING BOTH NURSERY LICENSES IN BUILDINGS 2 AND 3. TCA18-9557. SAP FOR CANOPY AREAS.
4 USE (E)STRUCTURE FOR EQUIPMENT STORAGE AND FERTLIZER/PESTICIDE STORAGE. TCA18-9561, TCA18-9564, TCA18-9566, TCA18-9567 SAP FOR BUILDING FOOTPRINT AREAS.
5 ALL (E)INTERNAL PLUMBING/FIXTURES TO BE REMOVED TO SATISFACTION OF THE COUNTY. SAP FOR BUILDING FOOTPRINT AREAS.
6 (E)ACCESSORY AGRICULTURAL STRUCTURE TO REMAIN. SAP FOR BUILDING FOOTPRINT AREAS.
7 USE (E)STRUCTURE FOR MAIN OFFICE. SAP FOR BUILDING FOOTPRINT AREAS.
8 (N)VISITOR PARKING STALLS.
9 (N)ADA PARKING STALLS. CONTRACTOR TO VERIFY PARKING STALL AND LOADING ZONE SLOPES ARE <2% IN ANY DIRECTION.
10 (N)ADA ACCESSIBLE RESTROOM WITH ELECTRICAL, WATER AND SEWER SERVICES CONCEPTUALLY SHOWN. TO BE FINALIZED IN BUILDING PERMIT PHASE.
11 (N)EMPLOYEE PARKING STALLS.
12 (N)TRASH & RECYCLE RECEPTORS.
13 (N)GREENWASTE/COMPOST BINS.
FRENCHMANS CREEK ROAD
FRENCHMANS CREEK ROAD
B2
B3
B4
B4.1
B5
B6
(E)WALL
(E)WALL
MATCHLINE: SEE SHEET C2.2

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PROPERTY IMPROVEMENT PLAN
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KEY NOTES:

14. (E)BUILDING TO BE REMOVED AND FOUNDATION TO BE MAINTAINED FOR POSSIBLE FUTURE PRE-FAB ACCOMMODATIONS.
15. USE (E)STRUCTURE FOR STATE LICENSES: SMALL MIXED-LIGHT TIER 1 (x4). TCA18-9561; TCA18-9564; TCA18-9566; TCA18-9567. SAP FOR CANOPY AREAS.
16. (E)BUILDING IN PROCESS TO BE PERMITTED UNDER CDP. USE (E)STRUCTURE FOR STATE LICENSE: MEDIUM MIXED-LIGHT TIER 2. TCA18-9567. SAP FOR CANOPY AREAS.
17. (E)BUILDING IN PROCESS TO BE PERMITTED UNDER CDP. USE (E)STRUCTURE FOR STATE LICENSE: MEDIUM MIXED-LIGHT TIER 2. TCA18-9567. SAP FOR CANOPY AREAS.
18. (N)GREENWASTE/COMPOST BINS.
19. USE (E)STRUCUTRE FOR HARVEST STORAGE. TCA18-9561; TCA18-9564; TCA18-9566; TCA18-9567. SAP FOR BUILDING FOOTPRINT AREAS.

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PROPERTY IMPROVEMENT PLAN
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KEY NOTES:

1. "MAIN ENTRANCE" SIGN. "NO SMOKING ON PREMISES" SIGN.
2. "NO PARKING FIRE LANE" SIGN SPACED AT A MAXIMUM OF 300 FT.
3. WAYFINDING SIGNAGE: ↑DRYING FACILITY, ↑NORTH GREENHOUSES, →MAIN OFFICE, →VISITOR PARKING, →EMPLOYEE PARKING, →SOUTH GREENHOUSES, →TOOL SHED.
4. "MAIN OFFICE" SIGN.
5. "VISITOR PARKING" SIGN.
6. ACCESSIBLE PARKING ONLY SIGN WITH ONE VAN ACCESSIBLE STALL.
7. "EMPLOYEE PARKING ONLY" SIGN.
8. SIGN FOR DIRECTIONS: ↑DRYING FACILITY, ↑NORTH GREENHOUSES. "EMPLOYEES ONLY" SIGN.
9. "NOTICE PERSONS UNDER 21 YEARS OF AGE NOT PERMITTED ON THESE PREMISES" SIGN.

FRENCHMANS CREEK ROAD

300' SPACING (TYP.)

0 60 120

GRAPHIC SCALE

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SIGNAGE PLAN
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FIRE PREVENTION PLAN
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FIRE PREVENTION PLAN
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NOTES:

1. (N)ADA BATHROOM AND RESPECTIVE SERVICES SHOWN CONCEPTUALLY AND TO BE FINALIZED IN BUILDING PERMIT PHASE.
2. (N)POTABLE WATER TREATMENT SYSTEM SHOWN CONCEPTUALLY AND TO BE FINALIZED IN BUILDING PERMIT PHASE.

SEPTIC SYSTEM SIZING CALCULATIONS:

EXISTING WASTEWATER FLOW

EXISTING FACILITIES INCLUDE 1 KITCHEN, 2 BATHROOMS IN BUILDING 4 AND 1 KITCHEN, 1 BATHROOM IN BUILDING 6. THE FACILITIES ARE USED BY 4 EMPLOYEES.

EQUIVALENT COMMERCIAL SOURCE FACILITY:	APARTMENT	TABLE 3-4 OF EPA OWTS MANUAL (2002)
TYPICAL WASTEWATER FLOW RATE:	50 GAL/UNIT/DAY	
# OF UNITS:	4 EMPLOYEES	

EXISTING WASTEWATER FLOW = (FLOW RATE)*(# OF UNITS) = **200 GAL/DAY**

PROPOSED WASTEWATER FLOW

FACILITIES INCLUDE THE PROPOSED 1 HALF ADA ACCESSIBLE BATHROOM AND THE EXISTING 1 KITCHEN, 2 BATHROOMS IN BUILDING 4. FIXTURES TO BE USED BY A MAXIMUM OF 4 EMPLOYEES. THE EXISTING FIXTURES IN BUILDING 6 WILL BE DISCONNECTED.

EQUIVALENT COMMERCIAL SOURCE FACILITY:	OFFICE	TABLE 3-4 OF EPA OWTS MANUAL (2002)
TYPICAL WASTEWATER FLOW RATE:	13 GAL/UNIT/DAY	
# OF UNITS:	5 OFFICE EMPLOYEES[1]	

PROPOSED WASTEWATER FLOW = (FLOW RATE)*(# OF UNITS) = **52 GAL/DAY**

EXISTING SEEPAGE PIT WASTEWATER FLOW CAPACITY

EXISTING OWTS INCLUDES A 1000 GAL POLY TANK AND A 5' DIAMETER BY 10' DEEP SEEPAGE PIT.

SEEPAGE PIT SIDE WALL SURFACE AREA:	157 SQ.FT	SOIL INFILTRATION RATE FROM TABLE 4-3 OF EPA OWTS MANUAL FOR COARSE SANDY LOAM
SOIL INFILTRATION RATE:	0.6 GAL/DAY/SQ.FT	

EXISTING SEEPAGE PIT WASTEWATER FLOW CAPACITY = (SEEPAGE PIT SIDEWALL SURFACE AREA)*(SOIL INFILTRATION RATE) = **94 GAL/DAY**

[1] IN ADDITION TO OFFICE FACILITIES, (N)PORTABLE OUTHOUSES AND PORTABLE WASH STATIONS WILL BE LOCATED AT EACH OF THE GREENHOUSES FOR USE BY SEASONAL FIELD EMPLOYEES./TRIMMERS. (E)OUTHOUSES TO BE REMOVED.

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SEPTIC PLAN
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37 FRENCHMANS CREEK ROAD

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PLOT DATE: 01-31-19 PLOTTED BY: polt

MATCHLINE: SEE SHEET C5.1

SEE SHEET C0.0 FOR LEGEND AND ABBREVIATIONS

Date 09/25/2018	No.	Revisions	Date
Scale 1" = 40'		REVISIONS 1	01/31/2019
Design DJL			
Drawn DJP			
Approved RH			
Job No 20170335-10			

Drawing Number: C5.2 OF

REVIEW ONLY NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

SEPTIC PLAN
FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD
HALF MOON BAY SAN MATEO COUNTY CALIFORNIA

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SOLID WASTE MANAGEMENT PLAN
FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD

HALF MOON BAY SAN MATEO COUNTY CALIFORNIA

No.	Revisions	Date
	REVISIONS 1	01/31/2019

Date 09/25/2018
Scale 1" = 60'
Design DJL
Drawn DJP
Approved RH
Job No 20170335-10

Drawing Number:
C6.1
OF

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PLOT DATE: 01-31-19 PLOTTED BY: polt

0 40 80
GRAPHIC SCALE

SEE SHEET C0.0 FOR MORE LEGEND AND ABBREVIATIONS

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SITE ELECTRICAL/ENERGY PLAN
FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD

HALF MOON BAY SAN MATEO COUNTY CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER DALE J. LEDA C 78436 CIVIL STATE OF CALIFORNIA

No.	Revisions	Date
	REVISIONS 1	01/31/2019

Date 09/25/2018
Scale 1" = 40'
Design DJL
Drawn DJP
Approved RH
Job No 20170335-10

Drawing Number:
C7.1
OF

DRAWING NAME: K:\2017\170335_37_Frenchmans_Creek\ENG_Cultivation_Permit\frsheets.dwg
PLOT DATE: 01-31-19 PLOTTED BY: polt

SEE SHEET C0.0 FOR MORE LEGEND AND ABBREVIATIONS

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SITE ELECTRICAL/ENERGY PLAN
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37 FRENCHMANS CREEK ROAD

HALF MOON BAY SAN MATEO COUNTY CALIFORNIA

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No.	Revisions	Date
1	REVISIONS 1	01/31/2019

Date 09/25/2018
Scale 1" = 40'
Design DJL
Drawn DJP
Approved RH
Job No 20170335-10

Drawing Number:
C7.2
OF

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PLOT DATE: 01-31-19 PLOTTED BY: polt

MATCHLINE: SEE SHEET C8.2

0 40 80
GRAPHIC SCALE

SEE SHEET C0.0 FOR LEGEND AND ABBREVIATIONS

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EXTERIOR SECURITY & LIGHTING PLAN
FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD

HALF MOON BAY — SAN MATEO COUNTY — CALIFORNIA

REVIEW ONLY NOT FOR CONSTRUCTION

No.	Revisions	Date
	REVISIONS 1	01/31/2019

Date 09/25/2018
Scale 1" = 40'
Design DJL
Drawn DJP
Approved RH
Job No 20170335-10

Drawing Number:
C8.1
OF

DRAWING NAME: K:\2017\170335_37_Frenchmans_Creek\ENG_Cultivation_Permit\rcsheets.dwg
PLOT DATE: 01-31-19 PLOTTED BY: polt

KEY NOTES:

1. DUAL LICENSE PLATE CAMERAS. SEE FIGURE F OF HALF MOON GROW SECURITY PLAN.
2. GENERAL VIEW CAMERA ON GATE. SEE FIGURE F OF HALF MOON GROW SECURITY PLAN.
3. ALARM-DOOR CONTACT AND ENTRANCE CAMERA. SEE FIGURE A THROUGH E OF HALF MOON GROW SECURITY PLAN.
4. (E)MOTION SENSOR LIGHT.
5. (E)WALL-MOUNTED LIGHT.
6. MICENAS GEN 2 LED LIGHT FOR ENTRANCE.

SEE SHEET C0.0 FOR LEGEND AND ABBREVIATIONS

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EXTERIOR SECURITY & LIGHTING PLAN
FRENCHMANS CREEK NURSERY
37 FRENCHMANS CREEK ROAD

HALF MOON BAY SAN MATEO COUNTY CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER DALE J. LEDA C 78436 CIVIL STATE OF CALIFORNIA
REVIEW ONLY NOT FOR CONSTRUCTION

No.	Revisions	Date
	REVISIONS 1	01/31/2019

Date 09/25/2018
Scale 1" = 40'
Design DJL
Drawn DJP
Approved RH
Job No 20170335-10

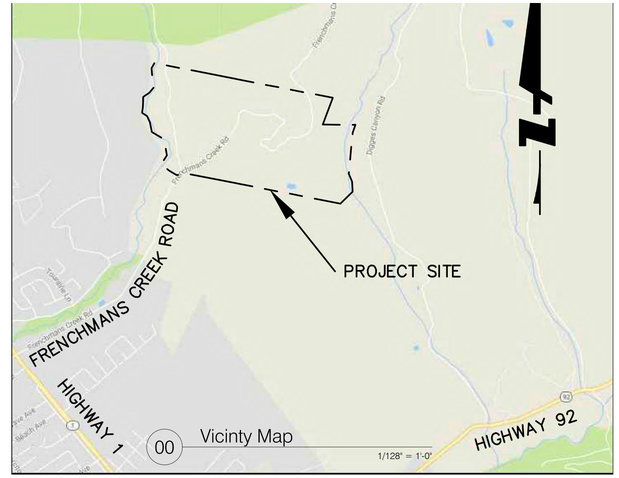
Drawing Number:
C8.2
OF

DRAWING NAME: K:\2017\170335_37_Frenchmans_Creek\ENG_Cultivation_Permit\crsheets.dwg
PLOT DATE: 01-31-19 PLOTTED BY: polt

County of San Mateo - Planning and Building Department

ATTACHMENT B

Half Moon Grow Inc.
Half Moon Grow Nursery Inc.
37 Frenchman's Creek Rd.
Half Moon Bay
APN: 048-320-020



General Notes:

These plans are the Architects interpretation of all the current existing conditions.
Contractors, Engineers of all disciplines not limited to Fire, Mechanical, Electrical, Plumbing, Structural, Civil to check and validate all existing and pre-existing conditions. It is the responsibility of the Contractor to bring to attention any discrepancies between the existing conditions and the drawn plans.

New lighting Proposal subject to cultivation review.
All electrical associated to comply with C.E.C

Project Data:

Zoning

APN:	048-320-020
Zonning:	PAD/CD
Occupancy:	U
Const. Type:	II-B

APPLICABLE CODES:

CALIFORNIA STATE
SAN MATEO COUNTY

CALIFORNIA STATE CANNABIS ORDINACE
SAN MATEO COUNTY ZONING AND BUILDING ORDINANCES
2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA ENERGY CODE
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
ANY APPLICABLE COUNTY CODES, ORDINANCES, OR AMENDMENTS TO THE CALIFORNIA BUILDING CODES.

GENERAL NOTES:

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All electrical associated to comply with C.E.C

Sheet List

	Sheet Number	Sheet Title
	TS	Title Sheet
	G-00	General Site layout
	G-01	ADA Parking& Temp. WC Facility
*	TCA Nrsry	02&03 Canopy&Props'd Light Plan-TCA18-9557
	A101-02	02 Floor & Lighting Plan (Existing)
	A201-02	02 Elevations (Existing)
	A301-02	02 Section View
	A101-03	03 FLoor Plan Existing
	A201-03	03 Elevations
*	A101-04	04 FP(E) Storage TCA18-9564 -61 -66 -67
	A101-4.1	4.1 FLoor Plan (Existing)
	A101-05	05 FLoor Plan (Existing)
	A201-05	05 Elevations (Existing)
	A101-06	06 Floor Plan LVL.01 (Existing)
	A102-06	06 Floor Plan Lvl.02 (Existing)
	A103-06	06 Ceiling & Proposed Lighting Plan
	A201-06	06 Elevations N&E (Existing)
	A301-06	06 Sections 01&02 (Existing)
*	TCA-CultA	08 Canopy&Prop'd Lighting Plan-TCA18-9561,4,6
	A101-08	08 Floor Plan (Existing)
	A201-08	08 Elevations (Existing)
*	TCA-CultB	09 Canopy&Prop'd Lighting TCA18-9567
	A101-9S	09S Floor Plan (Existing)
	A101-9N	09N Floor Plan (Existing)
	A103-9N&S	09 Cieling&Proposed Light Plan
	A201-09	09-Elevations (Existing)
	A301-09	09 Sections-Details (Existing)
*	10-HRVST	10 Harvest Storag&Props'd Light Plan TCA18-9561
	A201-10	10 Elevations (Existing)
	A301-10	10 Section View (Existing)
	A101-12	12 GENRATOR 02 SHED

* License Canopy Information

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Fortuna Ca 95540

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edwardclovearch@gmail.com
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650.728.7615

Engineering:
Civil Enginer:
BKF Engineering
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Structural Engineer:
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Montara 94037
650.722.0219
Contractor's license #

General Contractor
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530.388.5536
dejan@laibachsolar.com
Contractor License#:

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ECOM Electrical Eng.
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916.570.1583

Electrical Consultant:
Charlie Schoenhoeft
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Half Moon Grow Nursery Inc
Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

Title Sheet

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/31/19
SCALE:	per drawing
DRAWN:	mc
PRJCT #:	37FCN-PH01-AB
SHEET:	TS

511 FRENCHMANS CREEK ROAD
APN: 048-320-010

SM. MIXED LIGHT
TCA18-9561
TCA18-9564
TCA18-9566
08 A101

07

12

MED. MIXED LIGHT
TCA18-9567
09N A101
09S A101

10 A101

HARVEST STORAGE
TCA18-9561
TCA18-9564
TCA18-9566
TCA18-9567

COMPOST
02

STORAGE AREA
PESTICIDE/FERTILIZER
TCA18-9561
TCA18-9564
TCA18-9566
TCA18-9567
04 A101

04.1 A101

02+03 NURSERY
TCA18-9557
03
02 A101

FRENCHMANS CREEK ROAD

01

06 A101

05 A101

13

01 G01

COMPOST
01

FRENCHMANS

00 Vacinity Map
SCALE: N.T.S

LEGEND:

PROPERTY BOUNDRY

PROJECT NORTH NORTH

01 PH01 Partial Overview

BUILDING APPLICATION

Bldg.#	Status	Allowcation
01	Phase02 planned future reception Area with full facilities. ADA compliant.	Office
*Cultivation&Nursery Notice: (See Letter 'Ownership' dated 01.30.'19)		
Half Moon Grow Inc. Mixed-Light Cultivation Licenses:		42,228SF
Half Moon Grow Nursery Inc.: Nursery Cultivation Licenses:		41,843SF
02	TCA18-9557 Seed reproduction Area Canopy 4064SF	Nursery Area
03	TCA18-9957 Area Canopy 37,779SF Immature/Mother Plant Area	Nursery Area
	Area for work &Storage 4,095SF	
04	TCA18-99561/64/66 Secure storage for Fertilizer, Pesticide, ag. growing products Area 64SF	Storage Area
05	Tool&Power Generator 01 Shed	Mainrtainence
06	Refrigerator & Process Shed Refrigeration, Light storage, offices.	Process/Office
07	For Demo. To Be reconstructed as Farm workers accommodation. Will Require CDP	Accomodation
08	TCA18-95561/4/6 Growing area for product Canopy Area 24,948SF	Cultivation Area
09	TCA18-95561/4/6 Growing area for product Canopy Area 17,280SF Requires CDP	Cultivation Area
10	TCA18-9567/6/4/1 Harvest Shed	Process
11	Abandoned Hoop House	
12	Back-up Generator Shed 02	Maintenance

AREASsf (Phase 01)			
	AREA sf		STATUS
Site Area:	7,153,860 (164.23A)		(See TCA application)
Bldng:	Bldg	Canopy	
01	3,360		Phase 02
*02	6,090	4,064	TCA18-9557
*03	64,496	37,779	TCA18-9557
*04	4,000		TCA18-9564 9561 9566 9567
04.1	1,250		
05	1,288		CDX
06	3,750		CDX
07	3,060		Demo/CDP
*08	38,304	24,948	Permitted TCA18-9561 9564 9566
*09	21,976	17,280	CDP Rqd. TCA18-9567
*10	2,400		Permitted TCA18-9561 9564 9566 9567
12	320		
13			Abbandoned

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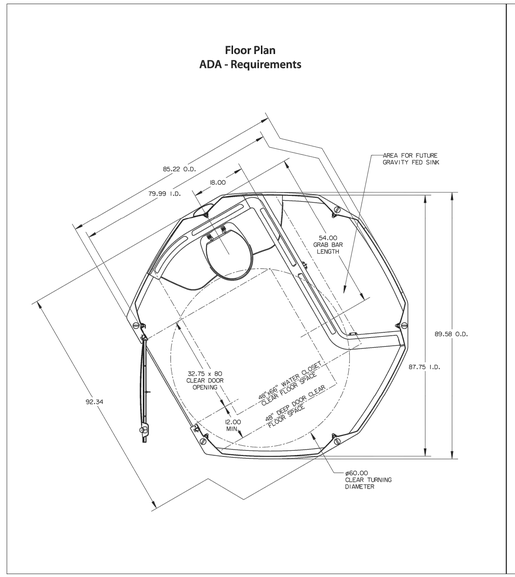
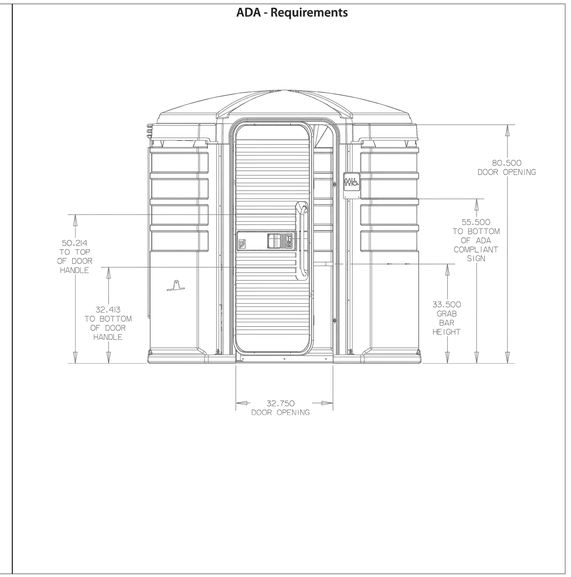
General Site Layout

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

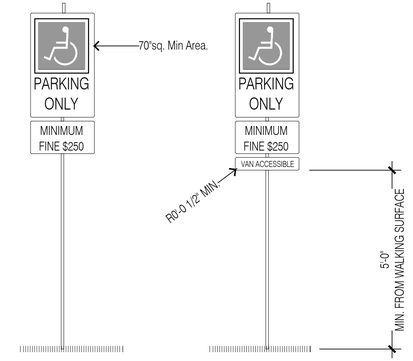
DATE: 1/31/19
SCALE: per drawing
DRAWN: mc
PROJ.T #: 37FCN-PH01-AB
SHEET: G-00





04 Temp. ADA WC Facility

1/2" = 1'-0"



02 Signage

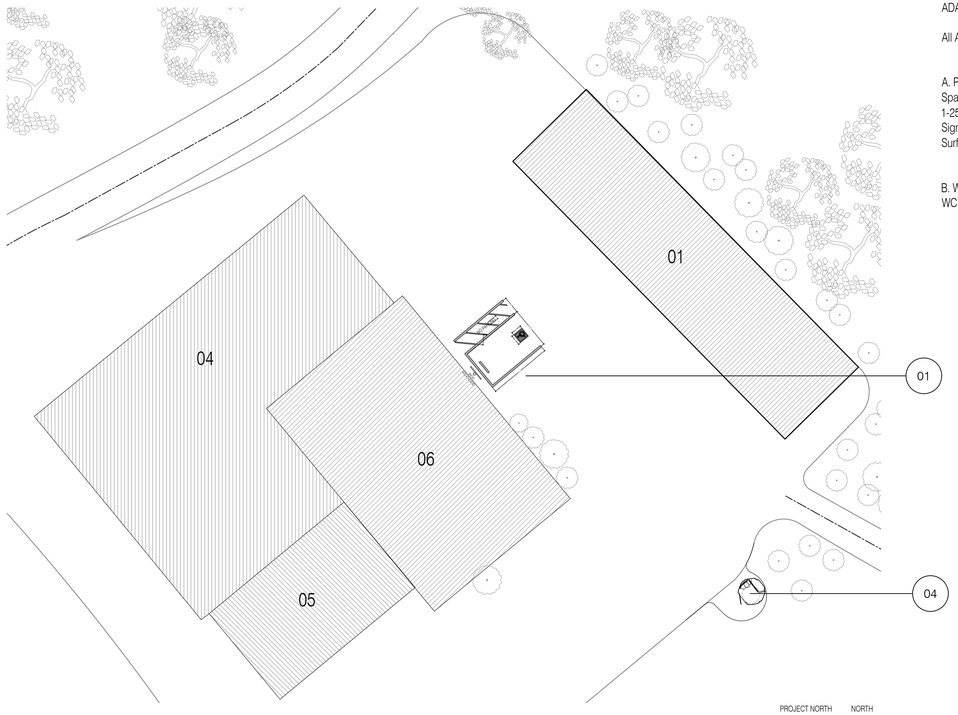
1/2" = 1'-0"

ADA NOTES:

All ADA facilities are temp. until Phase 02. (See G-00 Bldg. 01)

A. Parking
Spaces: 11b.208.2.3.2
1-25 Spaces per Table 21A. 1 Van Space min. rqd.
Signage: As rq'd per 11B.502.6.3
Surface: 1:12 max slope in any direction.

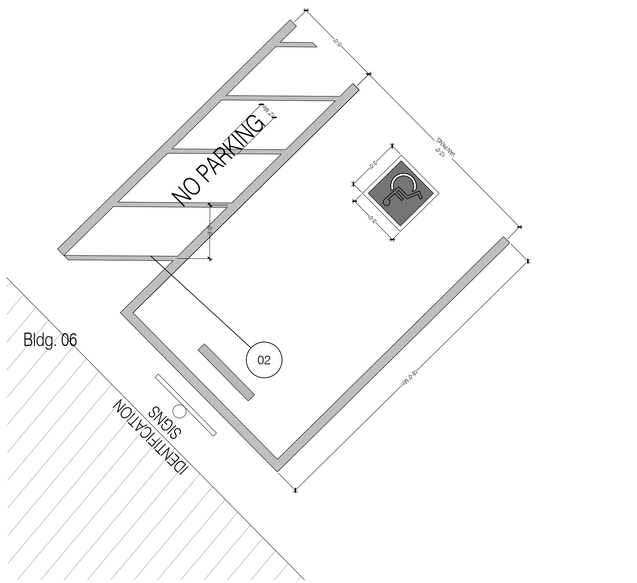
B. WC Facility. Suitable location to be confirmed.
WC: Locate and ensure min 60"Ø of<1:12 slope in front of access door.



03 ADA Parking Location

3/64" = 1'-0"

PROJECT NORTH NORTH



01 ADA Parking

1/4" = 1'-0"

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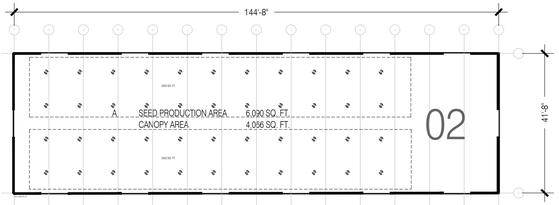
Half Moon Bay Ca., 94019

ADA Parking& Temp. WC Facility

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

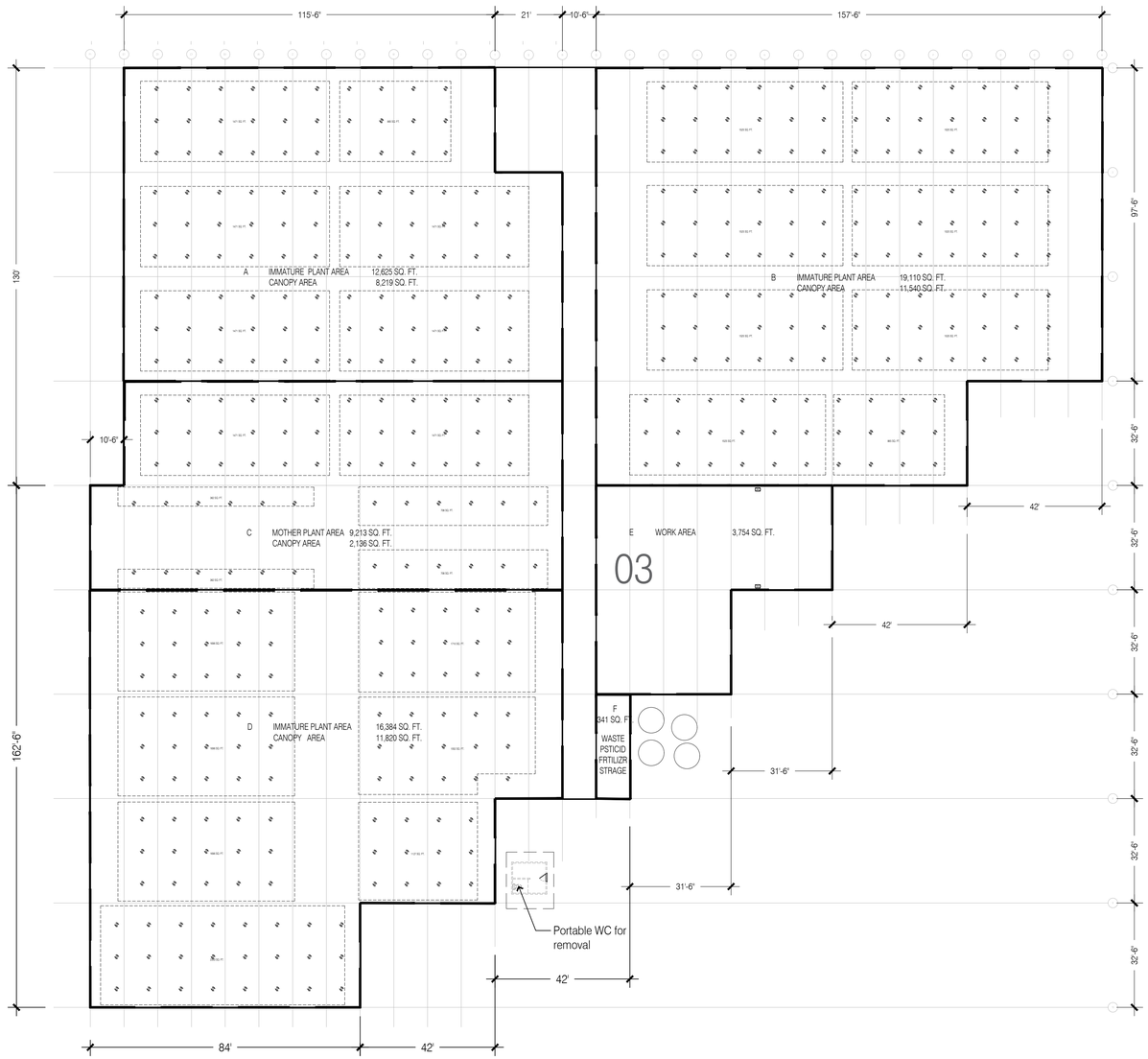
DATE: 1/31/19
SCALE: per drawing
DRAWN: mc
PROJ.T #: 37FCN-PH01-AB
SHEET:

G-01



02 02 Nursery Canopy & Proposed Lighting Plan (TCA18-9557)

3/64" = 1'-0"



01 03 Nursery Canopy Area & Proposed Lighting Plan (TCA18-9557)

3/64" = 1'-0"

PROJECT NORTH NORTH

NURSERY NOTES:

TCA18-09557

BUILDING AREAS SF
(Dimensioned to Grid lines)

Bldg. 02	6,090sf
Bldg. 03	64,496sf

NURSERY AREAS SF

CANOPY AREAS Sq. Ft.

Bldg. 02	A. Seed Production Area	4,064sf
Bldg. 03	A. Immature Plant Area	8,219sf
	B. Immature Plant Area	11,540sf
	C. Mother Plant Area	2,136sf
	D. Immature Plant Area	11,820sf
	CANOPY Ttl. sf:	37,779sf
Bldg. 03	E. Work Area:	3,754 sf
	F. Fertilizer/Pesticides/ Waste Area:	341sf
	Work+Storage Areas:	4,095sf

LIGHTING LEGEND

LED 1000w Nursery Lighting

LIGHTING NOTES:

All electrical work per C.E.C.

Proposed Lighting:
Location Nursery
Bldg. No. 02
03

Usage:
Nursery Canopy Lighting
Bldg. SF = 02+03 =37,779sf

Max W/Unit =1kW
=4.17A/Unit
x380 Units =380kW / 1,583A
380kW / Bldg.sf = 10W/Sf
=.0417A /Sf

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02&03 Canopy&Prop'd Light Plan-TCA18-9557

LICENSED ARCHITECT
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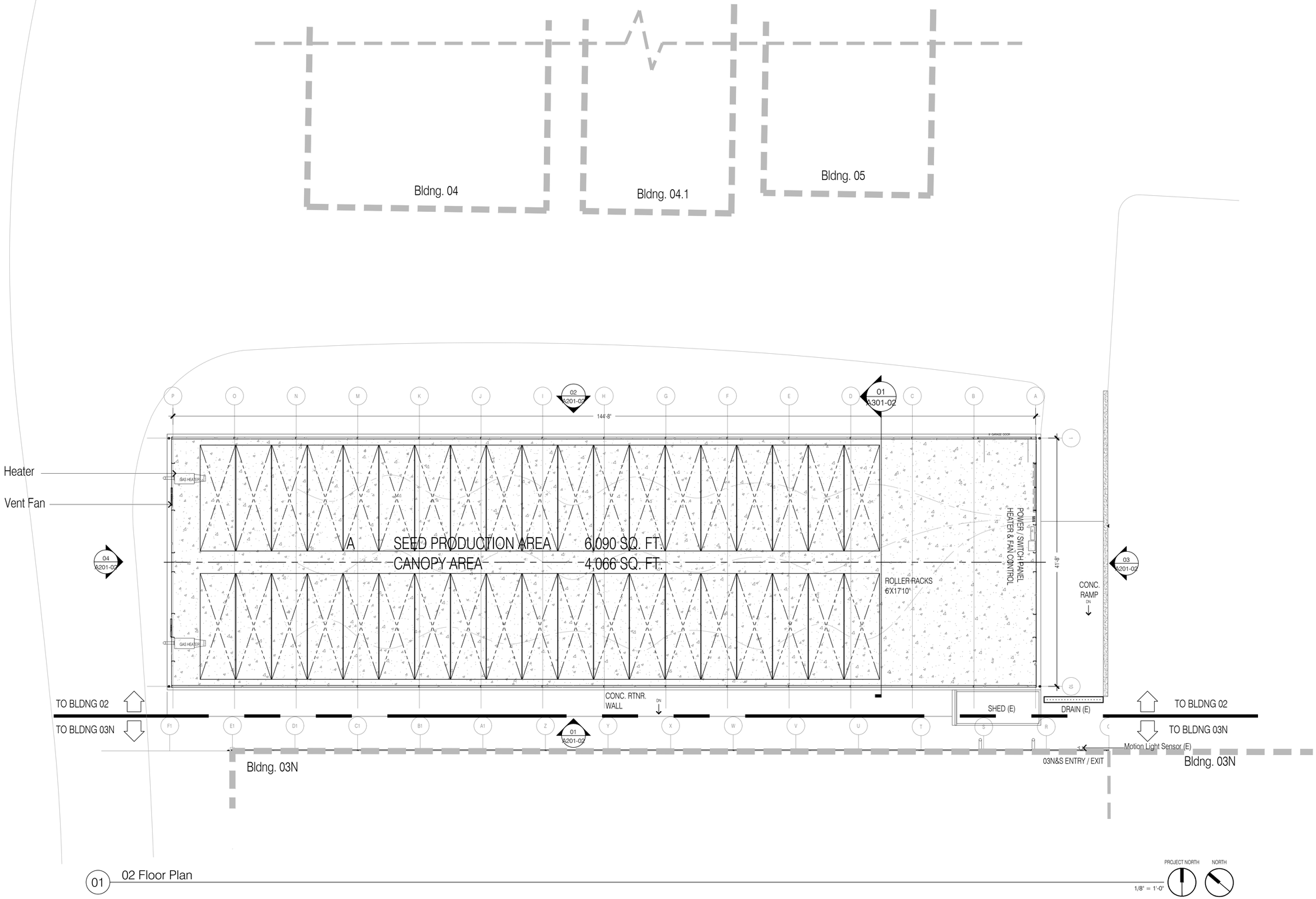
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/31/19
SCALE: per drawing
DRAWN: mc
PROJ #: 37FCN-PH01-AB
SHEET: TCA Nrsry



01 02 Floor Plan

1/8" = 1'-0"

PROJECT NORTH NORTH

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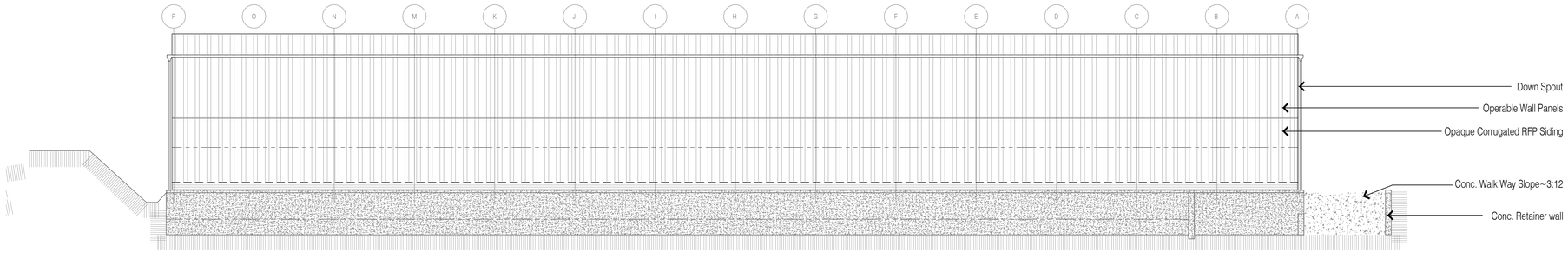
02 Floor & Lighting Plan (Existing)

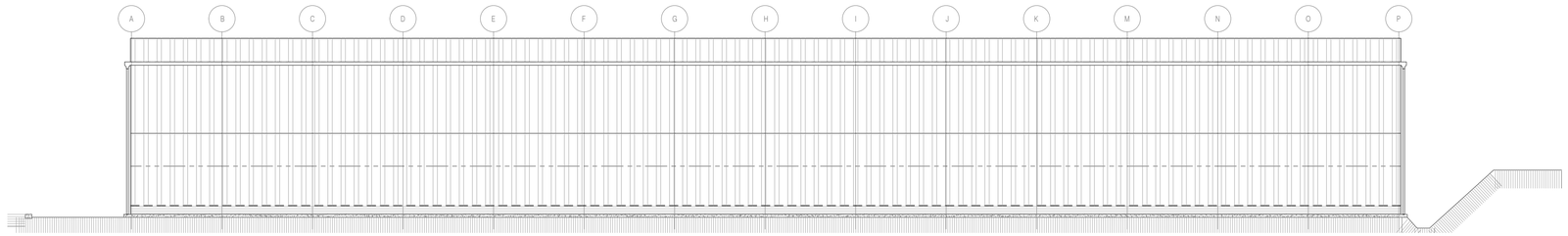
LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ #: 37FCN-PH01-AB
SHEET: A101-02



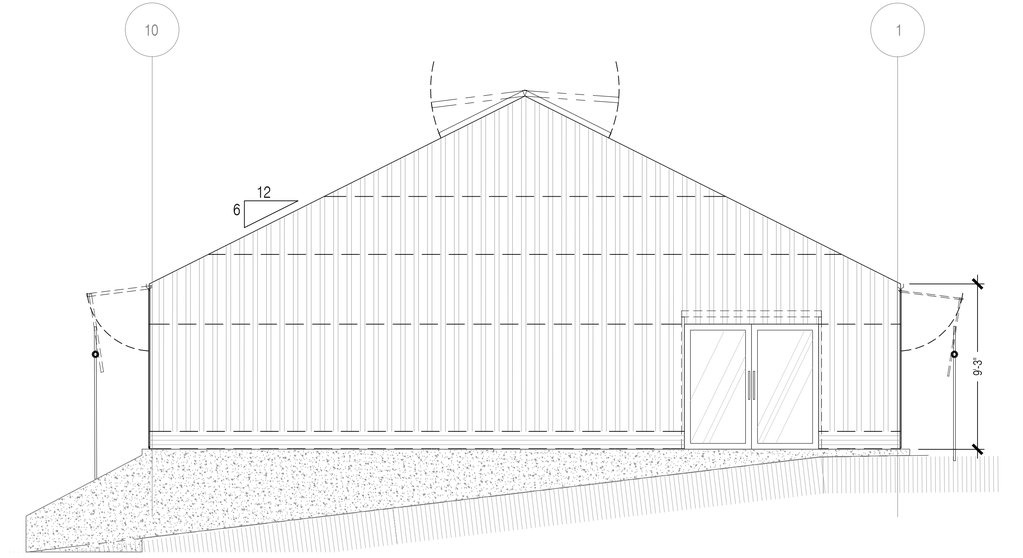
01 02 South Elev.

1/8" = 1'-0"



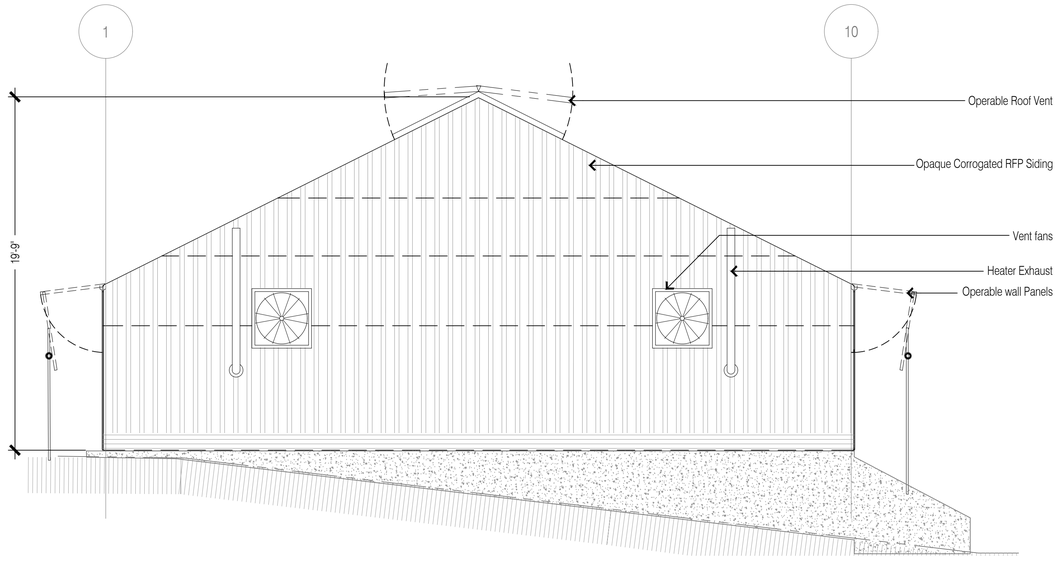
02 02 North Elev.

1/8" = 1'-0"



03 02 East Elev.

1/4" = 1'-0"



04 02 West Elev.

1/4" = 1'-0"

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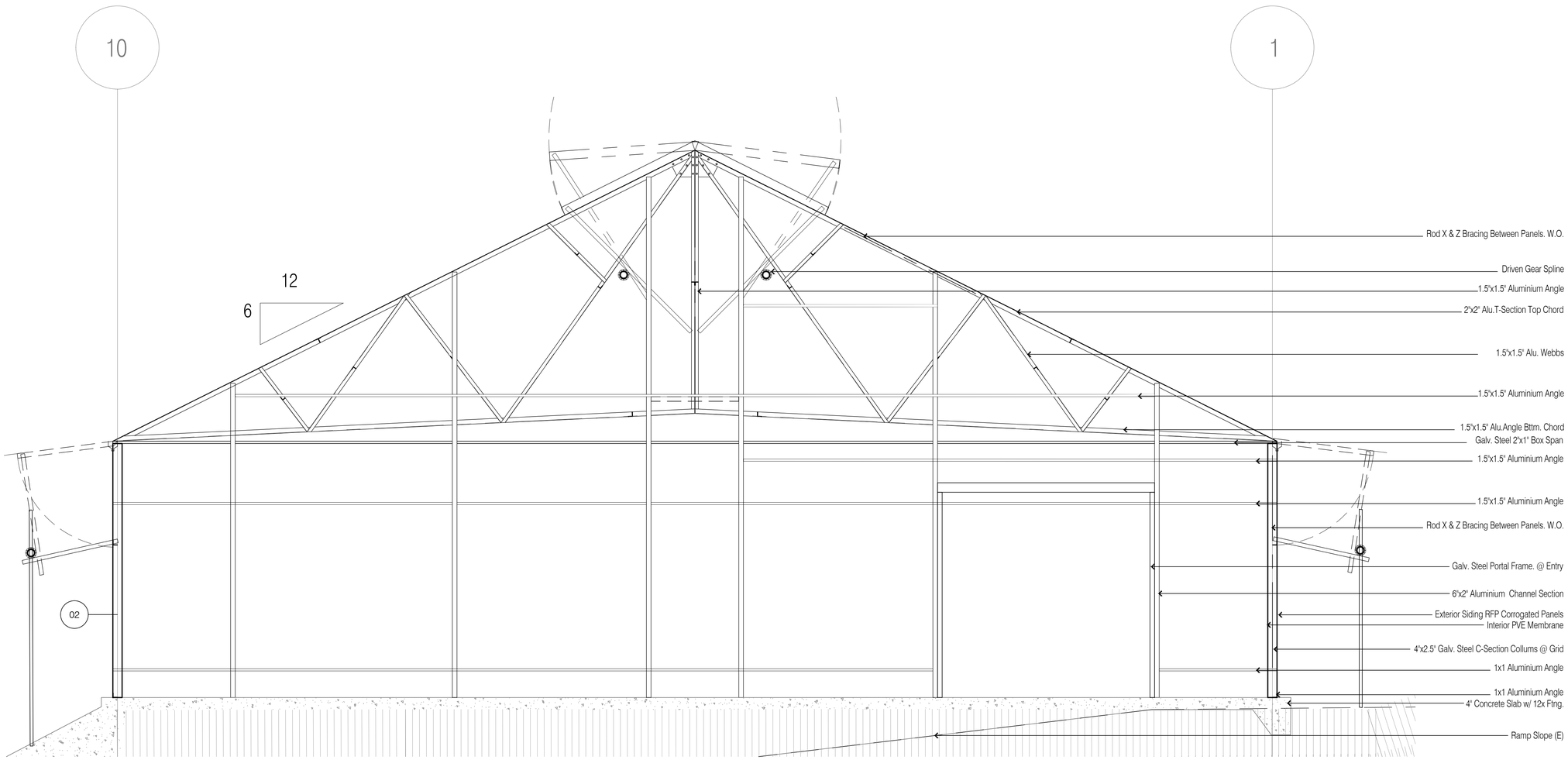
Half Moon Grow Inc
Half Moon Grow Nursery Inc
Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

02 Elevations (Existing)

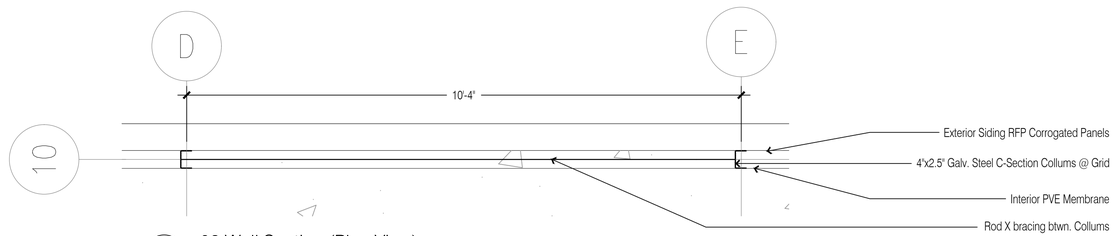
LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/30/19
SCALE:	per drawing
DRAWN:	mc
PROJ #:	37FCN-PH01-AB
SHEET:	A201-02



01 02 Section View Gable Wall & Truss

1/2" = 1'-0"



02 02 Wall Section (Plan View)

3/4" = 1'-0"

REVISIONS

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720 MILL STREET
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(650) 728-7615
edwardclovearch@gmail.com

Half Moon Grow Inc
Half Moon Grow Nursery Inc
Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

02 Section View

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ #: 37FCN-PH01-AB
SHEET: A301-02

01 02 & 03 Floor Plan (Existing)

1/16" = 1'-0"

REVISIONS

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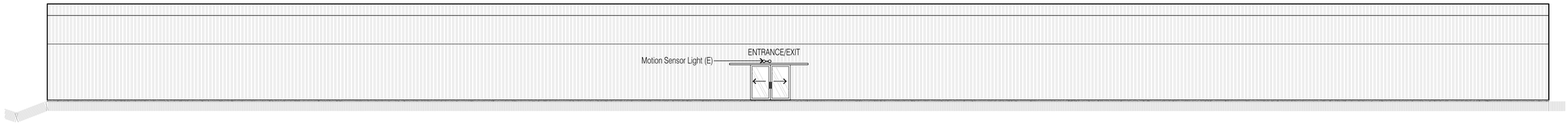
Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

03 FLoor Plan Existing

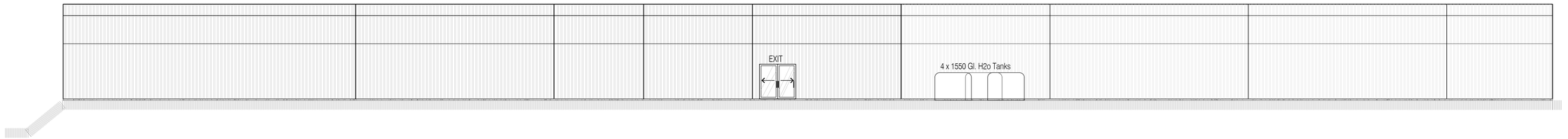
LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ.T #: 37FCN-PH01-AB
SHEET: A101-03



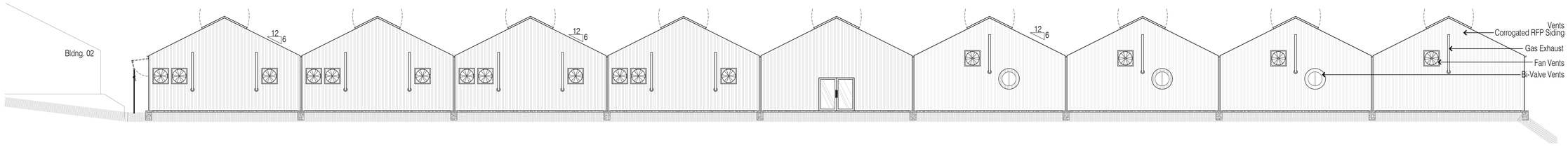
01 03 North Elevation

3/32" = 1'-0"



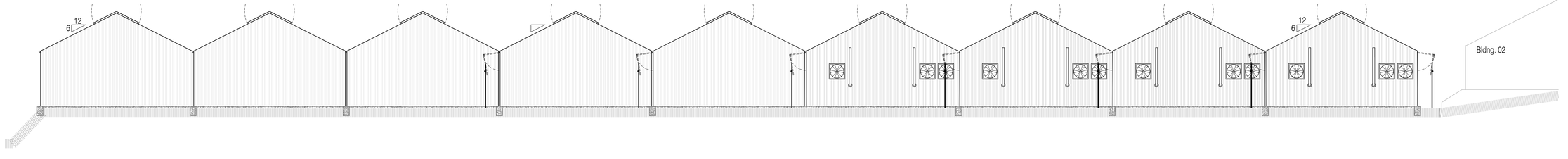
02 03 South Elevation

3/32" = 1'-0"



03 03 West Elevation

3/32" = 1'-0"



04 03 East Elevation

3/32" = 1'-0"

REVISIONS

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Existing Conditions
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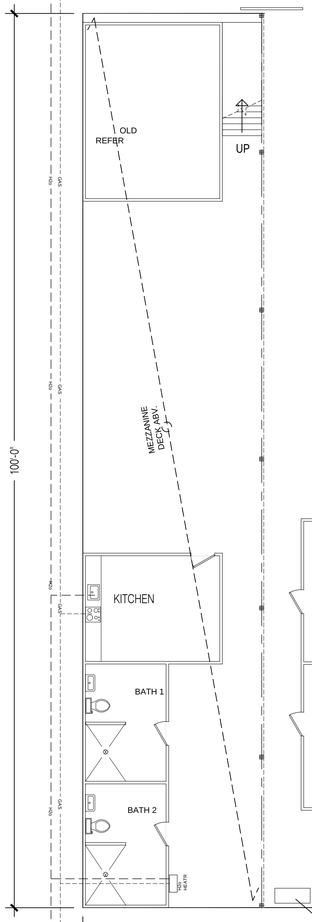
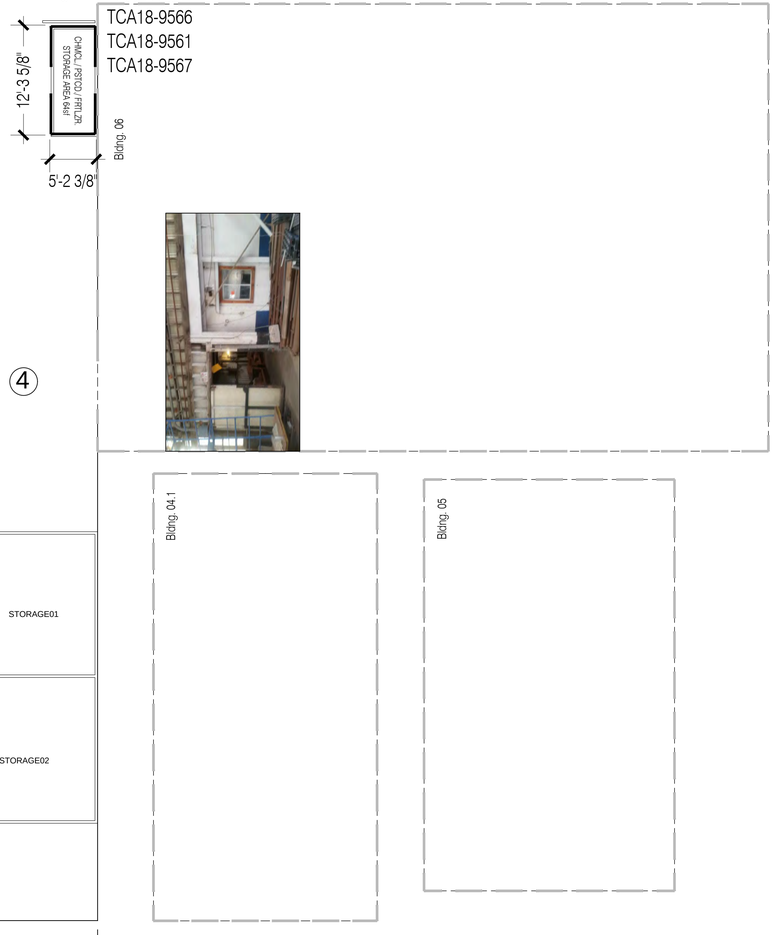
Half Moon Bay Ca., 94019

03 Elevations

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJECT #: 37FCN-PH01-AB
SHEET: A201-03





04 ERTILIZER STORAGE AREA NOTES:

Secure Storage area not limited to:
fertilizer, pesticides, agriculture chemicals, etc.

For Listed areas:
Lic. TCA18-9564
TCA18-9566
TCA18-9561
TCA18-9567

02 NOTE
Use of facilities dependent upon approval from Health Dept.
Water Treatment Unit to be installed.
Size & Location to be verified pending water sampling study.
Connection to Existing Water line to be verified.
(See Civil&Health)

01 04 Floor Plan

1/8" = 1'-0"

PROJECT NORTH NORTH

REVISIONS

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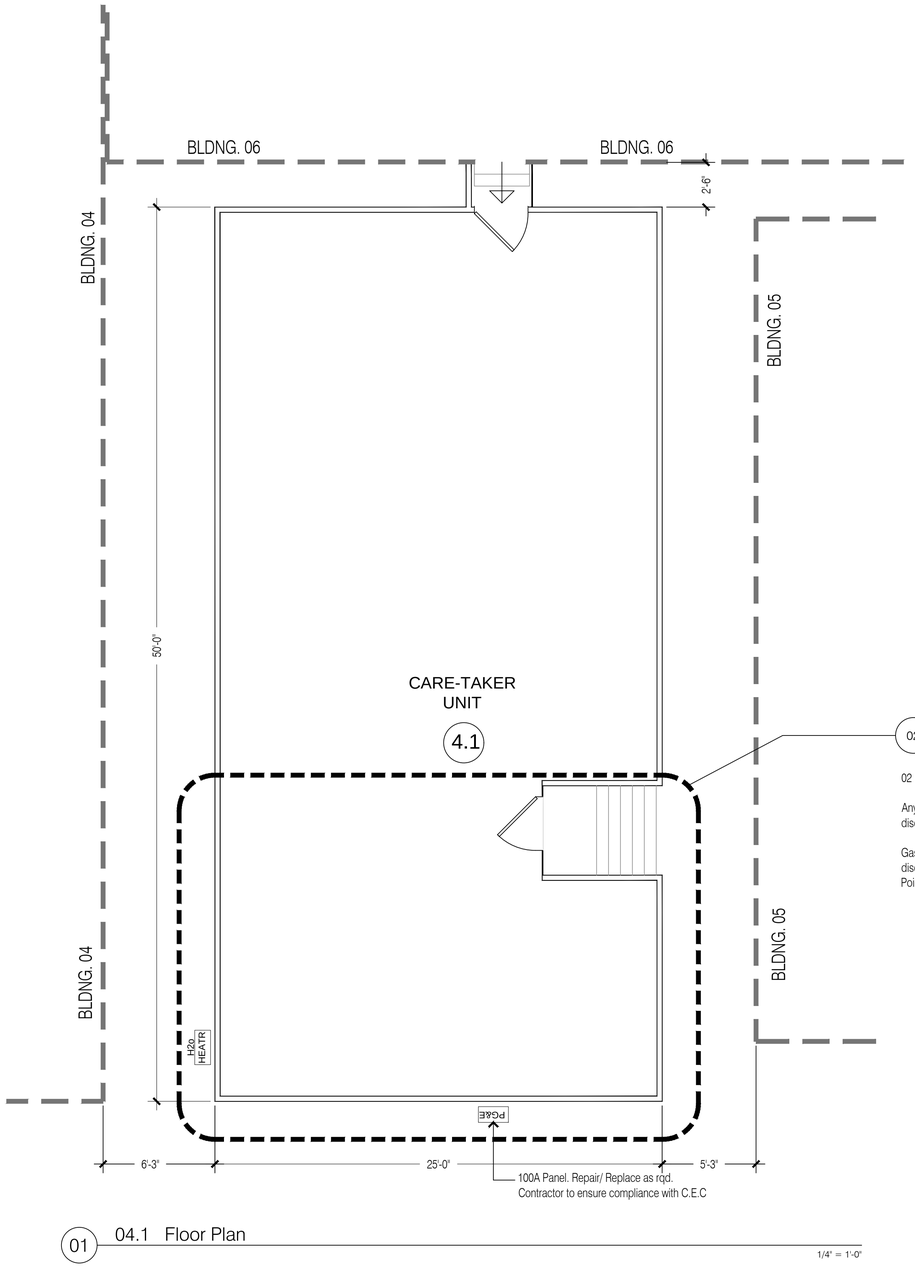
04 FP(E) Storage TCA18-9564 -61 -66 -67

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/31/19
SCALE:	per drawing
DRAWN:	mc
PRJCT #:	37FCN-PH01-AB
SHEET:	A101-04



02 NOTE

Any plumbing facilities to be disconnected from supply.

Gas, Water and Sewer to be disconnected and capped at Point-of-Use.

01 04.1 Floor Plan

1/4" = 1'-0"

REVISIONS

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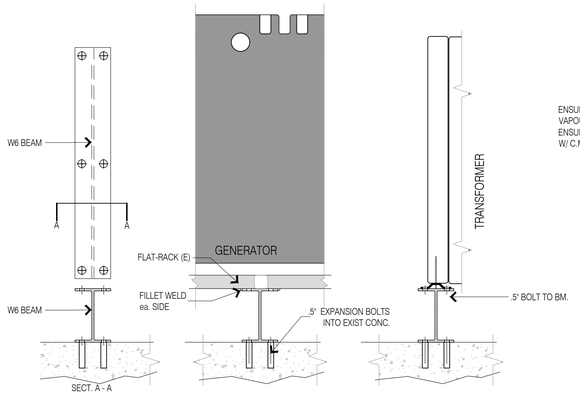
4.1 FLoor Plan (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/31/19
SCALE: per drawing
DRAWN: mc
PRJCT #: 37FCN-PH01-AB
SHEET: A101-4.1



02 Generator & Transformer Connection To Concrete Pad

1 1/2" = 1'-0"

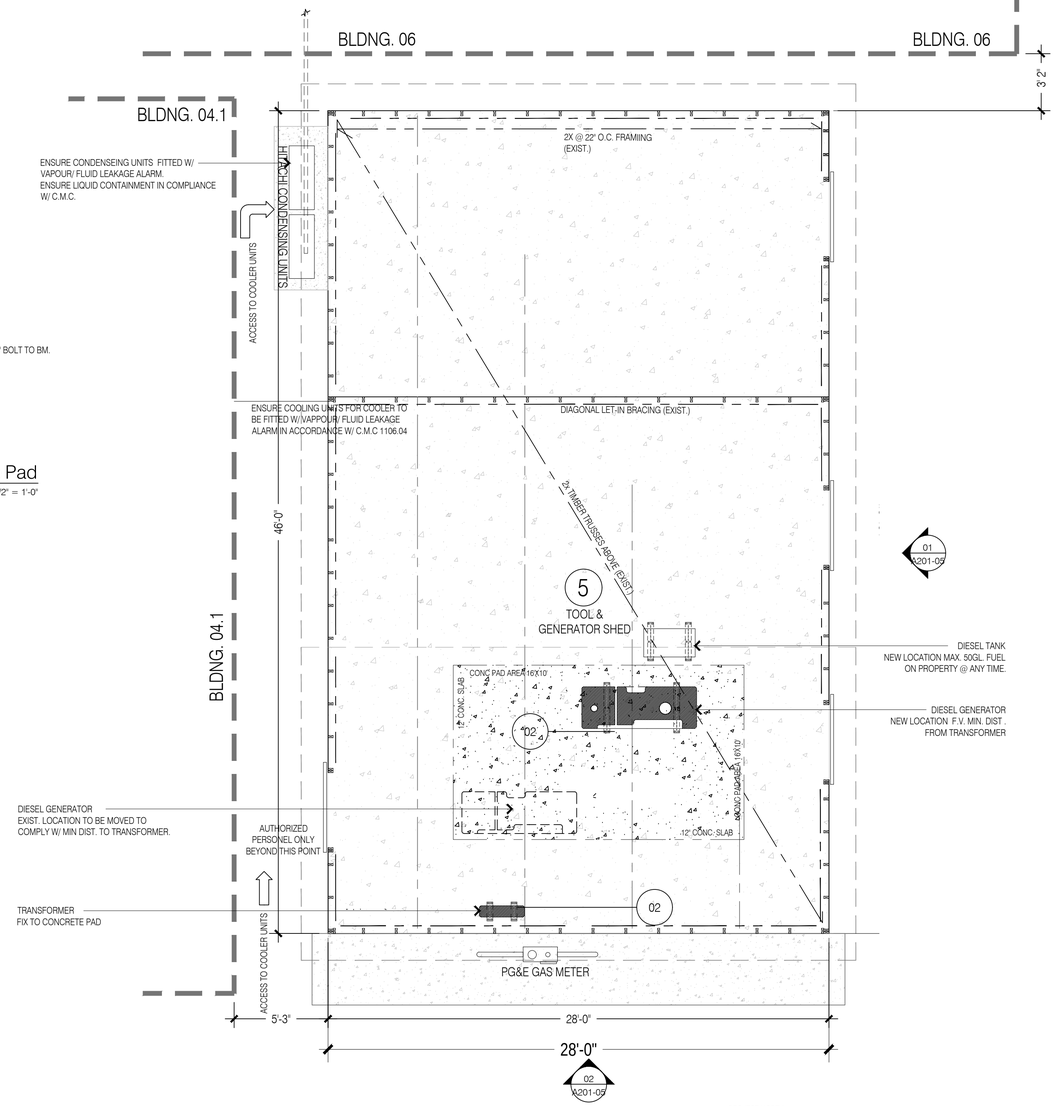
NOTES:

1. Move Generator to new position on pad. Verify min. allowable distance to Transformer.

2. Move Fuel tank accordingly.

3. Max. 50GL fuel on Property at any given time.

4. Secure Transformer, Generator, and fuel tank to concrete pad.



01 05 Floor Plan

1/4" = 1'-0"

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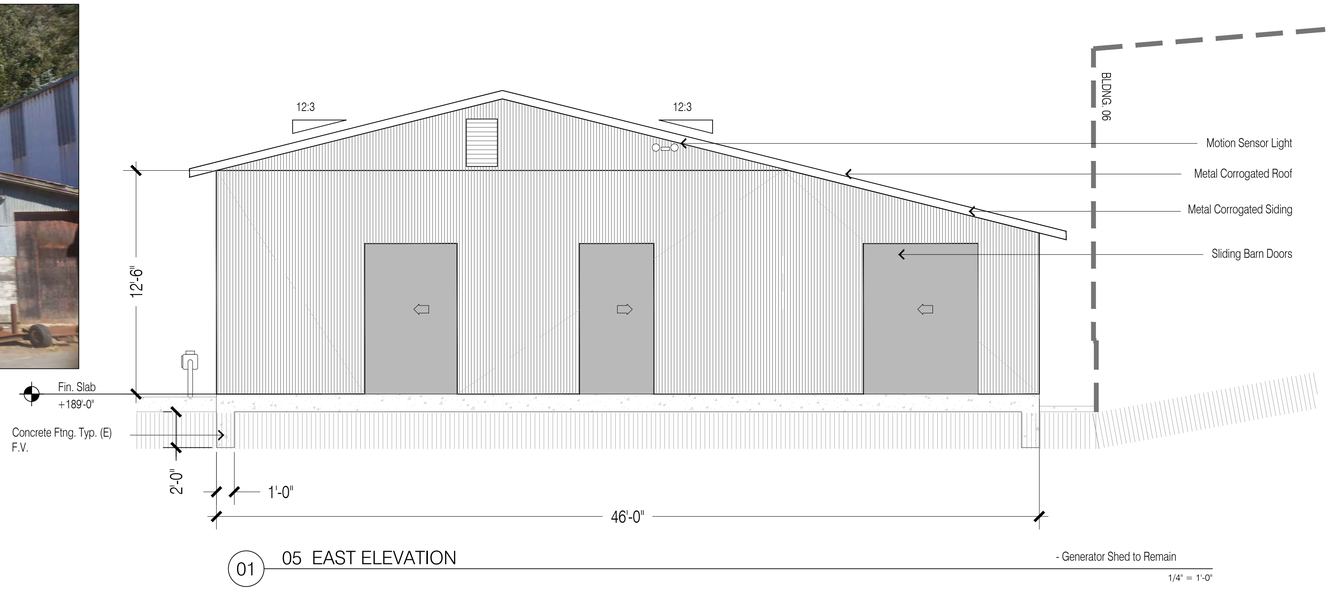
05 FLoor Plan (Existing)

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

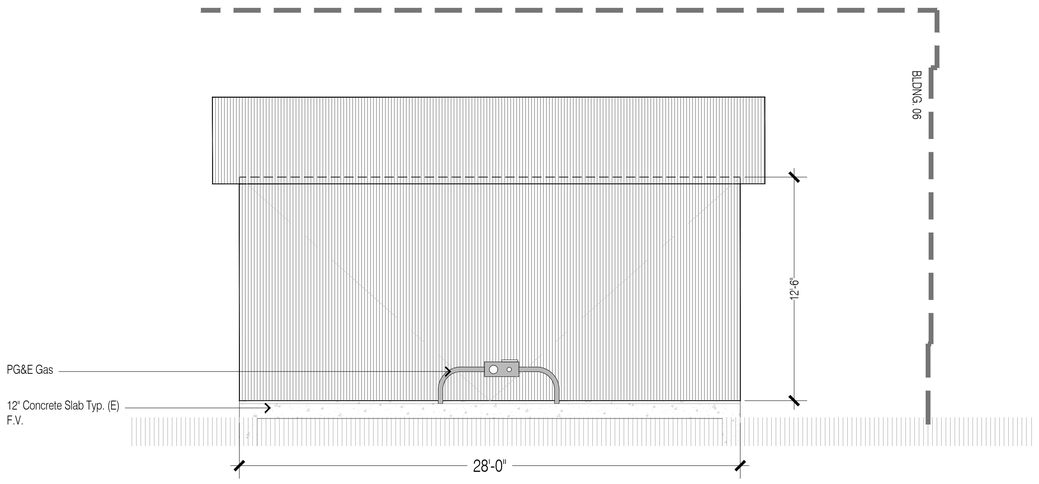
DATE:	1/30/19
SCALE:	per drawing
DRAWN:	mc
PROJ #:	37FCN-PH01-AB
SHEET:	A101-05



01 05 EAST ELEVATION

- Generator Shed to Remain

1/4" = 1'-0"



02 05 SOUTH ELEVATION

-Generator Shed to Remain

1/4" = 1'-0"

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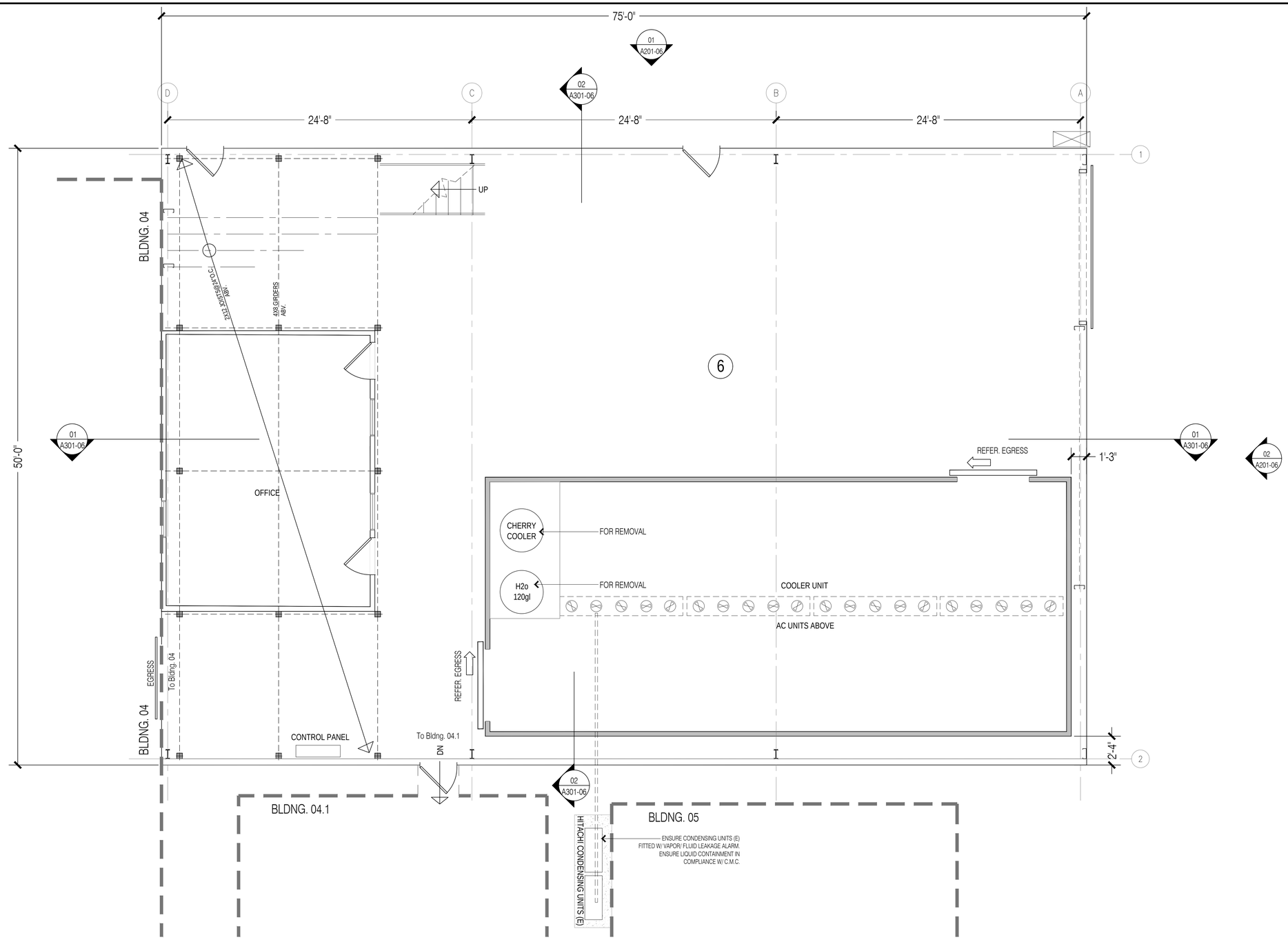
Half Moon Bay Ca., 94019

05 Elevations (Existing)

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ #: 37FCN-PH01-AB
SHEET:

A201-05



01 06 Floor Plan LVL.01

1/4" = 1'-0"

PROJECT NORTH NORTH

REVISIONS

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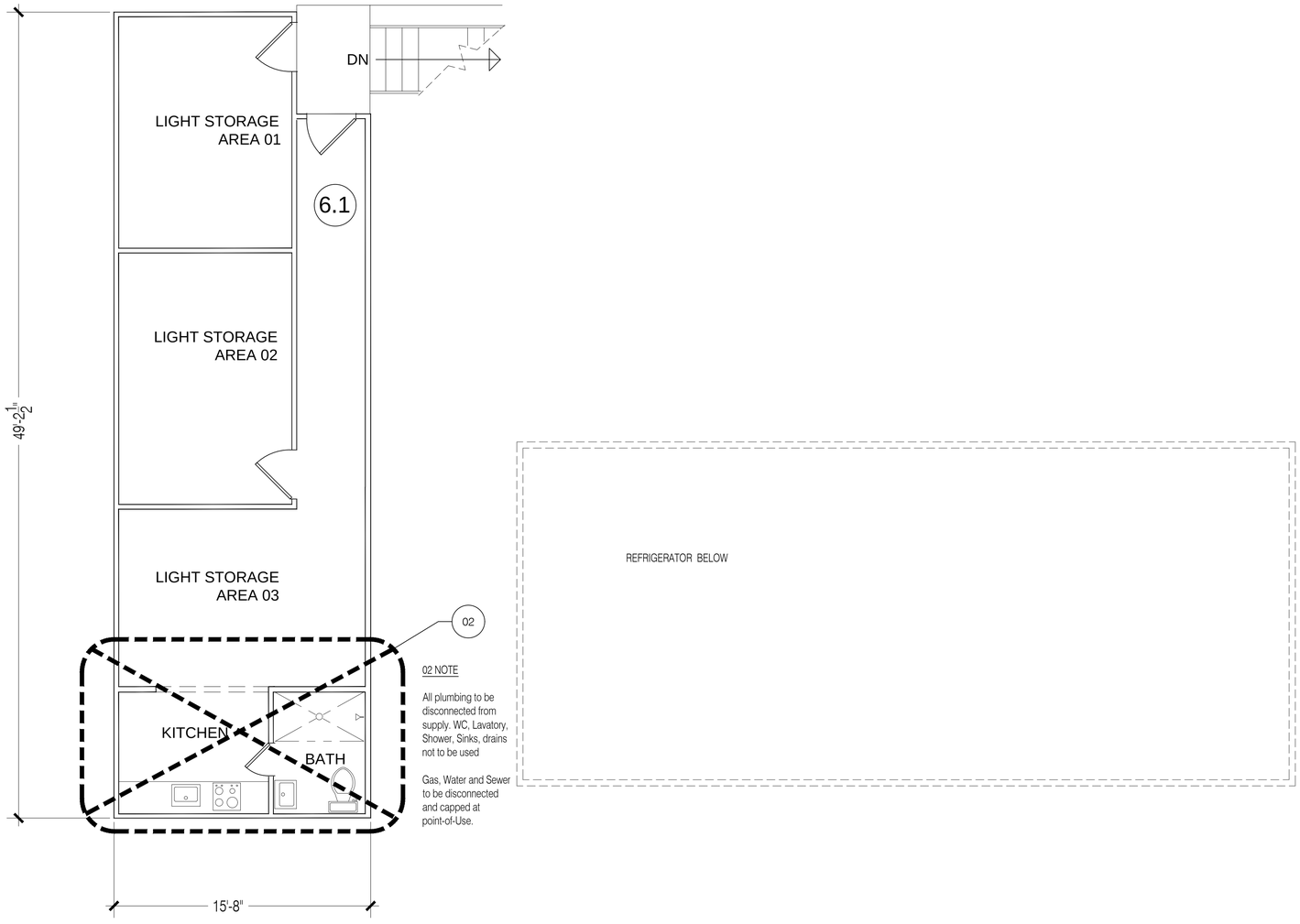
06 Floor Plan LVL.01 (Existing)

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ.T #: 37FCN-PH01-AB
SHEET: A101-06



02 NOTE

All plumbing to be disconnected from supply. WC, Lavatory, Shower, Sinks, drains not to be used

Gas, Water and Sewer to be disconnected and capped at point-of-Use.

01 06 Floor Plan Lvl.02

1/4" = 1'-0"

PROJECT NORTH NORTH

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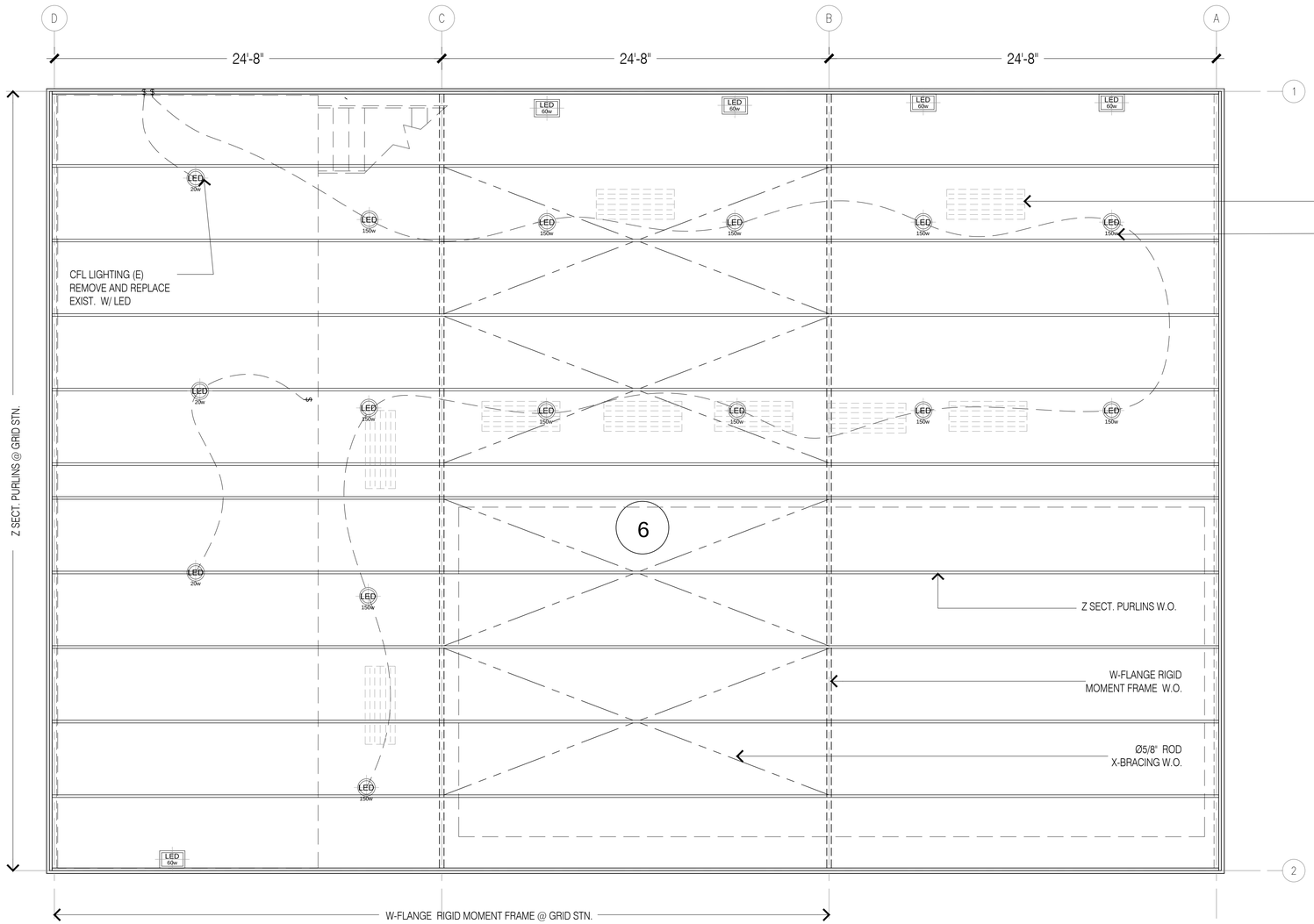
06 Floor Plan Lvl.02 (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PRJCT #: 37FCN-PH01-AB
SHEET: A102-06



LIGHTING LEGEND

- LED 60w — Auxiliary Wall Lighting
- LED 20w — Auxiliary Passage Lighting
- LED 150w — Process Lighting

ELECTRICAL NOTES:

Plans show Existing to be replaced/Removed and New.
Plans show power draw of proposed lighting systems only.

All other Electrical and Mechanical Applications power under assessment.

Locate and Replace all existing CFL Lights w/ LED.
Maintain orginal location of lights.
Re-wire per C.E.C.

LED Specs:
150w UFO LED High Bay Light
CCP UHB150W
CCT (K) T.B.C.
16500 Lm

Usage:
Auxiliary Lighting:
Wall & Passage lighting
2A

Process Lighting:
LED High Bay Lights 150W ea.
150w/ 144sf avg. (12'x12')
Bldng. 05
12 X 0.625A = 8A

01 06 Ceiling & Lightiing Plan

1/4" = 1'-0"

PROJECT NORTH NORTH

REVISIONS

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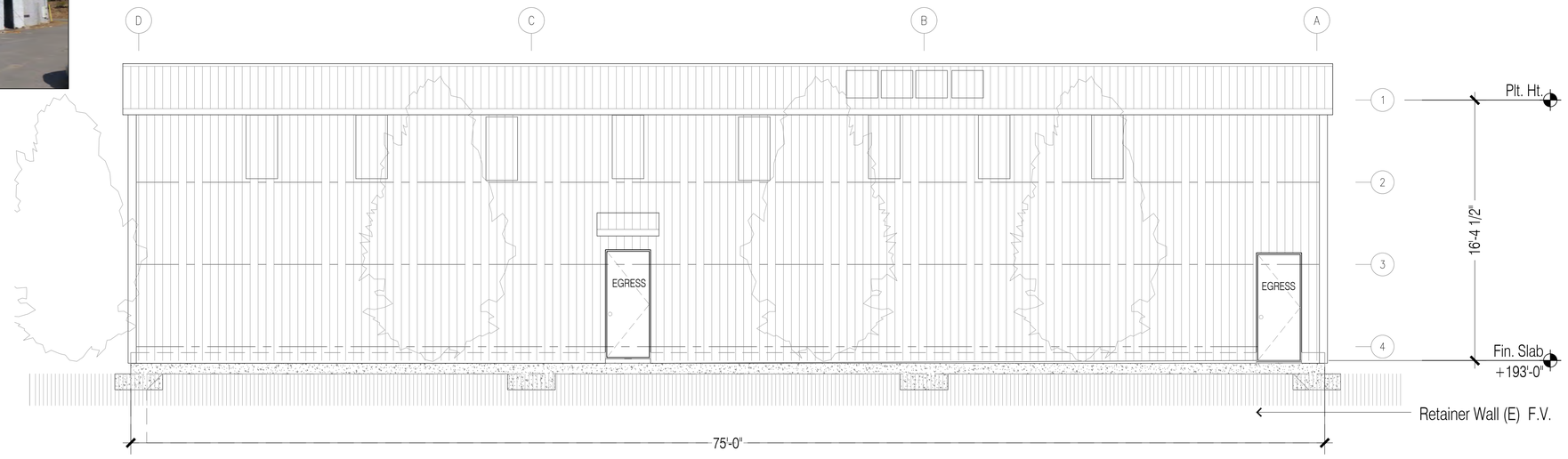
06 Ceiling & Proposed Lighting Plan

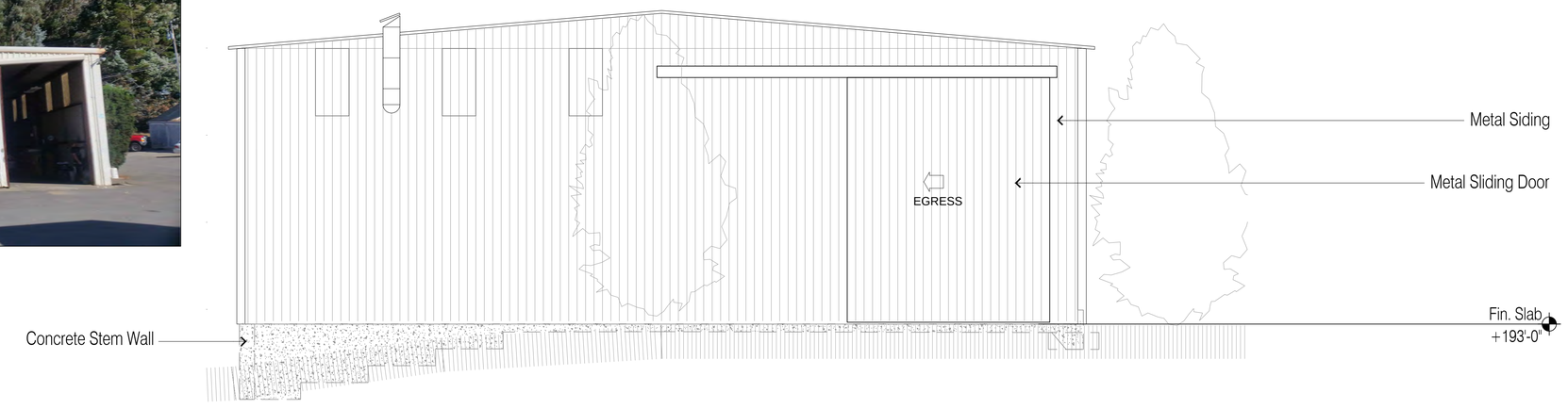
LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/30/19
SCALE:	per drawing
DRAWN:	mc
PRJCT #:	37FCN-PH01-AB
SHEET:	A103-06



01 06 North Elevation

1/4" = 1'-0"



02 06 East Elevation

1/4" = 1'-0"

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Existing Conditions
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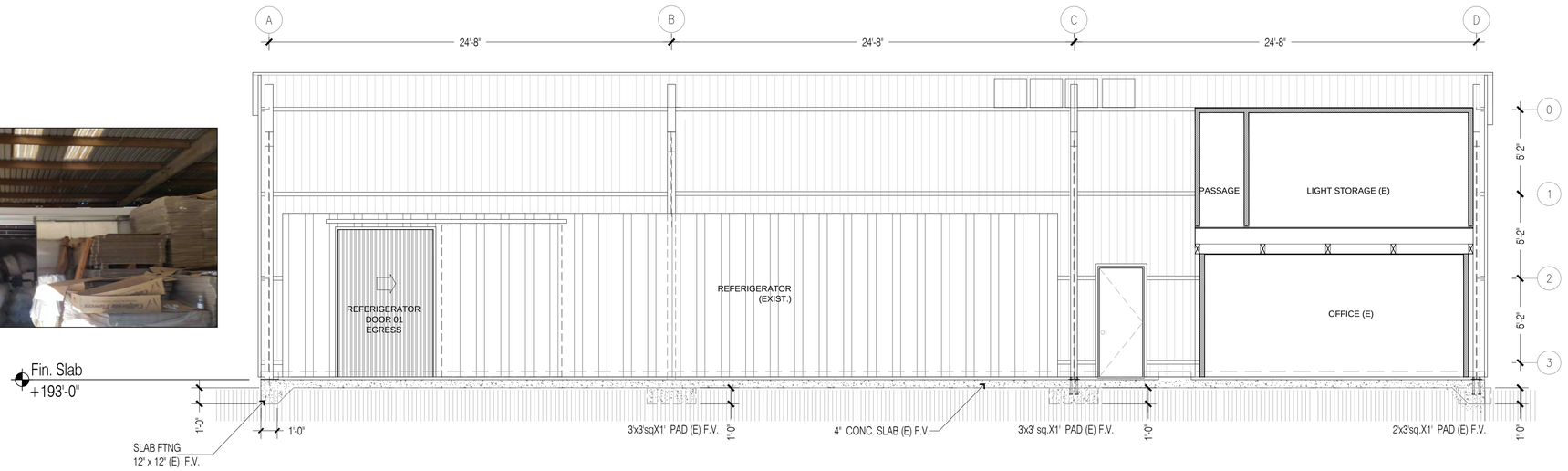
Half Moon Bay Ca., 94019

06 Elevations N&E (Existing)

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

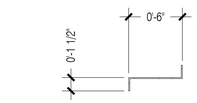
DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ #: 37FCN-PH01-AB
SHEET:

A201-06



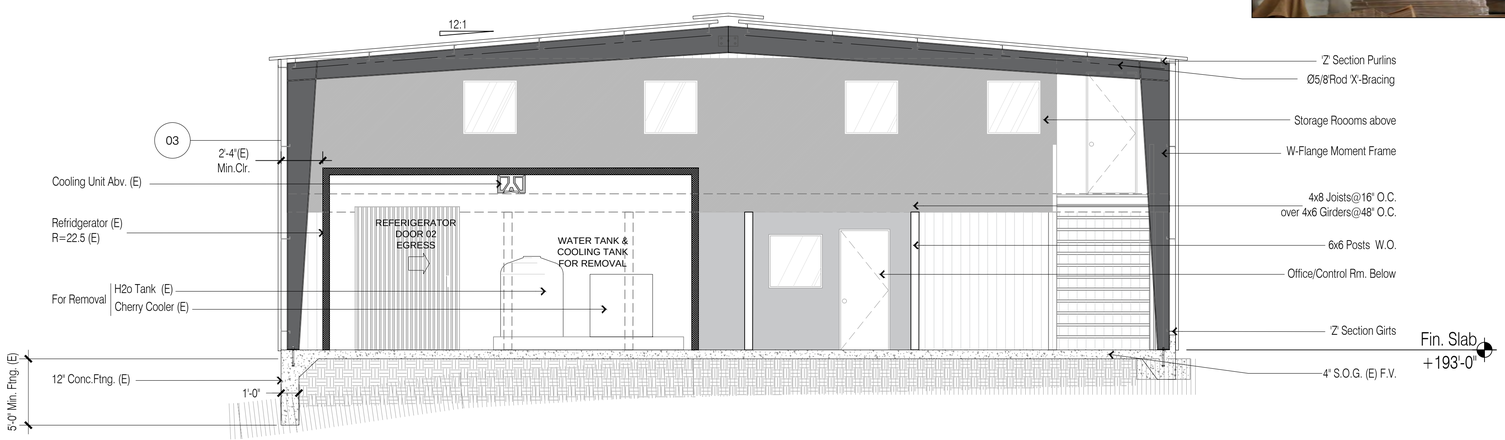
01 06 Section Views (E)

1/4" = 1'-0"



03 Purlins And Girts (E)

1 1/2" = 1'-0"



02 06 Section Views (E)

1/4" = 1'-0"

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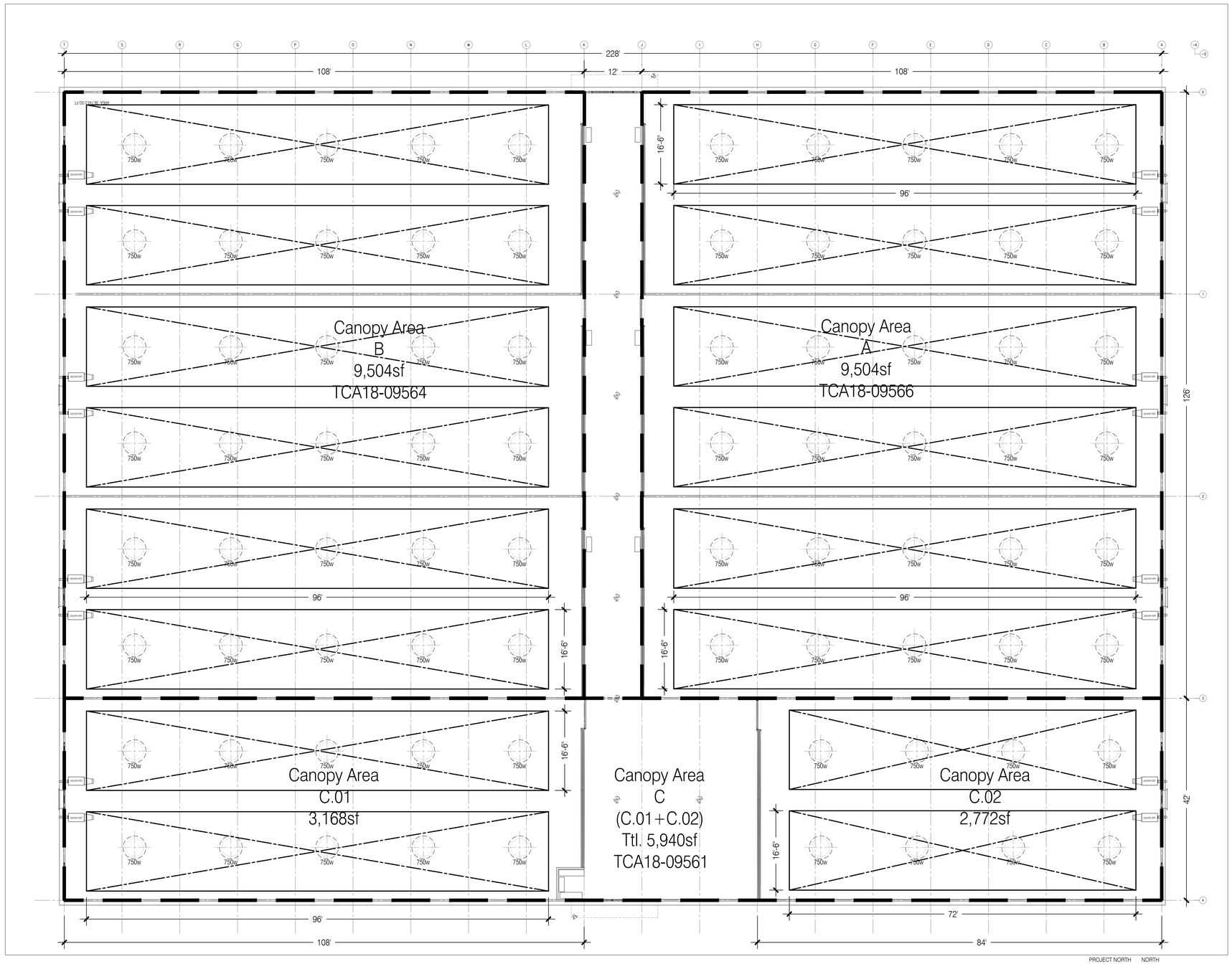
Half Moon Bay Ca., 94019

06 Sections 01&02 (Existing)

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/30/19
SCALE:	per drawing
DRAWN:	mc
PROJ.T #:	37FCN-PH01-AB
SHEET:	A301-06



01 08 Canopy&Proposed Lighting Plan TCA18-9561 -64 -66

3/32" = 1'-0"

PROJECT NORTH NORTH

FLOOR PLAN NOTES:

TOTAL CANOPY AREA:
A + B + C = 24,948sf

Canopy Areas:
A= 9,504sf
Tier 1 Sm. Mxd. Lt.
Lic.TCA18-09566

B= 9,504sf
Tier 1 Sm. Mxd. Lt.
Lic.TCA18-09564

C= 5,940sf
Tier 1 Sm. Mxd. Lt.
Lic.TCA18-09561

LIGHTING LEGEND

750w Cultivation Lighting

LIGHTING NOTES:

All electrical work per C.E.C.

Proposed Lighting:
Location
Number
Unit/SF

Usage:
Cultivation Lighting

Max W/Unit =750W
=3.4A/Unit
x78 Units =58.5kW
=265.2A

750W/144sf Avg. (12'x12')
=5.2W/Sf
=.024A /Sf

REVISIONS

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Existing Conditions
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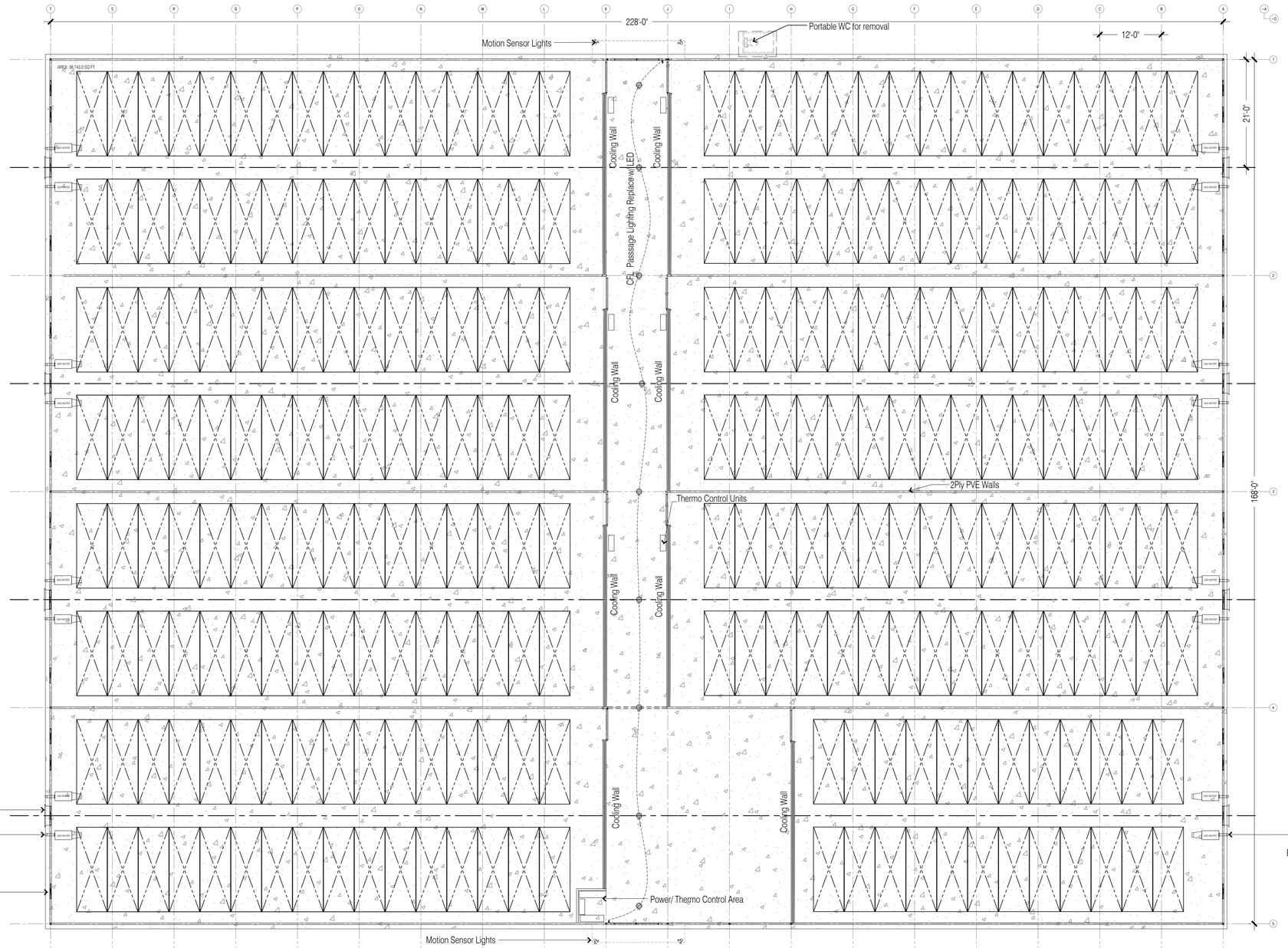
Half Moon Bay Ca., 94019

08 Canopy&Prop'd Lighting Plan-TCA18-9561,4,6

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/31/19
SCALE: per drawing
DRAWN: mc
PROJ.T #: 37FCN-PH01-AB
SHEET: TCA-CultA



01 08 Floor Plan (Existing)

3/32" = 1'-0"

PROJECT NORTH NORTH

REVISIONS

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Architect
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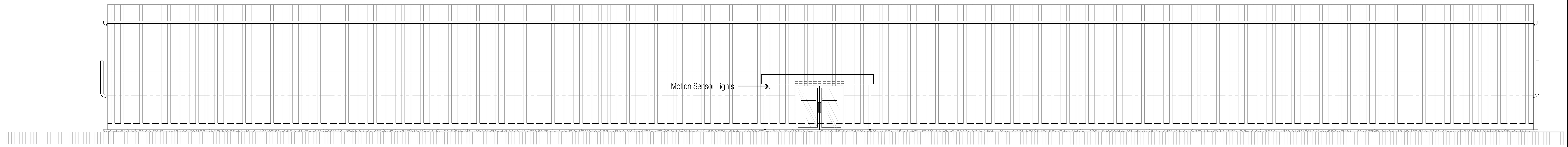
Half Moon Grow Inc
Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

08 Floor Plan (Existing)

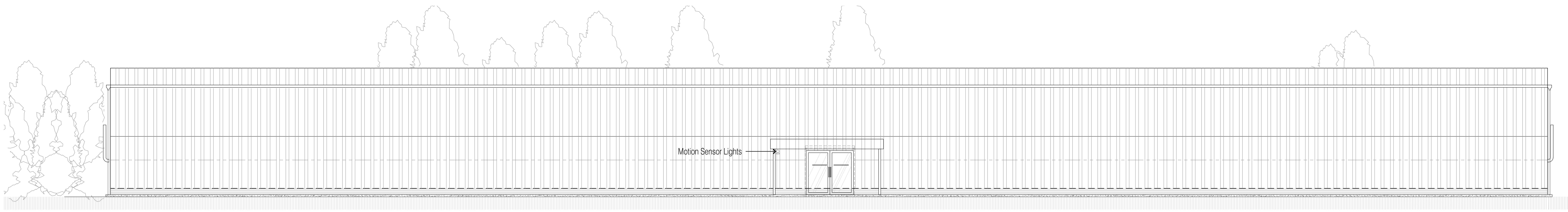
LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/31/19
SCALE:	per drawing
DRAWN:	mc
PROJ.T #:	37FCN-PH01-AB
SHEET:	A101-08



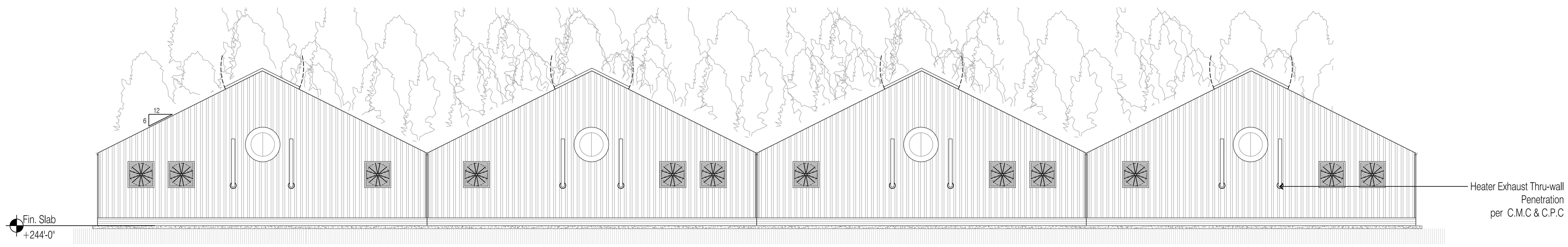
01 08 South Elevations (Existing)

1/8" = 1'-0"



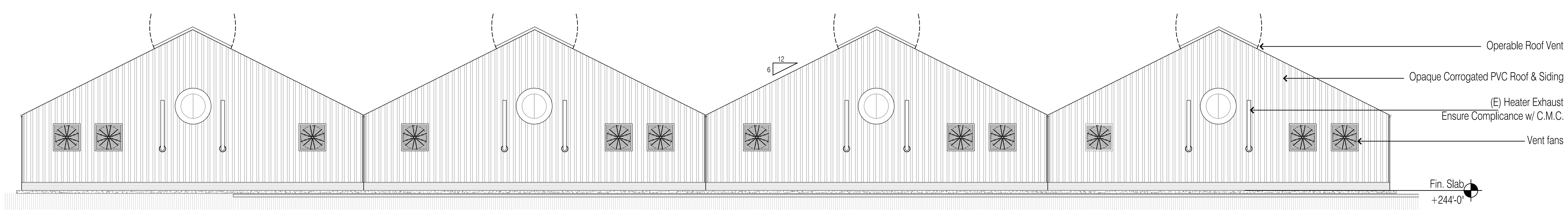
02 08 North Elevation (Existing)

1/8" = 1'-0"



03 08 West Elevation (Existing)

1/8" = 1'-0"



04 08 East Elevation (Existing)

1/8" = 1'-0"

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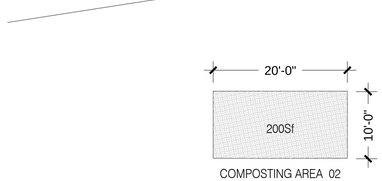
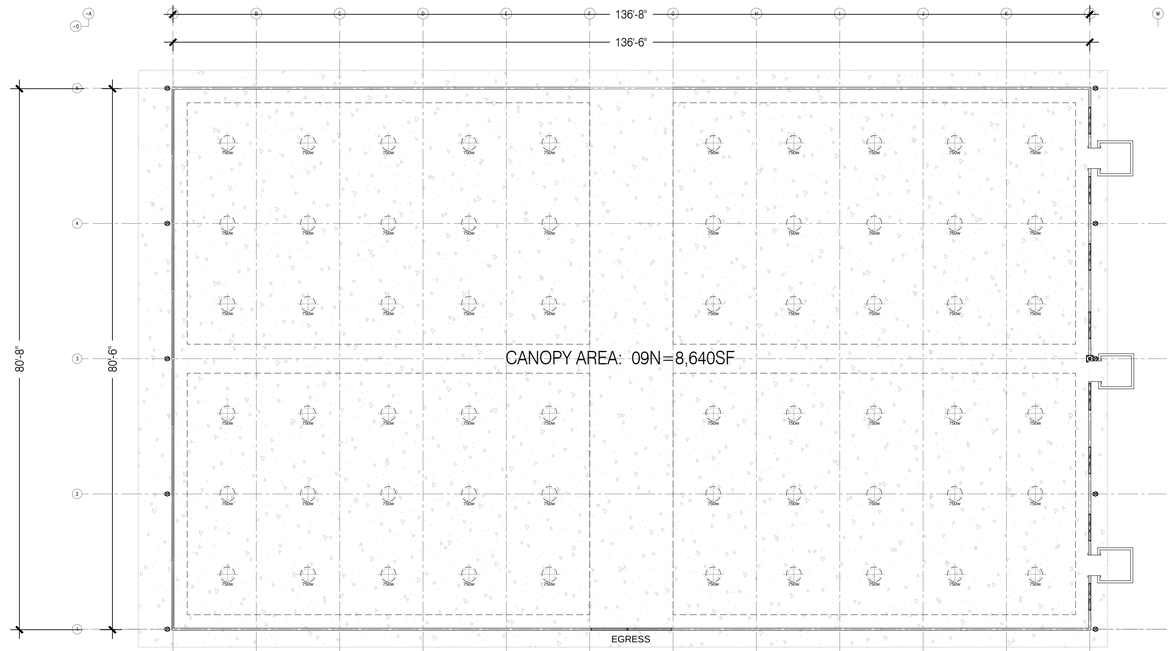
Half Moon Bay Ca., 94019

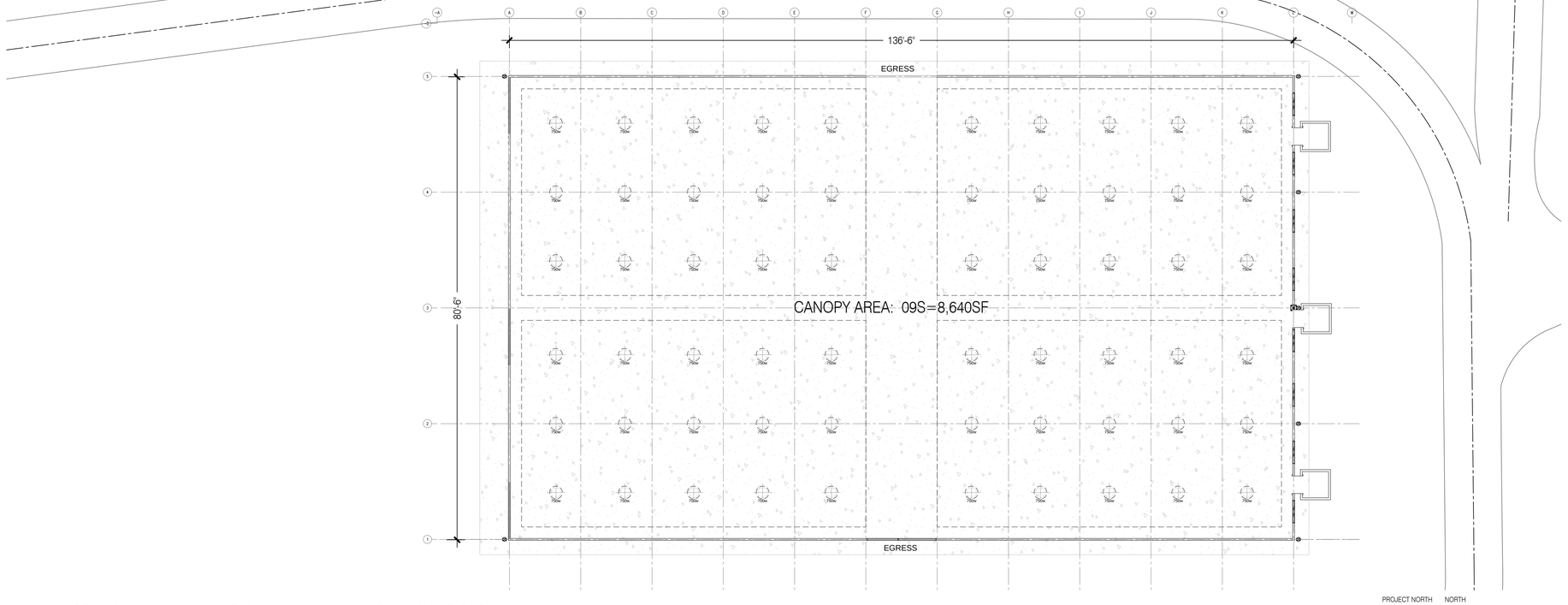
08 Elevations (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/30/19
SCALE:	per drawing
DRAWN:	
PRJCT #:	37FCN-PH01-AB
SHEET:	A201-08







01 09 Cultivation Canopy & Proposed Lighting Plan TCA18-9567

3/32" = 1'-0"

PROJECT NORTH NORTH

FLOOR PLAN NOTES:

Med. Mixed Lt. Tier1 Lic. TCA18-09567

CANOPY AREA:
03N + 03S = 17,280sf

LIGHTING LEGEND

Cultivation Lighting

LIGHTING NOTES:

All electrical work per C.E.C.

Proposed Lighting:
Location
Number
Unit/SF

Usage:
Cultivation Lighting

Max W-A/Unit =750W
=3.4A/Unit
x120 Units =90kW
=408A

750W/144sf Avg. (12'x12')
=5.2W/Sf
=.024A /Sf

REVISIONS

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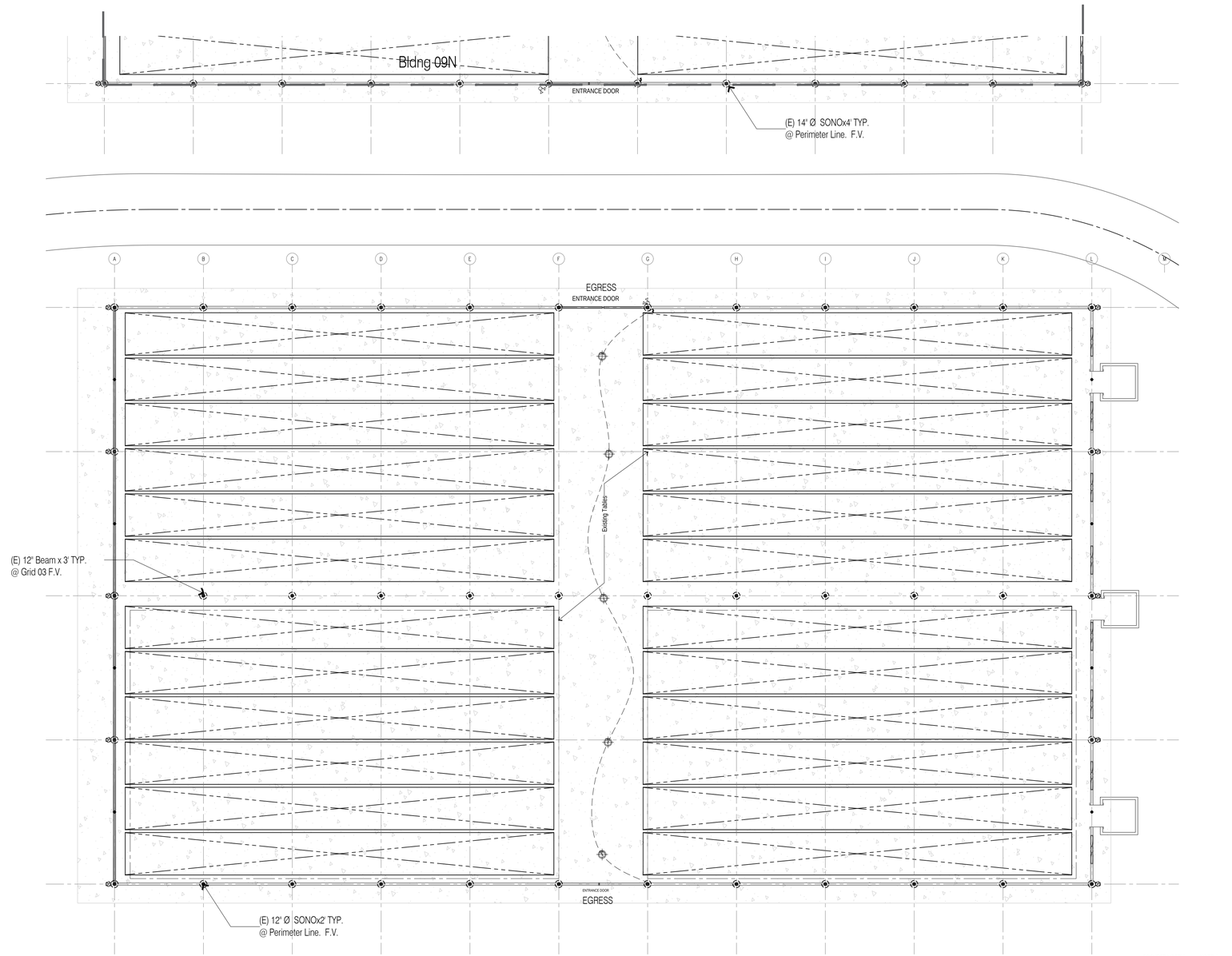
Half Moon Grow Inc
Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

09 Canopy&Prop'd Lighting TCA18-9567

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PRJCT #: 37FCN-TCA-01
SHEET: TCA-CultB



01 09S Floor Plan (Exist.)

1/8" = 1'-0"

PROJECT NORTH NORTH

REVISIONS

Edward C. Love
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720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

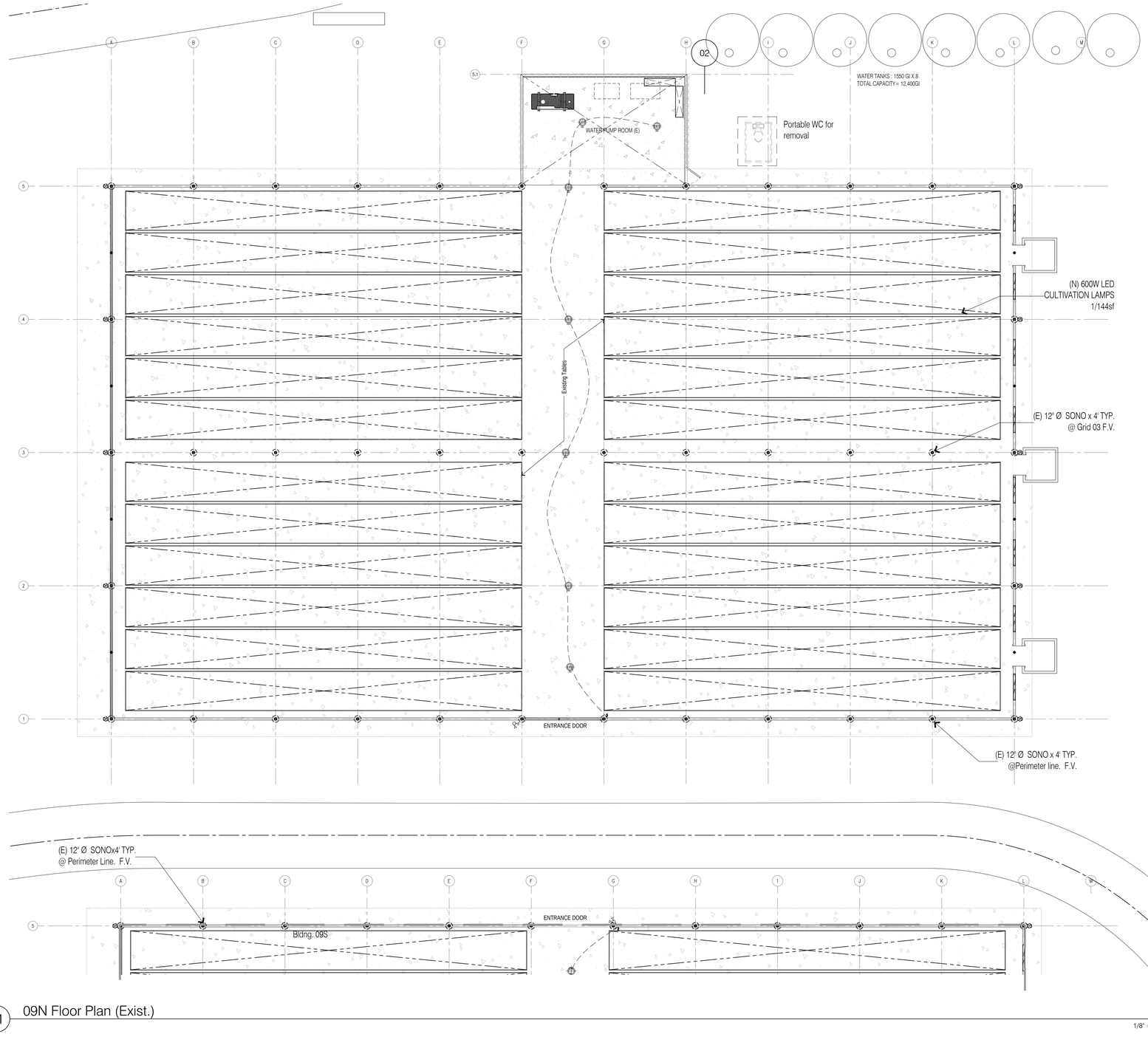
Half Moon Grow Inc
Half Moon Grow Nursery Inc
Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

09S Floor Plan (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ.T #: 37FCN-PH01-AB
SHEET:

A101-9S



01 09N Floor Plan (Exist.)

1/8" = 1'-0"

PROJECT NORTH NORTH

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Existing Conditions
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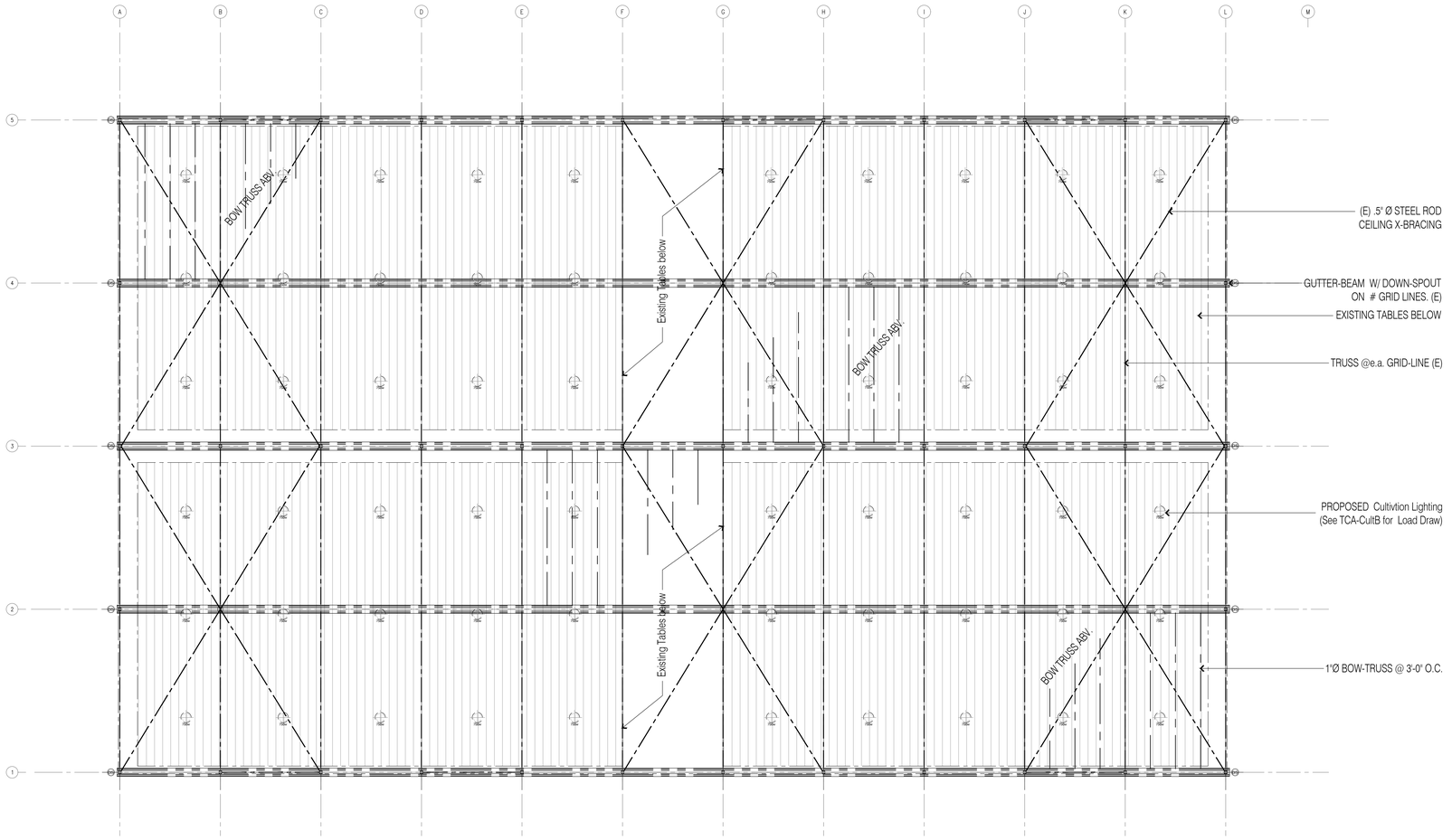
Half Moon Bay Ca., 94019

09N Floor Plan (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/31/19
SCALE: per drawing
DRAWN: mc
PRJCT #: 37FCN-PH01-AB
SHEET: A101-9N



01 09N&09S Ceiling Layout (E) & Lighting Plan

1/8" = 1'-0"

PROJECT NORTH NORTH

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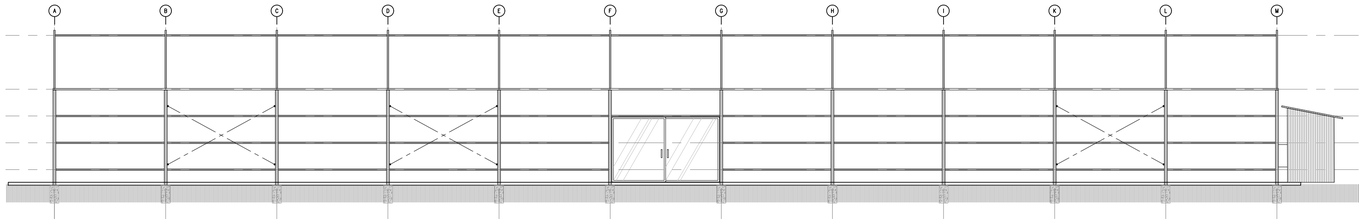
09 Cieling&Proposed Light Plan

LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

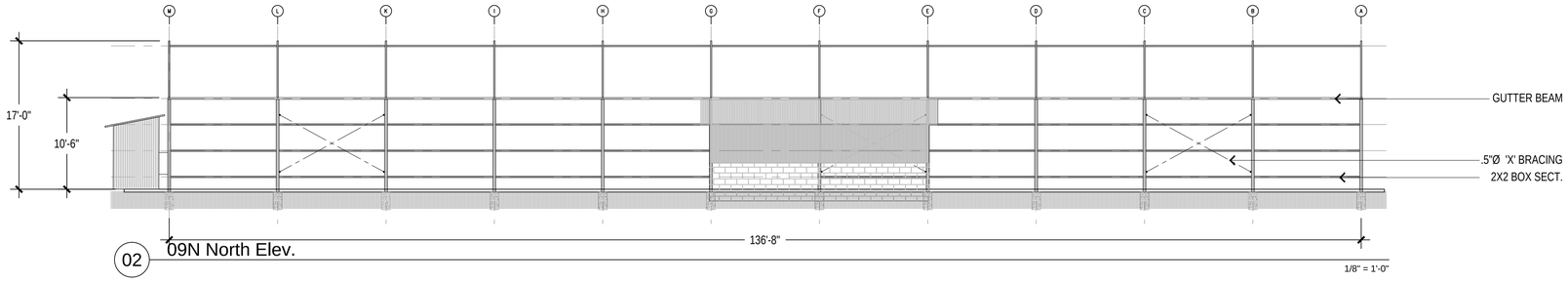
DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PRJCT #: 37FCN-TCA-01
SHEET:

A103-9N&S



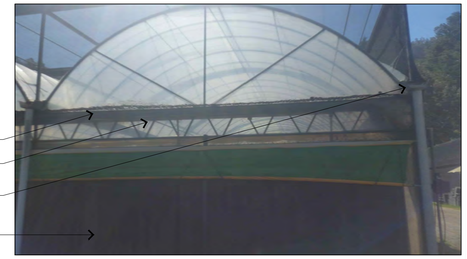
01 09N South Elev.

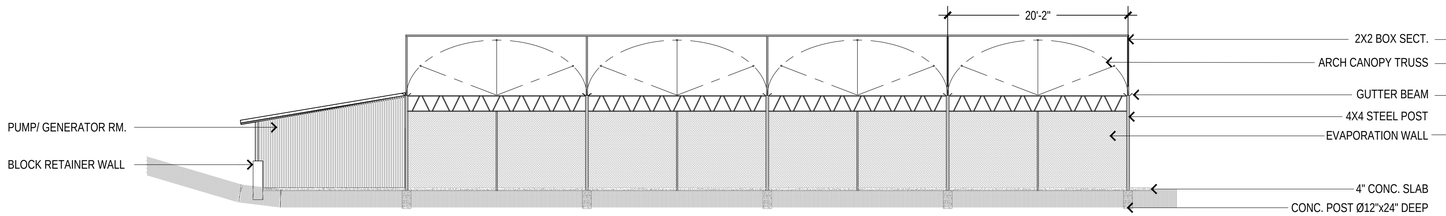
1/8" = 1'-0"



02 09N North Elev.

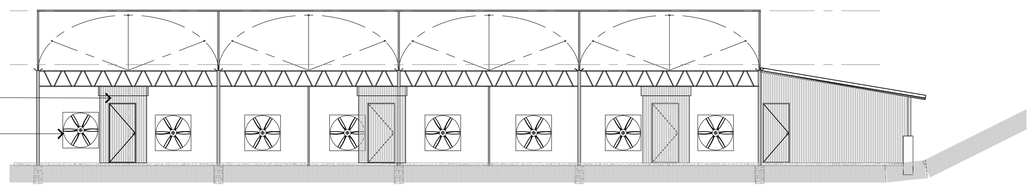
1/8" = 1'-0"





03 09N West Elev.

1/8" = 1'-0"



04 09N East Elev.

1/8" = 1'-0"

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Half Moon Grow Inc
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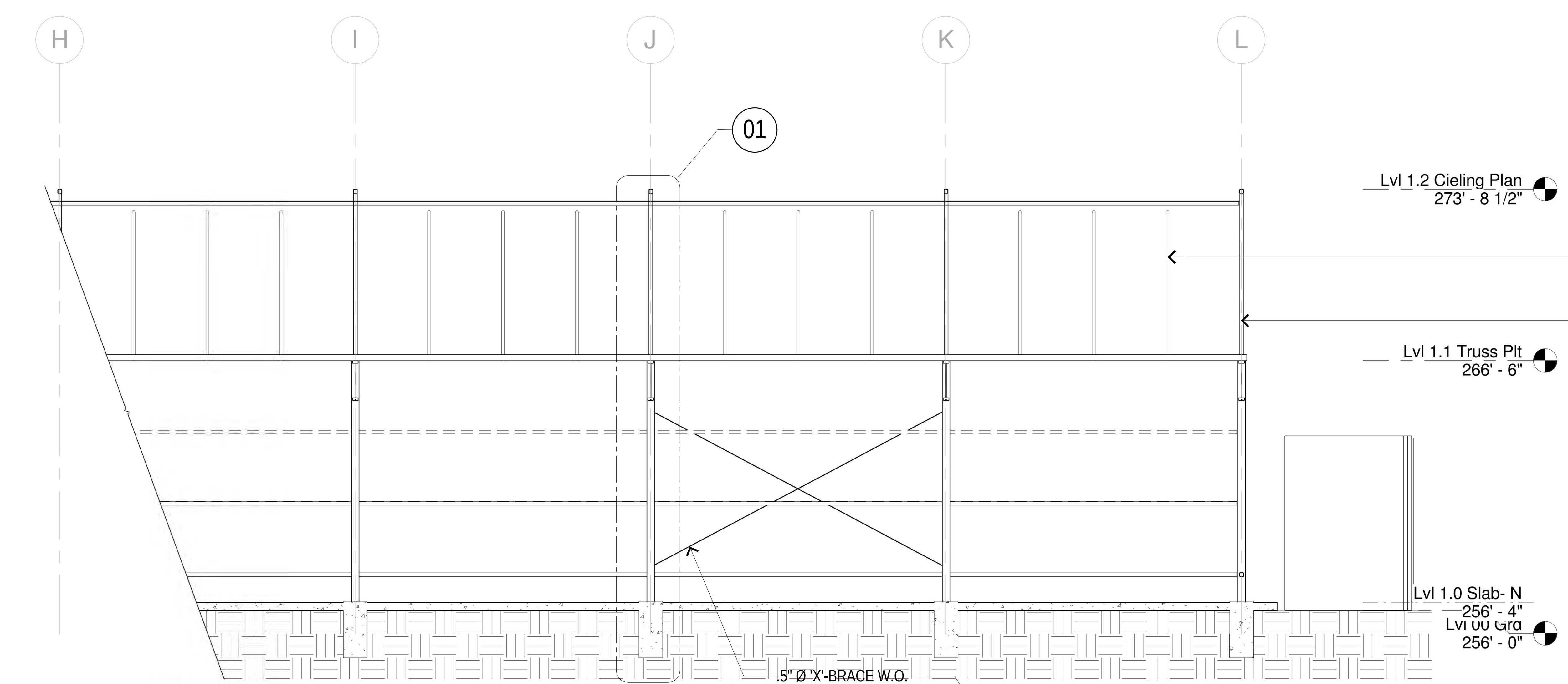
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

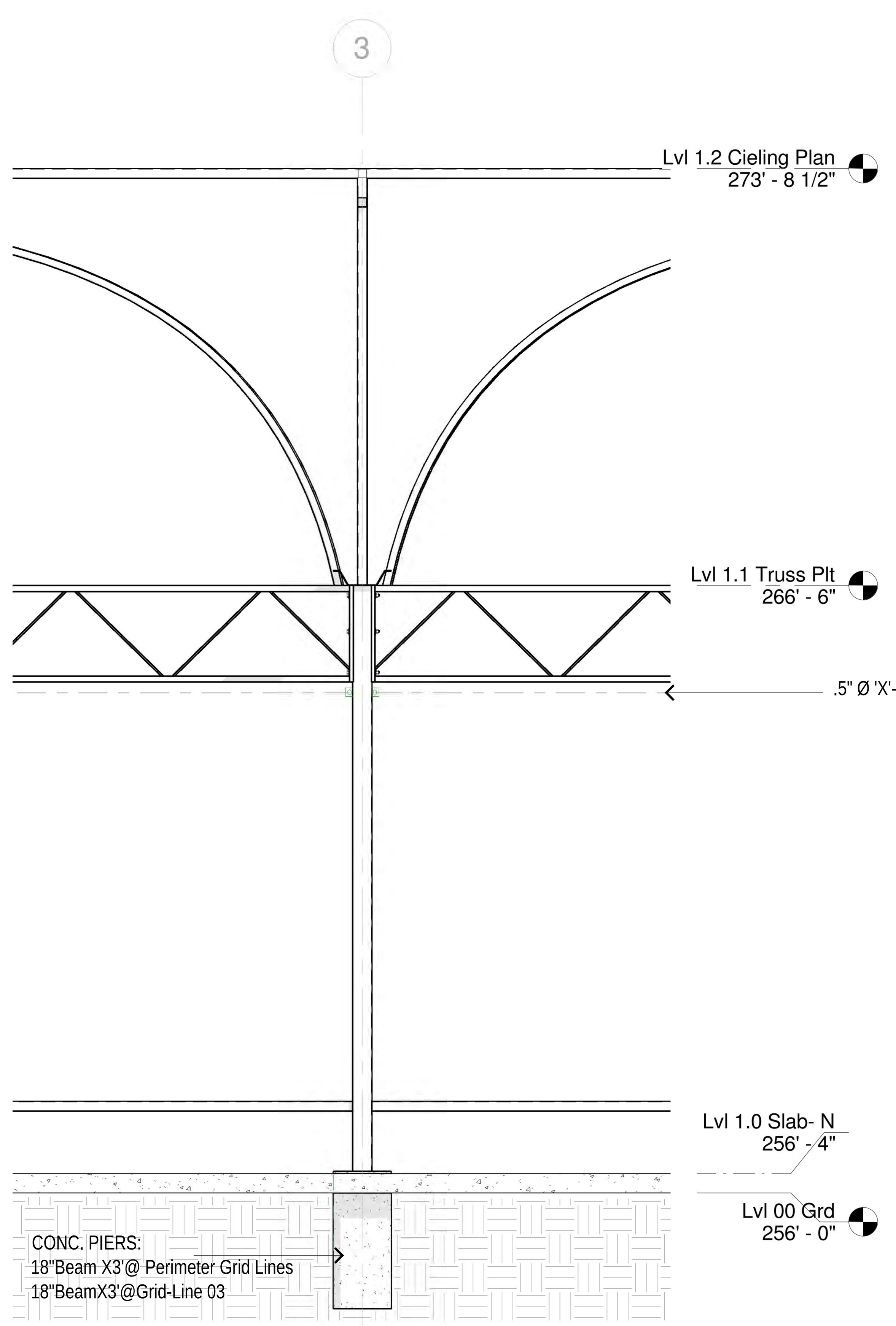
09-Elevations (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJT #: 37FCN-TCA-01
SHEET: A201-09



2 Partial Section View
1/4" = 1'-0"

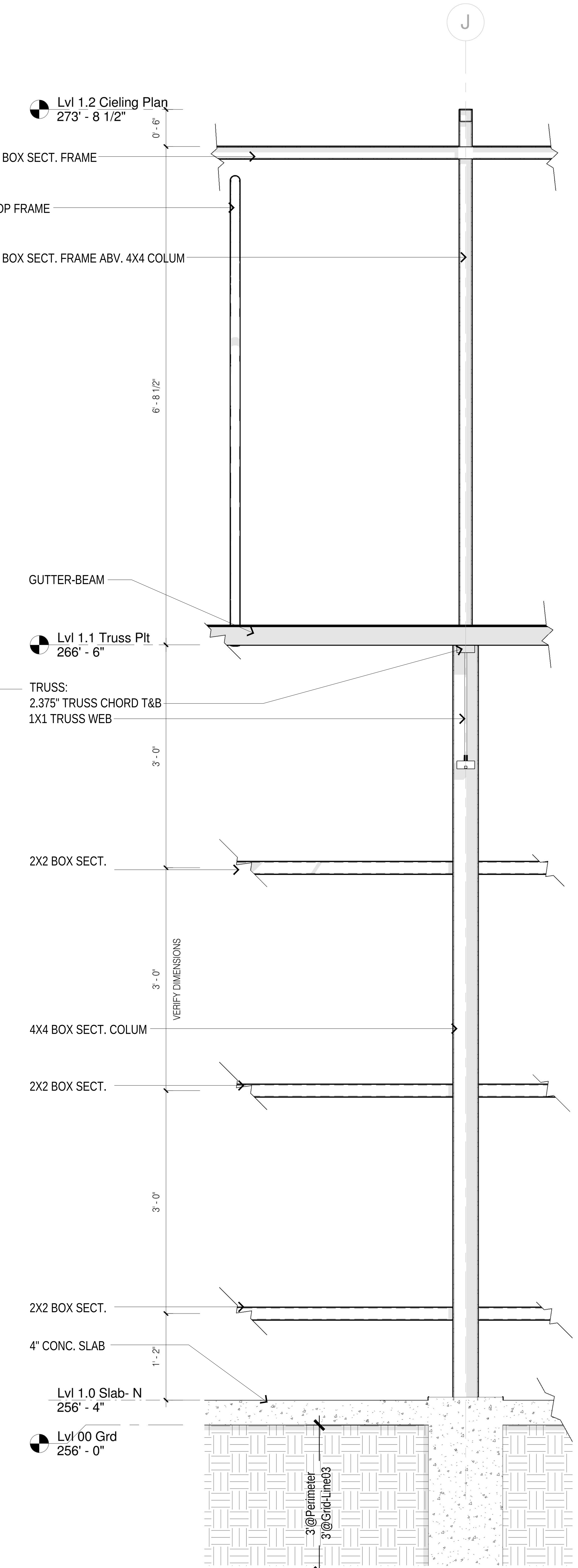


3 Truss Connection@Grid-Line 03
1/2" = 1'-0"

WALL X-BRACE CONNECTION

X-BRACE @ TRUSS CONNECTION

COLLUM /X-BRACE /TRUSS ASSEMBLY



1 Column-Gutter Section
1" = 1'-0"

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Half Moon Grow Inc
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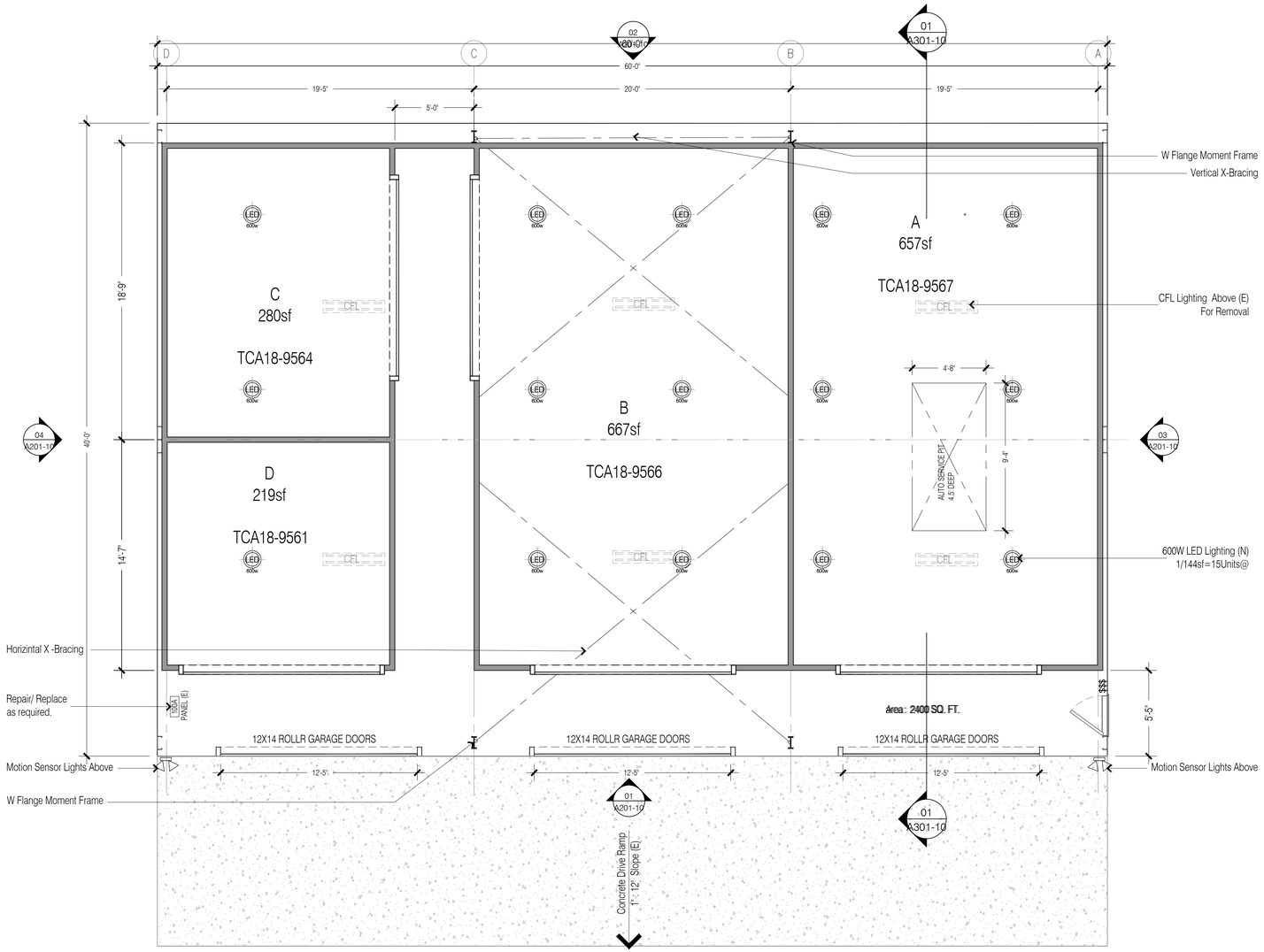
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

09 Sections-Details (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/30/19
SCALE:	per drawing
DRAWN:	mc
PRJCT #:	37FCN-TCA-01
SHEET:	A301-09



LIGHTING LEGEND

- Access Wall Lighting
- Access Passage Lighting
- Process Lighting

ELECTRICAL NOTES:

Plans show Existing to be replaced/Removed and New.
Plans show power draw of proposed lighting units only.
All other Electrical and Mechanical Applications under assessment.

Locate and Replace all existing CFL Lights w/ LED.
Maintain orginal location of lights.
All work per C.E.C.

LED Specs:
60w LED Light
CCT (K) T.B.C.

Usage:
Access Lighting:
3A

Process Lighting:
600W LED Light
600W/ 144sf Avg. (12'x12')

Bldng. 10
15 X 2.5A = 37.5A

01 10 Floor&Props'd Light Plan TCA18-9561-4-6-7

1/4" = 1'-0"

PROJECT NORTH NORTH

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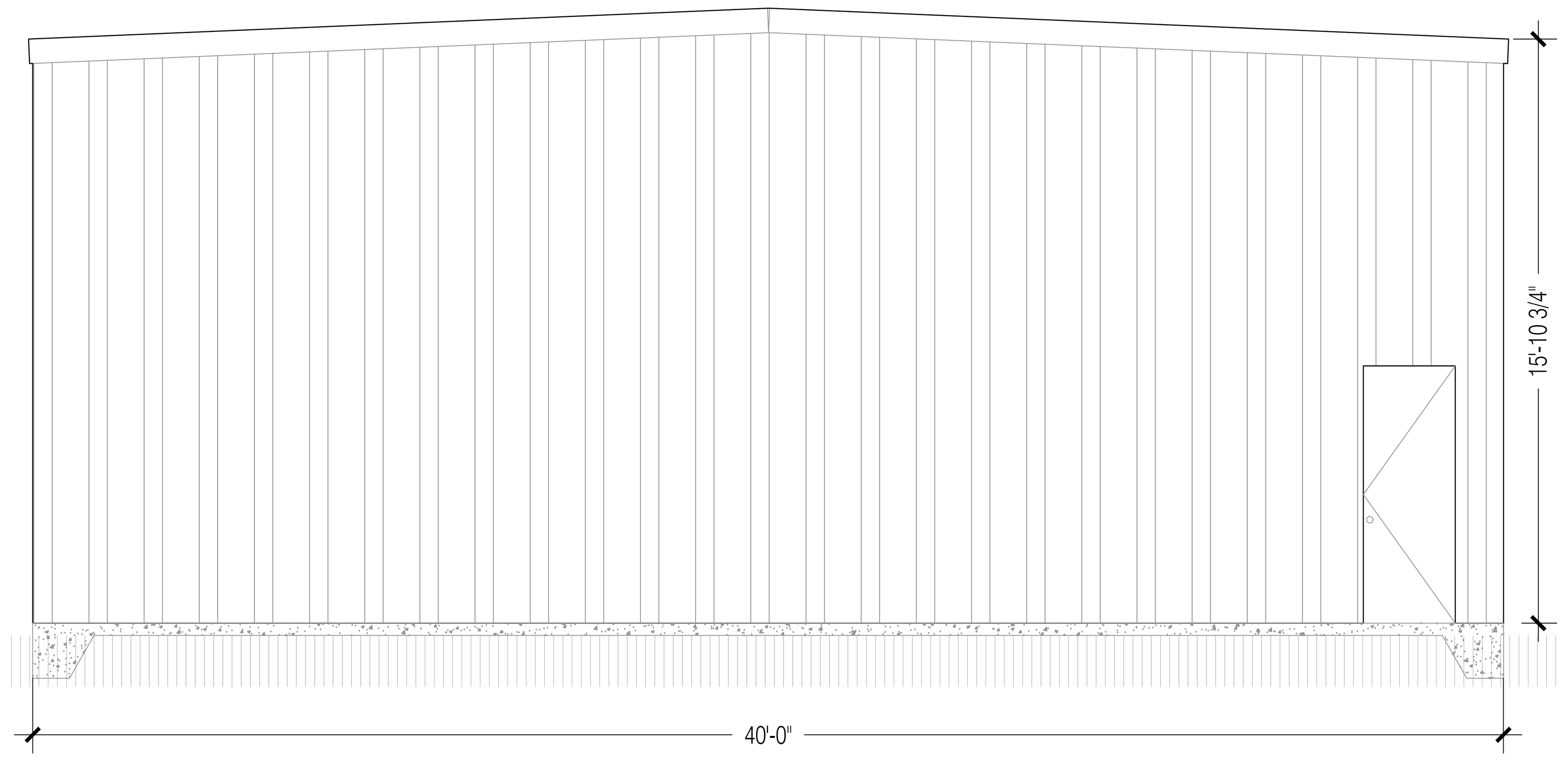
10 Harvest Storag&Props'd Light Plan TCA18-9561

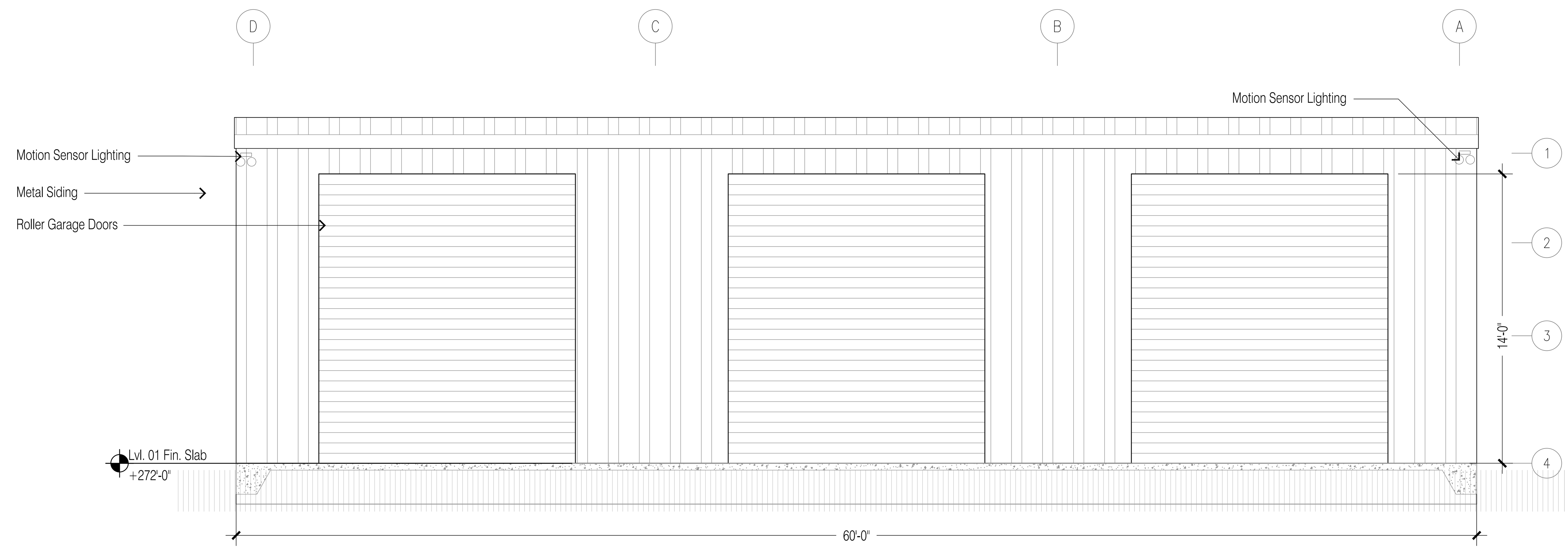
LICENSED ARCHITECT
EDWARD C LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE: 1/31/19
SCALE: per drawing
DRAWN: mc
PROJ.T #: 37FCN-PH01-AB
SHEET: 10-HRVST



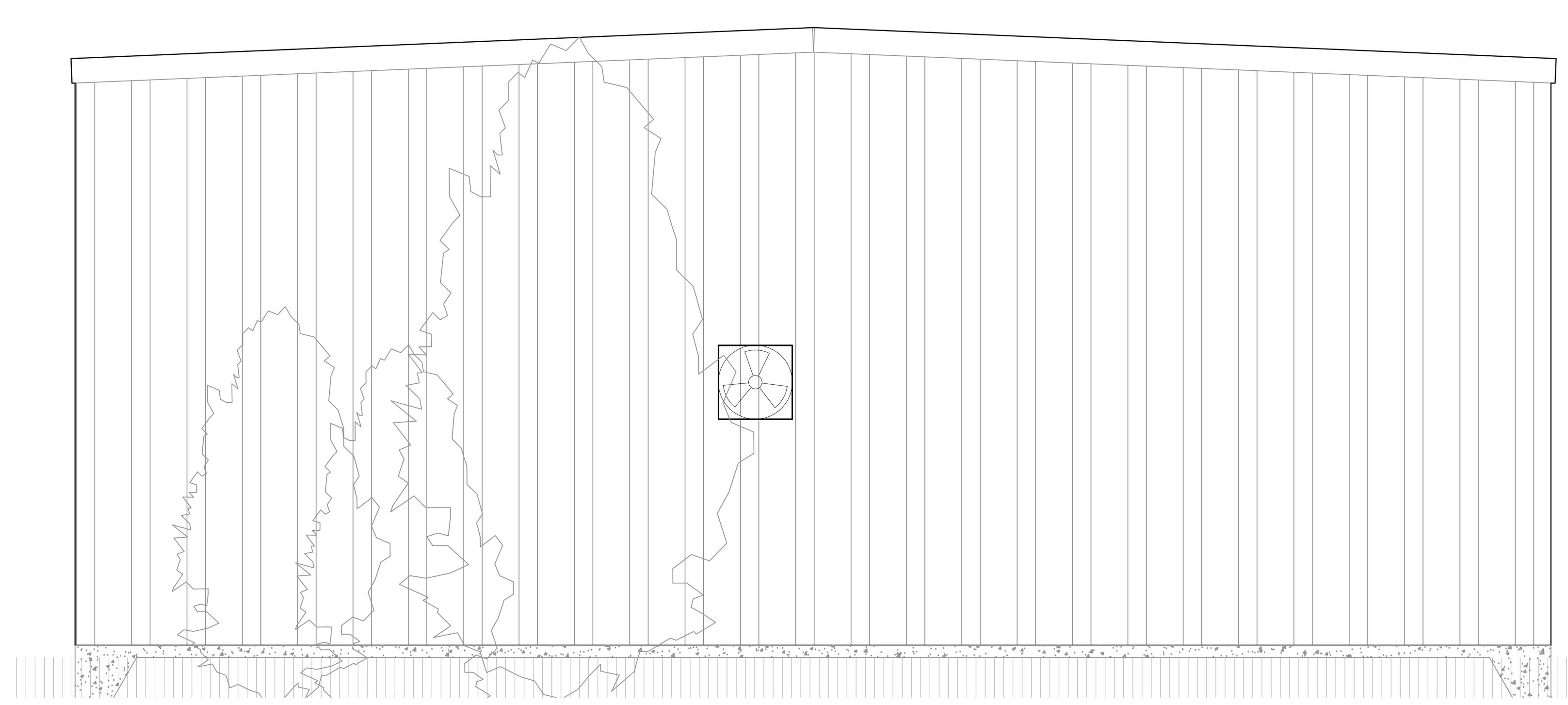
03 10 South Elevation (Existing)

1/4" = 1'-0"



01 10 West Elevation. (Existing)

1/4" = 1'-0"



04 10 North Elevation (Existing)

1/4" = 1'-0"

02 10 East Elevation (Existing)

1/4" = 1'-0"

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10 Elevations (Existing)

LICENSED ARCHITECT
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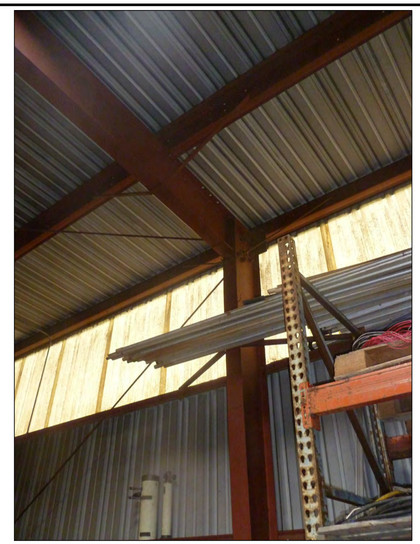
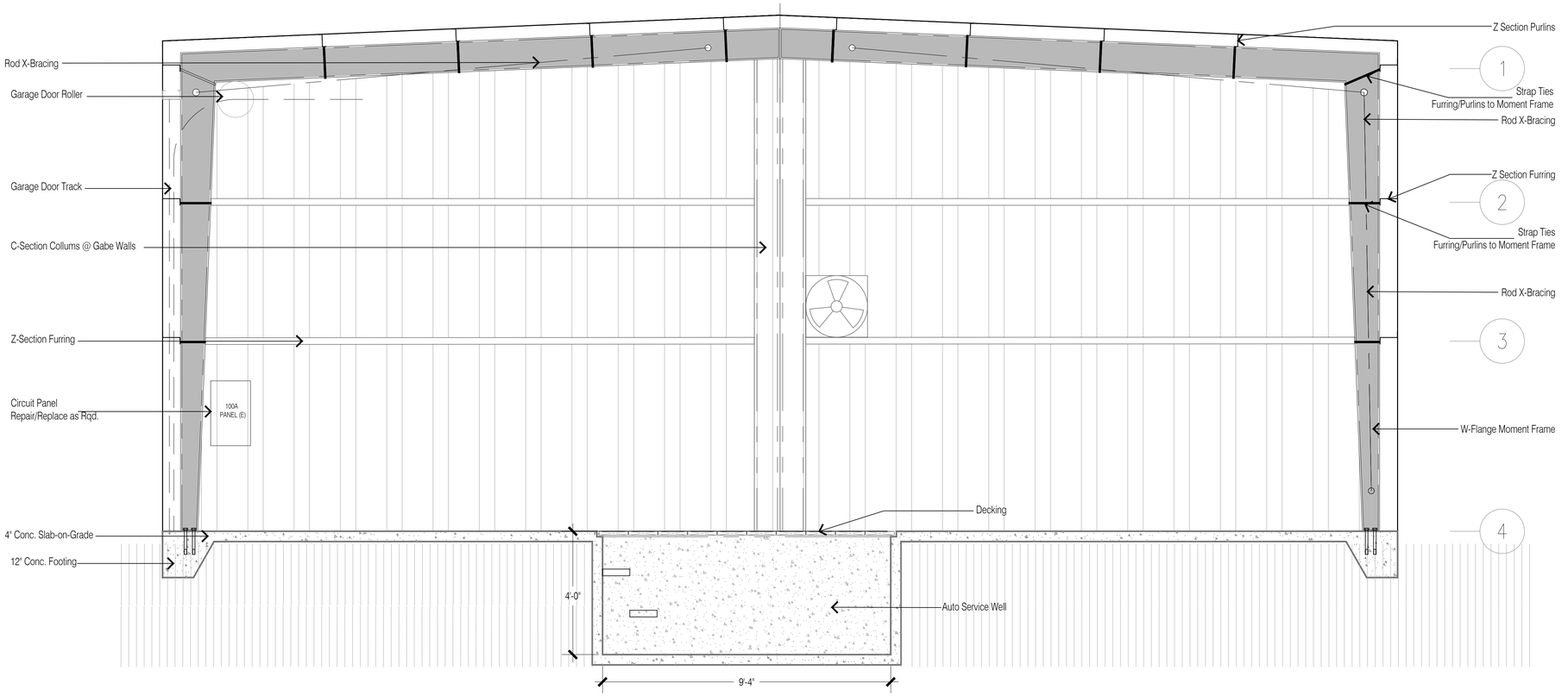
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/30/19
SCALE:	per drawing
DRAWN:	mc
PROJ'T #:	37FCN-PH01-AB
SHEET:	A201-10





01 10 Section View (Existing)

1/2" = 1'-0"

REVISIONS

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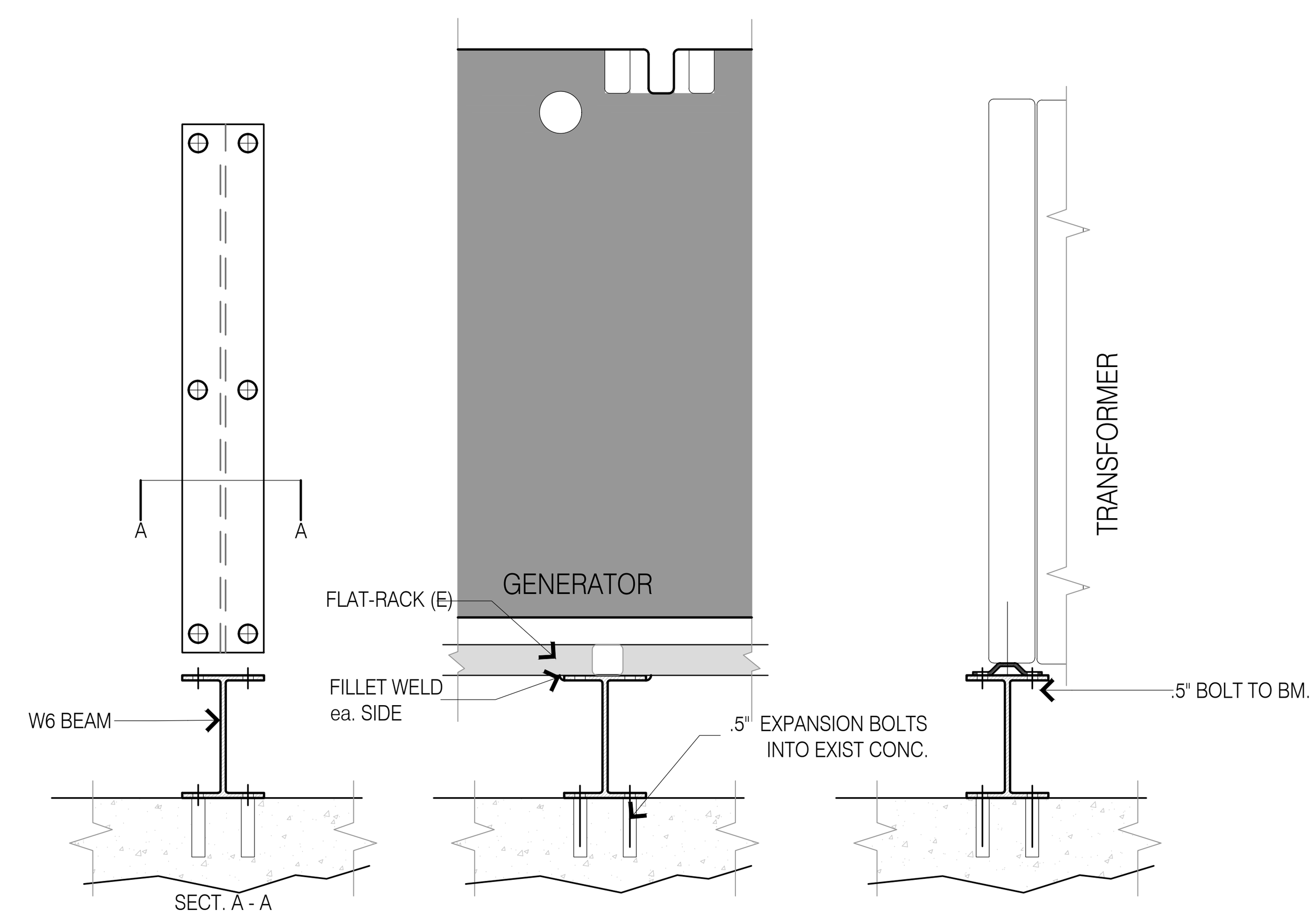
10 Section View (Existing)

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

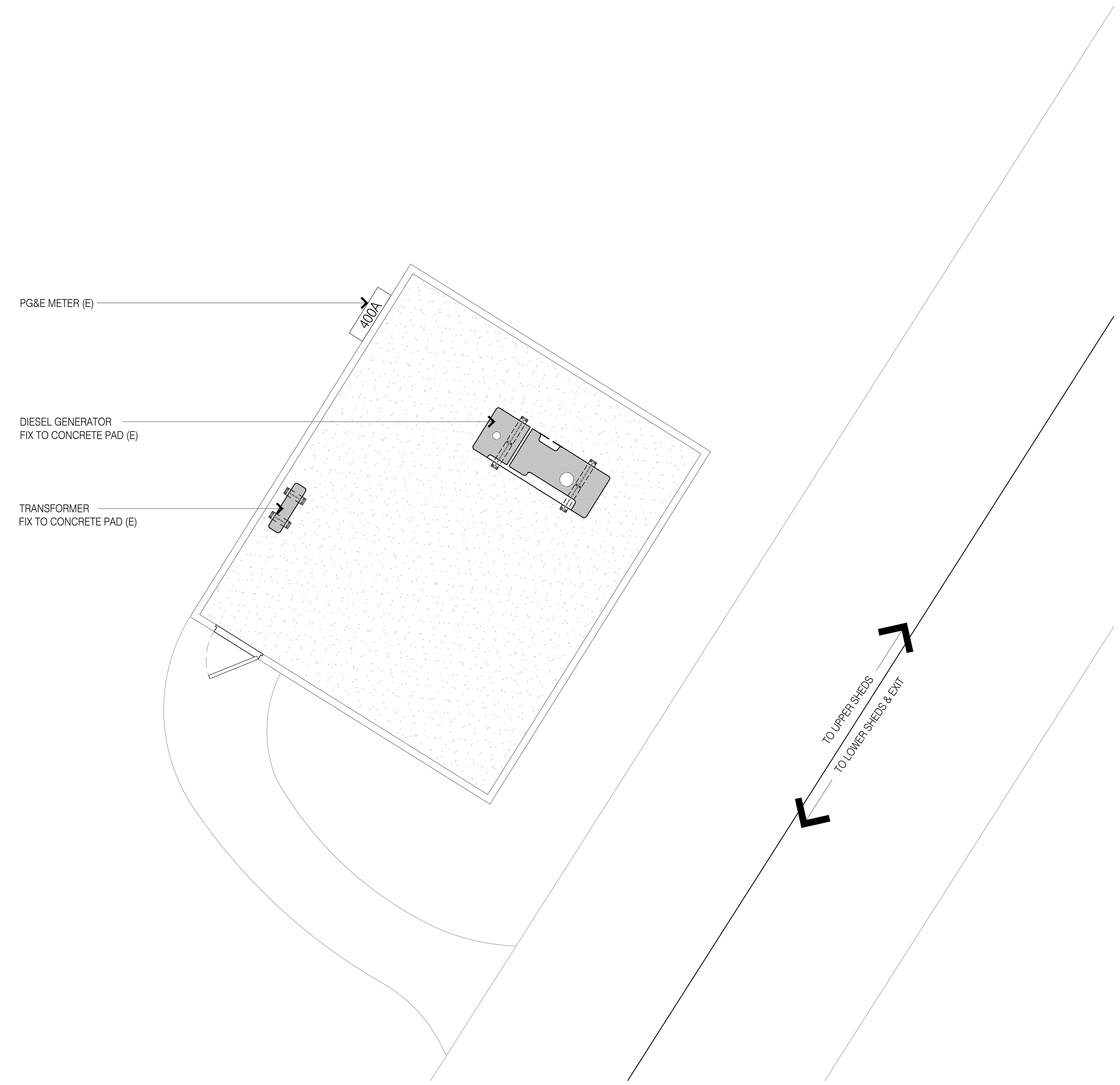
DATE: 1/30/19
SCALE: per drawing
DRAWN: mc
PROJ #: 37FCN-PH01-AB
SHEET:

A301-10



02 Generator & Transformer Attachment Upgrade

1 1/2" = 1'-0"



01 12 Generator Shed 02 (E)

1/4" = 1'-0"

REVISIONS

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Half Moon Grow Inc
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Existing Conditions
37 Frenchmans Creek Rd.
Half Moon Bay Ca., 94019

12 GENRATOR 02 SHED

LICENSED ARCHITECT
EDWARD C. LOVE
No. C23077
Ren. 1/31/17
STATE OF CALIFORNIA

DATE:	1/30/19
SCALE:	per drawing
DRAWN:	mc
PROJ'T #:	37FCN-PH01-AB
SHEET:	A101-12

County of San Mateo - Planning and Building Department

ATTACHMENT C

SOL ECOLOGY

P.O. Box 5214
Petaluma, CA 94955
(707) 241-7718
www.solecology.com

October 8, 2018

Mike Schaller
County of San Mateo, Planning Division
455 County Center, 2nd Floor
Redwood City, CA 94063

Re: Biological Study for Loess Creek Grading Violation and Restoration Project Located at 37 Frenchman's Creek Road, in Half Moon Bay, San Mateo County, California.

Dear Mr. Bartoli,

The purpose of this letter is to provide a complete biological review of potential impacts associated completion of the proposed restoration plan update for the Lucky Star Ranch located at 37 Frenchman's Creek Road, in Half Moon Bay, California (Project Area) to support resolving an open grading violation associated with this property and the on-site Loess Creek tributary. For this purpose, a biological review was performed under the guidelines of the California Environmental Quality Act (CEQA) and the Local Coastal Plan (Mid-Coast LCP).

This report describes the results of the site assessment(s) for the presence of sensitive biological resources protected by local, state, and federal laws and regulations. This report also contains an evaluation of potential impacts to sensitive biological resources that may occur from the proposed project and recommended mitigation measures to compensate for those impacts as warranted. This assessment is based on information available at the time of the study and on-site conditions that were observed on the date of the site visit.

The Project Site is in a small valley approximately 1.25 miles from the coast, northeast of the town of Half Moon Bay, at 37 Frenchmans Creek Road, San Mateo County, California. The site is surrounded by open space primarily including chaparral habitat interspersed with stands of eucalyptus. It is located along Loess Creek, a seasonal tributary to Frenchmans Creek located to the southwest of the site. Much of Loess Creek was undergrounded sometime in the 1950s or 60s.

Background

An outstanding grading violation results from collapse of an underground culvert pipe in 1997/98 and subsequent rerouting and daylighting of the water without required permits from the County

(or state). In addition, further channel modifications and grading were performed in 1999, also without permits to address land sliding in the area. An injunction was filed by the District Attorney, and a Stipulated Judgment (Judgement) was agreed to in 2001.

The terms of the Judgement required implementation of the Loess Creek Riparian Habitat Restoration Conceptual Design prepared by H.T. Harvey in July 2001 and that a detailed restoration plan also be prepared for approval by California Regional Water Quality Control Board (RWQCB) and implemented, with monitoring and maintenance to be performed for a minimum of five years thereafter. A detailed restoration plan was prepared by LSA Associates in 2003 to further describe the planned improvements outlined in the 2001 plan. The 2003 Plan was submitted to RWQCB for comment as part of the Notice of Intent to Adopt Negative Declaration (MND) filed by the County in 2006. However, the MND was never fully adopted and thus, the violation remains outstanding. Furthermore, it has been described that the owner proceeded with implementation of the plan on his own without permits from the state or federal agencies. However, the Judgement does describe that the owner may implement the plan with any persons and equipment qualified to undertake and complete the work.

Work that appears to have been completed includes the channel realignment (per the 2003 plan), culvert inlet and outfall reinforcements, creation of a plunge pool at the culvert outfall (now filled in with sediment), and in-channel revegetation of riparian species (e.g. willows). In addition, while the biotechnical slope repair work does not appear to have been completed, there is evidence of willows being planted that may have been an attempt to create a plunge pool. However, hydrology at the location the plunge pool was proposed is not likely to support standing water. Impenetrable vegetation at this location prevented us from evaluating further.

Work not completed includes the toe of slope repairs, construction of an off-channel wetland basin at the upper reach, and construction of a deep floodplain terrace adjacent to the middle reach. It appears that the wetland basin may have been constructed sometime in the early 2000s based on review of aerial images; however, the appearance of a hoop house at this location in 2009 indicates it is no longer present or functioning as a wetland. It is unclear whether hydrology and/or soil types would support a wetland basin at this location presently. Instead, the formation of a perennial marsh that is now evident at the location of the collapse appears to meet the functional goals of the proposed wetland basin.

Lastly, the 2001 plan details construction of a 2-year flood event floodplain terrace, while the 2003 plan details a much larger, deeper floodplain to attenuate high flow storm events. Both plans seem to rely on the assumption that Loess Creek is a perennial stream. However, the diversion of flow into middle reach does not capture all the previous flows as evidenced by the absence of any water in either the upper and middle reaches in the summer months compared with the presence of water draining into the pipe at the location of the collapse. Similarly, it is probable that if the site was evaluated in the winter of 2003, flow conditions would have been at their peak. Likewise, in the Half Moon Bay region, the 2002-2003 rainfall season was above normal compared with statewide averages and flows in Loess Creek were likely much higher than

current conditions following the recent drought. Based on current conditions, it is highly unlikely that the proposed floodplain would receive enough flow (even periodic) to support riparian vegetation at this location. Therefore, it is recommended this aspect of the plan not be pursued further.

In summary, all the restoration goals set forth in the 2001 plan appear to have been achieved except for:

- creation of a lower floodplain (no longer recommended),
- eradication of invasive non-native plant species including pampas grass from the upper reach and minimization of future invasion of pampas grass and English ivy from the restored reaches, and
- increase adjacent slope stability through revegetation of coastal scrub habitat on nearby bare slopes.

Following a review of the site and current conditions, the project team determined that to meet the above remaining restoration goals, toe of slope repairs as previously proposed in the 2003 plan are still needed but with some redesign to better capture surface runoff. In addition, invasive plant species removal is still necessary, particularly the removal of pampas grass adjacent to the upper reach and both pampas grass and English ivy which have colonized parts of the middle reach in recent years.

Consultation History

As previously stated, it is unclear whether federal or state permits were obtained prior to implementation of the 2003 Restoration Plan. A review of available documentation and contact with the RWQCB Enforcement Division reveal the following permits have been issued:

- A 2005 Section 401 Certification issued by the RWQCB with requirement to submit technical reports.
- A 2015 Section 401 Certification from the RWQCB and a Section 1602 Streambed Alteration Agreement from California Department of Fish and Wildlife (CDFW) for the Replacement of a Water Diversion Intake System on Frenchmans Creek.

Presumably, the 2005 Section 401 may have been issued for the restoration project but confirmation from RWQCB in progress. However, no evidence of a Section 1602 is on record with CDFW. It is unknown whether a U.S. Army Corps of Engineers (ACOE) permit was ever obtained. Furthermore, there is no evidence to support that technical reports required under the 401 were submitted.

An updated restoration plan was submitted to the ACOE and RWQCB on July 30, 2018 to request concurrence that additional permits are not needed to implement the remaining objectives. An electronic copy of the request was sent via email to RWQCB on September 4, 2018 per the

assigned regulator's request (Katie Hart). A Section 1602 Streambed Alteration Agreement Notification was also subsequently submitted to the California Department of Fish and Wildlife on September 20, 2018. Confirmation of receipt and assignment to Randi Adair was made on September 24, 2018 and the application is now under review.

Several attempts to contact the RWQCB and the ACOE were made in August and September. On October 1, 2018, Brian Thompson from the RWQCB Enforcement Division was contacted to determine whether information regarding the violation is available on file, including the possibility of unpaid penalties or other outstanding items. No outstanding penalties were found; Brian confirmed the only records associated with the property include the 2005 and 2015 Certifications with requirements listed above. On October 5, 2018 I spoke with Katie Hart of RWQCB. She requested copies of both the 2001 and 2003 plans and a map clearly depicting daylighted portions of the stream compared with underground portions. This information was subsequently submitted on October 8. She agreed to provide comments once the MND is recirculated. No response from ACOE has been received to date; however, Bryan Matsumoto from the ACOE San Francisco District informally commented that any requests for concurrence that no permit is needed have the lowest priority for review currently at the District.

Project Description

A restoration plan update was prepared on February 7, 2018 by Sol Ecology with recommendations for enhancing habitat to resolve the current violation. These actions include: 1) invasive plant species removal from riparian habitats along the newly created channel (Stream 1) and historic channels (Stream 2 and 3); and 2) slope improvements along the existing upper roadway to stabilize the above roadway and water tank storage area to prevent potential land sliding into the channel and/or associated riparian habitat.

Invasive Plant Removal

In-stream riparian vegetation in both the newly created channel and historic channel is largely native; however, invasive plant management is recommended in areas in or adjacent to riparian habitats to ensure conditions remain conducive to native flora and fauna. Where accessible, poison hemlock, fennel, pampas grass and other invasive plants located on top of the channel banks will be removed annually in the late spring or summer using manual methods including use of hand tools such as a Pulaski, mattock, or shovel. Pampas grass is best removed using a small backhoe to remove the roots, which can resprout. For this reason, removal will only be performed outside of the channel to avoid potential discharge of soil or plant materials. Alternatively, removal using a Pulaski or mattock may be attempted. To prevent resprouting, the entire crown and top section of the roots will be removed. Detached plants will be removed from the site to prevent seeding or resprouting; plants will be transported in bags and disposed at an off-site facility. No herbicides will be used.

No work is proposed to occur below the top of bank or ordinary high-water line within any jurisdictional waterway, except for one approximately 25-linear foot section of channel where English ivy will be removed using hand tools only. No fill or other disturbance to the channel banks will occur. Manual methods including pruners and hand pulling will be used to remove ivy, with care taken to ensure all plant parts are completely removed from the site to prevent re-sprouting. Work will be performed at the end of the rainy season in late spring or early summer to allow for areas to reseed naturally prior to seasonal storm flows, which can destabilize or erode banks. In areas where invasive species form complete cover, some cover will be left to prevent destabilization of slopes. Work within the channel will only be performed when the channel is dry (late summer to early fall).

Slope Improvements

The existing roadway leading to the water storage tanks will be improved to prevent land sliding and improve drainage. To redirect runoff from the existing slope the existing swale or v-ditch will be redefined to a width of 12 feet and 3 feet in depth. A 12-inch HDPE pipe will be placed at the downslope end with an inlet lined in rip-rap and rock dissipator at the outlet in lieu of a plunge pool. Fiber rolls will be installed along the slope to further slow water down and to ensure no direct runoff enters the stream located further below. Invasive pampas grass will be removed from the existing roadway and from the toe of slope. The slope and roadway will then be replanted with native shrub species. Recommended species for this area includes: coyote brush (*Baccharis pilularis*), coffeeberry (*Rhamnus californica*) and/or blueblossom (*Ceanothus thyrsiflorus*). Existing native species will be preserved.

Monitoring Plan

A period of 3 years of monitoring and adaptive management is recommended to target removal of invasive plant species. Target cover for species including English ivy, and poison hemlock is less than 20 percent at the end of the 3-year period and less than 5 percent pampas grass in treated areas. Planted areas will also be monitored for a period of 3 years; a final report at the end of the 3 years will be submitted to the County. Success criteria for revegetated areas along the slope is 80 percent of shrub cover be native by the end of the 3-year period.

Methods

Following the preliminary investigation on January 30, 2018, a follow up site visit was conducted on July 5, 2018 to map potentially jurisdictional features including wetlands and waters on the site. A formal delineation was not performed due to accessibility; in lieu of a formal wetland delineation, potential waters of the U.S. and state (including wetlands) were mapped based on the presence of hydrological indicators primarily including unvegetated, ponded areas or flowing water, or evidence indicating their presence such as a high-water mark or a defined drainage course.

Sensitive communities were identified following A Manual of California Vegetation, Online Edition and includes California Wildlife Habitat Relationships (CWHR) habitat classifications. The Project Site was also surveyed to determine if any coastal wetland (one-parameter rule) is present. Coastal wetlands are defined as an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground (also known as hydrophytic); in either case, hydrology must be present also. Hydrophytic plants commonly found in wetlands in San Mateo County include: cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bullrush, narrow-leaf cattail, broadleaf cattail, pacific silverweed, salt rush, and bog rush. To qualify, a wetland must contain at least a 50% cover of some combination of these or other obligate plants, unless it is a mudflat. A preliminary waters assessment was based on the presence of unvegetated, ponded areas or flowing water, or evidence indicating their presence such as a high-water mark or a defined drainage course.

Further examination was also performed to identify whether the property (including Loess Creek) may support special status plants or animal species known to occur in similar habitats within the Frenchman's Creek watershed and surrounding area. Habitat elements examined included: soil type, elevation, vegetation community, dominant plant species, dispersal habitat or migration corridors, foraging habitat (or space), refugia or estivation habitat, and breeding (or nesting) habitat. Resources reviewed included the following:

- California Natural Diversity Database (CNDDB) records (CDFW 2018)
- U.S Fish and Wildlife Service (USFWS) Information for Planning and Conservation Species Lists (USFWS 2018)
- California Native Plant Society (CNPS) A Manual of California Vegetation, online Edition (CNPS 2018a)
- CNPS Inventory records (CNPS 2018b)
- CDFG publication "Califoria's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication *California Bird Species of Special Concern* (Shuford and Gardali 2008)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003)

Results

Existing Conditions

Biological communities present on the Project Site were classified based on existing plant community descriptions described in the California Native Plant Society Online Manual of California Vegetation (CNPS 2018) and the California Wildlife Habitat Relationships System Online Guide (CDFG 2018). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological

communities were classified as sensitive or non-sensitive as defined by CEQA, the local coastal plan, and other applicable laws and regulations.

Soils at the site are mapped as Miramar coarse sandy loam, Farrallone coarse sandy loam, and Gullied Land (alluvial soil material). The Miramar and Farrallone series consist of moderately deep, well drained soils that formed in material weathered from quartz diorite. These soil types are found on coastal hills and mountains with slopes between 9 to 75 percent, at elevations between 200 to 2,000 feet. Farralone soil is typically found on floodplains and is classified prime farmland if irrigated. Typical vegetation includes coastal shrubs such as monkey flower, sage, and poison oak. Elevations at the Project Site range from 150 feet to 400 feet (45 to 120 meters).

Vegetation on the Project Site consists of disturbed ruderal grassland and ornamental varietals present in the developed portions of the site primarily. Surrounding vegetation consists of mixed chaparral dominated by shrub species including: coyote brush (*Baccharis pilularis*), coffeeberry (*Rhamnus californica*), blue blossom (*Ceanothus thyrsiflorus*), and poison oak (*Toxicodendron diversilobum).* Common wildlife species in these habitats include: Botta's pocket gopher (*Sceloporus occidentalis*), deer mouse (*Peromyscus maniculatus*), song sparrow (*Melospiza melodia*), wrentit (*Chamaea fasciata*), spotted towhee (*Pipilo maculatus*), and western fence lizard (*Sceloporus occidentalis*).

Sensitive Communities

Willow Riparian Scrub

Arroyo willow (*Salix lasiolepsis*) vegetation alliance is present along daylighted portions of Loess Creek both above and below the Project Site. This sensitive community forms a nearly impenetrable thicket along the creek. Other plant species present in this community include: California blackberry (*Rubus ursinus*), white alder (*Alnus rhombifolia*), horsetail (*Equisetum spp.*), sedges (*Carex spp.*), Pacific dogwood (*Cornus nuttalli),* Pacific wax myrtle (*Myrica californica*), and western sword fern (*Polystichum munitum*), as well as invasive species including English ivy (*Hedera helix*), fennel (*Foeniculum vulgare*), and poison hemlock (*Conium maculatum*). Riparian scrub communities provide a good food and nesting habitat source for birds, mammals, and reptiles, and refuge for dispersal.

All of Loess Creek is considered jurisdiction under Sections 404 and 401 of the Clean Water Act (Federal and State). Approximately 2,000 linear feet of Loess Creek is daylighted on the project site. Loess Creek is an intermittent stream as evidenced by the absence of flowing water nor any standing water or pools during the July 2018 site visit.

Perennial Wetland (Man-Made)

An approximately 0.6-acre perennial wetland is present in the center of the Project Site (Attachment A, Figure 2). This low-lying feature appears to be the result of man-made modifications including the discharge of steam from the adjacent boiler plant and the collapse of the underground pipe in 1998. Historical photographs suggest this feature was not present prior

to the pipe collapse in 1998 and thus, this feature does appear to be man-made. The wetland was characterized by a mix of sedges (*Carex* spp), rush (*Juncus* spp), and seep monkeyflower (*Mimulus guttatus*). A small channel is also present receiving water from an unknown source. The tributary was surrounded by riparian species including willow (*Salix spp*), white alder (*Alnus rhombifolia*), Pacific dogwood (*Cornus nuttalli)*, and Pacific wax myrtle (*Myrica californica*). This feature is more than 50 feet from the nearest structure.

A small seasonal wetland (0.002 acre) is also present in the same area (Attachment A, Figure 2).

Special Status Plants

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed species and those that are formal candidates for listing. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (CRPR or Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA.

Based upon a review of the resources and databases given in Section 2.1, 27 special-status plant species have been documented within a five-mile radius of the Project Site (Attachment A, Figure 3 and Attachment B). Based on the presence of biological communities described above and soils at the site, as well as recent site disturbance the Project Site has a low to moderate potential to support five (5) species: Kellogg's horkelia (*Horkelia cuneate ssp. sericea*) - California Rare Plant Rank (CRPR) 1B.1., arcuate bush-mallow (*Malacothamnus arcuatus*) - CRPR 1B.2., Choris' popcornflower (*Plagiobothrys chorisianus var. chorisianus*) - CRPR 1B.2., chaparral ragwort (*Senecio aphanactis*) - CRPR 2B.2., and San Francisco campion (*Silene verecunda ssp. verecunda*) - CRPR 1B.2. All five of these species may be present in surrounding chaparral habitat, including adjacent to the roadway and slope improvement area.

Special Status Wildlife

In addition to wildlife listed as federal or state endangered and/or threatened, federal and state candidate species, CDFW Species of Special Concern, CDFW California Fully Protected species, USFWS Birds of Conservation Concern, and CDFW Special-status Invertebrates are all considered special-status species. Although these species generally have no special legal status, they are given special consideration under CEQA. The federal Bald and Golden Eagle Protection Act also provides broad protections to both eagle species that are roughly analogous to those of listed species. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity; bats named as a "High Priority" or "Medium Priority" species for conservation by the WBWG are typically considered special-status and considered under CEQA; bat roosts are protected under CDFW Fish and Game Code. In addition to regulations for special-status species, most native birds in the United States (including non-status

species) are protected by the federal Migratory Bird Treaty Act of 1918 (MBTA) and the California Fish and Game Code (CFGC), i.e., sections 3503, 3503.5 and 3513. Under these laws, deliberately destroying active bird nests, eggs, and/or young is illegal.

Seventeen (17) special-status wildlife species have been documented within five miles of the Project Site (Attachment A, Figure 4). Based on the presence of biological communities described above, the Project Site has a moderate to high potential to support four (4) of these species including: Monarch butterfly (*Danaus plexippus*) - Species of Local Concern; California red-legged frog (CRLF; *Rana draytonii*) - Federal Threatened Species, CDFW Species of Special Concern (SSC); San Francisco (saltmarsh) common yellowthroat (*Geothlypis trichas sinuosa*) - USFWS Bird of Conservation Concern, CDFW SSC; and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) - CDFW SSC.

San Francisco garter snake (SFGS; *Thamnopis sirtalis tetrataenia*) is also documented in Frenchman's Creek but is unlikely to occur on the site due to the large drop outfall located downstream at the confluence with Frenchman's Creek. Topography at this outfall combined with the approximately 500 feet of undergrounding Loess Creek experiences before daylighting likely precludes most SFGS from moving upstream into habitats on the project site. The outfall is also a barrier to migrating fish, including protected steelhead known to occur in Frenchman's Creek.

There are numerous documented occurrences of CRLF both in Frenchman's Creek and the surrounding vicinity, and the species likely breeds in Frenchman's Creek. However, due to the seasonal nature of Loess Creek it is unlikely that CRLF breed here. While water was observed in the perennial wetland, this feature is not likely to provide breeding habitat due to the absence of open water habitat. A few small step-pools were observed elsewhere in Loess Creek; however, none were deep enough to provide suitable breeding habitat and no water was present during the July 5 site visit. Few aquatic invertebrates were seen due lack of cobble substrate and thus, Loess Creek does not provide ideal foraging habitat for most amphibians. Based on this, adult CRLF may disperse into Loess Creek and its associated riparian habitat at the end of the wet season; though it's likely CRLF do not remain in Loess Creek during the summer when work is proposed and may instead disperse back into Frenchman's Creek or move further into surrounding upland habitats where perennial water sources (stockpond and springs) are present.

There are several special status birds that may also be present and/or nest in the riparian habitat, including: saltmarsh common yellowthroat (*Geothlypsis trichas sinuosa*). This species is also documented in Frenchman's Creek and either species may utilize willow riparian habitat on the property. Special status San Francisco dusky-footed woodrat may also utilize willow riparian habitat or chaparral on the Project Site; though no stick houses have been observed during any of the site visits.

Lastly, one special status invertebrate, Monarch butterfly (*Danaus plexippus*) may potentially winter roost in trees located on the property. A winter roost site is documented within one mile

downstream on Frenchmans Creek near Highway 1. Suitable roost trees are present on the Project Site, though most are north-facing rather than south-facing. This species is unlikely to be affected by the proposed project.

Potentially Significant Impacts and Mitigation Measures

This section describes the existing environmental conditions in and near the Project Site and evaluates environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines Appendix G, was used to identify environmental impacts that could occur if the proposed project is implemented.

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

"No Impact" means that no impact to the resource would occur as a result of implementing the project.

"Less than Significant Impact" means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.

"Less than Significant with Mitigation Incorporated" means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.

"Potentially Significant Impact" means that there is either substantial evidence that a project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

IV.	**BIOLOGICAL RESOURCES** — Would the project:	***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, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

IV.	**BIOLOGICAL RESOURCES** — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.1.1 Discussion of Impacts

a) ***Less than Significant with Mitigation Incorporated***.

The proposed project site provides habitat for five special status plant species and four special status wildlife (including one federal threatened species: California red-legged frog). Potentially significant impacts to special status plants include direct mortality if present during toe of slope improvement. Invasive plant removal is not likely to impact any special status plants. Potentially significant impacts to California red-legged frog (CRLF) include mortality and/or harassment if present during the performance of any ground disturbing activity or operation of heavy equipment associated with weed removal and/or toe of slope improvements. Additionally, work during the nesting season for migratory and special status birds has the potential to affect reproduction in these species, which is considered a significant impact under CEQA. No impacts to San Francisco dusky-footed woodrat or monarch butterfly are expected.

Implementation of the following measures will reduce any potential impacts to special status plants and wildlife to a less than significant level:

1. A pre-construction survey for special status plants (Kellogg's horkelia, arcuate bush mallow, Choris' popcorn flower, chaparral ragwort, and San Francisco campion) should be performed in any area where ground-disturbing activities are proposed (including pampas grass removal). Surveys should be performed during the appropriate blooming period (in April). If found, the species should be demarcated with orange construction fencing and completely avoided. If avoidance is not possible, a translocation plan should be prepared and submitted to the County of San Mateo prior to the start of activities to ensure potentially significant impacts to special status plants are avoided.

2. Ground disturbing activities including vegetation removal should be performed outside of the rainy season (between April 1 and October 31) to the extent practical. No work should be performed during or within 24 hours of a rain event resulting in greater than an inch of rain.

3. No work shall be performed within 30 minutes of sunrise or sunset to avoid the period when CRLF are most active.

4. An environmental training should be provided to all workers prior to the start of any activities regarding any sensitive biological resources (including CRLF or nesting birds). The training should include steps to identify and respond to a sighting, the laws and regulations protecting those resources, and consequences of non-compliance.

5. A pre-construction survey for CRLF shall be conducted prior to initiation of project activities within 48 hours of the start of ground disturbance activities (if between November 1 and April 1). Surveys are to be conducted by approved qualified biologist with experience surveying for each species. If CRLF is found on the project site it should be allowed to leave the area on its own. If the animal does not leave the area on its own, work shall remain halted and USFWS should be contacted. No handling of any frogs is allowable without written authorization from the USFWS via a biological opinion and incidental take permit.

6. If California red-legged frog is observed during pre-construction surveys or at any time during ground-disturbing activities, a biological monitor is recommended to be present until work in the affected area is completed.

7. Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibian and reptile species do not get trapped. Plastic monofilament netting (erosion control matting), rolled erosion control products, or similar material shall not be used.

8. Vegetation removal activities should be initiated during the non-nesting season from September 1 to January 31 to the extent feasible. If work cannot be initiated during this period, then nesting bird surveys should be performed in suitable nesting habitat within 250 feet of the proposed work area.

a. If active nests are found, a no-disturbance buffer should be placed around the nest until young have fledged or the nest is determined to be no longer active by the biologist. The size of the buffer may be determined by the biologist based on species and proximity to activities but should generally be between 50 feet for songbirds and up to 250 feet for nesting raptors.

b) ***Less than Significant with Mitigation Incorporated***

One sensitive vegetation community is present on the project site: willow riparian scrub, a riparian habitat. Slope improvements will completely avoid all sensitive communities on the site. Limited work is proposed within Loess Creek and its associated riparian scrub community, to remove a 25-linear foot section of English ivy, an invasive plant species. Potentially significant impacts to Loess Creek riparian habitat that may occur without mitigation include erosion of the existing channel bank.

The following measures will ensure no potentially significant impacts to riparian habitat and/or sensitive communities occur:

1. Orange construction fencing should be placed around all existing riparian vegetation (and/or wetland habitats) within 100 feet of proposed activities. Placement of exclusion fencing should be performed under the direction of a biologist to ensure complete avoidance of sensitive riparian habitat.

2. Stockpiling of materials, including portable equipment, vehicles and supplies (e.g., chemicals), will be restricted to the designated construction staging areas, exclusive of any riparian and wetland areas; refueling of any vehicles or equipment should be done at least 100 feet away from the creek.

3. An erosion and drainage control plan should be prepared to show how the transport and discharge of soil and pollutants from the project site will be minimized.

4. All work within the riparian corridor should be performed outside the rainy season or when water in the channel is not flowing.

c) **No Impact**

The proposed project will not result in any adverse effect on federally protected wetlands or waters as defined in Section 404 of the Clean Water Act through direct removal, filing, hydrological interruption or other means.

d) ***Less than Significant Impact***

The proposed project will not create any dispersal barriers (permanent or temporary) that would interfere substantially with the movement of native resident or migratory fish or wildlife corridors or nursery sites. All work within Loess Creek will occur when water is not present. No native fish are present in Loess Creek due to downstream barriers.

e) **No Impact**

No tree removal is proposed as part of the proposed project and thus, no impact to tree preservation policies will occur. Because no ground-disturbing activities are proposed (except slope improvements), local coastal plan setbacks are not needed and thus, no conflict with the existing County coastal policies is anticipated.

f) **No Impact**

There are no adopted Habitat Conservation Plans or other local, regional, or state habitat conservation plan in the area.

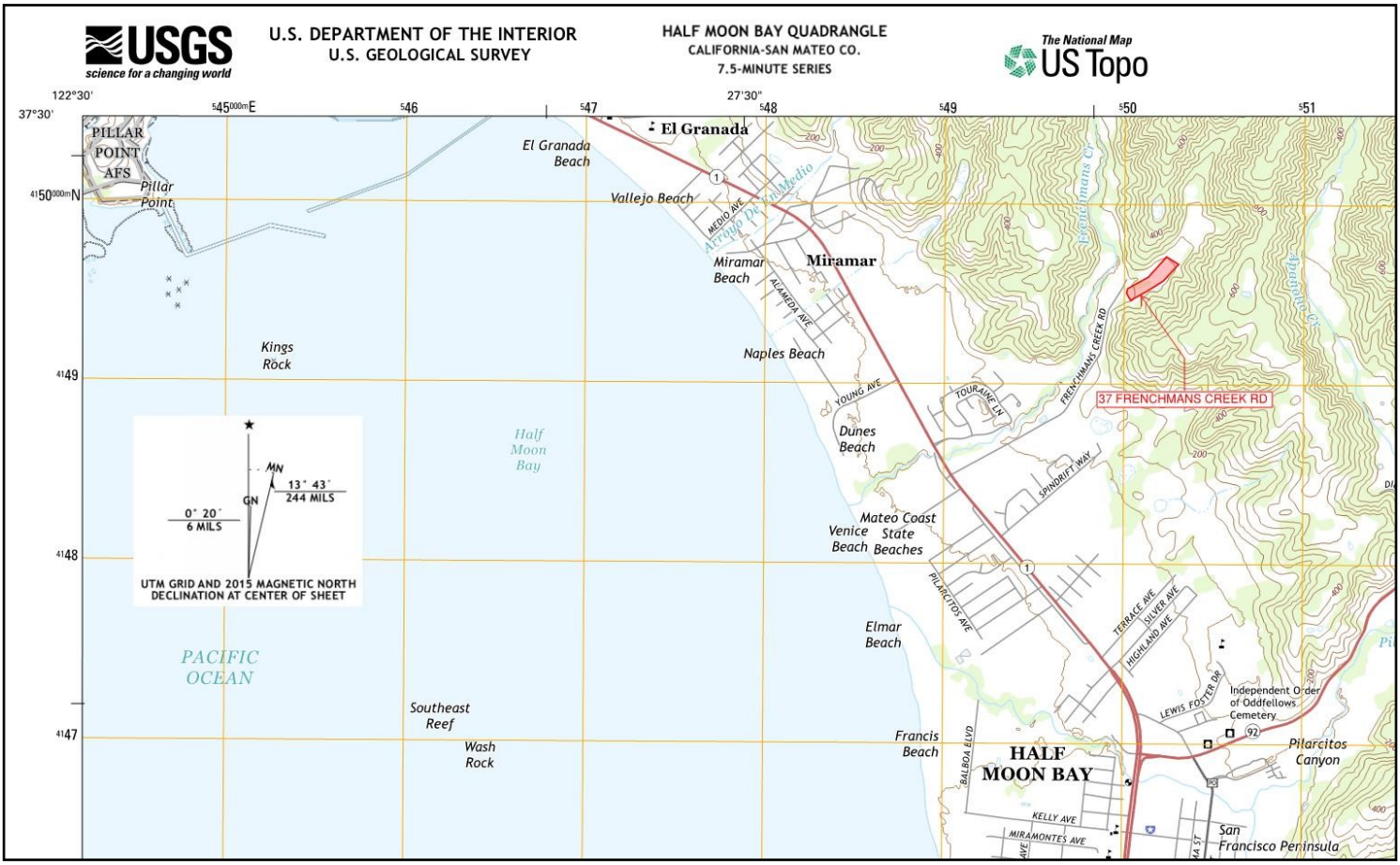
Please do not hesitate to contact me with questions.

Respectfully,

Dana Riggs, Principal Biologist
Sol Ecology, Inc.

Attachments:
A – Project Figures: Site Location Map, Sensitive Communities, and CNDDB Results
B – CNDDB and USFWS IPaC Database Results Within 5 Miles of the Project Site
C – Species Potentials Table

Attachment C, Figure 1. Location Map
Lucky Star Farms, Half Moon Bay, CA



Date: 7-27-2018
Data: Sol Ecology, USGS.

GIS: Andrew Georgeades, Sol Ecology Inc.

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Attachment C, Figure 2: Areas Potentially Subject to Clean Water Act Jurisdiction
Lucky Star Farms, Half Moon Bay, CA

San Mateo Co. Streets
Survey Boundary

Potential Jurisdictional Waters
Stream 1 (1,134 Linear Ft.)
Stream 2 (298 Linear Ft.)
Stream 3 (570 Linear Ft.)
Existing Channel
Stream

Potential Jurisdictional Wetlands
Perennial Wetlands (0.62 Acres)
Seasonal Wetlands (0.018 Acres)

Date: 7-27-2018
Data: Sol Ecology, San Mateo Co.
Projection: NAD 1983 UTM 10N

Base: San Mateo County 2017 Imagery Service,
County of San Mateo GIS Team
GIS: Andrew Georgeades, Sol Ecology Inc.

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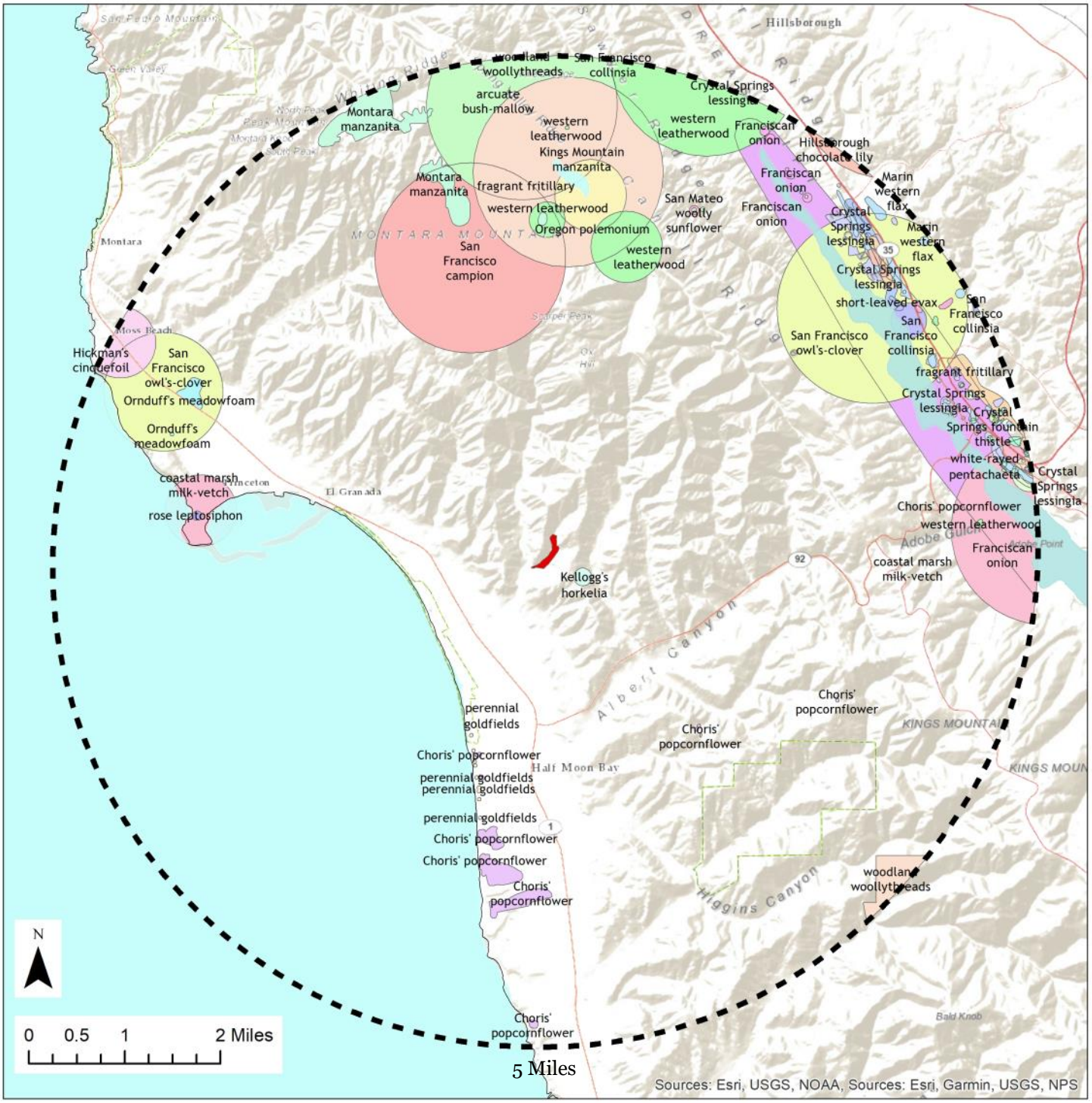
Figure 3: Special Status Plant Species within 5 Miles of the Project Site
Lucky Star Farms, Half Moon Bay, CA



- 5-Mile Buffer
- Project Area
- Choris' popcornflower (6)
- Crystal Springs fountain thistle (1)
- Crystal Springs lessingia (4)
- Franciscan onion (3)
- Hickman's cinquefoil (1)
- Hillsborough chocolate lily (2)
- Kellogg's horkelia (1)
- Kings Mountain manzanita (1)
- Marin western flax (4)
- Montara manzanita (3)
- Oregon polemonium (1)
- Ornduff's meadowfoam (2)
- San Francisco campion (1)
- San Francisco collinsia (3)
- San Francisco owl's-clover (2)
- San Mateo thorn-mint (2)
- San Mateo woolly sunflower (2)
- arcuate bush-mallow (2)
- bent-flowered fiddleneck (3)
- coastal marsh milk-vetch (2)
- fragrant fritillary (4)
- perennial goldfields (1)
- rose leptosiphon (1)
- short-leaved evax (1)
- western leatherwood (6)
- white-rayed pentachaeta (1)
- woodland woollythreads (2)

Date: 8-27-2018
Data: Sol Ecology Inc., CDFW San Mateo Co.
Base: ESRI
GIS: AJG

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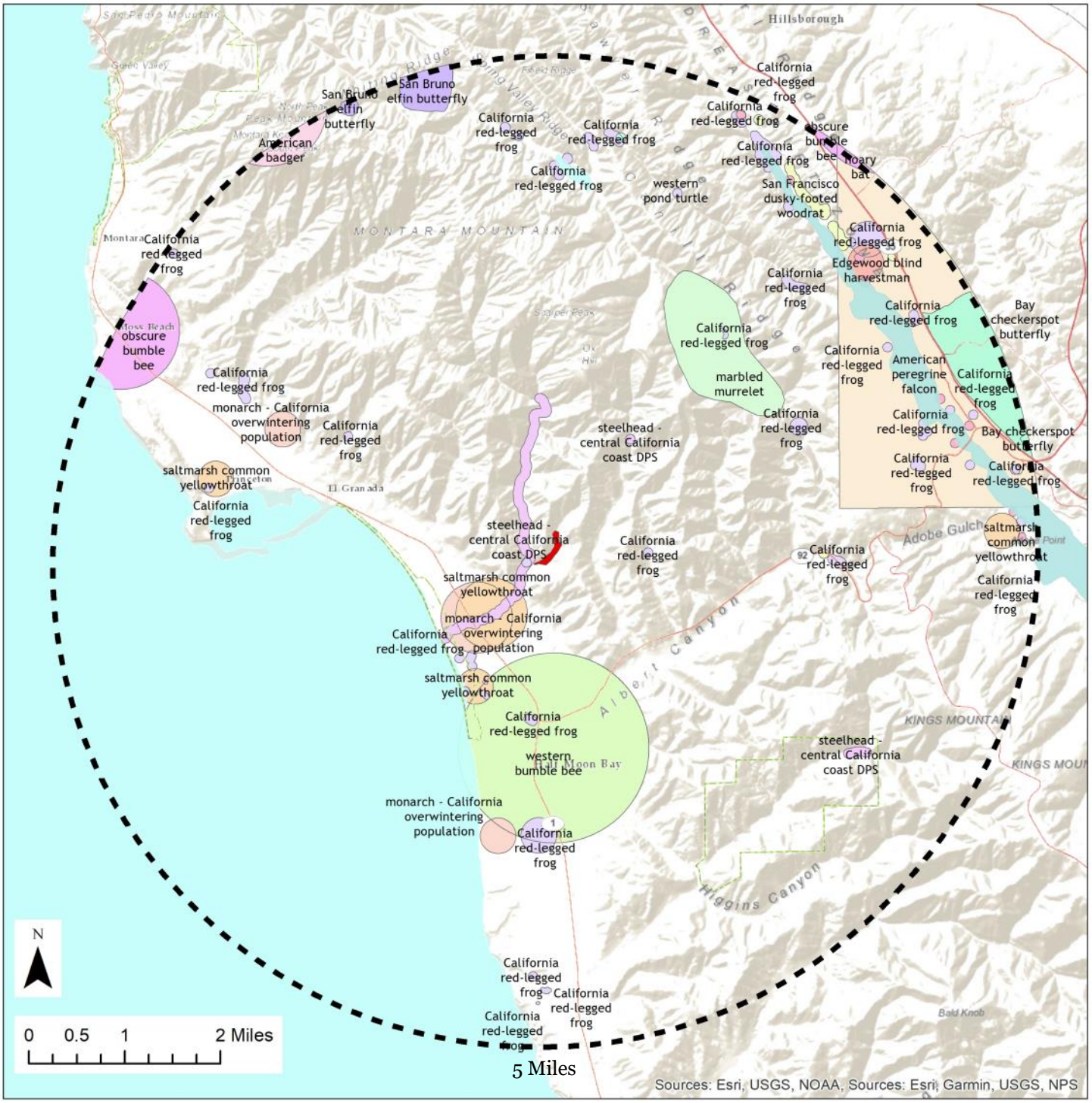
Figure 4: Special Status Animal Species within 5 Miles of the Project Site
Lucky Star Farms, Half Moon Bay, CA



- 5-Mile Buffer
- Project Area
- American badger (1)
- American peregrine falcon (1)
- Bay checkerspot butterfly (2)
- California giant salamander (1)
- California red-legged frog (33)
- Edgewood blind harvestman (1)
- San Bruno elfin butterfly (2)
- San Francisco dusky-footed woodrat (5)
- hoary bat (1)
- marbled murrelet (1)
- monarch - California overwintering population (3)
- obscure bumble bee (2)
- saltmarsh common yellowthroat (4)
- steelhead - central California coast DPS (3)
- western bumble bee (1)
- western pond turtle (7)
- western snowy plover (1)

Date: 8-27-2018
Data: Sol Ecology Inc., CDFW
San Mateo Co.

Base: ESRI
GIS: AJG

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Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Half Moon Bay (3712244) OR Montara Mountain (3712254) OR San Mateo (3712253) OR San Gregorio (3712234) OR Woodside (3712243) OR La Honda (3712233))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Acanthomintha duttonii San Mateo thorn-mint	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	170 600	5 S:5	0	1	0	1	2	1	3	2	3	1	1
Agrostis blasdalei Blasdale's bent grass	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	50 50	58 S:1	0	0	0	1	0	0	0	1	1	0	0
Allium peninsulare var. franciscanum Franciscan onion	G5T2 S2	None None	Rare Plant Rank - 1B.2	20 1,025	25 S:15	2	6	1	0	0	6	4	11	15	0	0
Ambystoma californiense California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	400 400	1177 S:1	0	0	0	0	1	0	1	0	0	1	0
Amsinckia lunaris bent-flowered fiddleneck	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	220 473	86 S:4	0	2	1	0	0	1	1	3	4	0	0
Aneides niger Santa Cruz black salamander	G3 S3	None None	CDFW_SSC-Species of Special Concern	534 1,487	78 S:3	0	0	0	0	0	3	2	1	3	0	0
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	40 420	415 S:4	0	0	0	0	0	4	4	0	4	0	0
Arctostaphylos andersonii Anderson's manzanita	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	950 950	58 S:2	0	0	0	2	0	0	1	1	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Arctostaphylos montaraensis Montara manzanita	G1 S1	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	1,000 1,500	4 S:3	2	0	1	0	0	0	1	2	3	0	0
Arctostaphylos regismontana Kings Mountain manzanita	G2 S2	None None	Rare Plant Rank - 1B.2	790 2,100	17 S:15	1	1	2	3	0	8	3	12	15	0	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	5 5	154 S:1	0	0	0	0	0	1	1	0	1	0	0
Astragalus pycnostachyus var. pycnostachyus coastal marsh milk-vetch	G2T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden	10 500	25 S:9	0	5	1	0	0	3	3	6	9	0	0
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	5 5	1971 S:1	0	1	0	0	0	0	0	1	1	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	40 500	181 S:6	0	0	0	0	0	6	6	0	6	0	0
Bombus occidentalis western bumble bee	G2G3 S1	None None	USFS_S-Sensitive XERCES_IM-Imperiled	40 100	282 S:5	0	0	0	0	0	5	5	0	5	0	0
Brachyramphus marmoratus marbled murrelet	G3G4 S1	Threatened Endangered	CDF_S-Sensitive IUCN_EN-Endangered NABCI_RWL-Red Watch List	200 800	110 S:6	0	0	0	0	0	6	3	3	6	0	0
Calicina minor Edgewood blind harvestman	G1 S1	None None		400 560	2 S:2	0	0	0	0	0	2	2	0	2	0	0
Callophrys mossii bayensis San Bruno elfin butterfly	G4T1 S1	Endangered None	XERCES_CI-Critically Imperiled	600 1,320	10 S:4	2	0	0	0	0	2	2	2	4	0	0
Centromadia parryi ssp. parryi pappose tarplant	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	10 23	39 S:2	0	0	0	1	0	1	1	1	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Charadrius alexandrinus nivosus western snowy plover	G3T3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	10 17	134 S:3	1	0	0	0	0	2	2	1	3	0	0
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	G4?T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	5 5	68 S:1	0	0	0	0	1	0	1	0	0	1	0
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	G2T1 S1	None None	Rare Plant Rank - 1B.2		17 S:1	0	0	0	0	0	1	1	0	1	0	0
Cirsium andrewsii Franciscan thistle	G3 S3	None None	Rare Plant Rank - 1B.2	200 450	31 S:2	0	0	0	0	0	2	1	1	2	0	0
Cirsium fontinale var. fontinale Crystal Springs fountain thistle	G2T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	400 600	5 S:3	0	1	1	0	1	0	1	2	2	1	0
Collinsia multicolor San Francisco collinsia	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	100 700	36 S:11	0	5	0	0	0	6	3	8	11	0	0
Corynorhinus townsendii Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	190 2,170	626 S:7	0	0	0	1	0	6	2	5	7	0	0
Danaus plexippus pop. 1 monarch - California overwintering population	G4T2T3 S2S3	None None	USFS_S-Sensitive	40 150	380 S:5	0	1	1	0	2	1	5	0	3	2	0
Dicamptodon ensatus California giant salamander	G3 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	300 1,400	232 S:10	0	2	0	0	0	8	7	3	10	0	0
Dipodomys venustus venustus Santa Cruz kangaroo rat	G4T1 S1	None None		5 5	14 S:1	0	0	0	0	0	1	1	0	1	0	0
Dirca occidentalis western leatherwood	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	255 1,800	71 S:23	6	6	3	0	0	8	6	17	23	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	280 949	1343 S:11	1	9	1	0	0	0	0	11	11	0	0
Eriophyllum latilobum San Mateo woolly sunflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	100 900	5 S:4	1	1	1	0	1	0	1	3	3	1	0
Eucyclogobius newberryi tidewater goby	G3 S3	Endangered None	AFS_EN-Endangered CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	15 20	127 S:2	0	1	0	0	0	1	2	0	2	0	0
Euphydryas editha bayensis Bay checkerspot butterfly	G5T1 S1	Threatened None	XERCES_CI-Critically Imperiled	300 640	30 S:4	0	1	0	0	3	0	3	1	1	2	1
Falco columbarius merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	65 65	36 S:1	0	1	0	0	0	0	0	1	1	0	0
Falco peregrinus anatum American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	5 5	57 S:1	0	0	0	0	0	1	0	1	1	0	0
Fissidens pauperculus minute pocket moss	G3? S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	250 250	22 S:1	0	0	0	0	0	1	0	1	1	0	0
Fritillaria biflora var. ineziana Hillsborough chocolate lily	G3G4T1 S1	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	500 500	2 S:2	0	1	0	0	0	1	1	1	2	0	0
Fritillaria liliacea fragrant fritillary	G2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	295 800	82 S:7	0	5	0	0	0	2	2	5	7	0	0
Geothlypis trichas sinuosa saltmarsh common yellowthroat	G5T3 S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	10 480	112 S:12	1	2	2	0	0	7	11	1	12	0	0
Grindelia hirsutula var. maritima San Francisco gumplant	G5T1Q S1	None None	Rare Plant Rank - 3.2	200 200	15 S:1	0	0	0	0	0	1	1	0	1	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Hesperevax sparsiflora var. brevifolia short-leaved evax	G4T3 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	400 400	56 S:1	0	0	0	0	0	1	1	0	1	0	0
Hesperolinon congestum Marin western flax	G1 S1	Threatened Threatened	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	200 700	27 S:9	0	5	2	0	2	0	2	7	7	2	0
Horkelia cuneata var. sericea Kellogg's horkelia	G4T1? S1?	None None	Rare Plant Rank - 1B.1 USFS_S-Sensitive	600 600	58 S:2	0	0	0	0	0	2	1	1	2	0	0
Horkelia marinensis Point Reyes horkelia	G2 S2	None None	Rare Plant Rank - 1B.2	300 300	36 S:1	0	0	0	0	0	1	1	0	1	0	0
Hydrochara rickseckeri Ricksecker's water scavenger beetle	G2? S2?	None None		35 280	13 S:2	0	0	0	0	0	2	2	0	2	0	0
Hypogymnia schizidiata island tube lichen	G2 S1	None None	Rare Plant Rank - 1B.3	1,290 1,780	10 S:3	2	0	0	0	0	1	0	3	3	0	0
Ischnura gemina San Francisco forktail damselfly	G2 S2	None None	IUCN_VU-Vulnerable	26 75	7 S:2	0	0	0	0	0	2	1	1	2	0	0
Lasiurus cinereus hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		236 S:6	0	0	0	0	0	6	6	0	6	0	0
Lasthenia californica ssp. macrantha perennial goldfields	G3T2 S2	None None	Rare Plant Rank - 1B.2	40 350	59 S:4	0	1	1	1	0	1	0	4	4	0	0
Laterallus jamaicensis coturniculus California black rail	G3G4T1 S1	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	5 5	303 S:1	0	0	0	1	0	0	1	0	1	0	0
Leptosiphon croceus coast yellow leptosiphon	G1 S1	None Candidate Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	50 50	1 S:1	0	0	0	1	0	0	0	1	1	0	0
Leptosiphon rosaceus rose leptosiphon	G1 S1	None None	Rare Plant Rank - 1B.1	70 70	31 S:4	0	1	0	0	2	1	2	2	2	2	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Lessingia arachnoidea Crystal Springs lessingia	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	300 550	11 S:8	2	2	1	0	0	3	0	8	8	0	0
Lichnanthe ursina bumblebee scarab beetle	G2 S2	None None		15 15	8 S:1	0	0	0	0	0	1	1	0	1	0	0
Limnanthes douglasii ssp. ornduffii Ornduff's meadowfoam	G4T1 S1	None None	Rare Plant Rank - 1B.1	30 50	2 S:2	0	0	0	0	1	1	0	2	1	1	0
Malacothamnus arcuatus arcuate bush-mallow	G2Q S2	None None	Rare Plant Rank - 1B.2	10 700	30 S:10	0	1	1	1	1	6	5	5	9	0	1
Melospiza melodia pusillula Alameda song sparrow	G5T2? S2S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	10 42	38 S:3	0	0	0	0	0	3	3	0	3	0	0
Microcina edgewoodensis Edgewood Park micro-blind harvestman	G1 S1	None None		600 600	1 S:1	0	0	0	0	0	1	1	0	1	0	0
Microseris paludosa marsh microseris	G2 S2	None None	Rare Plant Rank - 1B.2	40 40	38 S:1	0	0	0	0	1	0	1	0	0	0	1
Monolopia gracilens woodland woollythreads	G3 S3	None None	Rare Plant Rank - 1B.2	640 675	57 S:6	0	1	0	0	0	5	3	3	6	0	0
Myotis thysanodes fringed myotis	G4 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	500 500	86 S:1	0	1	0	0	0	0	0	1	1	0	0
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	G5T2T3 S2S3	None None	CDFW_SSC-Species of Special Concern	270 522	34 S:7	0	2	0	0	0	5	0	7	7	0	0
Nyctinomops macrotis big free-tailed bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_MH-Medium-High Priority	150 150	32 S:1	0	0	0	0	0	1	1	0	1	0	0
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	G5T2T3Q S2S3	Threatened None	AFS_TH-Threatened	100 550	44 S:6	0	2	0	0	0	4	3	3	6	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Pentachaeta bellidiflora white-rayed pentachaeta	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	500 520	14 S:3	1	0	0	0	1	1	2	1	2	0	1
Phalacrocorax auritus double-crested cormorant	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	30 30	39 S:1	0	0	0	0	0	1	1	0	1	0	0
Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	G3T1Q S1	None None	Rare Plant Rank - 1B.2	35 1,250	42 S:18	1	9	4	0	0	4	2	16	18	0	0
Plebejus icarioides missionensis Mission blue butterfly	G5T1 S1	Endangered None	XERCES_CI-Critically Imperiled	500 700	14 S:2	0	0	0	0	0	2	2	0	2	0	0
Polemonium carneum Oregon polemonium	G3G4 S2	None None	Rare Plant Rank - 2B.2		16 S:1	0	0	0	0	0	1	1	0	1	0	0
Potentilla hickmanii Hickman's cinquefoil	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	25 300	5 S:2	0	1	0	0	1	0	1	1	1	0	1
Rallus obsoletus obsoletus California Ridgway's rail	G5T1 S1	Endangered Endangered	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	0 15	98 S:4	0	1	1	0	1	1	2	2	3	1	0
Rana boylii foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	370 370	2054 S:1	0	1	0	0	0	0	0	1	1	0	0
Rana draytonii California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	5 4,005	1497 S:70	10	23	14	0	0	23	11	59	70	0	0
Reithrodontomys raviventris salt-marsh harvest mouse	G1G2 S1S2	Endangered Endangered	CDFW_FP-Fully Protected IUCN_EN-Endangered	2 2	144 S:1	0	0	0	0	0	1	1	0	1	0	0
Riparia riparia bank swallow	G5 S2	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern		297 S:1	0	0	0	0	0	1	1	0	1	0	0
Senecio aphanactis chaparral ragwort	G3 S2	None None	Rare Plant Rank - 2B.2	640 640	82 S:1	0	0	0	0	0	1	1	0	1	0	0
Silene scouleri ssp. scouleri Scouler's catchfly	G5T5 S2S3	None None	Rare Plant Rank - 2B.2	800 1,025	23 S:4	0	0	0	0	0	4	1	3	4	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Silene verecunda ssp. verecunda San Francisco campion	G5T1 S1	None None	Rare Plant Rank - 1B.2	375 1,500	20 S:3	0	1	0	0	1	1	2	1	2	1	0
Speyeria zerene myrtleae Myrtle's silverspot butterfly	G5T1 S1	Endangered None	XERCES_CI-Critically Imperiled	20 60	17 S:3	0	0	0	0	3	0	3	0	0	0	3
Spirinchus thaleichthys longfin smelt	G5 S1	Candidate Threatened	CDFW_SSC-Species of Special Concern	0 20	46 S:2	0	0	0	0	0	2	2	0	2	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,500 1,500	559 S:1	0	0	0	0	0	1	1	0	1	0	0
Thamnophis sirtalis tetrataenia San Francisco gartersnake	G5T2Q S2	Endangered Endangered	CDFW_FP-Fully Protected	5 1,355	67 S:38	5	11	5	0	1	16	21	17	37	0	1
Trifolium hydrophilum saline clover	G2 S2	None None	Rare Plant Rank - 1B.2		49 S:1	0	0	0	0	0	1	1	0	1	0	0
Triphysaria floribunda San Francisco owl's-clover	G2? S2?	None None	Rare Plant Rank - 1B.2	5 450	50 S:5	0	0	0	0	1	4	5	0	4	0	1
Triquetrella californica coastal triquetrella	G2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	1,180 1,180	13 S:1	0	0	0	0	0	1	0	1	1	0	0
Tryonia imitator mimic tryonia (=California brackishwater snail)	G2 S2	None None	IUCN_DD-Data Deficient	3 40	39 S:2	0	1	0	0	0	1	1	1	2	0	0
Usnea longissima Methuselah's beard lichen	G4 S4	None None	Rare Plant Rank - 4.2 BLM_S-Sensitive	590 590	206 S:1	0	0	0	0	1	0	1	0	0	1	0

IPaC **U.S. Fish & Wildlife Service**

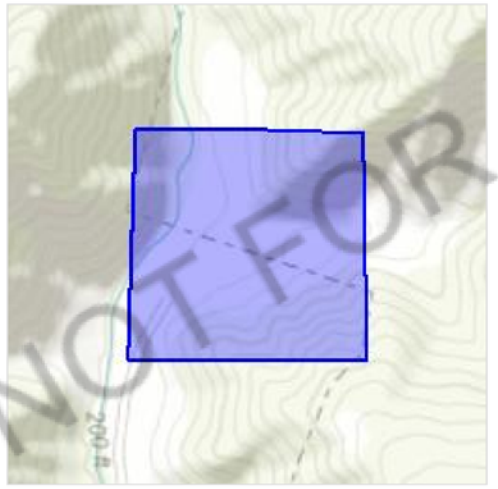
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Mateo County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Salt Marsh Harvest Mouse Reithrodontomys raviventris — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/613

Southern Sea Otter Enhydra lutris nereis — Threatened
Marine mammal
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8560

Birds

NAME	STATUS

California Clapper Rail Rallus longirostris obsoletus — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4240

California Least Tern Sterna antillarum browni — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8104

Marbled Murrelet Brachyramphus marmoratus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/4467

Short-tailed Albatross Phoebastria (=Diomedea) albatrus — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/433

Western Snowy Plover Charadrius nivosus nivosus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/8035

Reptiles

NAME	STATUS

Green Sea Turtle Chelonia mydas — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6199

San Francisco Garter Snake Thamnophis sirtalis tetrataenia — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/5956

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened
Tidewater Goby Eucyclogobius newberryi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Mission Blue Butterfly Icaricia icarioides missionensis There is **proposed** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6928	Endangered
Myrtle's Silverspot Butterfly Speyeria zerene myrtleae No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6929	Endangered
San Bruno Elfin Butterfly Callophrys mossii bayensis There is **proposed** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3394	Endangered

Flowering Plants

NAME	STATUS
Hickman's Potentilla Potentilla hickmanii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6343	Endangered
San Mateo Woolly Sunflower Eriophyllum latilobum No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7791	Endangered

Attachment C. Table 1. Special Status Species Potentials Table for Loess Creek Restoration Project, Half Moon Bay, California

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Plants			
San Mateo thorn-mint (*Acanthomintha duttonii)*	FE, SE, 1B.1	Serpentinite. Chaparral and valley and foothill grassland. 50-300m elevation. Blooming period Apr-Jun.	**No potential.** Serpentinite not present.
Blasdale's bent grass (*Agrostis blasdalei*)	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. 0-150m elevation. Blooming period May-Jun.	**No potential.** Habitat types are not present.
Franciscan onion (*Allium peninsulare* var. *franciscanum*)	1B.2	Clay, volcanic, often serpentinite. Cismontane woodland, valley and foothill grassland. 52-305m elevation. Blooming period (Apr) May-Jun.	**No potential.** Habitat types are not present.
bent-flowered fiddleneck (*Amsinckia lunaris*)	1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. 3-500m elevation. Blooming period Mar-Jun.	**No potential.** Habitat types are not present.
Anderson's manzanita (*Arctostaphylos andersonii*)	1B.2	Openings, edges, broadleafed upland forest, chaparral, North Coast coniferous forest. 60-70m elevation. Blooming period Nov-May.	**Low potential.** Only chaparral habitat present. Much of site disturbed and no manzanitas were observed on the Project Site.
Montara manzanita (*Arctostaphylos montaraensis*)	1B.2	Chaparral (maritime), coastal scrub. 80-500m elevation. Blooming period Jan-Mar.	**Low potential.** Much of site disturbed and no manzanitas were observed on the Project Site.
Kings Mountain manzanita (*Arctostaphylos regismontana*)	1B.2	Granitic or sandstone. Broadleafed upland forest, chaparral, North Coast coniferous forest. 305-730m elevation. Blooming period Dec-Apr.	**No potential.** Granitic soil not present, most habitat types not present. Project Site is below known elevation range for this species.
coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*)	1B.2	Coastal dunes (mesic), coastal scrub, marshes and swamps (coastal salt, streamsides). 0-30m elevation. Blooming period (Apr) Jun-Oct.	**No potential.** Habitat types are not present, and site is above known elevation range.
pappose tarplant (*Centromadia parryi ssp. parryi*)	1B.2	Often alkaline. Chaparral, coastal prairie, meadows and seeps, marshes and swamps (coastal salt), valley and foothill grassland (vernally mesic). 0-420m elevation. Blooming period May-Nov.	**Low potential.** Although chaparral habitat is present, vernally mesic areas within this habitat are not present and site disturbance likely precludes this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
			This species was not observed during the July site visit.
Point Reyes salty bird's-beak (*Chloropyron maritimum ssp. palustre*)	1B.2	Marshes and swamps (coastal salt). 0-10m elevation. Blooming period Jun-Oct.	**No potential.** Habitat types are not present; site is not within known elevation range.
San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidate*)	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. 3-215m elevation. Blooming period Apr-Jul (Aug).	**No potential.** Habitat types are not present.
Franciscan thistle (*Cirsium andrewsii*)	1B.2	Mesic, sometimes serpentinite. Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub. 0-150m elevation. Blooming period Mar-Jul.	**No potential.** Habitat types are not present.
Crystal Springs fountain thistle (*Cirsium fontinale* var. *fontinale*)	FE, SCE, 1B.1	Serpentinite seeps. Chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland. 45-175m elevation. Blooming period (Apr) May-Oct.	**Low potential.** Serpentinite seeps, cismontante woodland, and valley grassland habitat types are not present. This species was not observed during July site visit.
San Francisco collinsia (*Collinsia multicolor*)	1B.2	Sometimes serpentinite. Closed-cone coniferous forest, coastal scrub. 30-250m elevation. Blooming period (Feb) Mar-May.	**No potential.** Habitat types are not present.
western leatherwood (*Dirca occidentalis*)	1B.2	Mesic. Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland. 25-425m elevation. Blooming period Jan-Mar(Apr).	**Low potential.** Mesic soils not present. Riparian and chaparral present, however most other habitat types not present. This species was not observed during January site visit.
San Mateo woolly sunflower (*Eriophyllum latilobum*)	FE, SCE, 1B.1	Cismontane woodland (often serpentinite, on roadcuts), coastal scrub, lower montane coniferous forest. 45-330m elevation. Blooming period May-Jun.	**No potential.** Habitat types are not present.
minute pocket moss (*Fissidens pauperculus*)	1B.2	North Coast coniferous forest (damp coastal soil). 10-1024m elevation. No blooming period.	**No potential.** Habitat types are not present.
Hillsborough chocolate lily (*Fritillaria biflora* var. *ineziana*)	1B.1	Serpentinite. Cismontane woodland, valley and foothill grassland. Blooming period Mar-Apr.	**No potential.** Habitat types are not present.
fragrant fritillary	1B.2	Often serpentinite. Cismontane woodland, coastal	**No potential.** Habitat types are not

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
(*Fritillaria liliacea*)		prairie, coastal scrub, valley and foothill grassland. 3-410m. Blooming period Feb-Apr.	present.
San Francisco gumplant (*Grindelia hirsutula* var. *maritima*)	3.2	Sandy or serpentinite. Coastal bluff scrub, coastal scrub, valley and foothill grassland. 15-400m elevation. Blooming period Jun-Sep.	**No potential.** Habitat types are not present.
short-leaved evax (*Hesperevax sparsiflora* var. *brevifolia*)	1B.2	Coastal bluff scrub (sandy), coastal dunes, coastal prairie. 0-215m elevation. Blooming period Mar-Jun.	**No potential.** Habitat types are not present.
Marin western flax (*Hesperolinon congestum*)	FT, ST, 1B.1	Serpentinite. Chaparral, valley and foothill grassland. 5-370m elevation. Blooming period Apr-Jul.	**No potential.** Serpentinite not present.
Kellogg's horkelia (*Horkelia cuneate* var. *sericea*)	1B.1	Sandy or gravelly, openings. Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub. 10-200m elevation. Blooming period Apr-Sep.	**Moderate potential.** Chaparral habitat is present, however much of site is disturbed.
Point Reyes horkelia (*Horkelia marinensis*)	1B.2	Sandy. Coastal dunes, coastal prairie, coastal scrub. 5-755m elevation. Blooming period May-Sep.	**No potential.** Habitat types are not present.
island tube lichen (*Hypogymnia schizidiata*)	1B.3	On bark and wood of hardwoods and conifers. Closed-cone coniferous forest, chaparral. 360-405m elevation. Blooming period N/A.	**No potential.** Chaparral present, however site is below the known elevation range for this species.
perennial goldfields (*Lasthenia californica ssp. macranth*)	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. 5-520m elevation. Blooming period Jan-Nov.	**No potential.** Habitat types are not present.
coast yellow leptosiphon (*Leptosiphon croceus*)	1B.1	Coastal bluff scrub, coastal prairie. 10-150m elevation. Blooming period Apr-Jun.	**No potential.** Habitat types are not present.
rose leptosiphon (*Leptosiphon rosaceus*)	1B.1	Coastal bluff scrub. 0-100m elevation. Blooming period Apr-Jul.	**No potential.** Habitat types are not present.
Crystal Springs lessingia (*Lessingia arachnoidea*)	1B.2	Serpentinite, often roadsides. Cismontane woodland, coastal scrub, valley and foothill grassland. 60-200m. Blooming period Jul-Oct.	**No potential.** Serpentinite not present.
Ornduff's meadowfoam (*Limnanthes douglasii ssp. ornduffii*)	1B.1	Agricultural fields. Meadows and seeps. 10-20m. Blooming period Nov-May.	**No potential.** Habitat types are not present.
arcuate bush-mallow	1B.2	Chaparral. Cismontane woodland. 15-355m. Blooming	**Moderate potential.** Chaparral present,

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
(*Malacothamnus arcuatus*)		period Apr-Sep.	however much of site is disturbed.
marsh microseris (*Microseris paludosa*)	1B.2	Closed-cone coniferous forest, cismontane woodland coastal scrub, valley and foothill grass. 5-355m elevation. Blooming period Apr-Jun (Jul).	**No potential.** Habitat types are not present.
woodland woolythreads (*Monolopia gracilens*)	1B.2	Serpentine. Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, North Coast coniferous forest (openings), and valley and foothill grassland. 100-1200m elevation. Blooming period (Feb)Mar-Jul.	**No potential.** Serpentine soils not present.
white-rayed pentachaeta (*Pentachaeta bellidiflora*)	FE, SCE, 1B.1	Cismontane woodland, valley and foothill grassland (often serpentinite). 35-620m elevation. Blooming period Mar-May.	**No potential.** Habitat types are not present.
Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*)	1B.2	Mesic. Chaparral, coastal prairie, coastal scrub. 3-160m elevation. Blooming period Mar-Jun.	**Moderate potential.** Only chaparral habitat is present and much of site is disturbed likely precluding this species.
Oregon polemonium (*Polemonium carneum*)	2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. 0-1830m elevation. Blooming period Apr-Sep.	**No potential.** Habitat types are not present.
Hickman's cinquefoil (*Potentilla hickmanii*)	FE, SE, 1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic), marshes and swamps (freshwater). 10-149m elevation. Blooming period Apr-Aug.	**No potential.** Habitat types are not present.
chaparral ragwort (*Senecio aphanactis*)	2B.2	Sometimes alkaline. Chaparral, cismontane woodland, coastal scrub. 15-800m elevation. Blooming period Jan-Apr (May).	**Moderate potential.** Only chaparral habitat is present and much of site is disturbed likely precluding this species.
Scouler's catchfly (*Silene scouleri* ssp. *scouleri*)	2B.2	Coastal bluff scrub, coastal prairie, valley and foothill grassland. 0-600m elevation. (Mar-May) Jun-Aug (Sep).	**No potential.** Habitat types are not present.
San Francisco campion (*Silene verecunda ssp. verecunda*)	1B.2	Sandy. Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. 30-645m elevation. Blooming period (Feb) Mar-Jun (Aug).	**Moderate potential.** Only chaparral habitat is present and much of site is disturbed likely precluding this species.
saline clover (*Trifolium hydrophilum*)	1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. 0-300m elevation.	**No potential.** Habitat types are not present. On-site seasonal wetland is man-

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
		Blooming period Apr-Jun.	made and not likely to support this species.
San Francisco owl's-clover *Triphysaria floribunda*	1B.2	Usually serpentinite. Coastal prairie, coastal scrub, valley and foothill grassland. 10-160m elevation. Blooming period Apr-Jun.	**No potential.** Serpentinite not present.
coastal triquetrella *Triquetrella californica*	1B.2	Coastal bluff scrub, coastal scrub. 10-100m elevation. Blooming period N/A.	**No potential.** Habitat types are not present.
Methuselah's beard lichen *Usnea longissimi*	4.2	On tree branches; usually on old growth hardwoods and conifers. Broadleafed upland forest, North Coast coniferous forest. 50-1460m elevation.	**No potential.** Habitat types are not present.
Wildlife			
Mammals			
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	SSC	Forest habitats of moderate canopy and moderate to dense understory. Also, in chaparral habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	**High potential.** Suitable riparian and chaparral habitat is present on the Project Site. No woodrat nests were observed during either the January or July site visit, however dense understory restricted access to these areas.
salt marsh harvest mouse *Reighrodontomys raviventris*	FE, SE, CFP	Endemic to emergent salt and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	**No potential.** Habitat types are not present. Wetland habitat on site is man-made and not contiguous with suitable habitat for this species.
southern sea otter *Enhydra lutris nereis*	FT	Occurs in marine waters and coastal lagoons.	**No potential.** Habitat types are not present.
American Badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Low potential**. While friable soils are present, the Project Site lacks open, uncultivated ground for this species. No suitably-sized burrows were observed during the site visits.
pallid bat *Antrozous pallidus*	SSC, WBWG High	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops	**Moderate potential.** This species may roost in buildings on the Project Site. Bat guano was observed in a barn proposed for

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
		and cliffs, caves, mines, trees and various human structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	demolition.
Townsend's big-eared bat *Cornorhinus townsendii*	SSC, WBWG High	Associated with a wide variety of habitats from deserts to mid-elevation mixed coniferous-deciduous forest. Females form maternity colonies in buildings, caves and mines and males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation.	**Low potential.** This species is very sensitive to human disturbance and is not likely to roost in buildings on the Project Site.
hoary bat *Lasiurus cinereus*	WBWG Medium	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Low potential.** May potentially roost in larger trees on or adjacent to the Project Site.
big free-tailed bat *Nyctinomops macrotis*	SSC, WBWG Medium-High	Occurs rarely in low-lying arid areas. Requires high cliffs or rocky outcrops for roosting sites.	**No potential.** Suitable roost sites are not present.
Amphibians and Reptiles			
green sea turtle *Chelonia mydas*	FT	Occurs in marine waters and coastal lagoons.	**No potential.** Habitat types are not present.
California red-legged frog *Rana draytonii*	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	**Moderate potential.** There are numerous occurrences of this species surrounding the Project Site, including in Frenchman's Creek both above and below the confluence with Loess Creek. This species may travel overland to reach aquatic breeding habitats located outside the Project Site or use Loess Creek for aquatic non-breeding purposes including foraging, refugia, and dispersal.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
California foothill yellow-legged frog *Rana boylii*	SCT, SSC	Found in or near rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	**No potential.** Outside range for this species.
California tiger salamander *Ambystoma californiense*	FT, ST	Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Adults are fossorial and utilize mammal burrows and other subterranean refugia. Breeding occurs primarily in vernal pools and other seasonal water features.	**No potential.** Outside range for this species.
Santa Cruz black salamander *Aneides niger*	SSC	Restricted to mesic forests in the fog belt of the outer Coast Range. Occurs in moist streamside microhabitats and is frequently found in shallow standing water or seeps.	**No potential.** Habitat type is not present.
California giant salamander Dicamptodon ensatus	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	**No potential.** While chaparral habitat is present, no permanent or semi-permanent streams are present on the Project Site.
western pond turtle *Emys marmorata*	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	**Low potential.** While this species can make overland movements between aquatic sites, it is unlikely to be present due to the lack of water and/or basking sites in Loess Creek and suitable upland habitats on the site. Discontinuous habitat due to underground culverting and drop-fall structures further preclude this species.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, SE, CFP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are	**Low potential.** While potentially suitable aquatic and upland habitat is present on the site, discontinuous habitat due to underground culverting and drop-fall

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
		also very important.	structures likely preclude this species from the Project Site. A nearby reservoir on the property may provide habitat for this species.
Birds			
western snowy plover *Charadrius alexandrinus*	SSC, BCC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	**No potential.** Habitat type is not present.
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP, BCC	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	**No potential.** Habitat type is not present.
California ridgeway's rail *Rallus obsoletus obsoletus*	FE, SE	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on molluscs and crustaceans.	**No potential.** Habitat type is not present.
California least tern *Sterna antillarum browni*	FE	Summer resident along the coast from San Francisco Bay south to northern Baja California; inland breeding also very rarely occurs. Nests colonially on barren or sparsely vegetated areas with sandy or gravelly substrates near water, including beaches, islands, and gravel bars. In San Francisco Bay, has also nested on salt pond margins.	**No potential.** Habitat type is not present.
marbled murrelet *Brachyramphus marmoratus*	FT, SE	Predominantly coastal marine. Nests in old-growth coniferous forests up to 30 miles inland along the Pacific coast, from Eureka to Oregon border, and in Santa Cruz/San Mateo Counties. Nests are highly cryptic, and typically located on platform-like branches of mature	**No potential.** Habitat type is not present.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
		redwoods and Douglas firs. Forages on marine invertebrates and small fishes.	
short-tailed albatross *Phoebastria* (=Diomedea) *albatrus*	FE, SSC	Highly pelagic; comes to land only when breeding. Nests on remote Pacific islands. A rare non-breeding visitor to the eastern Pacific.	**No potential.** Habitat type is not present.
burrowing owl *Athene cunicularia*	SSC, BCC	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	**No potential.** Habitat type is not present.
American peregrine falcon *Falco peregrinus anatum*	FD, CFP, BCC	Year-round resident and winter visitor. Occurs in a wide variety of habitats, though often associated with coasts, bays, marshes and other bodies of water. Nests on protected cliffs and also on man-made structures including buildings and bridges. Preys on birds, especially waterbirds. Forages widely.	**No potential.** Habitat type is not present.
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	SSC, BCC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Moderate potential.** This species is documented in Frenchmans Creek downstream of the confluence with Loess Creek in willow riparian habitat. Suitable riparian habitat is present on the Project Site, though surrounding site disturbance may make this habitat less attractive.
Alameda song sparrow *Melospiza melodia pusillula*	SSC, BCC	Year-round resident of salt marshes bordering the south arm of San Francisco Bay. Inhabits primarily pickleweed marshes; nests placed in marsh vegetation, typically shrubs such as gumplant.	**No potential.** Habitat type is not present.
bank swallow *Riparia riparia*	ST	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Historical nesting range in southern and	**No potential.** Habitat type is not present.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
		central areas of California has been eliminated by habitat loss. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	
Fishes			
steelhead – central California coast DPS *Oncorhynchus mykiss irideus*	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River and in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for one or more years before migrating downstream to the ocean.	**No potential.** An impassable drop-fall culvert is present between Frenchmans Creek (where this species has been documented) and Loess Creek (and the Project Site).
longfin smelt *Spirinchus thaleichthys*	FC, ST, SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt but can be found in completely freshwater to almost pure seawater.	**No potential.** Habitat type is not present.
delta smelt *Hypomesus transpacificus*	FT, SE	Lives in the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt; most often at salinities < 2 ppt.	**No potential.** Habitat type is not present.
tidewater goby *Eucyclogobius newberryi*	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	**No potential.** Habitat type is not present.
Invertebrates			
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT, SSI	Restricted to native grasslands on outcrops of serpentine soil near San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurscens* are the secondary host plants.	**No potential.** Habitat type is not present.
San Bruno elfin butterfly	FE, SSI	Limited to the vicinity of San Bruno Mountain, San	**No potential.** Habitat type is not present.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Callophrys mossii bayensis		Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tied to the distribution of the larval host plant, Sedum spathulifolium.	
monarch – California overwintering population *Danaus plexippus*	SSI	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	**Moderate potential.** This species is documented within one mile southwest of the Project Site along Frenchmans Creek. Suitable roost trees are present adjacent to the Project Site.
Mission blue butterfly *Plebejus icarioides missionensis*	FE, SSI	Inhabits grasslands and coastal chaparral of the San Francisco Peninsula and southern Marin County, but mostly found on San Bruno Mountain. Three larval host plants: *Lupinus albifrons*, *L. variicolor*, and *L. formosus*, of which *L. albifrons* is favored.	**No potential.** Habitat type is not present.
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE	Restricted to the fog belt of northern Marin and southernmost Sonoma County, including the Point Reyes peninsula; extirpated from coastal San Mateo County. Occurs in coastal prairie, dunes, and grassland. Larval foodplant is typically *Viola adunca*. Adult flight season may range from late June to early September.	**No potential.** Habitat type is not present.

*Status Codes:
FE or FT – Federal Endangered or Threatened
FD – Federal Delisted
FC – Federal Candidate
SE or ST – State Endangered or Threatened
SCE or SCT – State Candidate Endangered or Threatened
CFP – California Fully Protected
SSC – California Special Status Species
BCC – Bird of Conservation Concern (FWS)
SSI – Special Status Invertebrate
WBWG High or Medium Priority (Western Bat Working Group)

California Rare Plant Rank (RPR):
1B.1 - Seriously rare, threatened, or endangered in California and elsewhere
Rank 1B.2– Moderately rare, threatened, or endangered in California and elsewhere
Rank 1B.3 – Not very threatened in California
Rank 2B.2 – Moderately rare, threatened, or endangered in California, but more common elsewhere
Rank 4 – Watch List or Locally Rare

County of San Mateo - Planning and Building Department

ATTACHMENT D

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April 11, 2019

Mike Schaller
County of San Mateo, Planning Division
455 County Center, 2nd Floor
Redwood City, CA 94063

Re: Biological Addendum Report for 37 Frenchmans Creek Road (for Half Moon Grow)

Dear Mr. Schaller,

The purpose of this letter is to provide an addendum to the October 2018 Biological Resources Report prepared for the Half Moon Grow site located at 37 Frenchman's Creek Road, in San Mateo County, California. This addendum has been prepared to address specific comments on the Mitigated Negative Declaration (MND) for the project raised by the California Department of Fish and Wildlife (CDFW) in their letter dated March 21, 2019 (CDFW Letter). Specifically, this addendum addresses potential impacts to biological resources that have potential to occur on the site from the proposed water use and stream diversion that is part of the proposed project.

Additional Project Information

The existing in-stream water diversion, which has been in place since 2009, is permitted by water right licenses 6556 and 10827 and an existing CDFW Streambed Alteration Agreement (SAA) for use in irrigating an orchid flower farm and fruit orchards present on the property for more than 30 years; both licenses were amended by the State Water Resources Control Board (SWQCB) in 2012 by the former owner/operator to improve efficiency and reduce long-term maintenance requirements that were detrimental to the stream corridor. Diversion under the existing amended licenses and SAA is confined to the period of January 1 to March 31 of each year. During this period, the minimum in-stream bypass flow rate is 2.8 cubic feet second (cfs) and must increase above this in order for flow to then be diverted. The maximum rate of diversion may not exceed 0.4 cfs (180 gallons per minute; gpm) and the total amount of water allowed to be diverted in a single season may not exceed 10.66-acre feet.

The existing state licenses will be transferred to the new owner Half Moon Grow as part of change in ownership/sale of property. The applicant provided written notification to CDFW pursuant to section 1600 to apply for a new SAA subject to the conditions of the former SAA on September 20, 2018. As part of the Notification, water calculations were submitted to show that the total

annual diversion is not expected to exceed 4.0-acre feet in most years, which is far below the allowable 10.66-acre feet under the existing state license and previous years water diversions conducted by the prior owner. Because no new construction is proposed, and there are no new potential adverse impacts associated with the existing diversion, no additional analysis of streamflow impacts has been conducted nor is warranted.

Potential Impacts Discussion

With regards to the additional project information, the following determinations have been made and are further described below.

IV.	**BIOLOGICAL RESOURCES** — Would the project:	***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, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

a) ***Less than Significant with Mitigation Incorporated***

According to the October 2018 Biological Report and CDFW Letter, the proposed project site may provide suitable habitat for roosting bats and nesting birds as well as six special status wildlife species (including one federal threatened species):

- California red-legged frog (CRLF) *(Rana draytonii)*
- San Francisco garter snake (SFGS) *(Thamnophis sirtalis tetrataenia)*
- Monarch butterfly *(Danaus plexippus pop. 1)*
- Saltmarsh common yellowthroat *(Geothlypis trichas sinuosa)*
- Steelhead *(Oncorhynchus mykiss irideus pop. 8)*
- San Francisco dusky-footed woodrat *(Neotoma fuscipes annectens)*
- Pallid bat *(Antrozous pallidus)*

Much of the existing site was developed in the 1960s for agricultural purposes. Several engineered greenhouses, metal barns, farm labor housing, roadways, parking areas, irrigation, and other related infrastructure is present on the property and has been used historically to grow orchids, ornamental flowers, and cherry trees. The proposed project will occupy existing buildings and related infrastructure; water will be obtained via an existing licensed in-stream diversion as described above. No new construction is proposed.

Evidence of an active roost was observed within one of the metal barns on the Project Site including guano (droppings) and urine staining. This structure appeared to be in regular use at the time of the assessment for material storage by the previous land owner and is therefore likely a night roost rather than a maternity day roost. Additional roost habitat was also identified on the exterior of an adjacent building (former labor housing), though no sign was observed. Removal or demolition of either building would be considered a significant impact under CEQA. Pallid bat can occupy buildings in use and thus, continued use of these structures is not considered a significant impact. At this time, no demolition or modification to either building is proposed and both buildings are not proposed for any new or reuse and thus, no significant impact to bats is anticipated. However, future changes in use or modifications to the existing buidings, may potentially result in impacts to bats if present.

Because no new construction is proposed, and all work will occur within already developed areas and within existing facilities, no new impacts to wildlife species are anticipated. The existing diversion has the potential to impact aquatic species as a result of reduced in-stream flows during low-flow period and/or a reduction of streamflow or complete dewatering in the watershed during the summer months if conditions of the license are not adhered to.

b) ***No Impact*** – As described in previous biological report.

c) ***No Impact*** – As described in previous biological report.

d) ***Less than Significant with Mitigation Incorporated***.

The proposed project will not create any permanent dispersal barriers.

Recommended Mitigation

Avoidance and Minimization Measures (AMM) provided below are in accordance with the recommended measures in the CDFW letter and the terms and conditions of the existing state licenses for the in-stream water diversion. No new impacts or measures are proposed. The following AMM would ensure impacts associated with operation of the existing licensed water diversion are reduced to a less-than-significant level:

- The season of diversion shall be limited from January 1 to March 31 of each year ("forbearance period"). From April 1 to December 31, all water shall be allowed to pass the point of diversion.
- The maximum instantaneous rate of withdrawal shall not exceed 0.4 cfs or 180 gpm at any time. The maximum amount of water to be diverted in any one year shall not exceed 10.66-acre feet.
- No water shall be diverted until at least 2.8 cfs is allowed to bypass the existing point of diversion.
- The Permittee may utilize water from a water hauling company the first year of the LSAA if the Permittee is unable to divert.

Additionally, if any buildings that may provide habitat for any species of bat will be significantly altered, modified, or if activities could result on the disturbance to roosting bats, a bat roost survey should be performed during the appropriate roosting period (April 1 to September 15) prior to any modification, and if bats are present, CDFW shall be consulted beforehand any change in use occurs.

Please do not hesitate to contact me with questions.

Respectfully,

Dana Riggs, Principal Biologist