# Staff Report to the Zoning Administrator

**Application Number: 251463**

**Applicant:** Erik Lomuljo
**Owner:** Mount Hermon Association, Inc.
**APN:** 071-331-06
**Site Address:** Conference Drive, Felton

**Agenda Date:** July 17, 2026
**Agenda Item #:** 1
**Time:** After 9:00 a.m.

**Project Description**: Proposal to construct and install an 831.60 kW ground-mounted solar photovoltaic (PV) system consisting of approximately 39,800 square feet of ground-mounted solar panels on a vacant 8.88-acre parcel, to provide electric power for private use only. All excess energy will be used to offset the client's usage; this project will not have an Energy Storage System.

**Location**: Property located on the northwestern corner of Conference Drive (no situs) and East Zayante Road, approximately 300 feet southeast of the intersection of Conference Drive and Graham Hill Road in the San Lorenzo Valley Planning Area.

**Permits Required:** A Conditional Use Permit (CUP), a Conditional Site Development Permit (CSP), and a Variance to increase the lot coverage from 10% to about 10.5%.

**Supervisorial District**: 5th District (District Supervisor: Monica Martinez)

**Staff Recommendation:**

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 251463, based on the attached findings and conditions.

**Project Description & Setting**

The proposal includes new construction of approximately 39,800 square feet of ground-mounted solar panels, installed in thirteen rows, approximately 3,060 square feet each. The system is proposed as a behind-the-meter solar installation, dedicated solely to serving the electrical needs of Mt Hermon Christian School and is not intended to provide power to any other off-site customers, homes, or businesses. All energy generated will be consumed privately by the school. The proposed annual energy production is approximately 1,413,586 kilowatt-hours (kWh), which exceeds the school's estimated annual consumption of 1,213,925 kWh. All excess energy will be used to offset the client's usage; this project will not have an Energy Storage System.

The project entails the creation of an access road from the adjacent parcel to the west (APN 071-331-05), under the same ownership. The access road will follow the existing topography, which helps minimize disturbance and reduce the need for significant grading. Only minor grading is expected in a very localized area near the array entrance.

The project also requires the removal of five significant oak trees. Therefore, to improve the native habitat surrounding the proposed solar field, the County Environmental Planning section has required a tree replacement ratio of 5:1 for trees between 12- and 23.5-inches diameter at breast height (4.5 feet), and a replacement ratio of 10:1 for the removal of trees 24 inches in diameter at breast height. A total of 45 oak trees will be required to be planted, maintained, and monitored.

As proposed, the operational requirements of the site are expected to be minimal. Landscape maintenance will be primarily weed abatement and vegetation management to maintain clearances around the array and equipment pads, typically 2–4 times per year. No routine heavy repair activity is anticipated at this site unless triggered by equipment failure or weather damage. There will be no dedicated on-site security staff; the security system will be passive, provided by fencing, locked gates, and warning signage. A standard 6-foot-high chain-link fence will surround the array and electrical equipment, with gates to allow PG&E and emergency vehicle access.

The subject parcel is zoned Special Use (SU). All uses allowed in the RA (Residential Agricultural) and R-1 (Single-Family Residential) zone districts shall be allowed on parcels in the SU zone district when consistent with the General Plan. Utility facilities, including microgrids - public or private, are an allowed use within the SU/RA zone districts, subject to the approval of a Conditional Use Permit (CUP), a discretionary permit which requires both public notice (to parcels within 500 feet of the subject site) and a public hearing before the Zoning Administrator. The scale of this non-residential development also triggers a Conditional Site Development Permit (CSP), pursuant to SCCC 13.11.037.

Additionally, all new commercial, mixed use, industrial, or public facility construction requires Design Review under SCCC 13.11.040(A)(3). Both Mt. Hermon Road and Graham Hill Road are Scenic Highways, as designated by the County General Plan. The project site is also adjacent to a Scenic View Corridor as established by the Felton Town Plan. This Scenic View Corridor is intended to preserve the natural visual setting north and south of Mt. Hermon Road as viewed from Graham Hill Road.

**Project Background**

The project site consists of an undeveloped, irregularly shaped parcel at the corner of Conference Drive and East Zayante Road, located at the edge of the Felton town center. The property is bordered by large parcels zoned as Parks, Recreation and Open Space (PR) directly east, a single-family residential (R-1) neighborhood to the northeast, and Mt. Hermon Road to the north, with low density Residential Agricultural (RA) parcels beyond the right of way, farther north. A second vacant parcel sits between the subject site and the Felton Fair Shopping Center (developed with a Safeway grocery store and CVS Pharmacy) to the west. Conference Drive, to the south, provides access to the Mt. Hermon Christian Conference Center.

The topography of the site is varied, sloping steeply southward from Mt. Hermon Road before flattening out towards the middle of the parcel and continuing down a gradual descent to a densely wooded area covering the lower third of the property along Conference Drive.

The subject parcel is one of several parcels comprising the Mt. Hermon Christian Conference Center, which encompasses over 440 acres in total. Although the subject parcel has never been developed, research into the parcel's permit history indicates a variety of uses have been proposed but never realized, including affordable housing (07-0056 / 08-0338), a residential subdivision (95-0057), and an outdoor recreational facility (131234). Common community concerns generated by the previous

proposals include increased traffic congestion, environmental impacts, water usage, and onsite sewage treatment.

## Zoning & General Plan Consistency

The subject property is located in the SU (Special Use) zone district. The SU zoning is consistent with the site's R-UVL (Urban Very Low Density) General Plan designation. As shown in the table below, the project meets most zone district development standards. The disturbed area totals almost 70,000 square feet and the actual lot coverage of the array slightly exceeds the site standard of 10%, triggering the need for a Variance.

| Site and Development Standards | SU/RA Zone | Proposed |
|---|---|---|
| Maximum structure height | 28’ | 8.75’ (based on proposed 22° tilt angle) |
| Maximum number of stories | 3 | N/A |
| Maximum floor area ratio (FAR) | N/A | N/A |
| Maximum parcel coverage (“lot coverage”) | 10% (38,681 SF) | .10.4% (39,803 SF) |
| Front yard setback | 20’ | >20’ |
| Side yard setbacks | 20’ | >20’ |
| Rear yard setback | 20’ | >20’ |
| Maximum Fencing Height (outside the site distance triangle) | 8’ | 6’ |

## Variance

The potential development area on the subject parcel is constrained by environmental resources and the need to minimize impacts to the public viewshed. As originally proposed, the solar array was located within the oak woodland at the southern portion of the parcel. To reduce impacts to this sensitive habitat, the applicant revised the project to relocate the array to the central portion of the parcel, avoiding the dense oak woodland and reducing visibility from adjacent residential properties. Due to the site's topography, the revised layout requires a slightly larger footprint to achieve the proposed energy generation capacity.

The requested variance is limited in scope. Based on the surveyor's revised calculation of parcel area, the proposed solar array would cover approximately 10.4 percent of the parcel, exceeding the 10.0 percent development standard by approximately 0.4 percent. The extent of the deviation is therefore minor and remains generally consistent with the intent of the zoning standard.

Reducing the size of the solar array to comply with the 10.0 percent development standard would decrease annual energy production by approximately 50,759 kilowatt-hours and reduce the system's generating capacity from 831.6 kW DC to 796.4 kW DC. While this reduction would lessen the project's energy production, it would not result in a meaningful reduction in environmental or visual impacts because the array has already been configured to avoid sensitive resources and minimize visibility from surrounding properties.

Approval of the requested variance would allow the project to achieve its intended energy generation capacity while remaining consistent with the County's renewable energy objectives, the environmental considerations that influenced the project design, and the overall purpose and intent of the zoning ordinance.

**Design Review**

The proposed solar panel array complies with the requirements of the County Design Review Ordinance, in that the proposed project will incorporate site and design features such as fencing and native landscaping to reduce the visual impact of the proposed development on surrounding land uses and the natural landscape.

The selected site avoids sensitive oak and needlegrass grassland habitats, retaining the greatest number of oak trees and preserving the oak woodlands along the south property line.

The natural slope of the hillside is an advantage for the efficiency of a solar panel array. 22% is the optimal tilt angle at this location, and as designed the chosen location helps keep the panels closer to the natural grade.

When viewed from the east (most visible vantage point due to a clearing in landscape), the full array is tucked from view of the nearest neighbors; and the height of the panels will not rise above the existing ridgelines to the west.

The surrounding oak woodland to the south obscures much of the site from view from Graham Hill Road. The proposed solar location is also not visible from Mount Hermon Road as the site slopes upward then downhill away from the road and existing trees/shrubs prevent views while traveling by vehicle. Traffic speeds, curves, and lack of sidewalks discourage pedestrian access along Mount Hermon Road. Additionally, a lack of vehicle turnouts precludes formal viewpoints from this location.

Felton Town Plan

The Felton Town Plan identifies the parcel adjacent to the project site (APN 071-331-05) as being within Scenic View Corridor #4. The project site lies immediately east of this parcel and is not located within the mapped scenic view corridor. Even so, the project as proposed would still meet the specified Scenic Corridor guidelines for development within this corridor, as the proposed solar array conforms to the existing topography with low profile equipment, and will not obstruct views of the hills to the northeast. While the proposed solar array may be seen from various locations at higher elevations, it is not anticipated to be visible from the downtown Felton area. As shown in the image below (intersection of Graham Hill Road and Conference Drive), the solar panel array will be naturally screened from view from the south, by the height of the existing oaks and redwood trees, all to be preserved along Conference Drive.

**View of site from neighboring driveway to the east***



*stakes have been highlighted for enhanced visibility

**View of site from intersection of Graham Hill Road and Conference Drive**



**Public Notification and Site Staking**

In addition to two public notification signs placed onsite (one facing East Zayante Road and one alongside Conference Drive), a third sign was added on July 6th, at the end of Conference Drive where it intersects with Graham Hill Road. Public notice was mailed to parcels within 500 feet of the subject site, and a public hearing scheduled before the Zoning Administrator. The project description was also posted on the County's Community Development and Infrastructure webpage for major project applications.

Due to the location between two designated scenic roads and potential visibility concerns, Planning Staff requested that 6-foot-high stakes be set at 25-foot intervals to delineate the proposed footprint of the solar array. Site visits confirmed that the panels and 6-foot fencing would only be moderately visible from the nearest residential parcels to the east, and a portion of the footpath alongside East Zayante, between existing trees and the property fencing. A condition of approval requires native landscaping be added along the exterior perimeter of the proposed fencing to the east, to better conceal the fencing and panels and help blend the development into the existing landscaping.

**Conclusion**

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

**Staff Recommendation**

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

- **APPROVAL** of Application Number **251463,** based on the attached findings and conditions.

**Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Division, and are hereby made a part of the administrative record for the proposed project**.

**The County Code and General Plan, as well as hearing agendas and additional information are available online at:** www.sccoplanning.com

Report Prepared By: Rebecca Rockom
Santa Cruz County Planning
701 Ocean Street, 4th Floor
Santa Cruz CA 95060
Phone Number: (831) 454-3121
E-mail: rebecca.rockom@santacruzcountyca.gov

**Exhibits**

A. Categorical Exemption (CEQA determination)
B. Findings

C. Conditions
D. Project plans (with onsite rendering)
E. Assessor's, Location, Zoning and General Plan Maps
F. Parcel information
G. Geotechnical Report Review Acceptance Letter
H. Biotic Report Review Acceptance Letter
I. Variance Request Letter
J. Comments & Correspondence

# CALIFORNIA ENVIRONMENTAL QUALITY ACT
# NOTICE OF EXEMPTION

The Santa Cruz County Planning Division has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 251463
Assessor Parcel Number: 071-331-06
Project Location: Conference Drive, Felton

**Project Description: Proposal to construct and install an 831.60 kW ground-mounted solar photovoltaic (PV) system on a vacant 8.88-acre parcel, to provide electric power for private use only.**

**Person or Agency Proposing Project: Erik Lomuljo**

**Contact Phone Number: 916-244-4878**

**A.** _____ The proposed activity is not a project under CEQA Guidelines Section 15378.
**B.** _____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).
**C.** _____ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.
**D.** _____ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

**E. X Categorical Exemption**

Specify type: Class 3 - New Construction or Conversion of Small Structures (Section 15303)

**F. Reasons why the project is exempt:**

Project consists of an array of solar collectors, ancillary to an existing visitor serving camp facility offsite.

In addition, none of the conditions described in Section 15300.2 apply to this project.

Rebecca Rockom Date:_____
Rebecca Rockom, Project Planner

**EXHIBIT A**

# Discretionary Permit Findings

(a) Health and Safety. The proposed location of the project and the conditions under which it would be developed, operated, or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that construction would comply with prevailing building technology, the California Building Code, and the County Building ordinance to ensure the optimum in safety and the conservation of energy and resources. The fence enclosure will not intrude on any pedestrian walkways and will protect the installation from unauthorized intrusion.

(b) Zoning Conformance. The proposed location of the project and the conditions under which it would be developed, operated, or maintained will be in substantial conformance with the intent and requirements of all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the solar panel array and the conditions under which it would be operated or maintained will in substantial conformance with all pertinent County ordinances and the purpose of the SU (Special Use) zone district as the primary use of the property will be one solar panel array that, with the approval of the Variance to allow for an increase of lot coverage, substantially meets all current site standards for the zone district.

(c) General Plan Conformance. The proposed project is in substantial conformance with the intent, goals, objectives, and policies of all elements of the County General Plan and any specific plan which has been adopted for the area.

This finding can be made, in that the proposed microgrid / small scale energy system use is in substantial conformance with the use and density requirements specified for the R-UVL (Urban Very Low Density) land use designation in the County General Plan.

An objective of the General Plan (Objective PPF-4.6) is to improve the reliability and aesthetic quality of the electrical energy distribution system to promote public health and safety, environmental protection, and resource conservation in the operation of existing or new energy production or distribution systems. Although privately serving, the proposed array will support the energy needs of the greater community by reducing electrical demand and lowering the existing grid load.

A specific plan has not been adopted for this portion of the County.

(d) CEQA Conformance. The proposed project complies with the requirements of the California Environmental Quality Act (CEQA) and any significant adverse impacts on the natural environment will be mitigated pursuant to CEQA.

This finding can be made, in that the project has been determined to be exempt from further review under the California Environmental Quality Act, as indicated in the Notice of Exemption for this project.

(e) Utilities and Traffic Impacts. The proposed use will not overload utilities, result in inefficient or wasteful use of energy, or generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed solar panel array will not add any residential units to an existing undeveloped lot. The expected level of traffic generated by the proposed project is not expected to increase and will therefore not adversely impact existing roads or intersections in the surrounding area. In addition, all construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to ensure that the project will not overload utilities or otherwise result in an inefficient or wasteful use of energy.

(f) Neighborhood Compatibility. The proposed use will be compatible with the existing and proposed land uses, land use intensities, and dwelling unit densities of the neighborhood, as designated by the General Plan and Local Coastal Program and implementing ordinances.

This finding can be made, in that the proposed solar panel array is consistent with the land use intensity and density of the neighborhood as designated by the General Plan and implementing ordinances.

(g) Local Coastal Program Consistency. For proposed projects located within the coastal zone, the proposed project is consistent with the provisions of the certified Local Coastal Program.

This finding is not required, in that the project site is not located within the coastal zone.

## Site Development Permit Findings

(a) Siting and Neighborhood Context. The proposed development is designed and located on the site so that it will complement and harmonize with the physical design aspects of existing and proposed development in the neighborhood, as designated by the General Plan and Local Coastal Program and implementing ordinances.

This finding can be made, in that the proposed solar panel array is designed and located on the site in a manner that will complement and harmonize with the physical design aspects of existing and proposed development in the neighborhood.

(b) Design. The proposed development is in substantial conformance with applicable principles in the adopted Countywide Design Guidelines, except as prohibited by site constraints, and any other applicable requirements of SCCC 13.11 (Site Development and Design Review). If located in the Coastal Zone, the site plan and building design are also

in substantial conformance with the policies of the Local Coastal Program and coastal regulations of SCCC 13.20.

This finding can be made, in that the proposed solar panel array is in substantial conformance with the requirements of the County Design Review Ordinance. The proposed project will be of an appropriate scale and type of design that will enhance the aesthetic qualities of the subject property and reduce the visual impact of the proposed development on surrounding land uses.

The photovoltaic use complies with the Design Review objective to "promote energy conservation" and solar design. The array and fenced enclosure would minimize visual intrusion on surrounding uses, as the array would be visually screened by existing and installed vegetation. The enclosure and would not impede the use of the meadow as a wildlife thoroughfare. The trees removed for solar access will be replaced with oaks that are consistent and compatible with the natural landscape.

The proposed enclosure fence would be 6' high, maximum, and no panels would exceed 9 feet in height, therefore, the installation would not be silhouetted on the ridgeline. The project would be hidden by intervening oak woodlands from East Zayante Road, Conference Drive, and the designated scenic roads - Graham Hill Road and Mount Hermon Road. The project is only moderately visible to the homes located directly to the east, and minimally impacting their views looking southward over the hillside.

## Variance Findings

a) That because of special circumstances applicable to the property, including size, shape, topography, location, or surroundings, the strict application of the Zoning Ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

This finding can be made, in that the subject property contains site-specific environmental constraints, including sensitive biotic habitat, that limits the developable area available for the solar array. Strict application of the development standard under these unique site conditions would require a reduction in the solar array despite the project's compliance with environmental resource protection objectives. Staff finds these site-specific constraints constitute special circumstances applicable to the property and that the strict application of the ordinance would deprive the property of reasonable development opportunities available to similarly zoned properties that are not subject to the same environmental limitations.

b) That the granting of such variance will be in harmony with the general intent and purpose of zoning objectives and will not be materially detrimental to public health, safety, or welfare or injurious to property or improvements in the vicinity.

This finding can be made, in that the requested variance is limited in scope and would allow a solar array coverage of approximately 10.4 percent of the parcel area, only marginally exceeding the 10 percent development standard. The additional coverage does not result in substantial changes to the project's appearance, environmental impacts, or compatibility with surrounding properties. The

project was designed to avoid sensitive biological resources and minimize impacts to adjacent lands while supporting renewable energy generation consistent with County planning objectives. Granting the variance would not adversely affect public health, safety, or welfare, nor would it be materially injurious to neighboring properties or improvements. Staff finds the request remains consistent with the overall intent of the Zoning Ordinance while accommodating site constraints that influenced the final project design.

c) That the granting of such variance shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such is situated.

This finding can be made, in that approval of the variance would not constitute the granting of a special privilege because the request is based on unique physical and environmental constraints specific to the subject property rather than a preference for increased development intensity. The variance authorizes only a minor deviation from the applicable development standard, allowing approximately 0.4 percent additional site coverage beyond the maximum permitted. The approval would recognize the property's unique circumstances while maintaining consistency with the purposes of the zoning regulations. Similar relief could be considered for other properties demonstrating comparable site-specific constraints. Accordingly, staff finds that granting the variance would not confer a special privilege inconsistent with the limitations applicable to other properties within the same zoning district.

# Conditions of Approval

Exhibit D: Project plans, prepared by Mars Energy, dated March 13, 2026.

I. This permit authorizes the construction of a(n) 831.6 kW solar panel array as indicated on the approved Exhibit "D" for this permit. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:

A. Sign, date, and return to Santa Cruz County Planning one copy of the approval to indicate acceptance and agreement with the conditions thereof.

B. Obtain a Building Permit from the Santa Cruz County Building Official.

1. Any outstanding balance due to Santa Cruz County Planning must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.

C. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way.

D. Provide a recorded easement on deed for subject parcel, granting access over APN 071-331-05.

II. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit final architectural plans for review and approval by Santa Cruz County Planning. The final plans shall be in substantial compliance with the plans marked Exhibit "D" on file with Santa Cruz County Planning. Any changes from the approved Exhibit "D" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:

1. A copy of the text of these conditions of approval incorporated into the full-size sheets of the architectural plan set.

2. One elevation shall indicate materials and colors as they were approved by this Discretionary Application. If specific materials and colors have not been approved with this Discretionary Application, in addition to showing the materials and colors on the elevation, the applicant shall supply a color and material sheet in 8 1/2” x 11” format for Santa Cruz County Planning review and approval.

3. Include landscaping plans to show native plantings adjacent to permitter fence, installed around the outside of the fence, with taller screening proposed alongside the east side fence, where most visible to nearby residences.

4. Details showing compliance with fire department requirements.

5. A Water Efficient Landscape Plan prepared in accordance with the requirements of the Water Efficient Landscape Ordinance (County Code Chapter 13.13) by a certified/licensed landscape architect, landscape contractor, civil engineer, landscape irrigation designer, landscape irrigation auditor, or water manager. WELO-exempt projects, residential projects of up to two units, or landscapes where at least 30% of the water use is provided by graywater, recycled water or captured rainwater may provide either a signed Water Efficient Landscape Checklist or a Water Efficient Landscape Plan.

    a. Any landscape plan submitted to comply with SCCC Ch. 13.13 shall include a Water Efficient Landscape Plan Submittal Compliance Statement.

B. Meet all requirements of the County Department of Public Works, Stormwater Management. Drainage fees will be assessed on the net increase in impervious area.

1. The application submittal shall adhere to the County Design Criteria (CDC). Pre-development runoff patterns and rates shall be maintained, and safe stormwater overflow shall be incorporated into the project design.

2. Per Part 3, Definitions Section C of the CDC, photovoltaic systems located over pervious surfaces with well-maintained grass or vegetated groundcover or panel arrays with a buffer strip at the most down gradient row of panels are not considered development. If the submitted plans for building permit application do not meet this definition, then the panels will be considered development/impervious and stormwater mitigations will be required.

3. Building permit plans shall show all associated improvements (such as access roads, drainage, etc.).

C. Meet all requirements of the Environmental Planning section of Santa Cruz County Planning.

All project design and construction shall comply with the recommendations of the report found in section 7 and appendix C, including all avoidance and minimization measures for nesting birds, take-avoidance surveys for special-status species, biological awareness training, on-site biological monitor as advised, general wildlife protection measures, invasive species management of French Broom, and

the required revegetation and maintenance/monitoring of restored areas.

The tree replacement mitigation ratio, due to size of trees proposed for removal and anticipated mortality, shall be as follows:

- Trees between 12- and 23.5-inches DBH shall be replaced at 5:1;
- Trees 24 inches or greater DBH shall be replaced at 10:1.

a. The proposed removal of 5 oak trees (45", 32", 31", 26" and 22" DBH) will result in a required replanting and maintenance/monitoring of 45 oak trees. Please submit a restoration plan that identifies the location of mitigation plantings with a maintenance and 5-year monitoring plan prepared by a qualified biologist.

2. Final plans shall reference the subject report by titles, authors, and dates. Final Plans should also include a statement that the project shall conform to the report's recommendations.

3. After plans are prepared that are acceptable to all reviewing agencies, please request that your project biologist submit a completed Consultant Plan Review Form (PLG-300) to Environmental Planning. The author of the biotic report shall sign and stamp their completed form. Please note that the plan review form must reference the final plan set by the last revision date.

D. Meet all requirements of the County Department of Public Works, Road Engineering section of Santa Cruz County Planning.

1. Show and call out the access to site. Show where it connects to County Right of Way.

E. Meet all requirements and pay any applicable plan check fee of the Felton Fire Protection District.

F. Submit a copy of plan review letter prepared and stamped by the project Geotechnical Engineer.

III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

A. All site improvements shown on the final approved Building Permit plans shall be installed.

B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.

C. The project must comply with all recommendations of the approved soils reports.

D. A Landscape Installation Certificate prepared in accordance with the Water Efficient Landscape Ordinance (County Code Chapter 13.13) shall be provided.

E. Pursuant to Sections 16.40.040 and 16.42.080 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.080, shall be observed.

IV. Operational Conditions

A. The development site and revegetation areas will be maintained free of invasive plants for at least the first five years of the project.

B. Installed landscaping shall be maintained for the life of the project. Vegetation may be trimmed to maintain solar access.

C. Oak plantings shall maintain a success rate of 100%. Any oaks that do not survive shall be replaced.

D. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

V. Indemnification

The applicant/owner shall indemnify, defend with counsel approved by the COUNTY, and hold harmless the COUNTY, its officers, employees, and agents from and against any claim (including reasonable attorney's fees, expert fees, and all other costs and fees of litigation), against the COUNTY, its officers, employees, and agents arising out of or in connection to this development approval or any subsequent amendment of this development approval which is requested by the applicant/owner, regardless of the COUNTY's passive negligence, but excepting such loss or damage which is caused by the sole active negligence or willful misconduct of the COUNTY. Should the COUNTY in its sole discretion find the applicant's/owner's legal counsel unacceptable, then the applicant/owner shall reimburse the COUNTY its costs of defense, including without limitation reasonable attorney's fees, expert fees, and all other costs and fees of litigation. The applicant/owner shall promptly pay any final judgment rendered against the COUNTY (and its officers, employees, and agents) covered by this indemnity

obligation. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this development approval.

A. The COUNTY shall promptly notify the applicant/owner of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. The COUNTY shall cooperate fully in such defense.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and

2. COUNTY defends the action in good faith.

C. Settlement. The applicant/owner shall not be required to pay or perform any settlement unless such applicant/owner has approved the settlement. When representing the COUNTY, the applicant/owner shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the COUNTY.

D. Successors Bound. The "applicant/owner" shall include the applicant and/or the owner and the successor'(s) in interest, transferee(s), and assign(s) of the applicant and/or the owner.

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Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

**Please note: This permit expires three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.**

Approval Date: _____

Effective Date: _____

Expiration Date: _____

_____
Deputy Zoning Administrator

**EXHIBIT C**

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

**EXHIBIT C**

# SOLAR ARRAY DESIGN PROJECT FOR:

# Mt. Hermon Christian School

## 37 Conference Drive

## Felton, CA 95041

**APN: 071-331-05, 071-331-06**
**COORDINATES: 37.051228, -122.064568**




## DRAWING INDEX

| SHEET No. | DESCRIPTION |
|---|---|
| E0.0 | COVER SHEET – ELECTRICAL |
| E0.1 | OVERALL SITE PLAN – ELECTRICAL |
| E0.2 | OVERALL SITE PLAN – TREE REMOVAL |
| E1.1 | SITE PLAN – PV ARRAY DC VOLTAGE LAYOUT – ELECTRICAL |
| E1.2 | SITE TOPOGRAPHY PLAN – PV ARRAY LAYOUT – ELECTRICAL |
| E2.1 | SITE PLAN – PV ARRAY AC VOLTAGE LAYOUT – ELECTRICAL |
| E3.1 | SINGLE LINE DIAGRAM – ELECTRICAL |
| E4.1 | SCHEDULES & CALCULATIONS – ELECTRICAL |
| E4.2 | WARNING PLACARDS – ELECTRICAL |
| E5.1 | DETAILS & DIAGRAMS – ELECTRICAL |
| E6.1 | SPECIFICATION – ELECTRICAL |

## SYSTEM SUMMARY

SYSTEM PARAMETERS:

| | |
|---|---|
| • TOTAL DC INPUT: | 831.60 KW DC |
| • TOTAL AC OUTPUT: | 700.00 KW AC |
| • DC/AC RATIO: | 831.60/700.00 = 1.19 |

SYSTEM COMPONENTS:

| | QUANTITY |
|---|---|
| • SOLAR MODULES: | |
| •• ZNShine ZXM7-EH144(550W) | 1512 |
| • INVERTERS: | |
| •• SolarEdge SE100KUS-480 [480V] | 7 |
| • OPTIMIZERS: | |
| •• SolarEdge C651U | 1512 |

## CONTACT INFORMATION

GENERAL CONTRACTOR / DEVELOPER / ELECTRICAL ENGINEER:
MARS ENERGY GROUP
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765

STRUCTURAL ENGINEER:
OMCO SOLAR RACKING
4550 W. WATKINS STREET
PHEONIX, AZ 85043

AUTHORITY HAVING JURISDICTION:
SANTA CRUZ COUNTY DEVELOPMENT
AND INFRASTRUCTURE
701 OCEAN STREET, 4th FLOOR
SANTA CRUZ, CA 95060

March 13, 2026
Project # K23-080


MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532


PROFESSIONAL ENGINEER — ROBERT W. GINOCCHIO — E 25464 — EXP. 03/31/27 — ELECTRICAL — STATE OF CALIFORNIA

**SUBMITTALS**

| | | | |
|---|---|---|---|
| 1 | | 60% SUBMITTAL | 03-28-25 |
| 2 | | 90% SUBMITTAL | 04-04-25 |
| 3 | | ISSUED FOR PERMIT | 07-03-25 |
| 4 | 1 | PLAN CHECK COMMENTS | 08-14-25 |
| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

DRAWING TITLE: COVER SHEET - ELECTRICAL

PROJECT NUMBER: K23-080

SHEET NUMBER: E0.0

PLOTTED BY: ZAC STADING — DATE PLOTTED: 3/13/2026 3:55 PM — FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\00-DWG\K23-080 - E0.0

EXHIBIT D

UTILITY ADDRESS:
37.051228, 122.064568,
Felton CA 95018
METER No. – NEW SERVICE




1 OVERALL SITE PLAN - ELECTRICAL
E0.1 SCALE: 1" = 40'-0"

N

## GENERAL ELECTRICAL NOTES:

1. THE GOVERNING ELECTRICAL CODE IS THE 2022 CALIFORNIA ELECTRICAL CODE, AS AMENDED BY THE COUNTY OF SANTA CRUZ, CA. ALL WORK SHALL COMPLY ACCORDINGLY.
2. THE PROPERTY LINES FOR APN: 071-331-06 ARE DERIVED FROM COUNTY OF SANTA CRUZ ASSESSOR'S MAP NO. 71-33.
3. THIS PARCEL DOES NOT CONTAIN ACTIVE WELLS, EXISTING SEPTIC SYSTEMS OR ANY OTHER OSWT FACILITES.
4. ALL INSTALLATION WORK SHALL COMPLY WITH MANUFACTURER REQUIREMENTS.
5. LOCATIONS OF SOLAR PANELS ARE APPROXIMATE AND FOR REFERENCE ONLY. ALL METAL PARTS OF SUPPORTING STRUCTURE SHALL BE BONDED TOGETHER TO FORM AN ELECTRICALLY CONTINUOUS GROUNDING PATH.

## ELECTRICAL KEY NOTES:

1 THIS PARCEL DOES NOT HAVE EXISTING ELECTRICAL UTILITY SERVICE, THEREFORE IT DOES NOT HAVE AN ASSOCIATED UTILITY ADDRESS.


MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532


ROBERT W. GINOCCHIO
No. E 25464
EXP. 03/31/27
ELECTRICAL
STATE OF CALIFORNIA
PROFESSIONAL ENGINEER

## SUBMITTALS

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| 3 | | ISSUED FOR PERMIT | 07-03-25 |
| 4 | 1 | PLAN CHECK COMMENTS | 08-14-25 |
| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

# Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

DRAWING TITLE
OVERALL SITE PLAN - ELECTRICAL

PROJECT NUMBER
K23-080

SHEET NUMBER
E0.1

PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:26 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\00-DWG\K23-080 - E0.1

EXHIBIT D

UTILITY ADDRESS:
37.051228, 122.064568,
Felton CA 95018
METER No. – NEW SERVICE




1 OVERALL SITE PLAN - TREE REMOVAL
SCALE: 1" = 40'-0"

## GENERAL NOTES

1. THE TREES WE WILL BE REPLANTING WILL BE DEDICATED TO PRESERVE THE SCENIC ROADS IN THE AREA.


MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532


PROFESSIONAL ENGINEER
ROBERT W. GINOCCHIO
E 25464
EXP. 03/31/27
ELECTRICAL
STATE OF CALIFORNIA

## SUBMITTALS

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| 2 | | 90% SUBMITTAL | 04-04-25 |
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| 4 | 1 | PLAN CHECK COMMENTS | 08-14-25 |
| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

# Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

DRAWING TITLE
OVERALL SITE PLAN - TREE REMOVAL

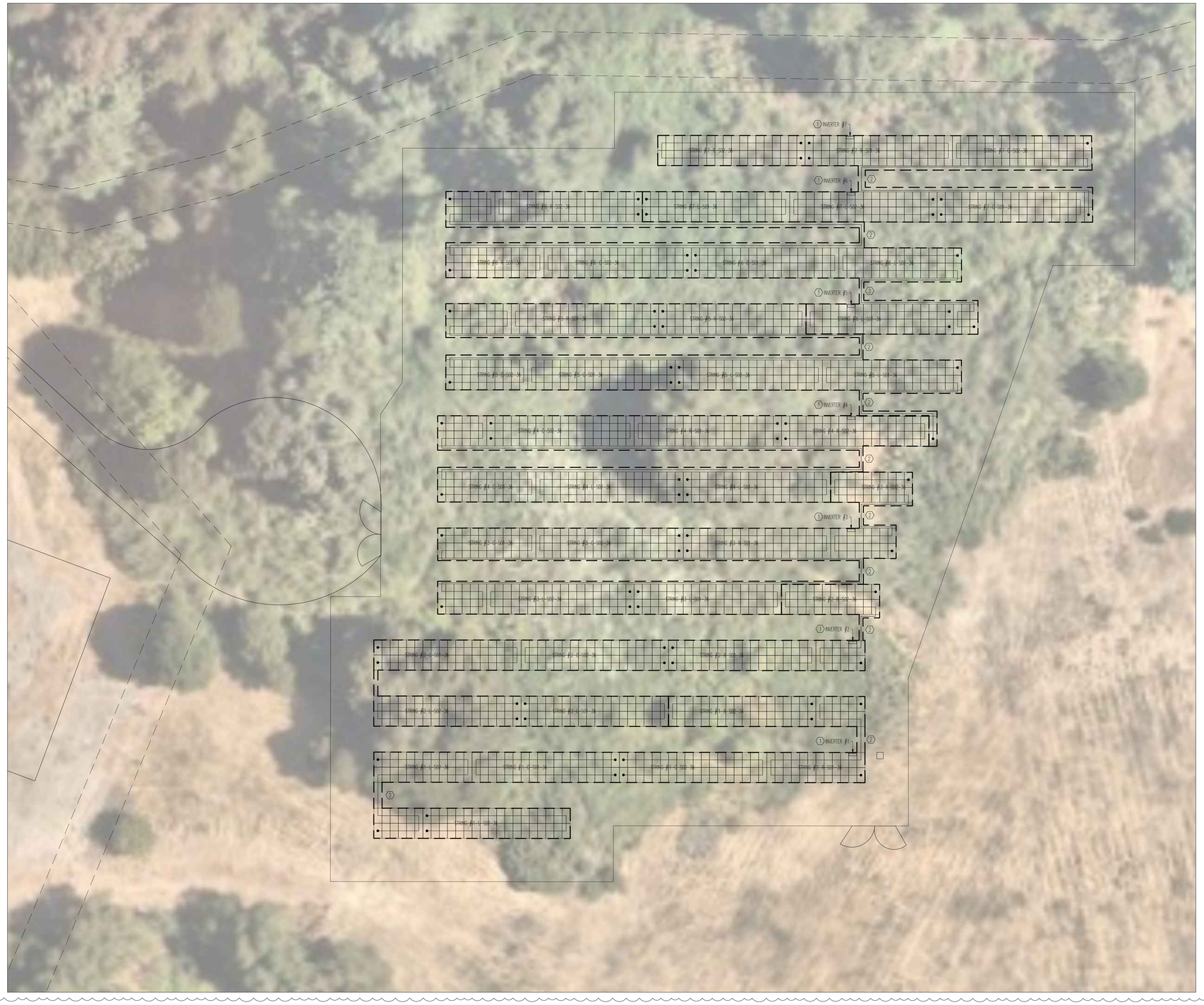
PROJECT NUMBER
K23-080

SHEET NUMBER
E0.2

PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:26 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\02-System Details\K23-080 – Tree Removal

EXHIBIT D

UTILITY ADDRESS:
37.051228, 122.064568,
Felton CA 95018
METER No. – NEW SERVICE




1 E1.1 SITE PLAN - PV ARRAY DC VOLTAGE LAYOUT - ELECTRICAL
SCALE: 1" = 20'-0"

N

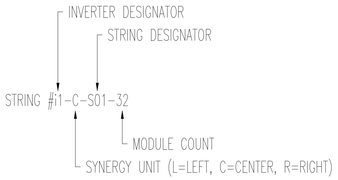
## GENERAL ELECTRICAL NOTES:

1. INSTALL DC WIRING PER MANUFACTURER REQUIREMENTS. COORDINATE ROUTING WITH PV PANEL STRUCTURE.
2. THE GOVERNING ELECTRICAL CODE IS THE 2022 CALIFORNIA ELECTRICAL CODE, AS AMENDED BY THE COUNTY OF SANTA CRUZ, CA. ALL WORK SHALL COMPLY ACCORDINGLY.
3. ALL INSTALLATION WORK SHALL COMPLY WITH MANUFACTURER REQUIREMENTS.
4. LOCATIONS OF SOLAR PANELS ARE APPROXIMATE AND FOR REFERENCE ONLY. ALL METAL PARTS OF SUPPORTING STRUCTURE SHALL BE BONDED TOGETHER TO FORM AN ELECTRICALLY CONTINUOUS GROUNDING PATH.
5. SOLAR MODULES ARE BONDED TO THE METAL RACKING IN A U.L. APPROVED METHOD. RACKING IS ELECTRICALLY CONTINUOUS THROUGHOUT EACH ARRAY GROUPING. PROVIDE BONDING JUMPER BETWEEN GROUPINGS TO MAINTAIN A CONTINUOUS GROUND PATH THROUGHOUT THE PV SYSTEM.

## ELECTRICAL KEY NOTES:

1 NEW INVERTER MOUNTED ON UNISTRUT RACKING BENEATH UPPER PORTION OF PV RACKING. SEE MOUNTING DETAIL ON SHEET E5.1.

2 PROVIDE STRING JUMP CABLES TO NEXT CORRESPONDING MODULE VIA TRENCH AS NEEDED. RUN JUMPERS THROUGH REQUIRED CONDUIT +24" BELOW GRADE. TYPICAL WHERE STRING JUMPS OCCUR WITHIN ARRAY.




MARS ENERGY
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ROCKLIN, CA 95765
CSLB LICENSE #1049532

PROFESSIONAL ENGINEER
ROBERT W. GINZEL
E 25464
EXP. 03/31/27
ELECTRICAL
STATE OF CALIFORNIA

## SUBMITTALS

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| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

# Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

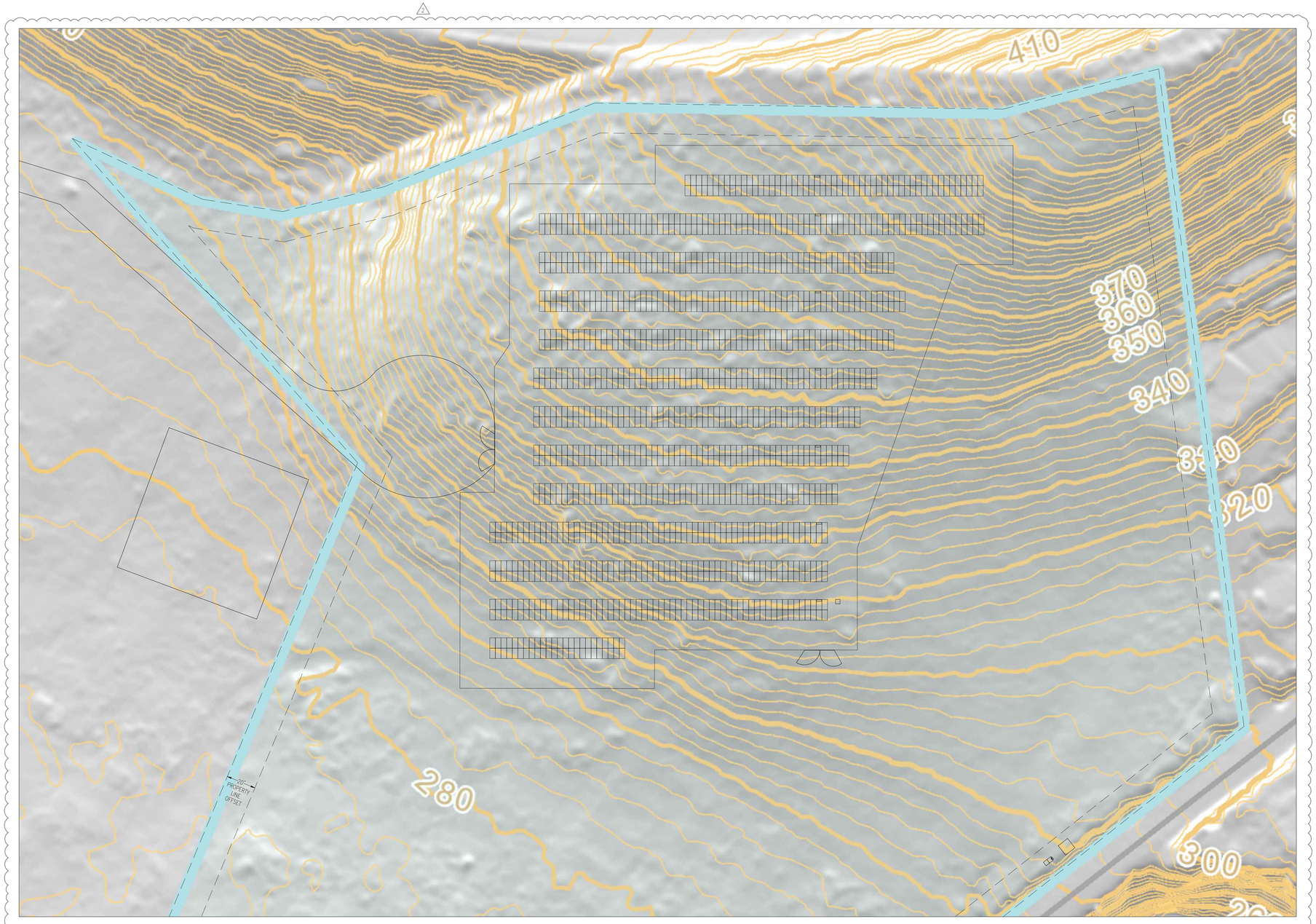
DRAWING TITLE
SITE PLAN -
PV ARRAY DC VOLTAGE LAYOUT - ELECTRICAL

PROJECT NUMBER
K23-080

SHEET NUMBER
E1.1

PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:27 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\06-DWG\K23-080 - E1.1

EXHIBIT D




1 E1.2 SITE TOPOGRAPHY PLAN - PV ARRAY LAYOUT - ELECTRICAL
SCALE: 1" = 30'-0"

1. INSTALL DC WIRING PER MANUFACTURER REQUIREMENTS. COORDINATE ROUTING WITH PV PANEL STRUCTURE.
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3. ALL INSTALLATION WORK SHALL COMPLY WITH MANUFACTURER REQUIREMENTS.
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5. SOLAR MODULES ARE BONDED TO THE METAL RACKING IN A U.L. APPROVED METHOD. RACKING IS ELECTRICALLY CONTINUOUS THROUGHOUT EACH ARRAY GROUPING. PROVIDE BONDING JUMPER BETWEEN GROUPINGS TO MAINTAIN A CONTINUOUS GROUND PATH THROUGHOUT THE PV SYSTEM.

MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532

PROFESSIONAL ENGINEER — ROBERT W. GINZTON — E 25464 — EXP. 05/31/27 — ELECTRICAL — STATE OF CALIFORNIA

## SUBMITTALS

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| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

# Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

DRAWING TITLE
SITE TOPOGRAPHY PLAN - PV ARRAY LAYOUT - ELECTRICAL

PROJECT NUMBER
K23-080

SHEET NUMBER
E1.2

PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:27 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\00-DWG\K23-080 - E1.2 (Topography) updated

EXHIBIT D

UTILITY ADDRESS:
37.051228, 122.064568,
Felton CA 95018
METER No. – NEW SERVICE




1 SITE PLAN - PV ARRAY AC VOLTAGE LAYOUT - ELECTRICAL
E2.1 SCALE: 1" = 22'-0"

## GENERAL ELECTRICAL NOTES:

1. INSTALL DC WIRING PER MANUFACTURER REQUIREMENTS. COORDINATE ROUTING WITH PV PANEL STRUCTURE.
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5. SOLAR MODULES ARE BONDED TO THE METAL RACKING IN A U.L. APPROVED METHOD. RACKING IS ELECTRICALLY CONTINUOUS THROUGHOUT EACH ARRAY GROUPING. PROVIDE BONDING JUMPER BETWEEN GROUPINGS TO MAINTAIN A CONTINUOUS GROUND PATH THROUGHOUT THE PV SYSTEM.

## ELECTRICAL KEY NOTES:

1. NEW INVERTER MOUNTED ON UNISTRUT RACKING BENEATH UPPER PORTION OF PV RACKING. SEE MOUNTING DETAIL ON SHEET E5.1.
2. 2"C RUN 24" UNDERGROUND FROM INVERTER TO SWITCHBOARD "PV1" (TYP. OF 7).
3. NEW SWITCHBOARD AND METER TO MEET ALL REQUIREMENTS OF PG&E, INCLUDING COMPONENT SELECTION AND INSTALLATION.
4. RUN INDICATED FEEDER FROM THE PG&E APPROVED C/T CABINET TO THE UTILITY TRANSFORMER. COORDINATE EXACT LOCATION OF TRANSFORMER AND POKE UP UNDERGROUND CONDUIT INTO DESIGNATED FEEDER SPACE.
5. UTILITY TRANSFORMER MOUNTED ON CONCRETE PAD. COORDINATE EXACT LOCATION AND ROUTING OF ASSOCIATED CONDUITS IN FIELD WITH UTILITY REP.
6. UTILITY PRIMARY CABLE RUN. COORDINATE EXACT LOCATION IN FIELD WITH UTILITY REP.


MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532


PROFESSIONAL ENGINEER — ROBERT W. GINOCCHIO — E 25464 — EXP. 03/31/27 — ELECTRICAL — STATE OF CALIFORNIA

## SUBMITTALS

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| 3 | | ISSUED FOR PERMIT | 07-03-25 |
| 4 | 1 | PLAN CHECK COMMENTS | 08-14-25 |
| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

# Mt. Hermon Christian School

Solar Array Project
37.051228, -122.064568, Felton, CA 95018

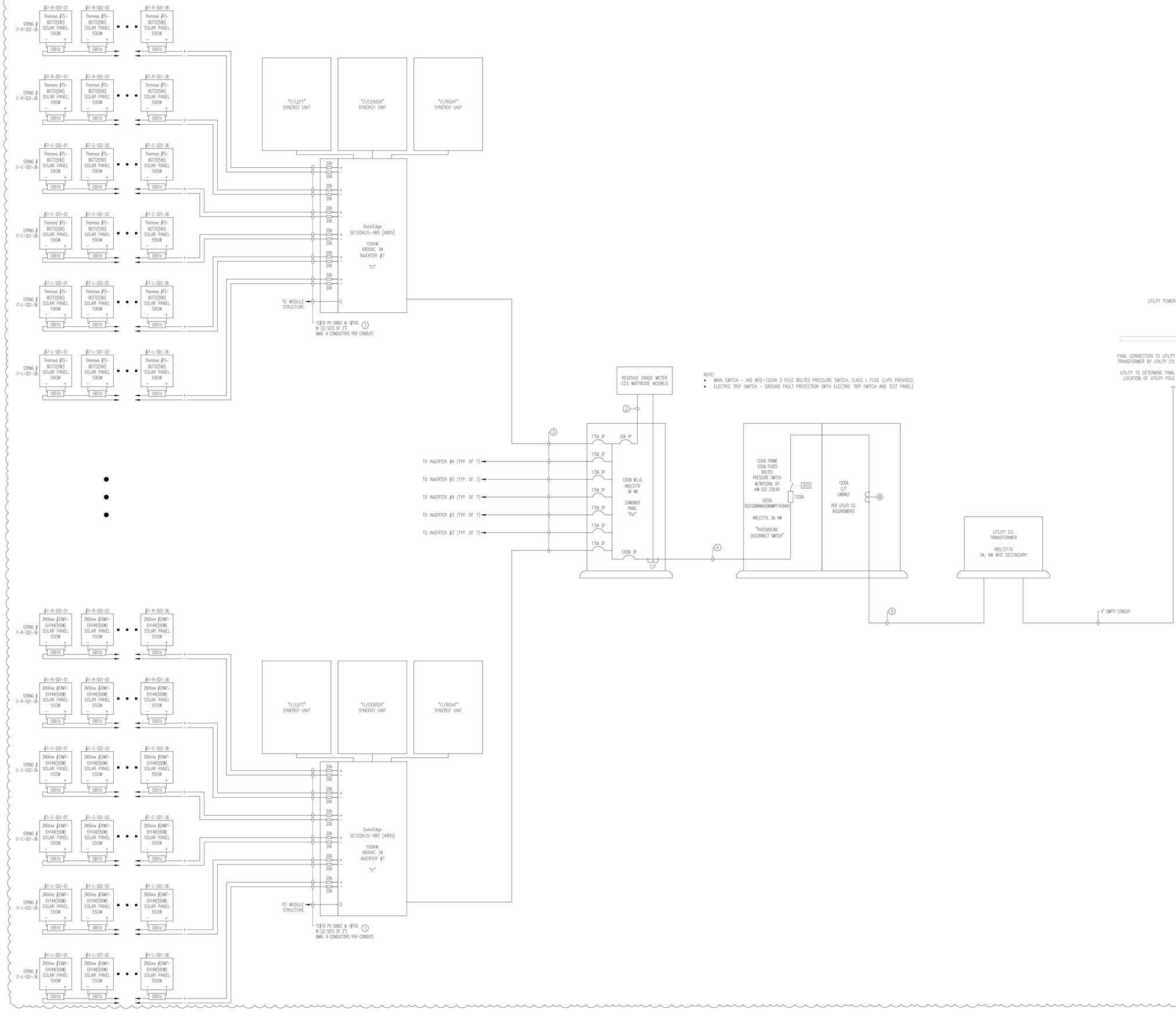
DRAWING TITLE
SITE PLAN -
PV ARRAY AC VOLTAGE LAYOUT - ELECTRICAL

PROJECT NUMBER
K23-080

SHEET NUMBER
E2.1


PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:27 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\00-DWG\K23-080 - E2.1


EXHIBIT D




UTILITY ADDRESS:
37.051228, 122.064568,
Felton CA 95018
METER No. – NEW SERVICE

NOTE:
- MAIN SWITCH – IND MTD–1200A 3 POLE BOLTED PRESSURE SWITCH, CLASS L FUSE CLIPS PROVIDED
- ELECTRIC TRIP SWITCH – GROUND FAULT PROTECTION (WITH ELECTRIC TRIP SWITCH AND TEST PANEL)


MARS ENERGY

555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532


PROFESSIONAL ENGINEER — ROBERT W. GINOCCHIO — E 25464 — EXP. 03/31/27 — ELECTRICAL — STATE OF CALIFORNIA

## SUBMITTALS

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|---|---|---|---|
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# Mt. Hermon Christian School

Solar Array Project
37.051228, -122.064568, Felton, CA 95018

DRAWING TITLE
SINGLE LINE DIAGRAM

PROJECT NUMBER
K23-080

SHEET NUMBER
E3.1


PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:28 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\00-DWG\K23-080 - E3.1


EXHIBIT D

## INVERTER MODULE / STRING SCHEDULE

| | LEFT SYNERGY UNIT | | CENTER SYNERGY UNIT | | RIGHT SYNERGY UNIT | | |
|---|---|---|---|---|---|---|---|
| | STRING No. 01 | STRING No. 02 | STRING No. 03 | STRING No. 04 | STRING No. 05 | STRING No. 06 | |
| INVERTER #1 | 36 | 36 | 36 | 36 | 36 | 36 | 216 |
| INVERTER #2 | 36 | 36 | 36 | 36 | 36 | 36 | 216 |
| INVERTER #3 | 36 | 36 | 36 | 36 | 36 | 36 | 216 |
| INVERTER #4 | 36 | 36 | 36 | 36 | 36 | 36 | 216 |
| INVERTER #5 | 36 | 36 | 36 | 36 | 36 | 36 | 216 |
| INVERTER #6 | 36 | 36 | 36 | 36 | 36 | 36 | 216 |
| INVERTER #7 | 36 | 36 | 36 | 36 | 36 | 36 | 216 |
| | | | | | | TOTAL MODULE COUNT: | 1512 |

## FEEDER SCHEDULE

| FEEDER TYPE | LOCATION | AMPACITY | LONGEST RUN LENGTH | COPPER | | ALUMINUM | | NOTES |
|---|---|---|---|---|---|---|---|---|
| | | | | CONDUCTOR SIZES | CONDUIT SIZE | CONDUCTOR SIZES | CONDUIT SIZE | |
| ① | MODULE to INVERTER (DC DISTRIBUTION) | N/A | | 12#10PV CABLE & 1#8G | 2 SETS OF 2" EMT (PVC UG) | N/A | N/A | NO MORE THAN (9) CONDUCTORS PER CONDUIT W/ HEYCO GLAND |
| ② | DAS UNIT to PANEL "PV1" | 20A | | 2#12 & 1#12G | 3/4" IMC | N/A | N/A | CONDUITS LARGER THAN 2" REQUIRE INCREASE IN CUTOUT SIZE IN COMPLIANCE WITH MANUFACTURER REQUIREMENTS. |
| ③ | INVERTER #7 to PANEL "PV1" | 175A | 358' | 3#2/0 & 1#6G | 2" IMC PVC UNDERGROUND | 3#3/0 & 1#6 Cu G | 2" IMC PVC UNDERGROUND | |
| ④ | PANEL "PV1" to SWITCHGEAR | 1200A | 238' | 3 SETS OF 4-600Kcmil & 1-250Kcmil G | 4" IMC PVC UNDERGROUND | 4 SETS OF 4-500Kcmil & 1-250Kcmil Cu G | 3" IMC PVC UNDERGROUND | ALUMINUM FEEDER REQUIRES ADDITIONAL SET OF CONDUIT. |
| ⑤ | SWITCHGEAR to UTILITY TRANSFORMER | 1200A | 15' | 3 SETS OF 4-600Kcmil & 1-250Kcmil G | 4" IMC PVC UNDERGROUND | 4 SETS OF 4-500Kcmil & 1-250Kcmil Cu G | 3" IMC PVC UNDERGROUND | ALUMINUM FEEDER REQUIRES ADDITIONAL SET OF CONDUIT. |

## DISTRIBUTION PANEL SCHEDULE - "PV1"

VOLTAGE: 480/277V, 3Ø, 4W | MAIN TYPE: 1200A B.P.S. | MOUNTING: PAD MOUNTED | LOCATION: EXTERIOR

TYPE: SQUARE D OR EQUAL | MAIN RATING: 80% RATED | ENCLOSURE: NEMA 3R | FAULT DUTY: 65,000 A.I.C.

| CCT NO. | LOAD DESCRIPTION | DEVICE RATING (AMP) AMPS | POLES | FEEDER NO. | KVA | NOTES |
|---|---|---|---|---|---|---|
| 1 | INVERTER #1 | 175A | 3P | | 100.0 | |
| 2 | INVERTER #2 | 175A | 3P | | 100.0 | |
| 3 | INVERTER #3 | 175A | 3P | | 100.0 | |
| 4 | INVERTER #4 | 175A | 3P | | 100.0 | |
| 5 | INVERTER #5 | 175A | 3P | | 100.0 | |
| 6 | INVERTER #6 | 175A | 3P | | 100.0 | |
| 7 | INVERTER #7 | 175A | 3P | | 100.0 | |
| 8 | DAS SYSTEM | 20A | 3P | | 0.1 | |
| | | | | TOTAL CONNECTED LOAD: | 700.1 | KVA |
| | | | | | 842.1 | A |

# CALCULATIONS

SOLAR PANEL STRING CAPACITY (THORNOVA TS-BC172(550)):

- REFERENCE TEMPERATURE: 25°C
- COLDEST DESIGN TEMP: -2°C
- ΔT (25°C − (-2°C)): 27°C
- OPEN CCT. VOLTAGE ($V_{OC}$): 50.10V (from ZXM7-EH144(550) cut sheet)
- TEMP. COEFFICIENT OF $V_{OC}$: -0.29%/°C (from ZXM7-EH144(550) cut sheet)
- 0.29%/°C x 27°C = 7.83%
- 50.10V + 7.83% = 54.02$V_{MAX}$
- 54.02V x 2 MODULES = 108.05V (<125V for OPTIMIZER)
- 850V MAINTAINED VOLTAGE (BASED UPON SE100KUS INVERTER)
- MAXIMUM STRING POWER W/ 2 STRINGS = 29KW
- 29,150W / 550W per MODULE = 53.00 MODULES MAX

VOLTAGE DROP CALCULATIONS:

① SOLAR PANEL to INVERTER LONGEST RUN:
- WIRE SIZE & TYPE: #10 AWG COPPER PV CABLE
- VOLTAGE: 850V (see above)
- VOLTAGE TYPE: DIRECT CURRENT (DC)
- DISTANCE: 771 Feet
- LOAD CURRENT: 18A (see above)
- $V_D$ = I x R x L, where I=18.0A, R=1.200/Kft, L=771ft.
- ** $V_D$ = 18.0 x 1.20/1000 x 771 = 16.65V
- VOLTAGE DROP: 16.65V
- VOLTAGE DROP PERCENTAGE: 16.65/850 = 1.96%

② DAS UNIT TO NEAREST 277V CIRCUIT:
- WIRE SIZE & TYPE: #12 AWG COPPER in IMC/EMT (N/A ALUMINUM)
- VOLTAGE: 277V
- VOLTAGE TYPE: AC 1-phase
- DISTANCE: 50 Feet
- LOAD CURRENT: 3.6A (1,000W / 277V)
- $V_D$ (COPPER) = (K x I x L )/CM, where K=12.9, I=3.6, L=50, CM(for #12)=6530
- VOLTAGE DROP: 0.36V (N/A)
- VOLTAGE AFTER DROP: 276.64V (N/A)
- VOLTAGE DROP PERCENTAGE: 0.13% (N/A)

③ INVERTER TO PANEL "PV1":
- WIRE SIZE & TYPE: #2/0 AWG COPPER in IMC (#3/0 AWG ALUMINUM)
- VOLTAGE: 480V (480V)
- VOLTAGE TYPE: AC 3-phase
- DISTANCE: 358 Feet
- LOAD CURRENT: 120.3A (100,000W / 831.4V)
- $V_D$ (COPPER) = (SQRT(3) x K x I x L )/CM, where K=12.9, I=120.3, L=358, CM(for #2/0)=133,100
- $V_D$ (ALUMINUM)= (SQRT(3) x K x I x L )/CM, where K=21.2, I=120.3, L=358, CM(for #3/0)=167,800
- VOLTAGE DROP: 7.23V (9.42V)
- VOLTAGE AFTER DROP: 472.77V (470.58V)
- VOLTAGE DROP PERCENTAGE: 1.51% (1.96%)

④ PANEL "PV1" TO SWITCHGEAR:
- WIRE SIZE & TYPE: 3 sets of 600Kcmil COPPER in IMC (4 SETS OF 500Kcmil ALUMINUM)
- VOLTAGE: 472.77V (470.58V)
- VOLTAGE TYPE: AC 3-phase
- DISTANCE: 238 Feet
- LOAD CURRENT: 1458.3A (700,000W x 472.77V)
- $V_D$ (COPPER) = (SQRT(3) x K x I x L )/CM, where K=12.9, I=1458.3, L=238, CM(for 3 x 600KCML)=1,800,000
- $V_D$ (ALUMINUM)= (SQRT(3) x K x I x L )/CM, where K=21.2, I=1458.3, L=238, CM(for 4 x 500KCML)=2,000,000
- VOLTAGE DROP: 4.31V (6.37V)
- VOLTAGE AFTER DROP: 468.46V (464.21V)
- VOLTAGE DROP PERCENTAGE: 0.91% (1.35%)

⑤ PANEL "PV1" TO UTILITY TRANSFORMER:
- WIRE SIZE & TYPE: 3 sets of 600Kcmil COPPER in IMC (4 SETS OF 500Kcmil ALUMINUM)
- VOLTAGE: 468.46V (464.21V)
- VOLTAGE TYPE: AC 3-phase
- DISTANCE: 15 Feet
- LOAD CURRENT: 1494.3A (700,000W x 468.46V)
- $V_D$ (COPPER) = (SQRT(3) x K x I x L )/CM, where K=12.9, I=1494.3, L=15, CM(for 3 x 600KCML)=1,800,000
- $V_D$ (ALUMINUM)= (SQRT(3) x K x I x L )/CM, where K=21.2, I=1494.3, L=15, CM(for 4 x 500KCML)=2,000,000
- VOLTAGE DROP: 0.28V (0.41V)
- VOLTAGE AFTER DROP: 468.18V (463.80V)
- VOLTAGE DROP PERCENTAGE: 0.06% (0.09%)


MARS ENERGY

555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532


PROFESSIONAL ENGINEER — ROBERT W. GINOCCHIO — E 25464 — EXP. 03/31/27 — ELECTRICAL — STATE OF CALIFORNIA

## SUBMITTALS

| | | | |
|---|---|---|---|
| 1 | | 60% SUBMITTAL | 03-28-25 |
| 2 | | 90% SUBMITTAL | 04-04-25 |
| 3 | | ISSUED FOR PERMIT | 07-03-25 |
| 4 | 1 | PLAN CHECK COMMENTS | 08-14-25 |
| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

# Mt. Hermon Christian School

Solar Array Project
37.051228, -122.064568, Felton, CA 95018

DRAWING TITLE
SCHEDULES & CALCULATIONS
ELECTRICAL

PROJECT NUMBER
K23-080

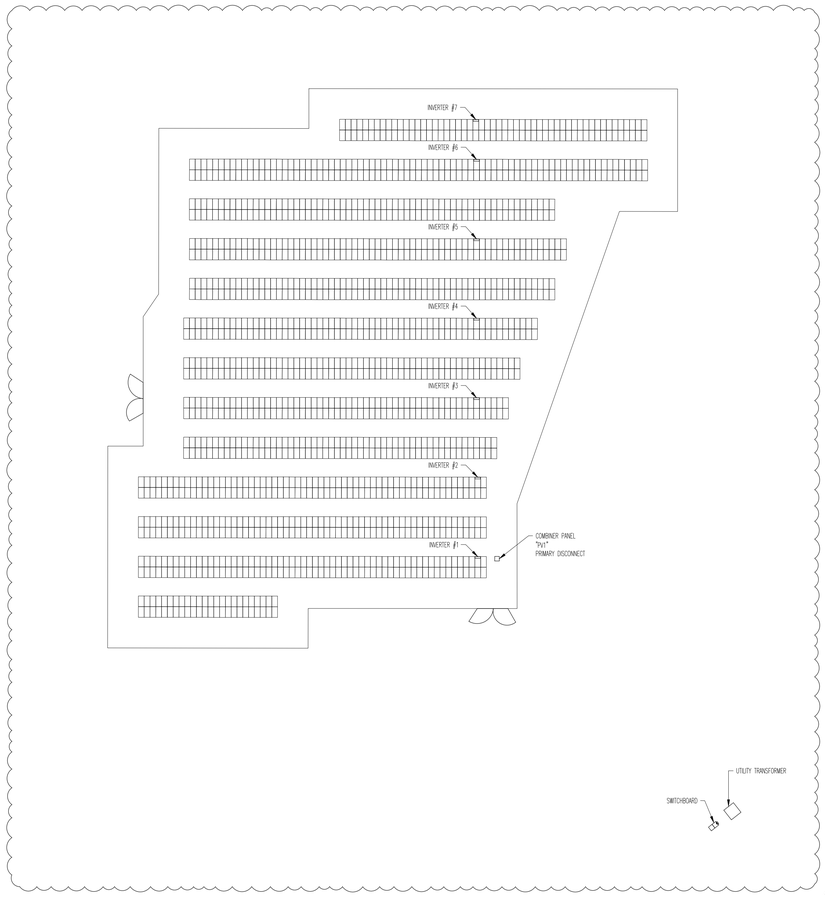
SHEET NUMBER
E4.1

EXHIBIT D

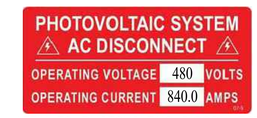

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# WARNING: ⚠

POWER TO THIS BUILDING IS ALSO SUPPLIED
FROM THE FOLLOWING SOURCES WITH
DISCONNECTS LOCATED AS SHOWN




1 PV SYSTEM WARNING PLACARDS
SCALE: N.T.S.




AFFIX TO PHOTOVOLTAIC DISCONNECT
SERVICE PER NEC 690.54



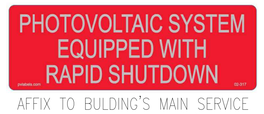

AFFIX TO EACH INVERTER
PER NEC 690.5(C)




AFFIX TO EACH JUNCTION BOX,
COMBINER BOX, DISCONNECT, AND
DEVICE WHERE ENERGIZED, UNGROUNDED
CIRCUITS MAY BE EXPOSED DURING
SERVICE, PER NEC 690.35(F)




AFFIX TO PHOTOVOLTAIC DISCONNECT
SWITCH, PER NEC 690.17(E)




AFFIX TO BULDING'S MAIN SERVICE
PER NEC 690.56(C)




AFFIX TO EXPOSED RACEWAYS, COVERS
OF JUNCTION OR PULL BOXES, AND
CONDUIT BODIES CONTAINING PV WIRING
PER NEC 690.31(G)(3)

NOTES:
1. LABELS MUST BE OF REFLECTIVE PHENOLIC MATERIAL WITH WHITE LETTERS AND RED BACKGROUND.
2. LABELS TO BE MECHANICALLY FASTENED AND PLACED AS REQUIRED PER NEC.
3. LABELS TO BE IN A CAPITALIZED ARIAL FONT WITH A MINIMUM OF 3/8" IN HEIGHT.
4. DC CONDUIT LABEL MADE OF DURABLE ADHESIVE MATERIALS PLACED EVERY 10 FEET AND NEAR ALL JUNCTIONS AND PENETRATIONS.
5. LABELS SHOWN FOR REFERENCE ONLY. CONTRACTOR RESPONSIBLE TO MEET LOCAL AUTHORITY, UTILITY, AND NEC REQUIREMENTS.

MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532

PROFESSIONAL ENGINEER
ROBERT W. GINZEL
E 25464
EXP. 03/31/27
ELECTRICAL
STATE OF CALIFORNIA

## SUBMITTALS

| | | | |
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| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

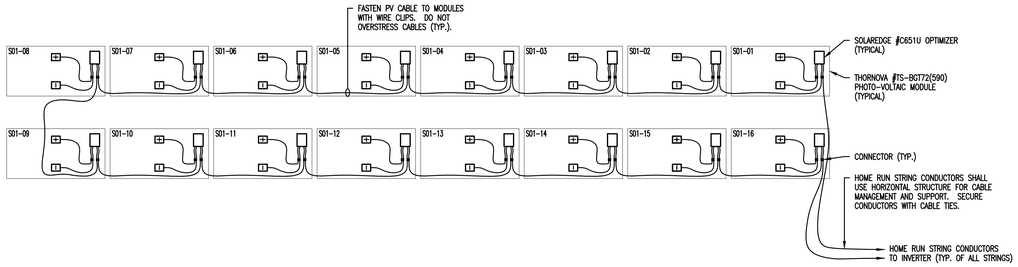
DRAWING TITLE
WARNING PLACARDS

PROJECT NUMBER
K23-080

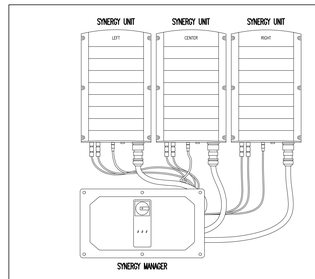
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E4.2

EXHIBIT D

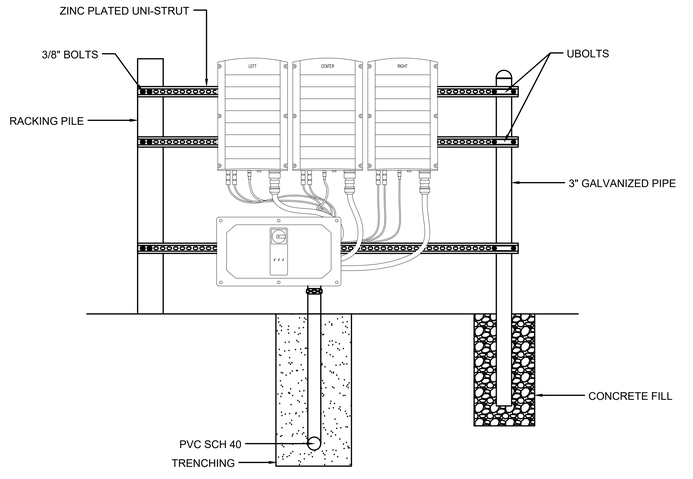
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3 FULL ROW INTER-MODULE WIRING DETAIL (TYPICAL)
SCALE: N.T.S.




2 INVERTER DETAIL
SCALE: N.T.S.




1 INVERTER MOUNTING DETAIL
SCALE: N.T.S.

MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1046532

ROBERT W. GINIS
E 25464
EXP. 03/31/27
ELECTRICAL
STATE OF CALIFORNIA

## SUBMITTALS

| | | | |
|---|---|---|---|
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| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

# Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

DRAWING TITLE
DETAILS & DIAGRAMS - ELECTRICAL

PROJECT NUMBER
K23-080

SHEET NUMBER
E5.1

PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:29 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\K23-080 Mt Hermon\00-DWG\K23-080 - E5.1

EXHIBIT D

# Commercial Power Optimizer

## USA Domestic Content Eligible*

C651U

POWER OPTIMIZER




Made in the USA from imported parts

**SolarEdge's USA-manufactured offering for C&I rooftops, for power optimization at the module level**

- **Eligible for Domestic Content***
  - SolarEdge USA-manufactured power optimizers, when paired with certain SolarEdge USA-manufactured inverters, are intended to be eligible for the enhanced federal income tax credit for domestic content
- **Higher Energy Yields**
  - Generates maximum power from each PV module
  - High efficiency (99.5%)
  - Supports high power and bifacial PV modules, including G12 modules
- **Enhanced Monitoring and Visibility**
  - Maximum system visibility up to the individual module level
  - Pinpointed fault detection and remote troubleshooting
- **Maximum Protection with Built-in Safety**
  - Designed to automatically reduce high DC voltage to touch-safe levels, upon grid/inverter shutdown, with SafeDC™
  - Includes SolarEdge Sense Connect, designed to prevent arcs by monitoring Power Optimizer connectors for overheating
  - Certified to Photovoltaic Rapid Shutdown, according to NEC 2014 – 2023

* Manufactured by SolarEdge with the intent to be eligible for inclusion under the elective safe harbor in calculating the Domestic Cost Percentage under the "Rooftop (MLPE)" category (under IRS Notice 2024-43). The PCBA, Electrical Parts, and Enclosure are domestically manufactured to meet the requirements of eligibility to be considered for the ITC domestic content bonus adder. SolarEdge does not provide tax and/or legal advice. You should consult with your own legal and/or tax advisor(s) regarding the eligibility of your project for the ITC or PTC, including the 10% domestic content bonus, to determine how the applicable rules apply to your particular project. The forward-looking statements in this datasheet are accurate as of the date herein and are subject to change. For more information, please contact your local SolarEdge sales representative.

solaredge.com

solaredge

POWER OPTIMIZER

# / Power Optimizer

## USA Domestic Content Eligible for North America

C651U

| Power Optimizer Model | C651U | |
|---|---|---|
| **INPUT** | | |
| Rated Input DC Power(1) | 650 | W |
| Absolute Maximum Input Voltage (Voc) | 60 | Vdc |
| MPPT Operating Range | 12.5 – 80 | Vdc |
| Maximum Short Circuit Current (Isc) of Connected PV Module(2) | 20 | Adc |
| Maximum Adjusted Short Circuit Current (with Safety Factor)(3) | 25 | Adc |
| Maximum Efficiency | 99.5 | % |
| Weighted Efficiency | 98.8 | % |
| Overvoltage Category | II | |
| **OUTPUT DURING OPERATION** | | |
| Maximum Output Power | 650 | Wdc |
| Maximum Output Current | 24 | Adc |
| Maximum Output Voltage | 60 | Vdc |
| **SAFETY FEATURES** | | |
| SafeDC™ | Yes | |
| Safety Output Voltage per Power Optimizer | 0.5 ± 0.075 | Vdc |
| Sense Connect | Yes | |
| Photovoltaic Rapid Shutdown System | Yes, NEC 2014 – 2023 | |
| **STANDARD COMPLIANCE** | | |
| EMC | FCC Part 15, IEC 61000-6-2, IEC 61000-6-3 | |
| Safety | IEC62109-1 (class II safety), UL 1741, UL 3741, CSA C22.2#107.1 | |
| Material | UL94 V-0, UV Resistant | |
| RoHS | Yes | |
| Fire Safety | VDE-AR-E 2100-712:2013-05 | |
| **INSTALLATION SPECIFICATIONS** | | |
| Compatible SolarEdge Inverters(4) | Commercial Three Phase Inverters with one of the following part number structures: USE-S/N-US/xxkxxxx SE-DBL-US/xxkxxxx SE-TRI-US/xxkxxxx | |
| Maximum Allowed System Voltage | 1000 | Vdc |
| Dimensions (W x L x H) | 128 x 155 x 52 / 5.03 x 6.10 x 2.05 | mm / in |
| Weight | 1080 / 2.38 | gr / lb |
| Input Connector | MC4(5) | |
| Input Wire Length | (+) 1.4; (-) 1.4 / (+) 4.59; (-) 4.59(6) | m / ft |
| Output Connector | MC4 | |
| Output Wire Length | (+) 3.0 (-) 0.10 / (+) 9.84, (-) 0.32 | m / ft |
| Operating Temperature Range(7) | -40 to +85 / -40 to +185 | °C / °F |
| Protection Rating | IP68 / NEMA6P | |
| Relative Humidity | 0 – 100 | % |

(1) Modules with a front side maximum power of up to 705W at STC are allowed. Up to +5% power tolerance is allowed.
(2) When using bifacial modules, consider only the front side Isc at STC (5% back side gain). For details, see here.
(3) Adjusted for ambient temperature, irradiance, bifacial gain, safety factor, and so on, in accordance with NEC and CSA.
(4) For detailed string sizing information see here.
(5) For other connector types please contact SolarEdge.
(6) The Sense Connect feature is only enabled on the output wire connectors. For details, see here.
(7) For ambient temperatures above +85°C / +185°F, power derating is applied. For details, see here.

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RoHS

Intertek

POWER OPTIMIZER CONT.

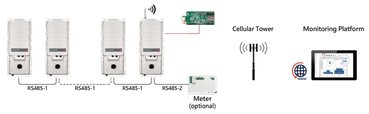
# / Cellular Plug-in with Data Plan

## For the US and Canada for SetApp Inverters

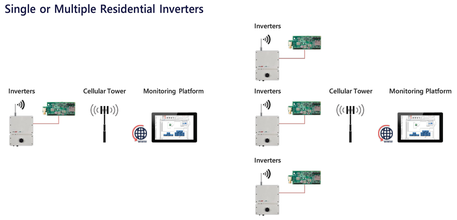
CELL-B-R05-US-S-S2
CELL-B-R05-NA-S-S2
CELL-B-R05-US-S-S4
CELL-B-R05-US-S-S5
CELL-B-R05-NA-T-S4
CELL-B-R05-US-T-S4
CELL-B-R05-US-T-S5

| | | |
|---|---|---|
| **STANDARD COMPLIANCE** | | |
| EMC and Radio | FCC parts 15, 22, 24 class B; Industry Canada (IC) ICS-003, RSS-102 AS/CA 5042.4 Requirements for connection to an aiinterface of a Telecommunications Network Part 4 IMT Customer Equipment | |
| Safety cUL, UL60950 | cUL, UL60950 | |
| RoHS | Yes | |
| **INSTALLATION SPECIFICATIONS** | | |
| Dimensions (L x W x H) | 3.07 x 1.27 x 0.56 / 78.2 x 32.5 x 14.2 | in / mm |
| Operating Temperature | -40 to +85 / -40 to +185 | °C / °F |
| Mounting | Built into the inverter or purchased separately | |
| Power consumption | 0.85 (@23 dBm output power) | W |
| **SIM CARD HOLDER** | | |
| Type | Nano Sim | |

## Single or Multiple Commercial Inverters




## Single or Multiple Residential Inverters




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CE RoHS

INVERTER

# Three Phase Inverter with Synergy Technology

## For the 277/480V Grid for North America

SE80KUS / SE100KUS / SE110KUS / SE120KUS




**Powered by unique pre-commissioning process for rapid system installation**

- Pre-commissioning feature for automated validation of system components and wiring during the site installation process and prior to grid connection
- Easy 2-person installation with lightweight, modular design (each inverter consists of 2 or 3 Synergy units and 1 Synergy Manager)
- Independent operation of each Synergy unit enables higher uptime and easy serviceability
- Built-in thermal sensors detect faulty wiring, ensuring enhanced protection and safety
- Built-in arc fault protection and rapid shutdown
- Built-in PID mitigation for maximized system performance
- Monitored* and field-replaceable surge protection devices, to better withstand surges caused by lightning or other events
- Built-in module-level monitoring with Ethernet or cellular communication for full system visibility

*Applicable only for DC and AC SPDs

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INVERTERS

# / Three Phase Inverter with Synergy Technology

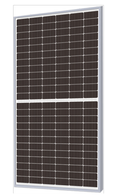
## For the 277/480V Grid for North America

SE80KUS / SE100KUS / SE110KUS / SE120KUS

| MODEL NUMBER | SE80KUS | SE100KUS | SE110KUS | SE120KUS | |
|---|---|---|---|---|---|
| APPLICABLE TO INVERTERS WITH PART NUMBER | SExxK-USxxBIxxxx | | | | UNITS |
| **OUTPUT** | | | | | |
| Rated AC Active Output Power | 80000 | 100000 | 110000 | 120000 | W |
| Maximum AC Apparent Output Power | 80000 | 100000 | 120000 | 120000 | VA |
| AC Output Line Connections | 3W + PE, 4W + PE | | | | |
| Supported Grids | WYE: TN-C, TN-S, TN-C-S, TT, IT; Delta: IT | | | | |
| AC Output Voltage Minimum-Nominal-Maximum(1) (L-N) | 244 – 277 – 305 | | | | Vac |
| AC Output Voltage Minimum-Nominal-Maximum(1) (L-L) | 422.5 – 480 – 529 | | | | Vac |
| AC Frequency Min-Nom-Max(1) | 59.5 – 60 – 60.5 | | | | Hz |
| Maximum Continuous Output Current (per Phase, PF=1) | 96.5 | 120 | 144.3 | | Aac |
| GFDI Threshold | 1 | | | | A |
| Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds | Yes | | | | |
| Total Harmonic Distortion | ≤ 3 | | | | % |
| Power Factor Range | ±0.85 to 1 | | | | |
| **INPUT** | | | | | |
| Maximum DC Power (Module STC) Inverter / Synergy Unit | 140000 / 70000 | 175000 / 58300 | 210000 / 70000 | | W |
| Transformer-less, Ungrounded | Yes | | | | |
| Maximum Input Voltage DC+ to DC- | 1000 | | | | Vdc |
| Operating Voltage Range | 850 – 1000 | | | | Vdc |
| Maximum Input Current | 2 x 48.25 | 3 x 40 | 3 x 48.25 | | Adc |
| Reverse-Polarity Protection | Yes | | | | |
| Ground-Fault Isolation Detection | 167kΩ sensitivity per Synergy Unit(2) | | | | |
| CEC Weighted Efficiency | 98.5 | | | | % |
| Nighttime Power Consumption | < 8 | < 12 | | | W |
| **ADDITIONAL FEATURES** | | | | | |
| Supported Communication Interfaces(3) | 2 x RS485, Ethernet, Wi-Fi (optional), Cellular (optional) | | | | |
| Smart Energy Management | Export Limitation | | | | |
| Inverter Commissioning | With the SetApp mobile application using built-in Wi-Fi access point for local connection | | | | |
| Arc Fault Protection | Built-in, User Configurable (According to UL1699B) | | | | |
| Photovoltaic Rapid Shutdown System | NEC 2014 – 2023, built-in | | | | |
| PID Rectifier | Nighttime, built-in | | | | |
| RS485 Surge Protection (ports 1+2) | Type II, field-replaceable, integrated | | | | |
| AC, DC Surge Protection | Type II, field-replaceable, integrated | | | | |
| DC Fuses (Single Pole) | 25A, integrated | | | | |
| VAR at Night(4) | Yes | | | | |
| **DC SAFETY SWITCH** | | | | | |
| DC Disconnect | Built-in | | | | |
| **STANDARD COMPLIANCE** | | | | | |
| Safety | UL1699B, UL1741, UL1741 SA, UL1741 SB, UL1998, CSA C22.2#107.1, Canadian AFCI according to T.I.L. M-07 | | | | |
| Grid Connection Standards | IEEE 1547-2018, Rule 21, Rule 14 (HI) | | | | |
| Emissions | FCC part 15 class A | | | | |

(1) For other regional settings please contact SolarEdge support.
(2) Where permitted by local regulations.
(3) For specifications of the optional communication options, visit the Communication product page or the Knowledge Center to download the relevant product datasheet.
(4) For details, see Set Volt Ampere Reactive at Night.

ZNSHINESOLAR

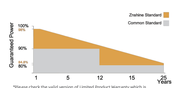


# ZXM7-EH144 Series

11BB HALF-CELL Monocrystalline PERC PV Module

**530-560W** POWER RANGE
**21.67%** MAXIMUM EFFICIENCY
**0.55%** YEARLY DEGRADATION

12 YEARS PRODUCT WARRANTY
25 YEARS OUTPUT GUARANTEE




*Please check the valid version of Limited Product Warranty which is officially released by ZNSHINE PV-TECH Co.,Ltd.

IEC 61215/IEC 61730/IEC 61701/IEC 62716
ISO 14001: Environmental Management System
ISO 9001: Quality Management System
ISO45001: Occupational Health and Safety Management System

*As there are different certification requirements in different markets,please contact your local znshine sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

## KEY FEATURES

**Excellent Cells Efficiency**
MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase.

**Better Weak Illumination Response**
More power output in weak light condition, such as haze, cloudy, and early morning.

**Anti PID**
Ensured PID resistance through the quality control of cell manufacturing process and raw materials.

**Adapt To Harsh Outdoor Environment**
Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.

**TIER 1**
Global,Tier 1 bankable brand,with independently certified advanced automated manufacturing.

**Excellent Quality Managerment System**
Warranted reliability and stringent quality assurances well beyond certified requirements.

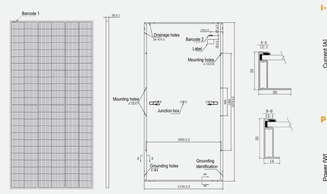
Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer.With the advanced production lines, the company boasts module capacity of 10 GW. Bloomberg has listed ZNShine as a global Tier 1 PV module maker. Today Znshine has distributed its sales to more than 60 countries around the globe.
www.znshinesolar.com

MODULES

ZXM7-EH144 Series | Znshinesolar 11BB HALF-CELL Monocrystalline PERC PV Module

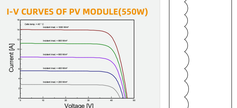
ZNSHINESOLAR

## DIMENSIONS OF PV MODULE(mm)

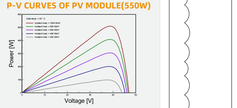



*Remark: customized frame color and cable length available upon request

## I-V CURVES OF PV MODULE(550W)




## P-V CURVES OF PV MODULE(550W)




## ELECTRICAL CHARACTERISTICS | STC*

| Nominal Power Watt Pmax(W)* | 530 | 535 | 540 | 545 | 550 | 555 | 560 |
|---|---|---|---|---|---|---|---|
| Maximum Power Voltage Vmp(V) | 41.00 | 41.20 | 41.40 | 41.60 | 41.80 | 42.00 | 42.20 |
| Maximum Power Current Imp(A) | 12.94 | 13.00 | 13.05 | 13.11 | 13.16 | 13.22 | 13.28 |
| Open Circuit Voltage Voc(V) | 49.30 | 49.50 | 49.70 | 49.90 | 50.10 | 50.30 | 50.50 |
| Short Circuit Current Isc(A) | 13.66 | 13.72 | 13.78 | 13.84 | 13.90 | 13.96 | 14.02 |
| Module Efficiency (%) | 20.51 | 20.70 | 20.89 | 21.09 | 21.28 | 21.48 | 21.67 |

*The data above is for reference only and the actual data is in accordance with the pratical testing.
*STC (Standard Test Condition): irradiance 1000W/m², Module Temperature 25±2℃, AM 1.5
*Measuring uncertainty: ±3%, all the electrical characteristics such as Power, Im, Vm and IP are within ±3% tolerance.

## ELECTRICAL CHARACTERISTICS | NMOT

| Maximum Power Pmax(Wp) | 396.30 | 400.00 | 403.50 | 407.20 | 410.80 | 414.70 | 418.50 |
|---|---|---|---|---|---|---|---|
| Maximum Power Voltage Vmpp(V) | 38.20 | 38.30 | 38.50 | 38.70 | 38.90 | 39.00 | 39.20 |
| Maximum Power Current Impp(A) | 10.39 | 10.43 | 10.48 | 10.52 | 10.57 | 10.62 | 10.67 |
| Open Circuit Voltage Voc(V) | 46.10 | 46.20 | 46.40 | 46.60 | 46.80 | 47.00 | 47.20 |
| Short Circuit Current Isc(A) | 11.03 | 11.08 | 11.13 | 11.18 | 11.22 | 11.27 | 11.27 |

*NMOT:Irradiance 800W/m², Ambient Temperature 20℃,AM 1.5,Wind Speed 1m/s

## PACKAGING CONFIGURATION*

| Piece/Box | 31 |
|---|---|
| Piece/Container(40'HQ) | 620 |

*Customized packaging is available upon request.

## MECHANICAL DATA

| Solar cells | Mono PERC |
|---|---|
| Cells orientation | 144 (6×24) |
| Module dimension | 2279×1134×35 mm (With Frame) |
| Weight | 28±1.0kg |
| Glass | 3.2mm, High Transmission, AR Coated Tempered Glass |
| Junction box | IP 68, 3 diodes |
| Cables | 4 mm² ,350 mm (With Connectors) |
| Connectors* | MC4-compatible |

*Please refer to regional datasheet for specified connector

## TEMPERATURE RATINGS

| NMOT | 44℃ ±2℃ |
|---|---|
| Temperature coefficient of Pmax | -0.35%/℃ |
| Temperature coefficient of Voc | -0.29%/℃ |
| Temperature coefficient of Isc | 0.05%/℃ |

## WORKING CONDITIONS

| Maximum system voltage | 1500 V DC |
|---|---|
| Operating temperature | -40℃~+85℃ |
| Maximum series fuse | 25 A |
| Front Side Maximum Static Loading | Up to 5400 Pa |
| Rear Side Maximum Static Loading | Up to 2400 Pa |

*Remark:Do not connect fuse in Combiner Box with two or more strings in parallel connection.
*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer.
They only serve for comparison among different module types.
*Caution:Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

Add：1#, Zhixi Industrial Zone, Jintanjiangsu 213251, P.R. China Tel：+86 519 6822 0233 E-mail：info@znshinesolar.com

Note: Specifications included in this datasheet are subject to change without notice.ZNSHINE reserves the right of final interpretation © ZNSHINE SOLAR 2023 | Version: ZXM7-EH144 2306.E

No special undertaking or warranty for the suitability of special purpose or being installed in extraordinary surroundings is granted unless as otherwise specifically committed by manufacturer in contract document

MARS ENERGY
555 MENLO DRIVE, SUITE A
ROCKLIN, CA 95765
CSLB LICENSE #1049532

PROFESSIONAL ENGINEER — ROBERT W. GINOCCHIO — E 25464 EXP. 03/31/27 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTALS

| | | | |
|---|---|---|---|
| 1 | | 60% SUBMITTAL | 03-28-25 |
| 2 | | 90% SUBMITTAL | 04-04-25 |
| 3 | | ISSUED FOR PERMIT | 07-03-25 |
| 4 | 1 | PLAN CHECK COMMENTS | 08-14-25 |
| 5 | 2 | PERMIT REVISION REVIEW | 03-13-26 |

Mt. Hermon Christian School
Solar Array Project
37.051228, -122.064568, Felton, CA 95018

SPECIFICATIONS

DRAWING TITLE

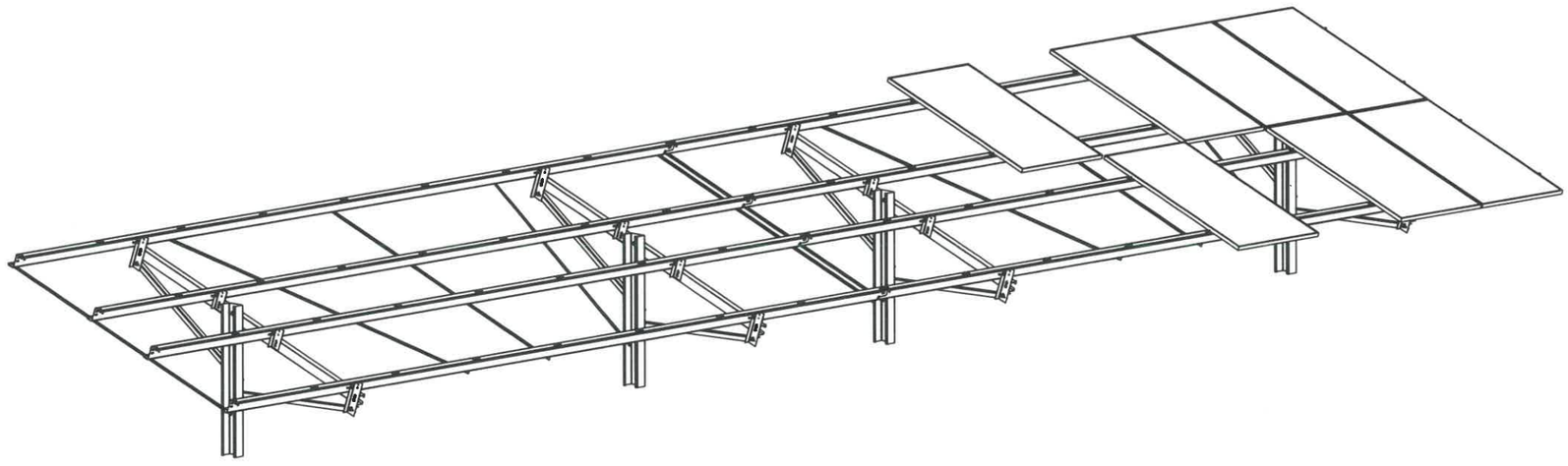
PROJECT NUMBER
K23-080

SHEET NUMBER
E6.1

PLOTTED BY: ZAC STADING DATE PLOTTED: 3/13/2026 3:29 PM FILE PATH AND NAME: Z:\Shared\Documents\MARS Design\23-080 MH Hermon\00-DWG\23-080 – E6.1

EXHIBIT D

# OMCO SOLAR CHOICE™
# GROUND MOUNTED SOLAR STRUCTURES
# FOR
# MARS ENERGY GROUP



| PROJECT SUMMARY | |
|---|---|
| ITEM DESCRIPTION | QUANTITY |
| RACKING PILES | 202 |
| RACKING TABLES | 101 |
| MODULE (ZXM7-SHDB144) | 1512 |

| DRAWING NUMBER | DRAWING DESCRIPTION |
|---|---|
| OS1.0 | COVER SHEET |
| OS1.1 | GENERAL STRUCTURAL NOTES |
| OS1.2 | MODULE SPECIFICATION SHEETS |
| OS1.3 | FOUNDATIONS |
| OS2.0 | GENERAL LAYOUT |
| OS2.1 | TYPICAL SECTIONS |
| OS2.2 | FRAMING PLANS |
| OS3.0 | TILT ASSEMBLY DETAILS |
| OS3.1 | RACK BEAM + BRACE ASSEMBLY DETAILS |
| OS3.2 | MODULE ASSEMBLY DETAILS |

OMCO SOLAR

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STEVEN JOHN BAKER No. 87845 Exp. 6/12/26 CIVIL STATE OF CALIFORNIA
3/5/24

CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | — | — | | |
| 2 | — | — | | |
| 3 | — | — | | |
| 4 | — | — | | |
| 5 | — | — | | |
| 6 | — | — | | |
| 7 | — | — | | |

PROJECT NAME: MT. HERMON

PROJECT NUMBER: 11403533587

FILE NAME: J:\CHOICE\Mars Energy Group\Mt. Hermon\CD'S\Choice Master Construction Package Template JJ 02.11.26.dwg

DRAWING NAME: COVER SHEET

DRAWING NUMBER: OS1.0

OMCO SOLAR
4550 W. WATKINS ST.
PHOENIX, AZ 85043
www.omcosolar.com

EXHIBIT D

# GENERAL STRUCTURAL NOTES:

1. THE TERM "CONTRACTOR" AS REFERRED IN THIS DOCUMENT SHALL MEAN MARS ENERGY GROUP. THE TERM "PROJECT OWNER" AS REFERRED TO IN THIS DOCUMENT SHALL BE DETERMINED BY MARS ENERGY GROUP.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE APPROVED STAMPED CONSTRUCTION DOCUMENT IN ITS ENTIRETY PRIOR TO BIDDING THE PROJECT, START OF FABRICATION, ORDERING HARDWARE & MISCELLANEOUS STEEL, START OF CONSTRUCTION AND ASSEMBLY.
3. IF A CONFLICT BETWEEN DRAWING DETAILS, SECTIONS, PLANS AND NOTES IS DISCOVERED, NOTIFY OMCO SOLAR IMMEDIATELY IN WRITING FOR CLARIFICATION AND/OR FOR APPROPRIATE RESPONSE PRIOR TO PROCEEDING WITH CONSTRUCTION AND/OR ASSEMBLY OF THE RACKING SYSTEM.
4. IN THE EVENT A DRAWING DISCREPANCY AND/OR DISCREPANCIES IN MATERIAL RECEIVED IS ENCOUNTERED OR DISCOVERED, NOTIFY OMCO SOLAR IMMEDIATELY IN WRITING FOR CLARIFICATION AND/OR FOR APPROPRIATE RESPONSE PRIOR TO PROCEEDING WITH CONSTRUCTION AND/OR ASSEMBLY OF THE RACKING SYSTEM.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL CONSTRUCTION WORK, RACKING ASSEMBLIES AND INSTALLATIONS ARE IN ACCORDANCE WITH THE LATEST APPROVED STAMPED CONSTRUCTION DOCUMENTS.
6. MEANS AND METHOD OF INSTALLATION, ASSEMBLY AND CONSTRUCTION SEQUENCES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/INSTALLER TO ENSURE PROPER TECHNIQUES ARE EMPLOYED AND TEMPORARY SHORING AND BRACING ARE PROVIDED FROM START TO COMPLETION OF THE PROJECT CONSTRUCTION PER APPROVED STAMPED CONSTRUCTION DOCUMENTS.
8. ANY WORK COMPLETED DEVIATING FROM THE CONSTRUCTION DOCUMENT SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL LATEST DRAWINGS ARE USED AND DISTRIBUTED TO ALL INVOLVED IN THE PROJECT AND SUBCONTRACTORS.
10. THE PROJECT OWNER SHALL TAKE ALL NECESSARY MEASURES TO PREVENT SOIL EROSIONS, WATER PONDING AND FLOODING AROUND PILES OR IN THE VICINITY.
11. UNLESS SHOWN, DETAILED OR NOTED IN THE CONSTRUCTION DOCUMENT, ANY FIELD MODIFICATIONS, DRILLING, FABRICATION, REPAIRS, DEVIATION AND ADJUSTMENTS IS PROHIBITED WITHOUT THE WRITTEN APPROVAL OF OMCO SOLAR.
12. WHERE MEMBER CORROSION PROTECTION IS COMPROMISED DURING STAGING, FIELD HANDLING, CONSTRUCTION, ASSEMBLY, ETC. CONTRACTOR SHALL REPAIR THE DAMAGE PER APPROVED FIELD REPAIR RECOMMENDATIONS PER OMCO SOLAR'S INSTALLATION MANUAL(S).
13. NOTIFY OMCO SOLAR IMMEDIATELY OF ANY FIELD ISSUES THAT MAY BE ENCOUNTERED DUE TO ARISE RELATING TO STRUCTURAL DAMAGE AND/OR CONSTRUCTION CHALLENGES DUE TO INCORRECT INFORMATION.
14. THE CONSTRUCTION AND FOUNDATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED BUILDING CODES AND STANDARDS AND THE LOCAL BUILDING DEPARTMENT "AUTHORITY HAVING JURISDICTIONS" AMENDMENTS.
15. IT IS THE OWNER'S RESPONSIBILITY TO ORDER ANY SPARE PARTS FOR THE PURPOSE OF REPAIRS OR REPLACEMENT AFTER PROJECT COMPLETION AT THE OWNER'S EXPENSE.
16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT SAFE WORKING CONDITIONS EXIST AND SAFE CONSTRUCTION TECHNIQUES ARE FOLLOWED AND ALL NECESSARY PRECAUTIONS ARE IN PLACE, ADDRESSED AND RESPECTED BY ALL PARTIES INVOLVED WITH THE CONSTRUCTION OF THE PROJECT AT ALL TIMES FROM START TO COMPLETION OF THE PROJECT.
17. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, COORDINATE ALL FIELD CONDITIONS WITH THE APPROVED STAMPED CONSTRUCTION DOCUMENTS PRIOR TO PROCEEDING WITH THE PROJECT CONSTRUCTION.
18. IT IS THE RESPONSIBILITY OF THE PROJECT OWNER TO NOTIFY THE CONTRACTOR OF ANY INVESTIGATIONS RELATED TO ANY KNOWN OBSTRUCTION OR UNANTICIPATED SITE CONDITIONS THAT MAY ALTER THE GROUND MOUNT STRUCTURE DESIGN OR MAY HAVE AN ADVERSE EFFECT ON THE PROJECT CONSTRUCTION.
19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE CORRECT SOLAR MODULES ARE PROVIDED AND ASSEMBLED PER MODULE MANUFACTURER'S INSTALLATION MANUAL, THIS SET OF DRAWINGS, AND LATEST OMCO SOLAR CHOICE INSTALLATION MANUAL PROVIDED.
20. FIELD CUTTING OR WELDING OF COLD-FORM STRUCTURAL ELEMENTS IS NOT REQUIRED NOR PERMITTED WITHOUT THE WRITTEN APPROVAL BY OMCO SOLAR. IN ANY EVENT WHERE FIELD CUTTING AND/OR WELDING IS NECESSARY OR DESIRED, IT IS CRITICAL THAT OMCO SOLAR BE NOTIFIED IMMEDIATELY IN WRITING PRIOR TO FIELD CUTTING OR WELDING.

# DESIGN CODES, DATA & CRITERIA

THE SOLAR STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE (CBC) 2025 AND ASCE 7-22.

COLD FORMED STEEL DESIGN STRUCTURAL ELEMENTS SHALL BE PER AISI NORTH AMERICAN SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS 2016 EDITION

FOR STRUCTURE OCCUPANCY AND RISK CATEGORY: II

WIND:

BASIC WIND SPEED (3 SECOND GUST): 92 MPH

WIND EXPOSURE CATEGORY: C

WIND TUNNEL TEST AND WIND LOAD ANALYSIS REPORT: PER CPP PROJECT 9795

WIND DESIGN PRESSURES: VARIES WITH MEMBERS AND COMPONENTS

SEISMIC:

SEISMIC IMPORTANCE FACTOR, I: = 1.00

MAPPED SPECTRAL RESPONSE ACCELERATIONS, SDS: = 1.080g, SD1: = 1.130g

SEISMIC DESIGN CATEGORY: = D

BASIC SEISMIC-FORCE-RESISTING SYSTEMS: = CANTILEVER COLUMN

SEISMIC SHEAR AT BEAM TO TILT: = 184.88 LBS

SEISMIC RESPONSE COEFFICIENT Cs: = 0.864

SEISMIC DESIGN BASE SHEAR: V = 1.479 KIPS

SITE CLASS: D

RESPONSE MODIFICATION COEFFICIENTS: R = 1.25

ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE

SNOW:

GROUND SNOW LOAD (Pg): = 12 PSF

SNOW EXPOSURE FACTOR (Ce): = 1.0

SNOW LOAD IMPORTANCE FACTOR (I): = 0.8

THERMAL FACTOR (Ct): = 1.1

SLOPE FACTOR (Cs): = 0.82

FLAT ROOF SNOW LOAD (Pf): = 7.39 PSF

DESIGN SNOW LOAD(Ps): = 6.08 PSF

DEAD LOAD:

MODULE: = 2.05 PSF

LIVE LOAD:

GROUND MOUNTED: = 0 PSF

# MATERIAL SPECIFICATION NOTES:

1. COLD-FORMED STEEL: ASTM A653-17 SS OR HSLAS - MIN. YIELD AND TENSILE STRENGTHS SHOWN ON FRAMING PLANS.
2. STEEL PLATES SHALL BE PER ASTM A36, 36 KSI STEEL.
3. MATERIAL GALVANIZATION MINIMUMS: POSTS/PILES - G235
   HARDWARE - 15 MICRON
   ALL OTHER STEEL - G90
4. M8 BOLTS FOR MODULE MOUNTING: DIN933 GRADE 304 STAINLESS STEEL CLASS 8.8.
5. FLANGE HEAD: HEX RIV NUT, OPEN END, STEEL THREAD PROOF LOAD MEETS CLASS 8 PER ISO 898-02.
6. M8, M10 AND M12 FLAT WASHERS: DIN125A AND/OR 3/8", 7/16" AND 1/2" USS F436 THRU-HARDENED. STAINLESS WASHER GRADE 304.
7. M10 AND M12 BOLTS: DIN933/931 CLASS 8.8.
8. M10 AND M12 HEX NUT: DIN934 GRADE 8.
9. ROUND PIPES SHALL BE PER ASTM A513-15 TYPE 1a, 1b OR 2.
10. M8 HEX NUT: DIN6923 GRADE 8.

# REFERENCE CODES AND STANDARDS (SHALL BE LATEST U.N.O)

ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS

ANSI - AMERICAN NATIONAL STANDARD INSTITUTE

ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASCE - AMERICAN SOCIETY OF CIVIL ENGINEERS

AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION

AISI - AMERICAN IRON AND STEEL INSTITUTE

IBC - INTERNATIONAL BUILDING CODE

# ABBREVIATIONS:

| | |
|---|---|
| Assembly | ASS'Y |
| Authority Having Jurisdiction | AHJ |
| Back to Back | B/B |
| Beam | BM |
| Beam End | BE |
| Bearing | BRG |
| Between Centers | BC |
| Bolt Circle | BTC |
| Both Faces | BFS |
| Both Sides | BS |
| Bracket | BRKT |
| Cap Screw | CAP SCR |
| Cantilever | CANT'L |
| Connection Bracket Long | CBL |
| Connection Bracket Short | CBS |
| Center | CTR |
| Centerline | C.L. |
| Center to Center | C/C |
| Circular | CIR |
| Clear | CLR |
| Clockwise | CW |
| Configuration | CONFIG |
| Connection | Conn |
| Construction Package | CP |
| Continuous | CONT |
| Counterclockwise | CCW |
| Decimal | DEC |
| Deep/Depth | DP |
| Detail | DTL |
| Diagonal Brace Lower/Upper | DBL, DBU |
| Dimension | DIM |
| Distance | DIST |
| Double | DBLE |
| Drawing | DWG |
| Each | EA |
| East/West Rack Beam Top, Mid, Low | E/W RBT<br>E/W RBM<br>E/W RBL |
| Elevation | ELEV |
| End to End | E/E |
| Equal | EQL |
| Equally spaced | EQLSP |
| Elevation | ELEV |
| Existing | EX. |
| Exterior | EXT |
| Face to Face | F/F |
| Fastener | FSTNR |
| Field Fast | F.F. |
| Fillet | FIL |
| Gage | GA |
| Ground Mount | GM |
| Hexagonal | HEX |
| Horizontal | HORIZ |
| Hot Dipped Galvnization | HDG |
| Inch | IN |
| Inside diameter | ID |
| Interior | INT |
| Kilo Pounds | kips |
| Kilowatt | kW |
| Lateral Brace | LB |
| Left hand | LH |
| Length | L |
| Lock Nut | LN |
| Lockwasher | LKWASH |
| Long | LG |

| | |
|---|---|
| Material | MATL |
| Maximum | MAX |
| Mega Watts | MW |
| Micrometer | um |
| Millimeter | mm |
| Minimum | MIN |
| Module | MOD |
| Module Clamp | MC |
| Module Rail | MR |
| Multiple | MULT |
| North/South | NS |
| Not To Scale | NTS |
| Number | NO |
| On Center | OC |
| Outside Diameter | OD |
| Outside Face | OF |
| Overall | OA |
| Perpendicular | PERP |
| Photovoltaics | PV |
| Places | PLCS |
| Post/Pile | P |
| Point | PT |
| Pounds | LBS |
| Pounds per Square Foot | PSF |
| Quantity | QTY |
| Radial | RDL |
| Radius | RAD |
| Rectangle | RECT |
| Reference Line | REFL |
| Required | REQD |
| Right Hand | RH |
| Round | RND |
| Screw | SCR |
| Scope of Work | SOW |
| Section | SECT |
| Set screw | SSCR |
| Sheet | SHT. |
| Similar | SIM, |
| Single | SGL |
| Sleeve | SLV |
| Slotted | SLTD |
| Socket | SKT |
| Socket head | SCH |
| Square | SQ |
| Square Meters | SQM |
| Standard | STD |
| Steel | STL |
| Surface | SURF |
| Thick | THK |
| Thread | TRD |
| Through | THRU |
| Tilt Bracket | TB |
| To Be Determined | TBD |
| Top Of | T.O. |
| Typical | TYP |
| Unless Noted Otherwise | UNO |
| Vertical | VERT |
| Watt | WT |
| Wire Management | WM |
| Work Point | W.P. |

Project specific atmospheric loads (dead, snow, wind and seismic) have been calculated as prescribed by the latest locally accepted edition of the ASCE 7 (Minimum Design Loads and Associated Criteria for Buildings and Other Structures) Standard as interpreted by our internal Engineering Department and our Third-Party Engineer of Record for application to solar ground mount structures specifically. These project specific loads have been applied to the project racking structure, through the applicable load combinations, as prescribed by the latest locally accepted edition of the ASCE 7 Standard. Final custom project member sizes, quantities, spacings, connections and final pile embedment depths have been determined through structural analysis based specifically on the application of these above-described loads to the racking structure. Any alternate interpretation of the ASCE 7 Standard or disagreement with how loads were applied or how we performed our analysis by the customers internal engineering department or independent engineer(s), that results in an increase in member sizes or quantities, accepted by the customer shall be at the customer's expense. Any other liquidated damages that result from this acceptance shall be at the owner's expense.

OMCO SOLAR

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REGISTERED PROFESSIONAL ENGINEER STEVEN JOHN BAUER No. 87848 Exp. 6/30/26 CIVIL STATE OF CALIFORNIA
3/5/26

CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | --- | --- | | |
| 2 | --- | --- | | |
| 3 | --- | --- | | |
| 4 | --- | --- | | |
| 5 | --- | --- | | |
| 6 | --- | --- | | |
| 7 | --- | --- | | |

PROJECT NAME: MT. HERMON

PROJECT NUMBER: 11403533587

FILE NAME: J:\CHOICE\Mars Energy Group\Mt. Hermon\CD\05\Choice Master Construction Package Template (J-SLT1.25.dwg

DRAWING NAME: GENERAL NOTES

DRAWING NUMBER: OS1.1

OMCO SOLAR
4550 W. WATKINS ST.
PHOENIX, AZ 85043
www.omcosolar.com

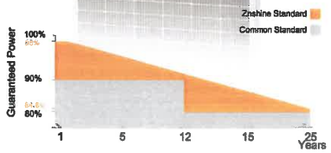
EXHIBIT D

ZNSHINESOLAR

# ZXM7-SHDB144 Series

10BB HALF-CELL Bifacial Monocrystalline PERC PV Module






*Please check the valid version of Limited Product Warranty which is officially released by ZNSHINE PV-TECH Co.,Ltd.

**530-555W** POWER RANGE

**21.48%** MAXIMUM EFFICIENCY

**0.55%** YEARLY DEGRADATION

12 12 YEARS PRODUCT WARRANTY

25 25 YEARS OUTPUT GUARANTEE

IEC 61215/IEC 61730/IEC 61701/IEC 62716/UL6 1730

ISO 14001: Environmental Management System

ISO 9001: Quality Management System

ISO45001: Occupational Health and Safety Management System

*As there are different certification requirements in different markets,please contact your local znshine sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

## Key Features

**Excellent Cells Efficiency**
MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase.

**Anti PID**
Ensured PID resistance through the quality control of cell manufacturing process and raw materials.

**TIER 1**
Global,Tier 1 bankable brand,with independently certified advanced automated manufacturing.

**Bifacial Technology**
Up to 25% additional power gain from back side depending on albedo.

**Better Weak Illumination Response**
More power output in weak light condition, such as haze, cloudy, and early morning.

**Adapt To Harsh Outdoor Environment**
Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.

**Excellent Quality Managerment System**
Warranted reliability and stringent quality assurances well beyond certified requirements.

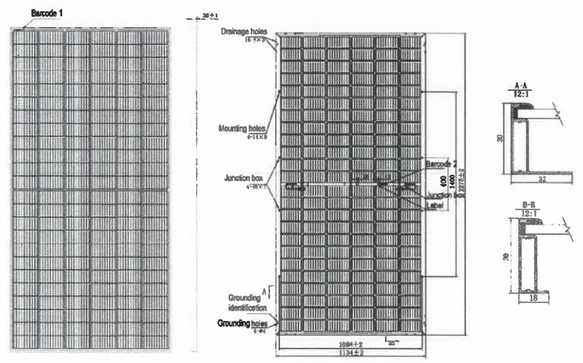
Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer.With the advanced production lines, the company boasts module capacity of 6GW. Bloomberg has listed ZNShine as a global Tier 1 PV module maker. Today Znshine has distributed its sales to more than 60 countries around the globe.

www.znshinesolar.com

## ZXM7-SHDB144 Series | Znshinesolar 10BB HALF-CELL Bifacial Monocrystalline PERC PV Module

ZNSHINESOLAR

### DIMENSIONS OF PV MODULE(mm)

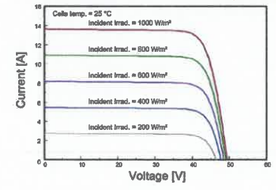



Front View

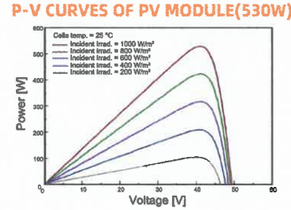
Back View

*Remark: customized frame color and cable length available upon request

### I-V CURVES OF PV MODULE(530W)




### P-V CURVES OF PV MODULE(530W)




### ELECTRICAL CHARACTERISTICS | STC*

| | | | | | | |
|---|---|---|---|---|---|---|
| Nominal Power Watt Pmax(W)* | 530 | 535 | 540 | 545 | 550 | 555 |
| Maximum Power Voltage Vmp(V) | 41.10 | 41.30 | 41.50 | 41.70 | 41.90 | 42.10 |
| Maximum Power Current Imp(A) | 12.91 | 12.96 | 13.02 | 13.07 | 13.13 | 13.19 |
| Open Circuit Voltage Voc(V) | 49.40 | 49.60 | 49.80 | 50.00 | 50.20 | 50.40 |
| Short Circuit Current Isc(A) | 13.65 | 13.71 | 13.77 | 13.83 | 13.89 | 13.95 |
| Module Efficiency (%) | 20.52 | 20.71 | 20.90 | 21.10 | 21.29 | 21.48 |

*The data above is for reference only and the actual data is in accordance with the pratical testing
*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2℃, AM 1.5
*Measuring uncertainty: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance.

### MECHANICAL DATA

| | |
|---|---|
| Solar cells | Mono PERC |
| Cells orientation | 144 (6×24) |
| Module dimension | 2278×1134×30mm (With Frame) |
| Weight | 25.5±1 kg |
| Glass | 3.2mm, High Transmission, AR Coated Tempered Glass |
| Junction box | IP 68, 3 diodes |
| Cables | 4 mm² ,350 mm (With Connectors) |
| Connectors* | MC4-compatible |

*Please refer to regional datasheet for specified connector

### ELECTRICAL CHARACTERISTICS | NMOT*

| | | | | | | |
|---|---|---|---|---|---|---|
| Maximum Power Pmax(Wp) | 396.40 | 399.90 | 403.60 | 406.80 | 410.80 | 414.60 |
| Maximum Power Voltage Vmpp(V) | 38.20 | 38.40 | 38.50 | 38.80 | 38.90 | 39.10 |
| Maximum Power Current Impp(A) | 10.38 | 10.42 | 10.47 | 10.49 | 10.56 | 10.61 |
| Open Circuit Voltage Voc(V) | 46.20 | 46.30 | 46.50 | 46.70 | 46.90 | 47.10 |
| Short Circuit Current Isc(A) | 11.02 | 11.07 | 11.12 | 11.17 | 11.22 | 11.27 |

*NMOT:Irradiance 800W/m²,Ambient Temperature 20℃,AM 1.5,Wind Speed 1m/s

### TEMPERATURE RATINGS

| | |
|---|---|
| NMOT | 44℃ ±2℃ |
| Temperature coefficient of Pmax | -0.35%/℃ |
| Temperature coefficient of Voc | -0.29%/℃ |
| Temperature coefficient of Isc | 0.05%/℃ |
| Refer.Bifacial Factor | 70±5% |

*Remark:Do not connect Fuse in Combiner Box with two or more strings in parallel connection

### WORKING CONDITIONS

| | |
|---|---|
| Maximum system voltage | 1500 V DC |
| Operating temperature | -40℃~+85℃ |
| Maximum series fuse | 30 A |
| Front Side Maximum Static Loading | Up to 5400Pa |
| Rear Side Maximum Static Loading | Up to 2400Pa |

### ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN*

| | | | | | | |
|---|---|---|---|---|---|---|
| Front power Pmax/W | 530 | 535 | 540 | 545 | 550 | 550 |
| Total power Pmax/W | 663 | 669 | 675 | 681 | 688 | 694 |
| Vmp/V(Total) | 41.20 | 41.40 | 41.60 | 41.80 | 42.00 | 42.20 |
| Imp/A(Total) | 16.08 | 16.15 | 16.23 | 16.30 | 16.37 | 16.44 |
| Voc/V(Total) | 49.50 | 49.70 | 49.90 | 50.10 | 50.30 | 50.50 |
| Isc/A(Total) | 17.02 | 17.10 | 17.17 | 17.25 | 17.32 | 17.39 |

*Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

### PACKAGING CONFIGURATION *

| | |
|---|---|
| Piece/Box | 36 |
| Piece/Container(40'HQ) | 720 |

*Customized packaging is available upon request.
*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.
*Caution:Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.


Add : 1#, Zhixi Industrial Zone, Jintanjiangsu 213251, P.R. China Tel: +86 519 6822 0233 E-mail: info@znshinesolar.com



Note: Specifications included in this datasheet are subject to change without notice.ZNSHINE reserves the right of final interpretation © ZNSHINE SOLAR 2022 | Version: ZXM7-SHDB144 2203.E

No special undertaking or warranty for the suitability of special purpose or being installed in extraordinary surroundings is granted unless as otherwise specifically committed by manufacturer in contract document


SOLAR MODULE SPECIFICATIONS

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CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |

PROJECT NAME: MT. HERMON

PROJECT NUMBER: 11403533587

FILE NAME: 20CHOICEMtn Energy Group\Bid, Permit\CCP\Choice Master Construction Package Template 2/ 02.11.26.dwg

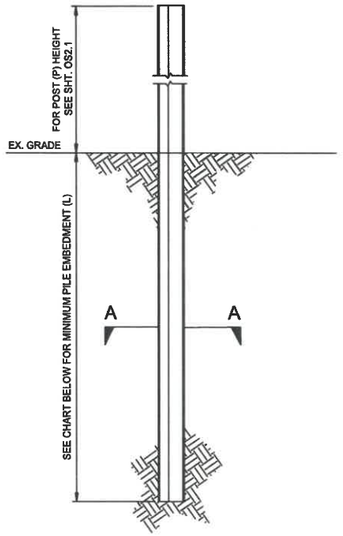
DRAWING NAME: MODULE SPECIFICATIONS SHEETS

DRAWING NUMBER: OS1.2


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EXHIBIT D

# FOUNDATION INSTALLATION




VIEW "A-A"

TYPICAL DRIVEN PILE (PD) 1 / -

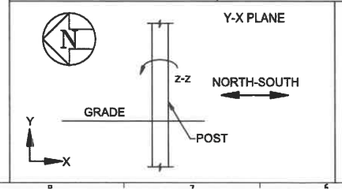
## FOUNDATION NOTES

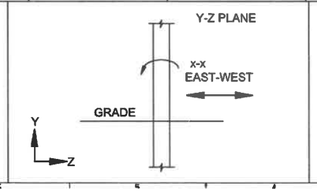
1. THE FOUNDATION DESIGN OF POST/PILES SHALL BE PER THE LOCAL AHJ ADOPTED BUILDING CODE, PILE REACTIONS AND/OR LOAD TESTING REPORTS PROVIDED. FOUNDATION DESIGN SHALL BE PER THE GOVERNING PILE REACTIONS RESULTING FROM THE STRUCTURAL ANALYSIS UTILIZING THE SPECIFIC PROJECT DESIGN MODULE, WIND LOADS, SNOW, AND SEISMIC LOAD SPECIFIED IN THIS SET. SEE TABLE THIS SHEET FOR POST REACTION AT GRADE AND MINIMUM EMBEDMENT REQUIREMENTS.
2. IT IS CRITICAL FOR PILES TO BE INSTALLED IN THE PROPER ORIENTATION AND LOCATION. REFERENCE LATEST OMCO CHOICE INSTALLATION MANUAL PROVIDED FOR ALL PILE INSTALLATION TOLERANCES, FOR ORIENTATION AND LOCATION.
3. ALL CIVIL DESIGN, SITE LAYOUT, AND ASSOCIATED WORK SHALL BE DESIGNED, APPROVED, AND INSTALLED BY OTHERS.
4. PILES NOT DRIVEN TO THE SPECIFIED EMBEDMENT DEPTH SHALL BE REDESIGNED AND/OR MODIFIED AT THE CONTRACTOR'S EXPENSE. REDESIGN SHALL BE APPROVED AND/OR PROVIDED BY OMCO SOLAR.
5. IN THE EVENT OF ENCOUNTERING PILE REFUSAL, NOTIFY OMCO SOLAR IMMEDIATELY PRIOR TO MAKING ANY FIELD ADJUSTMENTS OR MODIFICATIONS.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE ENGINEER OF RECORD IF FIELD CONDITIONS AND SOIL CONDITIONS ARE NOT PER THE GEOTECHNICAL REPORT OR APPROVED STAMPED CONSTRUCTION DOCUMENTS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS PROVIDED IN THIS APPROVED CONSTRUCTION DOCUMENTS AND THE SITE GEOTECHNICAL REPORTS.
8. PILE SHALL NOT BE DRIVEN OR SET IN LOW POINTS WHERE WATER WILL BE ACCUMULATING OR PONDING.
9. MATERIALS SPECIFICATIONS:
   CONCRETE - ASTM C94, F'c = 3000 PSI (DESIGNED FOR 2500 PSI) AT 28 DAYS. CONCRETE COMPRESSIVE STRENGTH AND SLUMP SHALL BE TESTED PER ASTM C31, C39 AND C143. PROVIDE 3 CYLINDERS PER TEST FOR EACH DAY'S CONCRETE PLACEMENT OR AS DIRECTED BY THE ENGINEER. TEST ONE CYLINDER AT 7 DAYS AND TWO AT 28 DAYS. TESTING SHALL BE DONE BY A QUALIFIED TESTING LABORATORY.

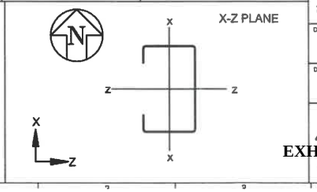
   REINFORCING - ASTM A615 GRADE 40 FOR #4 AND SMALLER AND ASTM A615 GRADE 60 FOR #5 AND LARGER.
10. FOUNDATION DESIGN PER GEOTECHNICAL REPORT #SCR- 1898 BY DEES & ASSOCIATES , INC, DATED 08/27/2024

## PILE EMBEDMENT DEPTH, TOTAL LENGTH, & QUANTITIES

| STRUCTURE IDENTIFIER | EMBEDMENT DEPTH (L) | PILE LENGTH | PILE TYPE/SIZE | PILE QUANTITY |
|---|---|---|---|---|
| E5 | 10'-0" | 16'-02" | C-0.145" | 42 |
| E6 | 10'-0" | 16'-02" | C-0.145" | 46 |
| P9 | 10'-0" | 16'-02" | C-0.145" | 114 |




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REGISTERED PROFESSIONAL ENGINEER
STEVEN JOHN WAGNER
No. 87449
Exp. 6/19/25
CIVIL
STATE OF CALIFORNIA
3/5/24

CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | — | — | | |
| 2 | — | — | | |
| 3 | — | — | | |
| 4 | — | — | | |
| 5 | — | — | | |
| 6 | — | — | | |
| 7 | — | — | | |

PROJECT NAME: MT. HERMON

PROJECT NUMBER: 11403533587

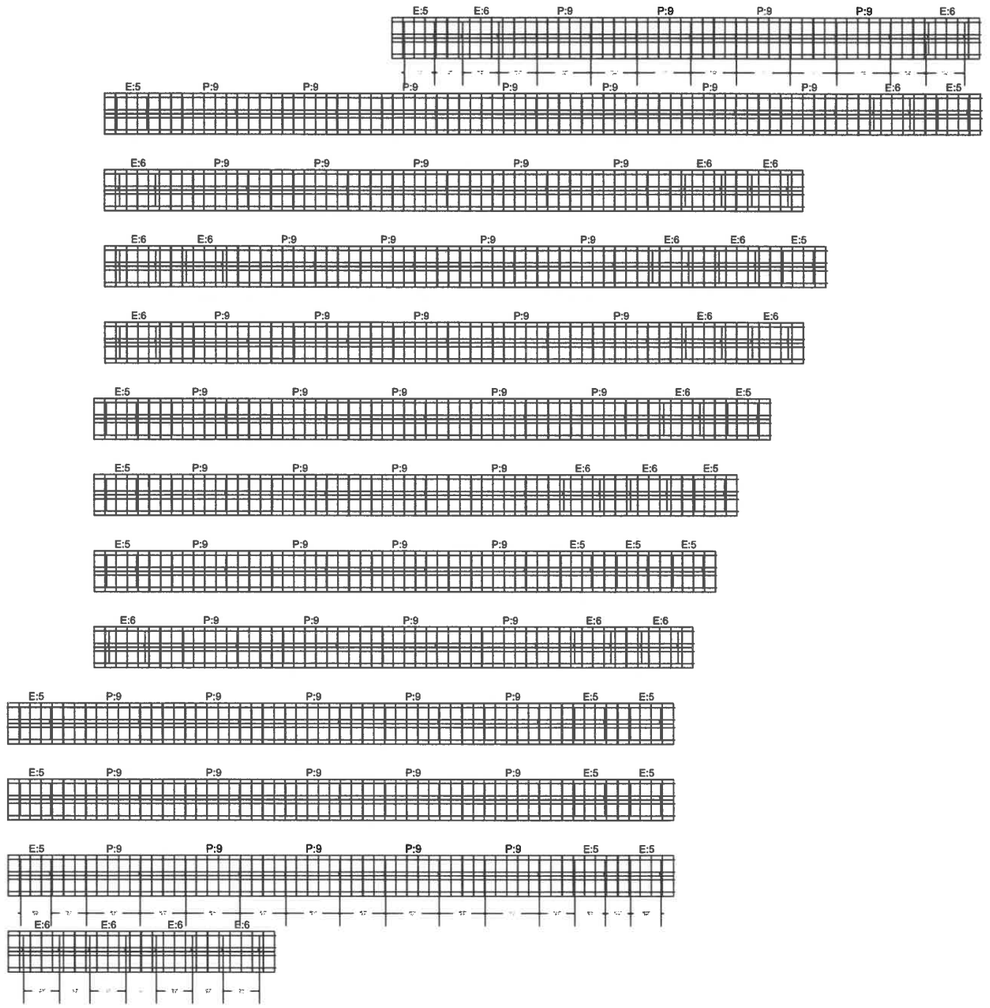
FILE NAME: J:\OMCO\Wells Energy Group\Mt. Hermon\CD\Choice Master Construction Pkckage Template JJ 03.11.26.dwg

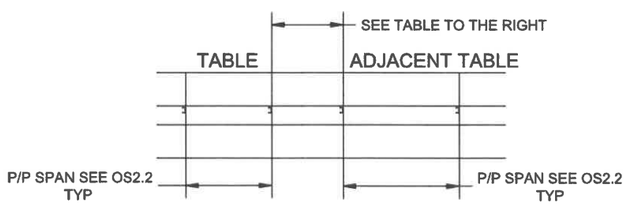
DRAWING NAME: FOUNDATION INSTALLMENT

DRAWING NUMBER: OS1.3

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EXHIBIT D




## ADJACENT TABLE PILE SPACING EXAMPLE

(NTS)

## OVERALL STRUCTURE LAYOUT PLAN

(NTS)

| TABLE STRUCTURE | PILE SPACING | QUANTITY |
|---|---|---|
| E5 | 124 | 21 |
| E6 | 148 | 23 |
| P9 | 220 | 57 |

| Table | 2x5 | 2x6 | 2x9 |
|---|---|---|---|
| 2x5 | 103.37 | | |
| 2x6 | 113.89 | 124.41 | |
| 2x9 | 145.45 | 155.97 | 187.53 |

## TABLE TO ADJACENT TABLE PILE SPACING

NOTE: ALL DIMENSIONS IN INCHES
NOT ALL TABLE SIZES WILL BE USED

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Exp. 6/12/26
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STATE OF CALIFORNIA
3/5/26

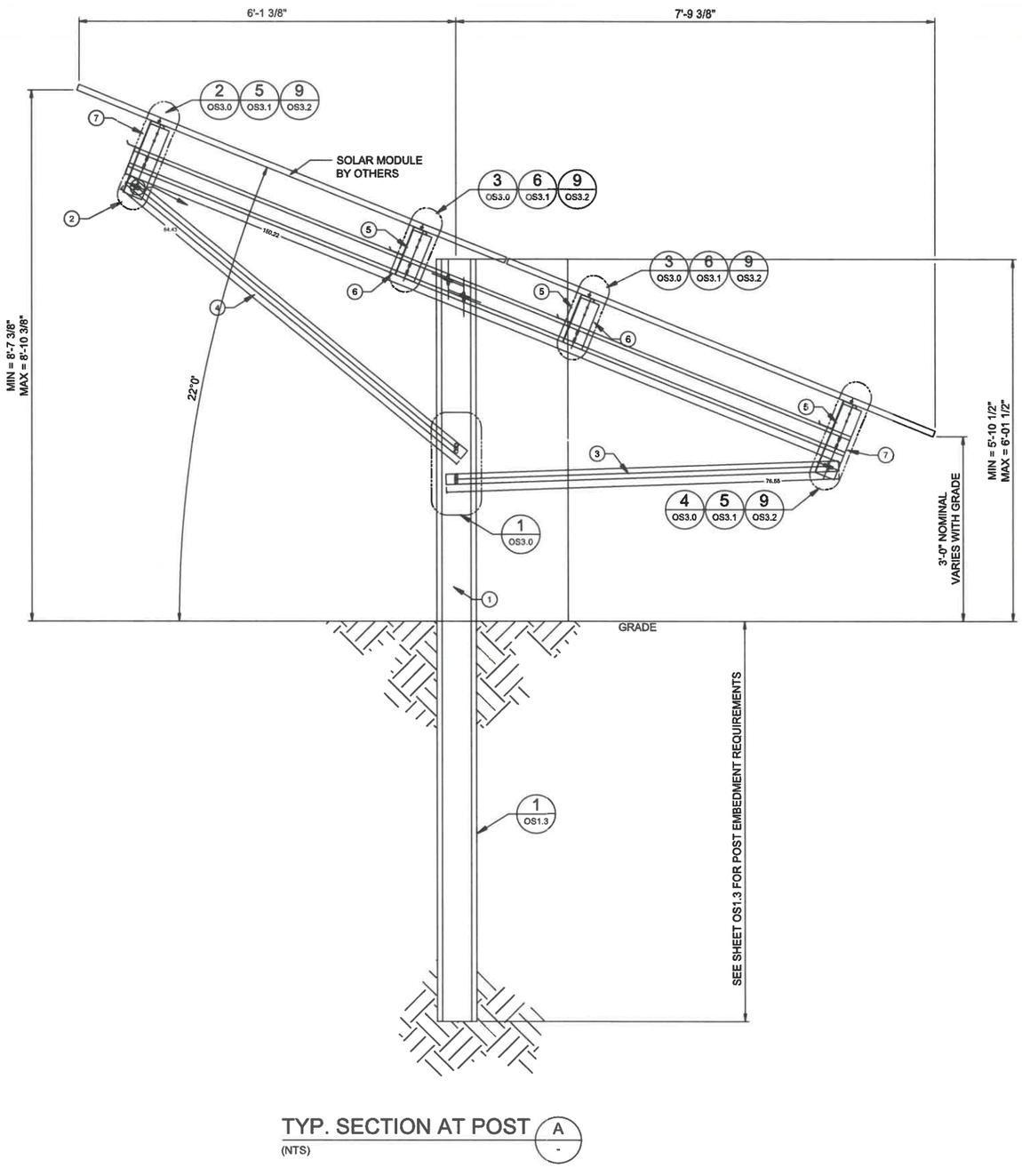
CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |

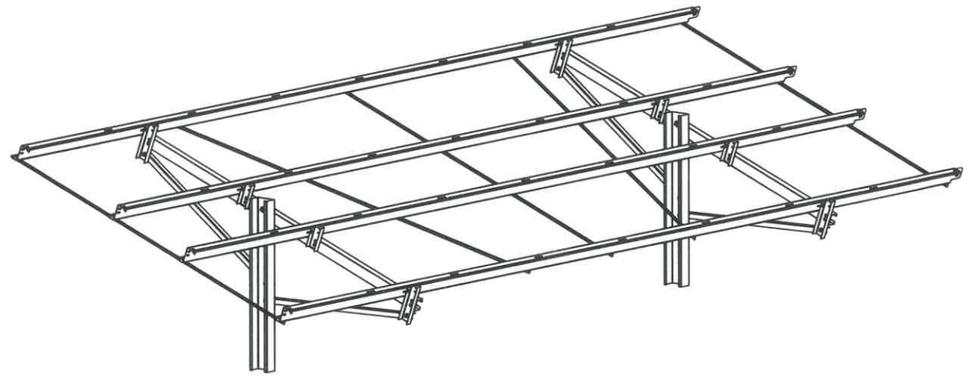
PROJECT NAME: MT. HERMON
PROJECT NUMBER: 11403533587
FILE NAME: J:\OMCO\Mtn Energy Group\MA Hermon\CDS\Choice Master Construction Package Template JJ ED.11.25.dwg
DRAWING NAME: GENERAL LAYOUT
DRAWING NUMBER: OS2.0

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EXHIBIT D




TYP. SECTION AT POST A
(NTS)



TYPICAL TABLE ASSEMBLY
MODULES NOT SHOWN FOR CLARITY

NOTE: PILES LOCATED IN AREAS WHERE THE GRADE SLOPES UP AS YOU MOVED SOUTH SHOULD BE DRIVEN TO THE MAXIMUM REVEAL HEIGHT LISTED ABOVE IN ORDER TO ENSURE MINIMUM FRONT EDGE HEIGHT REQUIREMENT IS MET. REVEAL HEIGHT CAN BE ADJUSTED AT INSTALLERS DISCRETION WITHIN THE MIN/MAX RANGE LISTED ABOVE.

NOTE: MODULE INSTALLATION SHALL BE PER MODULE MANUFACTURERS REQUIREMENTS.

## DIMENSIONS

| DESCRIPTION | WIDTH | LENGTH | THICKNESS | HOLE SPACING |
|---|---|---|---|---|
| ZXM7-SHDB144 | 44.65"[1134mm] | 89.69"[2278mm] | 1.18"[30mm] | 55.12"[1400mm] |

## COMPONENTS

| ITEM NO. | DESCRIPTION | MARK |
|---|---|---|
| 1 | POST | P |
| 2 | DIAGONAL BRACE UPPER | DBU |
| 3 | DIAGONAL BRACE LOWER | DBL |
| 4 | TILT BRACKET | TB |
| 5 | EAST/WEST RACK BEAM | E/W RB |
| 6 | "U" CONNECTOR BRACKET SHORT | CBS |
| 7 | "U" CONNECTOR BRACKET LONG | CBL |
| 8 | LATERAL BRACE | LB |

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3/5/26

CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

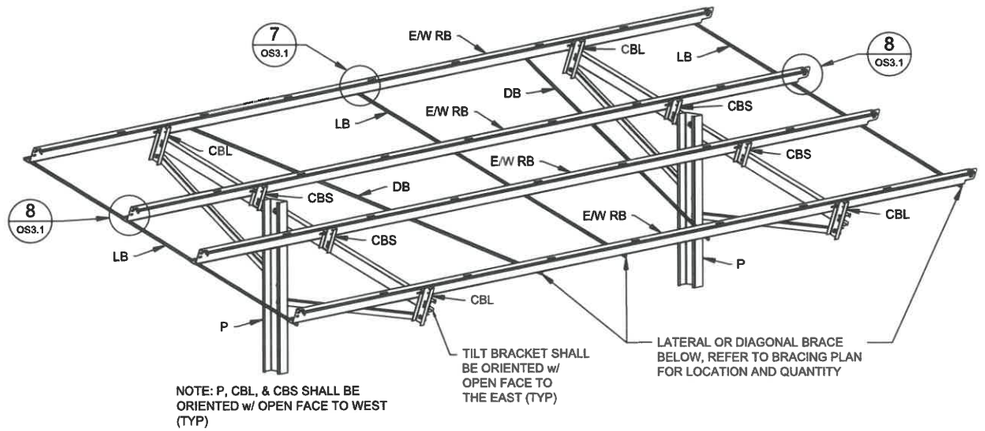
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|---|---|---|---|---|
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| 2 | --- | --- | | |
| 3 | --- | --- | | |
| 4 | --- | --- | | |
| 5 | --- | --- | | |
| 6 | --- | --- | | |
| 7 | --- | --- | | |

PROJECT NAME: MT. HERMON
PROJECT NUMBER: 11403533587
FILE NAME: J:\OMCO\Mars Energy Group\04. Hermon\CDS\Choice Master Construction Package Template JJ 02.11.26.dwg
DRAWING NAME: TYPICAL SECTIONS
DRAWING NUMBER: OS2.1

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PHOENIX, AZ 85043
www.omcosolar.com

EXHIBIT

NOTE: 8 MODULE WIDE TABLE SHOWN FOR FRAMING SCHEDULE PURPOSE.

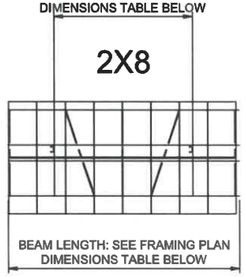



NOTE: P, CBL, & CBS SHALL BE ORIENTED w/ OPEN FACE TO WEST (TYP)

## FRAMING SCHEDULE

| E5,E6,P9 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MARK | MEMBERS | DIMENSIONS | | | | | Fy (ksi) | Fu (ksi) |
| | | "a" | "b" | "c" | "t" | "r" | | |
| P | POST | 7.63" | 4.5" | 1" | 0.145" | 0.27" | 57 | 70 |
| DBU | DIAGONAL BRACE UPPER | 2" | 2" | - | 0.092" | 0.13" | 57 | 70 |
| DBL | DIAGONAL BRACE LOWER | 2" | 2" | - | 0.092" | 0.13" | 57 | 70 |
| TB | TILT BRACKET | 4" | 3" | 1" | 0.055" | 0.06" | 80 | 90 |
| E/W RB | EAST/WEST RACK BEAM | 6" | 3" | - | 0.055" | 0.25" | 80 | 90 |
| CBS | CONNECTOR BRACKET SHORT | 4" | 2" | - | 0.092" | 0.13" | 50 | 60 |
| CBL | CONNECTOR BRACKET LONG | 4" | 2" | - | 0.092" | 0.13" | 50 | 60 |
| DB | DIAGONAL BRACE | 1" | - | - | 0.055" | 0.05" | 80 | 90 |
| LB | LATERAL BRACE | 1" | - | - | 0.055" | 0.05" | 80 | 90 |

P/P SPAN: SEE FRAMING PLAN DIMENSIONS TABLE BELOW



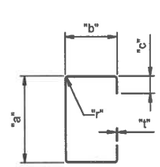

## FRAMING PLANS

(NTS)

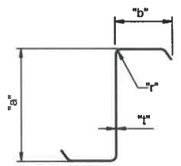
| TABLE | BEAM LENGTH | P/P SPAN |
|---|---|---|
| E5 | 230.99" | 124" |
| E6 | 276.03" | 148" |
| P9 | 411.15" | 220" |

## FRAMING PLAN DIMENSIONS

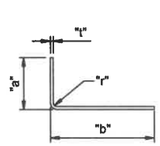
## MEMBER PROFILES



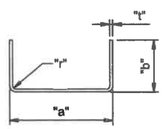

"P", "TB" PROFILE



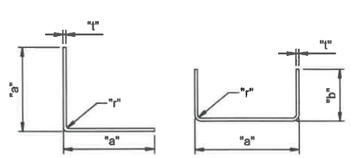

"E/W RB" PROFILE




"CBL", "CBS" PROFILE

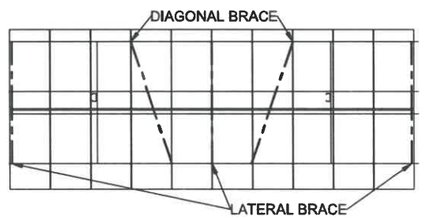



"CBL", "CBS", PROFILE

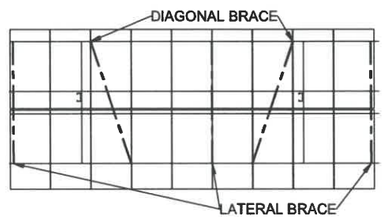



"DB", "DBU", "DBL", "LB", PROFILES

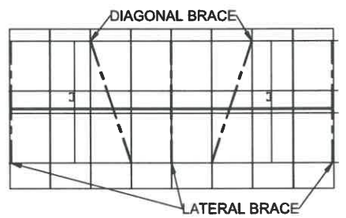
## 2X10



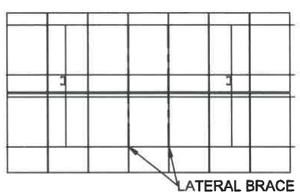

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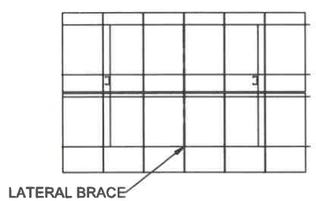

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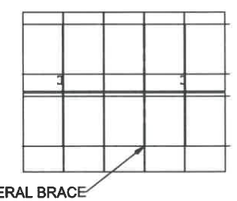

## 2X7




## 2X6




## 2X5




## BRACING PLANS

(NTS)

BRACE PLAN NOTES:

- AT LATERAL BRACES ATTACH TO ALL FOUR RACK BEAMS
- AT DIAGONAL BRACES ATTACH TO ONLY THE MOST NORTH AND MOST SOUTH RACK BEAMS
- ALL BRACING MUST BE INSTALLED AND AT FINAL TORQUE WITH STRUCTURE SQUARE PRIOR TO MODULE INSTALLATION
- NOT ALL BRACE PLANS WILL BE USED

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CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

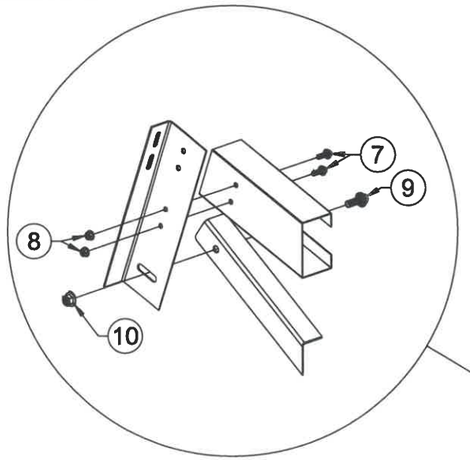
| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- |
| 4 | --- | --- | --- | --- |
| 5 | --- | --- | --- | --- |
| 6 | --- | --- | --- | --- |
| 7 | --- | --- | --- | --- |

PROJECT NAME: MT. HERMON
PROJECT NUMBER: 11403533587
FILE NAME: J:\CHOICE\Mark Energy Group\Mt. Hermon\CDT\Choice Master Construction Package Template JU 02.11.26.dwg
DRAWING NAME: FRAMING PLANS
DRAWING NUMBER: OS2.2

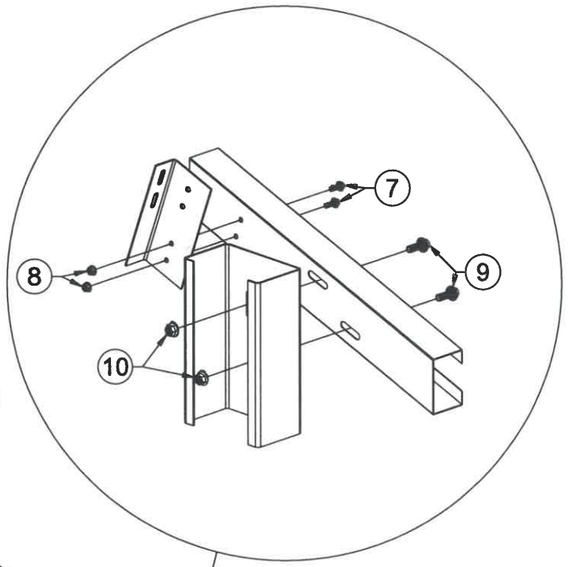
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EXHIBIT D

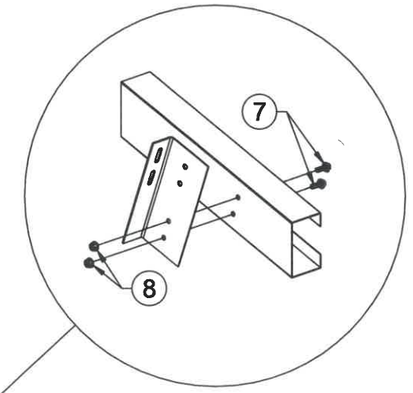
TILT BRACKET TO CONNECTOR LONG (2)
DIAGONAL UPPER TO CONNECTOR LONG
*SEE NOTE



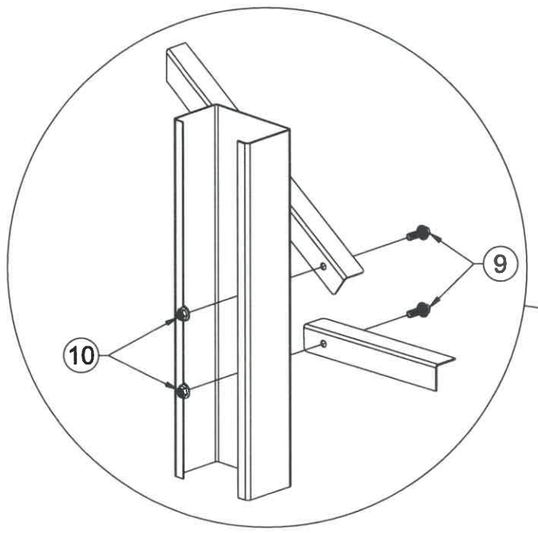

TILT BRACKET TO CONNECTOR SHORT (3)
TILT BRACKET TO POST
*SEE NOTE

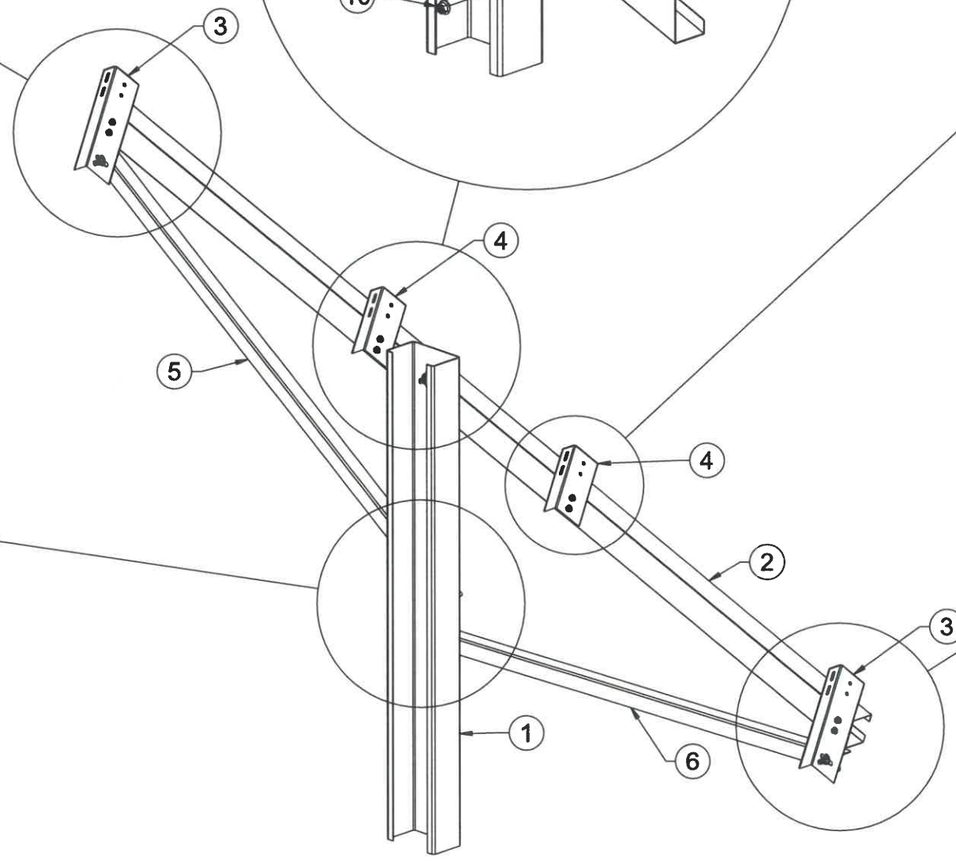



TILT BRACKET TO CONNECTOR SHORT (3)
*SEE NOTE

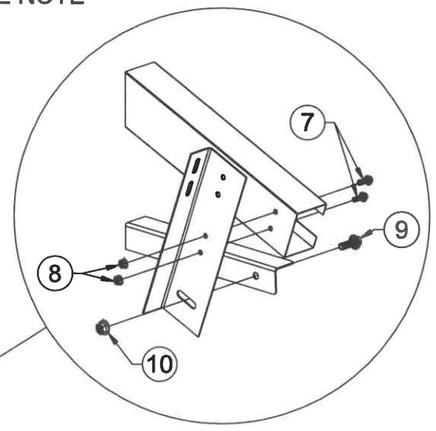



DIAGONAL BRACKET UPPER & LOWER TO POST (1)
*SEE NOTE




TILT BRACKET TO CONNECTOR LONG (4)
DIAGONAL LOWER TO CONNECTOR LONG
*SEE NOTE




*NOTE: AT - 3/8", 7/16" AND 1/2" USS "OVERSIZED" FLAT WASHER,
USE "OVERSIZED" THRU-HARDENED HIGH STRENGTH PER ASTM F436 (HRC 38 TO 45)

| | | HOLE DIA./SLOT SPEC (in/mm) | | |
|---|---|---|---|---|
| DETAIL | CONN DESC. | BOLT SIZE | HOLE DIA. / SLOT DIA. - OVERALL LENGTH | |
| 1 | DBU & DBL TO POST | M12-1.75x20mm | DBU & DLB 0.512"-0.512" | POST 0.531"-2.00" |
| 2 | TB TO CBL | M8-1.25x16mm | CBL 0.354/8.99 | TB 0.354"-1.00" |
| | DBU TO CBL | M12-1.75x20mm | DBU & DLB 0.512"-0.512" | CBL 0.531"-2.00" |
| 3 | TB TO POST | M12-1.75x20mm | TB 0.531"-2.00" | POST 0.531"-2.00" |
| | TB TO CBS | M8-1.25x16mm | TB 0.354"-1.00" | CBS 0.354/8.99 |
| 4 | TB TO CBL | M8-1.25x16mm | CBL 0.354/8.99 | TB 0.354"-1.00" |
| | DBL TO CBL | M12-1.75x20mm | DBU & DLB 0.512"-0.512" | CBL 0.531"-2.00" |

| TORQUE REQUIREMENTS - UNLESS OTHERWISE NOTED | |
|---|---|
| CONNECTION TYPE | TORQUE |
| M6 CONNECTIONS | 6.6 ft-lb (9 N-m) |
| M8 CONNECTIONS | 16 ft-lb (22 N-m) |
| M10 CONNECTIONS | 32 ft-lb (43 N-m) |
| M12 CONNECTIONS | 75 ft-lb (102 N-m) |

## TILT ASSEMBLY HARDWARE DETAILS
(NTS)

| TILT ASSEMBLY HARDWARE | | |
|---|---|---|
| ITEM NO. | DESCRIPTION | QTY. |
| 1 | POST | 1 |
| 2 | TILT, 2 HIGH M12 | 1 |
| 3 | CONNECTOR, LONG | 2 |
| 4 | CONNECTOR, SHORT | 2 |
| 5 | DIAGONAL, UPPER | 1 |
| 6 | DIAGONAL, LOWER | 1 |
| 7 | M8-1.25X16 HEX FLANGE BOLT | 8 |
| 8 | M8-1.25 HEX FLANGE LOCKNUT | 8 |
| 9 | M12-1.75X20 HEX FLANGE BOLT | 6 |
| 10 | M12-1.75 HEX FLANGE NUT | 6 |

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REGISTERED PROFESSIONAL ENGINEER
STEVEN JOHN MAHER
No. 87648
Exp. 6/13/26
CIVIL
STATE OF CALIFORNIA
3/5/26

CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | --- | --- | | |
| 2 | --- | --- | | |
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| 7 | --- | --- | | |

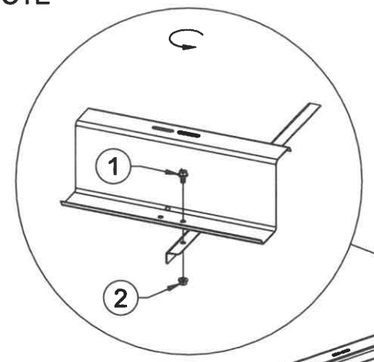
PROJECT NAME: MT. HERMON
PROJECT NUMBER: 11403533587
FILE NAME: J:\CHOICE\Mt's Energy Group\Mt. Hermon\CDTB\Choice Master Construction Package Template J2-02.11.26.dwg
DRAWING NAME: TILT ASSEMBLY DETAILS
DRAWING NUMBER: OS3.0

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PHOENIX, AZ 85043
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EXHIBIT D

# RACK BEAM AND BRACING ASSEMBLY DETAILS

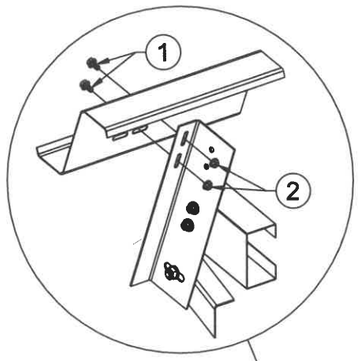
## RACK BEAM TO LATERAL/DIAGONAL BRACE (7) *SEE NOTE




NOTE:
-UPON INSTALL ONLY USE RIGHT OR LEFT HOLE FOR LATERAL AND DIAGONAL BRACE CONNECTION, NOT BOTH
-LATERAL AND DIAGONAL BRACE HARDWARE QUANTITY WILL CHANGE ACCORDING TO BRACE PLAN SHEET OS2.2

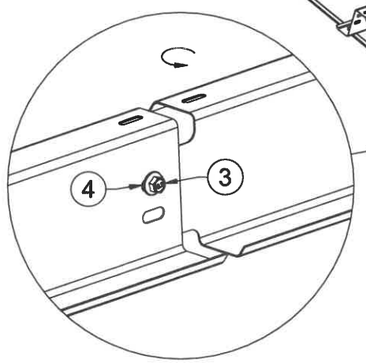
BRACE PLAN NOTES:
- AT LATERAL BRACES ATTACH TO ALL FOUR RACK BEAMS
- AT DIAGONAL BRACES ATTACH TO ONLY THE MOST NORTH AND MOST SOUTH RACK BEAMS
- ALL BRACING MUST BE INSTALLED AND AT FINAL TORQUE WITH STRUCTURE SQUARE PRIOR TO MODULE INSTALLATION

## RACK BEAM TO CONNECTOR LONG (5) *SEE NOTE



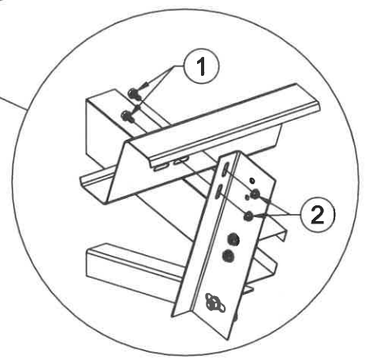







## ADJACENT E/W RACK BEAM DESIGN SPACING (8)

Note: Tables are structurally independent however tabs are provided to facilitate an electrical bond path using hardware shown above. A minimum of one beam to beam connection per table to table joint is required to complete the bond path although it is desirable to complete as many beam to beam connections as possible to improve structural rigidity. If beam to beam connections cannot be accomplished due to terrain undulations, install OMCO supplied bonding strap (see install manual). Use bonding strap only at table separation locations shown on layout sheets.




## RACK BEAM TO CONNECTOR LONG (5) *SEE NOTE




## RACK BEAM TO CONNECTOR SHORT (6) *SEE NOTE

*NOTE: AT - 3/8", 7/16" AND 1/2" USS "OVERSIZED" FLAT WASHER, USE "OVERSIZED" THRU-HARDENED HIGH STRENGTH PER ASTM F436 (HRC 38 TO 45)

| | | HOLE DIA./SLOT SPEC (in/mm) | | | TORQUE REQUIREMENTS - UNLESS OTHERWISE NOTED | |
|---|---|---|---|---|---|---|
| DETAIL | CONN DESC. | BOLT SIZE | HOLE DIA. / SLOT DIA. - OVERALL LENGTH | | CONNECTION TYPE | TORQUE |
| 5 | E/W RB TO CBL | M8-1.25x16mm | CBL 0.354/8.99 | E/W RB 0.354"-RADIUS SLOTS | M6 CONNECTIONS | 6.6 ft-lb (9 N-m) |
| 6 | E/W RB TO CBS | M8-1.25x16mm | CBS 0.354/8.99 | E/W RB 0.354"-RADIUS SLOTS | M8 CONNECTIONS | 16 ft-lb (22 N-m) |
| 7 | E/W RB TO LB/DB | M8-1.25x16mm | LB/DB 0.354/8.99 | E/W RB 0.354"-RADIUS SLOTS | M10 CONNECTIONS | 32 ft-lb (43 N-m) |
| 8 | E/W RB TO E/W RB | M12-1.25x25mm | E/W RB 0.354 | E/W RB 0.354"-RADIUS SLOTS | M12 CONNECTIONS | 75 ft-lb (102 N-m) |

| RACK BEAM HARDWARE | | | ADJACENT RACK BEAM HARDWARE (PER CONNECTION) | | |
|---|---|---|---|---|---|
| ITEM NO. | DESCRIPTION | QTY. | ITEM NO. | DESCRIPTION | QTY. |
| 1 | M8-1.25X16 HEX FLANGE BOLT | 16 | 3 | M12-1.75X20 HEX FLANGE BOLT | 1 |
| 2 | M8-1.25 HEX FLANGE LOCKNUT | 16 | 4 | M12-1.75 HEX FLANGE LOCKNUT | 1 |

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REGISTERED PROFESSIONAL ENGINEER — STEVEN JOHN MAJOR — No. 87846 — Exp. 6/30/26 — CIVIL — STATE OF CALIFORNIA — 3/5/26

CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | --- | --- | | |
| 2 | --- | --- | | |
| 3 | --- | --- | | |
| 4 | --- | --- | | |
| 5 | --- | --- | | |
| 6 | --- | --- | | |
| 7 | --- | --- | | |

PROJECT NAME: MT. HERMON

PROJECT NUMBER: 11403533587

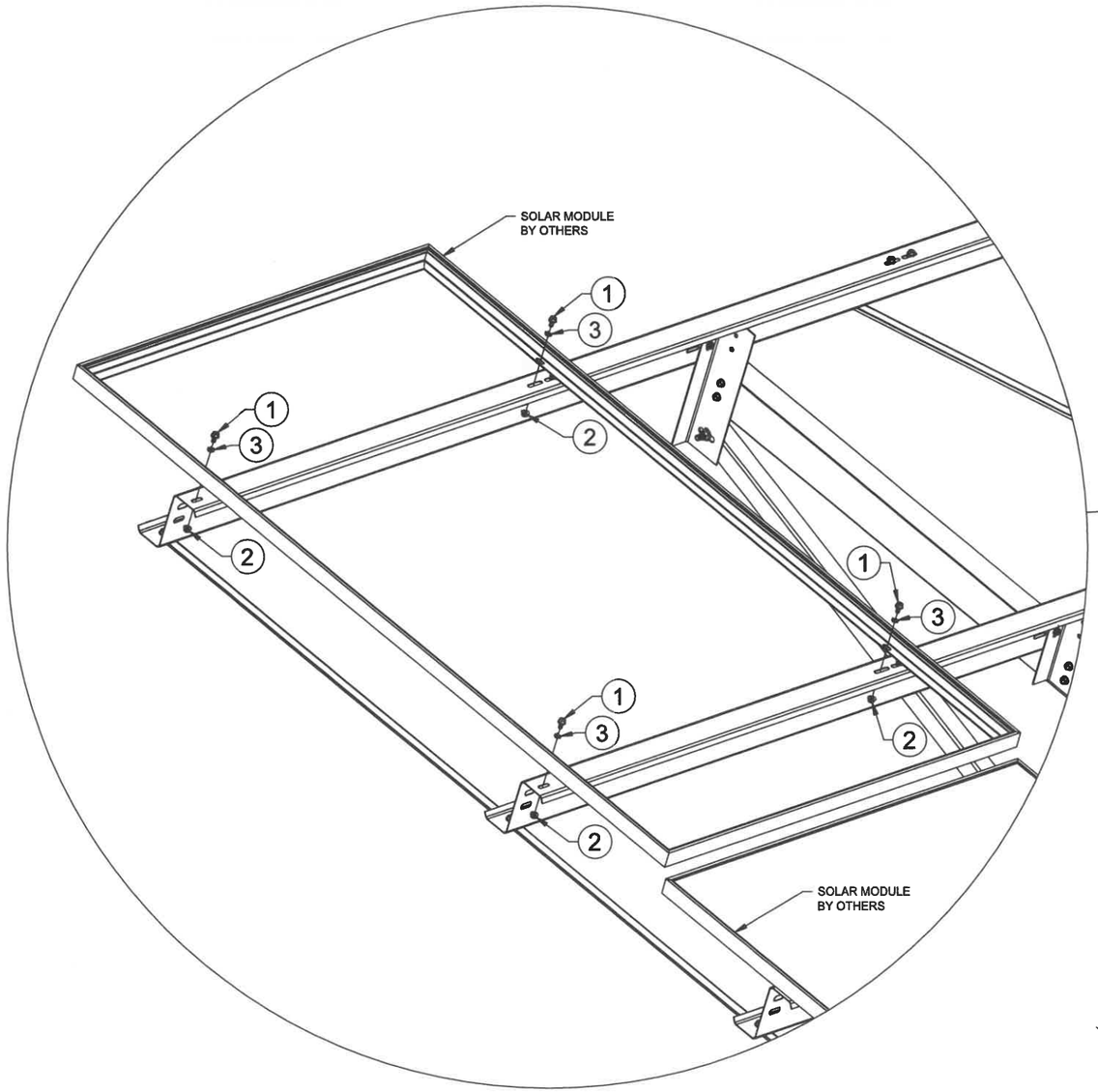
FILE NAME: JOB\HOICE\Work Energy Group\Mt. Hermon\CD\Choice Master Construction Package Template JJ 02.11.26.dwg

DRAWING NAME: RACK BEAM + BRACE ASSEMBLY DETAILS

DRAWING NUMBER: OS3.1

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4550 W. WATKINS ST.
PHOENIX, AZ 85043
www.omcosolar.com

EXHIBIT D

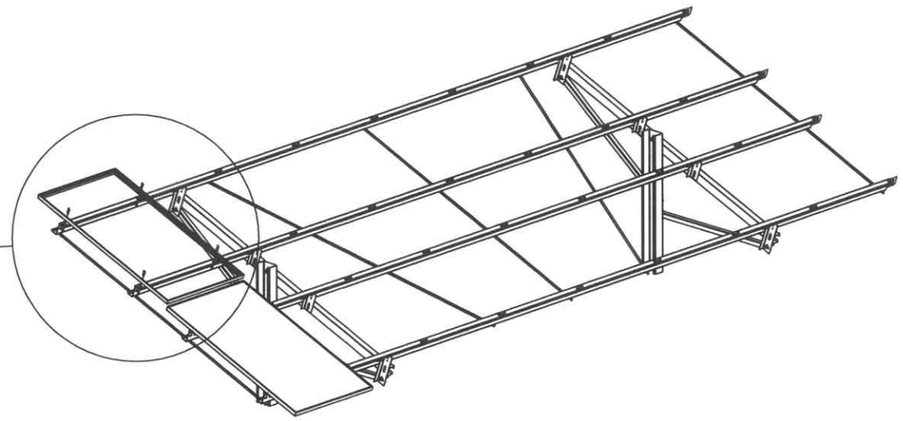


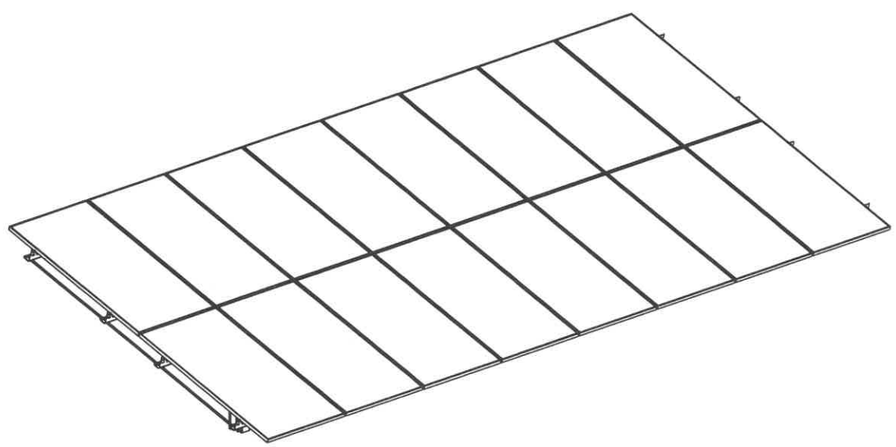

## RACK BEAM TO MODULE

9
-

NOTES:
-MODULE TO MODULE SPACING: 0.39"
-MODULES MUST NOT TOUCH ONE ANOTHER
-ONLY ONE (1) STAR WASHER REQUIRED

## MODULE ASSEMBLY DETAILS





NOTE: ALL MODULE MOUNTING HARDWARE SHOWN BELOW MUST BE STAINLESS STEEL

| MODULE MOUNTING HARDWARE (PER MODULE) | | |
|---|---|---|
| ITEM NO. | DESCRIPTION | QTY. |
| 1 | M8-1.25X16 HEX FLANGE BOLT | 4 |
| 2 | M8-1.25 HEX FLANGE LOCKNUT | 4 |
| 3 | M8 STAR WASHER | 1 |

EXHIBIT D

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STEVEN JOHN ANSEN
No. 87848
Exp. 6/2/26
Civil
STATE OF CALIFORNIA
3/5/24

CHOICE GROUND MOUNT
MT. HERMON
37.051228, -122.064568
FELTON CA 95018

| REV | DATE | DRAWN | CHECK | RELEASE DESCRIPTION |
|---|---|---|---|---|
| 0 | 03/04/26 | PT | | INITIAL RELEASE |
| 1 | — | — | | |
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| 3 | — | — | | |
| 4 | — | — | | |
| 5 | — | — | | |
| 6 | — | — | | |
| 7 | — | — | | |

PROJECT NAME:
MT. HERMON

PROJECT NUMBER:
11403533587

FILE NAME:
J:\CHOICE\Mars Energy Group\04. Hermon\4COS\Choice Master Construction Package Template JJ ED.11.25.dwg

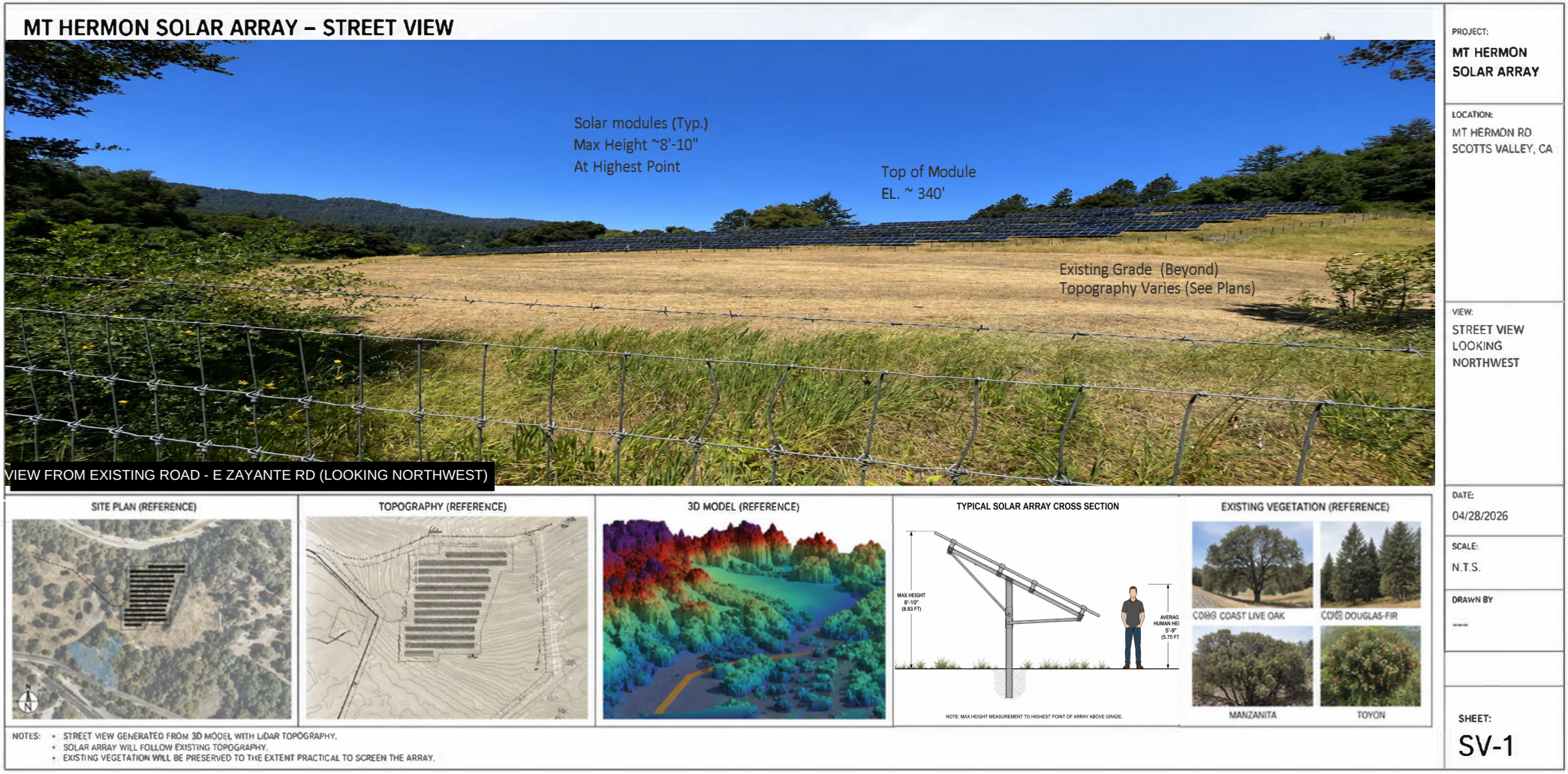
DRAWING NAME:
MODULE ASSEMBLY DETAILS

DRAWING NUMBER:
OS3.2

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4550 W. WATKINS ST.
PHOENIX, AZ 85043
www.omcosolar.com

# IMAGE OF PROPOSED DEVELOPMENT

## Application # 251463




**The image represents the applicant's proposal and may change.**

**For current project information and plans, contact the project applicant MARS Energy Group at (833) 663-9496**

EXHIBIT D

# FOR TAX PURPOSES ONLY

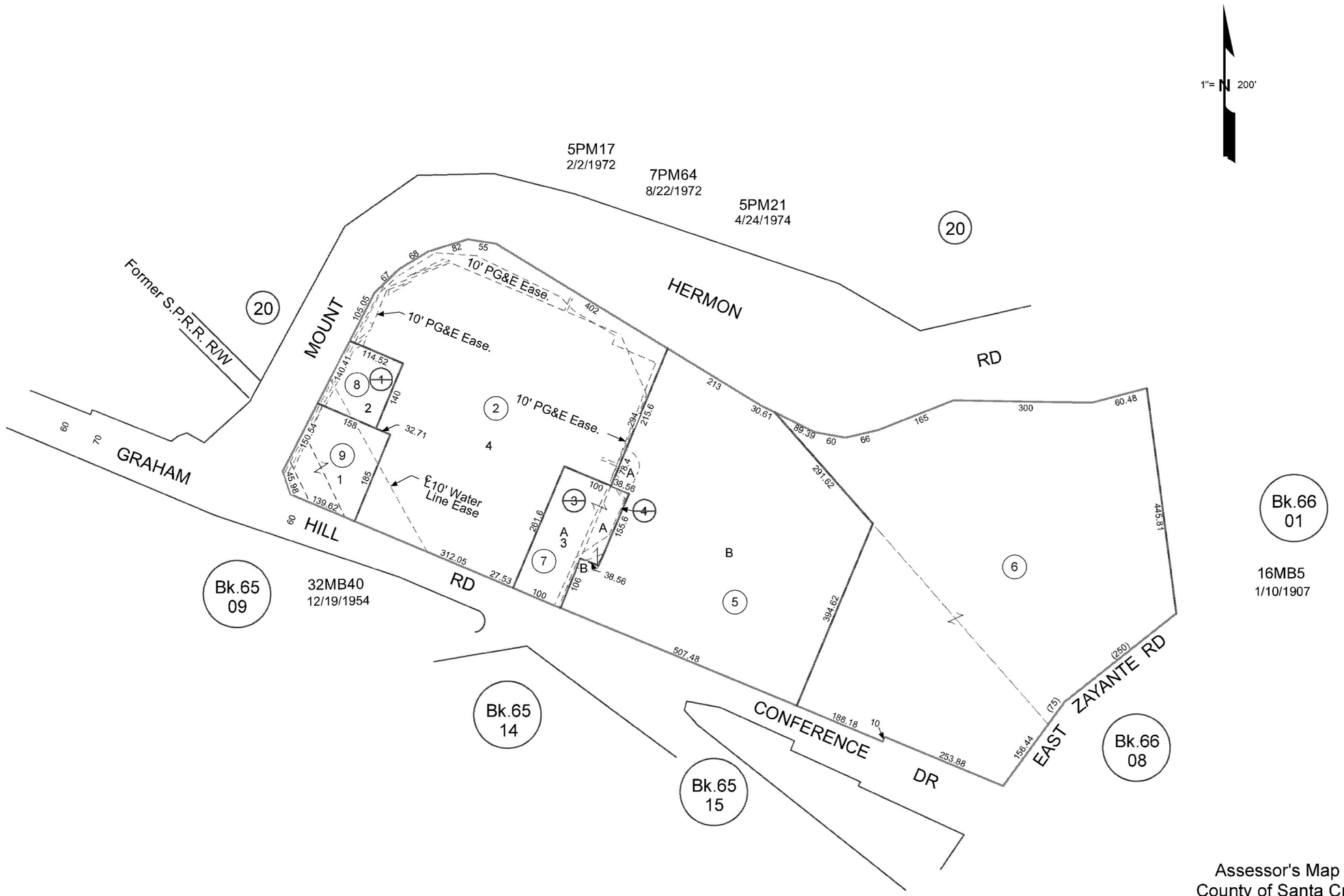
THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.
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## ZAYANTE RANCHO

POR. SEC. 22, T.10S., R.2W., M.D.B. & M.

Tax Area Code
90-117

71-33




Note - Assessor's Parcel & Block Numbers Shown in Circles.

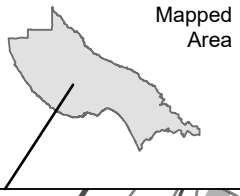
Assessor's Map No. 71-33
County of Santa Cruz, Calif.
July 2000

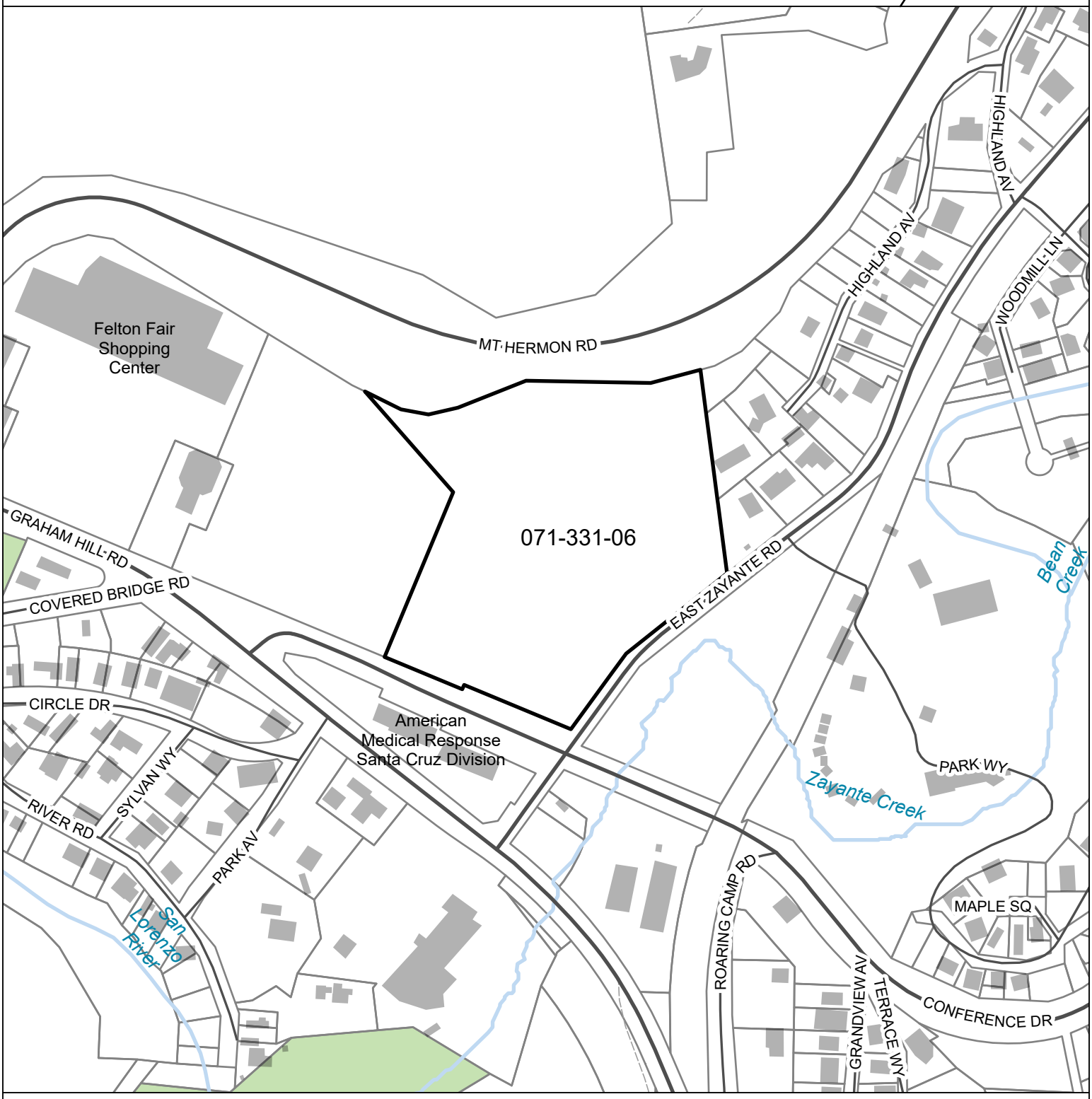
Electronically Redrawn 7/5/00)bs
Rev 5/29/03 CB (Cor st name)
Rev 4/16/08 CB (TCA)

**EXHIBIT E**

Santa Cruz County Planning Department

# Parcel Location Map




## Parcel: 07133106

☐ Subject Parcel

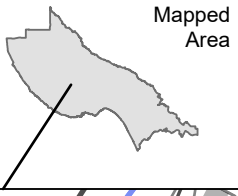
Map printed: 8 Jul. 2026

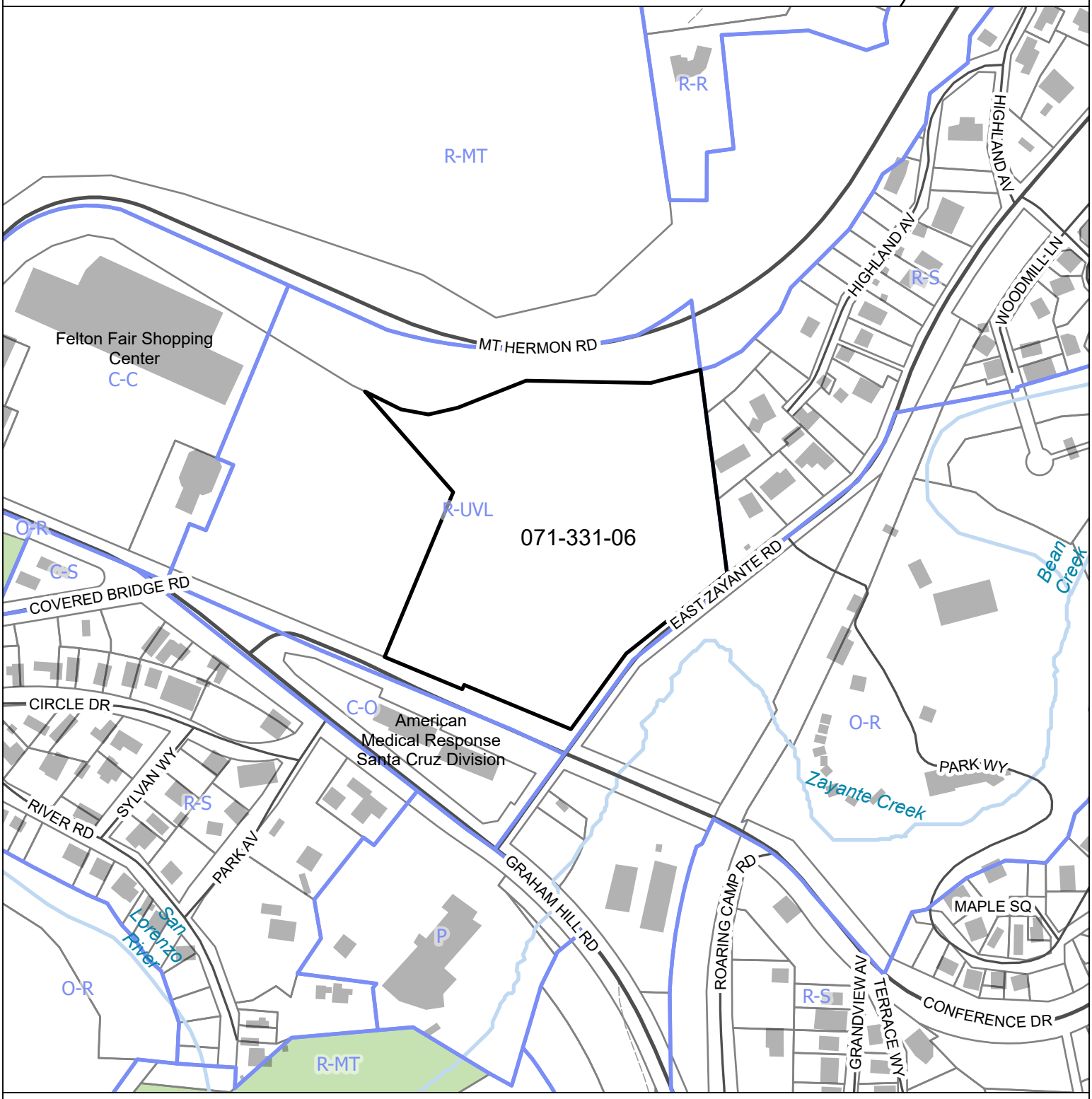
0 170 340
Feet

EXHIBIT E

Santa Cruz County Planning Department

# Parcel General Plan Map




Subject Parcel

0 170 340

Feet

**EXHIBIT E**

Santa Cruz County Planning Department

# Parcel Zoning Map




RA-GH
RA
HIGHLAND AV
HIGHLAND AV
R-1-15
WOODMILL LN
MT HERMON RD
Felton Fair Shopping
Center
C-2
C-2-GH
SU
071-331-06
PR
GRAHAM HILL RD
COVERED BRIDGE RD
SU-GH
EAST ZAYANTE RD
Bean
Creek
PR
CIRCLE DR
SU-GH
PA
American
Medical Response
Santa Cruz Division
PR-GH
PR-L
PARK WY
R-1-15-GH
SYLVAN WY
RIVER RD
Zayante Creek
PARK AV
ROARING CAMP RD
MAPLE SQ
San
Lorenzo
River
RA-GH
PF-GH
SU-GH
R-1-15
SU-GH
PR-GH
PR-GH
GRANDVIEW AV
TERRACE WY
CONFERENCE DR
PR
M-1-GH

Subject Parcel

0 170 340
Feet

EXHIBIT E

# Parcel Information

## Services Information

| | |
|---|---|
| Urban/Rural Services Line: | _X_ Inside __ Outside |
| Water Supply: | N/A |
| Sewage Disposal: | N/A |
| Fire District: | Felton Fire Protection District |
| Drainage District: | Zone 8 |

## Parcel Information

| | |
|---|---|
| Parcel Size: | 8.88 acres (38,6812.8 square feet) |
| Existing Land Use - Parcel: | vacant |
| Existing Land Use - Surrounding: | Commercial / Residential / Parks |
| Project Access: | Conference Drive |
| Planning Area: | San Lorenzo Valley |
| Land Use Designation: | R-UVL (Urban Very Low Density) |
| Zone District: | SU (Special Use) |
| Coastal Zone: | __ Inside _X_ Outside |
| Appealable to Calif. Coastal Comm. | __ Yes _X_ No |

**Technical Reviews**: Geotechnical Report (REV251176); Biotic Report REV261060

## Environmental Information

| | |
|---|---|
| Geologic Hazards: | Partially mapped/no physical evidence on site |
| Fire Hazard: | Not a mapped constraint |
| Slopes: | 0-15% // 15-30% |
| Env. Sen. Habitat: | Oak woodland |
| Grading: | Minimal grading proposed |
| Tree Removal: | 5 oak trees proposed to be removed |
| Scenic: | Not a mapped resource |
| Archeology: | Not mapped/no physical evidence on site |

# County of Santa Cruz

**Department of Community Development and Infrastructure**

**701 Ocean Street, Fourth Floor, Santa Cruz, CA 95060**
**Planning (831) 454-2580 Public Works (831) 454-2160**
**sccoplanning.com dpw.co.santa-cruz.ca.us**


25 November 2025

Mount Herman Association, Inc.
37 Conference Drive
Mount Herman, CA 95041

Subject: Review of the Geotechnical Investigation, Proposed Solar Array, Conference Drive, Felton, Santa Cruz County, CA/APN 071-331-06 dated 27 August 2024 by Dees and Associates, Inc.
Project No. SCR-1898

Project Site: NW Corner of Conference Drive (no situs address) & East Zayante Road
APN 071-331-06
Application No. REV251176 (related to 251463)

Dear Applicant,

The Planning Division has accepted the subject geotechnical investigation report for the proposed project. The following items shall be required:

1. All project design and construction shall comply with the recommendations of the subject geotechnical investigation report,

2. Final plans shall reference the report by title, author, and date. Final Plans should also include a statement that the project shall conform to the report's recommendations, and

3. After plans are prepared that are acceptable to all reviewing agencies, please submit a completed Soils (Geotechnical) Engineer Plan Review Form to Environmental Planning. The Consultants Plan Review Form (Form PLG-300) is available on the Planning Department's web page. The author of the soils reports shall sign and stamp the completed form. Please note that the plan review form must reference the final plan set by the last revision date.

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the Notice to Permits Holders (attached).

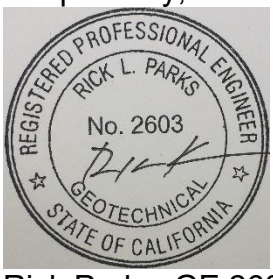
Electronic copies of all forms required to be completed by the soils engineer may be found on our website: Assistance and Forms (santacruzcountyca.gov)

**EXHIBIT G**

Our acceptance of the report is limited to its technical content. Other project issues such as zoning, fire safety, septic, or sewer approval, etc. may require resolution by other agencies.

If we may be of any further assistance, please contact the undersigned at: 831.454.3168 or rick.parks@santacruzcountyca.gov

Respectfully,




Rick Parks, GE 2603
Civil Engineer – Environmental Planning Section
County of Santa Cruz Planning Division

Cc: Environmental Planning: Kathleen McLaughlin
Rebecca Dees, GE
Primary Contact: Erik Lomuljo <elomuljo@marsenergygroup.com>

Attachments: Notice to Permit Holders

**NOTICE TO PERMIT HOLDERS WHEN A SOILS REPORT HAS BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT**

After issuance of the building permit, the County requires your soils engineer to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and/or grading**, a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.

2. **Prior to placing concrete for foundations**, a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.

3. **At the completion of construction,** a *Soils (Geotechnical) Engineer Final Inspection Form* from your soils engineer is required to be submitted to Environmental Planning that includes copies of all observations and the tests the soils engineer has made during construction and is stamped and signed, certifying that the project was constructed in conformance with the recommendations of the soils report.

   If the *Final Inspection Form* identifies any portions of the project that were not observed by the soils engineer, you may be required to perform destructive testing in order for your permit to obtain a final inspection. The soils engineer then must complete and initial an *Exceptions Addendum Form* that certifies that the features not observed will not pose a life safety risk to occupants.

# County of Santa Cruz

## Department of Community Development and Infrastructure

**701 Ocean Street, Fourth Floor, Santa Cruz, CA 95060**
**Planning (831) 454-2580 Public Works (831) 454-2160**
**cdi.santacruzcountyca.gov**


**April 28, 2026**

**Erik Lomuljo <elomuljo@marsenergygroup.com>**
**555 Menlo Drive**
**Rocklin, CA 95765**

Subject: Review of the **Biotic Report dated February 27, 2026 by Terracon.**

Project Site: **37 Conference Dr**
**APN 071-331-06**
**Application No. REV261060 (related to 251463)**

Dear Applicant(s):

The purpose of this letter is to inform you that the Planning Division has accepted the subject report, and the following items shall be required:

1. All project design and construction shall comply with the recommendations of the report found in section 7 and appendix C, including all avoidance and minimization measures for nesting birds, take-avoidance surveys for special-status species, biological awareness training, on-site biological monitor as advised, general wildlife protection measures, invasive species management of French Broom, and the required revegetation and maintenance/monitoring of restored areas. Please note that while the report suggested 2:1 or 3:1 mitigation ratio for the proposed removal of native trees, the County recommends the following mitigation ratio, due to size of trees proposed for removal and anticipated mortality:
   - Trees between 12- and 23.5-inches DBH shall be replaced at 5:1;
   - Trees 24 inches or greater DBH shall be replaced at 10:1

   Therefore, the proposed removal of 5 oak trees (45", 32", 31", 26" and 22" DBH) will result in a required replanting and maintenance/monitoring of 45 oak trees. Please submit a restoration plan that identifies the location of mitigation plantings with a maintenance and 5-year monitoring plan prepared by a qualified biologist.

2. Final plans shall reference the subject report by titles, authors, and dates. Final Plans should also include a statement that the project shall conform to the report's recommendations.

3. After plans are prepared that are acceptable to all reviewing agencies, please request that your project biologist submit a completed Consultant Plan Review Form (PLG-300) to Environmental Planning. The author of the biotic report shall sign and stamp their completed form. Please note that the plan review form must reference the final plan set by the last revision date.

Any updates to report recommendations necessary to address conflicts between the report and plans must be provided via a separate addendum to the subject reports.

After building permit issuance the biologist *must remain involved with the project* during construction. Please review the Notice to Permits Holders (attached).

Our acceptance of the report is limited to its technical content only. Compliance with other resource protection requirements set forth in Chapter 16 of the Santa Cruz County Code, as well as other planning related regulations governing zoning, fire safety, septic or sewer are subject to approval by other agencies.

Please contact Kathleen McLaughlin at (831) 454-2530/email: Kathleen.McLaughlin@santacruzcountyca.gov if I can be of any further assistance.

Sincerely,

Kathleen McLaughlin
Resource Planner
County of Santa Cruz
CDI - Planning Division

Cc:
Matt Quinn, County Biologist
Rebecca Rockom, Planner III
Denise Hardesty, Principal Planner

Attachments: Notice to Permit Holders

**NOTICE TO PERMIT HOLDERS WHEN BIOTIC REPORT HAS BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT**

After issuance of the building permit, the County requires your biologist to be involved during construction.

1. **At the completion of construction,** a *Biologist Final Inspection Form (PLG-305)* is required to be submitted to Environmental Planning that includes copies of all observations made during construction and is stamped and signed, certifying that the project was constructed in conformance with the recommendations of the biotic report.

6/4/26

**Mt. Hermon**

**Permit# BLDG_26915**

37 Conference Dr.

Mt Hermon, CA 95018

To whom it may concern,

Reasoning Statement for exceeding the 10% Lot Coverage threshold:

The proposed panel count is essential to achieving the energy production required to serve Mt. Hermon's existing campus electrical demand under the approved Net Energy Metering Aggregation (NEM-A) structure. The current layout is the result of extensive site planning and refinement undertaken in coordination with County staff and environmental consultants.

During project development, the solar array footprint was constrained by biological and environmental considerations identified through the project's environmental review process, including the avoidance of sensitive habitat areas, minimization of impacts to oak woodland resources, and other site-specific environmental constraints. As a result, the array was designed within the limited portions of the property suitable for development while still meeting the project's production objectives.

The requested variance is limited in scope. Based on the surveyor's updated parcel area calculation, the current solar array coverage is approximately 10.4% of the parcel area, only slightly above the 10.0% development standard. The project therefore exceeds the threshold by a relatively small margin while remaining substantially consistent with the intent of the zoning requirement.

Reducing the panel count to bring the project below the 10% threshold would decrease annual energy production by approximately 50,759 kWh per year and reduce system capacity from 831.6 kW DC to 796.4 kW DC. This would materially reduce the project's economic benefits, customer



**EXHIBIT I**

energy savings, and financing assumptions without providing a meaningful reduction in environmental or visual impacts, as the project has already been carefully designed to avoid sensitive resources and minimize impacts to surrounding properties.

The requested variance would allow the project to fulfill its intended purpose while remaining consistent with the County's goals, the environmental objectives that shaped the current design, and the overall intent of the zoning ordinance.

Sincerely,

Mars Energy Group, Inc.

Outlook

## Proposed solar farm in Mount Hermon meadow

**From** Wendy Lord <wendywlord@gmail.com>
**Date** Fri 1/9/2026 2:25 PM
**To** renee@reneesgarden.com <renee@reneesgarden.com>; Rebecca Rockom <Rebecca.Rockom@santacruzcountyca.gov>; alisanandrews75@gmail.com <alisanandrews75@gmail.com>; nancybmacy3@gmail.com <nancybmacy3@gmail.com>; Pat Engeldinger <patleidt@pacbell.net>; MeganArmor@yahoo.com <MeganArmor@yahoo.com>

****CAUTION:This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.****

We are very concerned about Mount Hermon Association's proposal for a solar farm in their meadow which borders East Zayante Road, Graham Hill Road, Felton Faire, Mt Hermon Road and several Mount Hermon residences. I think this is application 251463.

Visibility and noise concerns are what first comes to mind. However, after discussion and research fire hazard, erosion control, homeowners insurance and property values are other concerns. Homeowners insurance, as you well know, is a huge problem and concern, especially in the San Lorenzo Valley. Premiums could increase, coverage adjustments and loss of coverage is a huge worry. The fire hazard is another huge concern. Solar panel maintenance could also cause erosion problems as the new proposal places the farm on a hillside. Realtors will tell you about the decrease in property values.

Mount Hermon has apparently dealt with 3 companies to build this. We would like to know if another site could be an option. We were told by Mount Hermon that other companies said the meadow is the best site. We want to know if the present company, MARS, would consider another site. Are there other options for a site in the meadow - flatter, out of sight and noise range of residents towards Felton Fair - away from environmental concerns like the native oaks?

Thank you for your consideration and any help,
Wendy Lord

**EXHIBIT J**

Outlook

## MH solar farm proposal and public hearing

**From** Wendy Lord <wendywlord@gmail.com>
**Date** Thu 7/9/2026 9:07 AM
**To** Rebecca Rockom <Rebecca.Rockom@santacruzcountyca.gov>

****CAUTION:This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.****

The notice of the proposed project and the public hearing are seriously lacking in an attempt to communicate to the public.

The signs about the proposal and the "public hearing" are not visible to the public. They are not visible as the public drives down Conference Drive, Graham Hill Road or East Zayante. You have to, by chance, be hiking on the trail around the meadow - not a well known or well maintained trail. They are located behind a fence and at a distance from the fence that makes it impossible for a member of the public to read. You'd have to climb over the fence to fully read them. What's the point of placing them? Therefore, very few residents of Felton and Mount Hermon know about the proposal or the public hearing.

According to County guidelines, residents affected are to get notice of the public hearing within 14 - 21 days. I got my notice in the mail July 7th - only 10 days before the hearing.

Also, by searching on the County site, I read the protocol about speaking up at a public meeting. If you want to speak you need to fill out a card before the meeting starts. Since a member of the public needs to make such a request to be heard, that protocol should be mentioned on the notice of any public hearing. There's seven proposals on the agenda, so I hope adequate time before the meeting will be available for all those who wish to speak can fill out a card and that this procedure will be apparent to those that arrive since it's not on the postcards.

The postcard notes a maximum height of nine feet and a six foot tall perimeter fence. In our meetings at the Planning Department, we were told the maximum height is eight feet and the fence will be eight feet. Are we to trust the MHA that they meant what we discussed and not what's outlined in the post card? In my experience, our street doesn't have a trusting relationship with the MHA - 6 leaks in the aged water system in 3 years without taking responsibility for the damages incurred. No responsibility for 3 of their trees falling on a neighbor's fence or 2 of their trees falling on another neighbor's cars. Cutting down damaged trees and leaving them, a wildfire risk.

We are still concerned about the wildlife in the meadow, visibility, noise and heat generated and picked up by prevailing winds. We will reap no benefit from this solar farm and it will affect our property values. The meadow consists of two parcels. Why can't the solar farm be moved at least 40-50 feet west where it would be below the ridge and not in view and earshot of Mount Hermon homes?

**EXHIBIT J**

Valley Women's Club
PO Box 574
Ben Lomond CA 95005

July 10, 2026

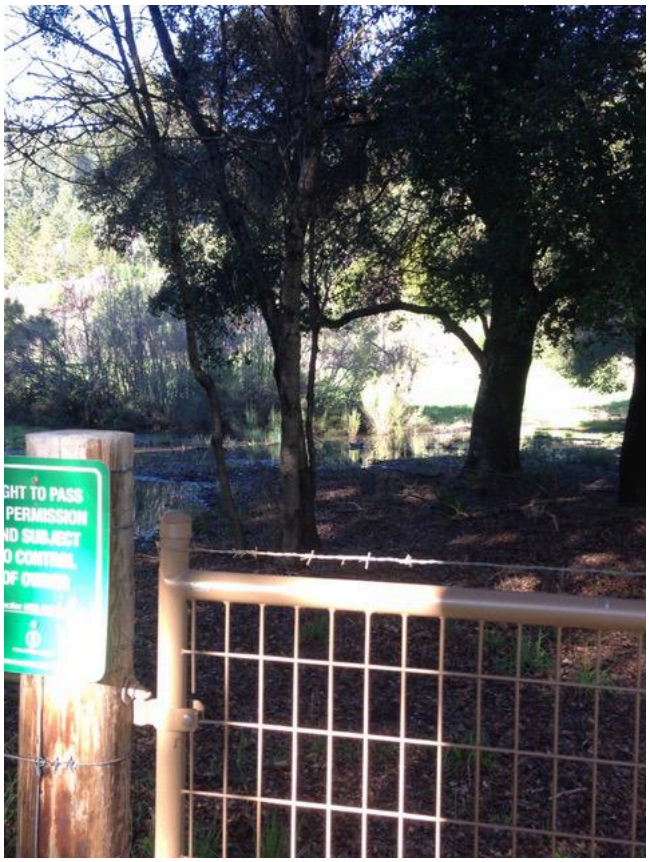
Rebecca Rockom, Planner III
County of Santa Cruz Community Development & Infrastructure
701 Ocean Street
Santa Cruz, CA 95060
Rebecca.Rockom@santacruzcountyca.gov

**RE: Mt Hermon/Felton Solar Array, SC County Application #251463, APN 071-331-06**

The Valley Women's Club Environmental Committee welcomes the opportunity to submit comments on the proposed Mt Hermon Camp & Conference Center Solar Array Project in Felton.

We appreciate that the Applicant has taken measures to adjust the siting of the solar array in response to concerns raised by neighbors along the scenic corridor and to limit its intrusiveness onto the scenic value of the area, as delineated in the Felton Town Plan and existing County guidelines. However, we do have concerns about the Project's impacts on seasonal wetlands documented in 2017 (see pictures below), but not mentioned in the Biotic Report, and other species and habitat impacts. In years of heavy rains, such as occurred in 2016-2017 and again in 2022-2023, the site shows ephemeral but persistent flooding





Photos by Nancy B. Macy 2017

**EXHIBIT J**

significant enough to provide an intermittent habitat for waterfowl and other birds. Although the Biotic Report does not list the site as a wetland, it does note that in 2013 ‘previously reported isolated wetlands were reclassified as rush-sedge meadow vegetation type.” We understand that the site has been reclassified, but ask that you take a further look at this site as a seasonal wetland, with respect to wintering waterfowl and other birds that may utilize it intermittently to make sure the Project construction, parameters and setbacks minimize impacts to this habitat.

Due to the slope of the site, erosion and subsequent sediment deposition during construction work is a concern, raising a further question of impacts on the wetland area and potential to substantially degrade the remaining vegetation and reduce its functionality as a habitat. We therefore request that care is taken during construction to ensure substantive erosion and sedimentation control.

Two special-status species, the California red-legged frog and the dusky-footed woodrat, were identified as having low potential presence or confirmed presence at the Project, with three dusky-footed woodrat nests noted as present in the Study Area of the Biotic Report, including one nest observed within the Project footprint. Appropriate avoidance and minimization measures to protect these species should be used both during and post construction.

The Biotic Report prepared by Terracon lists the site as containing oak woodland, “considered sensitive habitat under Santa Cruz County Code (SCCC) 16.32”, but notes that “a detailed inventory of oak trees on site was not conducted during the…survey conducted by Terracon in January 2026.” Establishing a baseline count of oaks would be an important data point in monitoring potential impacts to the site, particularly in ensuring that any replanting contributes positively to the site’s ecological value.

We appreciate that the plan includes specifications for planting replacements to the 5 oaks removed. The documents indicate that these trees are mature, given the DBH listed; given the replacement rate of 45 new plantings for the 5 oaks removed, as well as the 5 year maintenance plan, we request that care in monitoring be taken not just to ensure the health of the replacement trees but also to avoid any overgrowth into the remaining meadow area. Condition C of the Operational Conditions states that “Any oaks which do not survive will be replaced,” but, since the replacement rate is so high, thinning to avoid overcrowding should be part of the monitoring for health. Tree replacement should be balanced to retain as much as possible the functionality of the remaining meadow habitat.

Thank you for your consideration of our concerns.

Respectfully yours,

Nancy B. Macy and Kristen Sandel
Co-Chairs, Valley Women’s Club Environmental Committee
831-345-1555 (Nancy)  831-566-1188 (Kristen)

Santa Cruz Bird Club
P.O. Box 1304
Santa Cruz, CA 95061
santacruzbirdclub.org

SIERRA CLUB
FOUNDED 1892

SANTA CRUZ COUNTY GROUP
of the Ventana Chapter
P.O. Box 604, Santa Cruz, CA 95061
EMAIL: sierraclubsantacruz@gmail.com
WEB: www.sierraclub.org/ventana/santa-cruz

County of Santa Cruz Community Development & Infrastructure
Rebecca Rockom, Planner III
701 Ocean Street, Santa Cruz, CA 95060 July 10, 2026
Rebecca.Rockom@santacruzcountyca.gov

**RE: Felton Solar Array, SC County Application #251463, APN 071-331-06**
**Hearing Date: July 17, 2026 Agenda Item No.: 1**

The Sierra Club and the Santa Cruz Bird Club appreciate the opportunity to submit comments regarding the proposed Solar Array Project in Felton. We wish to be clear that we are not opposing the Project as a whole and that these comments are intended to request specific measures be taken to protect habitat at the site during and post construction.

The Sierra Club and the Santa Cruz Bird Club are concerned about impacts of this Project on seasonal wetlands that were documented in 2017 (see pictures below), but not mentioned in the Biotic Report prepared by Terracon. Wetlands are important habitat for all wildlife, and in particular birds.





**EXHIBIT J**

The Santa Cruz County General Plan states that a wetland is “(LCP) Transitional areas between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water periodically or permanently.” By that definition this is a seasonal wetland. The biotic report is deficient until it explicitly considers the above habitat in light of this definition. No development is allowed within 100 feet of the wetland without approval of a Riparian Exception by Santa Cruz County. The report also must consider the wintering waterfowl and other birds that may utilize it intermittently to make sure the Project construction, parameters and setbacks minimize impacts to this habitat.

The Sierra Club recognizes and appreciates that the Applicant (Mt Hermon Camp & Conference Center) has worked consistently with residents and the County during the development process to mitigate concerns. However, due to the slope of the site it appears that there is potential for erosion and subsequent sediment deposition to occur during construction work. This raises a further concern that even a very small amount of sediment deposition of half an inch in the wetland area has the potential to substantially degrade the remaining vegetation, impact invertebrate diversity and damage the wetland functional capacity. We therefore request that care is taken during construction to ensure substantive erosion and sedimentation control; in particular, we would recommend that no grading, road construction or ditch digging be performed on the site between October 1st and March 31st. We also suggest that a sediment barrier be used, running the length of the field along the boundary of the oak woodlands between the proposed chain link fence and the wetland, to ensure that no sediment moves between the construction site and the wetland area.

Two special-status species were identified as having low potential or confirmed presence at the Project (the California red-legged frog and the dusky-footed woodrat), with the dusky-footed woodrat having three nests noted as present in the Study Area of the Biotic Report, including one nest observed within the Project footprint. Appropriate avoidance and minimization measures to protect these species should be used.

The Biotic Report further states that the site contains oak woodland, “considered sensitive habitat under Santa Cruz County Code (SCCC) 16.32”, but notes that “a detailed inventory of oak trees on site was not conducted during the…survey conducted by Terracon in January 2026.” Establishing a baseline number of oaks would be a valuable further data point in assessing potential impacts to the site.

Thank you for your consideration of our concerns.


Michael A. Guth

Chair, Santa Cruz Group, Ventana Chapter
Sierra Club

Jane Orbuch

Conservation Officer
Santa Cruz Bird Club