



Coachella Civic Center, Hearing Room
53-462 Enterprise Way, Coachella, California
(760) 398-3502 ♦ www.coachella.org

AGENDA

OF A REGULAR MEETING
OF THE
CITY OF COACHELLA
PLANNING COMMISSION

February 16, 2022
6:00 PM

PURSUANT ASSEMBLY BILL 361, ALONG WITH THE GOVERNOR'S STATE OF EMERGENCY DECLARATION ISSUED ON MARCH 4, 2020, THIS MEETING MAY BE CONDUCTED VIA TELECONFERENCE.

If you would like to attend the meeting via zoom, here is the link:

<https://us02web.zoom.us/j/84544257915?pwd=VTdHWitpYVdOUk1NQW8vZ1pqUm0zQT09>

Or one tap mobile :

Us: +16699006833,, 84544257915#,,,,* 380084# US

Or telephone:

Us: +1 669 900 6833

Webinar ID: 845 4425 7915

Passcode: 380084

Spanish: El idioma español está disponible en Zoom seleccionado la opción en la parte de abajo de la pantalla

Public comments may be received via email, telephonically, or via zoom with a limit of 250 words, or three minutes:

In real time:

If participating in real time via zoom or phone, during the public comment period, use the “raise hand” function on your computer, or when using a phone, participants can raise their hand by pressing *9 on the keypad.

In writing:

Written comments may be submitted to the commission electronically via email to gperez@coachella.org. Transmittal prior to the start of the meeting is required. All written comments received will be forwarded to the commission and entered into the record.

IF YOU WISH, YOU MAY LEAVE A MESSAGE AT (760) 398-3102, EXTENSION 122, BEFORE 4:00 P.M. ON THE DAY OF THE MEETING.

CALL TO ORDER:

PLEDGE OF ALLEGIANCE:

ROLL CALL:

APPROVAL OF AGENDA:

“At this time the Commission may announce any items being pulled from the agenda or continued to another date or request the moving of an item on the agenda.”

APPROVAL OF THE MINUTES:

1. Draft Planning Commission Meeting Minutes - January 19, 2022

WRITTEN COMMUNICATIONS:

PUBLIC COMMENTS (NON-AGENDA ITEMS):

“The public may address the Commission on any item of interest to the public that is not on the agenda, but is within the subject matter jurisdiction thereof. Please limit your comments to three (3) minutes.”

REPORTS AND REQUESTS:

NON-HEARING ITEMS:

2. Woodspur Farms Photovoltaic Project - A request to consider an appeal of conditions of approval contained in the Architecture Review (AR) 21-10 (Admin) for a solar farm project located 52200 Industrial Way. Applicant, William Hsien
3. Interpretation of Coachella Municipal Code Section 17.72.010.F.1 (Architectural Review) approval authority for the architectural review of single-family residences. City-Initiated

PUBLIC HEARING CALENDAR (QUASI-JUDICIAL):

INFORMATIONAL:

Upcoming Ethics Training Webinar – Thursday, February 24 10:00 A.M.

ADJOURNMENT:

*Complete Agenda Packets are available for public inspection in the
Development Services Department at 53-990 Enterprise Way, Coachella, California, and on the
City's website www.coachella.org.*

THIS MEETING IS ACCESSIBLE TO PERSONS WITH DISABILITIES



Centro Cívico de Coachella, Sala de Audiencias
53-462 Enterprise Way, Coachella, California
(760) 398-3502 ♦ www.coachella.org

AGENDA

DE UNA REUNIÓN ORDINARIA
DE LA
COMISIÓN DE PLANIFICACIÓN
DE LA CIUDAD DE COACHELLA

16 de Febrero, 2022
6:00 PM

DE ACUERDO CON EL PROYECTO DE LEY 361 DE LA ASAMBLEA, JUNTO CON LA DECLARACIÓN DEL ESTADO DE EMERGENCIA DEL GOBERNADOR EMITIDA EL 4 DE MARZO DE 2020, ESTA REUNIÓN SE PODRÁ REALIZAR POR TELECONFERENCIA.

Si desea asistir a la reunión a través de zoom, aquí está el enlace:

<https://us02web.zoom.us/j/84544257915?pwd=VTdHWitpYVdOUk1NQW8vZ1pqUm0zQT09>

O one tap mobile:

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O teléfono:

Us: +1 669 900 6833

ID del webinar: 845 4425 7915

Código de acceso: 380084

Español: El idioma español está disponible en Zoom seleccionado la opción en la parte de abajo de la pantalla

Los comentarios públicos se pueden recibir por correo electrónico, por teléfono o por zoom con un límite de 250 palabras o tres minutos:

En vivo:

Si participa en vivo a través de zoom o teléfono, durante el período de comentarios públicos, use la función "levantar la mano" en su computadora, o cuando use un teléfono, los participantes pueden levantar la mano presionando *9 en el teclado.

Por escrito:

Los comentarios escritos pueden enviarse a la comisión electrónicamente por correo electrónico a gperez@coachella.org. Se requiere la transmisión antes del inicio de la reunión. Todos los comentarios escritos recibidos serán enviados a la comisión e ingresados en el registro.

SI LO DESEA, PUEDE DEJAR UN MENSAJE EN EL (760) 398-3102, EXTENSIÓN 122, ANTES DE LAS 4:00 P.M. DEL DÍA DE LA REUNIÓN.

LLAMADO AL ORDEN:

JURAMENTO A LA BANDERA:

PASE DE LISTA:

APROBACIÓN DE LA AGENDA:

“En este momento, la Comisión puede anunciar cualquier punto que está siendo retirado de la agenda o continuado a otra fecha o solicitar el traslado de un punto de la agenda”.

APROBACION DE LAS ACTAS:

1. Borrador de las Actas de la Comisión de Planificación - 19 de enero de 2022

COMUNICACIONES ESCRITAS:

COMENTARIOS DEL PÚBLICO (PUNTOS QUE NO ESTÁN EN LA AGENDA):

“El público puede dirigirse a la Comisión sobre cualquier tema de interés para el público que no esté en la agenda, pero que esté dentro de la jurisdicción de la materia de la misma. Por favor limite sus comentarios a tres (3) minutos”.

INFORMES Y SOLICITUDES:

PUNTOS QUE NO SON DE AUDIENCIA:

2. Proyecto fotovoltaico de Woodspur Farms: Una solicitud para considerar una apelación de las condiciones de aprobación contenidas en la Revisión de Arquitectura (AR) 21-10 (Admin) para un proyecto de granja solar ubicado en 52200 Industrial Way, Solicitante, William Hsien.
3. Interpretación de la autoridad de aprobación del Código Municipal de Coachella Sección 17.72.010.F.1 (Revisión arquitectónica) para la revisión arquitectónica de residencias unifamiliares.

CALENDARIO DE AUDIENCIAS PÚBLICAS (CUASI-JUDICIAL):

INFORMATIVO:

Próximo seminario web de capacitación en ética: Jueves 24 de febrero a las 10:00 a.m.

SE LEVANTA LA SESIÓN:

Los paquetes completos de la agenda están disponibles para inspección pública en el Departamento de Servicios de Desarrollo en 53-990 Enterprise Way, Coachella, California, y en el sitio web de la ciudad www.coachella.org.

ESTA REUNIÓN ES ACCESIBLE PARA PERSONAS CON DISCAPACIDAD



Coachella Civic Center, Hearing Room
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(760) 398-3502 ♦ www.coachella.org

MINUTES
OF A REGULAR MEETING
OF THE
CITY OF COACHELLA
PLANNING COMMISSION

January 19, 2022
6:00 PM

CALL TO ORDER: 6:01 P.M.

PLEDGE OF ALLEGIANCE:

ROLL CALL:

Commissioners Present: Commissioner Figueroa, Commissioner Gonzalez, Commissioner Leal, Vice Chair Navarrete, Chair Virgen (All Planning Commissioners participated via teleconference)

Staff Present: *Gabriel Perez, Development Services Director
*Nikki Gomez, Associate Planner
*Rosa Montoya, Planning Technician
*Celina Jimenez, Grants Manager
*Andrew Simmons, City Engineer
*Participated in meeting via teleconference

SPECIAL ORDER OF BUSINESS

Selection of Planning Commission Chair and Vice-Chair

Commissioner Figueroa nominated Vice Chair Navarrete as Chair. Leal made an alternate motion that Vice Chair Navarrete and Chair Virgen continue in their roles as Vice Chair and Chair. Chair Virgen asked if there was a second to the original nomination of Vice Chair Navarrete as Chair. There was no second to the motion and the motion failed due to a lack of a second to the motion. Commissioner Gonzalez seconded the alternate motion made by Commissioner Leal that Vice Chair Navarrete and Chair Virgen continue in their roles as Vice Chair and Chair. Separate Roll Call votes were taken for the consideration of Vice Chair Navarrete and Chair Virgen to continue their roles as Vice Chair and Chair

IT WAS MOVED BY COMMISSIONER LEAL AND SECOND BY COMMISSION GONZALEZ TO SELECT CHAIR VIRGEN TO CONTINUE AS PLANNING COMMISSION CHAIR.

Approved Chair Stephanie Virgen as Chair by the following roll call vote:
AYES: Vice Chair Navarrete, Chair Virgen, Commissioner Gonzalez, Commissioner Leal, Commissioner Figueroa.
NOES: None.
ABSTAIN: None.

ABSENT: None.

IT WAS MOVED BY COMMISSIONER LEAL AND SECOND BY COMMISSION GONZALEZ TO SELECT VICE CHAIR NAVARRETE TO CONTINUE AS PLANNING COMMISSION VICE CHAIR.

Approved Vice Chair Miguel Navarrete as Vice Chair by the following roll call vote:

AYES: Vice Chair Navarrete, Chair Virgen, Commissioner Gonzalez, Commissioner Leal, Commissioner Figueroa.

NOES: None.

ABSTAIN: None.

ABSENT: None.

APPROVAL OF AGENDA:

“At this time the Commission may announce any items being pulled from the agenda or continued to another date or request the moving of an item on the agenda.”

IT WAS MOVED BY VICE CHAIR NAVARRETE AND SECOND BY COMMISSION GONZALEZ TO APPROVE THE AGENDA.

Approved agenda on a roll call vote:

AYES: Vice Chair Navarrete, Chair Virgen, Commissioner Gonzalez, Commissioner Leal, Commissioner Figueroa.

NOES: None.

ABSTAIN: None.

ABSENT: None.

APPROVAL OF THE MINUTES:

1. Draft Planning Commission Minutes - January 5, 2022

IT WAS MOVED BY COMMISSIONER FIGUEROA AND SECOND BY VICE CHAIR NAVARRETE TO APPROVE THE MINUTES.

Approved minutes on a roll call vote:

AYES: Vice Chair Navarrete, Chair Virgen, Commissioner Gonzalez, Commissioner Leal, Commissioner Figueroa.

NOES: None.

ABSTAIN: None.

ABSENT: None.

WRITTEN COMMUNICATIONS:

None

PUBLIC COMMENTS (NON-AGENDA ITEMS):

“The public may address the Commission on any item of interest to the public that is not on the agenda, but is within the subject matter jurisdiction thereof. Please limit your comments to three (3) minutes.”

REPORTS AND REQUESTS:

None

NON-HEARING ITEMS:

2. Coachella Sunline Transportation Hub (Architectural Review No 21-13)

The Sunline Transit Hub will serve as a transit center for Sunline Transit Agency services (Line 111, Line 91, Line 92, Line 95) and will include a 540 sq. ft. breakroom/office building for the use of Sunline Transit Agency staff, five bus shelters, landscape improvements, and a corner focal point for a future public art installation located at the Southeast corner of Cesar Chavez Street and 4th Street.

Gabriel Perez, Development Services Director, narrated a PowerPoint Presentation for the item. A copy of the Presentation is on file in the Planning Division.

Harman Singh, Sunline representative, indicated that micro transit “sun ride” for first mile, last mile rides would be provided from the proposed transportation hub. He stated that Planning Commission restroom feedback would be discussed with Sunline staff. He clarified that there is no security at bus stops and that surveillance cameras would monitor activity at the site.

Jesse Frescas, Sunline representative, indicated that the plans for the Veteran’s park restroom require a release by the architect of record. He stated construction costs of \$200,000 for a pre-manufactured 500 sq. ft. building such as the one proposed. He further stated that constructions costs range to accommodate the aesthetic improvements would be \$250-350 sq. ft. for a 500 sq. ft. building and indicated the entire costs for the building would be a \$1 million building. Mr. Frescas stated that the construction budget is \$1.3 million and that there has been a 30% increase experienced in construction bids over the last 9 months. He indicated that the \$1.3 million budget for the transit hub would likely require \$1.6 million.

Brad Donais, P.E., project design engineer with Heptagon Seven, confirmed 4th Street and Cesar Chavez Street corner will be preserved for public art including electrical conduit and water service. He indicated surveillance cameras would be placed on light poles. He highlighted that there would be space for 4 buses concurrently, 2 buses off-site, and space adjacent to transit building for micro-routes or maintenance vehicles. He clarified that the \$1.8 million budget includes costs to purchase of the land. Mr. Donais stated some project features are understated due to the limited budget and they would do their best to work with staff to accommodate the Planning Commission requests.

During the ensuing discussion, the Commissioners, either individually or in agreement, provided the following commentary:

- Suggested searching for plans for Veteran’s Park for restroom building that would
- Inquired if services at transportation hub is available for other transportation options other than Sunline.
- Inquired if this would be a designated Uber and Lyft pick up area.

- Inquired if the modular building is proposed to save construction and maintenance costs.
- Expressed concerns about potential traffic congestion of buses that may affect Cesar Chavez Street.
- Recommended date palms be added to the corner of 4th Street and Cesar Chavez Street.
- Inquired if the proposed pedestrian path between 5th Street and transit hub would be lit.
- Recommended public restrooms for public convenience, even if costs were greater.
- Recommended security to assist in maintaining the public safety with the restroom.

Staff provided the following clarification to the Planning Commission:

- Various transportation options would be available from the transit hub such as van pooling services.
- Mario Lascano Street will be finished within the first 30 days of construction and is a 2-way street that has in-and-out access from 4th Street and an exit only at Cesar Chavez Street.
- Chelsea Investment Corporation constructed 20 parking stalls and the southern portion of Mario Lascano Street. The northern portion of the street is to be constructed by the City.
- Bollards and overhead lighting would be installed consistent with the Pueblo Viejo design theme between 5th Street and the transit hub.

IT WAS MOVED BY COMMISSIONER GONZALEZ AND SECONDED BY COMMISSIONER FIGUEROA TO:

- Bring back item and incorporate staff design recommendations, Planning Commission recommendations, including restrooms with incorporation of gender-neutral restrooms for cost savings.

Approved the motion to continue the item with modifications on a roll call vote:

- AYES: Vice Chair Navarrete, Chair Virgen, Commissioner Gonzalez, Commissioner Leal, Commissioner Figueroa.
- NOES: None.
- ABSTAIN: None.
- ABSENT: None.

PUBLIC HEARING CALENDAR (QUASI-JUDICIAL):

3. Coachella Valley Growers LLC Interim Outdoor Cannabis Cultivation

Conditional Use Permit 345 to allow interim outdoor cannabis cultivation on a 79.39 acre site located at 50501 Fillmore Street. (APN 763-070-012 & 763-070-010). Coachella Valley Growers, LLC.

Nikki Gomez, Associate Planner, narrated a PowerPoint Presentation for the item. A copy of the Presentation is on file in the Planning Division.

During the ensuing discussion, the Commissioners, either individually or in agreement, provided the following commentary:

- Inquired if Fillmore Street would be improved with this project due to the condition of Fillmore Street.
- Clarified that the applicant was subject to an approved special event permit for the outdoor cannabis cultivation operation previously and that the permit expired December of 2021.

Staff clarified that cost sharing agreement for street improvements and that the applicant would be responsible for removal and replacement of the Fillmore half-street along the project frontage for a 34 foot width.

Chair Virgen opened the public hearing at 7:25 P.M. and closed the public hearing at 7:26 P.M. There were no public comments

IT WAS MOVED BY COMMISSIONER GONZALEZ AND SECONDED BY VICE CHAIR NAVARRETE TO ADOPT RESOLUTION NO. PC2022-02, A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF COACHELLA, CALIFORNIA APPROVING CONDITIONAL USE PERMIT 345 TO ALLOW INTERIM OUTDOOR CANNABIS CULTIVATION ON 79.39 ACRES SITE LOCATED AT 50501 FILLMORE STREET, COACHELLA, CA 92236 (APN 763-070-012 & 760-070-010).

Approved the item with modifications on a roll call vote:

- AYES: Vice Chair Navarrete, Chair Virgen, Commissioner Gonzalez, Commissioner Leal
- NOES: None.
- ABSTAIN: Commissioner Figueroa
- ABSENT: None.

INFORMATIONAL:

ADJOURNMENT: 7:30 P.M.

Respectfully Submitted by,

Gabriel Perez
Planning Commission Secretary

*Complete Agenda Packets are available for public inspection in the
Development Services Department at 53-990 Enterprise Way, Coachella, California, and on the
City's website www.coachella.org.*

THIS MEETING IS ACCESSIBLE TO PERSONS WITH DISABILITIES



STAFF REPORT
2/16/2022

To: Planning Commission Chair and Commissioners

FROM: Nikki Gomez, Associate Planner

SUBJECT: Woodspur Farms Photovoltaic Project - A request to consider an appeal of conditions of approval contained in the Architecture Review (AR) 21-10 (Admin) for a solar farm project located 52200 Industrial Way. Applicant, William Hsien

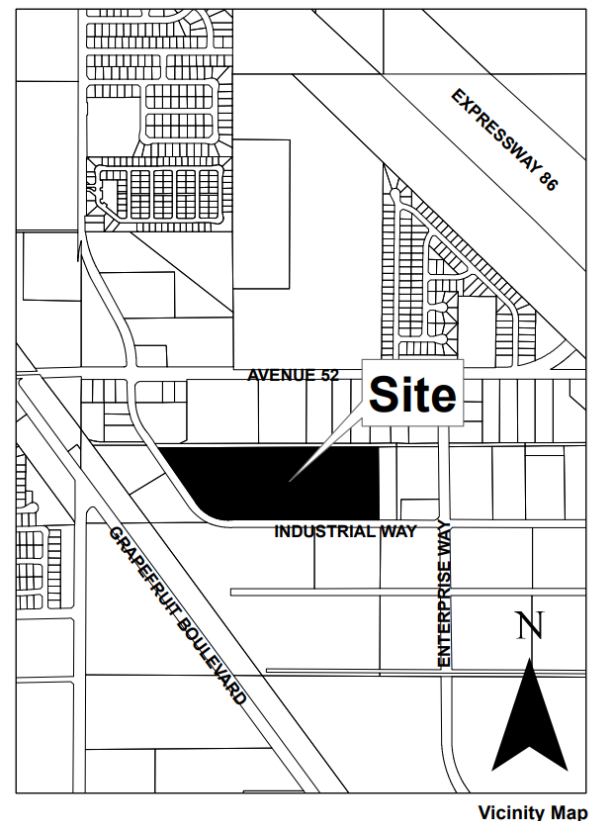
STAFF RECOMMENDATION:

Staff recommends that the Planning Commission review the information contained in the staff report regarding the applicant's appeal request and uphold the Director's decision for AR 21-10.

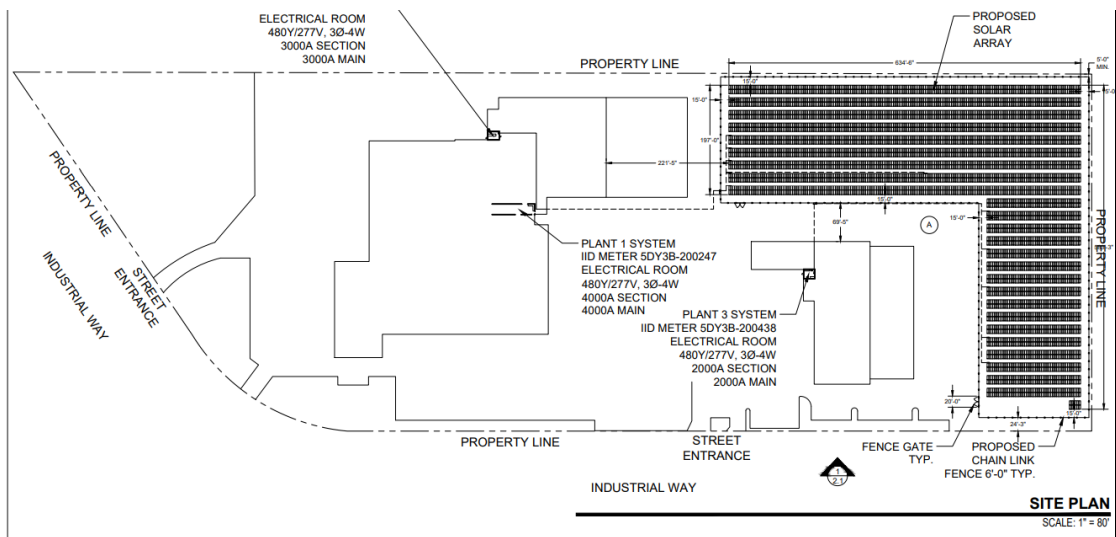
BACKGROUND:

On September 1, 2021, the applicant, William Hsien, submitted an Administrative Architecture Review (AR 21-10) application to the Planning Division for a ground mounted solar farm located at 52200 Industrial Way. The project for the installation of a total of 4.7-acre (4,996 panels) ground mounted solar farm at the northeast corner of an existing agricultural packaging and processing facility Woodspur Farms facility within the M-H (Heavy Industrial) zoning district. The proposed ground mounted solar farm is proposed at 4'-7" in height is entirely confined within the subject site with a setback of 38 feet from the Industrial Way street frontage. The ground mounted solar will interconnect to the three (3) IID electrical meters to offset onsite power usage.

Since providing the applicant the preliminary conditions of approval for the project, staff has been actively in communication with the applicant about the conditions of approval associated with the project. On January 10, 2022, a Decision Letter to the AR 21-10 (Admin) project was sent to the applicant.



Vicinity Map



REQUEST FOR APPEAL REGARDING CONDITIONS OF APPROVAL:

City staff and the applicant have been working diligently over the course of several months to come to an agreement with the project conditions of approval. Pursuant to Section 17.70.080 of the Coachella Municipal Code any person aggrieved by the Director’s decision may file an appeal to the Planning Commission within 15 days of the effective decision date. On January 21, 2022, the applicant responded to the Decision Letter and agreed to all conditions, except the following conditions related to on-site and off-site improvement. The conditions of approval the applicant is requesting to appeal are Engineering Street Improvement conditions, which requires the installation of sidewalk along the project frontage, replacement of any old driveways to conform with commercial standard and ADA, curb and gutter transition, and any other appurtenances as required to the satisfaction of the City Engineer. The applicant has requested an appeal of the conditions of approval to remove the Engineering Street Improvement conditions before the Planning Commission. The applicant expressed hardship associated with the construction costs related to the requested improvements in the conditions of approval.

The Engineering Street Improvement requirements within the Decision Letter are smaller in scope than is typically required by the City for a development project. The proposed solar farm project is a benefit to the applicant offsetting energy usage, it is also harnessing clean energy benefitting the community as whole, therefore, requirements such as lighting, curb/gutter and landscaping was not included as part of the conditions of approval as it would have in any other project.

Below are the conditions of approval as presented on the Decision Letter that are the subject of the applicant’s appeal:

Engineering Department:

- 8. Site access improvements shall be in conformance with the requirements of Title 24 of the California Administrative Code. This shall include access ramps for off-site and on-site streets as required.

Street Improvements:

19. Street improvement plans prepared by a California Registered Civil Engineer shall be submitted for review and approval by the City Engineer. All street improvements including street lights shall be designed and constructed in conformance with City Municipal Code, General Plan, and Standards and Specifications. Street flow line grade shall have a minimum slope of 0.35 %.

20. Applicant shall construct all off-site and on-site improvements including ~~street pavement, curb, gutter, sidewalk, street trees, perimeter walls, perimeter landscaping and irrigation, storm drain, street lights,~~ and any other incidental works necessary to complete the improvements. Driveways shall conform to City of Coachella standards for commercial driveways with a minimum width of 24.00 feet and curbed radius entrances.

21. Applicant shall construct and dedicate the following Street and street improvements to conform to the General Plan and/or requirements of Traffic Study.

A. Industrial Way- Public Roadway as shown on the RAC and per these comments shall include the following:

- i. Dedication of land along northbound lane within project limits is required. This street is classified as Industrial Collector with 80 feet of right-of-way as per City of Coachella General Plan.
- ii. Street measured at Center line to easterly curb shall have a width of 24-foot
- iii. Applicant shall install all sidewalk, curb and gutter transitions to uniformly connect to existing adjacent improvements and coordinate installation and/or relocation of fire hydrants, water meters, storm drain, wells, streetlights and all other appurtenances as required to the satisfaction of the City Engineer.
- ~~iv. Applicant shall construct all appurtenant roadway components within project limits such as, but not limited to: curb and gutter, sidewalk, ADA ramps, Traffic control striping, legends, Traffic control signs and street name signs to the satisfaction of the City Engineer.~~
- v. Applicant shall remain and protect in place existing curb and gutter that is on good shape condition and/or remove and replace curb and gutter that is not such as, but not limited to: crack, deteriorated or any kind of concrete fractures to the satisfaction of the City Engineer.
- vi. Applicant shall remove old driveways and construct new Driveways by new Standards instead to the satisfaction of the City Engineer.
- ~~vii. Applicant shall underground all existing dry utilities if existing at southbound lane within project limits such as, but not limited to: power poles, telecommunication poles and all other existing dry utilities to the satisfaction of the City Engineer.~~

ALTERNATIVES:

- 1) Adopt Resolution No. PC 2022-01 upholding Director's decision for AR 21-10 (Admin) with the findings and conditions as recommended by Staff.
- 2) Deny the Appeal for AR 21-10 (Admin)
- 3) Continue this item and provide staff and the applicant with direction.

CONCLUSION AND RECOMMENDED ALTERNATIVE:

Staff concludes that the conditions of approval within the Decision Letter is reasonable for this type of project. Staff recommends alternative #1.

Attachments: 1. PC Resolution No. 2022-01
2. AR 21-10 (Admin) Decision Letter
3. Vicinity Map

RESOLUTION NO. PC2022-02

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF COACHELLA, CALIFORNIA AFFIRMING THE DIRECTOR'S DECISION FOR ARCHITECTURE REVIEW 21-10 AND DENYING THE APPLICANT'S REQUEST TO REMOVE STREET IMPROVEMENT CONDITIONS OF APPROVAL FOR THE PROPOSED WOODSPUR FARMS PV (SOLAR FARM) PROJECT, WILLIAM HSIEN, APPLICANT.

WHEREAS, William Hsien, filed an application for Architecture Review 21-10 Administrative Review (AR 21-10 Admin) to allow the installation of a 4.7-acre solar farm (4,996 panels) within an existing agricultural packaging and processing facility, Woodspur Farms zoned M-H (Heavy Industrial) zoning district, located at 52200 Industrial Way; Assessor's Parcel No. 763-400-021 ("Project Site"); and,

WHEREAS, the Planning Division has determined the proposed project is exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to section 15268 (Ministerial Projects). The City has determined that supplementary accessory structures that are incidental to a primary use, such as the ground mounted solar farm to offset the facilities power usage is a "ministerial" project requiring no discretionary reviews and approvals. Therefore, this project is exempt from environmental review pursuant to the CEQA Guidelines; and,

WHEREAS, the Planning Commission is acting as a quasi-judicial capacity reviewing a matter that concerns the property rights of a particular individual and thus this item in a non-hearing item; and,

WHEREAS, the applicant filed an appeal to the Planning Commission of the Director's decision to uphold AR 21-10 (Admin) and the associated conditions of approval; and,

WHEREAS, at the Planning Commission meeting, February 16, 2022, the Applicant and applicant's representative were present and were afforded an opportunity to present the project with appeal to remove the street improvement conditions of approval AR 21-10 (Admin) of the Project.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission of the City of Coachella, California does hereby affirms the Director's decision to uphold the Architecture Review 21-10 (Admin), subject to the findings listed below.

Section 1. The above recitals are hereby incorporated by reference.

Section 2. The conditions of approval under the street improvement section contained in the Decision Letter are less than the standard requirement required for a typical project. Since the proposed solar farm project will provide additional energy source, potentially offset energy usage while harnessing clean energy benefitting the community as a whole, less that standard requirement has been imposed on the applicant. A typical street improvement condition would have included lighting, curb/gutter and landscape to the conditions of approval.

PASSED APPROVED and ADOPTED this 16th day of February 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Gabriel Perez
Planning Commission Secretary

APPROVED AS TO FORM:

Carlos Campos
City Attorney

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) ss
CITY OF COACHELLA)

I HEREBY CERTIFY that the foregoing Resolution No. PC-2022-02 was duly adopted at a regular meeting of the Planning Commission of the City of Coachella, California, held on the 16th day of February 2022, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Gabriel Perez
Planning Secretary



January 10, 2022

William Hsien
Revel Energy LLC
2323 Main Street
Irvine, Ca 92614

**Re: Architectural Review 21-10 (Administrative)
Proposed Solar Farm on the northeast portion of an existing development
(Woodspur Farms facility)
52200 Industrial Way, Coachella CA 92236**

Dear Mr. Hsien:

Development Services has completed an administrative review of the proposed ground mounted solar farm to occupy approximately 4.7 acres of the 25.40-acre subject site. The subject site is in the M-H (Heavy Industrial) zoning district and the location of the Woodspur Farms facility.

After reviewing your request along with the submitted plans, considering the agency comments, and considering the input provided by you on the final findings and conditions, your request for Architectural Review No. 21-10 (Administrative) has been granted by the Director. The attached Findings and Conditions have been made a part of this approval.

Pursuant to Section 17.70.080 of the Coachella Municipal Code any person aggrieved by the Director's decision may file an appeal to the Planning Commission within 15 days of the effective decision date.

Please call our office at (760) 398-3102 if you have any questions regarding this matter.

Sincerely,

Nikki Gomez
Associate Planner

Xc: File

ATTACHMENT A
FINDINGS FOR ARCHITECTURAL REVIEW 21-10 (Administrative)

1. The proposed ground mounted solar farm use is consistent with the goals, objectives, policies, and implementation measures of the Coachella General Plan. The project complies with the Industrial land use designation of the General Plan, which allows for industrial uses. The ground mounted solar farm is supplementary structure to the existing facility to offset their power usage. The subject site is generally surrounded with developed properties having an agricultural packing plant and distribution facilities, which are permitted uses in the M-H (Heavy Industrial) zone and is consistent with the General Plan policies.
2. The proposed use of ground mounted solar farm will be installed and maintained to be compatible with the existing or intended character of the general vicinity and shall not change the essential character of the same area. The proposed ground mounted solar farm occupying 4.6 acres at 4'-7" in height is entirely confined within the subject site with a setback of 38 feet from the Industrial Way street frontage. The site plan identifies new additional fencing (as conditioned) to completely shield the ground mounted solar structures ensuring that there is little to no visual deviation from the existing conditions and the adjoining sites in the vicinity.
3. The proposed solar farm will be compatible in keeping with the design and character of neighboring properties with respect to land development patterns and application or architectural treatments. The ground mounted solar farm will be installed abutting the northeast corner of the subject site behind and existing building thus, decreasing the visibility from the street. The plans submitted indicate an additional fencing behind the existing perimeter fence. The new fencing in combination with landscaping (as conditioned), will result in the proposed ground mounted solar farm to be minimally visible along Industrial Way.
4. Where the proposed use may be potentially hazardous or disturbing to existing or reasonable expected neighboring uses, it must be justified by the common public interest as a benefit to the community as a whole. The Development Services Department does not anticipate any potentially hazardous or disturbing impacts on existing or neighboring uses. Woodspur farms facility processes, packages and distributes organic dates, the ground mounted solar farm will utilize an existing vacant portion of the subject site offsetting power usage while harnessing clean, renewable energy that may reduce the facilities carbon emission benefiting the community as a whole.
5. The proposed project is exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to section 15268 (Ministerial Projects). The City has determined that supplementary accessory structures that are incidental to a primary use, such as the ground mounted solar farm to offset the facilities power usage is a "ministerial" project requiring no discretionary reviews and approvals. Therefore, this project is exempt from environmental review pursuant to the CEQA Guidelines.

**ATTACHMENT B
CONDITIONS OF APPROVAL FOR
ARCHITECTURAL REVIEW 21-10 (Administrative)**

1. This administrative architectural review is granted to allow a 4.7-acre ground mounted solar farm within the subject site with an existing agricultural packaging and processing facility (Woodspur Farms) located in the M-H (Heavy Industrial) zone, at near the northwest corner of Enterprise Way and Industrial Way. The applicant shall submit construction drawings for civil improvements, solar farm structures, fencing and landscaping through the City's Building Division and Engineering Department for plan check and approval.
2. The applicant shall pay all permit fess necessary to secure permits, subject to review and approval by the Building Official, The owner shall secure approval from the Riverside County Fire Marshal's Office for the proposed site plan, fencing, and landscaping and related site improvements.
3. Prior to the issuance of a building permit, the applicant shall submit a fencing plan showing a "living fence" consisting of chain link least six feet in height and a row of shade trees planted at every 15 feet on center, along the front portion of the property in order to screen the ground mounted solar farm structures use from view to the street. The "living fence" shall be installed on the sides fronting Industrial Way to decrease the visibility from the street. The remaining fence to north and east of the ground mounted solar farm may be chain link or wrought iron.
4. The applicant shall pay all applicable school facilities fees to the Coachella Unified School District prior to obtaining building permits.

ENGINEERING DEPARTMENT:

General:

5. Prepare and record necessary drainage easements to implement the project in accordance with drainage law. **Note: a Water Quality Management Plan (WQMP) may be required depending on the existing and future drainage paths and storm water retention capacity.**
6. The developer shall submit a Fugitive Dust Control and Erosion Control plan in accordance with Guidelines set forth by CMC and SCAQMD to maintain wind and drainage erosion and dust control for all areas disturbed by grading. Exact method(s) of such control shall be subject to review and approval by the City Engineer. No sediment is to leave the site. Additional securities, in bond form, in amount of \$2,000.00 per acre of gross area, and a one-time cash deposit of \$2,000.00 are required to insure compliance with this requirement. No work may be started on or off site unless the PM-10 plan has been approved, the original plans, and executed dust control agreement, are filed in the engineering department at the City of Coachella.

7. Applicant shall submit for review and approval by the City Engineer all documents related to any existing and proposed on-site and off-site easements that may affect the development of the site. All easements shall be identified on the engineering plans.
8. Site access improvements shall be in conformance with the requirements of Title 24 of the California Administrative Code. This shall include access ramps for off-site and on-site streets as required.
9. Applicant shall obtain approval of site access and circulation from Fire Marshall.
10. The applicant shall provide necessary utility easements for IID and underground overhead distribution lines within the project boundaries. Applicant shall submit to the City a letter from IID that satisfies this requirement.
11. The applicant shall pay all necessary plan check, permit and inspection fees. Fees will be determined when plans are submitted to the City Engineering Department for plan check.

Rough Grading:

12. Prepare and submit rough grading and erosion control plans for the project.
13. The project's soils engineer shall certify to the adequacy of the grading plan.
14. All projects developing one (1) acre or more of total land area, or which are part of a larger phased development that will disturb one acre of land, are required to obtain coverage under the State Water Resources Control Board's (SWRCB) General Permit for storm water discharges associated with construction activity. Proof of filing a Notice of Intent (NOI) with the SWRCB for coverage under this permit is required. The Waste Discharger's Identification Number (WDID), issued by the SWRCB, must be shown on the grading plans. The project's Storm Water Pollution Prevention Plan shall be submitted for the City's review and approval.
Note: because the disturbed area is greater than one acre but less than 5 acres, the project should qualify for Rainfall Erosivity Waiver Based on the State Water Control Board Guidelines.

Precise Grading:

15. A precise grading/improvement plan, prepared by a California Registered Civil Engineer, showing building footprints, ~~pad elevations~~, finished grades, drainage routes, ~~retaining walls~~, erosion control, slope easements, and all other pertinent information shall be submitted for review and approval by the City Engineer.
16. Rough grading shall be certified by the project soils engineer prior to issuance of a permit for precise grading or building construction.
17. ~~Provide and record a reciprocal use and maintenance agreement to assure common ingress and egress and joint maintenance of all common access, parking areas and drives.~~

18. If applicant is planning to build a wall, separate permits shall be required for wall construction. The maximum height of any wall shall be limited to six (6) feet as measured from an average of the ground elevations on either side.

Street Improvements:

19. Street improvement plans prepared by a California Registered Civil Engineer shall be submitted for review and approval by the City Engineer. All street improvements including street lights shall be designed and constructed in conformance with City Municipal Code, General Plan, and Standards and Specifications. Street flow line grade shall have a minimum slope of 0.35 %.
20. Applicant shall construct all off-site and on-site improvements including ~~street pavement, curb, gutter, sidewalk, street trees, perimeter walls, perimeter landscaping and irrigation, storm drain, street lights,~~ and any other incidental works necessary to complete the improvements. Driveways shall conform to City of Coachella standards for commercial driveways with a minimum width of 24.00 feet and curbed radius entrances.
21. Applicant shall construct and dedicate the following streets and street improvements to conform to the General Plan and/or requirements of Traffic Study.
- A. Industrial Way- Public Roadway as shown on the RAC and per these comments shall include the following:
- i. Dedication of land along northbound lane within project limits is required. This street is classified as Industrial Collector with 80 feet of right-of-way as per City of Coachella General Plan.
 - ii. Street measured at Center line to easterly curb shall have a width of 24-foot
 - iii. Applicant shall install all sidewalk, curb and gutter transitions to uniformly connect to existing adjacent improvements and coordinate installation and/or relocation of fire hydrants, water meters, storm drain, wells, streetlights and all other appurtenances as required to the satisfaction of the City Engineer.
 - iv. ~~Applicant shall construct all appurtenant roadway components within project limits such as, but not limited to: curb and gutter, sidewalk, ADA ramps, Traffic control striping, legends, Traffic control signs and street name signs to the satisfaction of the City Engineer.~~
 - v. Applicant shall remain and protect in place existing curb and gutter that is on good shape condition and/or remove and replace curb and gutter that is not such as, but not limited to: crack, deteriorated or any kind of concrete fractures to the satisfaction of the City Engineer.
 - vi. Applicant shall remove old driveways and construct new Driveways by new Standards instead to the satisfaction of the City Engineer.

- vii. ~~Applicant shall underground all existing dry utilities if existing at southbound lane within project limits such as, but not limited to: power poles, telecommunication poles and all other existing dry utilities to the satisfaction of the City Engineer.~~

Sewer and Water Improvements:

22. ~~A Sewer & Water Improvement Plans prepared by a California Registered Civil Engineer shall be submitted for engineering plan check and City Engineer approval.~~
23. ~~Applicant shall construct all off-site and on-site water improvements and any other incidental works necessary to complete the improvements. Size and location of sewer and water improvements shall be approved by the City Engineer.~~

Prior to Issuance of Building Permits:

24. A final soils report, compaction report and rough grading certificate shall be submitted and approved prior to issuance of any building permits.
25. ~~Provide a set of proposed Covenants, Conditions and Restrictions (CC&R) for review and approval. The proposed CC&Rs shall contain the Association's/Owner's maintenance obligations with respect to various facilities including, but not limited to, right of way and private landscaping, private streets, sidewalks, utilities, street lights, and Water Quality Management Plan (WQMP) features. This document must be submitted to and approved by the City before it is submitted to any other governmental entity.~~

BUILDING AND SAFETY DIVISION:

26. The Applicant shall provide 10 feet clear area around the entire array required under CRC 1204.4
27. Fire Authority may require vehicular access.
28. The Applicant shall provide plans with dimensioning clearances in the electrical room.



CAL FIRE – RIVERSIDE UNIT RIVERSIDE COUNTY FIRE DEPARTMENT

Item 2.

BILL WEISER - FIRE CHIEF

77-933 Las Montañas Rd., Ste. #201, Palm Desert, CA 92211-4131 • Phone (760) 863-8886
• Fax (760) 863-7072
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- JEFF HEWITT
DISTRICT 5

Planning Case Conditions

Date: 10/18/21

City Case Number: AR 21-10

Project Name: Woodspur Farms PV Project

Reviewed By: Chris Cox, Assistant Fire Marshal

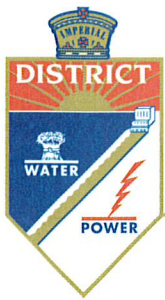
Fire Department Permit Number: FPARC2100107

East Office of the Fire Marshal Responsibility

The Office of the Fire Marshal reviewed the application and plan for this case. We are requesting the applicant to address the following comments and resubmit the plan:

1. The scope of work on the plan states roof mounted photovoltaic modules but the City of Coachella’s project summary describes a proposed ground mounted solar farm. Correct the plan and clarify the project description.
2. Show the fire apparatus access road on the site plan. The fire access road shall extend to within 300 feet of all portions of the facility - as measured from the access road to all portions of the facility on an approved walkway through and between the length of solar arrays. The access road shall be a minimum width of 20 feet, have a minimum outside turning radius of 38 feet, and be capable of supporting the load of fire apparatus (50,000 lbs.) under all weather conditions. Access gate openings for vehicles shall be a minimum of 14 feet wide and 4 feet wide for pedestrian access.
3. Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus. Turning areas shall be designed in accordance with Riverside County Fire Department standards.

If you have any questions, or if some items are unclear, please phone our office at 760-863-8886 and speak with Assistant Fire Marshal Chris Cox.



IID

A century of service.

October 20, 2021

Mr. Gabriel Perez
Assistant Community Development Director
Development Services Department
City of Coachella
1515 6th Street
Coachella, CA 92236

SUBJECT: Woodspur Farms PV Project in Coachella, CA; AR No. 21-10 (Admin)

Dear Mr. Perez:

On October 6, 2021 the Imperial Irrigation District received from the City of Coachella Development Services Department, a request for agency comments on the Woodspur Farms PV project in Coachella, CA; Architectural Review no. 21-10 (Administrative). The applicant proposes to develop a ground-mounted solar photo-voltaic energy generation project at 52200 Industrial Way, Coachella CA (APN 763-400-021), on the northeast corner of the lot where Woodspur Farms facility is currently located and plans to interconnect the PV generation to the 3 existing IID electrical meters at the date farm facility.

The IID has reviewed the project information and has the following comments:

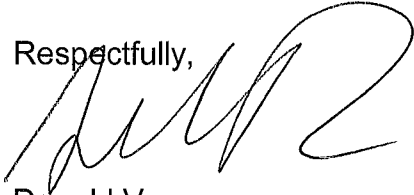
1. IID will not begin any studies, engineering or estimate costs to interconnect the project to the district's electrical system until the applicant submits an application for interconnection of distributed generation facilities (available for download at <https://www.iid.com/home/showpublisheddocument/2563/635648001335730000>) and a customer project application (available for download at the district website <http://www.iid.com/home/showdocument?id=12923>), along with detailed loading information, panel sizes, project schedule and estimated in-service date. Applicant shall bear all costs associated with interconnecting the project con IID's electrical grid, including but not limited to the construction of additional electrical facilities, distribution line extensions, underground conduit systems and the re-configuration of distribution lines and other upgrades as well as applicable permits, zoning changes, landscaping (if required by the City) and rights-of-way and easements.
2. Once the applications and loading information are received, IID will perform an assessment to determine the project's potential impacts to the district's electrical system and the mitigation measures required.

3. Underground infrastructure that includes trenching, conduits, pull boxes, switch boxes, transformers, commercial meter panels, residential meter concentrations and pads should be installed following IID approved plans. Physical field installation of underground infrastructure should be verified and approved by an IID inspector prior to cable installation as per IID Developer's Guide (available at the district website <https://www.iid.com/home/showdocument?id=14229>).
4. The IID Regulation (No. 21) governing the interconnection of distributed generation facilities such as the proposed PV project can be found at:
<https://www.iid.com/home/showpublisheddocument/2561/635648001335730000>
5. IID Regulations governing line extensions can be found at:
No. 2 (<http://www.iid.com/home/showdocument?id=2540>),
No. 13 (<http://www.iid.com/home/showdocument?id=2553>),
No. 15 (<http://www.iid.com/home/showdocument?id=2555>),
No. 20 (<http://www.iid.com/home/showdocument?id=2560>) and
No. 23 (<https://www.iid.com/home/showdocument?id=17897>).
6. For additional information regarding the interconnection of distributed generation to the IID electrical system, the applicant should be advised to contact Raquel L. Peña, IID Energy Distribution Interconnect Administrator, at (760) 604-0779 or e-mail Ms. Peña at rpena@iid.com.
7. It is important to note that IID's policy is to extend its electrical facilities only to those developments that have obtained the approval of a city or county planning commission and such other governmental authority or decision-making body having jurisdiction over said developments.
8. The applicant will be required to provide rights-of-way and easements for any power line extensions and overhead or underground infrastructure needed to serve the project.
9. Any construction or operation on IID property or within its existing and proposed right of way or easements including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities; will require an encroachment permit, or encroachment agreement (depending on the circumstances). A copy of the IID encroachment permit application and instructions for its completion are available at <https://www.iid.com/about-iid/department-directory/real-estate>. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits or agreements.

10. Relocation of existing IID facilities to accommodate the project and/or to accommodate street widening improvements imposed by the City will be deemed project-driven and all costs, as well as securing of rights of way and easements for relocated facilities, shall be borne by the applicant.
11. Any new, relocated, modified or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and distribution lines, etc.) need to be included as part of the project's CEQA and/or NEPA documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or modification of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully mitigated. **Any mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent.**
12. Dividing a project into two or more pieces and evaluating each piece in a separate environmental document (Piecemealing or Segmenting), rather than evaluating the whole of the project in one environmental document, is explicitly forbidden by CEQA, because dividing a project into a number of pieces would allow a Lead Agency to minimize the apparent environmental impacts of a project by evaluating individual pieces separately, each of which may have a less-than-significant impact on the environment, but which together may result in a significant impact. Segmenting a project may also hinder developing comprehensive mitigation strategies. In general, if an activity or facility is necessary for the operation of a project, or necessary to achieve the project objectives, or a reasonably foreseeable consequence of approving the project, then it should be considered an integral project component that should be analyzed within the environmental analysis. The project description should include all project components, including those that will have to be approved by responsible agencies. The State CEQA Guidelines define a project under CEQA as "the whole of the action" that may result either directly or indirectly in physical changes to the environment. This broad definition is intended to provide the maximum protection of the environment. CEQA case law has established general principles on project segmentation for different project types. For a project requiring construction of offsite infrastructure, the offsite infrastructure must be included in the project description. *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App. 4th 713.
13. Applicant should be advised that landscaping can be dangerous if items are planted too close to IID's electrical equipment. In the event of an outage, or equipment failure, it is vital that IID personnel have immediate and safe access to its equipment to make the needed repairs. For public safety, and that of the electrical workers, it is important to adhere to standards that limit landscaping around electrical facilities. IID landscaping guidelines are available at <https://www.iid.com/energy/vegetation-management>.

Should you have any questions, please do not hesitate to contact me at (760) 482-3609 or at dvargas@iid.com. Thank you for the opportunity to comment on this matter.

Respectfully,



Donald Vargas
Compliance Administrator II

Enrique B. Martinez – General Manager
Mike Pacheco – Manager, Water Dept.
Marilyn Del Bosque Gilbert – Manager, Energy Dept.
Constance Bergmark – Mgr. of Planning & Eng./Chief Elect. Engineer, Energy Dept.
Daryl Buckley – Mgr. of Distribution Svcs. & Maint. Optrns., Energy Dept.
Enrique De Leon – Asst. Mgr., Energy Dept., Distr., Planning, Eng. & Customer Service
Jamie Asbury – Assoc. General Counsel
Vance Taylor – Asst. General Counsel
Michael P. Kemp – Superintendent, Regulatory & Environmental Compliance
Laura Cervantes – Supervisor, Real Estate

WOODSPUR FARMS PV

5220 INDUSTRIAL WAY COACHELLA, CA 92236

PHOTOVOLTAIC GENERAL NOTES

- 1 ALL MATERIALS, EQUIPMENT, INSTALLATION AND WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES:
 - 2019 CBC
 - 2019 CEC
 - 2019 CMC
 - 2019 CPC
 - 2019 CFC
 - 2019 BUILDING ENERGY EFFICIENCY STANDARDS
- 2 ALL EQUIPMENT SHALL BE LISTED AND LABELED BY A RECOGNIZED TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURER'S INSTRUCTIONS, CEC 110.3(B)&(C), 690.4(B) AND 690.12(D).
- 3 EXISTING PLUMBING VENTS, SKYLIGHTS, EXHAUST OUTLETS, VENTILATIONS INTAKE AIR OPENING SHALL NOT BE COVERED BY THE SOLAR PHOTOVOLTAIC SYSTEM
- 4 ALL OUTDOOR EQUIPMENT SHALL BE NEMA 3R RATED, INCLUDING ALL ROOF MOUNTED TRANSITION BOXES AND SWITCHES
- 5 ALL EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED IN ACCORDANCE WITH NEC ARTICLE 250
- 6 PV SYSTEM DC CIRCUIT AND INVERTER OUTPUT CONDUCTORS AND EQUIPMENT SHALL BE PROTECTED AGAINST OVERCURRENT [CEC 690.9(A)].
- 7 RAPID SHUTDOWN EQUIPMENT TO PROVIDE CONTROLLED CONDUCTORS THAT ARE MORE THAN 3 FEET IN LENGTH INSIDE A BUILDING OR MORE THAN 1 FOOT FROM A PV ARRAY IN ALL DIRECTIONS LIMITATION TO NOT MORE THAN 30 VOLTS AND 240 VOLT-AMPERES WITHIN 30 SECONDS OF RAPID SHUTDOWN INITIATION, CEC 690.12.
- 8 THE UTILITY-INTERACTIVE INVERTERS SHALL AUTOMATICALLY DE-ENERGIZE ITS OUTPUT TO THE CONNECTED ELECTRICAL PRODUCTION AND DISTRIBUTION NETWORK UPON LOSS OF VOLTAGE IN THE SYSTEM AND SHALL REMAIN IN THAT STATE UNTIL THE ELECTRICAL PRODUCTION AND DISTRIBUTION NETWORK VOLTAGE HAS BEEN RESTORED [CEC 705.40]
- 9 MEANS SHALL BE PROVIDED TO DISCONNECT THE PV SYSTEM FROM ALL WIRING SYSTEMS INCLUDING POWER SYSTEMS, ENERGY STORAGE SYSTEMS, AND UTILIZATION EQUIPMENT AND ITS ASSOCIATED PREMISES WIRING. CEC 690.13.
- 10 ALL CONDUCTORS EXPOSED TO WEATHER SHALL BE LISTED AND IDENTIFIED FOR USE IN DIRECT SUNLIGHT [NEC 690.31(C) THROUGH (G), 310.10(D)]
- 11 THE MODULES CONDUCTORS MUST BE TYPE USE-2 OR LISTED FOR PHOTOVOLTAIC (PV) WIRE [NEC 690.31(C)]
- 12 ALL CONDUCTORS SHALL BE MARKED ON EACH END FOR UNIQUE IDENTIFICATION [NEC 690.31(B)]
- 13 ALL CONDUCTORS TO BE OF MATERIAL APPROVED BY THE CODE AND THEIR INSULATIONS TO BE RATED TO NOT LESS THAN 90°C 600VOLTS MINIMUM.
- 14 INSULATION OF EXPOSED CONDUCTORS UNDER THE MODULES SHALL BE USE-2 OR PV-WIRE TYPE FOR GROUNDED DC SYSTEMS, CEC 690.31(C); AND PV-WIRE TYPE FOR UNGROUNDED DC SYSTEMS, (AS IN TRANSFORMERLESS INVERTERS OR MICROINVERTERS WITH ISOLATED GROUNDS)
- 15 FINE-STRANDED CABLE CONNECTIONS MUST BE MADE IN LUGS AND TERMINALS LISTED AND MARKED FOR THE USE, CEC 110.14.
- 16 ALL GROUNDED, (NEUTRAL), CONDUCTOR'S INSULATION SHALL BE SOLID WHITE, GRAY, OR WITH 3-WHITE STRIPES, CEC 200.6, 200.7, & 400.22; AND ALL GROUNDING CONDUCTORS SHALL BE OF BARE WIRE WITHOUT COVERING, OR WITH INSULATION OF GREEN OR GREEN WITH YELLOW STRIPES. [CEC 250.119 & 400.23] THE COLOR OF UNGROUNDED CONDUCTORS SHALL BE OTHER THAN FOR GROUNDED, (NEUTRAL), AND GROUNDING CONDUCTORS, [CEC 310.110(C)].
- 17 MAXIMUM CONDUCTOR LENGTH BETWEEN SUPPLY SIDE CONNECTION AND OVERCURRENT PROTECTION IS 10 FEET, CEC 705.31.
- 18 PV SYSTEM CONNECTED ON THE LOAD SIDE OF THE SERVICE DISCONNECTING MEANS OF THE OTHER SOURCE(S) AT ANY DISTRIBUTION EQUIPMENT ON THE PREMISES SHALL MEET THE FOLLOWING [CEC 750.12(B)]
 1. EACH SOURCE CONNECTION SHALL BE MADE AT A DEDICATED CIRCUIT BREAKER OR FUSIBLE DISCONNECTING MEANS [CEC 705.12(B)(1)]
 2. THE SUM OF THE AMPERE RATINGS OF THE OVERCURRENT DEVICES IN CIRCUITS SUPPLYING POWER TO THE BUSBAR OR CONDUCTOR SHALL NOT EXCEED 100% OF THE RATING OF BUSBAR OR CONDUCTOR [CEC 705.12(B)(2)]
 3. EQUIPMENT CONTAINING OVERCURRENT DEVICES IN CIRCUITS SUPPLYING POWER TO A BUS BAR OR CONDUCTOR SHALL BE MARKED TO INDICATE THE PRESENCE OF ALL SOURCES [CEC 705.12(B)(3)]
 4. CIRCUIT BREAKER, IF BACKFEED, SHALL BE SUITABLE FOR SUCH OPERATION [CEC 705.12(B)(4)]
- 19 FOR LOAD SIDE INTERCONNECTION THE PANELBOARD MAIN CIRCUIT BREAKER AND THE PV POWER SOURCE CIRCUIT BREAKER SHALL BE PHYSICALLY LOCATED AT THE OPPOSITE END OF THE BUSBAR [CEC 705.12(B)(3)(b)]
- 20 DC WIRING INSIDE A BUILDING MUST BE IN METALLIC TYPE RACEWAYS, CONDUITS, ENCLOSURES, OR CABLE SHEATHINGS, CEC 690.31(c)
- 21 RACEWAYS IN ENCLOSED PORTIONS OF THE BUILDING MUST RUN ALONG BOTTOM OF LOADBEARING MEMBERS, CRC R324.7.2.7.
- 22 METALLIC TYPE RACEWAYS, CONDUITS, ENCLOSURES, AND CABLE SHEATHS CONTAINING CIRCUITS OVER 250-VOLTS TO GROUND MUST BE BONDED IN ACCORDANCE WITH CEC 250.97 & 290.92(B).
- 23 FLEXIBLE, FINE-STRANDED CABLES SHALL BE TERMINATED ONLY WITH TERMINALS, LUGS, DEVICES OR CONNECTOR THAT ARE IDENTIFIED AND LISTED FOR SUCH USE, CEC 690.31(H) & 110.14.
- 24 CONNECTORS SHALL BE OF LATCHING OR LOCKING TYPE. CONNECTORS THAT ARE READILY ACCESSIBLE AND OPERATING AT OVER 30VDC AND 15VAC SHALL REQUIRE TOOL TO OPEN AND MARKED "DO NOT DISCONNECT UNDER LOAD" OR "NOT FOR CURRENT INTERRUPTING" [NEC 690.33(C) & (E)(2)]
- 25 CABLES/WIRES THAT ARE SUBJECT TO PHYSICAL DAMAGE, SUCH AS THOSE NOT LOCATED UNDER THE MODULES, MUST BE PROTECTED, CEC 300.4.
- 26 PROPOSED LOCATIONS OF THE ELECTRICAL SERVICE REPLACEMENTS MUST ALSO BE APPROVED BY THE ELECTRICAL UTILITY COMPANY.
- 27 FOR ELECTRICAL SERVICE REPLACEMENTS, BONDING TO THE METAL PIPES OF NATURAL GAS, HOT WATER, AND COLD WATER MUST BE PROVIDED, CEC 250.104.
- 28 GROUNDING ROD ELECTRODES SHALL BE INSTALLED 8 FEET MINIMUM IN CONTACT WITH SOIL, CEC 250.53(G)
- 29 ALL EXTERIOR CONDUITS SHALL BE PAINTED TO MATCH THE COLOR OF THE SURROUNDING AREA (ROOF, SIDING, AND STUCCO)

- 30 THE ROOF MOUNTED PHOTOVOLTAIC MODULES, PANELS OR SOLAR VOLTAIC ROLL ROOFING MATERIAL SHALL HAVE THE SAME OR BETTER LISTED FIRE-RESISTANCE RATING THAN THE BUILDING ROOF-COVERING MATERIAL
- 31 REMOVAL OF A UTILITY-INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTOR
- 32 EQUIPMENT GROUNDING CONDUCTOR FOR PV MODULES SMALLER THAN 6 AWG SHALL BE PROTECTED FROM PHYSICAL DAMAGE BY A RACEWAY OR CABLE ARMOR [CEC 690.46 & 250.120(C)]
- 33 AVERAGE SOLAR CONSUMPTION IS NOT TO EXCEED 120% OF AVERAGE ANNUAL CONSUMPTION
- 34 THIS PROJECT SHALL COMPLY WITH ALL THE LATEST APPLICABLE NATIONAL ELECTRIC CODE (NEC) REQUIREMENTS [NEC ARTICLES 690 AND 705], NEC REQUIREMENTS, STATE OF CALIFORNIA REQUIREMENTS, BUILDING CODES, AND SHALL OBTAIN ELECTRICAL PERMIT(S) FOR THE EQUIPMENT INSTALLATION
- 35 WORKING CLEARANCES AROUND THE EXISTING ELECTRICAL EQUIPMENT AS WELL AS THE NEW ELECTRICAL EQUIPMENT WILL BE MAINTAINED IN ACCORDANCE WITH CEC 110.26.
- 36 THE PHOTOVOLTAIC INVERTER WILL BE LISTED AS UL 1741 COMPLIANT. (CEC 690.4(B))
- 37 ADEQUATE SPACING MUST BE MAINTAINED BETWEEN ANY PLUMBING SEWER VENTS EXTENDING THROUGH THE ROOF AND THE UNDERSIDE OF THE PHOTOVOLTAIC PANELS (6" MINIMUM RECOMMENDED).
- 38 ALL PHOTOVOLTAIC OUTPUT CIRCUITS OPERATING ABOVE 30 VOLTS SHALL BE INSTALLED IN READILY ACCESSIBLE LOCATIONS AND IN ELECTRICAL RACEWAYS. [CEC 690.31 (A)]
- 39 ALL METALLIC RACEWAYS AND EQUIPMENT SHALL BE BONDED AND ELECTRICALLY CONTINUOUS. (CEC 250.90, 250.96)
- 40 GROUNDED DC PHOTOVOLTAIC ARRAYS SHALL BE PROVIDED WITH DC GROUND-FAULT PROTECTION MEETING THE REQUIREMENTS OF 690.5(A) THROUGH (C). UNGROUNDED DC PHOTOVOLTAIC ARRAYS SHALL COMPLY WITH 690.35. (CEC 690.5)

ABBREVIATIONS

A	A.B.V.	ABOVE	N	N.I.U.	NOT IN USE
	A-C	AIR CONDITIONER		N.T.S.	NOT TO SCALE
	AC	ALTERNATING CURRENT		N.F.C.	NOT FOR CONSTRUCTION
	A.F.G.	ABOVE FINISHED GRADE	N	OR (N)	NEW
B	B.L.	BUILDING LINE	NO		NUMBER
	BLDG	BUILDING	N.O.		NORMALLY OPEN
C	CSMNT	CASEMENT	N.C.		NORMALLY CLOSED
	CEM	CEMENT	O	O.C.	ON CENTER
	C.L.	CENTER LINE		O.H.	OVERHEAD
	COL	COLUMN	P		PROPERTY LINE
	CONT	CONTINUOUS		P.S.F.	POUNDS PER SQUARE FOOT
	CONC	CONCRETE		P.S.I.	POUNDS PER SQUARE INCH
D	DIA	DIAMETER	PVC		POLYVINYL CHLORIDE
	DIM	DIMENSION	PWR		POWER
	EA	EACH	Q		QUANTITY
E	ELEV	ELEVATION	R	RAC	ROOF AIR CONDITIONING UNIT
	EQUIP	EQUIPMENT		RAD	RADIUS
	E. OR (E)	EXISTING		R.D.	ROOF DRAIN
	EXT	EXTERIOR		R.V.	ROOF VENT
	GA	GAUGE		RSL	ROOF SKYLIGHT
G	GALV	GALVANIZED		RSH	ROOF SMOKE HATCH
	GAR	GARAGE		RAH	ROOF ACCESS HATCH
	G.F.C.I.	GROUND FAULT CIRCUIT INTERRUPT		REF	REFERENCE
	G.F.I.	GROUND FAULT INTERRUPT	S	SPECS	SPECIFICATIONS
	GYP	GYP SUM		SHT	SHEET
	J-BOX	JUNCTION BOX		SQ.FT.	SQUARE FOOT-FEET
	JST	JOIST		SQ.IN.	SQUARE INCH-INCHES
	K.O.	KNOCK OUT		STD	STANDARD
M	MECH	MECHANICAL		SYS	SYSTEM
	MTL	METAL	T	TYP	TYPICAL
			V	V.I.F.	VERIFY IN FIELD

SYSTEM INFORMATION

SYSTEM 1:
 SYSTEM SIZE DC STC: 630.80 KW
 SYSTEM SIZE AC CEC: 581.05 KW
 SOLAR MODULES: (1328) TRINA TSM-475DE15V(I)
 INVERTER(S): (8) CPS SCA60TL-DO/US-480
 MOUNTING SYSTEM: OMCO SOLAR MOUNT

SYSTEM 2:
 SYSTEM SIZE DC STC: 975.65 KW
 SYSTEM SIZE AC CEC: 898.70 KW
 SOLAR MODULES: (2054) TRINA TSM-475DE15V(I)
 INVERTER(S): (13) CPS SCA60TL-DO/US-480
 MOUNTING SYSTEM: OMCO SOLAR MOUNT

SYSTEM 3:
 SYSTEM SIZE DC STC: 766.65 KW
 SYSTEM SIZE AC CEC: 706.18 KW
 SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
 INVERTER(S): (10) CPS SCA60TL-DO/US-480
 MOUNTING SYSTEM: OMCO SOLAR MOUNT

SCOPE OF WORK

INSTALLING:
 (4996) ROOF MOUNTED PHOTOVOLTAIC MODULES
 (31) CPS SCA60TL-DO/US-480 INVERTER(S)
 OMCO SOLAR MOUNT

LEGAL DESCRIPTION

	MAIN BUILDINGS	GROUND MOUNT
AIN:	763-400-021	763-400-021
SITUS ADDRESS:	5220 INDUSTRIAL WAY	5220 INDUSTRIAL WAY
OCCUPANCY USE:	F	U
CONSTRUCTION TYPE:	III, SPRINKLERED	
STORIES:	1	
BOOK:	763	763
PAGE:	400	400
LOT:	021	021

VICINITY MAP



CITY APPROVAL STAMPS

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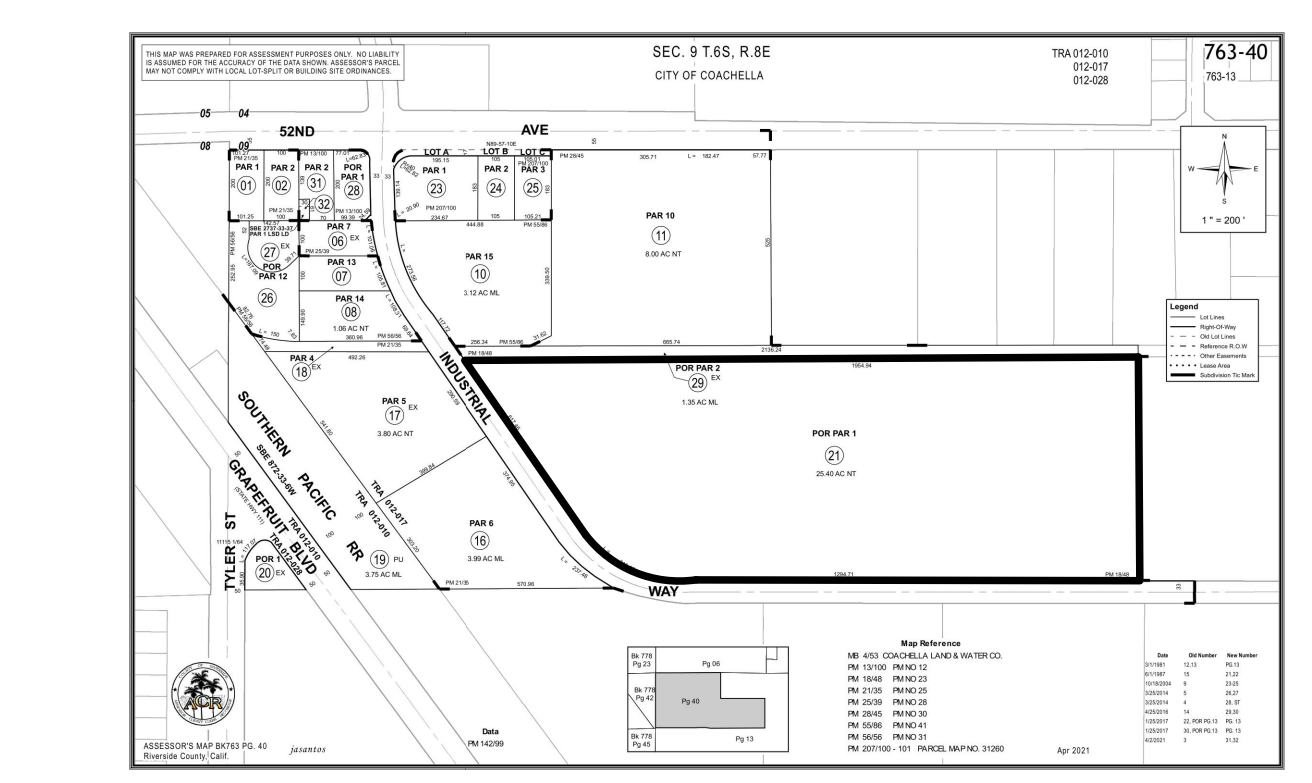
SIGNATURE _____ DATE _____ STATE LICENSE NO. _____
 1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

DRAWING INDEX

	ELECTRICAL
PV 1	COVER PAGE
PV 2.0	SITE PLAN
PV 2.1	ELEVATION DETAIL
PV 2.2	ELEVATION DETAIL
PV 3.0	PLOT PLAN
PV 3.1	SYSTEM 1
PV 3.2	SYSTEM 2
PV 3.3	SYSTEM 3
PV 4.0	SYSTEM 1 SLD
PV 4.1	SYSTEM 2 SLD
PV 4.2	SYSTEM 3 SLD
PV 5	GROUNDING
PV 6.0	SIGNAGE
PV 6.1	DIRECTORY PLACARDS
PV 7	EQUIPMENT SPECIFICATIONS
PV 8	UL LISTING

PARCEL MAP



DESCRIPTION:

COVER PAGE

SYSTEM (PLANT) 1:
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 TOTAL SYSTEM SIZE AC CEC: 2185.93 KW
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 INVERTER(S): (31) CPS SCA60TL-DO/US-480

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SYSTEM (PLANT) 3:
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 SYSTEM SIZE AC CEC: 706.18 KW
 SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
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PV 1

SITE NOTES

- 1 PHOTOVOLTAIC SYSTEMS SHALL BE MARKED TO IDENTIFY THE MAIN ELECTRICAL SERVICE DISCONNECT. MATERIALS USED FOR MARKING SHALL BE WEATHER RESISTANT AND MEET UL 969 AS THE STANDARD FOR WEATHER RATING.
 - 2 THE MAIN ELECTRICAL SERVICE DISCONNECT MARKING SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT IN A LOCATION CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED, FOR COMMERCIAL AND INDUSTRIAL BUILDINGS.
 - 3 PHOTOVOLTAIC CIRCUIT MARKING SHALL BE PLACED ON ALL INTERIOR AND EXTERIOR PHOTOVOLTAIC DC CIRCUIT CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, AND JUNCTION BOXES. MARKINGS SHALL BE PLACED EVERY 10 FEET, AT TURNS, ABOVE AND/OR BELOW PENETRATIONS, AND AT ALL PHOTOVOLTAIC CIRCUIT COMBINER AND JUNCTION BOXES.
 - 4 SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 605.11.1 THROUGH 605.11.2, THE CALIFORNIA BUILDING CODE, OR CALIFORNIA RESIDENTIAL CODE, AND CALIFORNIA ELECTRICAL CODE.
- FIRE NOTES: (CHAPTER 12 OF CALIFORNIA FIRE CODE)
- 5 1204.4 - GROUND-MOUNTED PHOTOVOLTAIC ARRAYS SHALL COMPLY WITH SECTION 1204.1 AND THIS SECTION. SETBACK REQUIREMENTS SHALL NOT APPLY TO GROUND-MOUNTED, FREE-STANDING PHOTOVOLTAIC ARRAYS. A CLEAR, BRUSH-FREE AREA OF 10 FEET (3048 mm) SHALL BE REQUIRED FOR GROUND-MOUNTED PHOTOVOLTAIC ARRAYS.

CONTRACTOR

REVEL-ENERGY, INC.
 2323 MAIN ST.
 IRVINE, CA 92614
 CSLB #: 1038433 / A, B, C10, C46
 (949) 281-7171

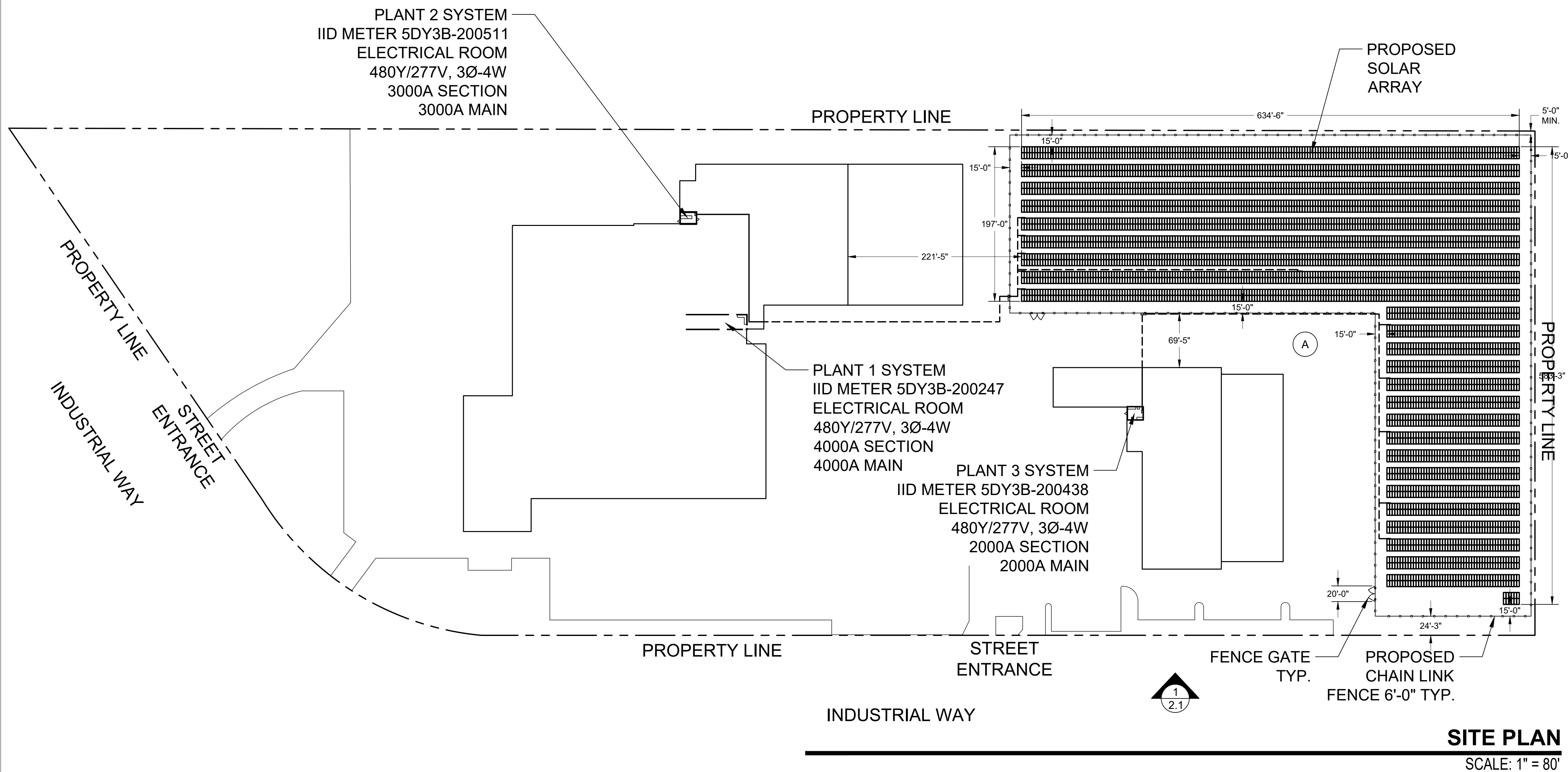
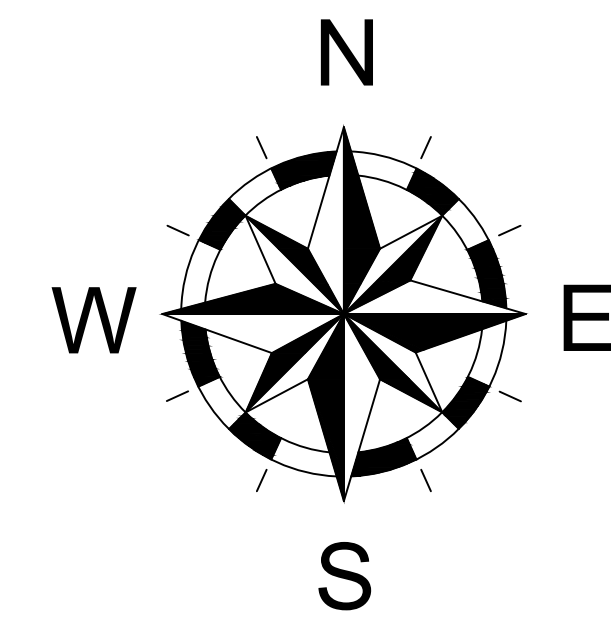
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 5220 INDUSTRIAL WAY
 COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
7/27/2021		INITIAL PLAN SET	A.L.	--
8/18/2021		1ST REVISIONS	A.L.	--
9/1/2021		1ST CORRECTIONS	A.L.	--
9/9/2021		2ND REVISIONS	A.L.	--



SITE PLAN

SCALE: 1" = 80'

ARRAY INFORMATION	
ARRAY	(A)
ARRAY TILT	20°
STRUCTURE INFO	SEE S-1
MODULE COUNT	4996
MODULE AREA	126477.5SQ.FT.
ARRAY AZIMUTH	180°

DESCRIPTION:

SITE PLAN

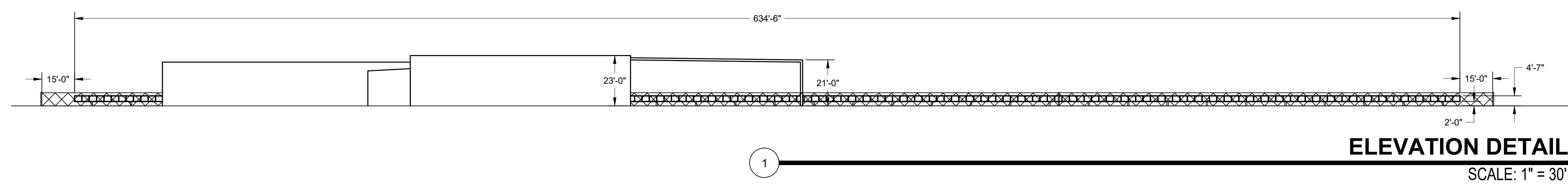
PV 2.0

CONTRACTOR

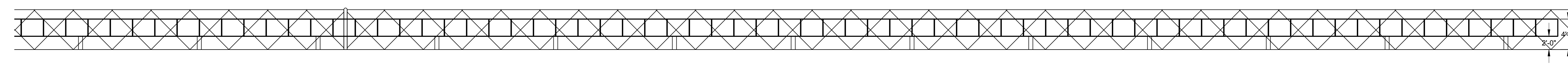
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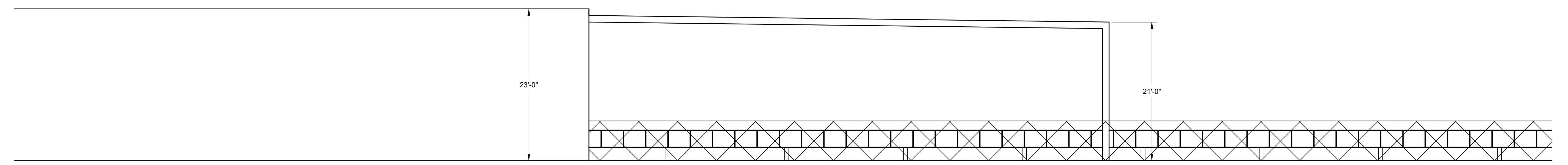
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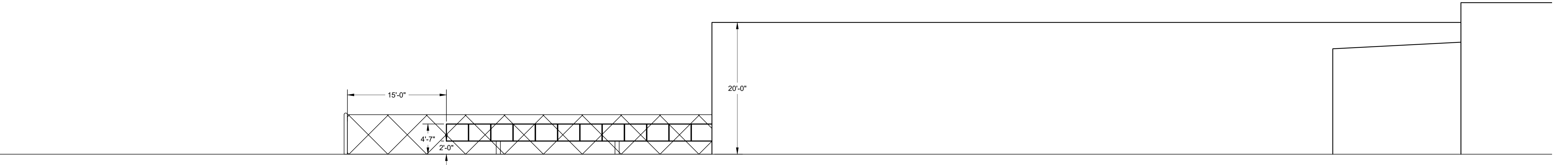
ELEVATION DETAIL
SCALE: 1" = 30'



RIGHT SIDE ELEVATION DETAIL
SCALE: 1/8" = 1'-0"



CENTRAL ELEVATION DETAIL
SCALE: 1/8" = 1'-0"



LEFT SIDE ELEVATION DETAIL
SCALE: 1/8" = 1'-0"

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SYSTEM (PLANT) 2:

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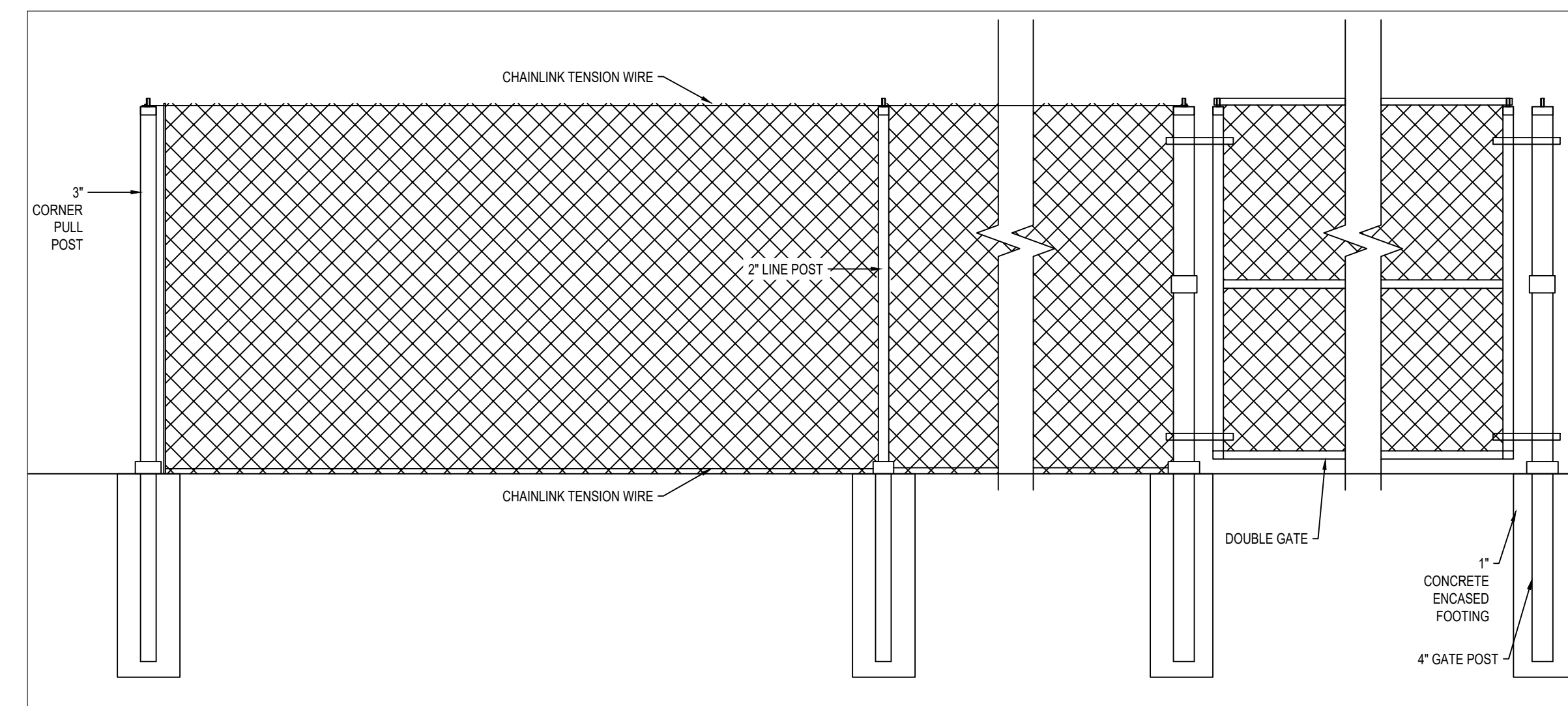
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 SYSTEM SIZE AC CEC: 706.18 KW
 SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
 INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

ELEVATION DETAIL

PV 2.1



FENCE DETAIL TYP

SCALE: 1/2" = 1'-0"

FENCE NOTES:

1. BONDING JUMPERS ARE REQUIRED AT EACH FENCE CORNER AND AT MAXIMUM 160 FT. INTERVALS ALONG THE FENCE.
2. BONDING JUMPERS ARE REQUIRED ON EACH SIDE OF THE CROSSING WHERE BARE OVERHEAD CONDUCTORS CROSS THE FENCE.
3. GATES MUST BE BONDED TO THE GATE SUPPORT POST, AND EACH GATE SUPPORT POST MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.
4. ANY GATE OR OTHER OPENING IN THE FENCE MUST BE BONDED ACROSS THE OPENING BY A BURIED BONDING JUMPER.
5. THE GROUNDING GRID OR GROUNDING ELECTRODE SYSTEMS SHALL BE EXTENDED TO COVER THE SWING OF ALL GATES.
6. THE BARBED WIRE STRANDS ABOVE THE FENCE MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.

SEE PV5 FOR GROUNDING DETAILS

CONTRACTOR

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 2323 MAIN ST.
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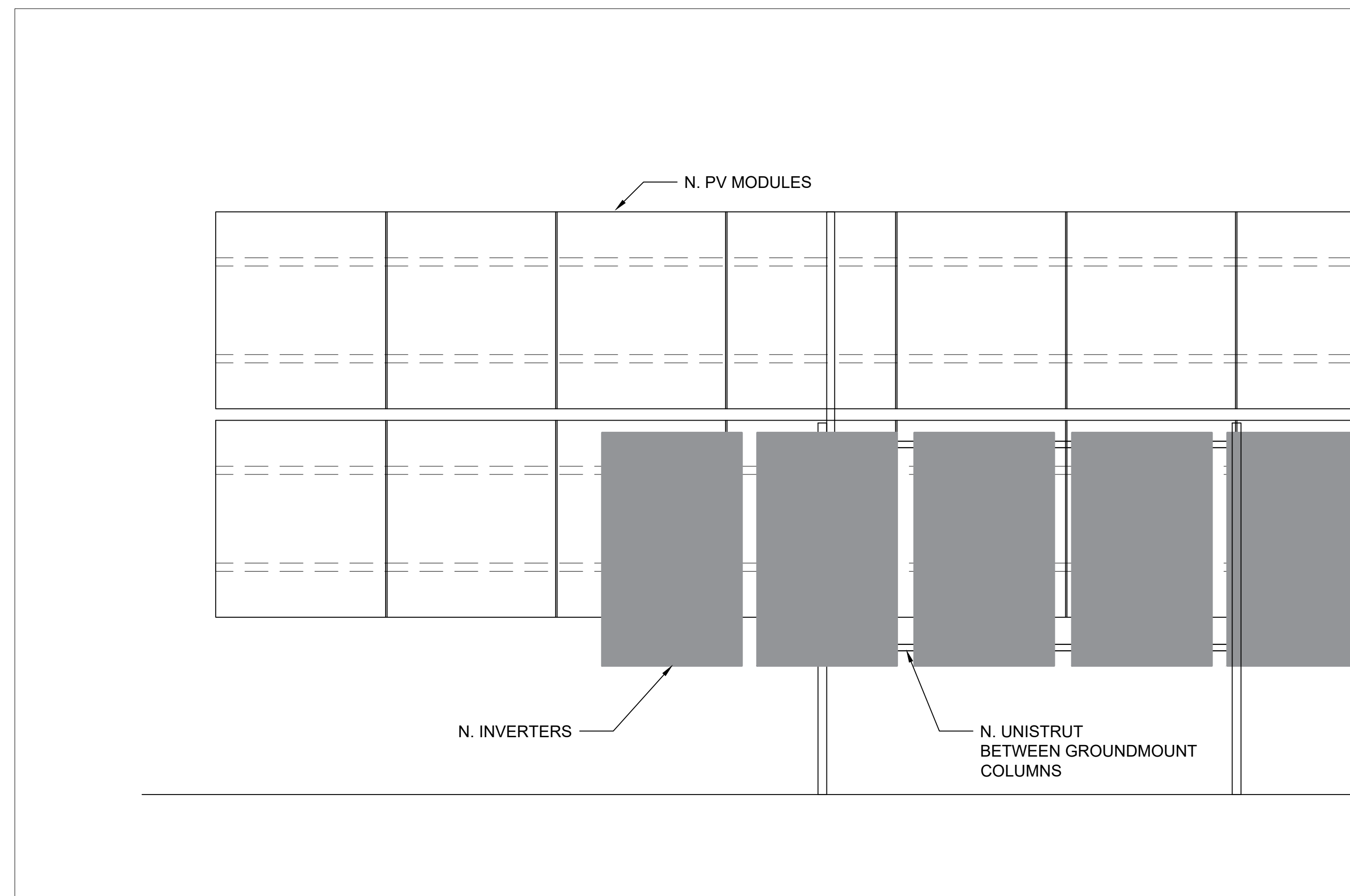
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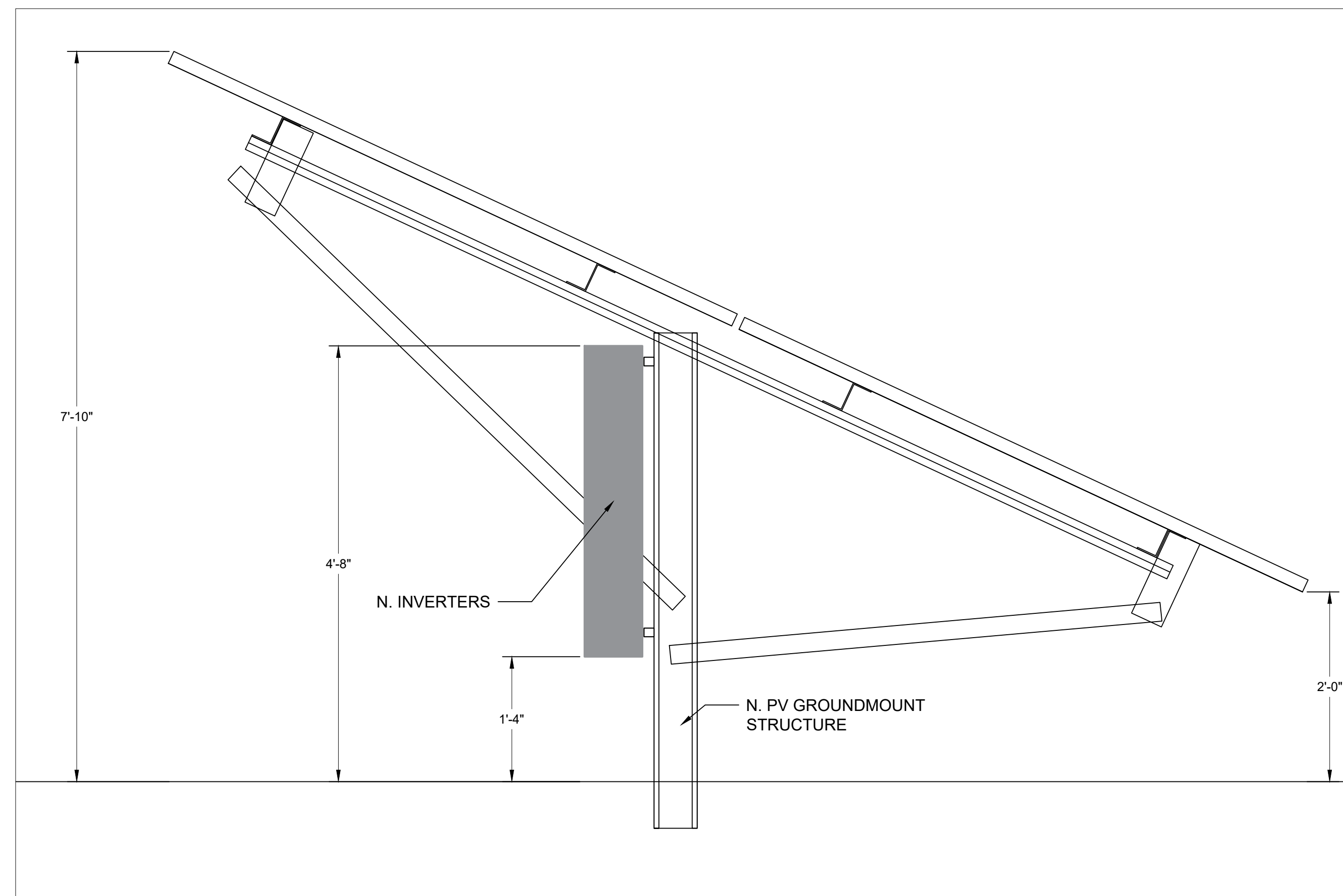
ELEVATION DETAIL

PV 2.2



TYP. INVERTER ELEVATION VIEW

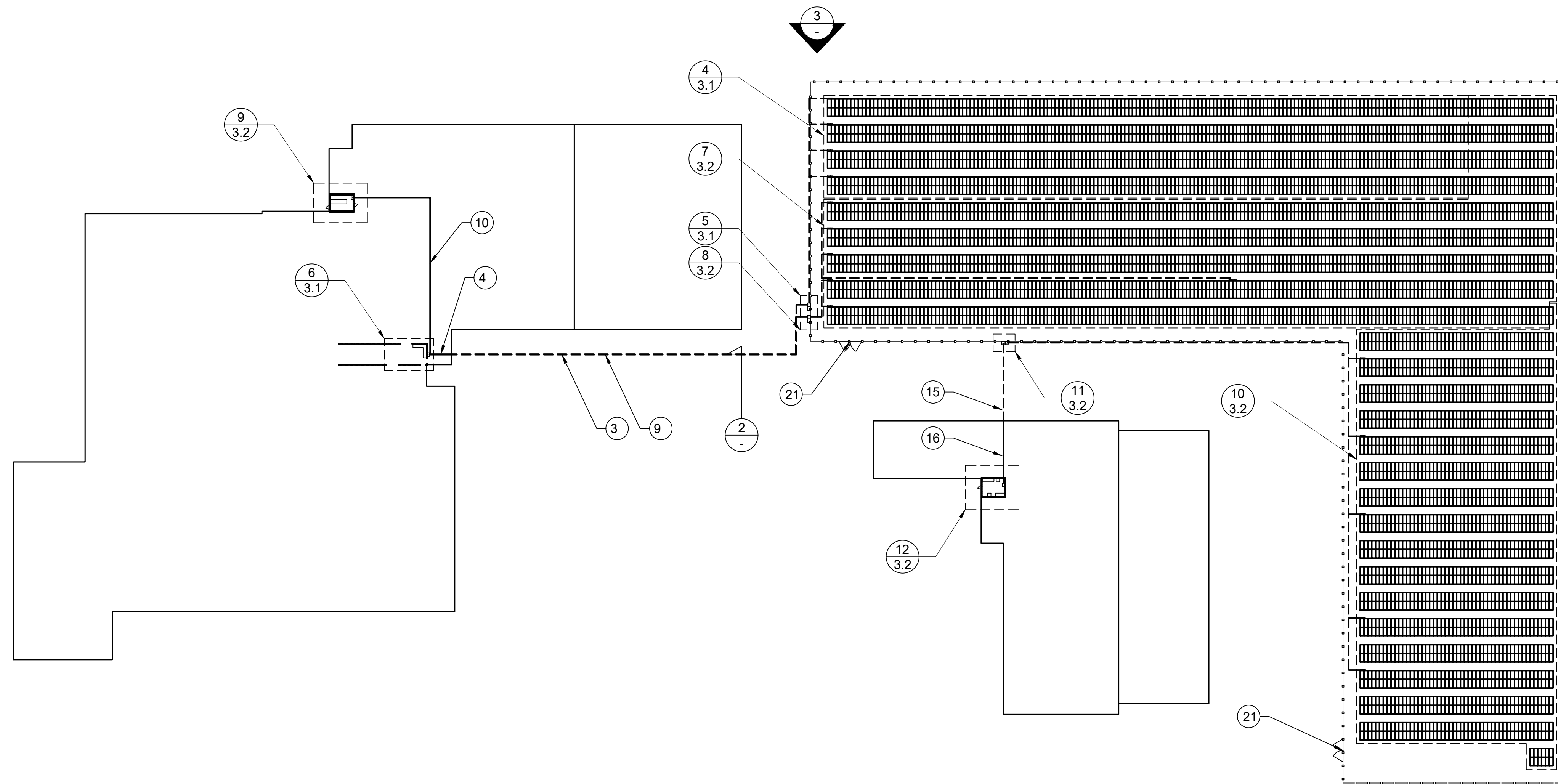
* NOTE: THIS DETAIL IS FOR INVERTER MOUNT REFERENCE ONLY SCALE: 1:16



TYP. INVERTER ELEVATION VIEW

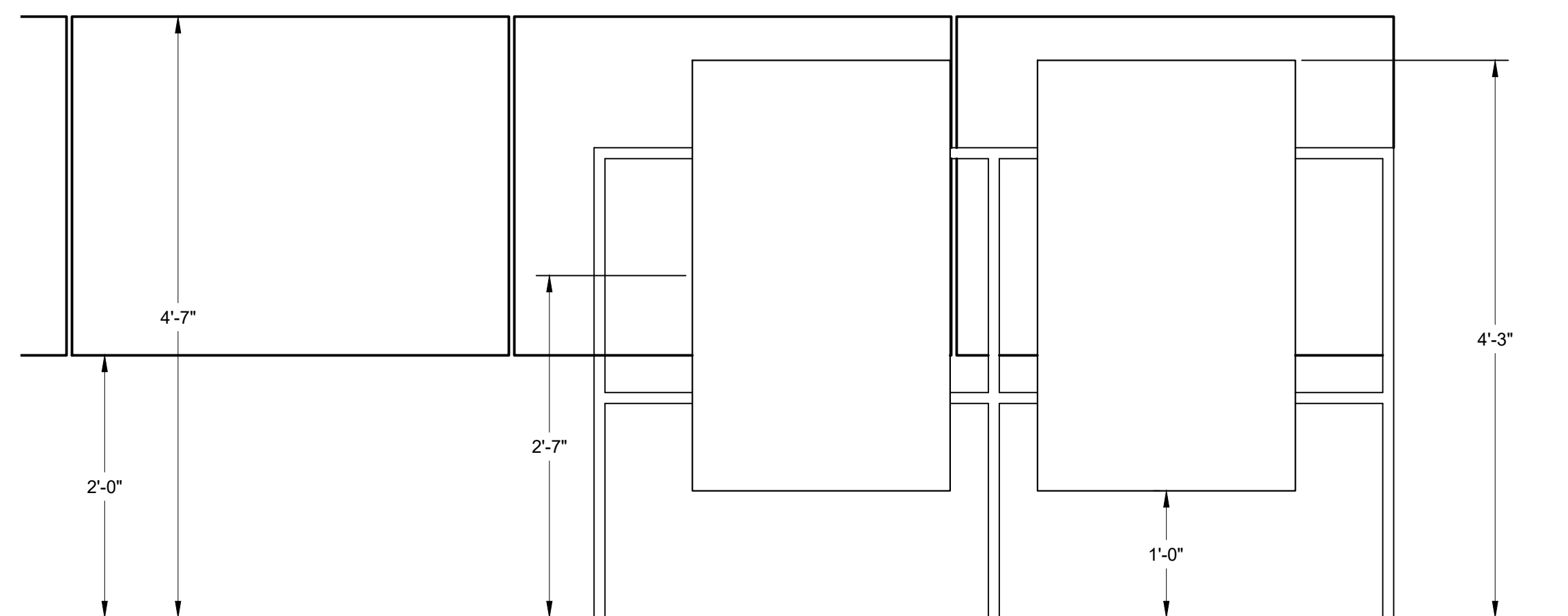
* NOTE: THIS DETAIL IS FOR INVERTER MOUNT REFERENCE ONLY SCALE: 1" = 1'-0"

SEE PV 5 FOR FENCE GROUNDING DETAILS



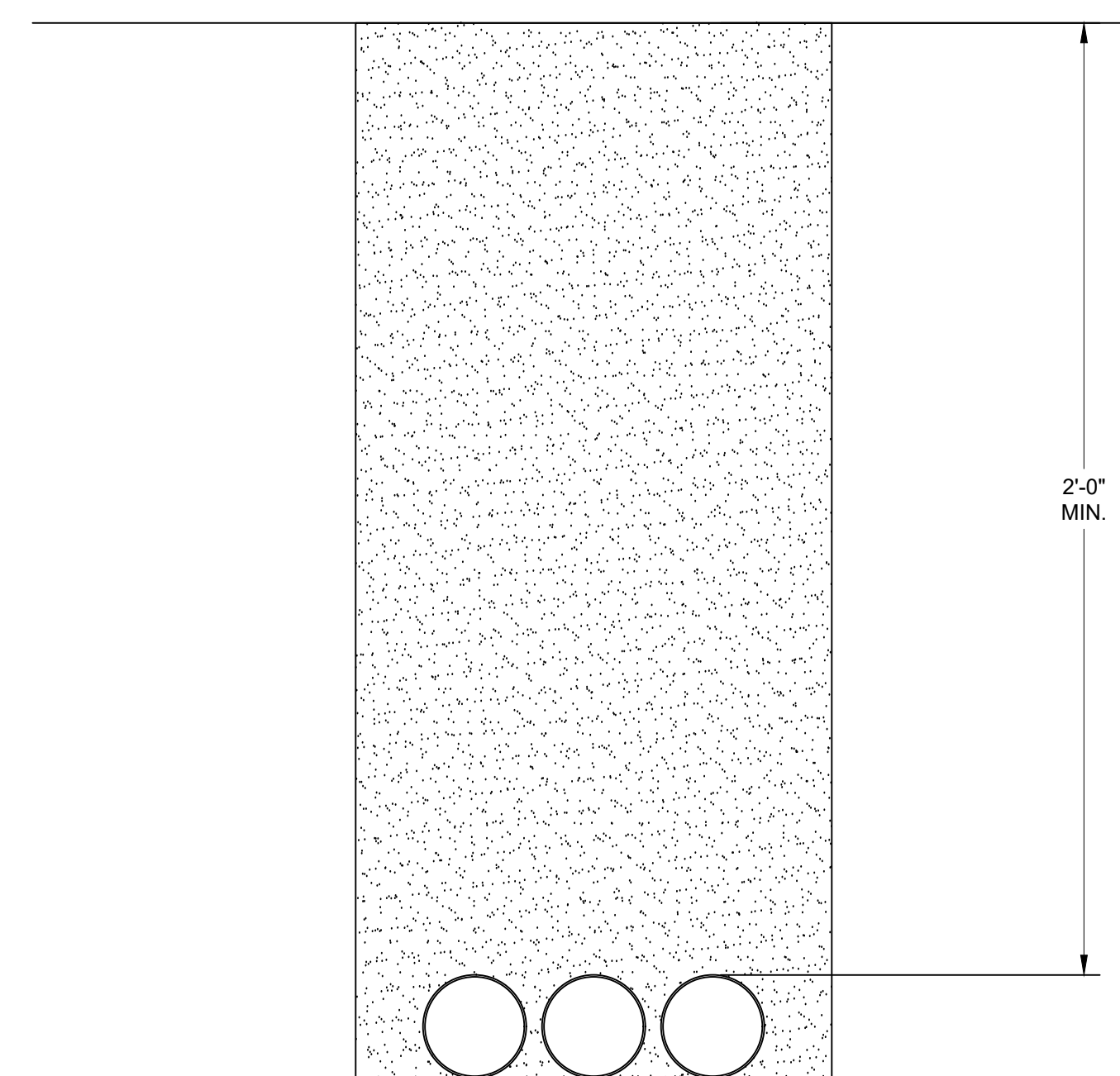
PLOT PLAN

SCALE: 1/64" = 1'-0"



TYP. INVERTER ELEVATION

SCALE: 1" = 1'-0"



TYP. TRENCH DETAIL

SCALE: 3" = 1'-0"

PLAN LEGEND

- ① E. SYSTEM 1 IID METER 5DY3B-200247
4000A 480Y/277V 3P-4W SWITCHGEAR.
INTERIOR. PAD MOUNTED.
- ② N. 800A 600V 3P/4W NON-FUSED PHOTOVOLTAIC
AC DISCONNECT. INTERIOR. WALL MOUNTED.
SYSTEM DISCONNECT 1 OF 2.
- ③ N. UNDERGROUND PVC SCH40 TO ROOFTOP EMT.
SEE PV4.0 FOR WIRE SCHEDULE.
- ④ N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.0
FOR WIRE SCHEDULE.
- ⑤ N. 800A 480Y/277V PV COMBINER SWITCHGEAR W/
RPU METER SOCKET SYSTEM.
DISCONNECT 2 OF 2
- ⑥ N. SCA60TL-DO/US-480 PV INVERTERS.
OUTDOOR RATED W/INTEGRATED DC & AC
DISCONNECTS. ARRAY MOUNTED.
- ⑦ E. SYSTEM 2 IID METER 5DY3B-200511
3000A 480Y/277V 3P-4W SWITCHGEAR.
INTERIOR. PAD MOUNTED.
- ⑧ N. 1600A 600V 3P/4W FUSED PHOTOVOLTAIC AC
DISCONNECT. 1600A FUSES. INTERIOR. WALL
MOUNTED.
SYSTEM DISCONNECT 1 OF 2.
- ⑨ N. UNDERGROUND PVC SCH40. SEE PV4.1 FOR WIRE
SCHEDULE.
- ⑩ N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.1
FOR WIRE SCHEDULE.
- ⑪ N. 1600A 480Y/277V PV COMBINER SWITCHGEAR
W/ RPU METER SOCKET.
SYSTEM DISCONNECT 2 OF 2.
- ⑫ N. SCA60TL-DO/US-480 PV INVERTERS.
OUTDOOR RATED W/INTEGRATED DC & AC
DISCONNECTS. ARRAY MOUNTED.
- ⑬ E. SYSTEM 3 IID METER 5DY3B-200438
3000A 480Y/277V 3P-4W SWITCHGEAR.
INTERIOR. PAD MOUNTED.
- ⑭ N. 1200A 600V 3P/4W FUSED PHOTOVOLTAIC AC
DISCONNECT. 1000A FUSES. INTERIOR. WALL
MOUNTED.
SYSTEM DISCONNECT 1 OF 2.
- ⑮ N. UNDERGROUND PVC SCH40. SEE PV4.2 FOR
WIRE SCHEDULE.
- ⑯ N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.2
FOR WIRE SCHEDULE.
- ⑰ N. 1200A 480Y/277V PV COMBINER SWITCHGEAR
W/ RPU METER SOCKET.
SYSTEM DISCONNECT 2 OF 2.
- ⑱ N. SCA60TL-DO/US-480 PV INVERTERS.
OUTDOOR RATED W/INTEGRATED DC & AC
DISCONNECTS. ARRAY MOUNTED.
- ⑲ N. ARRAY "A". 4410 MODULES MOUNTED ON
STRUCTURE.
- ⑳ N. FENCELINE AROUND ARRAY "A". 15'
CLEARANCE FROM ARRAY.
- ㉑ N. FENCE GATE.

S1 ——— DENOTES SYSTEM NUMBER
I1 ——— DENOTES INVERTER NUMBER
S1 ——— DENOTES STRING NUMBER

PHOTOVOLTAIC MODULE



CONTRACTOR

REVEL-ENERGY, INC.
 2323 MAIN ST.
 IRVINE, CA 92614
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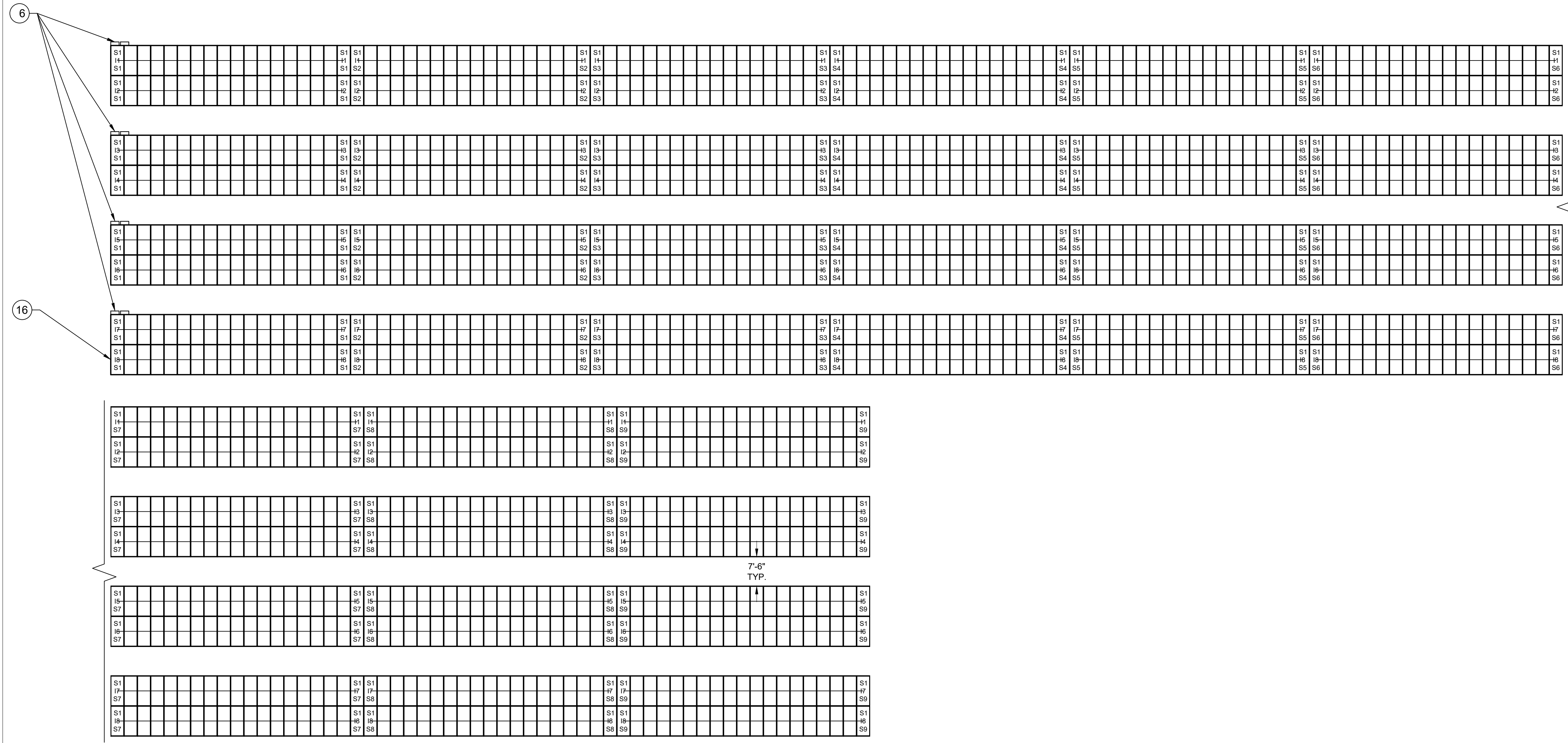
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DESCRIPTION:

PLOT PLAN

PV 3.0



PLAN LEGEND

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CONTRACTOR

REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
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SYSTEM SIZE AC CEC: 581.05 KW
SOLAR MODULES: (1328) TRINA TSM-475DE15V(I)
INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:
SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-475DE15V(I)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

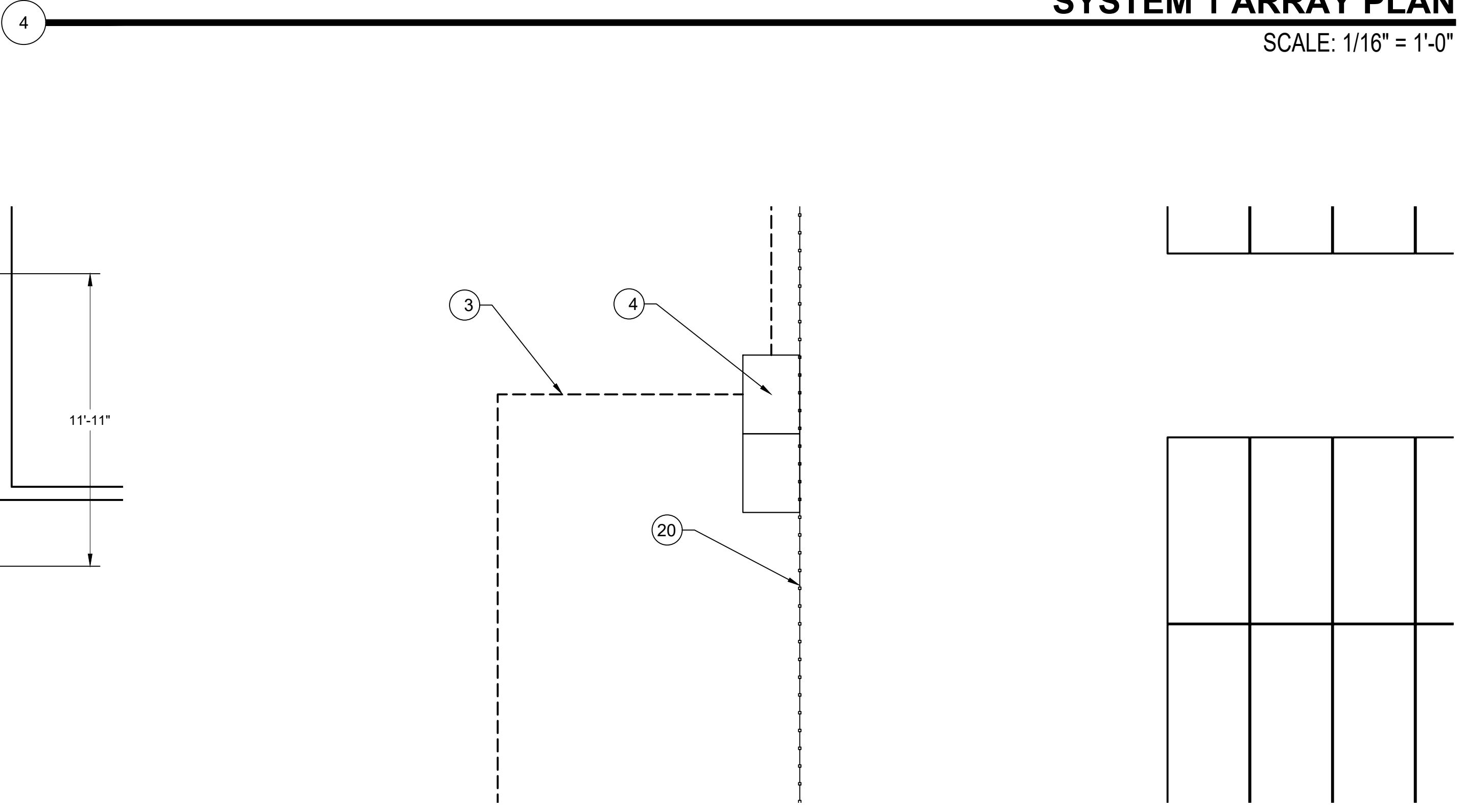
DESCRIPTION:

SYSTEM 1 PLAN

PV 3.1

SYSTEM 1 ARRAY PLAN

SCALE: 1/16" = 1'-0"

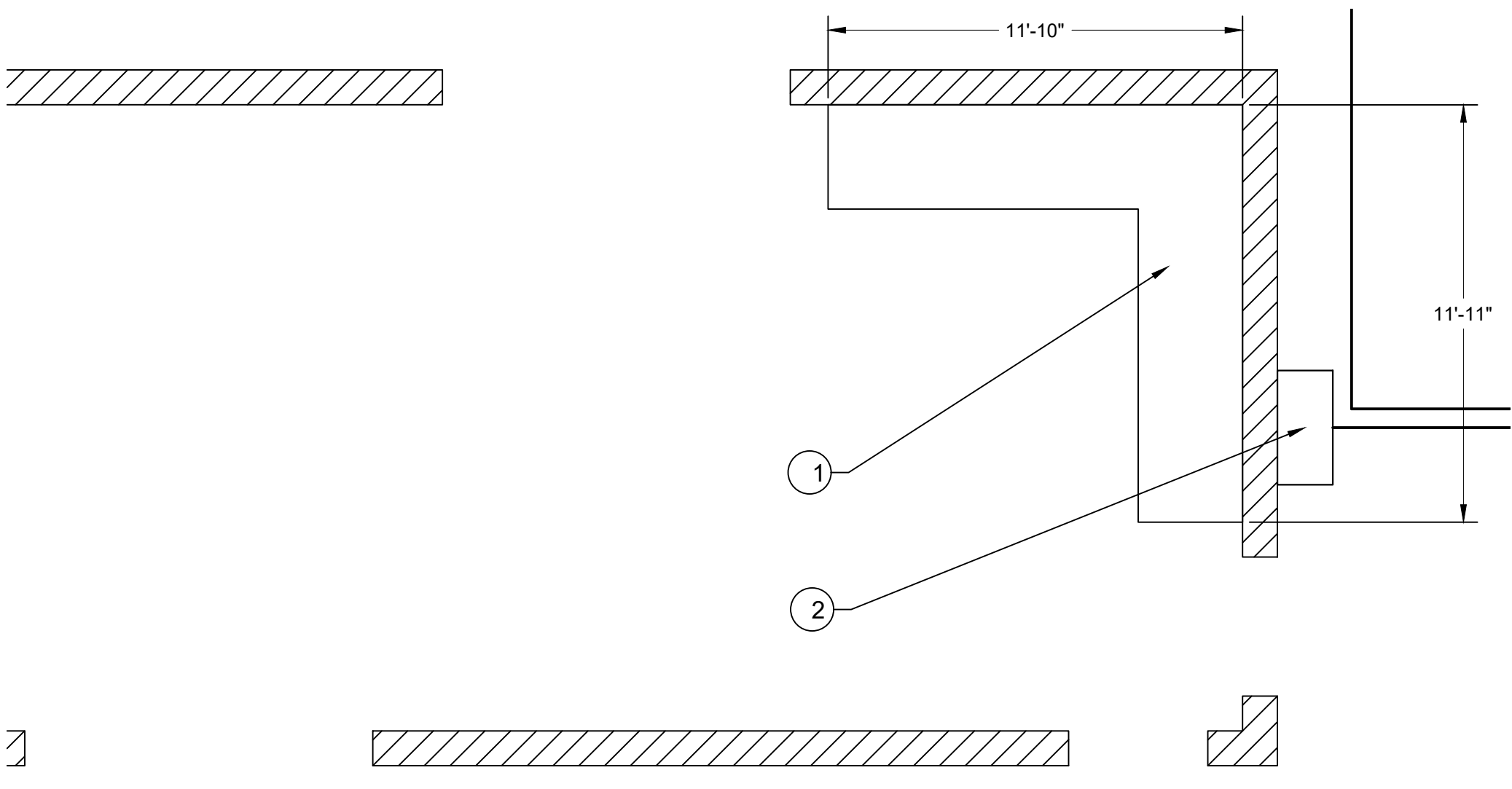


SYSTEM 1 ELECTRICAL EQUIPMENT

SCALE: 1/4" = 1'-0"

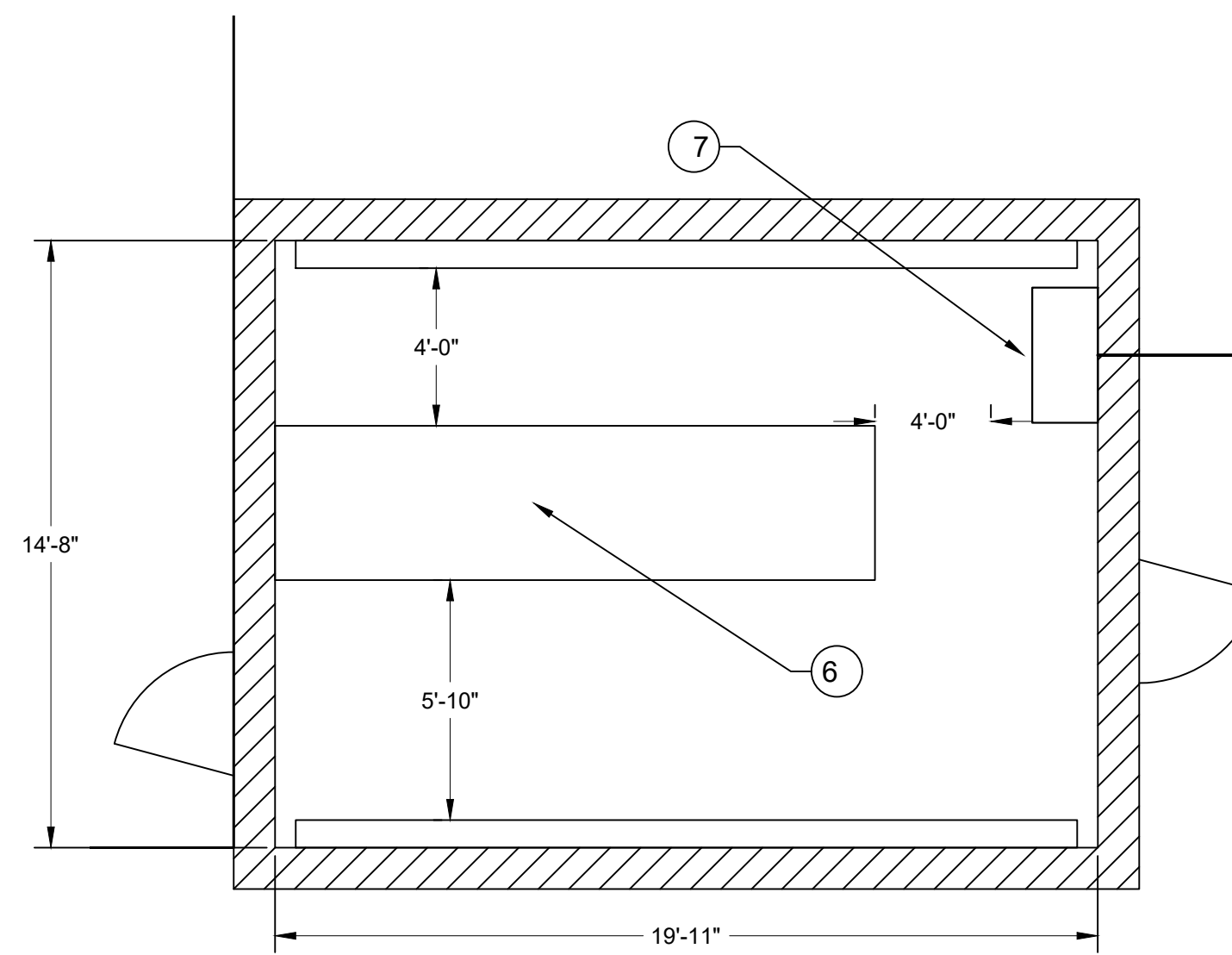
SYSTEM 1 ELECTRICAL ROOM

SCALE: 1/4" = 1'-0"

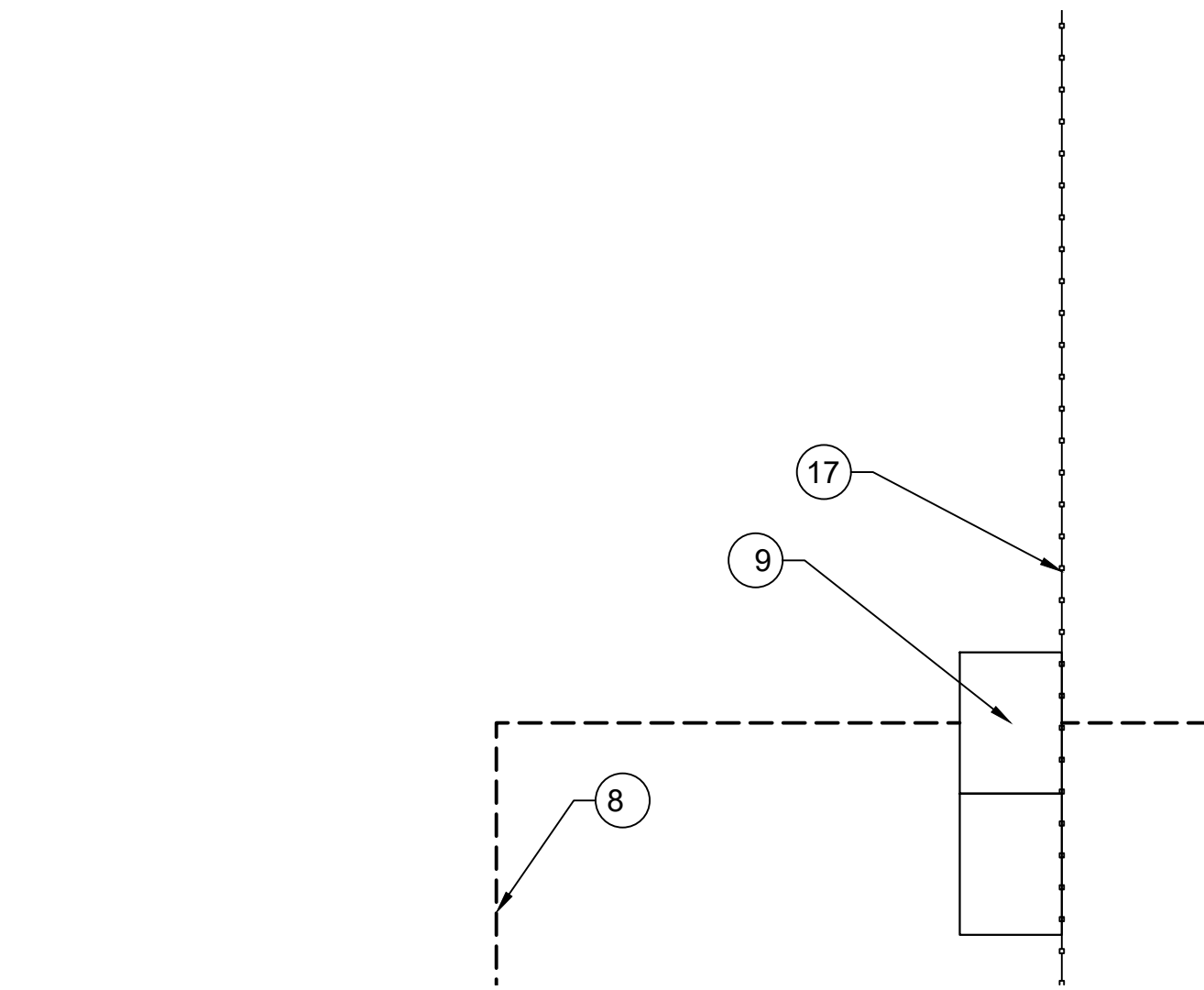


- ① N. ARRAY "A". 4410 MODULES MOUNTED ON
STRUCTURE.
 - ② N. FENCELINE AROUND ARRAY "A". 15'
CLEARANCE FROM ARRAY.
 - ③ N. FENCE GATE.
- S1** — DENOTES SYSTEM NUMBER
I1 — DENOTES INVERTER NUMBER
S1 — DENOTES STRING NUMBER
- PHOTOVOLTAIC MODULE

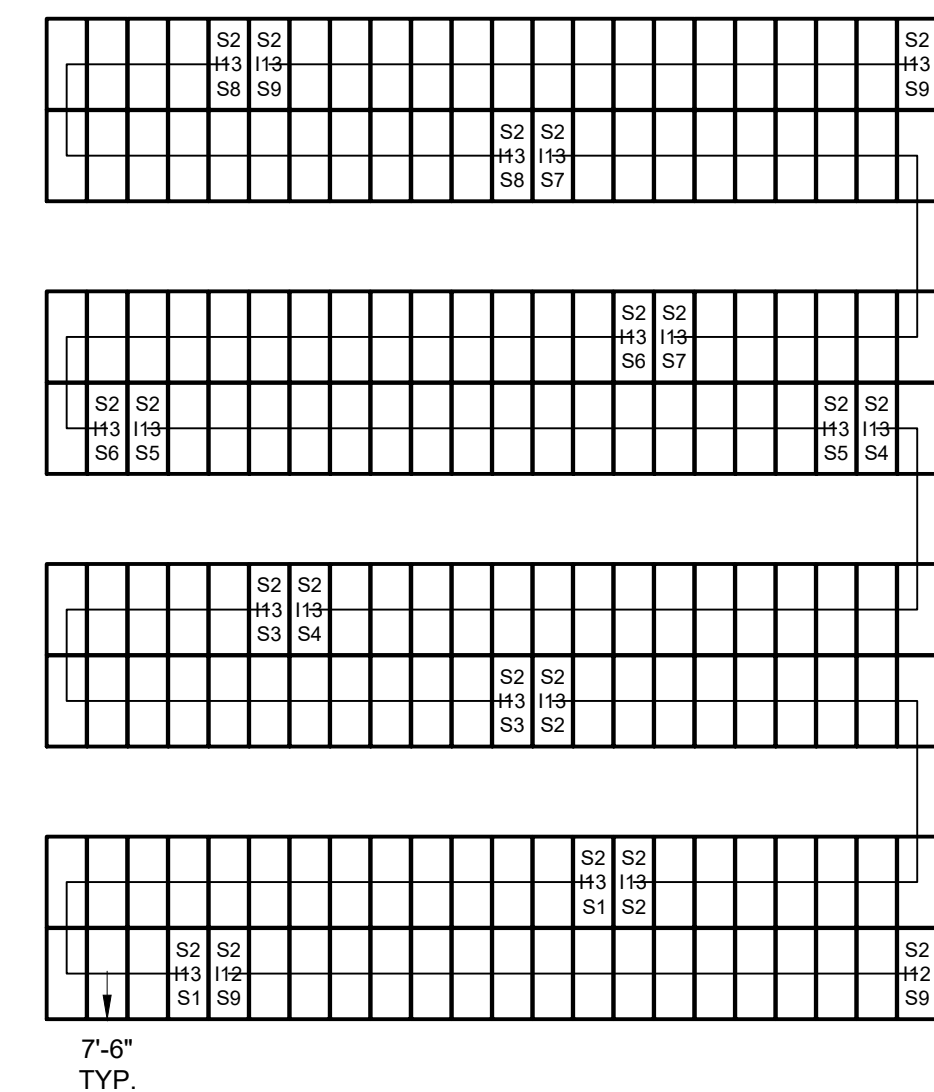




9 SYSTEM 2 ELECTRICAL ROOM
SCALE: 1/4" = 1'-0"

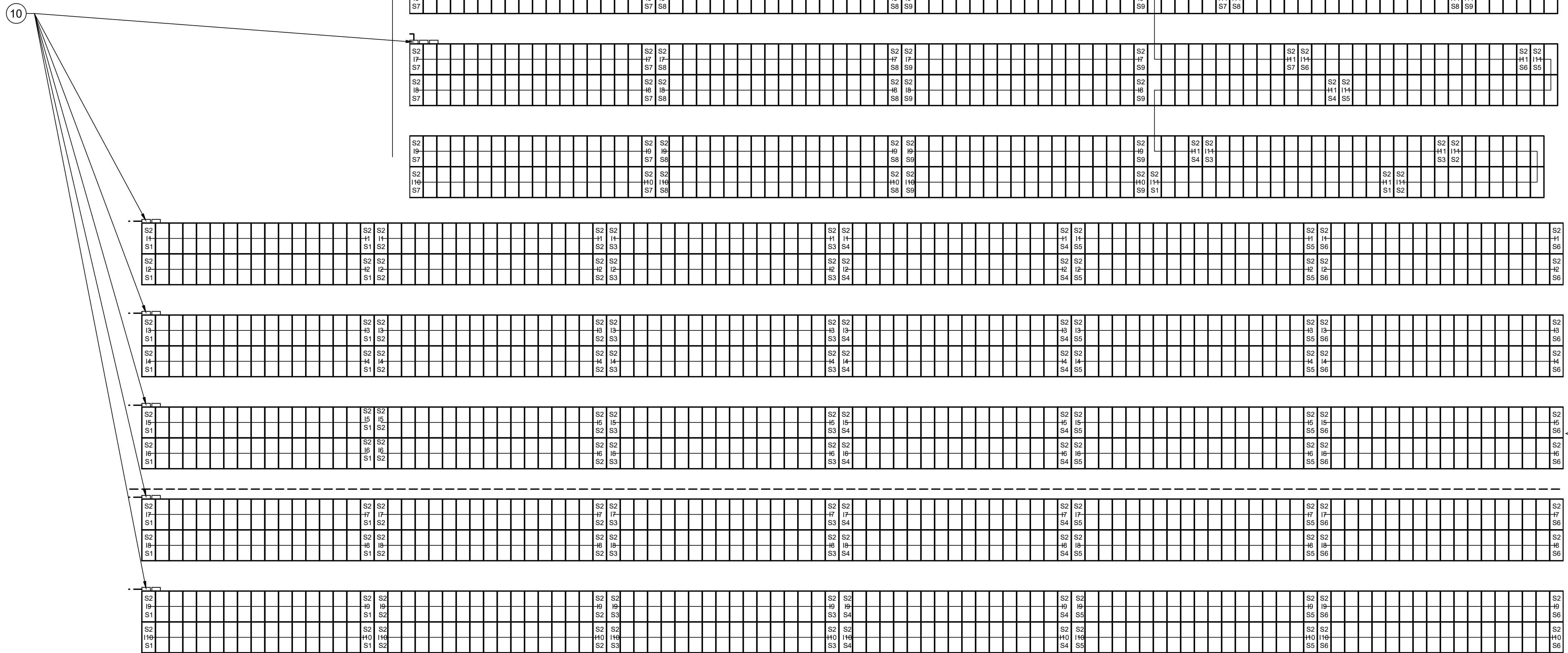


8 SYSTEM 2 ELECTRICAL EQUIPMENT
SCALE: 1/4" = 1'-0"



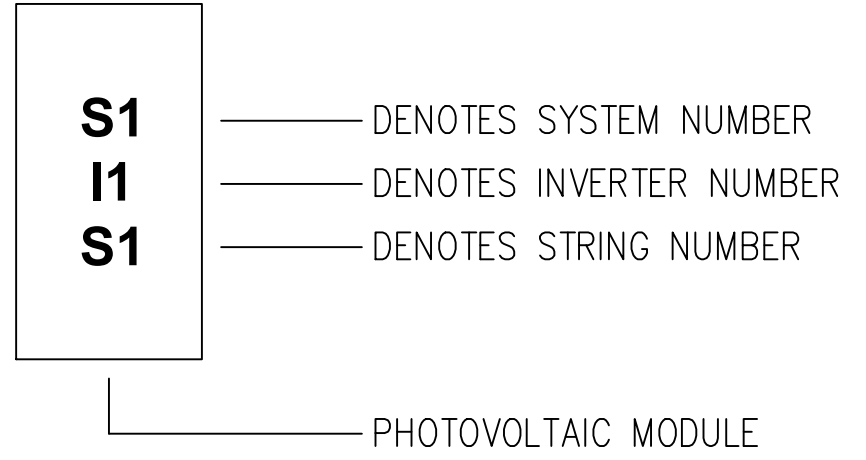
PLAN LEGEND

- 7 E. SYSTEM 2 IID METER 5DY3B-200511 3000A 480Y/277V 3P-4W SWITCHGEAR. INTERIOR. PAD MOUNTED.
- 8 N. 1600A 600V 3P/4W FUSED PHOTOVOLTAIC AC DISCONNECT. 1600A FUSES. INTERIOR. WALL MOUNTED. SYSTEM DISCONNECT 1 OF 2.
- 9 N. UNDERGROUND PVC SCH40. SEE PV4.1 FOR WIRE SCHEDULE.
- 10 N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.1 FOR WIRE SCHEDULE.
- 11 N. 1600A 480Y/277V PV COMBINER SWITCHGEAR W/ RPU METER SOCKET. SYSTEM DISCONNECT 2 OF 2.
- 12 N. SCA60TL-DO/US-480 PV INVERTERS. OUTDOOR RATED W/INTEGRATED DC & AC DISCONNECTS. ARRAY MOUNTED.



7 SYSTEM 2 ARRAY PLAN
SCALE: 1/16" = 1'-0"

- 13 N. ARRAY "A". 4410 MODULES MOUNTED ON STRUCTURE.
- 14 N. FENCELINE AROUND ARRAY "A". 15' CLEARANCE FROM ARRAY.
- 15 N. FENCE GATE.



CONTRACTOR
REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
(949) 281-7171

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SIGNATURE _____ DATE _____ STATE LICENSE NO. 1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
7/27/2021		INITIAL PLAN SET	A.L.	--
8/18/2021		1ST REVISIONS	A.L.	--
9/1/2021		1ST CORRECTIONS	A.L.	--
9/9/2021		2ND REVISIONS	A.L.	--

SYSTEM INFO:
TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4996) TRINA TSM-4750E15V(I)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:
SYSTEM SIZE DC STC: 630.80 KW
SYSTEM SIZE AC CEC: 561.05 KW
SOLAR MODULES: (1328) TRINA TSM-4750E15V(I)
INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:
SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-4750E15V(I)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

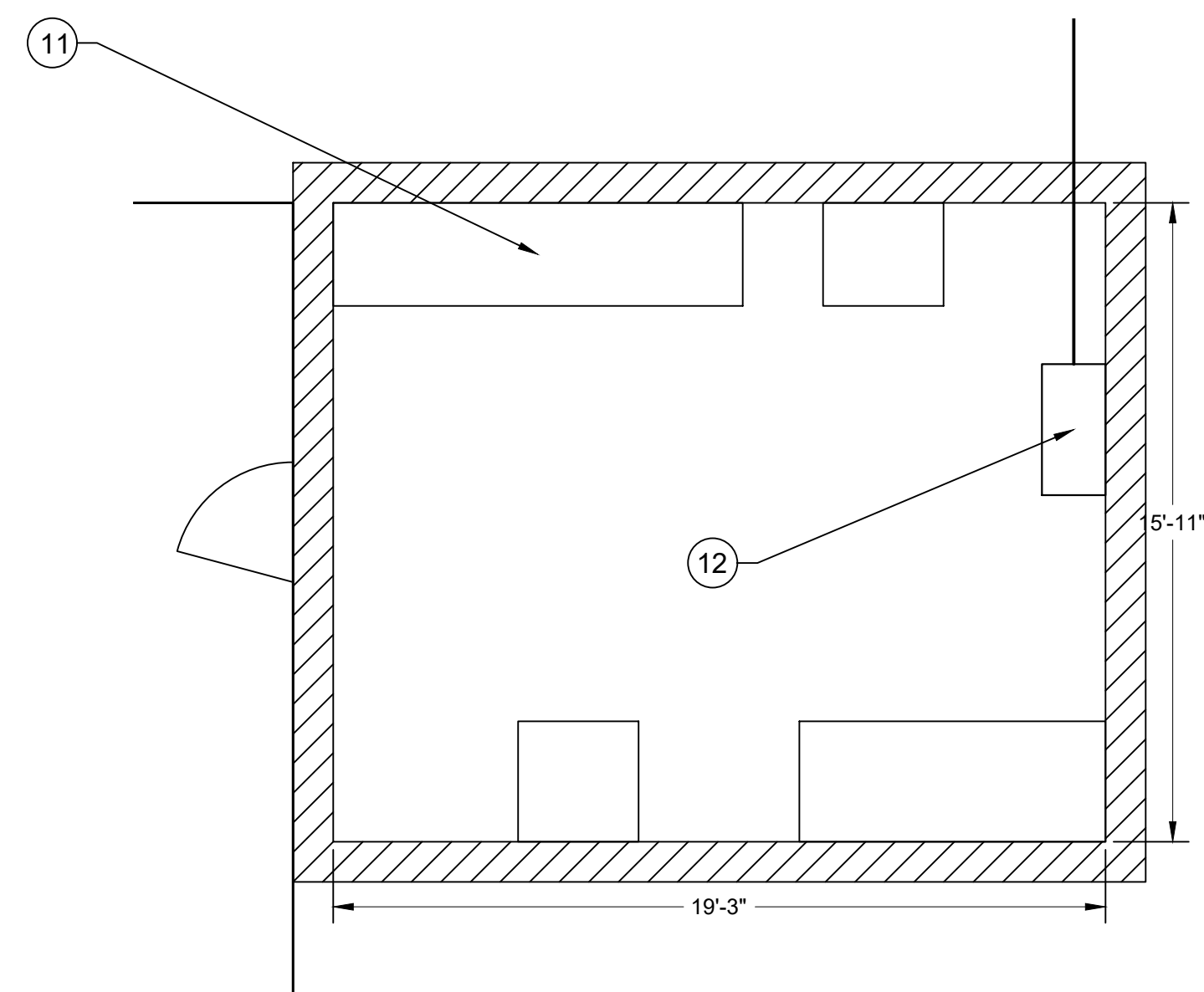
SYSTEM (PLANT) 3:
SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-4750E15V(I)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

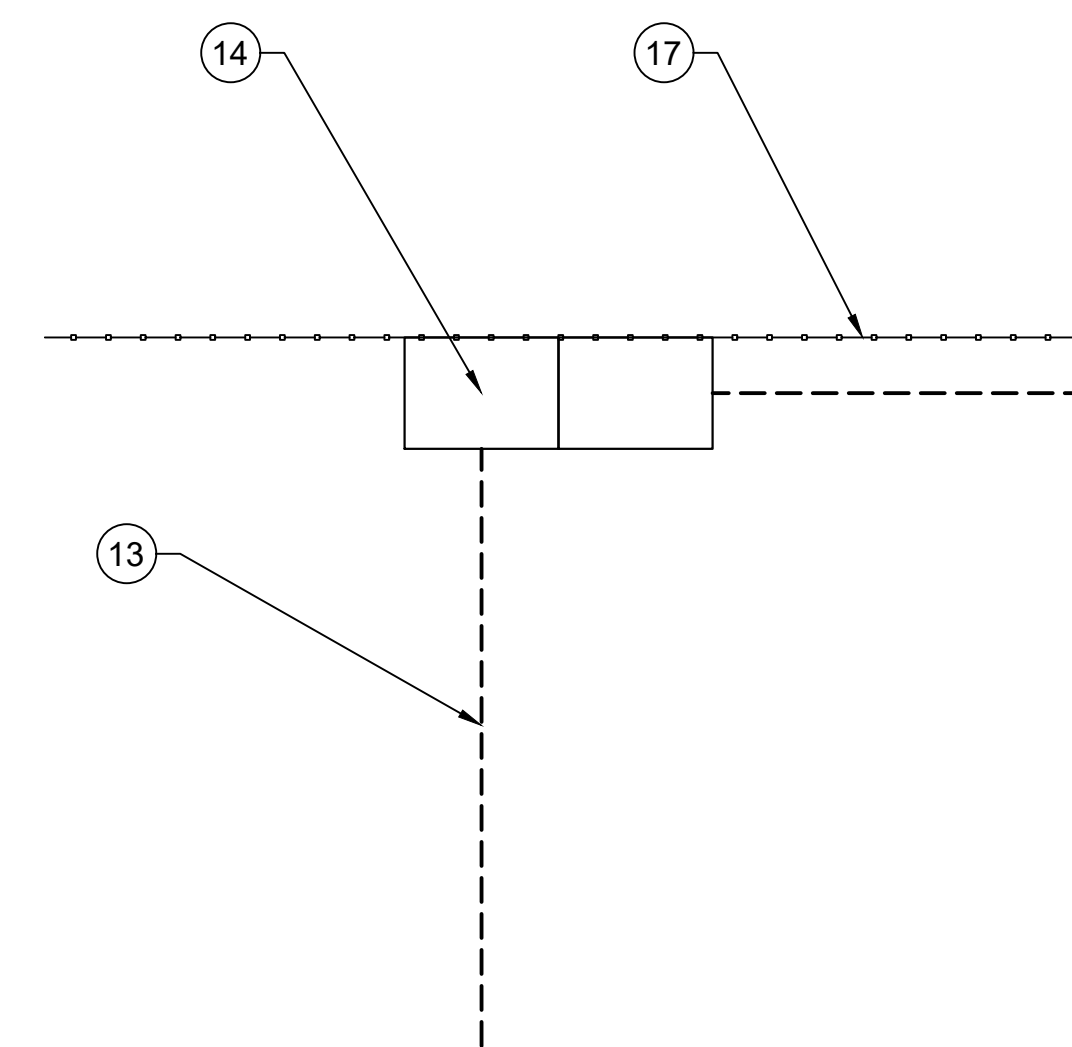
SYSTEM 2 PLAN

PV 3.2

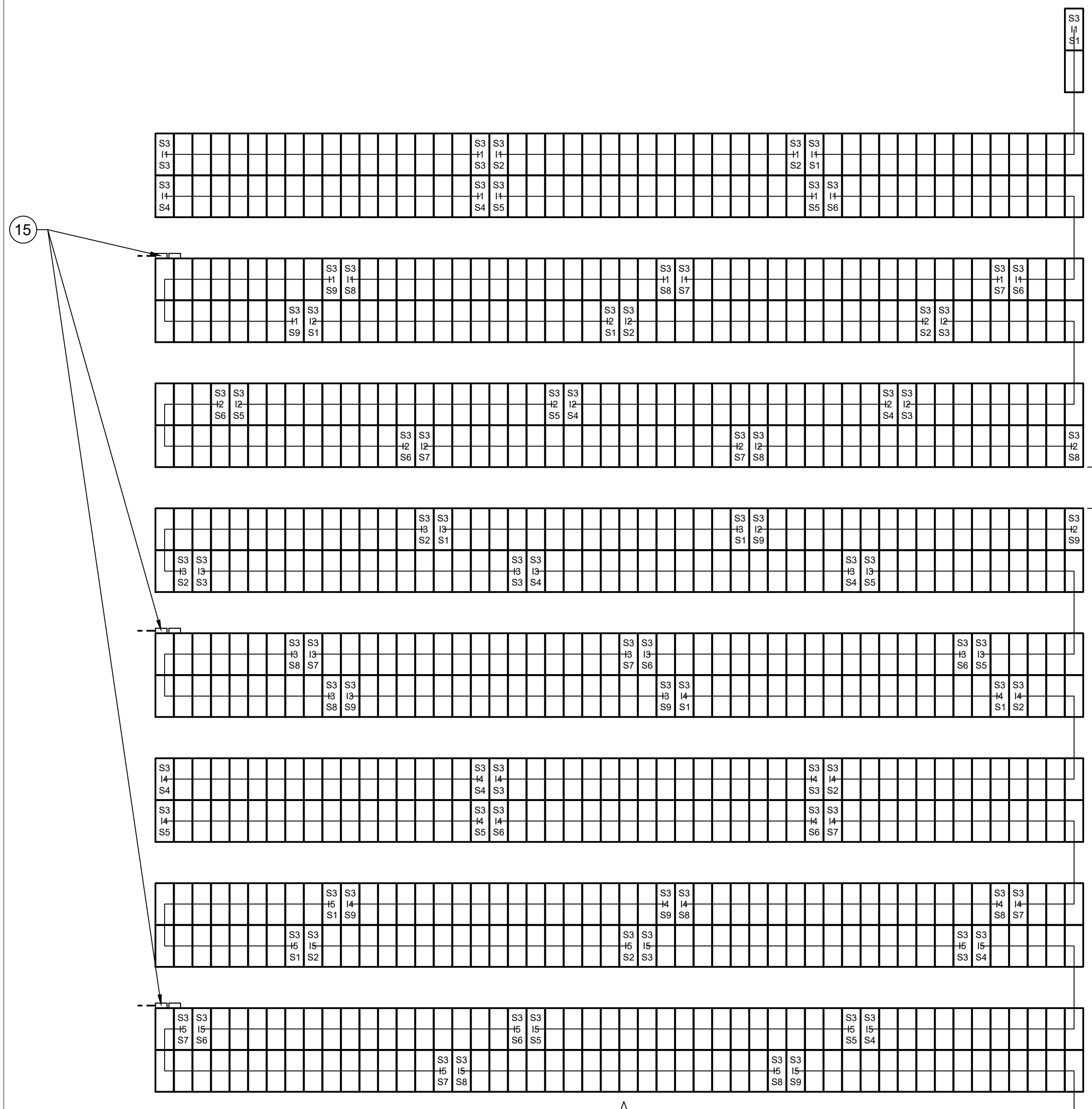




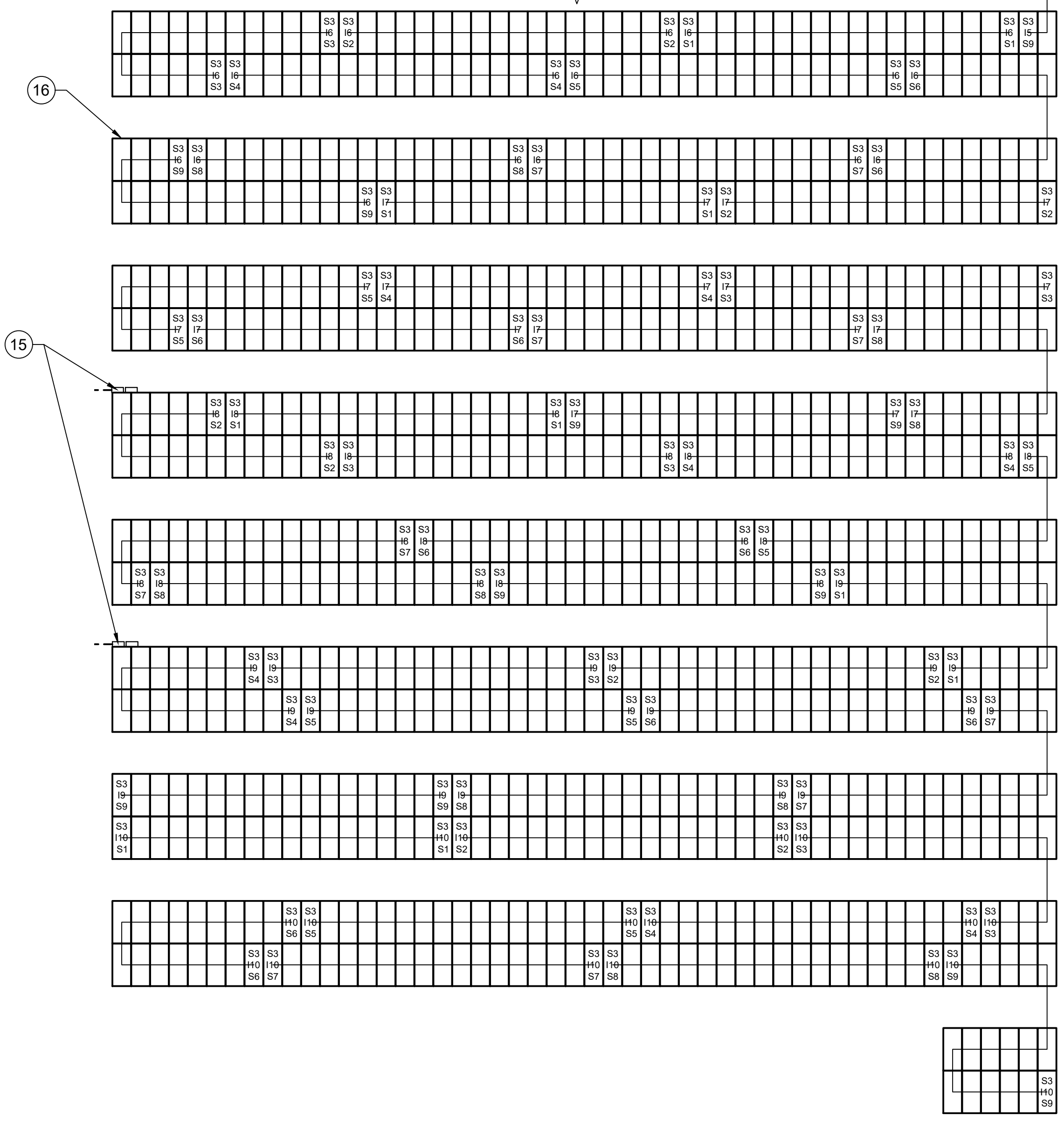
12 SYSTEM 3 ELECTRICAL ROOM
SCALE: 1/4" = 1'-0"



11 SYSTEM 3 ELECTRICAL EQUIPMENT
SCALE: 1/4" = 1'-0"



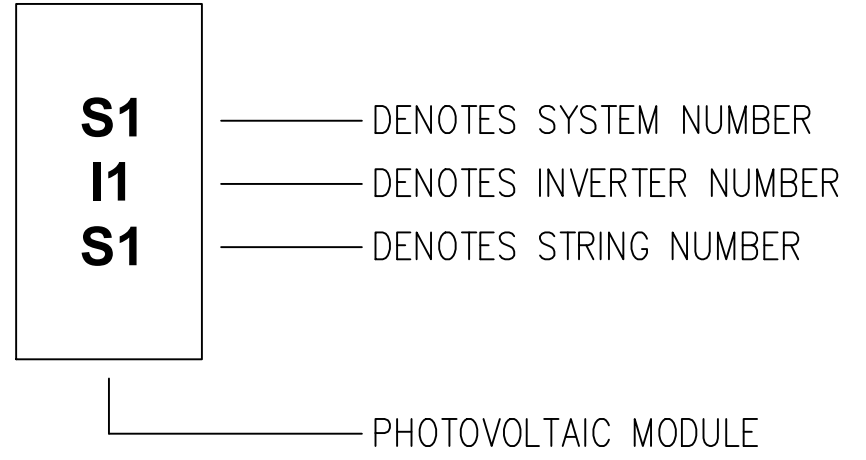
10



SYSTEM 3 ARRAY PLAN
SCALE: 1/16" = 1'-0"

PLAN LEGEND

- 13 E. SYSTEM 3 IID METER 5DY3B-200438
3000A 480Y/277V 3P-4W SWITCHGEAR.
INTERIOR. PAD MOUNTED.
- 14 N. 1200A 600V 3P/4W FUSED PHOTOVOLTAIC AC
DISCONNECT. 1000A FUSES. INTERIOR. WALL
MOUNTED.
SYSTEM DISCONNECT 1 OF 2.
- 15 N. UNDERGROUND PVC SCH40. SEE PV4.2 FOR
WIRE SCHEDULE.
- 16 N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.2
FOR WIRE SCHEDULE.
- 17 N. 1200A 480Y/277V PV COMBINER SWITCHGEAR
W/ RPU METER SOCKET.
SYSTEM DISCONNECT 2 OF 2.
- 18 N. SCA60TL-DO/US-480 PV INVERTERS.
OUTDOOR RATED W/INTEGRATED DC & AC
DISCONNECTS. ARRAY MOUNTED.
- 19 N. ARRAY "A". 4410 MODULES MOUNTED ON
STRUCTURE.
- 20 N. FENCELINE AROUND ARRAY "A". 15'
CLEARANCE FROM ARRAY.
- 21 N. FENCE GATE.



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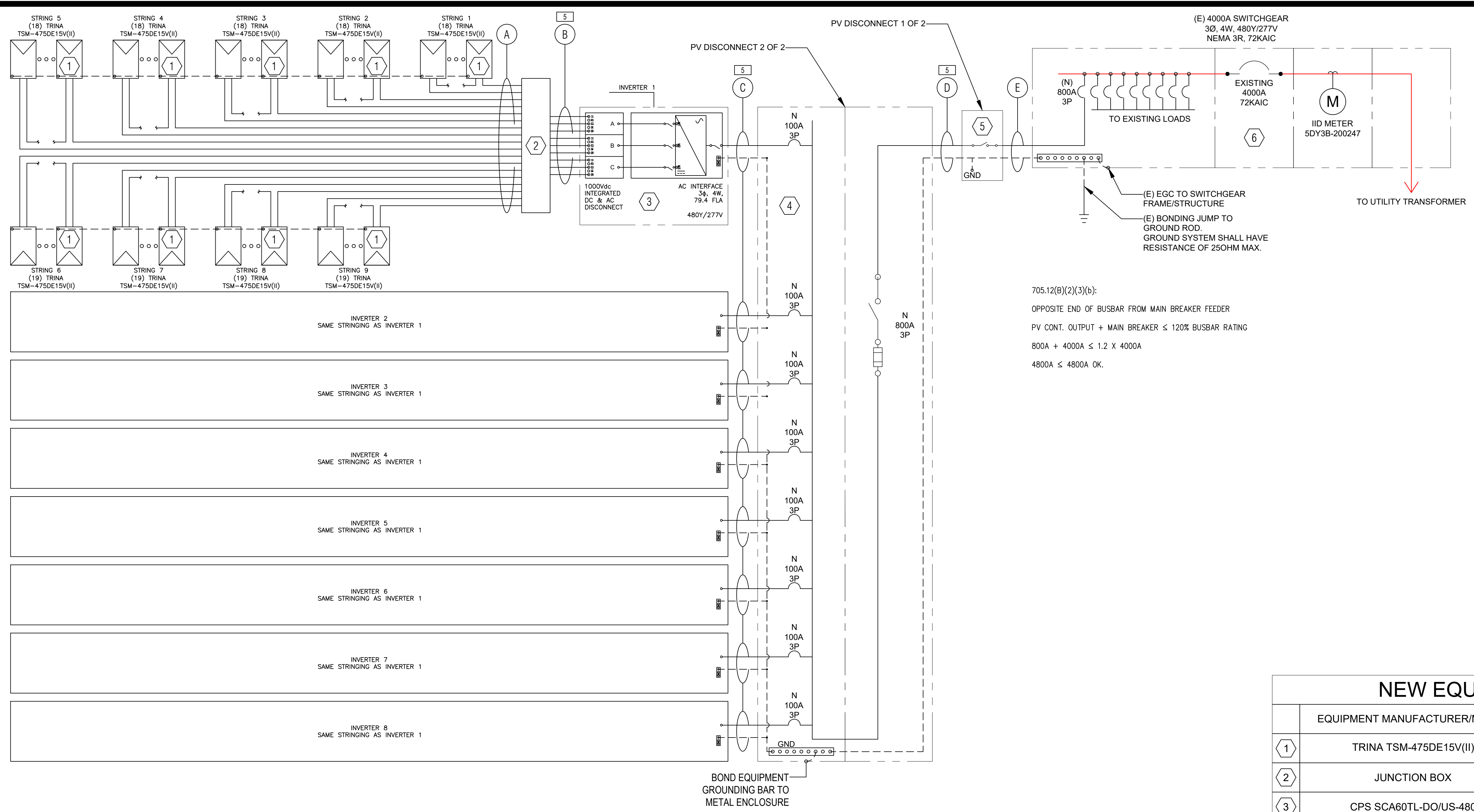
ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
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9/11/2021		1ST CORRECTIONS	A.L.	--
9/9/2021		2ND REVISIONS	A.L.	--

SYSTEM INFO:
TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4995) TRINA TSM-4750E15V(I)
INVERTER(S): (31) CPS SCA60TL-DO/US-480
SYSTEM (PLANT) 1:
SYSTEM SIZE DC STC: 630.80 KW
SYSTEM SIZE AC CEC: 581.05 KW
SOLAR MODULES: (1328) TRINA TSM-4750E15V(I)
INVERTER(S): (8) CPS SCA60TL-DO/US-480
SYSTEM (PLANT) 2:
SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-4750E15V(I)
INVERTER(S): (13) CPS SCA60TL-DO/US-480
SYSTEM (PLANT) 3:
SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-4750E15V(I)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

SYSTEM 3 PLAN
PV 3.3



EQUIPMENT NOTES

- 1 PHOTOVOLTAIC MODULES INCLUDE #12 AWG OUTDOOR RATED MC4 CONNECTORS FOR MODULE INTERCONNECTION. DO NOT REMOVE THE QUICK CONNECTS, OTHERWISE THE MODULE WARRANTY AND THE UL LISTING WILL BE INVALIDATED.
- 2 #6 AWG BARE COPPER GROUND WILL BE USED AS EQUIPMENT GROUND FOR THE RACKING. USE MODULE GROUNDING METHODS PER MANUFACTURERS INSTALLATION REQUIREMENTS. THE MODULE EQUIPMENT GROUND SHALL TERMINATE AT THE INVERTER CABINET.
- 3 INVERTERS NEMA 3R RATED WITH UL 1741-SA LISTING INCLUDING INTERNAL ANTI-ISLANDING PROTECTION FEATURES WITH CA RULE 21 COMPLIANCE. UL1741 LISTING INCLUDES COMPLIANCE WITH IEEE1547 FOR INTERCONNECTION SYSTEM AND TEST REQUIREMENTS AND THE NATIONAL ELECTRIC CODE. TIED TO EXISTING FACILITY GROUND. INVERTER HAS INTERNAL DC DISCONNECTION MEANS, FUSED AT 20A PER POLE. INVERTER IS U.L. LISTED AS A UNIT. UNIT IS EQUIPPED WITH UL1741 APPROVED GROUND FAULT DETECTION DEVICE THAT MEETS NEC 250.122 REQUIREMENTS FOR EQUIPMENT GROUNDING. NOTE: SEE ATTACHED CUTSHEETS FOR DETAILS.
- 4 PER NEC 250.53(A)(2), A SINGLE ROD, PIPE OR PLATE ELECTRODE SHALL BE SUPPLEMENTED BY AN ADDITIONAL ELECTRODE OF TYPE SPECIFIED IN 250.52(A)(2) THROUGH (A)(6) SPACED NO LESS THAN 6FT APART. EXCEPTION, IF A SINGLE ROD, PIPE OR PLATE GROUNDING ELECTRODE HAS A RESISTANCE TO EARTH OF 25 OHMS OR LESS, THE SUPPLEMENTAL ELECTRODE SHALL NOT BE REQUIRED.
- 5 ALL UNDERGROUND CONDUIT IS TO BE SCH40 PVC.

705.12(B)(2)(3)(b):
 OPPOSITE END OF BUSBAR FROM MAIN BREAKER FEEDER
 PV CONT. OUTPUT + MAIN BREAKER ≤ 120% BUSBAR RATING
 800A + 4000A ≤ 1.2 X 4000A
 4800A ≤ 4800A OK.

NEW EQUIPMENT SCHEDULE

EQUIPMENT MANUFACTURER/MODEL	EQUIPMENT DESCRIPTION
1 TRINA TSM-475DE15V(II)	TRINA SOLAR 475W PV MODULE
2 JUNCTION BOX	NEMA 3R JUNCTION BOX
3 CPS SCA60TL-DO/US-480	CPS 60KW INVERTER W/ INTEGRATED DC & AC DISCONNECTS
4 PV COMBINER SWITCHGEAR	800A BUSBAR, 800A DISCONNECT, 480Y/277V, 3φ, 4W, 42KAIC
5 AC DISCONNECT SWITCH	800A, NONFUSED, 480Y/277V, 3φ, 4W, VIEWABLE, LOCKABLE
6 EXISTING MAIN SERVICE PANEL	4000A BUSBAR, 4000A DISCONNECT, 480Y/277V, 3φ, 4W, 72KAIC

SEE PV 5 FOR GROUNDING DETAILS

FAULT POINT	PANEL OR TRANSFORMER	PHASE	FAULT POINT	SOURCE ISC (AMPS)	FEDDER CONDUIT TYPE	# REBUS SIZE	FEDDER MATERIAL CU or AL	C VALUE	L-L VOLTS E	CIRCUIT LENGTH L	LOAD POWER FACTOR (pf)	CIRCUIT LOAD A	CONDUCTOR RESISTANCE R	CONDUCTOR REACTANCE X	f	M	FAULT CURRENT ISC	FAULT POINT
0				72000													72000	0
1	POC TO AC DISCONNECT	3	0	72000	M	3	CU	18176.59	480	10	0.97	635.2	0.000045	0.000045	0.048	0.95	68726	1
2	AC DISCONNECT TO PV COMBINER	3	1	68726	M	3	CU	18176.59	480	400	0.97	635.2	0.000045	0.000051	1.819	0.35	24378	2
3	PV COMBINER TO INVERTER	3	2	24378	M	1	CU	4774.00	480	25	0.97	79.4	0.000250	0.000059	0.461	0.88	16690	3

INVERTER	String #	MOD/STRING	Current Per String	VOLTAGE VMAX	Wire Size	Ohms/M	Wire Length One Way	Total Ohms	E _{IR}	V _D	%VD
1	1 thru 6	18	13.80	833.99	#10	1.24	675	1.674	23.101		2.770%
1	7 thru 9	19	13.80	880.32	#10	1.24	675	1.674	23.101		2.624%
2	1 thru 8	18	13.80	833.99	#10	1.24	675	1.674	23.101		2.770%
2	1 thru 9	19	13.80	880.32	#10	1.24	675	1.674	23.101		2.624%

Inverter Specifications:
 Inverter Manufacturer: Chint Power Systems
 Inverter Type: CPS SCA60TL-DO/US-480
 Max String Voltage Using -0.25%/°C temp. factor of module = 880.4V
 Max String Voltage Using 1.14 temp. factor of module = 933.6V

Input (DC):
 MAX used Power input per channel: 33000 W
 Module Compatibility: 1000 V
 Maximum Input DC Voltage: 1000 V
 Maximum Amp Isc: 68 per MPPT

Output (AC):
 Peak output power: 66000 VA
 Maximum Continuous Output Power: 60000 VA
 Nominal output voltage: 480 V
 Nominal output current: 79.4 A

CEC Efficiency: 98.5 %
Ambient Temperature: -30°C to +60°C
Operating Voltage: 480V-3Phase
Max Operating Current: 79.4A-3Phase

Module Specifications
 Module Manufacturer: Trina Solar
 Module Model: TSM-475DE15V(II)

Parameters (DC):
 Local Temperature (°C): -5°C to 44°C
 Coldest Day Voc: 46.33 V
 Warmest Day Vmp: 31.58 V
 Maximum Fuse Rating: 25 A

Output (AC):
 Voc: 43.1 Vdc
 Vmp: 36.2 Vdc
 Isc: 13.8 A
 Imp: 13.12 A

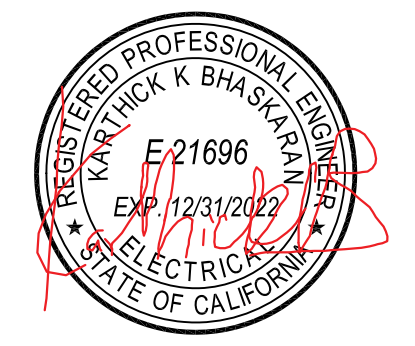
STC Power: 475 W
PTC Power: 444.2 W
Max System Voltage: 1500 V
Voc Temp. Coeff: -0.25 %/°C

CABLE	CABLE TYPE	CABLE VOLTAGE RATINGS (V)	CABLE TEMP RATING	AMBIENT TEMP (°C)	DISTANCE ABOVE ROOF TO BOTTOM OF CONDUIT	ADJUSTED AMBIENT TEMP (°C)	CONDUIT	CONDUIT TYPE	# OF CONDUCTORS PER PHASE	WIREBUS SIZE	NEUTRAL	GROUND	TOTAL CC CONDUCTORS IN RACEWAY (A)	BASE AMPACITY (A)	DERATING FACTOR FOR CONDUCTORS PER RACEWAY (NEC 310.15(B)(3)(a))	DERATING FACTOR FOR AMBIENT TEMPERATURE (NEC 310.15(B)(2)(a))	OVERALL DERATING FACTOR	DERATED AMPACITY (A)	CIRCUIT LOAD (A)	CIRCUIT LOAD (A) (150%DC, 125%AC)	MINIMUM PER LOAD	MAXIMUM OCPD PER DERATED CABLE	EST. DISTANCE FT	VOLTAGE DROP %VD	TOTAL V.D. %VD CUM.
A	PV-MRE	1000	90°C (194°F)	44	NOT ON ROOF	44	NA	FREE AIR	1	Set(s) of #10	NA	#6	18	55	43.500%	87%	43.500%	23.9	13.8	17.25	20	500			
B	XHMW-2	1000	90°C (194°F)	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #10	NA	#8	18	40	50%	87%	43.500%	17.4	13.8	17.25	20	175		SEE DC VDPROP	
C	THWN-2 (Cu)	600	90°C (194°F)	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #3	#3	#8	3	115	100%	87%	87.000%	100.1	79.4	99.25	100	100	25	0.18%	0.18%
D	THWN-2 (Cu)	600	90°C (194°F)	44	ABOVE 7/8"	44	2-1/2"	EMT	3	Set(s) of 300KCMIL	300KCMIL	#10	3	960	100%	87%	87.000%	835.2	635.2	794.00	800	800	400	1.38%	1.55%
E	THWN-2 (Cu)	600	90°C (194°F)	44	NOT ON ROOF	44	2-1/2"	EMT	3	Set(s) of 300KCMIL	300KCMIL	#10	3	960	100%	87%	87.000%	835.2	635.2	794.00	800	800	10	0.03%	1.59%

CONTRACTOR
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	9/9/2021	2ND REVISIONS	A.L.	--

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 TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
 TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
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 INVERTER(S): (31) CPS SCA60TL-DO/US-480

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 SYSTEM SIZE AC CEC: 581.05 KW
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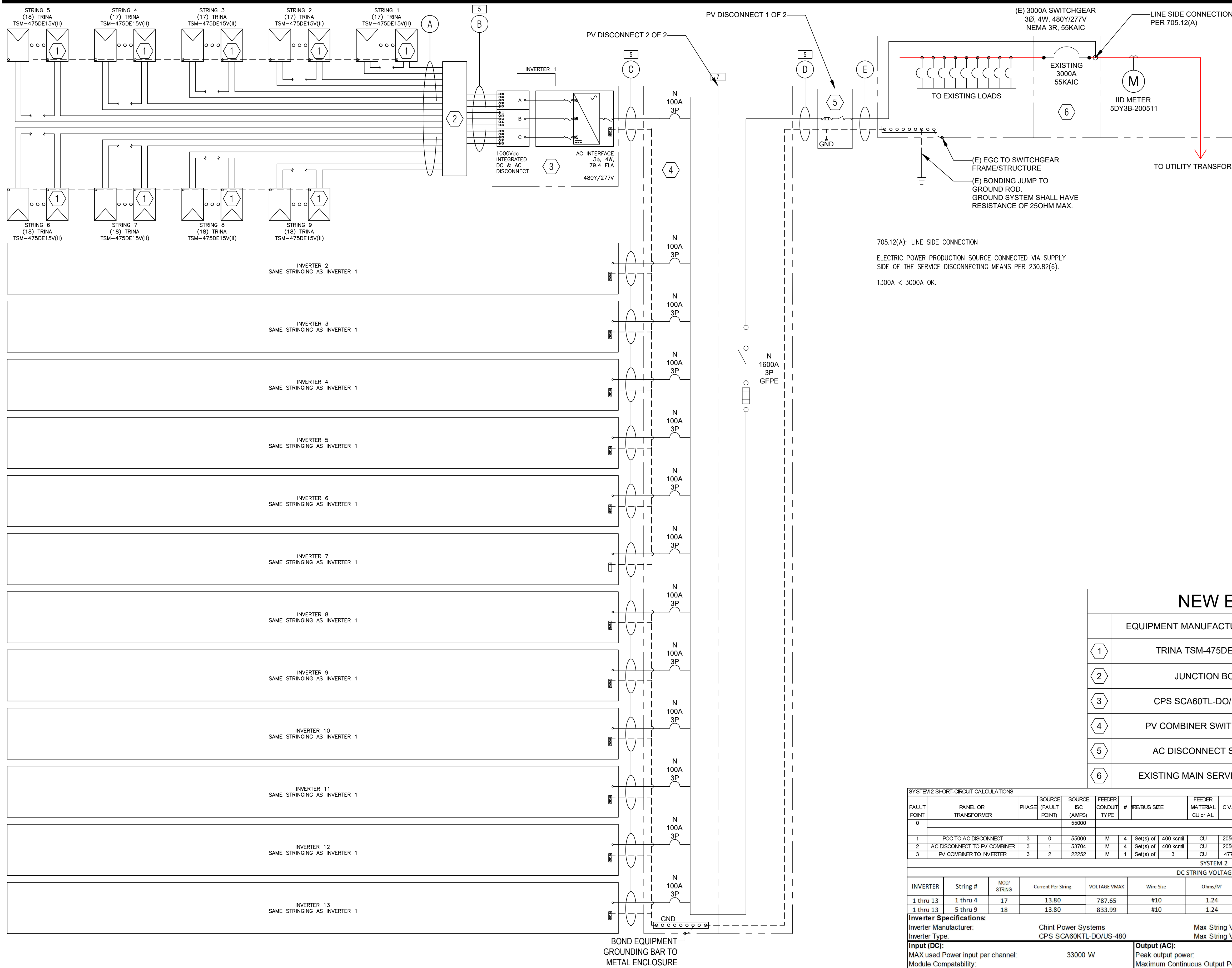
SYSTEM (PLANT) 2:
 SYSTEM SIZE DC STC: 975.65 KW
 SYSTEM SIZE AC CEC: 898.70 KW
 SOLAR MODULES: (2054) TRINA TSM-475DE15V(II)
 INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
 SYSTEM SIZE DC STC: 766.65 KW
 SYSTEM SIZE AC CEC: 706.18 KW
 SOLAR MODULES: (1614) TRINA TSM-475DE15V(II)
 INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

SYSTEM 1 SLD

PV 4.0



EQUIPMENT NOTES

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- 5 ALL UNDERGROUND CONDUIT IS TO BE SCH40 PVC.
- 6 ANY ALTERATIONS TO THE EXISTING MAIN SWITCHGEAR'S MECHANICAL/ELECTRICAL CHARACTERISTICS REQUIRES A THIRD PARTY SITE EVALUATION TO RE-CERTIFY THE SWITCHGEAR TO UL STANDARDS.
- 7 GROUND FAULT PROTECTION WILL BE PROVIDED PER 230.95.

CONTRACTOR

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8/18/2021	8/18/2021	1ST REVISIONS	A.L.	--
9/1/2021	9/1/2021	1ST CORRECTIONS	A.L.	--
9/9/2021	9/9/2021	2ND REVISIONS	A.L.	--

NEW EQUIPMENT SCHEDULE

	EQUIPMENT MANUFACTURER/MODEL	EQUIPMENT DESCRIPTION
1	TRINA TSM-475DE15V(II)	TRINA SOLAR 475W PV MODULE
2	JUNCTION BOX	NEMA 3R JUNCTION BOX
3	CPS SCA60TL-DO/US-480	CPS 60KW INVERTER W/ INTEGRATED DC & AC DISCONNECTS
4	PV COMBINER SWITCHGEAR	1600A BUSBAR, 1600A DISCONNECT, 480Y/277V, 3Φ, 4W, 42KAIC
5	AC DISCONNECT SWITCH	1600A, 1600A FUSES, 480Y/277V, 3Φ, 4W, VIEWABLE, LOCKABLE, 55KAIC
6	EXISTING MAIN SERVICE PANEL	3000A BUSBAR, 3000A DISCONNECT, 480Y/277V, 3Φ, 4W, 55KAIC

SYSTEM 2 SHORT-CIRCUIT CALCULATIONS

FAULT POINT	PANEL OR TRANSFORMER	PHASE	FAULT POINT	SOURCE ISC (AMPS)	FEEDER CONDUIT #	REBUS SIZE	FEEDER MATERIAL CU or AL	C VALUE	L-L VOLTS E	CIRCUIT LENGTH L	LOAD POWER FACTOR (pf)	CIRCUIT LOAD A	CONDUCTOR RESISTANCE R	CONDUCTOR REACTANCE X	f	M	FAULT ISC	FAULT POINT
0				55000													55000	0
1	POC TO AC DISCONNECT	3	0	55000	M 4	Set(s) of 400 kcmil	CJ	20565.77	480	10	0.97	1032.2	0.000035	0.000035	0.024	0.98	53704	1
2	AC DISCONNECT TO PV COMBINER	3	1	53704	M 4	Set(s) of 400 kcmil	CJ	20565.77	480	600	0.97	1032.2	0.000035	0.000049	1.413	0.41	22252	2
3	PV COMBINER TO INVERTER	3	2	22252	M 1	Set(s) of 3	CJ	4774.00	480	15	0.97	79.4	0.000250	0.000059	0.252	0.80	17769	3

SYSTEM 2 DC STRING VOLTAGE DROP

INVERTER	String #	MOD/STRING	Current Per String	VOLTAGE VMAX	Wire Size	Ohms/M	Wire Length One Way	Total Ohms	EstR	VD	%VD
1 thru 13	1 thru 4	17	13.80	787.65	#10	1.24	615	1.525	21.048	2.672%	
1 thru 13	5 thru 9	18	13.80	833.99	#10	1.24	615	1.525	21.048	2.524%	

Inverter Specifications:
 Inverter Manufacturer: Chint Power Systems
 Inverter Type: CPS SCA60TL-DO/US-480
 Max String Voltage Using -0.25%/°C temp. factor of module = 834V
 Max String Voltage Using 1.14 temp. factor of module = 884.5V

Input (DC):
 MAX used Power input per channel: 33000 W
 Module Compatibility: 60000 VA
 Maximum Input DC Voltage: 1000 V
 Maximum Amp Isc: 68 per MPPT

Output (AC):
 Peak output power: 66000 VA
 Maximum Continuous Output Power: 60000 VA
 Nominal output voltage: 480 V
 Nominal output current: 79.4 A

CEC Efficiency: 98.5 %
Ambient Temperature: -30°C to +60°C
Operating Voltage: 480V-3Phase
Max Operating Current: 79.4A-3Phase

Module Specifications:
 Module Manufacturer: Trina Solar
 Module Model: TSM-475DE15V(II)

Parameters (DC):
 Local Temperature (°C): -5°C to 44°C
 Coldest Day Voc: 46.33 V
 Warmest Day Vmp: 31.58 V
 Maximum Fuse Rating: 25 A

Output (AC):
 Voc: 43.1 Vdc
 Vmp: 36.2 Vdc
 Isc: 13.8 A
 Imp: 13.12 A

STC Power: 475 W
PTC Power: 444.2 W
Max System Voltage: 1500 V
Voc Temp. Coeff: -0.25 %/°C

CABLE SCHEDULE, BREAKER SIZING AND AMPACITY CALCULATIONS FOR SYSTEM 2

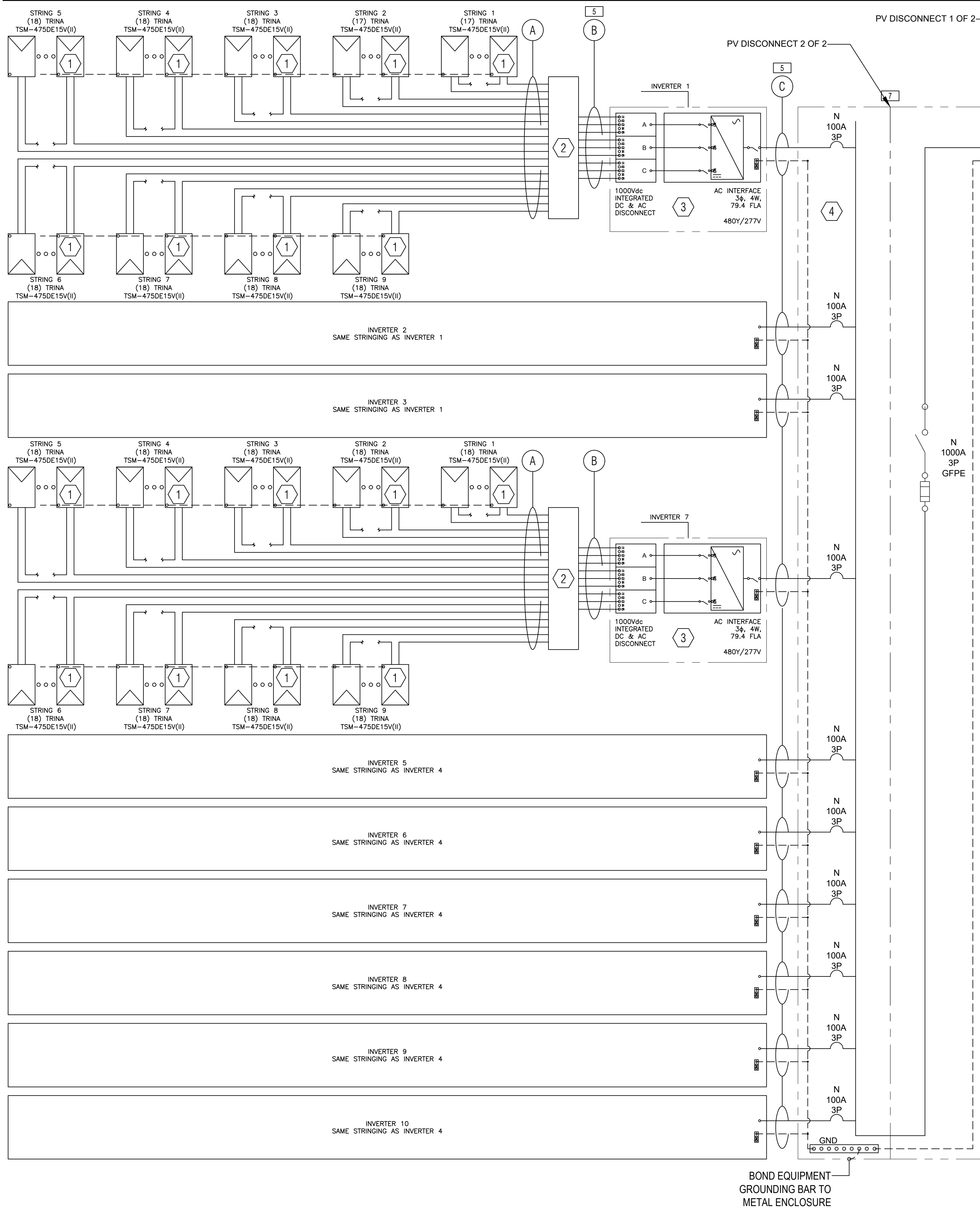
CABLE	CABLE TYPE	CABLE VOLTAGE RATING (V)	CABLE TEMP RATING	AMBIENT TEMP (°C)	DISTANCE ABOVE ROOF TO BOTTOM OF CONDUIT	ADJUSTED AMBIENT TEMP (°C)	CONDUIT	CONDUIT TYPE	# OF CONDUCTORS PER PHASE	WIREBUS SIZE	NEUTRAL	GROUND	TOTAL CC CONDUCTORS IN RACEWAY	BASE AMPACITY (A)	DERATING FACTOR FOR CONDUCTORS PER RACEWAY NEC 310.15(B)(3)(a)	DERATING FACTOR FOR AMBIENT TEMPERATURE NEC 310.15(B)(2)(a)	OVERALL DERATING FACTOR	CIRCUIT LOAD (A)	CIRCUIT LOAD (A) (156%DC, 125%AC 125%OPT, 100%BAT)	MINIMUM OCCP PER PER LOAD	MAXIMUM OCCP PER DERATED CABLE	EST. DISTANCE FT	VOLTAGE DROP %VD	TOTAL V.D. %VD CLUM	
A	PV-WIRE	1000	90°C (194°F) Cu	44	NOT ON ROOF	44	NA	FREEAIR	1	Set(s) of #10	NA	#6	18	55	50%	87%	43.500%	23.9	13.8	17.25	20	500	SEE DC VDROP		
B	XHHW-2	1000	90°C (194°F) Cu	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #10	NA	#6	18	40	50%	87%	43.500%	17.4	13.8	17.25	20	115			
C	THWN-2 (Cu)	600	90°C (194°F) Cu	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #3	#3	#6	3	115	100%	87%	87.000%	100.1	79.4	99.25	100	15	0.11%	0.11%	
D	THWN-2 (Cu)	600	90°C (194°F) Cu	44	ABOVE 7/8"	44	3"	EMT	4	Set(s) of 400KCMIL	400KCMIL	4/0	3	1520	100%	87%	87.000%	1322.4	1032.2	1280.25	1600	1200	600	1.96%	2.08%
E	THWN-2 (Cu)	600	90°C (194°F) Cu	44	NOT ON ROOF	44	3"	EMT	4	Set(s) of 400KCMIL	400KCMIL	4/0	3	1520	100%	87%	87.000%	1322.4	1032.2	1280.25	1600	1200	10	0.03%	2.10%

SEE PV 5 FOR GROUNDING DETAILS

DESCRIPTION:

SYSTEM 2 SLD

PV 4.1



705.12(A): LINE SIDE CONNECTION
ELECTRIC POWER PRODUCTION SOURCE CONNECTED VIA SUPPLY SIDE OF THE SERVICE DISCONNECTING MEANS PER 230.82(6).
1000A < 2000A OK.

EQUIPMENT NOTES

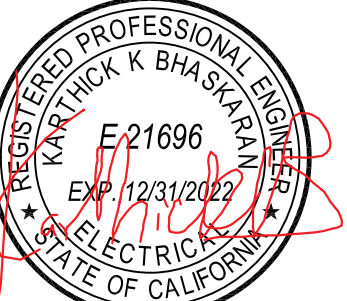
- 1 PHOTOVOLTAIC MODULES INCLUDE #12 AWG OUTDOOR RATED MC4 CONNECTORS FOR MODULE INTERCONNECTION. DO NOT REMOVE THE QUICK CONNECTS, OTHERWISE THE MODULE WARRANTY AND THE UL LISTING WILL BE INVALIDATED.
- 2 #6 AWG BARE COPPER GROUND WILL BE USED AS EQUIPMENT GROUND FOR THE RACKING. USE MODULE GROUNDING METHODS PER MANUFACTURERS INSTALLATION REQUIREMENTS. THE MODULE EQUIPMENT GROUND SHALL TERMINATE AT THE INVERTER CABINET.
- 3 INVERTERS NEMA 3R RATED WITH UL 1741-SA LISTING INCLUDING INTERNAL ANTI-ISLANDING PROTECTION FEATURES WITH CA RULE 21 COMPLIANCE. UL1741 LISTING INCLUDES COMPLIANCE WITH IEEE1547 FOR INTERCONNECTION SYSTEM AND TEST REQUIREMENTS AND THE NATIONAL ELECTRIC CODE. TIED TO EXISTING FACILITY GROUND. INVERTER HAS INTERNAL DC DISCONNECTION MEANS. FUSED AT 20A PER POLE. INVERTER IS UL LISTED AS A UNIT. UNIT IS EQUIPPED WITH UL1741 APPROVED GROUND FAULT DETECTION DEVICE THAT MEETS NEC 250.122 REQUIREMENTS FOR EQUIPMENT GROUNDING. NOTE: SEE ATTACHED CUTSHEETS FOR DETAILS.
- 4 PER NEC 250.53(A)(2), A SINGLE ROD, PIPE OR PLATE ELECTRODE SHALL BE SUPPLEMENTED BY AN ADDITIONAL ELECTRODE OF TYPE SPECIFIED IN 250.52(A)(2) THROUGH (A)(6) SPACED NO LESS THAN 6FT APART. EXCEPTION, IF A SINGLE ROD, PIPE OR PLATE GROUNDING ELECTRODE HAS A RESISTANCE TO EARTH OF 25 OHMS OR LESS, THE SUPPLEMENTAL ELECTRODE SHALL NOT BE REQUIRED.
- 5 ALL UNDERGROUND CONDUIT IS TO BE SCH40 PVC.
- 6 ANY ALTERATIONS TO THE EXISTING MAIN SWITCHGEAR'S MECHANICAL/ELECTRICAL CHARACTERISTICS REQUIRES A THIRD PARTY SITE EVALUATION TO RE-CERTIFY THE SWITCHGEAR TO UL STANDARDS.
- 7 GROUND FAULT PROTECTION WILL BE PROVIDED PER 230.95.

CONTRACTOR

REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
(949) 281-7171

I HEREBY CERTIFY THAT THE WORK PROPOSED TO BE DONE ON THESE PLANS IS IN CONFORMANCE WITH ALL CODES AND ORDINANCES OF THE A/J OF CITY OF COACHELLA AND FURTHER, IF OMISSIONS OR ERRORS ARE DISCOVERED, I UNDERSTAND THAT THE WORK PERFORMED WILL BE REQUIRED TO COMPLY WITH THE CODES AND ORDINANCES OF THE A/J OF CITY OF COACHELLA PRIOR TO FINAL BUILDING INSPECTION.

SIGNATURE DATE STATE LICENSE NO.
1038433 / A, B, C10, C46



PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
	7/27/2021	INITIAL PLAN SET	A.L.	--
	8/18/2021	1ST REVISIONS	A.L.	--
	9/11/2021	1ST CORRECTIONS	A.L.	--
	9/9/2021	2ND REVISIONS	A.L.	--

NEW EQUIPMENT SCHEDULE

EQ	EQUIPMENT MANUFACTURER/MODEL	EQUIPMENT DESCRIPTION
1	TRINA TSM-475DE15V(II)	TRINA SOLAR 475W PV MODULE
2	JUNCTION BOX	NEMA 3R JUNCTION BOX
3	CPS SCA60TL-DO/US-480	CPS 60KW INVERTER W/ INTEGRATED DC & AC DISCONNECTS
4	PV COMBINER SWITCHGEAR	1200A BUSBAR, 1000A DISCONNECT, 480Y/277V, 3φ, 4W, 42KAIC
5	AC DISCONNECT SWITCH	1200A, 1000A FUSES, 480Y/277V, 3φ, 4W, VIEWABLE, LOCKABLE, 42KAIC
6	EXISTING MAIN SERVICE PANEL	2000A BUSBAR, 2000A DISCONNECT, 480Y/277V, 3φ, 4W, 50KAIC

SYSTEM 3 SHORT-CIRCUIT CALCULATIONS

FAULT POINT	PANEL OR TRANSFORMER	PHASE	SOURCE	SOURCE	FEEDER	#	FE/BUS SIZE	FEEDER	C VALUE	L-L	CIRCUIT	LOAD	CIRCUIT	CONDUCTOR	CONDUCTOR	f	M	FAULT	FAULT
0				50000														50000	0
1	POC TO AC DISCONNECT	3	0	50000	M	4	Set(s) of 250 kcmil	CU	16483.39	480	10	0.97	1009.2	0.000054	0.000054	0.027	0.97	48668	1
2	AC DISCONNECT TO PV COMBINER	3	1	48668	M	4	Set(s) of 250 kcmil	CU	16483.39	480	115	0.97	1009.2	0.000054	0.000054	0.306	0.77	37256	2
3	PV COMBINER TO INVERTER	3	2	37256	M	1	Set(s) of 3	CU	4774.00	480	25	0.97	79.4	0.000250	0.000059	0.704	0.99	21864	3

SYSTEM 3 DC STRING VOLTAGE DROP

INVERTER	String #	MOD STRING	Current Per String	VOLTAGE VMAX	Wire Size	Ohms/M	Wire Length One Way	Total Ohms	E=IR	VD	%VD
1 thru 5	1	17	13.80	787.65	#10	1.24	665	1.649	22.759	2.889%	
1 thru 5	8 thru 9	18	13.80	833.99	#10	1.24	665	1.649	22.759	2.729%	
6 thru 10	1 thru 9	18	13.80	833.99	#10	1.24	665	1.649	22.759	2.729%	

Inverter Specifications:
Inverter Manufacturer: Chint Power Systems
Inverter Type: CPS SCA60TL-DO/US-480
Input (DC): MAX used Power input per channel: 33000 W
Module Compatibility: 1000 V
Maximum Input DC Voltage: 1000 V
Maximum Amp Isc: 68 per MPPT
Output (AC): Peak output power: 68000 VA
Maximum Continuous Output Power: 60000 VA
Nominal output voltage: 480 V
Nominal output current: 79.4 A
CEC Efficiency: 98.5 %
Ambient Temperature: -30°C to +60°C
Operating Voltage: 480V-3Phase
Max Operating Current: 79.4A-3Phase

Module Specifications:
Module Manufacturer: Trina Solar
Module Model: TSM-475DE15V(II)
Parameters (DC): Local Temperature (°C): -5°C to 44°C
Coldest Day Voc: 46.33 V
Warmest Day Vmp: 31.58 V
Maximum Fuse Rating: 25 A
Output (AC): Voc: 43.1 Vdc
Vmp: 36.2 Vdc
Isc: 13.8 A
Imp: 13.12 A
STC Power: 475 W
PTC Power: 444.2 W
Max System Voltage: 1500 V
Voc Temp. Coeff: -0.25 %/°C

SEE PV 5 FOR GROUNDING DETAILS

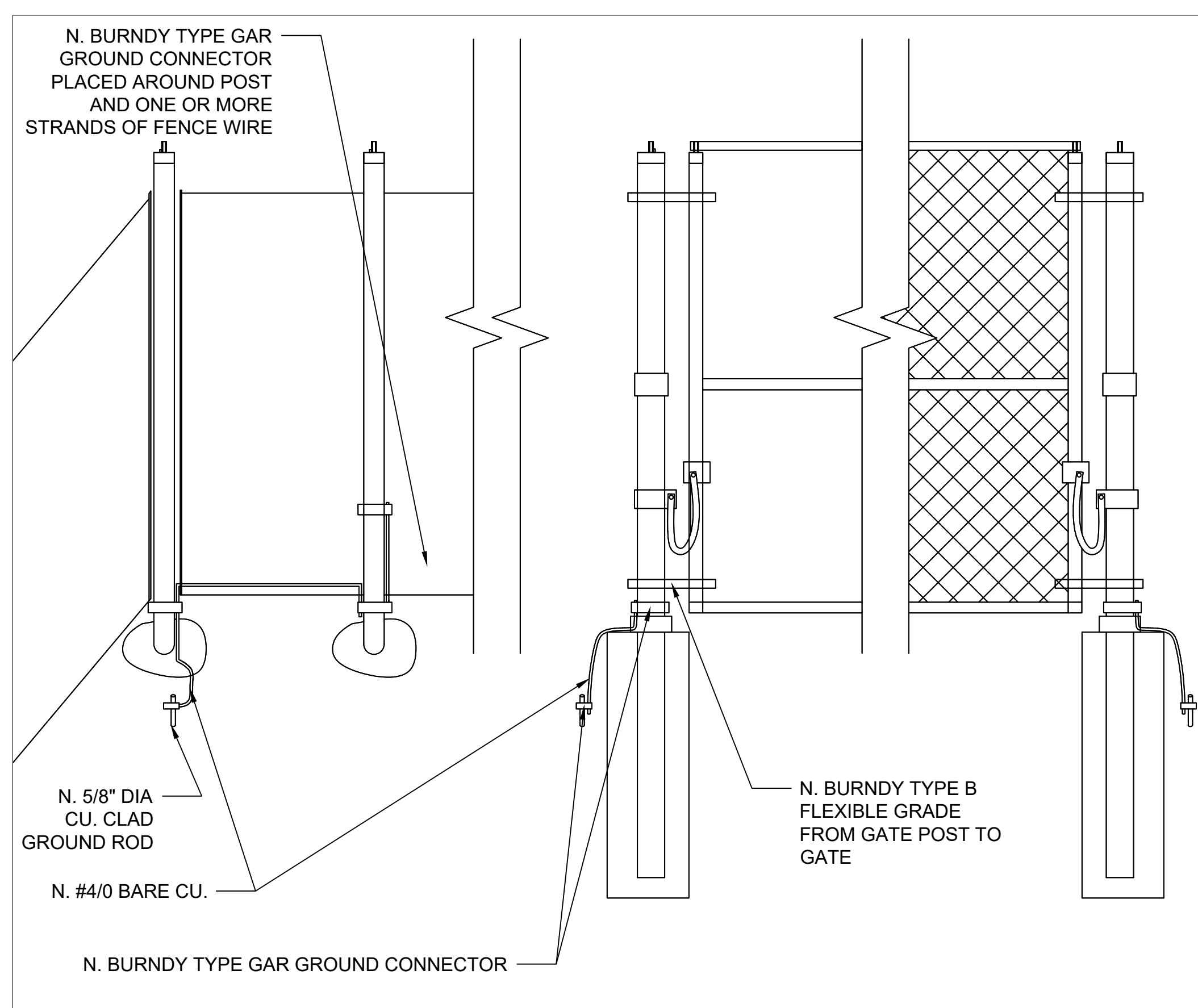
CABLE SCHEDULE, BREAKER SIZING AND AMPACITY CALCULATIONS FOR SYSTEM 3

CABLE	CABLE TYPE	CABLE VOLTAGE RATING (V)	CABLE TEMP RATING	AMBIENT TEMP (°C)	DISTANCE ABOVE ROOF TO BOTTOM OF CONDUIT	ADJUSTED AMBIENT TEMP (°C)	CONDUIT	CONDUIT TYPE	# OF CONDUCTORS PER PHASE	WIRE/BUS SIZE	NEUTRAL	GROUND	TOTAL CC CONDUCTORS IN RACEWAY	BASE AMPACITY (A)	DERATING FACTOR FOR CONDUCTORS PER RACEWAY (NEC 310.15(B)(3)(a))	DERATING FACTOR FOR AMBIENT TEMPERATURE (NEC 310.15(B)(2)(a))	OVERALL DERATING FACTOR (A)	DERATED CIRCUIT LOAD (A)	CIRCUIT LOAD (A) (158%IDC, 125%IAC OR 125%OCP, 100%BAT)	MINIMUM OCPD PER PER LOAD	MAXIMUM OCPD PER DERATED CABLE	EST. DISTANCE FT	VOLTAGE DROP %VD	TOTAL %VD/CUM
A	PV-WRE	1000	90°C (194°F)	44	NOT ON ROOF	44	N/A	FREE AIR	1	Set(s) of #10	N/A	#6	18	55	50%	87%	43.500%	23.9	13.8	17.25	20	215	SEE DC VDROP	
B	XHMW-2	1000	90°C (194°F)	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #10	N/A	#6	18	40	50%	87%	43.500%	17.4	13.8	17.25	20	450		
C	THMN-2 (Cu)	600	90°C (194°F)	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #3	#3	#8	3	115	100%	87%	87.000%	100.1	79.4	99.25	100	25	0.18%	0.18%
D	THMN-2 (Cu)	600	90°C (194°F)	44	ABOVE 7/8"	44	2-1/2"	EMT	4	Set(s) of 250KCMIL	250KCMIL	2/0	3	1160	100%	87%	87.000%	1009.2	794.0	992.50	1000	115	0.44%	0.62%
E	THMN-2 (Cu)	600	90°C (194°F)	44	NOT ON ROOF	44	2-1/2"	EMT	4	Set(s) of 250KCMIL	250KCMIL	2/0	3	1160	100%	87%	87.000%	1009.2	794.0	992.50	1000	10	0.04%	0.66%

DESCRIPTION:

SYSTEM 3 SLD

PV 4.2



- FENCE NOTES:**
1. BONDING JUMPERS ARE REQUIRED AT EACH FENCE CORNER AND AT MAXIMUM 160 FT. INTERVALS ALONG THE FENCE.
 2. BONDING JUMPERS ARE REQUIRED ON EACH SIDE OF THE CROSSING WHERE BARE OVERHEAD CONDUCTORS CROSS THE FENCE.
 3. GATES MUST BE BONDED TO THE GATE SUPPORT POST, AND EACH GATE SUPPORT POST MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.
 4. ANY GATE OR OTHER OPENING IN THE FENCE MUST BE BONDED ACROSS THE OPENING BY A BURIED BONDING JUMPER.
 5. THE GROUNDING GRID OR GROUNDING ELECTRODE SYSTEMS SHALL BE EXTENDED TO COVER THE SWING OF ALL GATES.
 6. THE BARBED WIRE STRANDS ABOVE THE FENCE MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.

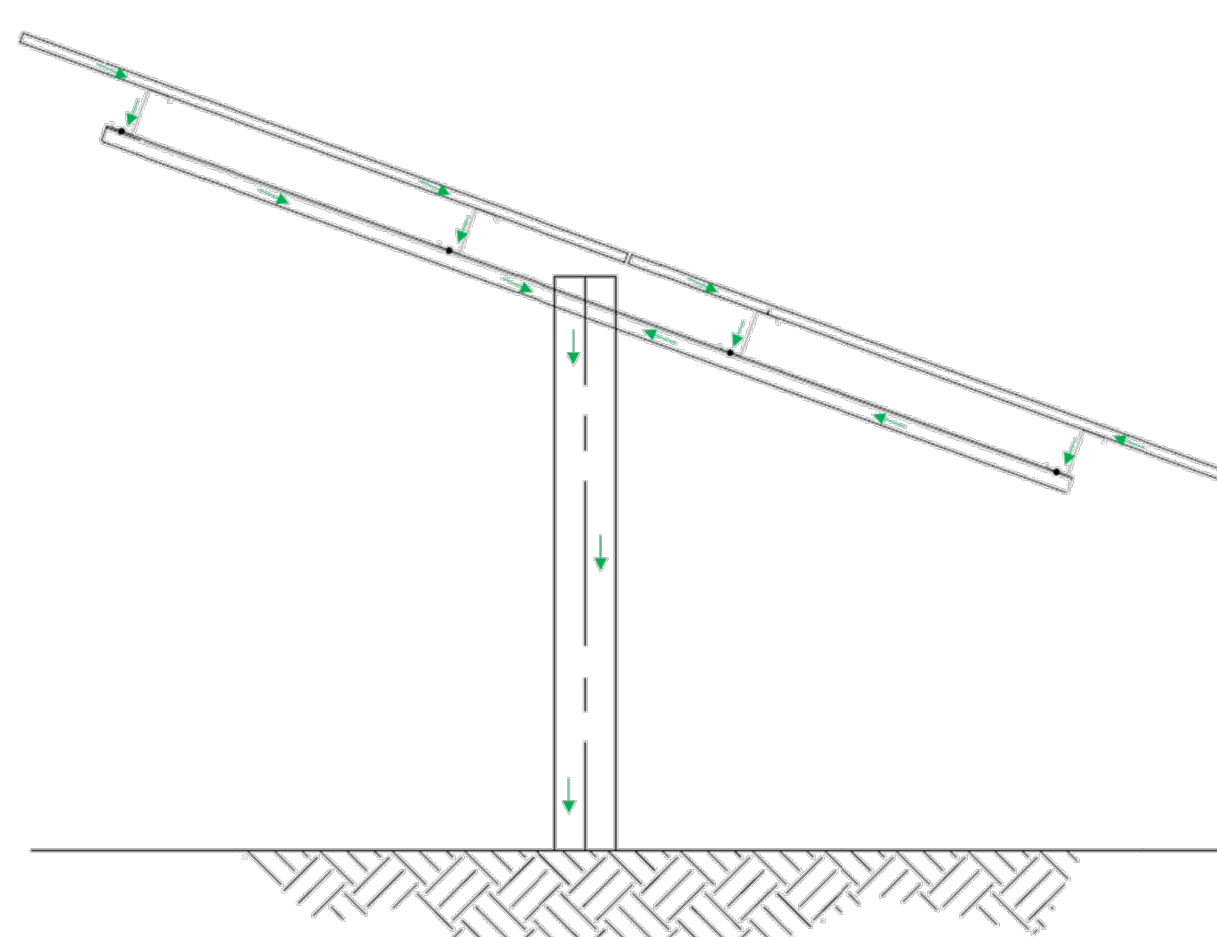
BONDING PATH

OMCO Solar's CHOICE™ Racking System may be used to ground and/or mount a PV Module complying with UL 1703 only when the specific Module has been evaluated for grounding and/or mounting in compliance with the included instructions.

It is the Owner's responsibility to ensure that the CHOICE™ Racking System installation complies with NFPA 70 Article 250.

Table 1 illustrates the grounding path.

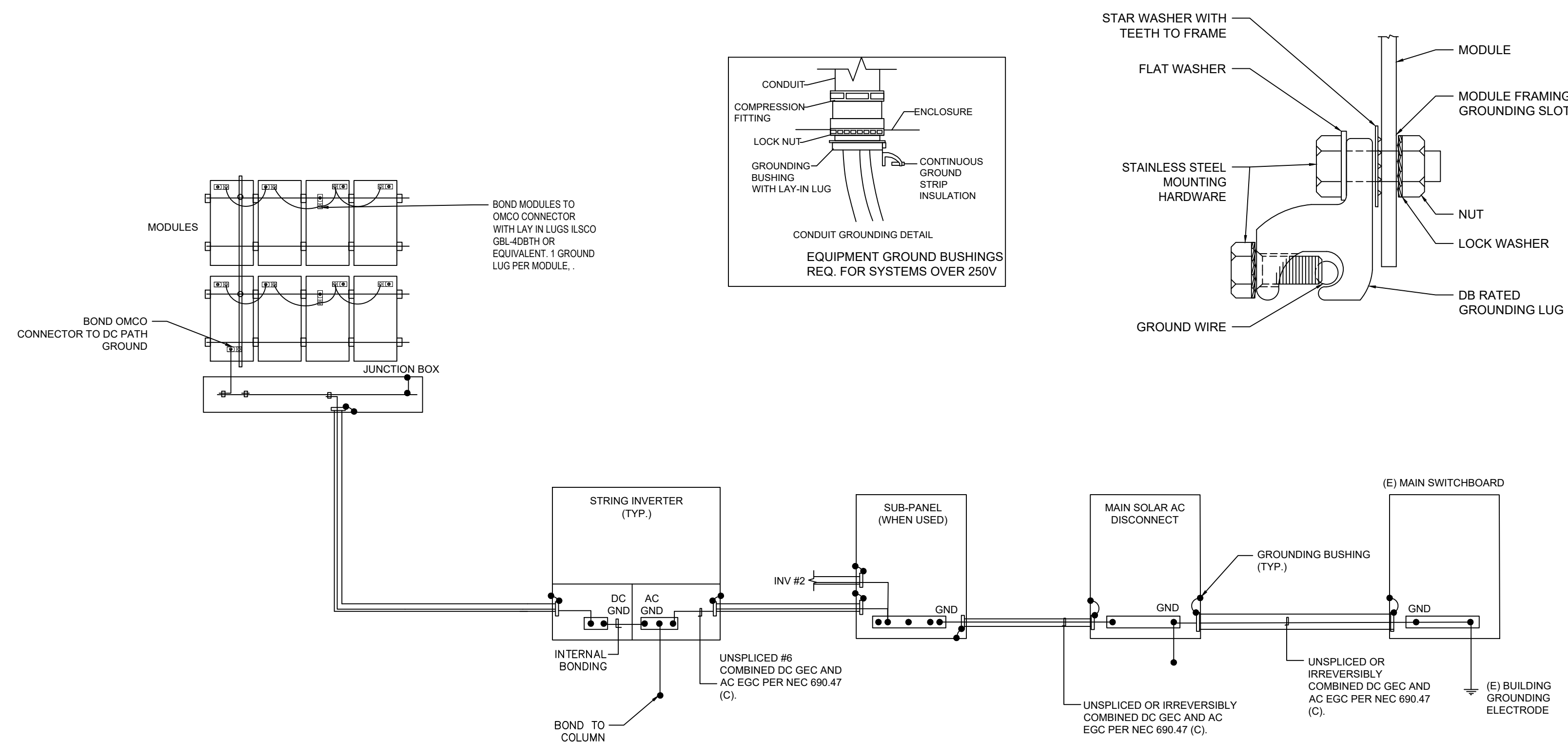
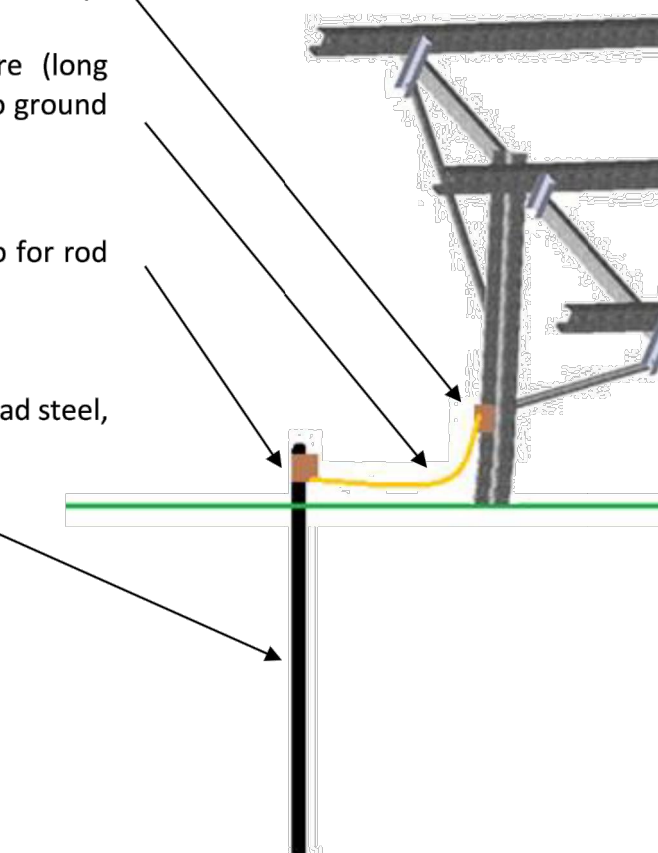
Table 1



GROUNDING FOR JOBSITE WITHOUT DRIVEN POSTS

Jobsites with Posts driven 10 feet into the ground do not require additional grounding measures (NEC 250.52). For table assemblies on jobsites without suitably driven posts, an alternate means of grounding the CHOICE™ Racking System is needed. One recommended method for grounding the CHOICE™ Racking System is as follows:

- Copper ground lug (UL listed, sized to fit 6AWG)
- 6AWG unjacketed braided copper wire (long enough to span from table assemblies to ground rod)
- Copper ground clamp (UL listed, sized to fit rod and wire)
- 10' ground rod, 5/8" diameter (copper-clad steel, UL 467 approved)



SCREW: SEE CHART	MATERIAL: COPPER, X0C7309	TOUGHNESS/STRENGTH OTHERWISE SPECIFIED	DWG. NO.
CAT. NO.:	PLATING: SEE CHART	2 PL. DEC. # 818 2 PL. DEC. # 818	G0977
MASS: .052 LBS.	MARKING: SEE CHART	TRUE CL. # 818 ANNEAL: A1	SHEET 1 OF 1
SURFACE AREA: 2.738 IN ²	DATE: 7/27/2007	SCALE: 3:1	ILSCO CORP.
STUFFER SHY: FORM 12	CELL: ABM	SIZE: A	

**Cat #: GBL-4DB
GBL-4DBT**

SEE CHART FOR SCREW AND ASSY INFORMATION.

SCALE 1.5:1

1/4-28 UNF - 2B
✓D40 MAX X .45"
MUST HOLD Ø.105 PIN WITH NO LEAD GAUGE

Ø.218 THRU

Ø.185 ± .005

1.150

PART NUMBER	PLATING	SCREW	SCREW ASSY INSTRUCTIONS	MARKING
G0977A00B	BRIGHT D/P	E1276	FLUSH TO TOP	GBL-4DB, 4-14, OJ, DB
G0977A00T	BL-TIN	E1276	FLUSH TO TOP	GBL-4DBT, 4-14, OJ, DB
G0977A01T	BL-TIN	E1469	SLUG TO BOTTOM	GBL-4DBT, 4-14, OJ, DB

THE INFORMATION CONTAINED WITHIN THIS DOCUMENT IS PROPRIETARY TO ILSCO AND MAY NOT BE DISCLOSED WITHOUT PRIOR WRITTEN CONSENT.

CONTRACTOR

REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
(949) 281-7171

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SIGNATURE _____ DATE _____ STATE LICENSE NO. 1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
7/27/2021		INITIAL PLAN SET	A.L.	--
8/18/2021		1ST REVISIONS	A.L.	--
9/11/2021		1ST CORRECTIONS	A.L.	--
9/9/2021		2ND REVISIONS	A.L.	--

SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4996) TRINA TSM-4750E15V(I)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:

SYSTEM SIZE DC STC: 630.80 KW
SYSTEM SIZE AC CEC: 581.05 KW
SOLAR MODULES: (1328) TRINA TSM-4750E15V(I)
INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:

SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-4750E15V(I)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:

SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-4750E15V(I)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

GROUNDING

PV 5

SIGNAGE REQUIREMENTS

GENERAL FIRE GUIDELINES &

MARKING REQTS:

- SEC. 5. MARKINGS, LABELS, AND WARNING SIGNS.
 A. PURPOSE: PROVIDES EMERGENCY RESPONDERS WITH APPROPRIATE WARNING AND GUIDANCE WITH RESPECT TO ISOLATING THE SOLAR ELECTRICAL SYSTEM. THIS CAN FACILITATE IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR PANELS TO THE INVERTER, AS THESE SHOULD NOT BE CUT WHEN VENTING FOR SMOKE REMOVAL.
- B. MAIN SERVICE DISCONNECT:
 1. RESIDENTIAL BUILDINGS: THE MARKING MAY BE PLACED WITHIN THE MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.
 2. COMMERCIAL BUILDINGS: THE MARKING SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED.
 3. MARKINGS: VERBIAGE, FORMAT, AND TYPE OF MATERIAL.
 A. VERBIAGE:
 CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED
 B. FORMAT:
 (1) WHITE LETTERING ON A RED BACKGROUND.
 (2) MINIMUM 3/8 INCHES LETTER HEIGHT.
 (3) ALL LETTERS SHALL BE CAPITALIZED.
 (4) ARIAL OR SIMILAR FONT, NON-BOLD.
 C. MATERIAL:
 (1) REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (USE UL -- 969 AS STANDARD FOR WEATHER RATING). DURABLE ADHESIVE MATERIALS MEET THIS REQUIREMENT.
- C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, DC COMBINERS, AND JUNCTION BOXES:
 1. MARKINGS: PLACEMENT, VERBIAGE, FORMAT, AND TYPE OF MATERIAL.
 A. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES, AT TURNS, ABOVE AND FOR BELOW PENETRATIONS, ALL DC COMBINERS, AND JUNCTION BOXES.
 B. VERBIAGE:
 CAUTION: SOLAR CIRCUIT
 NOTE: THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO "V.B-3B, C" OF THIS REQUIREMENT.
 C. INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS.

- MATERIALS USED FOR MARKING SHALL BE REFLECTIVE, WEATHER RESISTANT, AND SUITABLE FOR THE ENVIRONMENT. ALL LABELS SHALL BE WHITE LETTERS ON RED BACKGROUND.
- THE MARKINGS SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
 NEC 110.21

CONTRACTOR

REVEL-ENERGY, INC.
 2323 MAIN ST.
 IRVINE, CA 92614
 CSLB #: 1038433 / A, B, C10, C46
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SIGNATURE _____ DATE _____ STATE LICENSE NO. _____
 _____ 1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
7/27/2021	7/27/2021	INITIAL PLAN SET	A.L.	--
8/18/2021	8/18/2021	1ST REVISIONS	A.L.	--
9/1/2021	9/1/2021	1ST CORRECTIONS	A.L.	--
9/9/2021	9/9/2021	2ND REVISIONS	A.L.	--

SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
 TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
 SOLAR MODULES: (4998) TRINA TSM-4750E15V(I)
 INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:

SYSTEM SIZE DC STC: 630.80 KW
 SYSTEM SIZE AC CEC: 581.05 KW
 SOLAR MODULES: (1328) TRINA TSM-4750E15V(I)
 INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:

SYSTEM SIZE DC STC: 975.65 KW
 SYSTEM SIZE AC CEC: 898.70 KW
 SOLAR MODULES: (2054) TRINA TSM-4750E15V(I)
 INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:

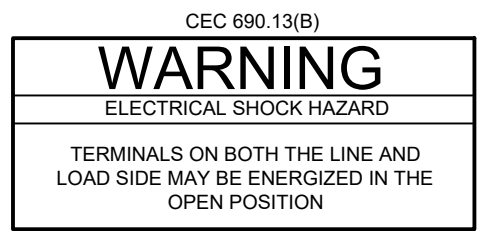
SYSTEM SIZE DC STC: 766.65 KW
 SYSTEM SIZE AC CEC: 706.18 KW
 SOLAR MODULES: (1614) TRINA TSM-4750E15V(I)
 INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

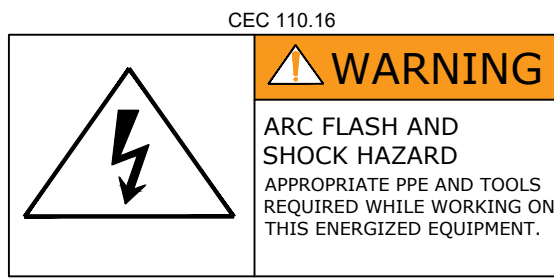
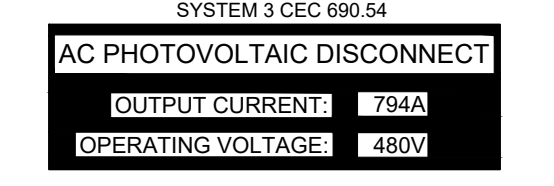
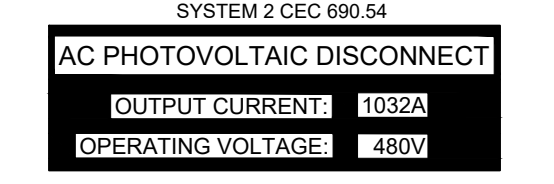
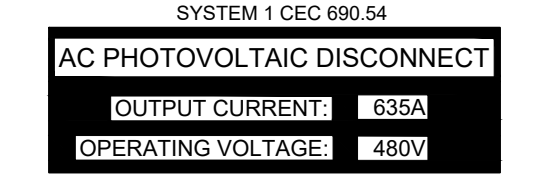
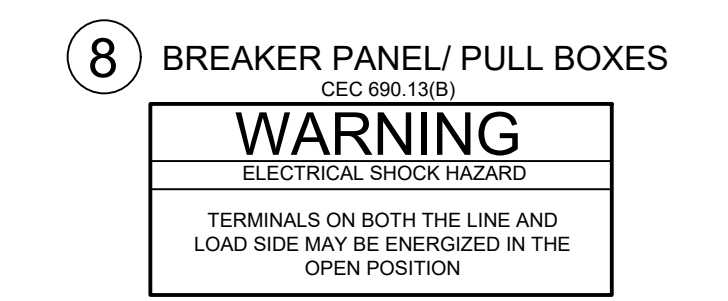
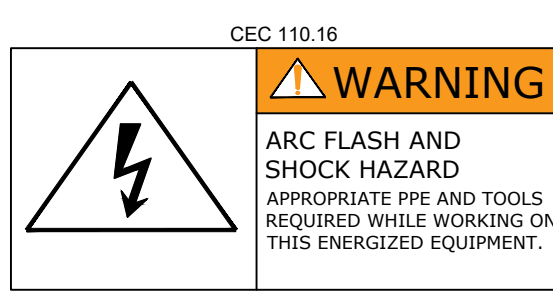
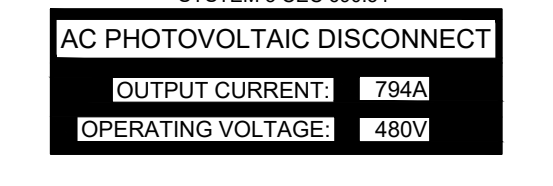
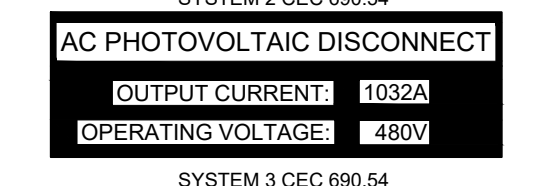
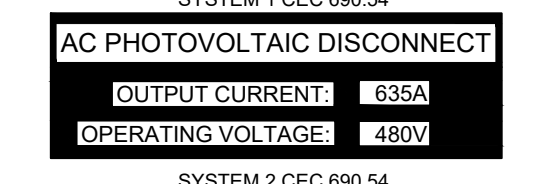
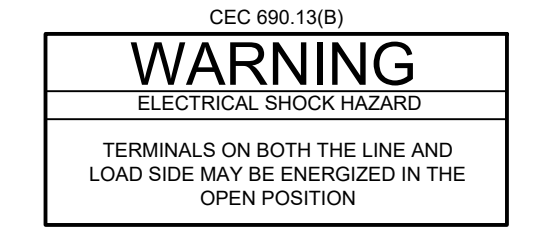
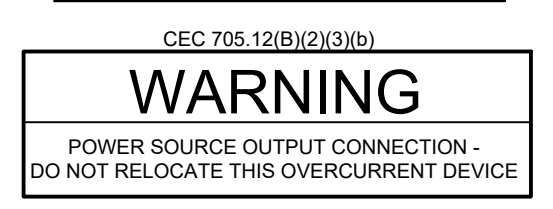
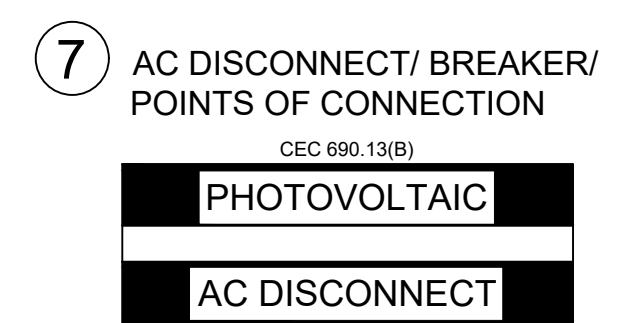
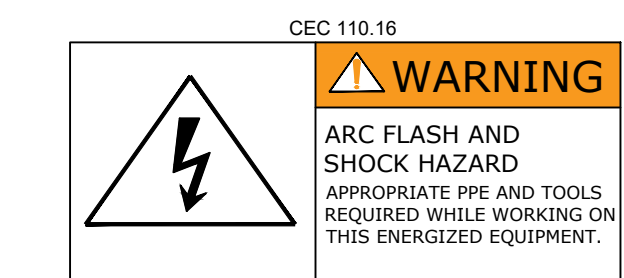
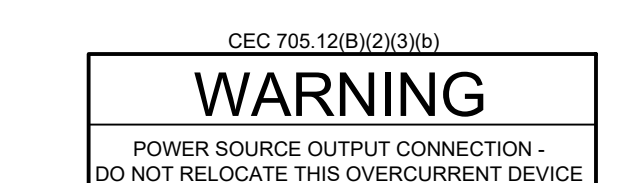
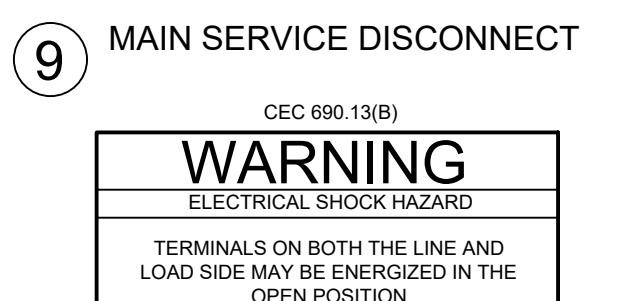
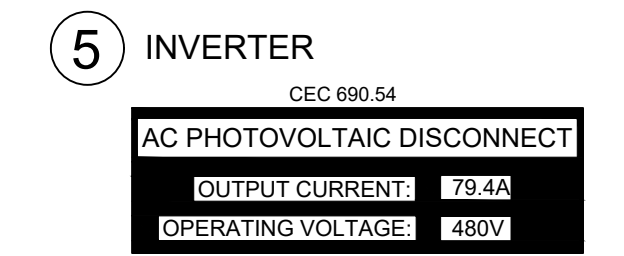
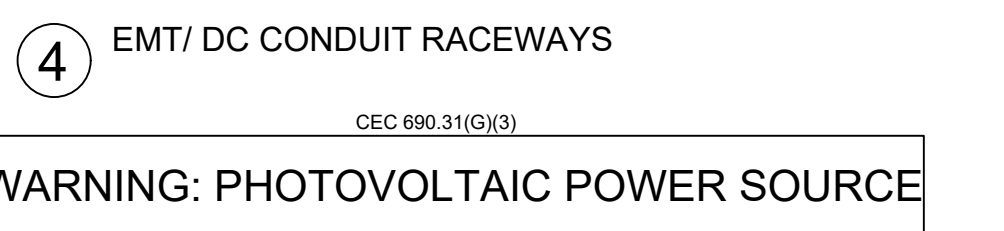
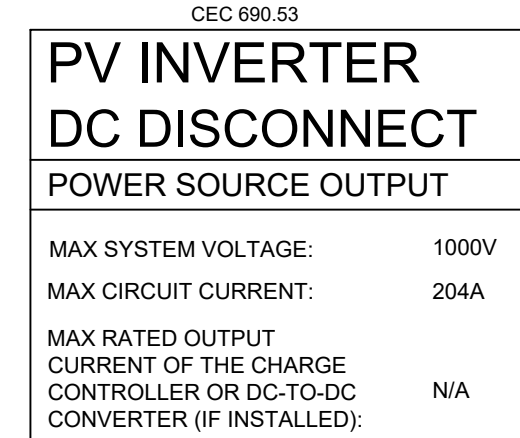
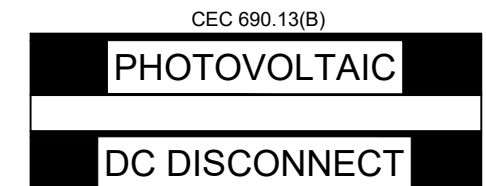
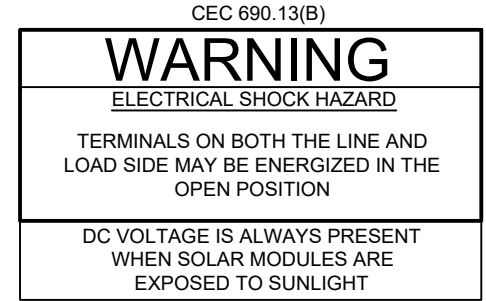
SIGNAGE

PV 6.0

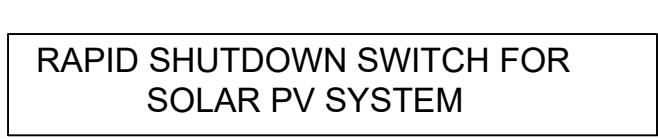
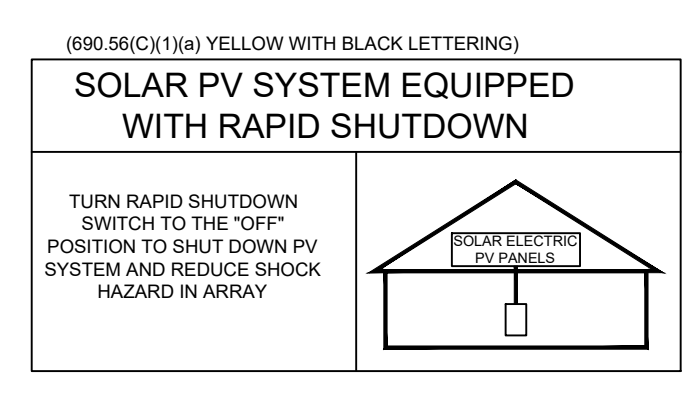
1 COMBINER BOX/ CIRCUITS/ CONDUIT/ COMBINER BOX/ ENCLOSURES/ EMT ENCLOSURES



3 DC DISCONNECT/ BREAKER/ RECOMBINER BOX



10 BY RAPID SHUTDOWN SWITCH (WITHIN 3 FT)



*RAPID SHUTDOWN SWITCH CAN BE EITHER THE AC DISCONNECT SWITCH OR A SEPARATE SWITCH. SEE PV 4 FOR TYPE OF RS SWITCH

SIGNAGE REQUIREMENTS

GENERAL FIRE GUIDELINES &

MARKING REQTS:

SEC. 5. MARKINGS, LABELS, AND WARNING SIGNS.
A. PURPOSE: PROVIDES EMERGENCY RESPONDERS WITH APPROPRIATE WARNING AND GUIDANCE WITH RESPECT TO ISOLATING THE SOLAR ELECTRICAL SYSTEM. THIS CAN FACILITATE IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR PANELS TO THE INVERTER, AS THESE SHOULD NOT BE CUT WHEN VENTING FOR SMOKE REMOVAL.

- B. MAIN SERVICE DISCONNECT:
 1. RESIDENTIAL BUILDINGS: THE MARKING MAY BE PLACED WITHIN THE MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.
 2. COMMERCIAL BUILDINGS: THE MARKING SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED.
 3. MARKINGS: VERBIAGE, FORMAT, AND TYPE OF MATERIAL.
 - A. VERBIAGE: CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED
 - B. FORMAT:
 - (1) WHITE LETTERING ON A RED BACKGROUND.
 - (2) MINIMUM 3/8 INCHES LETTER HEIGHT.
 - (3) ALL LETTERS SHALL BE CAPITALIZED.
 - (4) ARIAL OR SIMILAR FONT, NON-BOLD.
 - C. MATERIAL:
 - (1) REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (USE UL -- 969 AS STANDARD FOR WEATHER RATING). DURABLE ADHESIVE MATERIALS MEET THIS REQUIREMENT.

- C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, DC COMBINERS, AND JUNCTION BOXES:
 1. MARKINGS: PLACEMENT, VERBIAGE, FORMAT, AND TYPE OF MATERIAL.
 - A. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES, AT TURNS, ABOVE AND FOR BELOW PENETRATIONS, ALL DC COMBINERS, AND JUNCTION BOXES.
 - B. VERBIAGE: CAUTION: SOLAR CIRCUIT
NOTE: THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO "V.B-3B, C" OF THIS REQUIREMENT.
 - C. INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS.

MATERIALS USED FOR MARKING SHALL BE REFLECTIVE, WEATHER RESISTANT, AND SUITABLE FOR THE ENVIRONMENT. ALL LABELS SHALL BE WHITE LETTERS ON RED BACKGROUND.

THE MARKINGS SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
NEC 110.21

CONTRACTOR

REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
(949) 281-7171

I HEREBY CERTIFY THAT THE WORK PROPOSED TO BE DONE ON THESE PLANS IS IN CONFORMANCE WITH ALL CODES AND ORDINANCES OF THE A.H.U. OF CITY OF COACHELLA AND FURTHER, IF OMISSIONS OR ERRORS ARE DISCOVERED, I UNDERSTAND THAT THE WORK PERFORMED WILL BE REQUIRED TO COMPLY WITH THE CODES AND ORDINANCES OF THE A.H.U. OF CITY OF COACHELLA PRIOR TO FINAL BUILDING INSPECTION.

SIGNATURE _____ DATE _____ STATE LICENSE NO. 1038433 / A, B, C10, C46

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SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4995) TRINA TSM-475DE15V(I)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

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SYSTEM SIZE DC STC: 630.80 KW
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SYSTEM (PLANT) 2:

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SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

DIRECTORY PLACARDS

PV 6.1

2 BUILDING / STRUCTURE

SYSTEM 1
CEC 705.10 - BY MAIN SERVICE PANEL:

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

PV SOLAR ARRAY(S)

SOLAR A/C DISCONNECT
SOLAR INVERTER D/C DISCONNECT
MAIN ELECTRIC SERVICE DISCONNECT
SOLAR A/C DISCONNECT

5220 INDUSTRIAL WAY COACHELLA, CA 92236

WARNING
ELECTRIC SHOCK HAZARD
TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

SYSTEM 2
CEC 705.10 - BY MAIN SERVICE PANEL:

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

MAIN ELECTRIC SERVICE DISCONNECT
SOLAR A/C DISCONNECT
SOLAR A/C DISCONNECT
SOLAR INVERTER D/C DISCONNECT

5220 INDUSTRIAL WAY COACHELLA, CA 92236

WARNING
ELECTRIC SHOCK HAZARD
TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

SYSTEM 3
CEC 705.10 - BY MAIN SERVICE PANEL:

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

SOLAR INVERTER D/C DISCONNECT
SOLAR A/C DISCONNECT
MAIN ELECTRIC SERVICE DISCONNECT
PV SOLAR ARRAY(S)

5220 INDUSTRIAL WAY COACHELLA, CA 92236

WARNING
ELECTRIC SHOCK HAZARD
TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

ZXM7-SP144 Series

Znshinesolar 10BB HALF-CELL
Monocrystalline PERC PV Module



520W | 525W | 530W | 535W | 540W

Excellent cells efficiency
MBB technology decreases the distance between bus bars and finger grid line which is benefit to power increase.

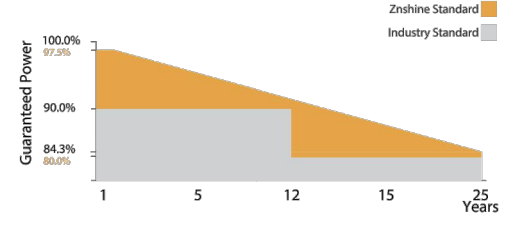
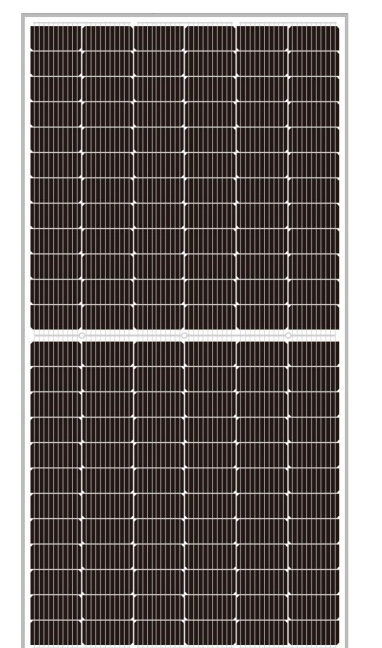
Better Weak Illumination Response
More power output in weak light condition, such as haze, cloudy, and morning

Anti PID
Limited power degradation caused by PID effect is guaranteed under strict testing condition for mass production

High wind and snow resistance
■ 5400 Pa snow load ■ 2400 Pa wind load

25 years power warranty
After 25years our solar panel keeps at least 80% of its initial power output

Higher lifetime Power Yield
2.5% first year degradation,0.55% linear degradation



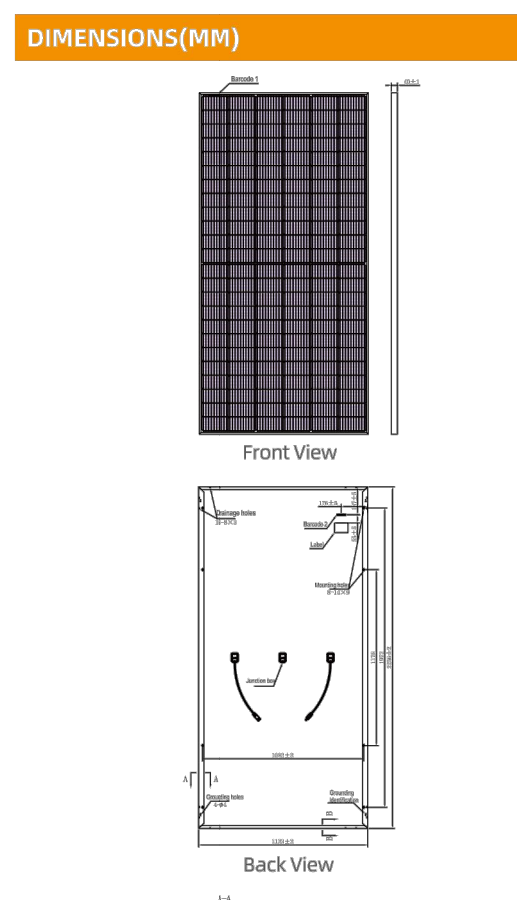
Founded in 1998, ZnshinSolar is a world's leading high-tech PV module manufacturer. With the state-of-the-art production lines, the company boasts module capacity of 6GW. Bloomberg has listed ZnshinSolar as a global Tier 1 PV module maker. Today ZnshinSolar has distributed its sales to more than 60 countries around the globe.

www.znshinesolar.com

ZXM7-SP144 Series | Znshinesolar 10BB HALF-CELL Monocrystalline PERC PV Module



ELECTRICAL CHARACTERISTICS STC*					
Nominal Power Watt Pmax(W) ¹	520	525	530	535	540
Power Output Tolerance Pmax(N) ²	0→+3	0→+3	0→+3	0→+3	0→+3
Maximum Power Voltage Vmp(V)	40.60	40.80	41.00	41.20	41.40
Maximum Power Current Imp(A)	12.82	12.88	12.94	13.00	13.05
Open Circuit Voltage Voc(V)	48.90	49.10	49.30	49.50	49.70
Short Circuit Current Isc(A)	13.54	13.60	13.66	13.72	13.78
Module Efficiency (%)	20.34	20.54	20.74	20.93	21.13



ELECTRICAL CHARACTERISTICS NMDT*					
Maximum Power Pmax(W) ¹	388.90	392.60	396.30	400.00	403.50
Maximum Power Voltage Vmp(V)	37.80	38.00	38.20	38.30	38.50
Maximum Power Current Imp(A)	10.29	10.34	10.39	10.43	10.48
Open Circuit Voltage Voc(V)	45.70	45.90	46.10	46.20	46.40
Short Circuit Current Isc(A)	10.93	10.98	11.03	11.08	11.13

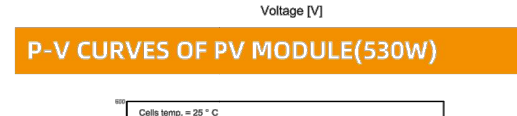
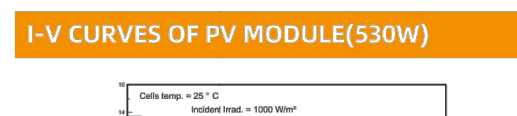
MECHANICAL DATA

Solar cells	Mono PERC
Cells orientation	144 (6x24)
Module dimension	2256x1133x40 mm(With Frame)
Weight	28.5 kg
Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Junction box	IP 68, 3 diodes
Cables	4 mm ² , 350 mm
Connectors	MC4-compatible

TEMPERATURE RATINGS				WORKING CONDITIONS			
NMDT	44°C ±2°C	Maximum system voltage	1500 V DC	Operating temperature	-40°C~+85°C	Maximum series fuse	25 A
Temperature coefficient of Pmax	-0.35%/°C	Maximum load (snow/wind) ⁷	5400 Pa / 2400 Pa	Temperature coefficient of Voc	-0.29%/°C	Operating Humidity	0 to 100%
Temperature coefficient of Voc	-0.29%/°C	Operating Humidity	0 to 100%	Temperature coefficient of Isc	0.05%/°C	Operating Altitude	13,123.4ft / 4020m (Derating from 9842.5ft / 3000m)

PACKAGING CONFIGURATION

Pieces/Box	27
Pieces/Container(standard)	540
Pieces/Container(maximum)	/



* Add: 1# Znhl Industrial Zone, jintangjiaqu 213225, P.R. China Tel: +86 519 6822 0333 E-mail: info@znshinesolar.com
Note: please read safety and installation instructions before using this product | Subject to change without prior notice © ZNSHINE SOLAR 2020 | Version: ZXM7-SP144 2012.2

50/60kW, 1000Vdc String Inverters for North America

The 50 & 60kW (55 & 66kVA) medium power CPS three phase string inverters are designed for ground mount, large rooftop and carport applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 98.8% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 50/60KTL products ship with either the Standard wire-box or the Rapid Shutdown wire-box, each fully integrated and separable with touch safe fusing, monitoring, and AC and DC disconnect switches. The integrated PLC transmitter in the Rapid Shutdown wire-box enables PVRS certified module-level rapid shutdown when used with the Tigo TS4-F/TS4-A-F/TS4-A-2F products, APS RSD-S-PLC-A products, and NEP PVG-4 products. The CPS FlexOM Gateway enables monitoring, controls and remote product upgrades.



CPS SCA50KTL-DO/US-480
CPS SCA60KTL-DO/US-480

- Key Features**
- NEC 2017/2020 PVRS Certified Rapid Shutdown
 - 55 & 66kVA rating allows max rated Active Power @±0.91PF
 - Selectable Max AC Apparent Power of 50/55kVA and 60/66kVA
 - NEC 2014/17 compliant & UL listed Arc-Fault circuit protection
 - 15-90° Mounting orientation for low profile roof installs
 - Optional FlexOM Gateway enables remote FW upgrades
 - Integrated AC & DC disconnect switches
 - 3 MPPT's with 5 inputs each for maximum flexibility
 - NEMA Type 4X outdoor rated, tough tested enclosure
 - UL1741 SA Certified to CA Rule 21, including SA8 through SA18
 - Separable wire-box design for fast service
 - Standard 10 year warranty with extensions to 20 years



50/60KTL Standard Wire-box | 50/60KTL Rapid Shutdown Wire-box



CHINT POWER SYSTEMS AMERICA 5201104-MKT NA | 6800 Koll Center Parkway, Suite 235, Fremont, CA 94556 | Tel: 855-584-7168 | Mail: Americasales@chintpower.com | Web: www.chintpowersystems.com

50/60kW, 1000Vdc String Inverters for North America

Technical Data

Model Name	CPS SCA50KTL-DO/US-480	CPS SCA60KTL-DO/US-480
DC Input		
Max. PV Power	90kW (33kW per MPPT)	
Max. DC Input Voltage	1000Vdc	
Operating DC Input Voltage Range	200-950Vdc	
Start-up DC Input Voltage / Power	330V / 80W	
Number of MPP Trackers	3	
MPPT Voltage Range @ PF>0.99	480-850Vdc	540-850Vdc
Max. PV Short-Circuit Current (Isc x 1.25)	20A (80A per MPPT)	20A (80A per MPPT)
Number of DC Inputs	15 inputs, 5 per MPPT	
DC Disconnection Type	Load-rated DC switch	
DC Surge Protection	Type II MOV, 2800Vc, 20KA Icu (8/20.S)	
AC Output		
Rated AC Output Power @ PF>0.99 to ±0.91 ¹	50kW	60kW
Max. AC Apparent Power (Selectable)	50/55kVA	60/66kVA
Rated Output Voltage	480Vac	
Output Voltage Range ²	422 - 528Vac	
Grid Connection Type	3Φ / PE / N (Neutral optional)	
Max. AC Output Current @480Vac	60.2/66.2A	72.2/79.4A
Rated Output Frequency	60Hz	
Output Frequency Range ³	57 - 63Hz	
Power Factor	>0.99 (±0.8 adjustable)	
Current THD @ Rated Load	<3%	
Max. Fault Current Contribution (1 Cycle RMS)	110A	125A
AC Disconnection Type	Load-break rated AC switch	
AC Surge Protection	Type II MOV, 1240Vc, 15KA Icu (8/20.S)	
System and Performance	Transformerless	
Topology	Transformerless	
Max. Efficiency	98.8%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	<1W	
Environment	NEMA Type 4X	
Enclosure Protection Degree	Variable speed cooling fans	
Cooling Method	Variable speed cooling fans	
Operating Temperature Range ⁴	-22°F to +140°F / -30°C to +60°C	
Non-Operating Temperature Range ⁴	No low temp minimum to +158°F / +70°C maximum	
Operating Humidity	0 to 100%	
Operating Altitude	13,123.4ft / 4020m (Derating from 9842.5ft / 3000m)	
Audible Noise	<90dBA @ 1m and 25°C	
Display and Communication	LCD+LED	
User Interface and Display	SunSpec, Modbus RS485	
Inverter Monitoring	CPS FlexOM Gateway (1 per 32 inverters)	
Site Level Monitoring	CPS	
Modbus Data Mapping	Standard (with FlexOM Gateway)	
Remote Diagnostics / FW Upgrade Functions	Standard (with FlexOM Gateway)	
Mechanical		
Dimensions (HxWxD)	39.4 x 23.6 x 10.24in. (1000 x 600 x 260mm)	
Weight	Inverter: 123.5lbs/56kg; Wire-box: 33lbs/15kg	
Mounting / Installation Angle ⁵	15 to 90 degrees from horizontal (vertical or angled)	
AC Termination	M8 Stud Type Terminal Block (Wire range: #6 - 3/0AWG CU/AL, Lugs not supplied)	
DC Termination ⁶	Screw Clamp, Neg. Busbar (RSD version) Wire range: #14 - #8AWG CU	
Fused String Inputs (5 per MPPT) ⁷	RSD ⁷ and Standard Wire-box: 20A fuses provided (Fuse values up to 30A acceptable)	
Safety		
Certifications and Standards	UL1741SA-2016, UL1699B, CSA-C22.2 NO.107.1-01, IEC61747-2014, FCC PART15	
Selectable Grid Standard	IEEE 1547a-2014, CA Rule 21, ISO-NE	
Smart-Grid Features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAr, Freq-Watt, Volt-Watt	
Warranty	10 years	
Standard Extended Terms	15 and 20 years	

1) Active Power Derating begins, at PF=0.91 to 0.8 when Max AC Apparent Power is set to 55 or 66kVA.
2) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.
3) Active Power Derating begins, at 40°C when PF=0.9 and MPPT 30Vdc, at 45°C when PF=1 and MPPT 30Vdc, and at 50°C when PF=1 and MPPT 30Vdc.
4) See user manual for further requirements regarding operating conditions.
5) Straps/Cover necessary required for installation angles of 75 degrees or less.
6) RSD wire-box only includes busbar/terminals on the positive polarity, compliant with NEC 2017, 680.8 (C).
7) Fuse values above 20A have additional spacing requirements or require the use of the Y-Comb Terminal Block. See user manual for details.



OMCO Choice™

Direct-Bolt Mounting System
omcosolar.com

Technical Specifications

- MANUFACTURING:** CHOICE™ Direct-Bolt mounting system is OEM direct, shipped to project sites from OMCO's manufacturing facilities, conveniently located nationwide.
- PRE-ASSEMBLY:** Each rack consists of pre-assembled components which reduces the bill of material items, allowing rapid site staging and installation.
- MATERIALS:** Galvanized U.S. Steel, per ASTM A653 - Latest Edition
- HARDWARE:** Zinc-Coated to 15 microns per UL 2703. Hardware arrives pre-sorted for easy identification. Additional plating options available for corrosive environments.
- MODULE COMPATIBILITY:**
- Any commercially available, framed flat-plate module.
 - Plus, as an official First Solar Ecosystem Partner, OMCO racks are compatible with First Solar Series 6 panels.
- IN-FIELD FLEXIBILITY:** Built-in adjustability features account for post misalignment and terrain elevation changes with no additional components. Proprietary custom slot configurations come standard on every fixed-tilt mounting system.
- TABLE CONFIGURATION:** 2 in Portrait is standard. Other configurations evaluated per site-specific requirements.
- TERRAIN ARTICULATION:** Accommodates up to 20% grade change
- FOUNDATION OPTIONS:** Driven Piles (C-Posts or I-Beams)
- TILT ANGLE:** Accommodates from 5° - 45°
- WIRE MANAGEMENT:** Integrated Wire Management System
- BONDING/GROUNDING:** UL 2703 Compliant
- POST TOLERANCES:** East to West Tolerance ± to 1" | North to South Post Tolerance ± to 1"
- LOAD CAPACITIES:** Wind - Up to 180 MPH | Snow - Up to 90 PSF
- CERTIFICATIONS:** ISO 9001:2015 Standard, UL 2703 Ed. 1, CPP Wind Tunnel-Tested, NEC Compliant
- WARRANTY:** 20-Year Limited Warranty

4550 W. Watkins St.
Suite 100
Phoenix, AZ 85043
Tel: 602-352-2700
Fax: 602-352-2701
info@omcosolar.com
www.omcosolar.com

CONTRACTOR

REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
(949) 281-7171

I HEREBY CERTIFY THAT THE WORK PROPOSED TO BE DONE ON THESE PLANS IS IN CONFORMANCE WITH ALL CODES AND ORDINANCES OF THE AHJ OF CITY OF COACHELLA AND FURTHER, IF OMISSIONS OR ERRORS ARE DISCOVERED, I UNDERSTAND THAT THE WORK PERFORMED WILL BE REQUIRED TO COMPLY WITH THE CODES AND ORDINANCES OF THE AHJ OF CITY OF COACHELLA PRIOR TO FINAL BUILDING INSPECTION.

SIGNATURE _____ DATE _____ STATE LICENSE NO. 1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
7/27/2021		INITIAL PLAN SET	A.L.	--
8/18/2021		1ST REVISIONS	A.L.	--
9/1/2021		1ST CORRECTIONS	A.L.	--
9/9/2021		2ND REVISIONS	A.L.	--

SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4996) TRINA TSM-475DE15V(II)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:
SYSTEM SIZE DC STC: 630.80 KW
SYSTEM SIZE AC CEC: 581.05 KW
SOLAR MODULES: (1328) TRINA TSM-475DE15V(II)
INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:
SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-475DE15V(II)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-475DE15V(II)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

EQUIPMENT SPECIFICATIONS

PV 7

SITE NOTES

- 1 PHOTOVOLTAIC SYSTEMS SHALL BE MARKED TO IDENTIFY THE MAIN ELECTRICAL SERVICE DISCONNECT. MATERIALS USED FOR MARKING SHALL BE WEATHER RESISTANT AND MEET UL 969 AS THE STANDARD FOR WEATHER RATING.
- 2 THE MAIN ELECTRICAL SERVICE DISCONNECT MARKING SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT IN A LOCATION CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED, FOR COMMERCIAL AND INDUSTRIAL BUILDINGS.
- 3 PHOTOVOLTAIC CIRCUIT MARKING SHALL BE PLACED ON ALL INTERIOR AND EXTERIOR PHOTOVOLTAIC DC CIRCUIT CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, AND JUNCTION BOXES. MARKINGS SHALL BE PLACED EVERY 10 FEET, AT TURNS, ABOVE AND/OR BELOW PENETRATIONS, AND AT ALL PHOTOVOLTAIC CIRCUIT COMBINER AND JUNCTION BOXES.
- 4 SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 605.11.1 THROUGH 605.11.2, THE CALIFORNIA BUILDING CODE, OR CALIFORNIA RESIDENTIAL CODE, AND CALIFORNIA ELECTRICAL CODE.

FIRE NOTES: (CHAPTER 12 OF CALIFORNIA FIRE CODE)
- 5 1204.4 - GROUND-MOUNTED PHOTOVOLTAIC ARRAYS SHALL COMPLY WITH SECTION 1204.1 AND THIS SECTION. SETBACK REQUIREMENTS SHALL NOT APPLY TO GROUND-MOUNTED, FREE-STANDING PHOTOVOLTAIC ARRAYS. A CLEAR, BRUSH-FREE AREA OF 10 FEET (3048 mm) SHALL BE REQUIRED FOR GROUND-MOUNTED PHOTOVOLTAIC ARRAYS.

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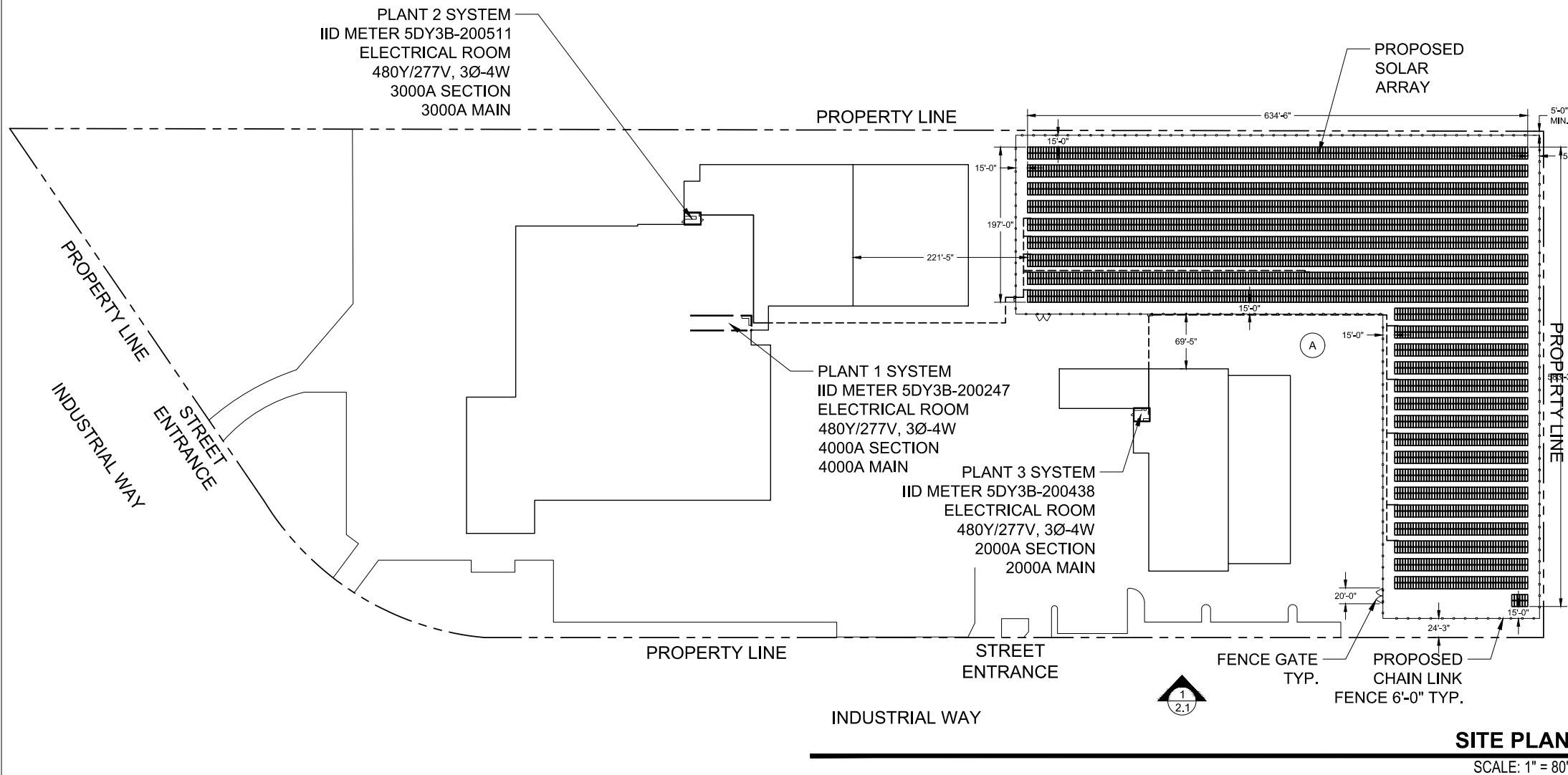
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DESCRIPTION:

SITE PLAN

PV 2.0

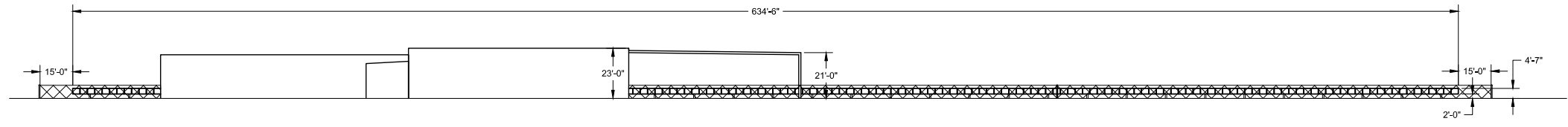


ARRAY INFORMATION

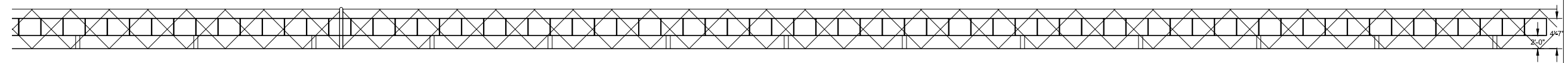
ARRAY	(A)
ARRAY TILT	20°
STRUCTURE INFO	SEE S-1
MODULE COUNT	4996
MODULE AREA	126477.5SQ.FT.
ARRAY AZIMUTH	180°

SITE PLAN

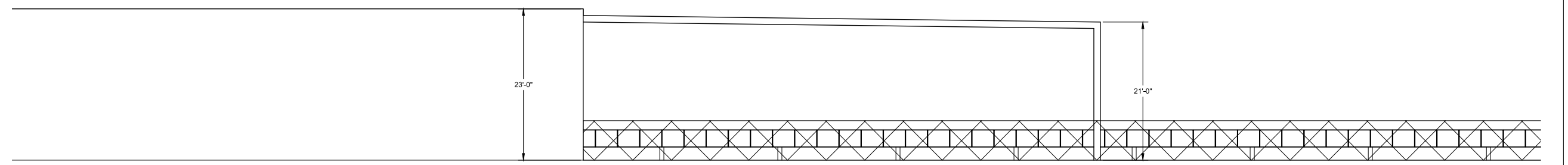
SCALE: 1" = 80'



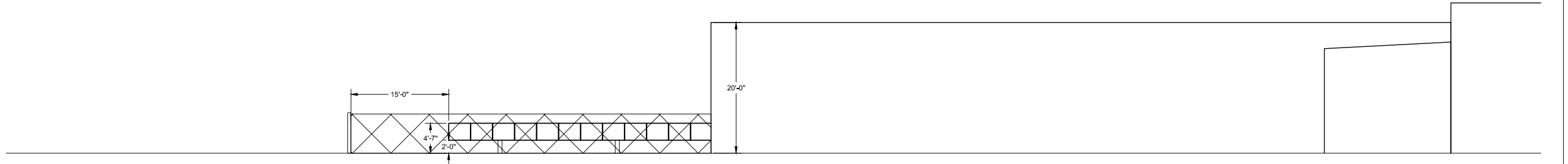
ELEVATION DETAIL
SCALE: 1" = 30'



RIGHT SIDE ELEVATION DETAIL
SCALE: 1/8" = 1'-0"



CENTRAL ELEVATION DETAIL
SCALE: 1/8" = 1'-0"



LEFT SIDE ELEVATION DETAIL
SCALE: 1/8" = 1'-0"

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DESCRIPTION:
ELEVATION DETAIL

PV 2.1

CONTRACTOR

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 2323 MAIN ST.
 IRVINE, CA 92614
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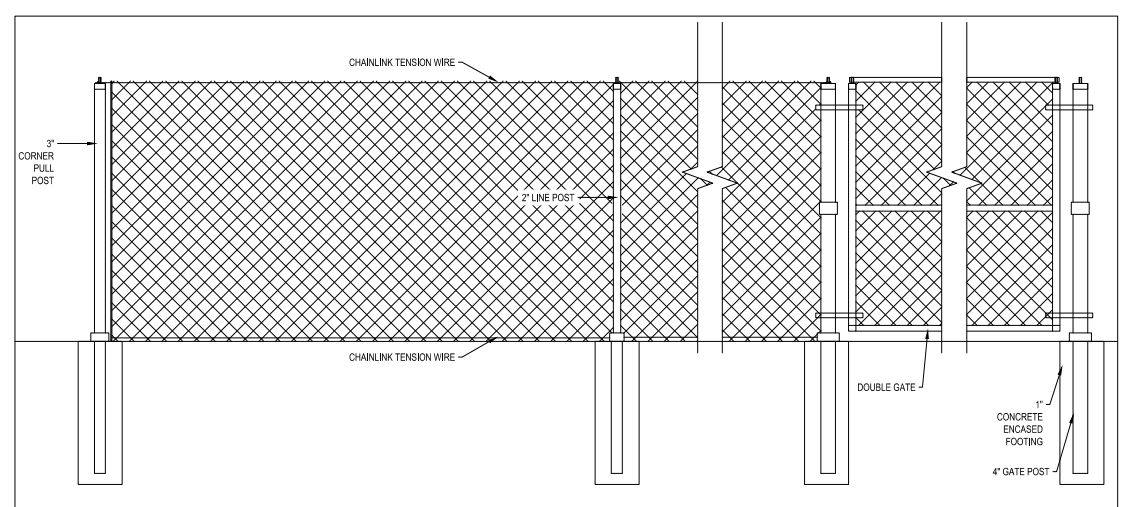
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DESCRIPTION:

ELEVATION DETAIL

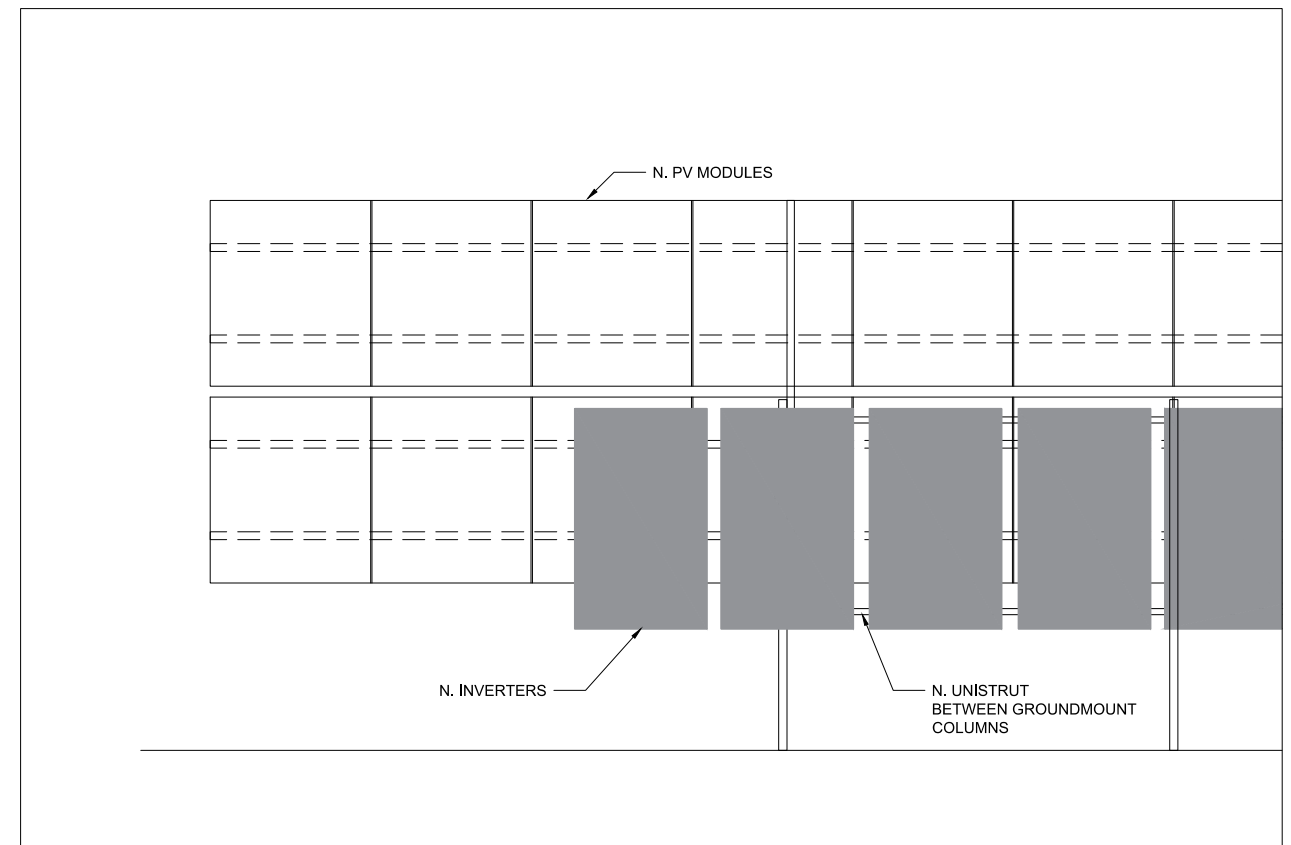
PV 2.2



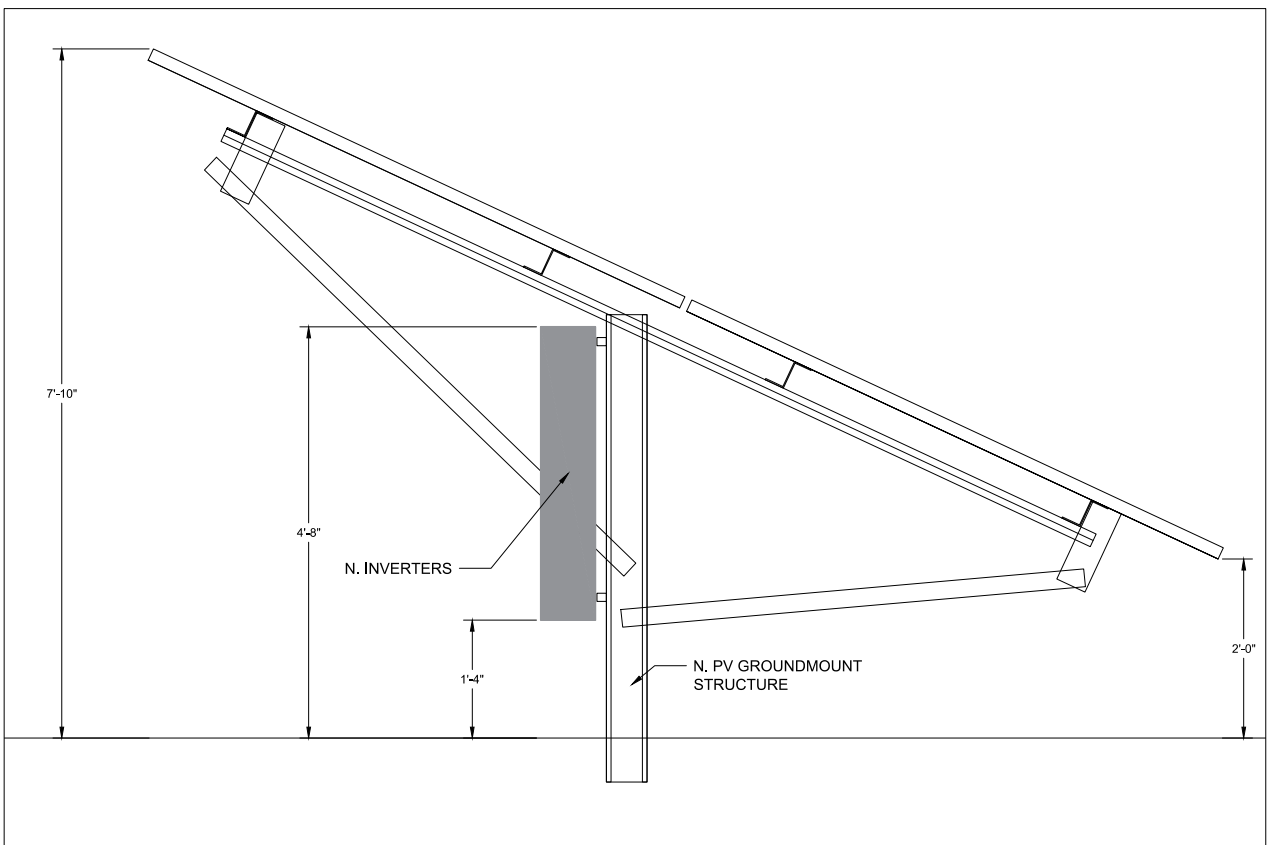
FENCE DETAIL TYP
 SCALE: 1/2" = 1'-0"

- FENCE NOTES:**
- BONDING JUMPERS ARE REQUIRED AT EACH FENCE CORNER AND AT MAXIMUM 160 FT. INTERVALS ALONG THE FENCE.
 - BONDING JUMPERS ARE REQUIRED ON EACH SIDE OF THE CROSSING WHERE BARE OVERHEAD CONDUCTORS CROSS THE FENCE.
 - GATES MUST BE BONDED TO THE GATE SUPPORT POST, AND EACH GATE SUPPORT POST MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.
 - ANY GATE OR OTHER OPENING IN THE FENCE MUST BE BONDED ACROSS THE OPENING BY A BURIED BONDING JUMPER.
 - THE GROUNDING GRID OR GROUNDING ELECTRODE SYSTEMS SHALL BE EXTENDED TO COVER THE SWING OF ALL GATES.
 - THE BARBED WIRE STRANDS ABOVE THE FENCE MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.

SEE PV5 FOR GROUNDING DETAILS

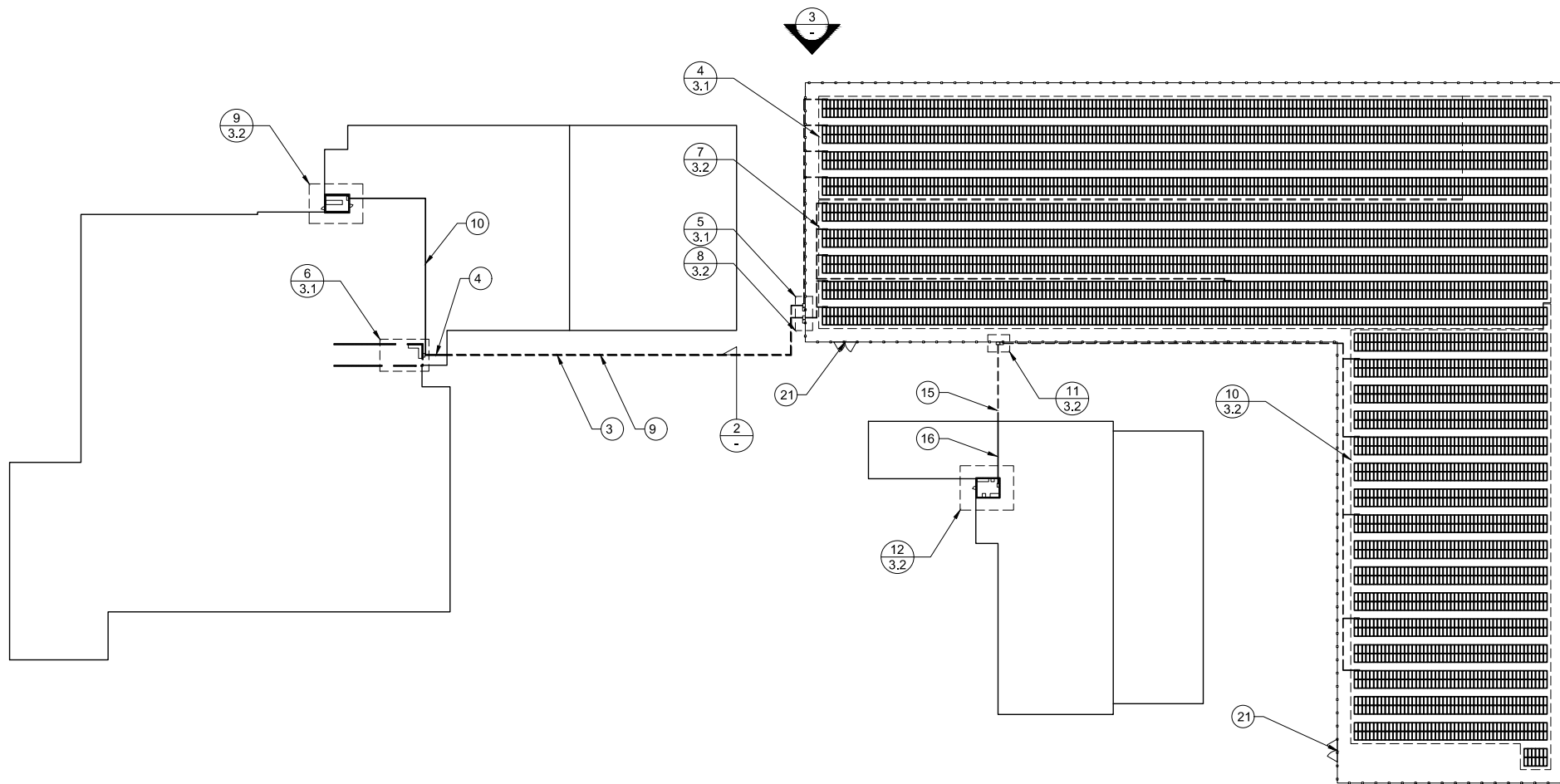


TYP. INVERTER ELEVATION VIEW
 *NOTE: THIS DETAIL IS FOR INVERTER MOUNT REFERENCE ONLY SCALE: 1:16



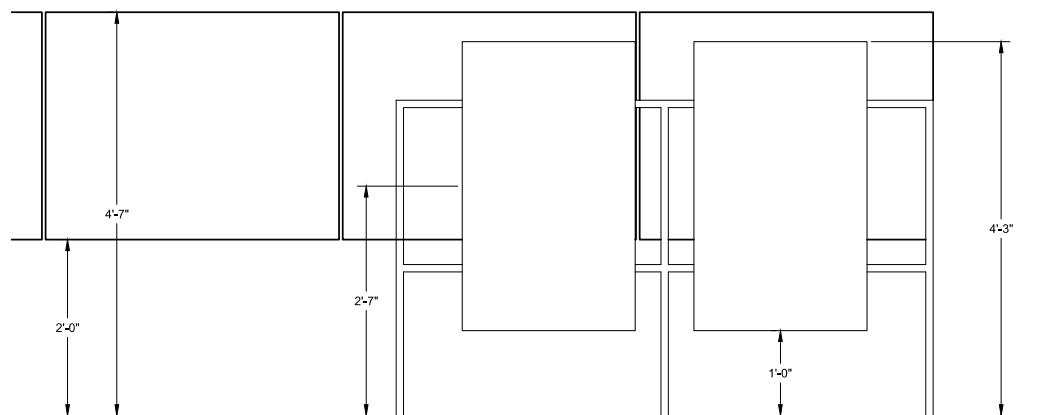
TYP. INVERTER ELEVATION VIEW
 *NOTE: THIS DETAIL IS FOR INVERTER MOUNT REFERENCE ONLY SCALE: 1" = 1'-0"

SEE PV 5 FOR FENCE GROUNDING DETAILS



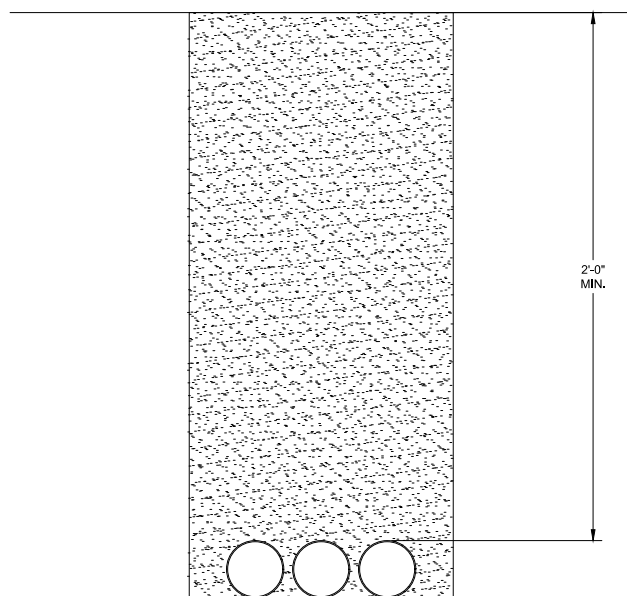
PLOT PLAN

SCALE: 1/64" = 1'-0"



TYP. INVERTER ELEVATION

SCALE: 1" = 1'-0"



TYP. TRENCH DETAIL

SCALE: 3" = 1'-0"

PLAN LEGEND

- 1 E. SYSTEM 1 IID METER 5DY3B-200247 4000A 480Y/277V 3P-4W SWITCHGEAR. INTERIOR. PAD MOUNTED.
2 N. 800A 600V 3P/4W NON-FUSED PHOTOVOLTAIC AC DISCONNECT. INTERIOR. WALL MOUNTED. SYSTEM DISCONNECT 1 OF 2.
3 N. UNDERGROUND PVC SCH40 TO ROOFTOP EMT. SEE PV4.0 FOR WIRE SCHEDULE.
4 N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.0 FOR WIRE SCHEDULE.
5 N. 800A 480Y/277V PV COMBINER SWITCHGEAR W/ RPU METER SOCKET SYSTEM. DISCONNECT 2 OF 2
6 N. SCA60TL-DO/US-480 PV INVERTERS. OUTDOOR RATED W/INTEGRATED DC & AC DISCONNECTS. ARRAY MOUNTED.
7 E. SYSTEM 2 IID METER 5DY3B-200511 3000A 480Y/277V 3P-4W SWITCHGEAR. INTERIOR. PAD MOUNTED.
8 N. 1600A 600V 3P/4W FUSED PHOTOVOLTAIC AC DISCONNECT. 1600A FUSES. INTERIOR. WALL MOUNTED. SYSTEM DISCONNECT 1 OF 2.
9 N. UNDERGROUND PVC SCH40. SEE PV4.1 FOR WIRE SCHEDULE.
10 N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.1 FOR WIRE SCHEDULE.
11 N. 1600A 480Y/277V PV COMBINER SWITCHGEAR W/ RPU METER SOCKET. SYSTEM DISCONNECT 2 OF 2.
12 N. SCA60TL-DO/US-480 PV INVERTERS. OUTDOOR RATED W/INTEGRATED DC & AC DISCONNECTS. ARRAY MOUNTED.
13 E. SYSTEM 3 IID METER 5DY3B-200438 3000A 480Y/277V 3P-4W SWITCHGEAR. INTERIOR. PAD MOUNTED.
14 N. 1200A 600V 3P/4W FUSED PHOTOVOLTAIC AC DISCONNECT. 1000A FUSES. INTERIOR. WALL MOUNTED. SYSTEM DISCONNECT 1 OF 2.
15 N. UNDERGROUND PVC SCH40. SEE PV4.2 FOR WIRE SCHEDULE.
16 N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.2 FOR WIRE SCHEDULE.
17 N. 1200A 480Y/277V PV COMBINER SWITCHGEAR W/ RPU METER SOCKET. SYSTEM DISCONNECT 2 OF 2.
18 N. SCA60TL-DO/US-480 PV INVERTERS. OUTDOOR RATED W/INTEGRATED DC & AC DISCONNECTS. ARRAY MOUNTED.
19 N. ARRAY "A". 4410 MODULES MOUNTED ON STRUCTURE.
20 N. FENCELINE AROUND ARRAY "A". 15' CLEARANCE FROM ARRAY.
21 N. FENCE GATE.

- S1 DENOTES SYSTEM NUMBER
I1 DENOTES INVERTER NUMBER
S1 DENOTES STRING NUMBER

PHOTOVOLTAIC MODULE



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Table with columns: NO., DATE, DESCRIPTION, ELECT., STRUC. containing revision history.

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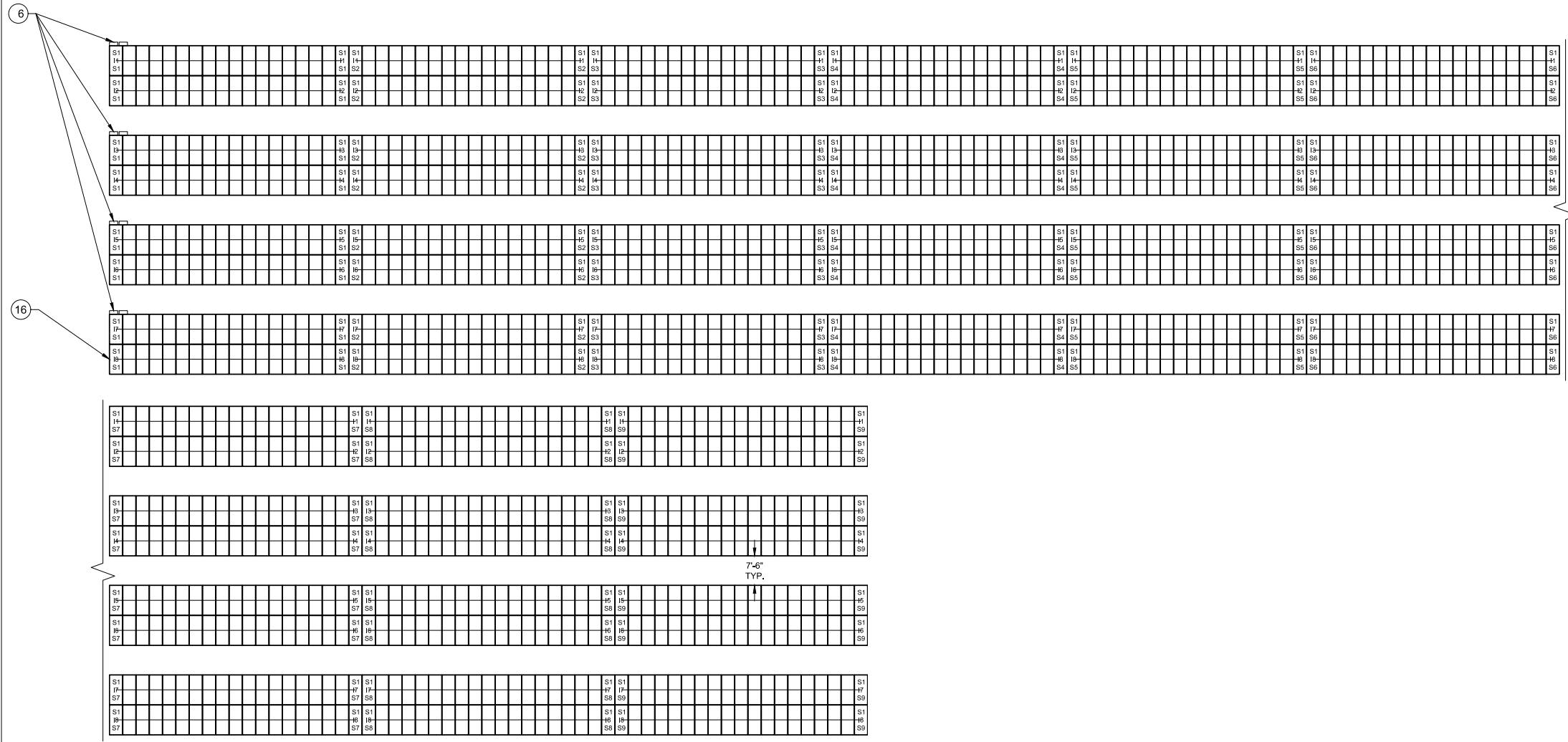
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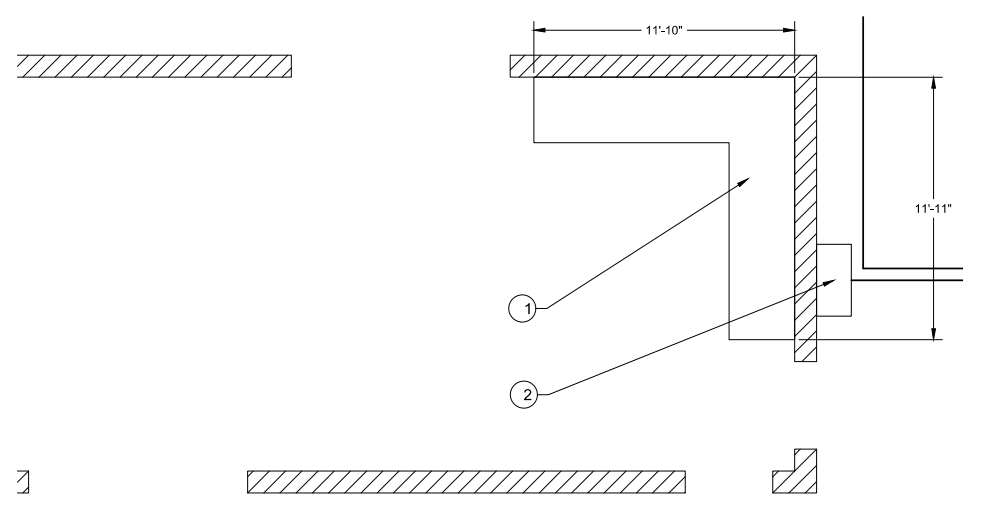
PLOT PLAN

PV 3.0



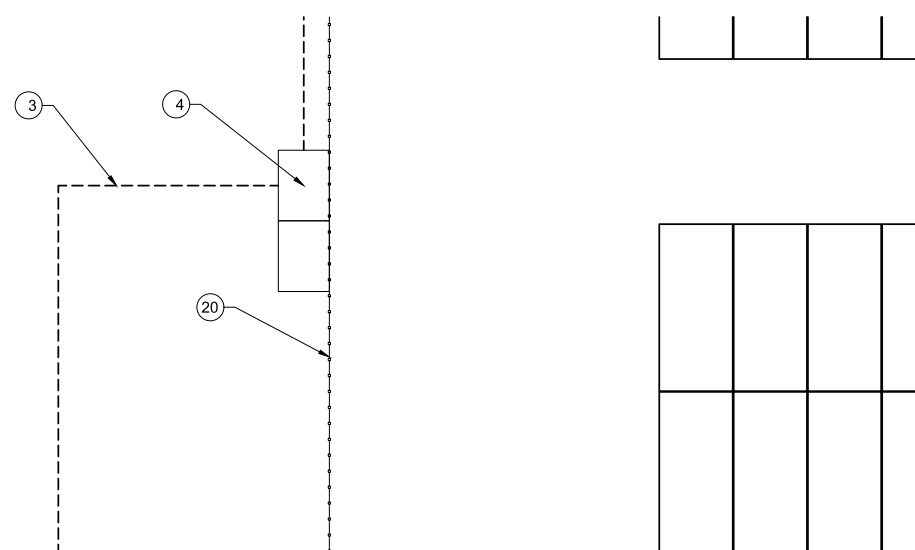
SYSTEM 1 ARRAY PLAN

SCALE: 1/16" = 1'-0"



SYSTEM 1 ELECTRICAL ROOM

SCALE: 1/4" = 1'-0"



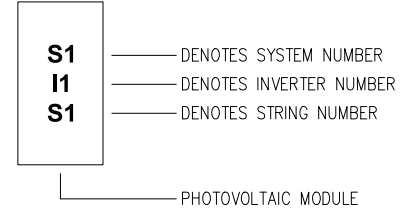
SYSTEM 1 ELECTRICAL EQUIPMENT

SCALE: 1/4" = 1'-0"

PLAN LEGEND

- ① E. SYSTEM 1 MID METER 5DY3B-200247
4000A 480Y/277V 3P-4W SWITCHGEAR.
INTERIOR. PAD MOUNTED.
- ② N. 800A 600V 3P/4W NON-FUSED PHOTOVOLTAIC
AC DISCONNECT. INTERIOR. WALL MOUNTED.
SYSTEM DISCONNECT 1 OF 2.
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OUTDOOR RATED W/INTEGRATED DC & AC
DISCONNECTS. ARRAY MOUNTED.

- ⑰ N. ARRAY "A". 4410 MODULES MOUNTED ON
STRUCTURE.
- ⑱ N. FENCELINE AROUND ARRAY "A". 15'
CLEARANCE FROM ARRAY.
- ⑳ N. FENCE GATE.



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INVERTER(S):	(8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:

SYSTEM SIZE DC STC:	975.65 KW
SYSTEM SIZE AC CEC:	898.70 KW
SOLAR MODULES:	(2054) TRINA TSM-475DE15V(I)
INVERTER(S):	(13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:

SYSTEM SIZE DC STC:	766.65 KW
SYSTEM SIZE AC CEC:	706.18 KW
SOLAR MODULES:	(1614) TRINA TSM-475DE15V(I)
INVERTER(S):	(10) CPS SCA60TL-DO/US-480

DESCRIPTION:

SYSTEM 1 PLAN

PV 3.1



PLAN LEGEND

CONTRACTOR

REVEL-ENERGY, INC.
 2323 MAIN ST.
 IRVINE, CA 92614
 CSLB #: 1038433 / A, B, C10, C46
 (949) 281-7171

I HEREBY CERTIFY THAT THE WORK PROPOSED TO BE DONE ON THESE PLANS IS IN CONFORMANCE WITH ALL CODES AND ORDINANCES OF THE A.H.J. OF CITY OF COACHELLA AND FURTHER, IF OMISSIONS OR ERRORS ARE DISCOVERED, I UNDERSTAND THAT THE WORK PERFORMED WILL BE REQUIRED TO COMPLY WITH THE CODES AND ORDINANCES OF THE A.H.J. OF CITY OF COACHELLA PRIOR TO FINAL BUILDING INSPECTION.

SIGNATURE _____ DATE _____ STATE LICENSE NO. 1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
 5220 INDUSTRIAL WAY
 COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
	7/27/2021	INITIAL PLAN SET	A.L.	--
	8/18/2021	1ST REVISIONS	A.L.	--
	9/11/2021	1ST CORRECTIONS	A.L.	--
	9/9/2021	2ND REVISIONS	A.L.	--

SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
 TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
 SOLAR MODULES: (4996) TRINA TSM-475DE15V(I)
 INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:
 SYSTEM SIZE DC STC: 630.80 KW
 SYSTEM SIZE AC CEC: 581.05 KW
 SOLAR MODULES: (1328) TRINA TSM-475DE15V(I)
 INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:
 SYSTEM SIZE DC STC: 975.65 KW
 SYSTEM SIZE AC CEC: 898.70 KW
 SOLAR MODULES: (2054) TRINA TSM-475DE15V(I)
 INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
 SYSTEM SIZE DC STC: 766.65 KW
 SYSTEM SIZE AC CEC: 706.18 KW
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 INVERTER(S): (10) CPS SCA60TL-DO/US-480

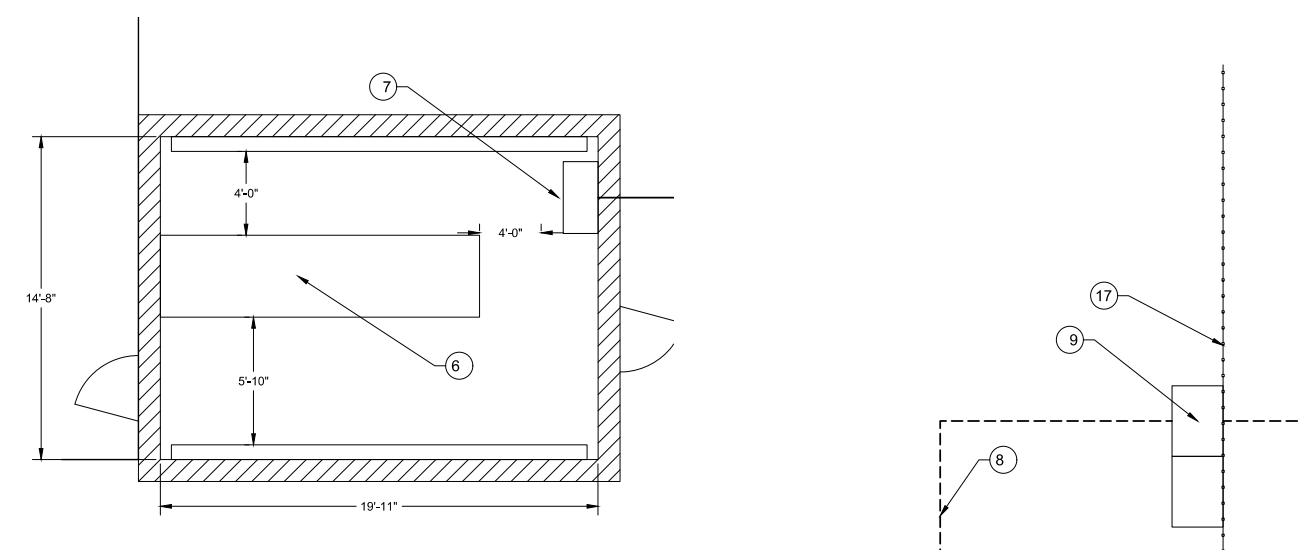
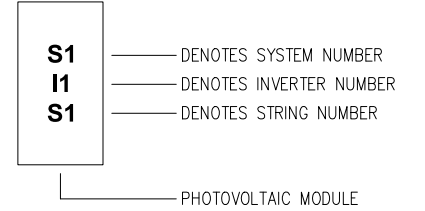
DESCRIPTION:

SYSTEM 2 PLAN

PV 3.2

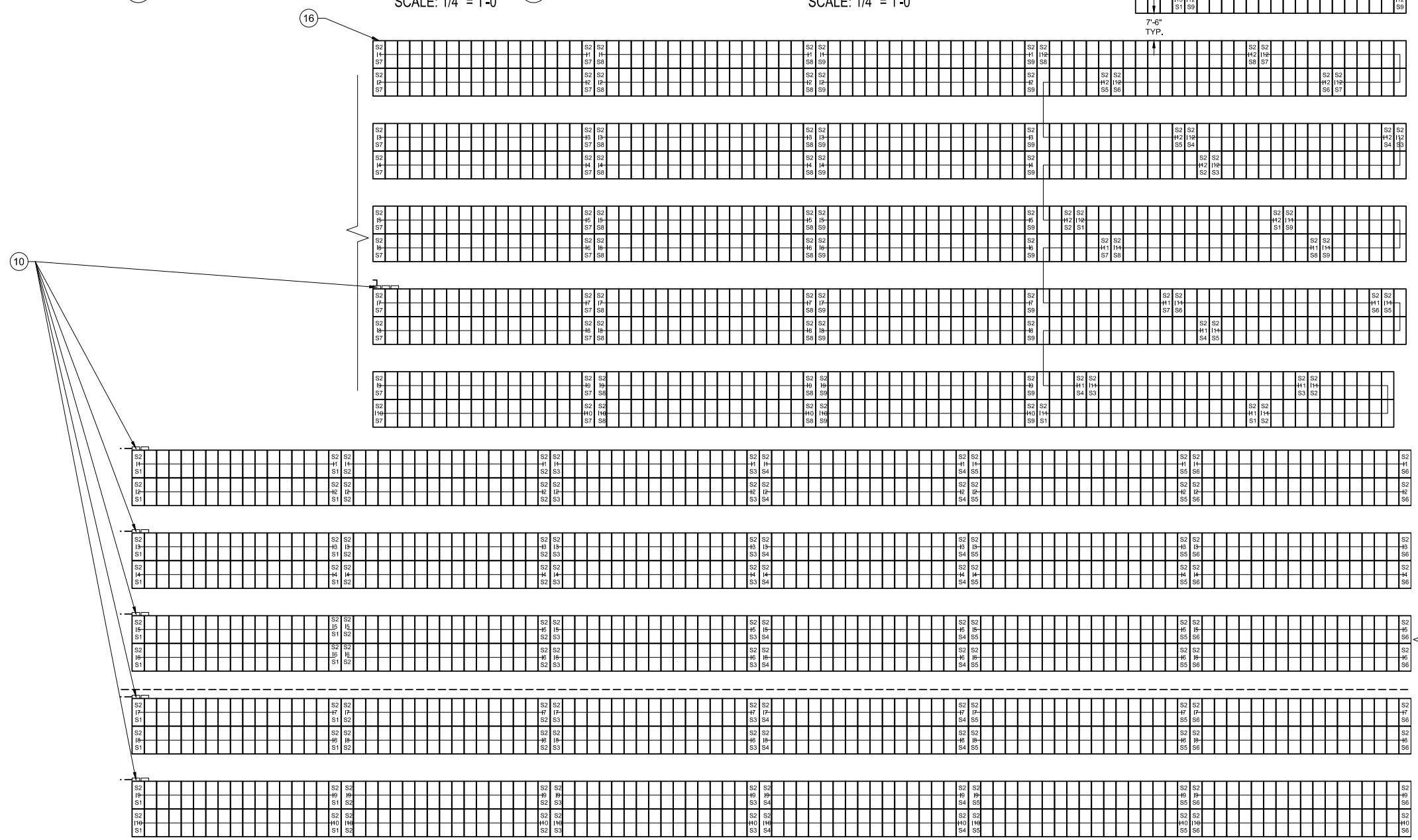
- ⑦ E. SYSTEM 2 IID METER 5DY3B-200511 3000A 480Y/277V 3P-4W SWITCHGEAR. INTERIOR. PAD MOUNTED.
- ⑧ N. 1600A 600V 3P/4W FUSED PHOTOVOLTAIC AC DISCONNECT. 1600A FUSES. INTERIOR. WALL MOUNTED. SYSTEM DISCONNECT 1 OF 2.
- ⑨ N. UNDERGROUND PVC SCH40. SEE PV4.1 FOR WIRE SCHEDULE.
- ⑩ N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.1 FOR WIRE SCHEDULE.
- ⑪ N. 1600A 480Y/277V PV COMBINER SWITCHGEAR W/ RPU METER SOCKET. SYSTEM DISCONNECT 2 OF 2.
- ⑫ N. SCA60TL-DO/US-480 PV INVERTERS. OUTDOOR RATED W/INTEGRATED DC & AC DISCONNECTS. ARRAY MOUNTED.

- ⑰ N. ARRAY "A". 4410 MODULES MOUNTED ON STRUCTURE.
- ⑱ N. FENCELINE AROUND ARRAY "A". 15' CLEARANCE FROM ARRAY.
- ⑳ N. FENCE GATE.



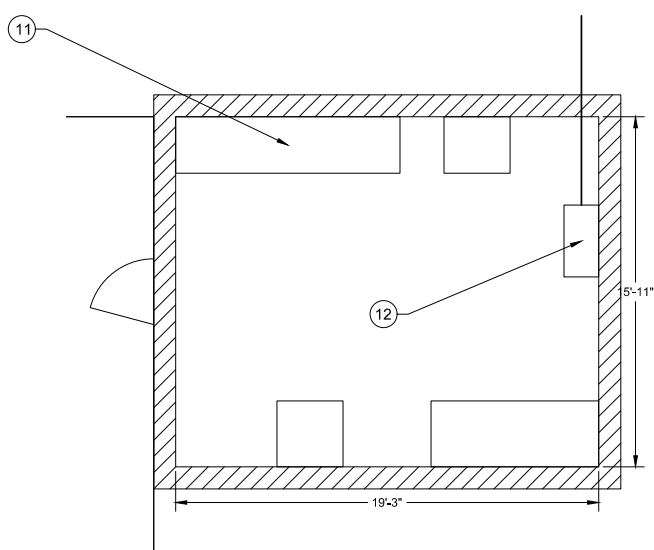
SYSTEM 2 ELECTRICAL ROOM
 SCALE: 1/4" = 1'-0"

SYSTEM 2 ELECTRICAL EQUIPMENT
 SCALE: 1/4" = 1'-0"

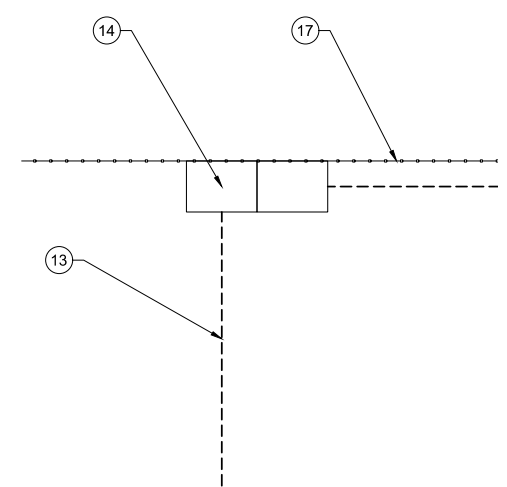


SYSTEM 2 ARRAY PLAN
 SCALE: 1/16" = 1'-0"

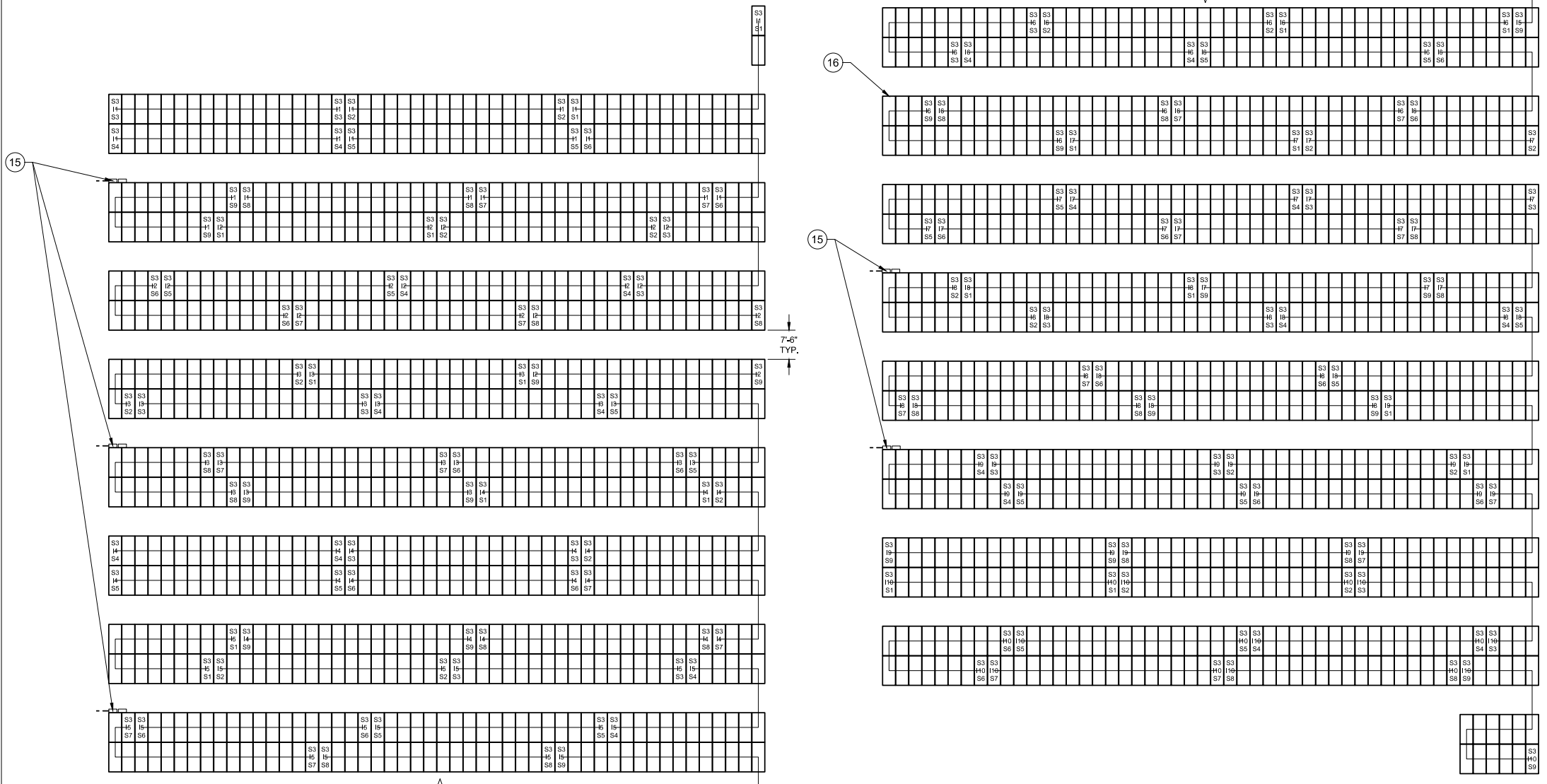




SYSTEM 3 ELECTRICAL ROOM
SCALE: 1/4" = 1'-0"



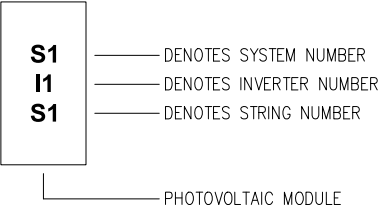
SYSTEM 3 ELECTRICAL EQUIPMENT
SCALE: 1/4" = 1'-0"



SYSTEM 3 ARRAY PLAN
SCALE: 1/16" = 1'-0"

PLAN LEGEND

- 13 E. SYSTEM 3 IID METER 5DY3B-200438
3000A 480Y/277V 3P-4W SWITCHGEAR.
INTERIOR. PAD MOUNTED.
- 14 N. 1200A 600V 3P/4W FUSED PHOTOVOLTAIC AC
DISCONNECT. 1000A FUSES. INTERIOR. WALL
MOUNTED.
SYSTEM DISCONNECT 1 OF 2.
- 15 N. UNDERGROUND PVC SCH40. SEE PV4.2 FOR
WIRE SCHEDULE.
- 16 N. ROOFTOP EMT TO ELECTRICAL ROOM. SEE PV4.2
FOR WIRE SCHEDULE.
- 17 N. 1200A 480Y/277V PV COMBINER SWITCHGEAR
W/ RPU METER SOCKET.
SYSTEM DISCONNECT 2 OF 2.
- 18 N. SCA60TL-DO/US-480 PV INVERTERS.
OUTDOOR RATED W/INTEGRATED DC & AC
DISCONNECTS. ARRAY MOUNTED.
- 19 N. ARRAY "A". 4410 MODULES MOUNTED ON
STRUCTURE.
- 20 N. FENCELINE AROUND ARRAY "A". 15'
CLEARANCE FROM ARRAY.
- 21 N. FENCE GATE.



CONTRACTOR
REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
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SYSTEM INFO:
TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4996) TRINA TSM-475DE15V(I)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:
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SYSTEM SIZE AC CEC: 581.05 KW
SOLAR MODULES: (1328) TRINA TSM-475DE15V(I)
INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:
SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-475DE15V(I)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

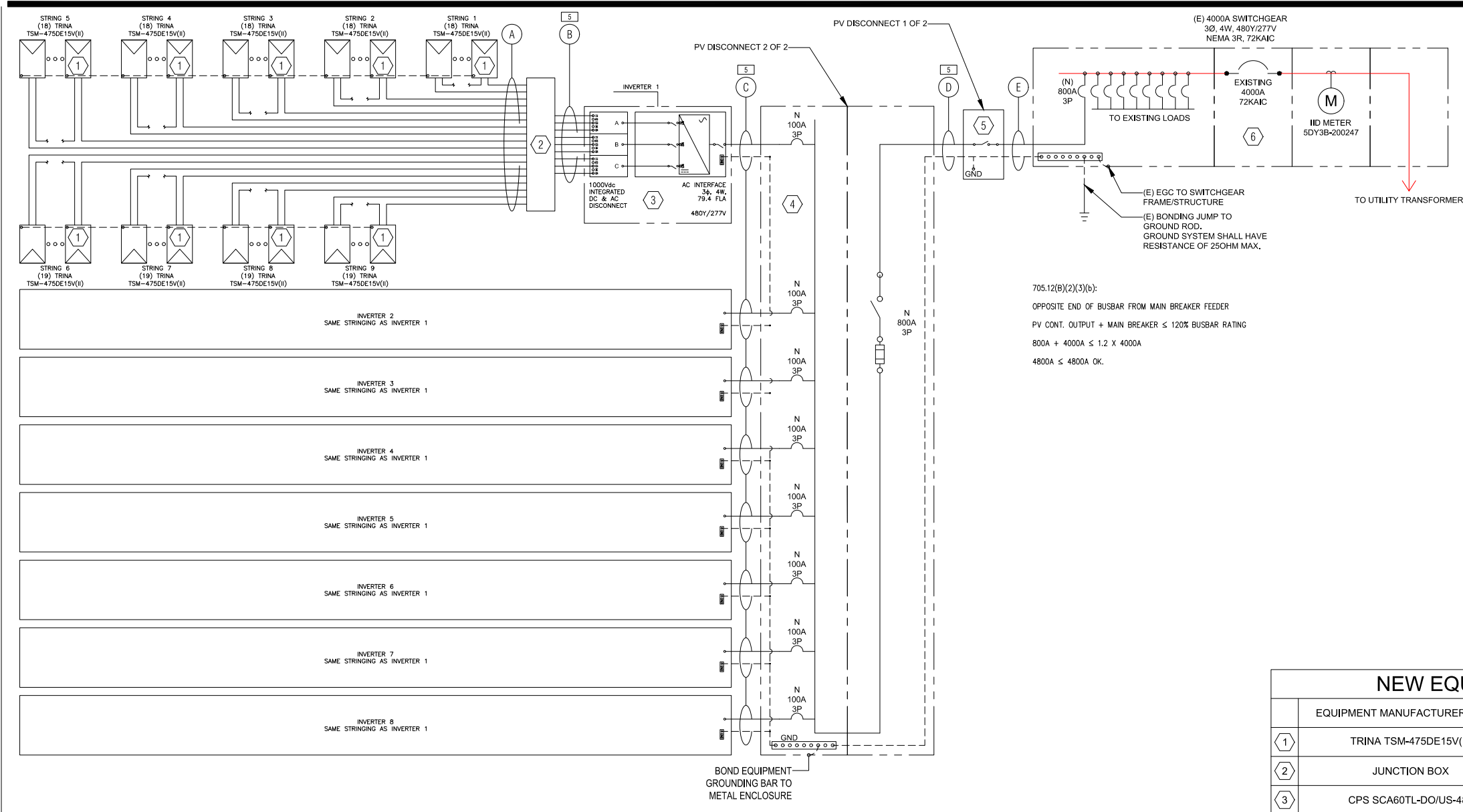
SYSTEM (PLANT) 3:
SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

SYSTEM 3 PLAN

PV 3.3





EQUIPMENT NOTES

- PHOTOVOLTAIC MODULES INCLUDE #12 AWG OUTDOOR RATED MC4 CONNECTORS FOR MODULE INTERCONNECTION. DO NOT REMOVE THE QUICK CONNECTS, OTHERWISE THE MODULE WARRANTY AND THE UL LISTING WILL BE INVALIDATED.
- #6 AWG BARE COPPER GROUND WILL BE USED AS EQUIPMENT GROUND FOR THE RACKING. USE MODULE GROUNDING METHODS PER MANUFACTURERS INSTALLATION REQUIREMENTS. THE MODULE EQUIPMENT GROUND SHALL TERMINATE AT THE INVERTER CABINET.
- INVERTERS NEMA 3R RATED WITH UL 1741-SA LISTING INCLUDING INTERNAL ANTI-ISLANDING PROTECTION FEATURES WITH CA RULE 21 COMPLIANCE. UL1741 LISTING INCLUDES COMPLIANCE WITH IEEE1547 FOR INTERCONNECTION SYSTEM AND TEST REQUIREMENTS AND THE NATIONAL ELECTRIC CODE. TIED TO EXISTING FACILITY GROUND. INVERTER HAS INTERNAL DC DISCONNECT MEANS, FUSED AT 20A PER POLE. INVERTER IS U.L. LISTED AS A UNIT. UNIT IS EQUIPPED WITH UL1741 APPROVED GROUND FAULT DETECTION DEVICE THAT MEETS NEC 250.122 REQUIREMENTS FOR EQUIPMENT GROUNDING. NOTE: SEE ATTACHED CUTSHEETS FOR DETAILS.
- PER NEC 250.53(A)(2), A SINGLE ROD, PIPE OR PLATE ELECTRODE SHALL BE SUPPLEMENTED BY AN ADDITIONAL ELECTRODE OF TYPE SPECIFIED IN 250.52(A)(2) THROUGH (A)(8) SPACED NO LESS THAN 6FT APART. EXCEPTION, IF A SINGLE ROD, PIPE OR PLATE GROUNDING ELECTRODE HAS A RESISTANCE TO EARTH OF 25 OHMS OR LESS, THE SUPPLEMENTAL ELECTRODE SHALL NOT BE REQUIRED.
- ALL UNDERGROUND CONDUIT IS TO BE SCH40 PVC.

SEE PV 5 FOR GROUNDING DETAILS

NEW EQUIPMENT SCHEDULE

NO.	EQUIPMENT MANUFACTURER/MODEL	EQUIPMENT DESCRIPTION
1	TRINA TSM-475DE15V(II)	TRINA SOLAR 475W PV MODULE
2	JUNCTION BOX	NEMA 3R JUNCTION BOX
3	CPS SCA60TL-DO/US-480	CPS 60KW INVERTER W/ INTEGRATED DC & AC DISCONNECTS
4	PV COMBINER SWITCHGEAR	800A BUSBAR, 800A DISCONNECT, 480Y/277V, 3φ, 4W, 42KAIC
5	AC DISCONNECT SWITCH	800A, NONFUSED, 480Y/277V, 3φ, 4W, VIEWABLE, LOCKABLE
6	EXISTING MAIN SERVICE PANEL	4000A BUSBAR, 4000A DISCONNECT, 480Y/277V, 3φ, 4W, 72KAIC

SYSTEM 1 SHORT-CIRCUIT CALCULATIONS																						
FAULT POINT	FAULT OR TRANSFORMER	PHASE	FAULT POINT	SOURCE I _{SC} (AMPS)	FEEBEE CONFLIT TYPE	#	PHASE	FEEBEE MATRICAL CU or AL	C/VOL UP	L-L VOLT TR	L-L LENGTH	CIRCUIT FACTOR	LOAD POWER FACTOR	CONDUCTOR I _{SC}	CONDUCTOR RESISTANCE	CONDUCTOR REACTANCE	f	M	FAULT CLEARING TIME	FAULT POINT		
1	POD TO AC DISCONNECT	3	0	72000	M	3	Set(s) of 500	CU	18175.59	480	19	0.97	0.000548	0.000048	0.0468	0.35	0.000000	0.000000	0.000000	0.000000	0.000000	0
2	AC DISCONNECT TO PV COMBINER	3	1	66750	M	3	Set(s) of 300	CU	18175.59	480	400	0.97	0.000040	0.000001	1.819	0.35	0.000000	0.000000	0.000000	0.000000	23.75	2
3	PV COMBINER TO INVERTER	3	2	24378	M	1	Set(s) of 3	CU	4774.00	480	28	0.97	0.000020	0.000009	0.461	0.68	0.000000	0.000000	0.000000	0.000000	16.690	3

DC STRING VOLTAGE DROP										
INVERTER	String #	MOD STRING	Current (Amps)	VOLTAGE DROP	Wire Size	Conductor	Wire Length (One Way)	Total Voltage	%VOLT	
1	1 thru 6	18	13.80	833.99	#10	1.24	675	1.674	23.101	2.770%
1	7 thru 9	19	14.80	880.32	#10	1.24	675	1.874	23.101	2.624%
2 thru 8	1 thru 5	18	13.80	833.99	#10	1.24	675	1.674	23.101	2.770%
2 thru 8	6 thru 9	19	13.80	880.32	#10	1.24	675	1.674	23.101	2.624%

Inverter Specifications:			
Inverter Manufacturer:	Chint Power Systems	Max. String Voltage Using -0.25%/°C temp. factor of module =	880.4V
Inverter Type:	CPS SCA60TL-DO/US-480	Max. String Voltage Using 1.14 temp. factor of module =	933.6V
Input (DC):	MAX used Power input per channel: 33000 W	Output (AC):	Peak output power: 66000 VA
Module Compatibility:	Module Manufacturer: Trina Solar	Maximum Continuous Output Power:	60000 VA
Maximum Input DC Voltage:	1000 V	Nominal output voltage:	480 V
Maximum Amp Isc:	68 per MPPT	Nominal output current:	79.4 A

Module Specifications:			
Module Manufacturer:	Trina Solar	Output (AC):	43.1 Vdc
Module Model:	TSM-475DE15V(II)	Voc:	36.2 Vdc
Parameters (DC):	Local Temperature (°C): -5°C to 44°C	Isc:	13.8 A
Coldest Day Voc:	46.33 V	Imp:	13.12 A
Warmest Day Vmp:	31.58 V	STC Power:	475 W
Maximum Fuse Rating:	25 A	PTC Power:	444.2 W
		Max System Voltage:	1500 V
		Voc Temp. Coeff:	-0.25 %/°C

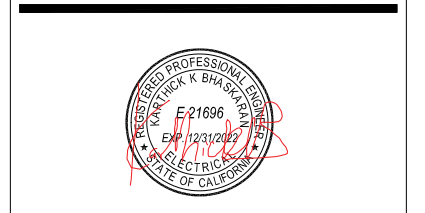
CABLE SCHEDULE, BREAKER SIZING AND AMPACITY CALCULATIONS FOR SYSTEM 1																									
CABLE	CABLE TYPE	CABLE VOLTAGE RATING (V)	CABLE TEMP RATING	AMBIENT TEMP (°C)	USE AND/OR BUYS: ROOF TO BOTTOM OF CONDUIT	ALLOWED AMBIENT TEMP (°C)	CONDUIT	CONDUIT TYPE	# OF CONDUCTORS PER PHASE	WIRE SIZE	NEUTRAL	GROUND	TOTAL CU CONDUCTORS IN RECEPTANCE	BASE AMPACITY (A)	DEPRATING FACTOR FOR RECEPTANCE PER NEC 310.15(B)(3)(a)	DEPRATING FACTOR FOR AMBIENT TEMPERATURE PER NEC 310.15(B)(2)(a)	OVERALL DEPRATING FACTOR	DEPRATED AMPACITY (A)	CIRCUIT LOAD (A)	CIRCUIT LOAD (A) (150%DC, 125%AC)	MINIMUM COPD PER LOAD	MAXIMUM COPD PER DERATED CABLE	EST. DISTANCE FT	VOLTAGE DROP %VD	TOTAL V.D. %VD/CUM
A	PV WIRE	1000	90°C (194°F)	44	NOT ON ROOF	44	N/A	FREE AIR	1	Set(s) of #10	N/A	#8	18	55	50%	87%	43.500%	23.9	13.8	17.25	20	500	SEE DC VD DROP		
B	THMN-2 (CU)	600	90°C (194°F)	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #10	N/A	#8	18	40	50%	87%	43.500%	17.4	13.8	17.25	20	175	SEE DC VD DROP		
C	THMN-2 (CU)	600	90°C (194°F)	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #3	#3	#8	3	115	100%	87%	87.000%	100.1	79.4	96.25	100	100	25	0.18%	0.18%
D	THMN-2 (CU)	600	90°C (194°F)	44	ABOVE 7'8"	44	2-1/2"	EMT	3	Set(s) of 300KCMIL	300KCMIL	1/0	3	960	100%	87%	87.000%	835.2	794.00	800	800	400	1.38%	1.55%	
E	THMN-2 (CU)	600	90°C (194°F)	44	NOT ON ROOF	44	2-1/2"	EMT	3	Set(s) of 300KCMIL	300KCMIL	1/0	3	960	100%	87%	87.000%	835.2	635.2	794.00	800	800	10	0.03%	1.59%

CONTRACTOR

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2323 MAIN ST.
IRVINE, CA 92614
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SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4996) TRINA TSM-475DE15V(II)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:
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SYSTEM SIZE AC CEC: 581.05 KW
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INVERTER(S): (8) CPS SCA60TL-DO/US-480

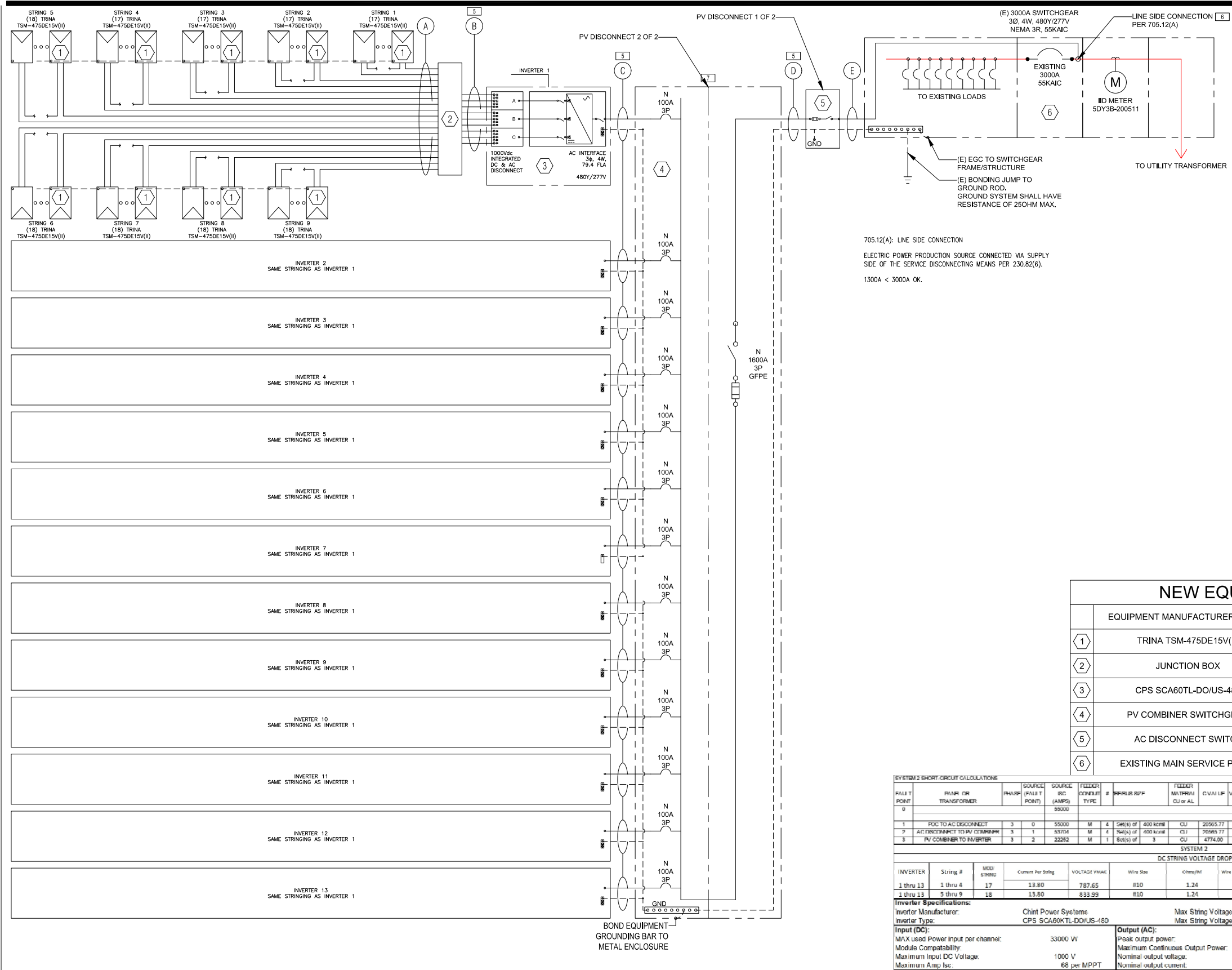
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INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
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SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-475DE15V(II)
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DESCRIPTION:

SYSTEM 1 SLD

PV 4.0



EQUIPMENT NOTES

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- 5 ALL UNDERGROUND CONDUIT IS TO BE SCH40 PVC.
- 6 ANY ALTERATIONS TO THE EXISTING MAIN SWITCHGEAR'S MECHANICAL/ELECTRICAL CHARACTERISTICS REQUIRES A THIRD PARTY SITE EVALUATION TO RE-CERTIFY THE SWITCHGEAR TO UL STANDARDS.
- 7 GROUND FAULT PROTECTION WILL BE PROVIDED PER 230.95.

Item 2.

CONTRACTOR

REVEL-ENERGY, INC.
 2323 MAIN ST.
 IRVINE, CA 92614
 CSLB #: 1038433 / A, B, C10, C46 (949) 281-7171

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SYSTEM (PLANT) 2:
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 INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

SYSTEM 2 SLD

PV 4.1

NEW EQUIPMENT SCHEDULE

NO.	EQUIPMENT MANUFACTURER/MODEL	EQUIPMENT DESCRIPTION
1	TRINA TSM-475DE15V(II)	TRINA SOLAR 475W PV MODULE
2	JUNCTION BOX	NEMA 3R JUNCTION BOX
3	CPS SCA60TL-DO/US-480	CPS 60KW INVERTER W/ INTEGRATED DC & AC DISCONNECTS
4	PV COMBINER SWITCHGEAR	1600A BUSBAR, 1600A DISCONNECT, 480Y/277V, 3ø, 4W, 42KAIC
5	AC DISCONNECT SWITCH	1600A, 1600A FUSES, 480Y/277V, 3ø, 4W, VIEWABLE, LOCKABLE, 55KAIC
6	EXISTING MAIN SERVICE PANEL	3000A BUSBAR, 3000A DISCONNECT, 480Y/277V, 3ø, 4W, 55KAIC

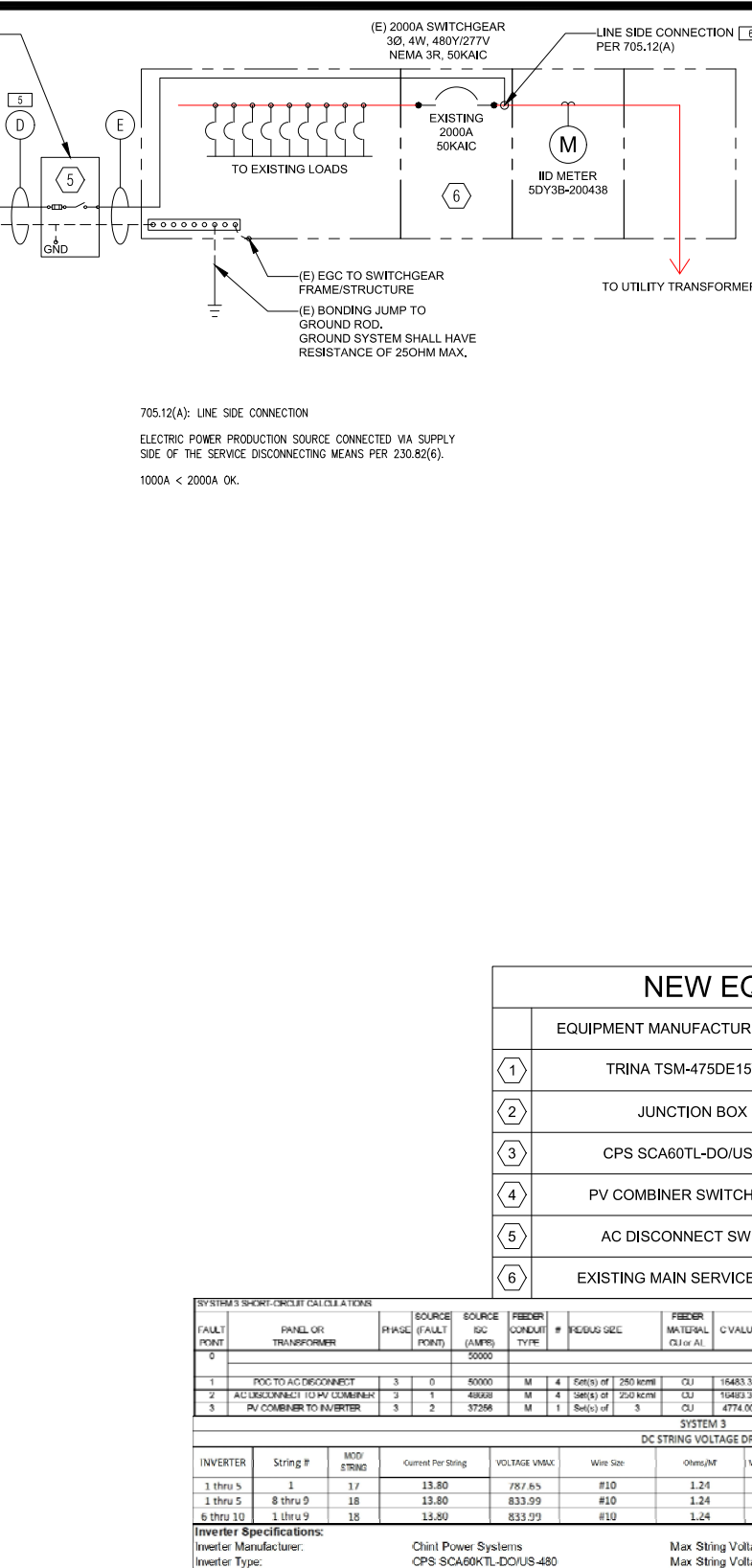
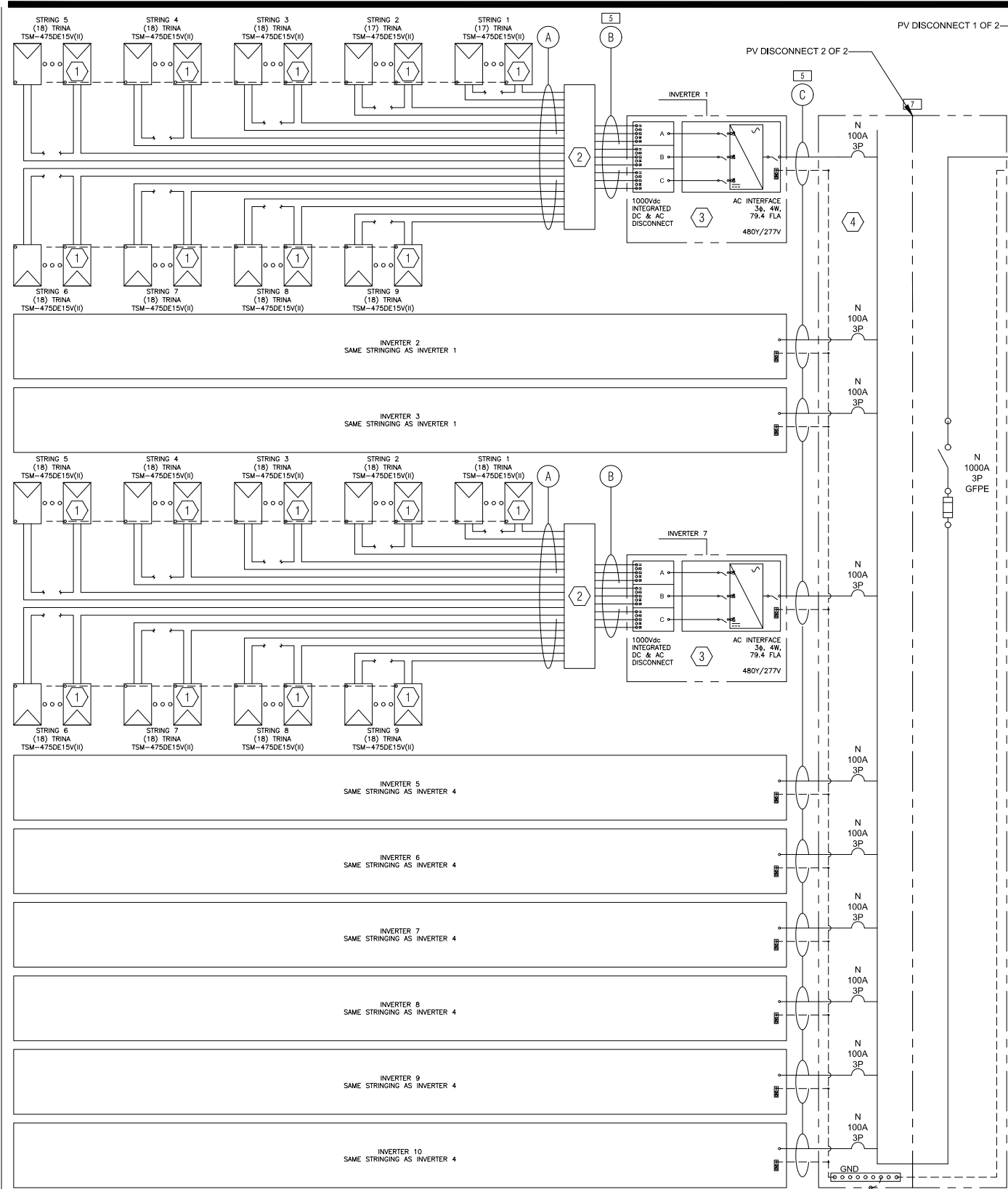
FALL T POINT	PHASE OR TRANSFORMER	PHASE	FALL T POINT	SOURCE RSD (AMPS)	FEDDER CONDUIT TYPE	#	PERMISSIBLE	MATERIAL	CL	CL	VOL TGE	LEN	CIRCUIT I	LOAD FACTOR (%)	CIRCUIT I	LOAD FACTOR (%)	CONDUCTOR R	CONDUCTOR R	F	M	FAULT I	FALL T POINT
0				55000																		0
1	POC TO AC DISCONNECT	3	0	55000	M	4	See(s) of 400 kcmil	CU	20565.77	480	10		0.97	1032.2	0.000035	0.000035	0.024	0.96			53704	1
2	AC DISCONNECT TO PV COMBINER	3	1	53704	M	4	See(s) of 400 kcmil	CU	20565.77	480	10		0.97	1032.2	0.000035	0.000035	1.413	0.41			29990	2
3	PV COMBINER TO INVERTER	3	2	22262	M	1	See(s) of 3	CU	2774.00	480	18		0.97	79.4	0.000260	0.000260	0.262	0.86			17189	3

INVERTER	String #	MOD STRING	Current Per String	VOLTAGE VMAX	Wire Size	Ohms/ft	Wire Length One Way	Total Ohms	Esac:	VID	%VD
1 thru 13	1 thru 4	17	13.80	787.65	#10	1.24	615	1.525	21.048		2.672%
1 thru 13	5 thru 9	18	13.80	833.99	#10	1.24	615	1.525	21.048		2.524%

PARAMETER	VALUE	PARAMETER	VALUE
MAX used Power input per channel:	33000 W	Peak output power:	66000 VA
Module Compatibility:	60000 VA	Maximum Continuous Output Power:	60000 VA
Maximum Input DC Voltage:	1000 V	Nominal output voltage:	480 V
Maximum Amp Isc:	68 per MPPT	Nominal output current:	79.4 A

CABLE	CABLE TYPE	CABLE VOLTAGE RATING (V)	CABLE TEMP RATINGS	AMBIENT TEMP (°C)	DISTANCE ABOVE ROOF TO BOTTOM OF CONDUIT	ADJUSTED AMBIENT TEMP (°C)	CONDUIT TYPE	# OF CONDUCTORS PER PHASE	WIREBUNDLE SIZE	NEUTRAL	GROUND	TOTAL OC CONDUCTORS IN RACEWAY	BASE AMPACITY (A)	DERATING FACTOR FOR CONDUCTORS PER RACEWAY (NEC 310.15(B)(3)(a))	DERATING FACTOR FOR AMBIENT TEMPERATURE (NEC 310.15(B)(2)(a))	OVERALL DERATING FACTOR	AMPLACITY (A)	CIRCUIT LOAD (A)	CIRCUIT LOAD (A) (156%DC, 125%AC)	MINIMUM COPD PER LOAD	MAXIMUM COPD PER DERATED CABLE	EST. DISTANCE FT	VOLTAGE DROP %VD	TOTAL V.D. %VD/CUM
A	PV-WIRE	1000	90°C (194°F) Cu	44	NOT ON ROOF	44	NA	FREE AIR	1	Set(s) of #10	NA	#6	55	50%	87%	43.500%	23.9	13.8	17.25	20	20	500		SEE DC VD/CPD
B	XHHW-2	1000	90°C (194°F) Cu	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #10	NA	#8	40	50%	87%	43.500%	17.4	13.8	17.25	20	20	115	0.11%	0.11%
C	THHN-2 (Cu)	600	90°C (194°F) Cu	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #8	IR	#8	3	100%	87%	87.000%	100.1	75.4	86.25	150	150	15	0.11%	0.11%
D	THHN-2 (Cu)	600	90°C (194°F) Cu	44	ABOVE 7.8"	44	3"	EMT	4	Set(s) of 400KCMIL	400KCMIL	4/0	3	1520	87%	87.000%	1322.4	1032.2	1290.25	1600	1200	600	1.96%	2.06%
E	THHN-2 (Cu)	600	90°C (194°F) Cu	44	NOT ON ROOF	44	3"	EMT	4	Set(s) of 400KCMIL	400KCMIL	4/0	3	1520	87%	87.000%	1322.4	1032.2	1290.25	1600	1200	10	0.83%	2.10%

SEE PV 5 FOR GROUNDING DETAILS



EQUIPMENT NOTES

- PHOTOVOLTAIC MODULES INCLUDE #12 AWG OUTDOOR RATED MC4 CONNECTORS FOR MODULE INTERCONNECTION. DO NOT REMOVE THE QUICK CONNECTS, OTHERWISE THE MODULE WARRANTY AND THE UL LISTING WILL BE INVALIDATED.
- #6 AWG BARE COPPER GROUND WILL BE USED AS EQUIPMENT GROUND FOR THE RACKING. USE MODULE GROUNDING METHODS PER MANUFACTURERS INSTALLATION REQUIREMENTS. THE MODULE EQUIPMENT GROUND SHALL TERMINATE AT THE INVERTER CABINET.
- INVERTERS NEMA 3R RATED WITH UL 1741-SA LISTING INCLUDING INTERNAL ANTI-ISLANDING PROTECTION FEATURES WITH CA RULE 21 COMPLIANCE. UL1741 LISTING INCLUDES COMPLIANCE WITH IEEE1547 FOR INTERCONNECTION SYSTEM AND TEST REQUIREMENTS AND THE NATIONAL ELECTRIC CODE. TIED TO EXISTING FACILITY GROUND. INVERTER HAS INTERNAL DC DISCONNECT MEANS, FUSED AT 20A PER POLE. INVERTER IS U.L. LISTED AS A UNIT. UNIT IS EQUIPPED WITH UL1741 APPROVED GROUND FAULT DETECTION DEVICE THAT MEETS NEC 250.122 REQUIREMENTS FOR EQUIPMENT GROUNDING. NOTE: SEE ATTACHED CUTSHEETS FOR DETAILS.
- PER NEC 250.53(A)(2), A SINGLE ROD, PIPE OR PLATE ELECTRODE SHALL BE SUPPLEMENTED BY AN ADDITIONAL ELECTRODE OF TYPE SPECIFIED IN 250.52(A)(2) THROUGH (A)(8) SPACED NO LESS THAN 6FT APART. EXCEPTION, IF A SINGLE ROD, PIPE OR PLATE GROUNDING ELECTRODE HAS A RESISTANCE TO EARTH OF 25 OHMS OR LESS, THE SUPPLEMENTAL ELECTRODE SHALL NOT BE REQUIRED.
- ALL UNDERGROUND CONDUIT IS TO BE SCH40 PVC.
- ANY ALTERATIONS TO THE EXISTING MAIN SWITCHGEAR'S MECHANICAL/ELECTRICAL CHARACTERISTICS REQUIRES A THIRD PARTY SITE EVALUATION TO RE-CERTIFY THE SWITCHGEAR TO UL STANDARDS.
- GROUND FAULT PROTECTION WILL BE PROVIDED PER 230.95.

705.12(A): LINE SIDE CONNECTION
 ELECTRIC POWER PRODUCTION SOURCE CONNECTED VIA SUPPLY SIDE OF THE SERVICE DISCONNECTING MEANS PER 230.82(6).
 1000A < 2000A OK.

NEW EQUIPMENT SCHEDULE

NO.	EQUIPMENT MANUFACTURER/MODEL	EQUIPMENT DESCRIPTION
1	TRINA TSM-475DE15V(II)	TRINA SOLAR 475W PV MODULE
2	JUNCTION BOX	NEMA 3R JUNCTION BOX
3	CPS SCA60TL-DO/US-480	CPS 60KW INVERTER W/ INTEGRATED DC & AC DISCONNECTS
4	PV COMBINER SWITCHGEAR	1200A BUSBAR, 1000A DISCONNECT, 480Y/277V, 3Φ, 4W, 42KAIC
5	AC DISCONNECT SWITCH	1200A, 1000A FUSES, 480Y/277V, 3Φ, 4W, VIEWABLE, LOCKABLE, 42KAIC
6	EXISTING MAIN SERVICE PANEL	2000A BUSBAR, 2000A DISCONNECT, 480Y/277V, 3Φ, 4W, 50KAIC

SYSTEMS SHORT-CIRCUIT CALCULATIONS

FAULT POINT	PANEL OR TRANSFORMER	PHASE	SOURCE ISC (AMPS)	FIBER #	WIRE SIZE	FIBER MATERIAL	C VALUE	L L	CIRCUIT LENGTH	LOAD FACTOR	CIRCUIT LOAD	CONDUCTOR RESISTANCE	CONDUCTOR REACTANCE	FAULT CURRENT	FAULT POINT		
0			50000											50000	0		
1	POC TO AC DISCONNECT	3	60000	M	4	Set(s) of 250 kcmil	CJ	15483.39	480	10	0.97	0.00054	0.00054	0.627	0.97	48668	1
2	AC DISCONNECT TO PV COMBINER	3	48668	M	4	Set(s) of 250 kcmil	CJ	15483.39	480	115	0.97	0.00054	0.00054	0.508	0.77	37256	2
3	PV COMBINER TO INVERTER	3	37256	M	1	Set(s) of 3	CJ	4774.00	480	25	0.97	0.00050	0.00050	0.704	0.68	21884	3

DC STRING VOLTAGE DROP

INVERTER	String #	MOD STRING	Current Per String	VOLTAGE VMAX	Wire Size	Ohms/ft	Wire Length One Way	Total Ohms	E-9R	VD	WVD
1	1 thru 5	1	13.80	787.85	#10	1.24	665	1.649	2.759	2.889%	
	1 thru 5	8 thru 9	18	13.80	833.99	#10	1.24	665	1.649	2.729%	
	6 thru 10	1 thru 9	18	13.80	833.99	#10	1.24	665	1.649	2.729%	

Inverter Specifications

Inverter Manufacturer:	Chint Power Systems	Max String Voltage Using -0.25%/°C temp. factor of module = 834V	
Inverter Type:	CPS SCA60TL-DO/US-480	Max String Voltage Using 1.14 temp. factor of module = 884.5V	
Input (DC):		Output (AC):	
MAX used Power input per channel:	33000 W	Peak output power:	66000 VA
Module Compatibility:		Maximum Continuous Output Power:	60000 VA
Maximum Input DC Voltage:	1000 V	Nominal output voltage:	480 V
Maximum Amp In:	60 per MPPT	Nominal output current:	79.4 A
Module Specifications		Output (AC):	
Module Manufacturer:	Trina Solar	Voc:	43.1 Vdc
Module Model:	TSM-475DE15V(II)	Vmp:	36.2 Vdc
Parameters (DC):		Isc:	13.8 A
Local Temperature (°C):	-5°C to 44°C	Imp:	13.12 A
Coldest Day Voc:	46.33 V	STC Power:	475 W
Warmest Day Vmp:	31.59 V	PTC Power:	444.2 W
Maximum Fuse Rating:	25 A	Max System Voltage:	1500 V
		Voc Temp. Coeff:	-0.25 %/°C

CABLE SCHEDULE BREAKER SIZING AND AMPACITY CALCULATIONS FOR SYSTEM 3

CABLE	CABLE TYPE	CABLE VOLTAGE RATING (V)	CABLE TEMP RATING	AMBIENT TEMP (°C)	DISTANCE ABOVE ROOF TO BOTTOM OF CONDUIT	ADJUSTED AMBIENT TEMP (°C)	CONDUIT TYPE	# OF CONDUCTORS PER PHASE	WIRE/BUS SIZE	NEUTRAL	GROUND	TOTAL CC CONDUCTORS IN RACEWAY	BASE AMPACITY (A)	DERATING FACTOR FOR CONDUCTORS PER RACEWAY	DERATING FACTOR FOR AMBIENT TEMPERATURE	OVERALL DERATING FACTOR	DERATED AMPACITY (A)	CIRCUIT LOAD (A)	CIRCUIT LOAD (A) (15% OCP, 125% IAC)	MINIMUM OCPD PER LOAD	MAXIMUM OCPD PER DERATED CABLE	EST DISTANCE FT	VOLTAGE DROP %VD	TOTAL V.D. %VD/CUM	
A	PV-WIRE	1000	90°C (194°F) Cu	44	NOT ON ROOF	44	N/A	FREELAIR	1	Set(s) of #10	N/A	18	55	50%	8%	43.500%	23.9	13.8	17.25	20	20	215		SEE DC VD DROP	
B	20MM-2	1000	90°C (194°F) Cu	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #10	N/A	18	49	50%	8%	43.500%	17.4	13.8	17.25	20	20	450		SEE DC VD DROP	
C	THMN-2 (Cu)	600	90°C (194°F) Cu	44	NOT ON ROOF	44	1-1/4"	EMT	1	Set(s) of #3	#3	3	115	100%	8%	87.000%	100.1	79.4	96.25	100	100	25	0.18%	0.16%	
D	THMN-2 (Cu)	600	90°C (194°F) Cu	44	ABOVE 7/8"	44	2-1/2"	EMT	4	Set(s) of 250KCMIL	250KCMIL	20	3	1160	100%	8%	87.000%	1009.2	794.0	992.50	1000	1000	115	0.44%	0.62%
E	THMN-2 (Cu)	600	90°C (194°F) Cu	44	NOT ON ROOF	44	2-1/2"	EMT	4	Set(s) of 250KCMIL	250KCMIL	20	3	1160	100%	8%	87.000%	1009.2	794.0	992.50	1000	1000	10	0.64%	0.68%

SEE PV 5 FOR GROUNDING DETAILS

Item 2.

CONTRACTOR

REVEL-ENERGY, INC.
 2323 MAIN ST.
 IRVINE, CA 92614
 CSLB #: 1038433 / A, B, C10, C46
 (949) 281-7171

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SIGNATURE _____ DATE _____ STATE LICENSE NO. 1038433 / A, B, C10, C46



PROJECT LOCATION:
 WOODSPUR FARMS PV
 5220 INDUSTRIAL WAY
 COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
	7/27/2021	INITIAL PLAN SET	A.L.	--
	8/18/2021	1ST REVISIONS	A.L.	--
	9/11/2021	1ST CORRECTIONS	A.L.	--
	9/9/2021	2ND REVISIONS	A.L.	--

SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
 TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
 SOLAR MODULES: (4996) TRINA TSM-475DE15V(II)
 INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:

SYSTEM SIZE DC STC: 630.80 KW
 SYSTEM SIZE AC CEC: 581.05 KW
 SOLAR MODULES: (1328) TRINA TSM-475DE15V(II)
 INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:

SYSTEM SIZE DC STC: 975.65 KW
 SYSTEM SIZE AC CEC: 898.70 KW
 SOLAR MODULES: (2054) TRINA TSM-475DE15V(II)
 INVERTER(S): (13) CPS SCA60TL-DO/US-480

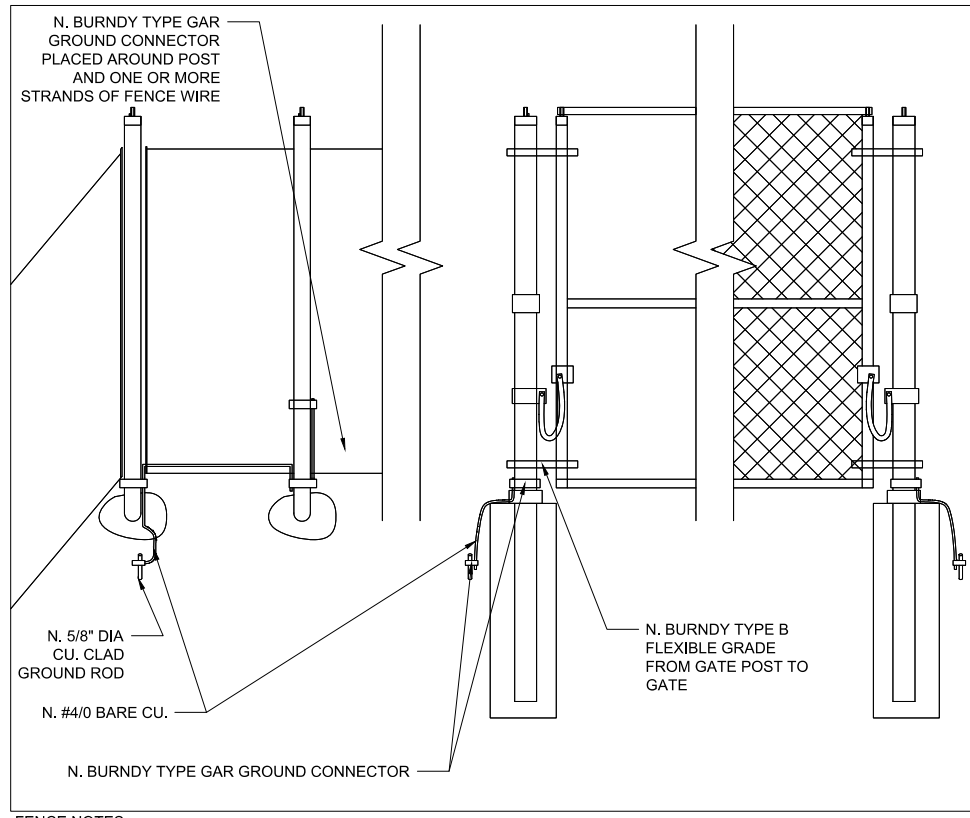
SYSTEM (PLANT) 3:

SYSTEM SIZE DC STC: 766.65 KW
 SYSTEM SIZE AC CEC: 706.18 KW
 SOLAR MODULES: (1614) TRINA TSM-475DE15V(II)
 INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

SYSTEM 3 SLD

PV 4.2



- FENCE NOTES:**
1. BONDING JUMPERS ARE REQUIRED AT EACH FENCE CORNER AND AT MAXIMUM 160 FT. INTERVALS ALONG THE FENCE.
 2. BONDING JUMPERS ARE REQUIRED ON EACH SIDE OF THE CROSSING WHERE BARE OVERHEAD CONDUCTORS CROSS THE FENCE.
 3. GATES MUST BE BONDED TO THE GATE SUPPORT POST, AND EACH GATE SUPPORT POST MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.
 4. ANY GATE OR OTHER OPENING IN THE FENCE MUST BE BONDED ACROSS THE OPENING BY A BURIED BONDING JUMPER.
 5. THE GROUNDING GRID OR GROUNDING ELECTRODE SYSTEMS SHALL BE EXTENDED TO COVER THE SWING OF ALL GATES.
 6. THE BARBED WIRE STRANDS ABOVE THE FENCE MUST BE BONDED TO THE GROUNDING ELECTRODE SYSTEM.

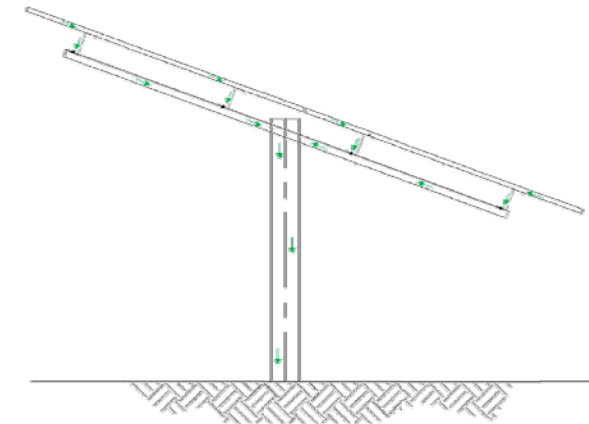
BONDING PATH

OMCO Solar's CHOICE™ Racking System may be used to ground and/or mount a PV Module complying with UL 1703 only where the specific Module has been evaluated for grounding and/or mounting in compliance with the included instructions.

It is the Owner's responsibility to ensure that the CHOICE™ Racking System Installer complies with NFPA 70E Article 750.

Table I illustrates the grounding path.

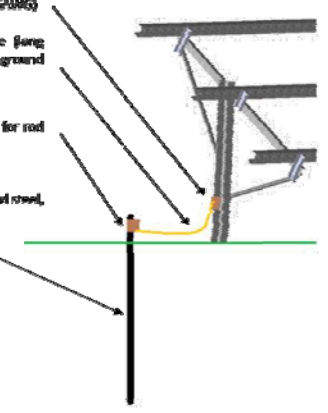
Table I



GROUNDING FOR JOBSITE WITHOUT DRIVEN POSTS

Modules with Posts driven 10 feet into the ground do not require additional grounding measures (NEC 750.52). For table assemblies or jobsites without suitably driven posts, an alternate means of grounding the CHOICE™ Racking System is needed. One recommended method for grounding the CHOICE™ Racking System is as follows:

- Copper ground lug (UL listed, sized to fit GWAG)
- GWAG unjacketed braided copper wire (long enough to span from table assembly to ground rod)
- Copper ground clamp (UL listed, sized to fit rod and wire)
- 10' ground rod, 3/8" diameter (frequency-rated steel, UL 467 approved)



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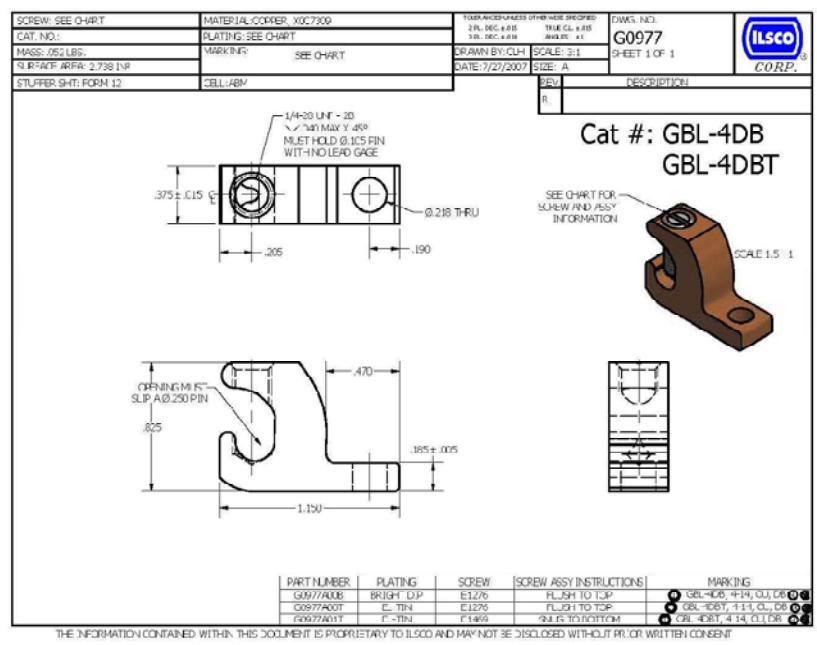
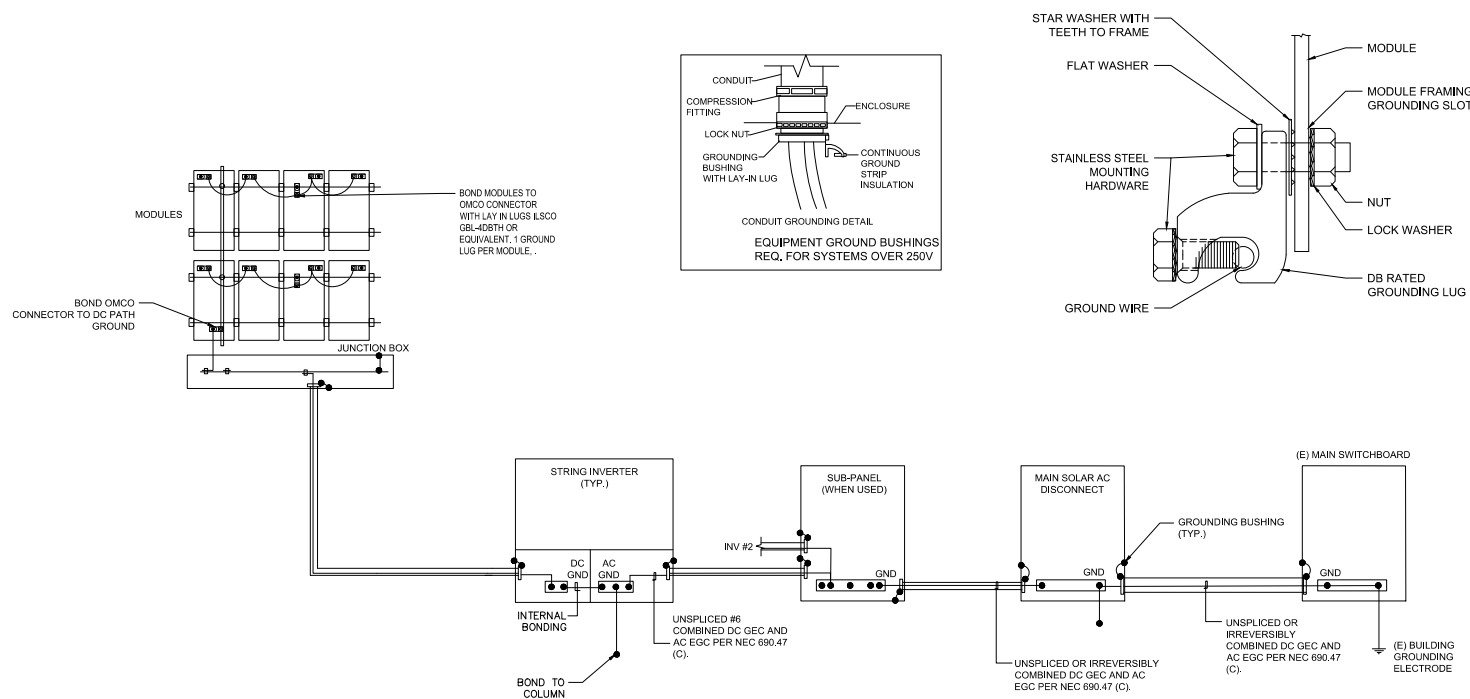
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 SYSTEM SIZE DC STC: 975.65 KW
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 INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
 SYSTEM SIZE DC STC: 766.65 KW
 SYSTEM SIZE AC CEC: 706.18 KW
 SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
 INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

GROUNDING

PV 5



SIGNAGE REQUIREMENTS

GENERAL FIRE GUIDELINES &

MARKING REQTS:

- SEC. 5, MARKINGS, LABELS, AND WARNING SIGNS.
- A. PURPOSE: PROVIDES EMERGENCY RESPONDERS WITH APPROPRIATE WARNING AND GUIDANCE WITH RESPECT TO ISOLATING THE SOLAR ELECTRICAL SYSTEM. THIS CAN FACILITATE IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR PANELS TO THE INVERTER, AS THESE SHOULD NOT BE CUT WHEN VENTING FOR SMOKE REMOVAL.
- B. MAIN SERVICE DISCONNECT:
- RESIDENTIAL BUILDINGS: THE MARKING MAY BE PLACED WITHIN THE MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.
 - COMMERCIAL BUILDINGS: THE MARKING SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED.
3. MARKINGS: VERBIAGE, FORMAT, AND TYPE OF MATERIAL.
- A. VERBIAGE:
CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED
- B. FORMAT:
(1) WHITE LETTERING ON A RED BACKGROUND.
(2) MINIMUM 3/8 INCHES LETTER HEIGHT.
(3) ALL LETTERS SHALL BE CAPITALIZED.
(4) ARIAL OR SIMILAR FONT, NON-BOLD.
- C. MATERIAL:
(1) REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (USE UL -- 969 AS STANDARD FOR WEATHER RATING). DURABLE ADHESIVE MATERIALS MEET THIS REQUIREMENT.

- C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, DC COMBINERS, AND JUNCTION BOXES:
- MARKINGS: PLACEMENT, VERBIAGE, FORMAT, AND TYPE OF MATERIAL.
 - PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES, AT TURNS, ABOVE AND FOR BELOW PENETRATIONS, ALL DC COMBINERS, AND JUNCTION BOXES.
 - VERBIAGE:
CAUTION: SOLAR CIRCUIT
NOTE: THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO "V.B-3B, C" OF THIS REQUIREMENT.
 - INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS.

MATERIALS USED FOR MARKING SHALL BE REFLECTIVE, WEATHER RESISTANT, AND SUITABLE FOR THE ENVIRONMENT. ALL LABELS SHALL BE WHITE LETTERS ON RED BACKGROUND.

THE MARKINGS SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
NEC 110.21

CONTRACTOR

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IRVINE, CA 92614
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SOLAR MODULES: (2054) TRINA TSM-475DE15V(I1)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:

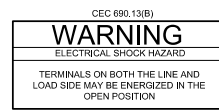
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INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

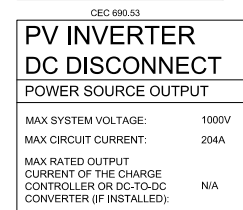
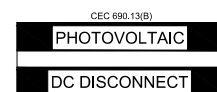
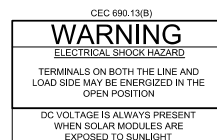
SIGNAGE

PV 6.0

1 COMBINER BOX/ CIRCUITS/ CONDUIT/ COMBINER BOX/ ENCLOSURES/ EMT ENCLOSURES



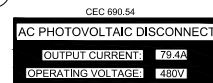
3 DC DISCONNECT/ BREAKER/ RECOMBINER BOX



4 EMT/ DC CONDUIT RACEWAYS



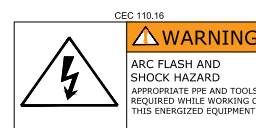
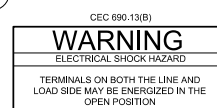
5 INVERTER



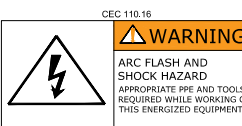
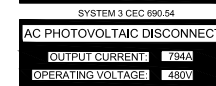
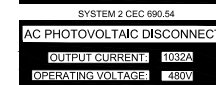
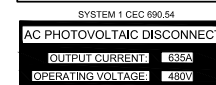
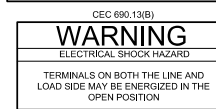
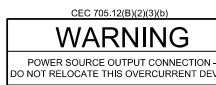
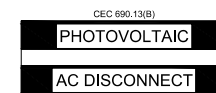
6 PRODUCTION/ NET METER



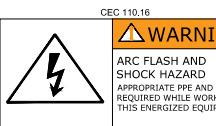
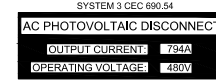
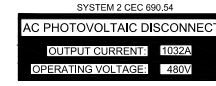
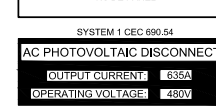
9 MAIN SERVICE DISCONNECT



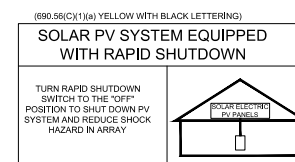
7 AC DISCONNECT/ BREAKER/ POINTS OF CONNECTION



8 BREAKER PANEL/ PULL BOXES



10 BY RAPID SHUTDOWN SWITCH (WITHIN 3 FT)



*RAPID SHUTDOWN SWITCH CAN BE EITHER THE AC DISCONNECT SWITCH OR A SEPARATE SWITCH. SEE PV 4 FOR TYPE OF RS SWITCH

2 BUILDING / STRUCTURE

**SYSTEM 1
CEC 705.10 - BY MAIN SERVICE PANEL:**

CAUTION

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

SOLAR A/C DISCONNECT

MAIN ELECTRIC SERVICE DISCONNECT

SOLAR INVERTER D/C DISCONNECT

SOLAR A/C DISCONNECT

5220 INDUSTRIAL WAY COACHELLA, CA 92236

WARNING

ELECTRIC SHOCK HAZARD

TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

**SYSTEM 2
CEC 705.10 - BY MAIN SERVICE PANEL:**

CAUTION

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

MAIN ELECTRIC SERVICE DISCONNECT

SOLAR A/C DISCONNECT

SOLAR A/C DISCONNECT

SOLAR INVERTER D/C DISCONNECT

5220 INDUSTRIAL WAY COACHELLA, CA 92236

WARNING

ELECTRIC SHOCK HAZARD

TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

**SYSTEM 3
CEC 705.10 - BY MAIN SERVICE PANEL:**

CAUTION

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

SOLAR INVERTER D/C DISCONNECT

SOLAR A/C DISCONNECT

MAIN ELECTRIC SERVICE DISCONNECT

PV SOLAR ARRAY(S)

5220 INDUSTRIAL WAY COACHELLA, CA 92236

WARNING

ELECTRIC SHOCK HAZARD

TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

SIGNAGE REQUIREMENTS

GENERAL FIRE GUIDELINES &

MARKING REQTS:

SEC. 5. MARKINGS, LABELS, AND WARNING SIGNS.

A. PURPOSE: PROVIDES EMERGENCY RESPONDERS WITH APPROPRIATE WARNING AND GUIDANCE WITH RESPECT TO ISOLATING THE SOLAR ELECTRICAL SYSTEM. THIS CAN FACILITATE IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR PANELS TO THE INVERTER, AS THESE SHOULD NOT BE CUT WHEN VENTING FOR SMOKE REMOVAL.

B. MAIN SERVICE DISCONNECT:

1. RESIDENTIAL BUILDINGS: THE MARKING MAY BE PLACED WITHIN THE MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.
2. COMMERCIAL BUILDINGS: THE MARKING SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED.

3. MARKINGS: VERBIAGE, FORMAT, AND TYPE OF MATERIAL.

A. VERBIAGE:
CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED

B. FORMAT:
(1) WHITE LETTERING ON A RED BACKGROUND.
(2) MINIMUM 3/8 INCHES LETTER HEIGHT.
(3) ALL LETTERS SHALL BE CAPITALIZED.
(4) ARIAL OR SIMILAR FONT, NON-BOLD.

C. MATERIAL:
(1) REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (USE UL -- 969 AS STANDARD FOR WEATHER RATING). DURABLE ADHESIVE MATERIALS MEET THIS REQUIREMENT.

C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, DC COMBINERS, AND JUNCTION BOXES:

1. MARKINGS: PLACEMENT, VERBIAGE, FORMAT, AND TYPE OF MATERIAL.
 - A. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES, AT TURNS, ABOVE AND FOR BELOW PENETRATIONS, ALL DC COMBINERS, AND JUNCTION BOXES.
- B. VERBIAGE:
CAUTION: SOLAR CIRCUIT
NOTE: THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO "V.B-3B, C" OF THIS REQUIREMENT.
- C. INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS.

MATERIALS USED FOR MARKING SHALL BE REFLECTIVE, WEATHER RESISTANT, AND SUITABLE FOR THE ENVIRONMENT. ALL LABELS SHALL BE WHITE LETTERS ON RED BACKGROUND.

THE MARKINGS SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
NEC 110.21

CONTRACTOR

REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46 (949) 281-7171

I HEREBY CERTIFY THAT THE WORK PROPOSED TO BE DONE ON THESE PLANS IS IN CONFORMANCE WITH ALL CODES AND ORDINANCES OF THE A.H.J. OF CITY OF COACHELLA AND FURTHER, IF OMISSIONS OR ERRORS ARE DISCOVERED, I UNDERSTAND THAT THE WORK PERFORMED WILL BE REQUIRED TO COMPLY WITH THE CODES AND ORDINANCES OF THE A.H.J. OF CITY OF COACHELLA PRIOR TO FINAL BUILDING INSPECTION.

SIGNATURE _____ DATE _____ STATE LICENSE NO. _____
1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
	7/27/2021	INITIAL PLAN SET	A.L.	--
	8/18/2021	1ST REVISIONS	A.L.	--
	9/11/2021	1ST CORRECTIONS	A.L.	--
	9/9/2021	2ND REVISIONS	A.L.	--

SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4996) TRINA TSM-475DE15V(I)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:
SYSTEM SIZE DC STC: 630.80 KW
SYSTEM SIZE AC CEC: 581.05 KW
SOLAR MODULES: (1328) TRINA TSM-475DE15V(I)
INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:
SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-475DE15V(I)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-475DE15V(I)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

DIRECTORY PLACARDS

PV 6.1

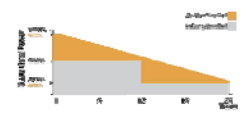
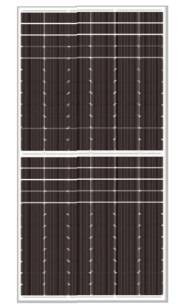
ZXM7-SP144 Series

Znshinesolar 10BB HALF-CELL
Monocrystalline PERC PV Module



520W | 525W | 530W | 535W | 540W

- Excellent cells efficiency**
10BB technology decreases the distance between bars, less shading, better light absorption, higher power conversion.
- Better Weak Illumination Response**
More power output in weak light conditions, more consistent, clearly, and meeting.
- Anti PID**
Limited power degradation caused by PID effect to guarantee under slight testing condition for mass production.
- High wind and snow resistance**
5000 Pascals heat, 2400 Pa wind load.
- 25 years power warranty**
After 25 years our solar panel keeps at least 87% of its initial power output.
- Higher lifetime Power Yield**
2.5% first year degradation, 0.55% linear degradation.



Product is CE, TUV, IEC, ISO, and other international certifications. It is a high-quality product with a long service life. For more information, please contact us.

ZXM7-SP144 Series Znshinesolar 10BB HALF-CELL Monocrystalline PERC PV Module

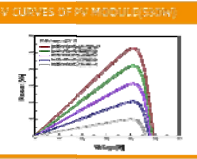
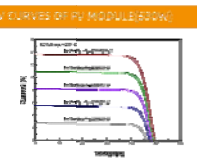
ELECTRICAL CHARACTERISTICS (1 SUN)		DIMENSIONS (MM)	
Standard Power (W/m ²)	570, 575, 580, 585, 590	Front View	Side View
Maximum Power (W/m ²)	49.01, 49.02, 49.03, 49.04, 49.05	Back View	Top View
Maximum Power Coefficient (%)	17.82, 17.83, 17.84, 17.85, 17.86		
Open Circuit Voltage (Voc)	49.49, 49.50, 49.51, 49.52, 49.53		
Short Circuit Current (A)	13.54, 13.55, 13.56, 13.57, 13.58		
Module Efficiency (%)	20.81, 20.82, 20.83, 20.84, 20.85		

ELECTRICAL CHARACTERISTICS (1 SUN) (continued)	
Maximum Power (W/m ²)	50.00, 50.01, 50.02, 50.03, 50.04
Maximum Power Coefficient (%)	17.83, 17.84, 17.85, 17.86, 17.87
Open Circuit Voltage (Voc)	49.70, 49.71, 49.72, 49.73, 49.74
Short Circuit Current (A)	13.60, 13.61, 13.62, 13.63, 13.64

MECHANICAL DATA	
Cell orientation	144 (6x24)
Module thickness	335±4 (13.2±0.15)mm±0.15mm
Weight	20.5 kg
Dimensions	1715mm x 1135mm x 33mm
Connectors	MMA compatible

TEMPERATURE RATINGS		WORKING CONDITIONS	
Min Temp	-40°C	Min Temp	-40°C
Max Temp	+85°C	Max Temp	+85°C
Temperature coefficient of Power	-0.35%/°C	Operating Temperature	-40°C ~ +85°C
Temperature coefficient of Voc	-0.35%/°C	Relative Humidity	0% ~ 100%
Temperature coefficient of Isc	0.05%/°C	Maximum Wind Speed (3s)	2400 km/h (1500 mph)

PACKAGING CONTRIBUTION	
Weight	20
Volume	0.15
Material	0.1



50/60kW, 1000Vdc String Inverters for North America

The 50 & 60kW 1000Vdc string inverters are designed for ground-mount, large-scale applications. They offer high performance, advanced and reliable features designed specifically for the North American environment and grid. High efficiency at 98.8% peak and 98.9% DC, with operating voltage range up to 1000Vdc and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across all applications. The CPS 50/60kW inverters feature a 1000Vdc input and a 240VAC output, which fully integrated and separate with built-in safety features, and AC and DC disconnect switches. The integrated PFC transformer in the input section can handle PERC certified modules, level input modules when used with the Type TSM-4775A-4775A-47 products, APS 100-5-PLC-A products, and NEP PFC-3 products. The CPS 50/60kW Gateway enables monitoring, control, and remote product updates.



- Key Features:**
 - NEMA 4X enclosure for outdoor use
 - 98.8% efficiency at 1000Vdc
 - Selectable AC Output Power of 50/60kW and 50/60kW
 - 1000Vdc input and 240VAC output
 - 15-90° mounting capability for easy installation
 - Optional PFC Gateway enables remote FW updates
 - Integrated AC and DC disconnect switches
 - 2 MPPT with 2 inputs each for maximum flexibility
 - NEMA Type 4X outdoor rated, tough metal enclosure
 - UL9540 Certified to Class II, including SAG through SAG
 - Integrated remote monitoring for 10 years
 - Standard 10 year warranty with extension to 20 years



50/60kW, 1000Vdc String Inverters for North America

Model Name	CPS 50/60kW-1000Vdc-480	CPS 50/60kW-1000Vdc-480
DC Input	1000Vdc	1000Vdc
Max. DC Input Voltage	1000Vdc	1000Vdc
Max. DC Input Current	330A / 300A	330A / 300A
Number of MPPT	2	2
MPPT Voltage Range (V)	480-870Vdc	480-870Vdc
Max. DC Input Power (kW)	50kW / 60kW	50kW / 60kW
Max. DC Input Voltage (Voc)	1000Vdc	1000Vdc
DC Output Voltage (V)	240VAC	240VAC
DC Output Current (A)	150A / 180A	150A / 180A
DC Output Power (kW)	36kW / 43.2kW	36kW / 43.2kW
AC Output	50kW / 60kW	50kW / 60kW
Max. AC Output Power (kW)	50kW / 60kW	50kW / 60kW
Max. AC Output Current (A)	225A / 270A	225A / 270A
Max. AC Output Voltage (V)	240VAC	240VAC
Max. AC Output Power Factor	0.95	0.95
Max. AC Output Voltage (Voc)	240VAC	240VAC
Max. AC Output Current (A)	225A / 270A	225A / 270A
Max. AC Output Voltage (Voc)	240VAC	240VAC
Max. AC Output Current (A)	225A / 270A	225A / 270A
Max. AC Output Voltage (Voc)	240VAC	240VAC
Max. AC Output Current (A)	225A / 270A	225A / 270A



omco Choice™

Direct-Bolt Mounting System

omcosolar.com

omco Choice™

Direct-Bolt Mounting System

- MANUFACTURING:** omco Choice™ Direct-Bolt mounting system is OEM direct, shipped to project sites from omco Choice manufacturing facilities, conveniently located nationwide.
- PRE-ASSEMBLY:** Each rack consists of pre-assembled components which reduces the bill of material items, allowing rapid site staging and installation.
- MATERIALS:** Galvalume U.S. Steel, per ASTM A653 - 1 and 2 Coated.
- HARDWARE:** Zinc-Coated to 15 microns per UL 2703. Hardware arrives pre-sorted for easy identification. Additional plating options available for corrosive environments.
- MODULE COMPATIBILITY:**
 - Any commercially available, framed flat plate module.
 - Plus, an optional First Solar Energy Partner, (EM) racks are compatible with First Solar Series 3 panels.
- IN-FIELD FLEXIBILITY:** Built-in adjustability features account for post misalignment and terrain elevation changes with no additional components. Proprietary custom slot configurations can stand on every fixed-fit mounting system.
- TABLE CONFIGURATION:** 2 in 1 (racking is standard). Other configurations evaluated per site-specific requirements.
- TERRAIN ARTICULATION:** Accommodates up to 20% grade change.
- FOUNDATION OPTIONS:** Driven Piles (C-Posts or I-Beams)
- TILT ANGLE:** Accommodates from 5° - 45°
- WIRE MANAGEMENT:** Integrated Wire Management System
- BONDING/GROUNDING:** UL 2703 Compliant
- POST TOLERANCES:** East to West Tolerance ± to 1" North to South Post Tolerance ± to 1"
- LOAD CAPACITIES:** Wind Up to 140 MPH (1) Snow Up to 90" (2)
- CERTIFICATIONS:** ISO 9001:2015 Standard, UL 2703 Ed. 1, CPP Wind Tunnel-Tested, NEC Compliant
- WARRANTY:** 10 Year Limited Warranty



CONTRACTOR

REVEL-ENERGY, INC.
2323 MAIN ST.
IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
(949) 281-7171

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SIGNATURE _____ DATE _____ STATE LICENSE NO. 1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

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SOLAR MODULES: (1614) TRINA TSM-475DE15V(II)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

EQUIPMENT SPECIFICATIONS

PV 7

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



Attestation of Conformity
No. N8A 073899 0077 Rev. 01


Holder of Certificate: **ZMSHINE PV-TECH Co., Ltd.**
No. 1, South Zhongxing Road
Industrial Zone, Zhai Town, Jintan District
210251 Chongzhou City, Jiangsu Province
PEOP R.P.R.P.F.P.U.R IC OF C.M.A.A.

Product: **Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**
Mono-Crystalline Silicon Photovoltaic Modules

This Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 2014/52/EU relating to electrical equipment designed for use within a certain voltage limits. It confirms that the listed equipment complies with the indicated technical requirements of the standards cited in based on the technical specifications applicable at the time of assessment. It refers only to the particular sample presented for testing and certification. For details see www.tuv.com/low-voltage-directive


Test report no.: **7805180304-01**


Date: **2021-01-04**


[ZhiLin Zhang]

Page 1 of 3
After preparation of the necessary technical documentation as well as the PU declaration of conformity the required CE marking can be affixed on the product. The declaration of conformity is based on the sole responsibility of the manufacturer. Other relevant information has to be reviewed.

TÜV SÜD Product Service GmbH - Certification Body - Riesstraße 65 - 80339 München - Germany






Attestation of Conformity
No. N8A 073899 0077 Rev. 01


Model(s):

This Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 2014/52/EU relating to electrical equipment designed for use within a certain voltage limits. It confirms that the listed equipment complies with the indicated technical requirements of the standards cited in based on the technical specifications applicable at the time of assessment. It refers only to the particular sample presented for testing and certification. For details see www.tuv.com/low-voltage-directive

Page 2 of 3
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TÜV SÜD Product Service GmbH - Certification Body - Riesstraße 65 - 80339 München - Germany





Attestation of Conformity
No. N8A 073899 0077 Rev. 01

Parameters:


Construction: **Fixed, with Junction Box, Cable and Conductor, Voltage Control Cabinet**
Test Laboratory: **Peakstar Testing Institute Ltd., 10 West Nile Road, Yangzhou 255000 Jiangsu, P. R. China**
Circuit Breaker: **SIEMENS**
Main Distribution Unit: **Class A according to IEC 61831**

Tested according to:

- EN IEC 61730-1:2018
- EN IEC 61730-2:2018
- EN IEC 61733-1:2018
- EN IEC 61733-2:2018

Page 3 of 3
After preparation of the necessary technical documentation as well as the PU declaration of conformity the required CE marking can be affixed on the product. The declaration of conformity is based on the sole responsibility of the manufacturer. Other relevant information has to be reviewed.

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CONTRACTOR

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IRVINE, CA 92614
CSLB #: 1038433 / A, B, C10, C46
(949) 281-7171

I HEREBY CERTIFY THAT THE WORK PROPOSED TO BE DONE ON THESE PLANS IS IN CONFORMANCE WITH ALL CODES AND ORDINANCES OF THE A.H.U. OF CITY OF COACHELLA AND FURTHER, IF OMISSIONS OR ERRORS ARE DISCOVERED, I UNDERSTAND THAT THE WORK PERFORMED WILL BE REQUIRED TO COMPLY WITH THE CODES AND ORDINANCES OF THE A.H.U. OF CITY OF COACHELLA PRIOR TO FINAL BUILDING INSPECTION.

SIGNATURE _____ DATE _____ STATE LICENSE NO. _____
1038433 / A, B, C10, C46

PROJECT LOCATION:
WOODSPUR FARMS PV
5220 INDUSTRIAL WAY
COACHELLA, CA 92236

ARCH D (24" X 36") PRINT PAPER SIZE

NO.	DATE	DESCRIPTION	ELECT.	STRUC.
7/27/2021		INITIAL PLAN SET	A.L.	--
8/18/2021		1ST REVISIONS	A.L.	--
9/11/2021		1ST CORRECTIONS	A.L.	--
9/9/2021		2ND REVISIONS	A.L.	--

SYSTEM INFO:

TOTAL SYSTEM SIZE: DC STC: 2373.10 KW
TOTAL SYSTEM SIZE: AC CEC: 2185.93 KW
SOLAR MODULES: (4996) TRINA TSM-475DE15(V1)
INVERTER(S): (31) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 1:
SYSTEM SIZE DC STC: 630.80 KW
SYSTEM SIZE AC CEC: 581.05 KW
SOLAR MODULES: (1328) TRINA TSM-475DE15(V1)
INVERTER(S): (8) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 2:
SYSTEM SIZE DC STC: 975.65 KW
SYSTEM SIZE AC CEC: 898.70 KW
SOLAR MODULES: (2054) TRINA TSM-475DE15(V1)
INVERTER(S): (13) CPS SCA60TL-DO/US-480

SYSTEM (PLANT) 3:
SYSTEM SIZE DC STC: 766.65 KW
SYSTEM SIZE AC CEC: 706.18 KW
SOLAR MODULES: (1614) TRINA TSM-475DE15(V1)
INVERTER(S): (10) CPS SCA60TL-DO/US-480

DESCRIPTION:

UL LISTING



Certificate of Compliance

Certificate: **78126988**
Project: **78216779**
Issued to: **SHANGHAI CHEEK POWER SYSTEMS (CSJ) LTD**
3235 HJ XIAO WAI
Songjiang District,
Shanghai 201614
CHINA
Attention: Huius Cai

Master Certificate: **258915**
Date Issued: **2019-03-15**

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicators for Canada only.




Issued by: **Yung (Jason) Loi**
Yung (Jason) Loi

PRODUCTS

CLASS - CSJ1009 - POWER SUPPLIES-Distributed Generation Power System Equipment
CLASS - CSJ1010 - POWER SUPPLIES - Distributed Generation Power System Equipment - Certified to U.S. Standards

Transformerless Grid Support Utility Interactive Inverter, Models CPS SCA58CTL-DO/US-680 and CPS SCA60CTL-DO/US-480, permanently connected.

For details related to testing, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.



Certificate: **78216988**
Project: **78216779**

Master Certificate: **258915**
Date Issued: **2019-03-15**

APPLICABLE REQUIREMENTS

CSA C22.2 No. 107.1-01 - General Use Power Supplies

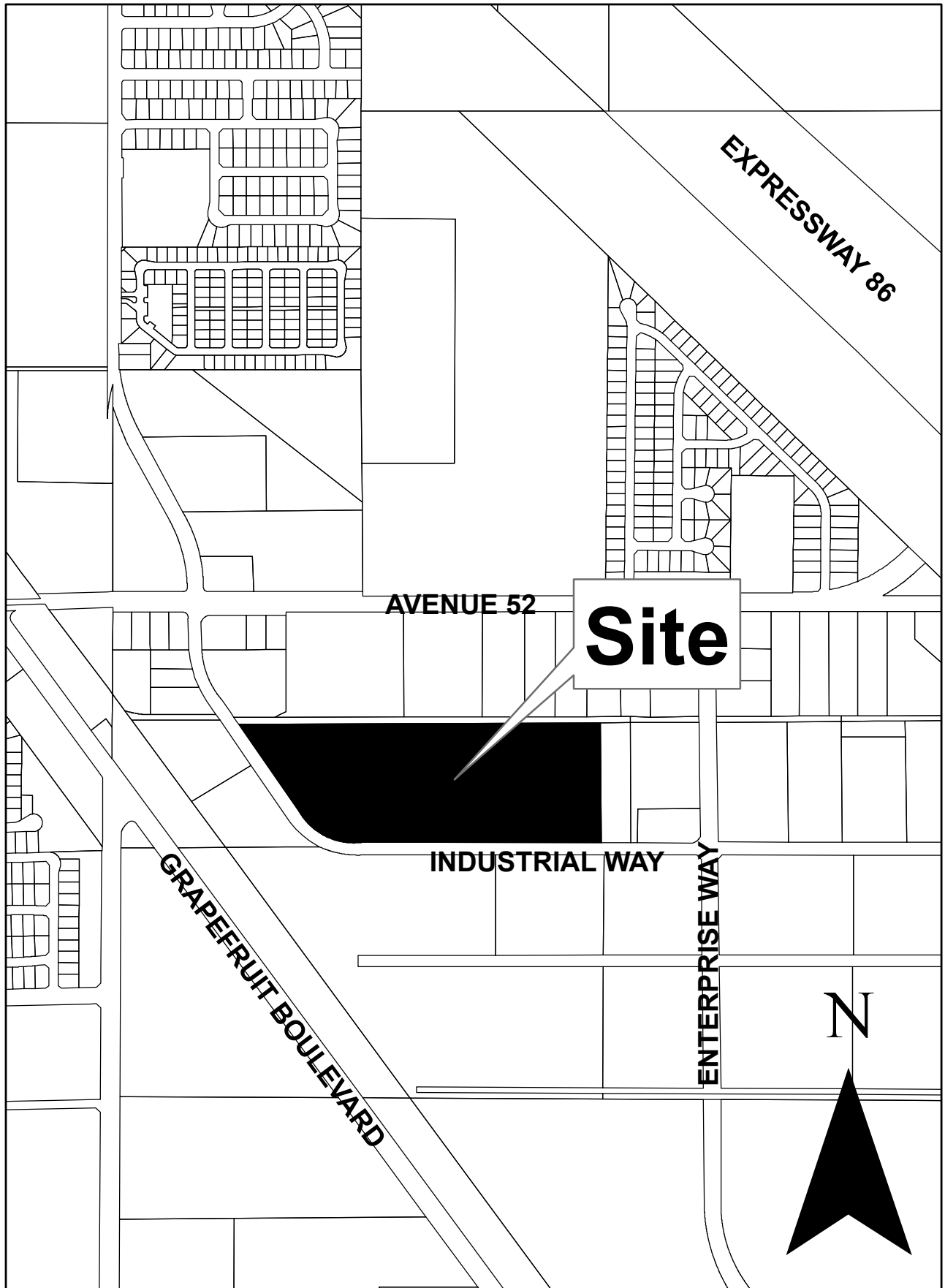
UL 1741 - Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources (Second Edition, Revision September 7, 2016)

CSA TR M-07 - Test and Certification Requirements for Photovoltaic (PV) DC Arc-Fault Protection (Issue December 1, March 11, 2013)

UL 61808 - Outline of Recognition for Photovoltaic (PV) DC Arc-Fault Circuit Protection (Issue Number 2, January 14, 2013)

Note: Conformity to UL 1741 (Second Edition, Revision September 7, 2016) includes compliance with applicable requirements of IEEE 1547-2003 (RE2009), IEEE 1547-2014, IEEE 1547.1-2005(R2011), IEEE 1547.1a-2015, California Rule 21 and Requirements A4.

PV 8



Vicinity Map



STAFF REPORT
2/16/2022

TO: Planning Commission Chair and Commissioners

FROM: Gabriel Perez, Development Services Director

SUBJECT: Interpretation of Coachella Municipal Code Section 17.72.010.F.1 (Architectural Review) approval authority for the architectural review of single-family residences.

STAFF RECOMMENDATION:

Staff recommends that the Planning Commission review the information contained in the staff report and provide an interpretation of Coachella Municipal Code Section 17.72.010.F.1.

BACKGROUND:

The Coachella Zoning Ordinance sets forth the process for the review and approval of land use entitlement applications for projects within the City. Depending upon the type, size and scope of a project, the Zoning Code assigns responsibility for application review and approval among the City's Planning Director, the Planning Commission and the City Council. The Planning Division presented streamlining Zoning Ordinance recommendations to the Planning Commission on April 20, 2016. The streamlining code amendments included:

- Allowances for minor variances for setbacks, fence height, off-street parking, building height, sign area, and accessory structures that can be approved by the Planning Director.
- Administrative Architectural Review for certain commercial, single-family residential and multi-family residential projects where previously the Planning Commission was the approval authority of all Architectural Reviews.
- Call-Up procedures that allow Planning Commission and City Council to consider an item that was decided by a lower decision-making body if the "call-up" is requested within 15 days of the decision.

The Planning Commission recommended approval of the recommendations and the City Council adopted the streamlining zoning ordinance amendments on May 25, 2016.

DISCUSSION/ANALYSIS:

Planning Division staff requests that the Planning Commission provide an interpretation of Section 17.72.010.F.1, in Chapter 17.71 - Architectural Review, due to the ambiguity of the standards for

administrative approval of single-family residences. The Zoning Ordinance language of Section 17.72.010.F.1 is as follows, with the pertinent language in bold:

F. Approving Authority and Basis for Approval of Architectural Review.

1. For Architectural Review involving (i) **Not more than three single family residences pursuant to Section 17.16.030(C) and new one-family and two-family dwelling units** pursuant to Section 17.18.030F1 (ii) five hundred (500) square feet of new multifamily residential square footage or less or (iii) two thousand (2,000) square feet of new commercial/industrial square footage or less, the planning director shall be the reviewing and approval authority. For all other architectural review, the planning commission shall be the approving authority.

In the reading of this section, it would appear that a residential builder could propose construction of 1 to 3 single-family residences under an administrative Architectural Review approval. Single-family residential projects exceeding 3 single family units such as Valencia (Pulte), Escondida Pointe (D.R. Horton), Mariposa Pointe (D.R. Horton) were approved through an administrative Architectural Review and did not require consideration by the Planning Commission. The Development Services Department previously authorized the administrative review of these projects insofar as no more than three “production home” plans were proposed. The 2016 staff report to the Planning Commission (Attachment 2) stated that the administrative review was intended for small projects. Valencia, Escondida Pointe, and Mariposa Pointe are projects that exceed 20 homes and are considered major residential developments in the City of Coachella.

Single-family residential production builders have proposed single-family residential plans limited to 3 plans in order to qualify as an administrative Architectural Review, based on a previous interpretation of the Architectural Review decision-making authority by the Development Services Department. Staff believes that staff report presented to the Planning Commission on April 20, 2016, clearly intended the administrative Architectural Review to apply to single-family residential projects that did not exceed 1-3 individual homes rather than large production single-family home tracts that offer only 3 single-family residential plan options.

ALTERNATIVES:

- 1) Request that a) staff prepare a Planning Commission Resolution approving an interpretation that Coachella Municipal Code Section 17.72.010.F.1 applies to proposed single-family residential projects that do not exceed 3 single family residences and does not apply to residential projects where more than 3 single-family residences are proposed; and b) staff prepare a zoning ordinance amendment for future consideration that clarifies administrative Architectural Review decision-making authority.
- 2) Request that staff prepare a Planning Commission Resolution approving an interpretation that affirms that Coachella Municipal Code Section 17.72.010.F.1 can apply to residential projects where more than 3 single-family residences are proposed.
- 3) Continue this item and provide staff and the applicant with direction.

RECOMMENDED ALTERNATIVE:

Staff recommends alternative #1 as staff believes this would encourage more architectural variety from single-family residential builders for new residential neighborhoods citywide.

Attachments: 1. Chapter 17.72 Architectural Review
2. April 20, 2016 Planning Commission Staff Report – ZOA 16-02 Streamlining Code Amendments



STAFF REPORT
4/20/2016

TO: Planning Commission

FROM: Luis Lopez, Development Services Director

SUBJECT: Zoning Ordinance Amendment (ZOA 16-02) amending various sections of the Coachella Zoning Code in order to streamline the application review and approval process for land use entitlement applications.

STAFF RECOMMENDATION:

Staff recommends that the Planning Commission recommend to the City Council approval of the attached draft Zoning Ordinance Amendment (ZOA 16-02) amending various sections of the Coachella Zoning Code in order to streamline the application review and approval process for land use entitlement applications.

BACKGROUND:

The Coachella Zoning Code sets forth the process for the review and approval of land use entitlement applications for projects within the City. Depending upon the type, size and scope of a project, the Zoning Code assigns responsibility for application review and approval among the City's Planning Director, the Planning Commission and the City Council. Over the years, working with the current Code, City Staff has identified opportunities to simplify and streamline the application review and approval process.

DISCUSSION/ANALYSIS:

Minor Variances:

As an example, if a project requires 100 parking spaces and the applicant is seeking a limited variance of only 5 parking spaces, the current Code nonetheless requires this to be reviewed by the Planning Commission at a noticed public hearing. The additional Staff time to prepare for a public hearing adds cost and delay to these types of projects. Staff believes that most "minor variances" involve only slight modifications that do not pose significant land use challenges to the City. Therefore, most do not warrant a full noticed public hearing. The attached Ordinance proposes to delegate review of certain "minor variances" to the City's Planning Director, without a public hearing. These "minor variances" would include the following:

- 1) Reduction in front, side or rear yard setback by not more than 10% of Code-required minimum;

- 2) Increase in fence height not more than 10% above Code-required maximum;
- 3) Reduction in required off-street parking, by not more than 5% of Code-required minimum;
- 4) Increase in building height not more than 5% above Code-required maximum;
- 5) Modification of allowable sign area not more than 10% above Code-required maximum;
- 6) Modification of allowable size of accessory structures no more than 10% above Code-required maximum, and reduction in minimum distance between accessory structures and other buildings not more than 10% of Code required minimum, in residential zones.

The Planning Director would be required to render a written decision within 60 days after receiving a complete application and must base his or her findings upon the same “unique circumstances/hardship” standards as the Planning Commission. All “major variances” (variances larger in scope than those identified above) would still be reviewed by the Planning Commission. Further, if the Planning Commission believes a “minor variance” warrants consideration at a public hearing, it may “call up” the matter to hear it on appeal (see “call up” appeals below).

Administrative Architectural Review:

Under the current Code, all architectural review applications are considered by the Planning Commission. Staff believes that the process can be better streamlined by allowing architectural review for small projects to be decided by the Planning Director. Therefore, the attached Ordinance delegates architectural review for the following projects to the Planning Director:

- 1) not more than 3 single family residences or new one-family and two-family dwelling units;
- 2) not more than 500 square feet of new multi-family residential square footage; or
- 3) not more than 2,000 square feet of new commercial/industrial square footage.

All other architectural review decisions would remain with the Planning Commission. Further, if the Planning Commission believes an architectural review application warrants consideration at a public hearing, it may “call up” the matter to hear it on appeal (see “call up” appeals below). Extensions of time to utilize architectural review would be decided by the person(s) who rendered the original decision (either the Planning Director or Planning Commission).

“Call Up” Appeal Procedure and Other Technical Clarifications Regarding Appeal Process:

The current Code provides that an appeal of a land use decision shall be filed (presumably by the applicant) within 15 days after the notice of determination is mailed. However, if the applicant does not file an appeal, there is no procedure for further review. The attached Ordinance adds a procedure by which any two members of the Planning Commission or City Council (whichever body is the next direct level of review) may “call up” a decision for review by that body without

the applicant having to file an appeal. The decision must be “called up” in writing within 15 days after the notice of determination by the lower body was mailed. Once “called up”, the matter would be processed like any applicant-filed appeal.

The Ordinance makes other technical clarifications regarding appeals: (i) That appeals are *de novo* hearings (the appeal body is not bound by the findings of the prior decision), and (ii) That if the appeal body fails to decide a matter, the prior decision made at the lower level stands.

Other Technical/Conforming Amendments:

The Ordinance makes other technical/confirming changes consistent with the amendments discussed above. For example, from time to time, questions regarding technical interpretation or implementation of the Zoning Code will arise. In many cases, it is cumbersome to bring these questions directly to the City Council or Planning Commission. Therefore, this Ordinance expressly authorizes the Planning Director to adopt administrative rules, interpretations and minor extensions consistent with the Zoning Code to carry out its terms. This has been the Planning Department’s practice for many years and the amendment merely codifies this practice. This ordinance also eliminates all references to the “Office of Zoning Administration” and “Zoning Administrator”. The City has not had these positions for many years and the reference is outdated. The Planning Director carries out these roles and the Code’s terms would be amended to reflect this.

ALTERNATIVES:

- 1) Recommend to City Council approval of the attached draft ordinance approving Zoning Ordinance Amendment 16-02.
- 2) Recommend to City Council approval of portions of the draft Ordinance, or a modified version of the Ordinance.
- 3) Continue this item and provide staff with direction.

RECOMMENDED ALTERNATIVE(S):

Staff recommends Alternative #1 above.

Attachment: Draft Ordinance approving ZOA #16-02

17.72.010 - Architectural review.

- A. Intent and Purpose. To provide flexibility in the placement and interrelationship of structures and uses subject to architectural review; to provide for the implementation of sound site plan design concepts while maintaining the overall intensity of land use and density of population; to review the site plan of those uses which are not intrinsically objectionable to the predominant use category of the district, but which have inherent characteristics which, if not properly handled, have potentials for becoming detrimental to the health, safety, or general welfare of the public, or to neighboring land uses; to determine whether or not a proposed development will properly comply with the architectural guidelines of the city and the provisions and development standards required by this chapter or as prescribed by the planning director, or other authorized agent; to improve the quality of development and to provide a mechanism whereby the city can insure well-designed development.
- B. Submission of Site Plan. Any use, development of land, structure, building or modification of standards requiring the submission of a site plan for architectural review shall not be established, modified or otherwise altered. No certificate of occupancy shall be issued until all of the requirements of this section have been met. Continued conformance with such a plan and such requirements shall be a condition of any certificate of occupancy.
- C. Required Plans or Documents.
1. A site plan for any use, development of land, structure, building or modification of standards that involves architectural review.
 2. Such other forms or documents as are necessary to determine compliance with the provisions of this chapter or any conditions that the planning director or planning commission may impose in granting an approval of the requested use, development or modification.
- D. Application Forms.
1. The planning director shall prescribe the form for applications and site plans, and the information to be included in the required site plan for architectural review.
- E. Required Information. Applications involving architectural review shall contain site plans as set forth in Section 17.62.010.
1. Projects Subject to Pre-Application Review. All projects subject to pre-application review, pursuant to Section 17.77.020, shall complete the pre-application review process prior to submitting a formal development application. A copy of the pre-application review written report shall be submitted along with the application for architectural review.

F. Approving Authority and Basis for Approval of Architectural Review.

1. For Architectural Review involving (i) Not more than three single family residences pursuant to Section 17.16.030(C) and new one-family and two-family dwelling units pursuant to Section 17.18.030F1 (ii) five hundred (500) square feet of new multifamily residential square footage or less or (iii) two thousand (2,000) square feet of new commercial/industrial square footage or less, the planning director shall be the reviewing and approval authority. For all other architectural review, the planning commission shall be the approving authority.
2. Development to comply with provisions of this chapter. Every use, development of land and application of development standards shall take place in compliance with all applicable provisions of this chapter.
3. Compatibility with neighboring property. Every use, development of land and application of architectural guidelines and development standards shall be considered on the basis of the suitability of the site for a particular use or development intended, and the total development, including the prescribed development standards, shall be so arranged as to avoid traffic congestion, insure the protection of public health, safety and general welfare, prevent adverse effects on neighboring property and shall be in accord with all elements of the general plan.

G. *Reserved.*

H. Action Upon Site Plans. The planning director or planning commission, whichever is applicable, acting upon any site plans offered for review as provided in this chapter, shall either:

1. Approve; or,
2. Approve with modification and conditions; or,
3. Disapprove the proposed site plan, development or modification as requested in the application.

I. Notice of Action on a Site Plan.

1. Notification to the Applicant. The planning director shall notify the applicant by mail of the action taken on the application.
2. Appeal. In the event the applicant does not agree with the action taken on a site plan by the planning director or planning commission, he may appeal such decision (to the planning commission if a decision of the planning director, and to the city council if a decision of the planning commission). Such appeal shall be filed within fifteen (15) days after the date on which the determination was mailed. The decision of the city council shall be final.

J. Expiration of Architectural Approval.

1. Architectural approval shall expire three hundred sixty-five (365) days from approval unless the applicant has: obtained a building permit; paid all applicable fees; commenced

construction; and is diligently pursuing completion. A cessation of construction for a period more than thirty (30) consecutive days shall be presumed to be nondiligent. Attachment 2 Item 3.

2. The architectural review approval that has been granted, but not been exercised within one year, may be renewed for three one year time extensions only if an application stating reasons for renewal is filed with the planning director at least ten (10) days prior to one year after the effective date of the architectural review approval. The original approving authority for the architectural review (planning director or planning commission) shall render a decision regarding an extension. If an applicant requests a time extension after the architectural review approval has expired, a retroactive time extension may be approved; however the application fees are double. In the event that the planning director or planning commission acts to renew an architectural approval, the planning director or planning commission may impose any additional conditions on the architectural approval as a condition of its renewal. In the event that such additional conditions are not acceptable to the applicant and/or owner, the planning director or planning commission shall deny the renewal.
3. The criteria for granting a three hundred sixty-five (365) day extension are:
 - a. No significant change has occurred in the surrounding neighborhood;
 - b. The project conforms to existing and any new building and zone requirements;
 - c. A request for the extension is properly filed with the planning director ten (10) days or more prior to expiration; and
 - d. The applicant states upon affidavit the reasons requiring an extension and such other criteria as the planning department shall set forth in the application.
4. The planning director or planning commission shall grant the extension if good cause is set forth in the application.

(Ord. 1004-(2) § 3, 2008; prior code § 080.10)

(Ord. No. 1087, § 5, 5-25-16)