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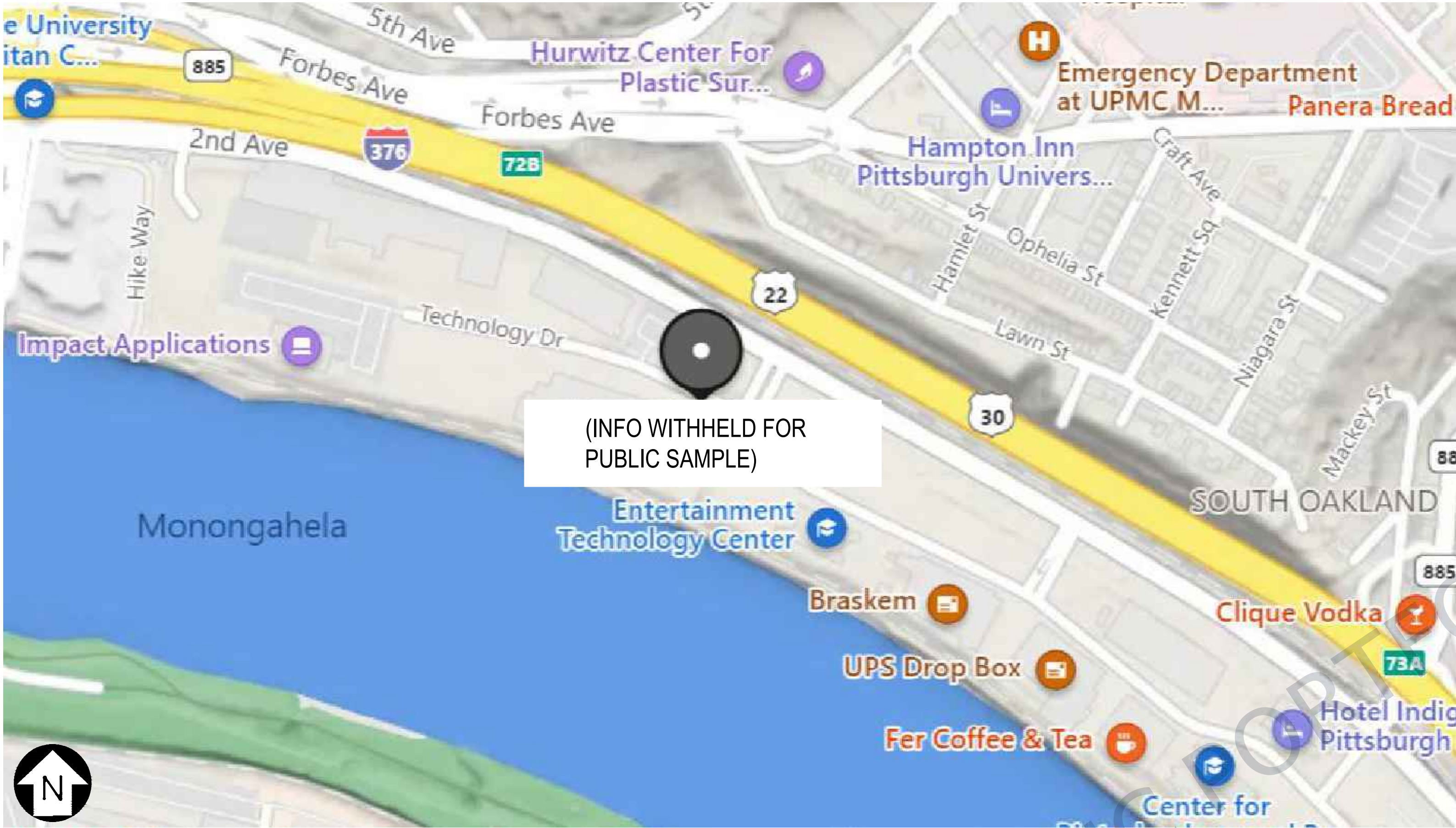
PROJECT DETAILS	
PROPERTY OWNER	(INFO WITHHELD FOR PUBLIC SAMPLE)
PROJECT NAME	(INFO WITHHELD FOR PUBLIC SAMPLE)
PROPERTY ADDRESS	(INFO WITHHELD FOR PUBLIC SAMPLE)
BUILDING TYPE	PARKING GARAGE STRUCTURE
SOLAR ARRAY TYPE	TILT-UP MOUNTED PHOTOVOLTAIC ARRAY (SHALL BOLT ON STEEL STRUCTURE WITH C CLAMP)
ZONING	COMMERCIAL
BUILDING AHJ	CITY OF PITTSBURGH
UTILITY COMPANY	DUQUESNE LIGHT COMPANY
NEC VERSION	2017 NATIONAL ELECTRICAL CODE
OBSERVED CODES	2015 INTERNATIONAL BUILDING CODES AS AMENDED BY THE PENNSYLVANIA UNIFORM CONSTRUCTION CODES, INTERNATIONAL BUILDING CODE OF 2015 INTERNATIONAL MECHANICAL CODE OF 2015 INTERNATIONAL FUEL GAS CODE OF 2015 INTERNATIONAL PLUMBING CODE OF 2015 INTERNATIONAL RESIDENTIAL CODE OF 2015 INTERNATIONAL FIRE CODE OF 2015 INTERNATIONAL ENERGY CONSERVATION CODE OF 2015 INTERNATIONAL EXISTING BUILDING CODE OF 2015 OSHA 29 CFR 1910.269 UNDERWRITERS LABORATORIES (UL) STANDARDS
STRUCT. METHOD	ASCE7-10

CONTRACTOR INFORMATION	
COMPANY	(INFO WITHHELD FOR PUBLIC SAMPLE)
LICENSE NO.	(INFO WITHHELD FOR PUBLIC SAMPLE)
ADDRESS	(INFO WITHHELD FOR PUBLIC SAMPLE)
PHONE	(INFO WITHHELD FOR PUBLIC SAMPLE)
CONTRACTOR SIGNATURE	

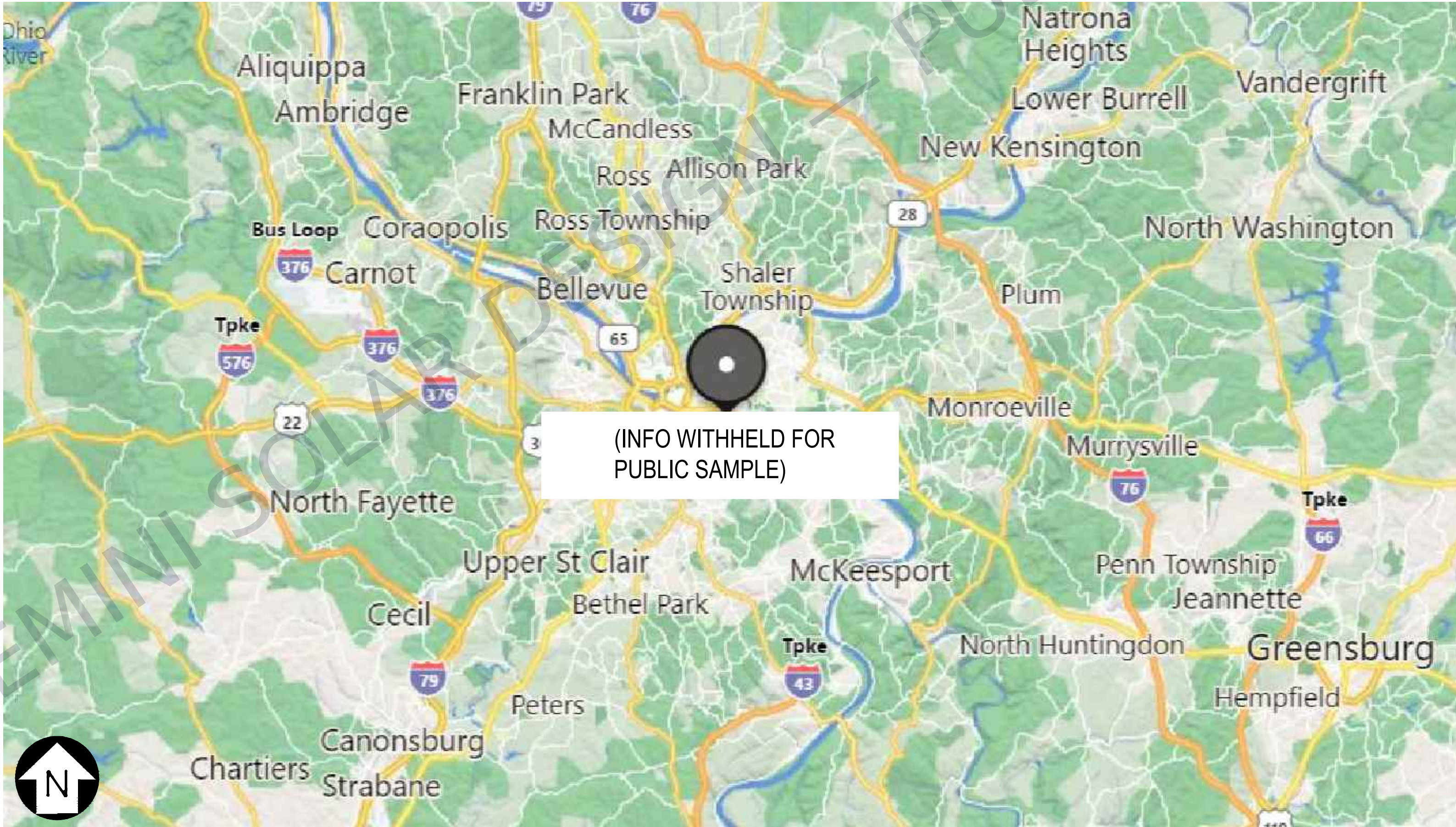
PLAN DESIGNER INFORMATION	
COMPANY	GEMINI SOLAR DESIGN, LLC.
NAME	SANJAY CHRISTOPHER MALLUPUDI
ADDRESS	6020 ELK RIVER ROAD EUREKA, CA 95503
PHONE	(609) 802-5743
PLAN DESIGNER SIGNATURE	<i>Sanjay Mallupudi</i>

SYSTEM DETAILS	
DC RATING OF SYSTEM	266,400W
AC OUTPUT CURRENT	317.6A @ 208VAC
MODULE	(720) ET SOLAR ET-M672370WW / ET-M672370WB
STRING INVERTER	(4) CHINT POWER CPS SCA60KTL-DO/US-480
STRING CONFIGURATION	3 STRINGS OF 18 MODULES (MPPT ZONE #1)
(TYP. OF EACH INVERTER)	3 STRINGS OF 18 MODULES (MPPT ZONE #2)
	4 STRINGS OF 18 MODULES (MPPT ZONE #3)
INTERCONNECTION	LOAD-SIDE (BACKFED CIRCUIT BREAKER)

SITE SPECIFICATIONS	
UTILITY SERVICE	277 / 480Y, 3- ϕ , 4-WIRE
MAIN DISTRIBUTION PANEL "DP1" (LOCATED IN LEVEL 1 ELEC. ROOM)	1200A RATED BUSBAR 600A / 3P MAIN BREAKER 400A / 3P BACKFED SOLAR BREAKER
SOLAR-ONLY LOAD CENTER (LOCATED IN LEVEL 5 ELEC. CLOSET)	400A RATED BUSBAR MAIN LUG ONLY (4) X 100A / 3P BACKFED SOLAR BREAKER
ASHRAE EXTREME ANNUAL MEAN MINIMUM DENSITY DRY BULB TEMP.	-20°C
ASHRAE 2% ANNUAL DRY DENSITY BULB TEMP.	32°C
RISK CATEGORY	II
BASIC WIND SPEED	115 MPH
WIND EXPOSURE CATEGORY	B
GROUND SNOW LOAD	30 PSF
DESIGN SNOW LOAD	25.2 PSF
SEISMIC DESIGN CATEGORY	B



1 PLOT
PV-1 SCALE: NTS



2 LOCALE
PV-1 SCALE: NTS

CONSTRUCTION NOTES	
1	CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO INITIATING CONSTRUCTION.
2	CONTRACTOR SHALL REVIEW ALL MANUFACTURER INSTALLATION DOCUMENTS PRIOR TO INITIATING CONSTRUCTION.
3	ALL EQUIPMENT SHALL BE LISTED BY THE U.L. (OR EQUAL) AND LISTED FOR ITS SPECIFIC APPLICATION.
4	ALL EQUIPMENT SHALL BE RATED FOR THE ENVIRONMENT IN WHICH IT IS INSTALLED.
5	ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6	ACCESS TO ELECTRICAL COMPONENTS OVER 150 VOLTS TO GROUND SHALL BE RESTRICTED TO QUALIFIED PERSONNEL.
7	ALL CONDUCTORS SHALL BE COPPER, RATED FOR 1000 VOLTS AND 90°C WET ENVIRONMENT, UNLESS OTHERWISE NOTED.
8	WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, CONTRACTOR SHALL SIZE THEM ACCORDING TO APPLICABLE CODES.
9	PV MODULES FRAMES SHALL BE BONDED TO RACKING RAIL OR BARE COPPER G.E.C. PER THE MODULE MANUFACTURER'S LISTED INSTRUCTION SHEET.
10	PV MODULES RACKING RAIL SHALL BE BONDED TO BARE COPPER G.E.C VIA WEEB LUG, ILSCO GBL-4DBT LAY-IN LUG, OR EQUIVALENT LISTED LUG.
11	GROUNDING ELECTRODE CONDUCTOR (G.E.C) SHALL BE CONTINUOUS AND/OR IRREVERSIBLY SPLICED
12	ALL JUNCTION BOXES, COMBINER BOXES, AND DISCONNECTS SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION.
13	WORKING SPACE AROUND ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC SECTION 110.26.

PROTECTION OF EMERGENCY RESPONDERS	
1	ALL SHARP EDGES AND FASTENER TIPS SHALL BE COVERED OR CRIMPED OVER TO ELIMINATE SHARP EDGES. THIS WILL MINIMIZE RISK OF INJURY TO EMERGENCY RESPONDERS.

PROJECT DESCRIPTION	
THE PROPOSED SYSTEM IS A PHOTOVOLTAIC ARRAY. THE PHOTOVOLTAIC (PV) SYSTEM IS TO BE INSTALLED ON THE COMMERCIAL ZONED PROPERTY IN THE CITY OF PITTSBURGH, PENNSYLVANIA. THE ENERGY PRODUCED BY THE PV SYSTEM SHALL BE INTERCONNECTED WITH THE UTILITY GRID THROUGH THE EXISTING ON-SITE ELECTRICAL EQUIPMENT VIA A LOAD-SIDE CONNECTION . THIS PROJECT DOES NOT INCLUDE STORAGE BATTERIES.	

(LOGO WITHHELD FOR SAMPLE)	
(INFO WITHHELD)	
PHONE: (INFO WITHHELD)	
LICENSE NO.: (INFO WITHHELD)	
CONFIDENTIAL: THE INFORMATION CONTAINED IN THIS DRAWING SET IS CONFIDENTIAL AND SHALL NOT BE DISCLOSED IN FULL OR IN PART TO ANYONE EXCEPT THOSE INVOLVED IN THE DESIGN AND INSTALLATION OF THE PV SYSTEM REPRESENTED IN THIS PLAN.	
NEW GRID-TIED SYSTEM 266.40KW DC	(INFO WITHHELD FOR PUBLIC SAMPLE)
SHEET SIZE ARCH D (36" X 24")	
COVER PAGE	
PROJECT NO: GSD-20220511-175951 DRAWN BY: SCM DATE: 5/11/2022	
PV-1	



SITE PLAN NOTES	
1	DC CIRCUIT CONDUCTORS SHALL NOT BE EXPOSED TO SUNLIGHT UNDER ANY CIRCUMSTANCES. ANY EXPOSED DC CONDUCTORS SHALL BE RAN WITHIN CONDUIT WHILE EXPOSED TO SUNLIGHT.
2	ARRAYS SHALL BE INSTALLED IN A WAY THAT ENSURES THAT PV SOURCE CONDUCTORS SHALL NOT BE READILY ACCESSIBLE.

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

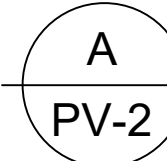
SITE PLAN / STRINGING

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-2



SITE PLAN & COLOR-CODED STRINGING MAP
SCALE: 1" = 10'-0"

(N) PHOTOVOLTAIC ARRAY,
209° AZIMUTH, 20° ARRAY TILT

(720) ET SOLAR ET-M672370WW / ET-M672370WB

(360) TIGO POWER TS4-A-2F OPTIMIZER, 2 MODULES PER UNIT
(OPTIMIZER CONFORMS TO SECTION 690.12, RAPID SHUTDOWN)

(N) STRING INVERTERS (I1, I2, I3, I4), 60KW
MODEL: CPS SCA60KTL-DO/US-480
(LOC. INSIDE 5TH LEVEL ELECTRICAL CLOSET)

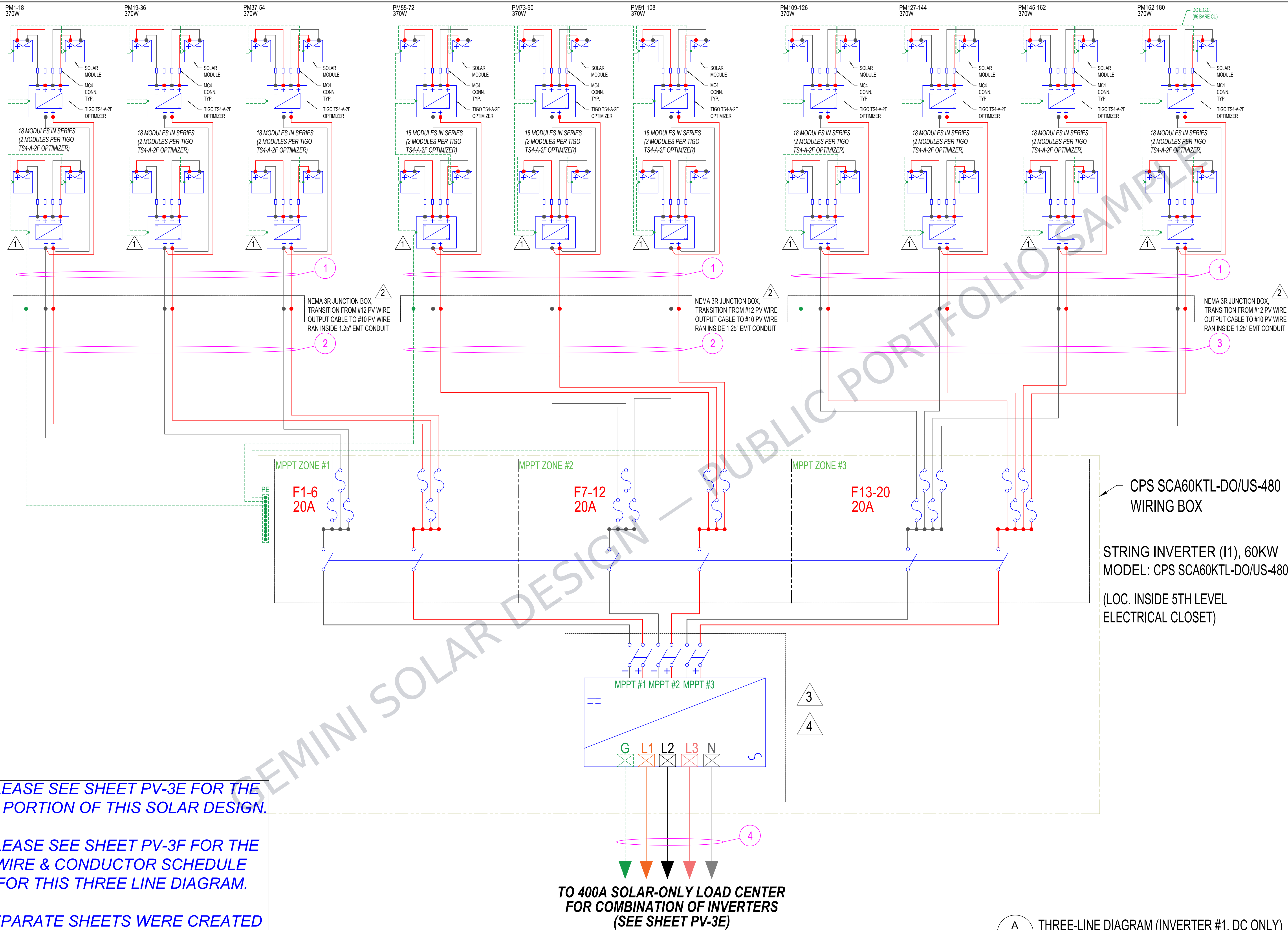
5TH LEVEL, ELECTRICAL CLOSET
(ORANGE HATCHED AREA)

(N) 400A RATED SOLAR-ONLY LOAD CENTER
277 / 480VAC, 3- ϕ WYE, 4-WIRE, NEMA 3R, MLO
(4) X 100A / 3P CIRCUIT BREAKERS, 600VAC RATED
(LOC. INSIDE 5TH LEVEL, ELECTRICAL CLOSET)

(N) FUSED AC DISCONNECT (DS1)
MODEL: SQUARE D H365NR, 400A RATING,
600VAC, NEMA 3R RATED SHALL BE FUSIBLE,
EQUIP WITH (3) X 400A FUSES, 600VAC RATED
(LOC. ADJACENT TO DISTRIBUTION PANEL
"DP1" IN THE LEVEL 1 ELECTRICAL ROOM)

LEVEL 1 ELECTRICAL ROOM
(LIGHT BLUE HATCHED AREA)

SERVICE PANEL "DP1"
277 / 480VAC, 3- ϕ WYE, 4-WIRE
1200A RATED BUSBAR
600A / 3P MAIN CIRCUIT BREAKER
PANEL S.C. BRACING : 22KA/IC
LOCATION : LEVEL 1 ELEC. ROOM



PLEASE SEE SHEET PV-3E FOR THE
AC PORTION OF THIS SOLAR DESIGN.

PLEASE SEE SHEET PV-3F FOR THE
WIRE & CONDUCTOR SCHEDULE
FOR THIS THREE LINE DIAGRAM.

SEPARATE SHEETS WERE CREATED
DUE TO SPACE LIMITATIONS.

A THREE-LINE DIAGRAM (INVERTER #1, DC ONLY)
PV-3A SCALE: NO SCALE

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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DESIGN AND INSTALLATION OF THE PV SYSTEM
REPRESENTED IN THIS PLAN.

NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

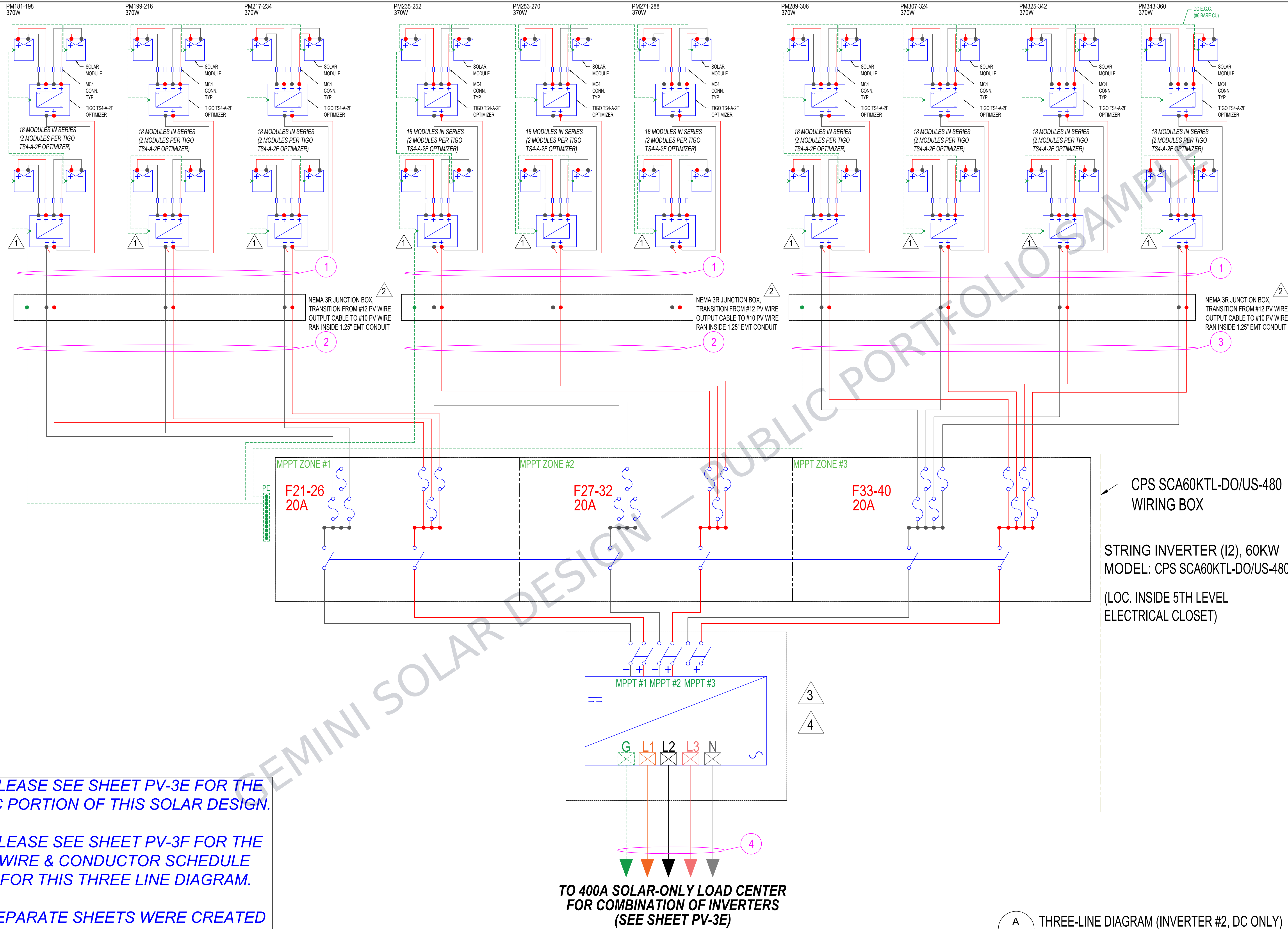
THREE-LINE DIAGRAM

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-3A



PLEASE SEE SHEET PV-3E FOR THE AC PORTION OF THIS SOLAR DESIGN.

PLEASE SEE SHEET PV-3F FOR THE WIRE & CONDUCTOR SCHEDULE FOR THIS THREE LINE DIAGRAM.

SEPARATE SHEETS WERE CREATED DUE TO SPACE LIMITATIONS.

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

THREE-LINE DIAGRAM

PROJECT NO: GSD-20220511-175951

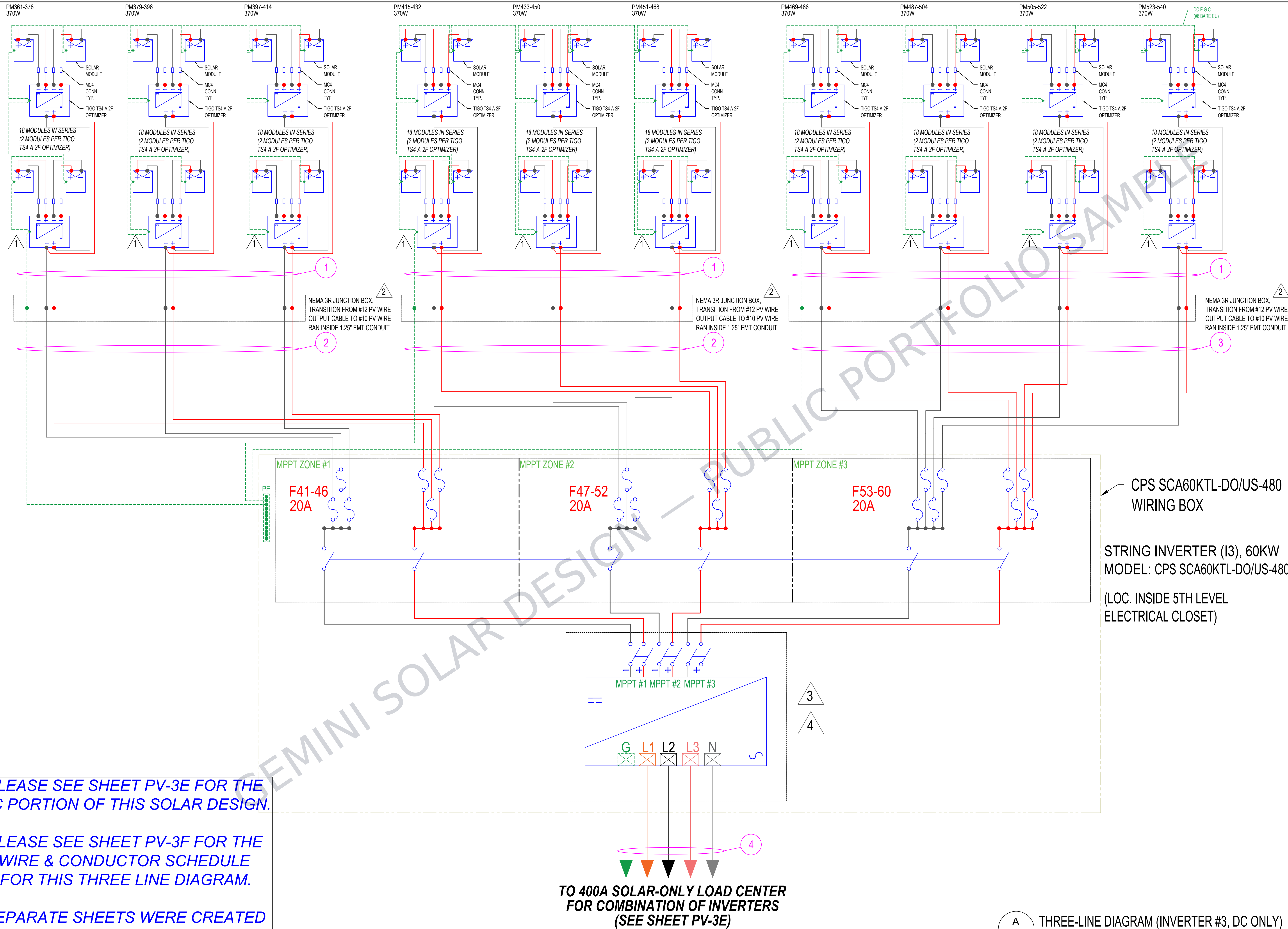
DRAWN BY: SCM

DATE: 5/11/2022

PV-3B

A THREE-LINE DIAGRAM (INVERTER #2, DC ONLY)

PV-3B SCALE: NO SCALE



PLEASE SEE SHEET PV-3E FOR THE AC PORTION OF THIS SOLAR DESIGN.

PLEASE SEE SHEET PV-3F FOR THE WIRE & CONDUCTOR SCHEDULE FOR THIS THREE LINE DIAGRAM.

SEPARATE SHEETS WERE CREATED DUE TO SPACE LIMITATIONS.

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

CONFIDENTIAL: THE INFORMATION CONTAINED IN THIS DRAWING SET IS CONFIDENTIAL AND SHALL NOT BE DISCLOSED IN FULL OR IN PART TO ANYONE EXCEPT THOSE INVOLVED IN THE DESIGN AND INSTALLATION OF THE PV SYSTEM REPRESENTED IN THIS PLAN.

NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

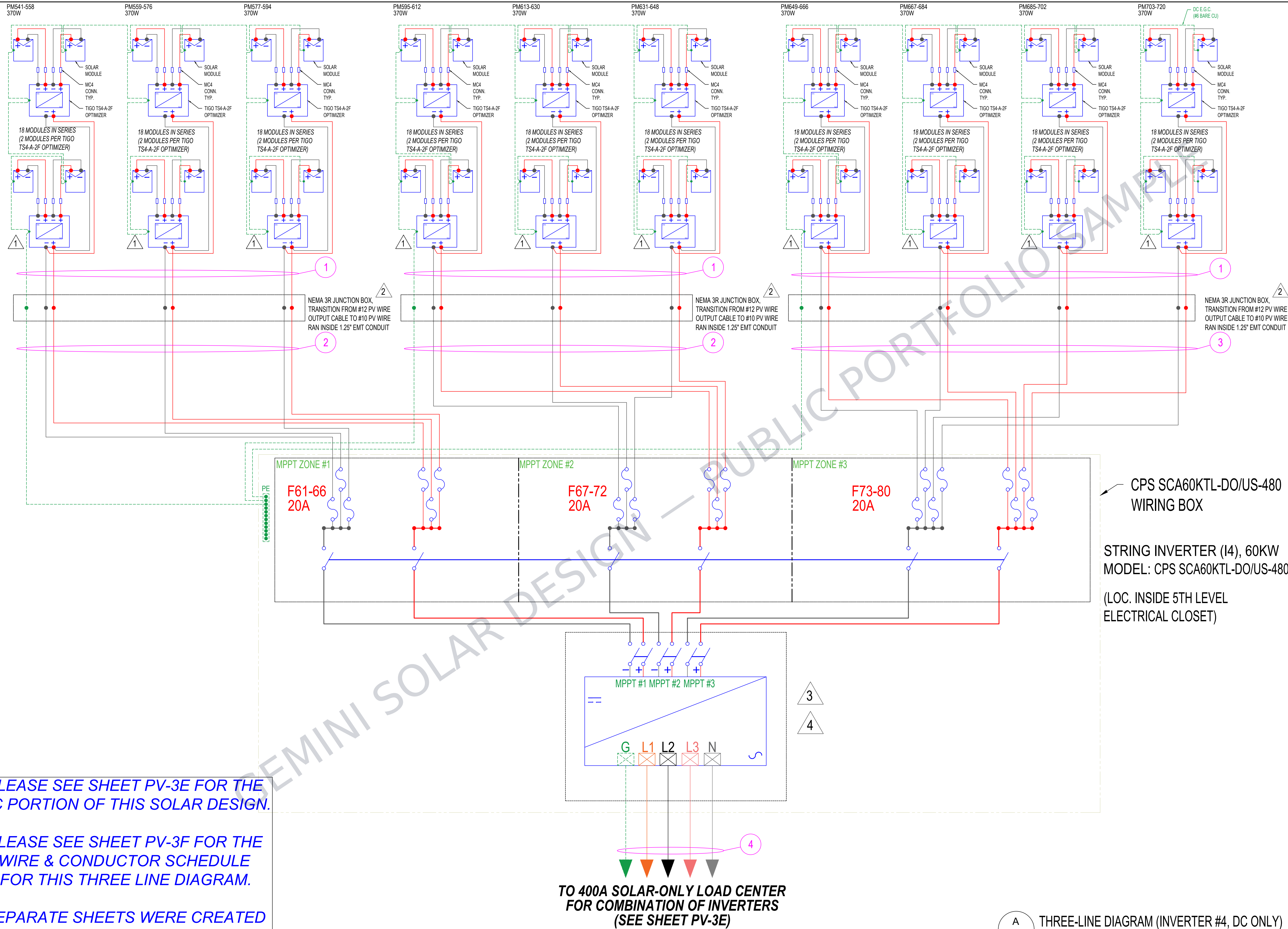
THREE-LINE DIAGRAM

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-3C



PLEASE SEE SHEET PV-3E FOR THE AC PORTION OF THIS SOLAR DESIGN.

PLEASE SEE SHEET PV-3F FOR THE WIRE & CONDUCTOR SCHEDULE FOR THIS THREE LINE DIAGRAM.

SEPARATE SHEETS WERE CREATED DUE TO SPACE LIMITATIONS.

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

CONFIDENTIAL: THE INFORMATION CONTAINED IN THIS DRAWING SET IS CONFIDENTIAL AND SHALL NOT BE DISCLOSED IN FULL OR IN PART TO ANYONE EXCEPT THOSE INVOLVED IN THE DESIGN AND INSTALLATION OF THE PV SYSTEM REPRESENTED IN THIS PLAN.

NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

THREE-LINE DIAGRAM

PROJECT NO: GSD-20220511-175951

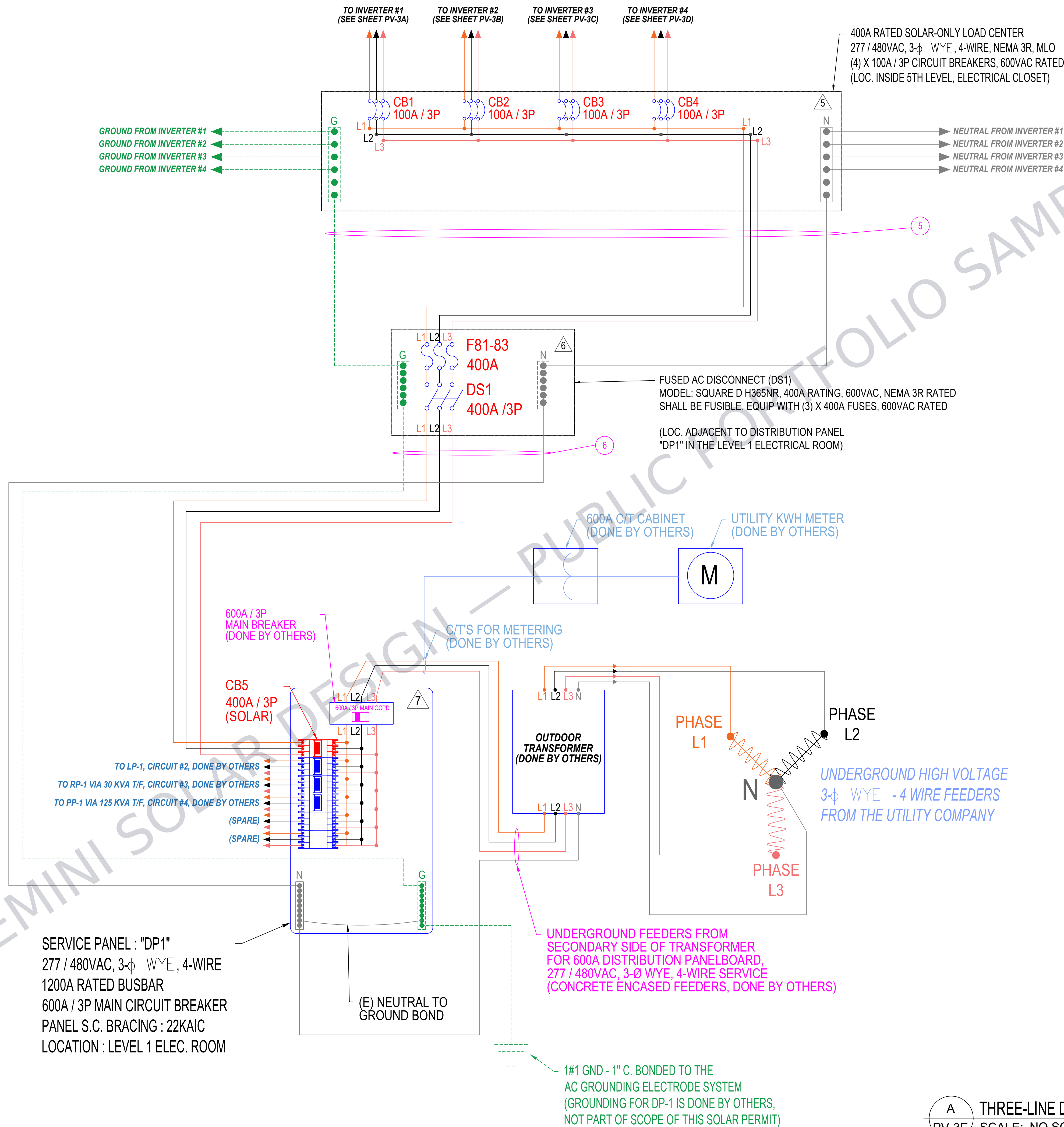
DRAWN BY: SCM

DATE: 5/11/2022

PV-3D

A THREE-LINE DIAGRAM (INVERTER #4, DC ONLY)

PV-3D SCALE: NO SCALE



PLEASE SEE SHEETS PV-3A
THROUGH PV-3D FOR THE
DC PORTION OF THIS DESIGN.

PLEASE SEE SHEET PV-3F FOR THE
WIRE & CONDUCTOR SCHEDULE
FOR THIS THREE LINE DIAGRAM.

SEPARATE SHEETS WERE CREATED
DUE TO SPACE LIMITATIONS.

SERVICE PANEL : "DP1"
277 / 480VAC, 3- ϕ WYE, 4-WIRE
1200A RATED BUSBAR
600A / 3P MAIN CIRCUIT BREAKER
PANEL S.C. BRACING : 22KAIC
LOCATION : LEVEL 1 ELEC. ROOM

(LOGO WITHHELD FOR SAMPLE)	
(INFO WITHHELD)	
PHONE: (INFO WITHHELD)	
LICENSE NO.: (INFO WITHHELD)	
CONFIDENTIAL: THE INFORMATION CONTAINED IN THIS DRAWING SET IS CONFIDENTIAL AND SHALL NOT BE DISCLOSED IN FULL OR IN PART TO ANYONE EXCEPT THOSE INVOLVED IN THE DESIGN AND INSTALLATION OF THE PV SYSTEM REPRESENTED IN THIS PLAN.	
NEW GRID-TIED SYSTEM 266.40KW DC	(INFO WITHHELD FOR PUBLIC SAMPLE)
SHEET SIZE	
ARCH D (36" X 24")	
THREE-LINE DIAGRAM	
PROJECT NO: GSD-20220511-175951	
DRAWN BY: SCM	
DATE: 5/11/2022	
PV-3E	

PHOTOVOLTAIC MODULE									
REF.	TYP.	MODULE	STC POWER	PTC POWER	ISC	IMP	VOC	VMP	MAXIMUM REVERSE CURRENT
PM1-720	720	ET SOLAR ET-M672370WW / ET-M672370WB	370W	339.58W	9.88A	9.32A	48.45V	39.7V	15A

STRING INVERTER											
REF.	TYP.	INVERTER	TRANSFORMERLESS	AC VOLTAGE	CONTINUOUS REAL OUTPUT POWER	MAX AC OUTPUT CURRENT	NUMBER OF MPPT TRACKERS	MAX. PV SHORT-CIRCUIT CURRENT (ISC X 1.25)	MAX. POWER INPUT VOLTAGE RANGE	OPERATING VOLTAGE RANGE	CEC WEIGHTED EFFICIENCY
I1-I4	4	CHINT POWER CPS SCA60KTL-DO/US-480	YES	480VAC, 3-Φ	60,000W	79.4A @ 480VAC	3	MAX. PV SHORT-CIRCUIT CURRENT (ISC X 1.25) 204A (68A PER MPPT)	540VDC - 850VDC	200VDC - 950VDC	98.5%

SYSTEM SUMMARY (INVERTER #1 - CHINT POWER CPS SCA60KTL-DO/US-480)			
	MPPT #1	MPPT #2	MPPT #3
ARRAY CIRCUITS	3 X 18	3 X 18	4 X 18
ARRAY STC POWER	19,980W	19,980W	26,640W
ARRAY PTC POWER	18,337W	18,337W	24,449W
ARRAY VMP @ STC TEMP. OF 25°C	714.6V	714.6V	714.6V
ARRAY VOC @ STC TEMP. OF 25°C	872.1V	872.1V	872.1V
ARRAY VMP @ DESIGN HIGH. TEMP. OF 32°C	603V	603V	603V
ARRAY VOC @ DESIGN LOW TEMP. OF -20°C	990V	990V	990V
ARRAY IMP (OPERATING CURRENT)	27.96A	27.96A	39.68A
ARRAY ISC	29.64A	29.64A	39.52A
ARRAY ISC X 1.25	37.05A	37.05A	49.4A
TOTAL ARRAY STC POWER	66,600W		
TOTAL ARRAY PTC POWER	61,124W		
MAX AC OUTPUT CURRENT	79.4A @ 480VAC		
CONTINUOUS AC POWER OUTPUT	60,000W		

SYSTEM SUMMARY (INVERTER #2 - CHINT POWER CPS SCA60KTL-DO/US-480)			
	MPPT #1	MPPT #2	MPPT #3
ARRAY CIRCUITS	3 X 18	3 X 18	4 X 18
ARRAY STC POWER	19,980W	19,980W	26,640W
ARRAY PTC POWER	18,337W	18,337W	24,449W
ARRAY VMP @ STC TEMP. OF 25°C	714.6V	714.6V	714.6V
ARRAY VOC @ STC TEMP. OF 25°C	872.1V	872.1V	872.1V
ARRAY VMP @ DESIGN HIGH. TEMP. OF 32°C	603V	603V	603V
ARRAY VOC @ DESIGN LOW TEMP. OF -20°C	990V	990V	990V
ARRAY IMP (OPERATING CURRENT)	27.96A	27.96A	39.68A
ARRAY ISC	29.64A	29.64A	39.52A
ARRAY ISC X 1.25	37.05A	37.05A	49.4A
TOTAL ARRAY STC POWER	66,600W		
TOTAL ARRAY PTC POWER	61,124W		
MAX AC OUTPUT CURRENT	79.4A @ 480VAC		
CONTINUOUS AC POWER OUTPUT	60,000W		

SYSTEM SUMMARY (INVERTER #3 - CHINT POWER CPS SCA60KTL-DO/US-480)			
	MPPT #1	MPPT #2	MPPT #3
ARRAY CIRCUITS	3 X 18	3 X 18	4 X 18
ARRAY STC POWER	19,980W	19,980W	26,640W
ARRAY PTC POWER	18,337W	18,337W	24,449W
ARRAY VMP @ STC TEMP. OF 25°C	714.6V	714.6V	714.6V
ARRAY VOC @ STC TEMP. OF 25°C	872.1V	872.1V	872.1V
ARRAY VMP @ DESIGN HIGH. TEMP. OF 32°C	603V	603V	603V
ARRAY VOC @ DESIGN LOW TEMP. OF -20°C	990V	990V	990V
ARRAY IMP (OPERATING CURRENT)	27.96A	27.96A	39.68A
ARRAY ISC	29.64A	29.64A	39.52A
ARRAY ISC X 1.25	37.05A	37.05A	49.4A
TOTAL ARRAY STC POWER	66,600W		
TOTAL ARRAY PTC POWER	61,124W		
MAX AC OUTPUT CURRENT	79.4A @ 480VAC		
CONTINUOUS AC POWER OUTPUT	60,000W		

SYSTEM SUMMARY (INVERTER #4 - CHINT POWER CPS SCA60KTL-DO/US-480)			
	MPPT #1	MPPT #2	MPPT #3
ARRAY CIRCUITS	3 X 18	3 X 18	4 X 18
ARRAY STC POWER	19,980W	19,980W	26,640W
ARRAY PTC POWER	18,337W	18,337W	24,449W
ARRAY VMP @ STC TEMP. OF 25°C	714.6V	714.6V	714.6V
ARRAY VOC @ STC TEMP. OF 25°C	872.1V	872.1V	872.1V
ARRAY VMP @ DESIGN HIGH. TEMP. OF 32°C	603V	603V	603V
ARRAY VOC @ DESIGN LOW TEMP. OF -20°C	990V	990V	990V
ARRAY IMP (OPERATING CURRENT)	27.96A	27.96A	39.68A
ARRAY ISC	29.64A	29.64A	39.52A
ARRAY ISC X 1.25	37.05A	37.05A	49.4A
TOTAL ARRAY STC POWER	66,600W		
TOTAL ARRAY PTC POWER	61,124W		
MAX AC OUTPUT CURRENT	79.4A @ 480VAC		
CONTINUOUS AC POWER OUTPUT	60,000W		

SYSTEM SUMMARY (AGGREGATE TOTALS)	
TOTAL ARRAY STC POWER	266,400W
TOTAL ARRAY PTC POWER	244,497W
MAX AC OUTPUT CURRENT	317.6A @ 480VAC
CONT. AC POWER OUTPUT	240,000W

ELECTRICAL NOTES SPECIFICATIONS	
MODULE INTERCONNECTION CONNECTORS SHALL BE IN COMPLIANCE WITH NEC 690.33(A) AND SHALL BE	
1	POLARIZED AND NON INTERCHANGEABLE WITH RECEPTACLES IN OTHER ELECTRICAL SYSTEMS ON THE PREMISES.
MODULE INTERCONNECTION CONNECTORS SHALL BE OF THE LOCKING TYPE REQUIRING A TOOL FOR OPENING IN ACCORDANCE WITH NEC 690.33(C)	
2	MODULE INTERCONNECTION CONNECTORS SHALL BE MARKED "DO NOT OPEN UNDER LOAD" IN ACCORDANCE WITH NEC 690.33(E).
THE CONNECTION OF ALL MODULES SHALL BE ARRANGED SO THAT THE REMOVAL OF ANY PANEL OR	
4	MODULE SHALL NOT INTERRUPT A GROUNDED CONDUCTOR TO ANOTHER PHOTOVOLTAIC SOURCE CIRCUIT IN ACCORDANCE WITH NEC 690.4(C).
ALL EQUIPMENT IN PHOTOVOLTAIC SYSTEM SHALL BE LISTED BY AN INDEPENDENT TESTING AGENCY.	
THE GROUNDING ELECTRODE CONDUCTORS SHALL BE	
6	CONTINUOUS IN COMPLIANCE WITH NEC 250.64(C) AND 250.160.

OCPD SCHEDULE				
REF.	TYP.	NUMBER OF POLES	CURRENT RATING	RATED VOLTAGE
F1-80 (MERSEN HP10M20)	80	N/A	20A	1000VDC
CB1 (INV. #1 BACKFED BREAKER)	1	3	100A	600VAC
CB2 (INV. #2 BACKFED BREAKER)	1	3	100A	600VAC
CB3 (INV. #3 BACKFED BREAKER)	1	3	100A	600VAC
CB4 (INV. #4 BACKFED BREAKER)	1	3	100A	600VAC
F81-83 (AC DISCONNECT FUSES)	3	N/A	400A	600VAC
CB5 (SOLAR BACKFED BREAKER)	1	3	400A	600VAC

DISCONNECT SCHEDULE				
REF.	TYP.	NUMBER OF POLES	CURRENT RATING	RATED VOLTAGE
DS1 (SQUARE D H365NR)	1	3	400A	600VAC

MODULE LEVEL RAPID SHUTDOWN					
MODEL	TYP.	MAX INPUT VOLTAGE	MAXIMUM CURRENT	MAXIMUM POWER	NEC 2017 / 2020 COMPLIANT
TIGO POWER TS4-A-2F	360	80VDC	15A	1000W	YES

SCHEMATIC NOTES (CORRESPONDS TO THREE-LINE DIAGRAM, SHEETS PV3A-3E)	
⚠	MAXIMUM OPEN CIRCUIT VOLTAGE OF ARRAY AT DESIGN LOW TEMPERATURE OF -20°C WOULD BE 990VDC. THE TIGO TS4-A-2F MODULE LEVEL RAPID SHUTDOWN DEVICE SHALL BE USED TO MEET THE RAPID SHUTDOWN REQUIREMENT AS OUTLINED BY NEC SECTION 690.12. THE DEVICE IS A MODULE LEVEL RAPID SHUTDOWN SOLUTION.
⚠	NEMA 3R RATED JUNCTION BOX RATED FOR 1000VDC MUST HAVE NOTE: "WARNING ELECTRIC SHOCK HAZARD. THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED."
⚠	INTEGRATED DC DISCONNECT IS PROVIDED WITH INVERTER. DISCONNECT IS LISTED FOR USE WITH CHINT POWER UL 1741 LISTED STRING INVERTERS.
⚠	THE CHINT POWER CPS SCA60KTL-DO/US-480 STRING INVERTER IS NON-ISOLATED. NEITHER THE NEGATIVE OR POSITIVE CONDUCTOR IS GROUNDED.
⚠	OUTPUT OF INVERTER(S) WILL BE TIED INTO A NEW SOLAR-ONLY LOAD CENTER. SPECIFICATIONS SHOULD BE AS FOLLOWS: 277 / 480VAC, 3-φ, 4-WIRE, 400A RATED BUSBAR, MAIN LUG ONLY, 600VAC RATED
⚠	SOLAR AC DISCONNECT SHALL HAVE THE FOLLOWING SPECS; MODEL: SQUARE D H365NR, OR EQVNT, 3-φ, 4-W, 3-POLE WITH NEUTRAL, 400A RATING, EQUIP WITH (3) X 400A FUSES, 600VAC, VISIBLE AND ACCESSIBLE AS PER UTILITY
⚠	OUTPUT OF AC DISCONNECT IS CONNECTED TO UTILITY ON LOAD SIDE OF SERVICE DISCONNECT. OUTPUT SHALL BE BACKFED THROUGH A 400A / 3P, 600VAC CIRCUIT BREAKER IN THE 1200A SERVICE PANEL "DP1". SOLAR BACKFED BREAKER SHALL BE LOCATED AT THE OPPOSITE END OF THE BUSBAR FROM THE MAIN BREAKER DISCONNECT.

CONDUCTOR SCHEDULE WITH NEC ELECTRICAL CALCULATIONS																		
ID	TYP	DESCRIPTION	CONDUCTOR	CONDUIT	NO. OF CURRENT CARRYING CONDUCTORS IN CONDUIT	FILL %	RATED AMPS	OCPD	EGC / NEUTRAL	TEMP. CORR. FACTOR @ 90°C TEMP. RATING	FILL ADJ. FACTOR	CONT. CURRENT	MAXIMUM CURRENT	TERMINAL RATING CHECK (ASSUME 75°C) SHALL EXCEED 1.25X CONT. CURRENT	BASE AMPACITY @ 90°C TEMP. RATING	CONDITIONS OF USE (COU) @ 90°C TEMP. RATING	APPROXIMATE LENGTH OF LONGEST WIRE RUN (IN FEET)	CALCULATED VOLTAGE DROP (IN PERCENT)
1	40	PV SOURCE CIRCUIT: SERIES STRING OUTPUT TO JUNCTION BOX	12 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	FREE AIR	N/A	N/A	9.88A (I_SC)	N/A	6 AWG BARE COPPER	0.76 (54°C) (ON ROOF)	1.0	12.35A (I_SC)	15.44A (I_SC)	25A > 15.44A PASS	40A <i>(IN FREE AIR)</i>	30.4A <i>(IN FREE AIR)</i>	235 FEET	0.73%
2	8	PV SOURCE CIRCUIT (TRANSITIONED): JUNCTION BOX TO STRING INVERTER	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	1.25" DIA. EMT <i>(3 DC STRINGS IN THIS CONDUIT RUN)</i>	6 <i>3 X DC (+) 3 X DC (-)</i>	26.0%	9.88A (I_SC)	20A (F1-20) 20A (F21-40) 20A (F41-60) 20A (F61-80)	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	0.76 (54°C) (ON ROOF)	0.8	12.35A (I_SC)	15.44A (I_SC)	35A > 15.44A PASS	40A <i>(IN CONDUIT)</i>	24.32A <i>(IN CONDUIT)</i>	110 FEET	0.34%
3	4	PV SOURCE CIRCUIT (TRANSITIONED): JUNCTION BOX TO STRING INVERTER	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	1.25" DIA. EMT <i>(4 DC STRINGS IN THIS CONDUIT RUN)</i>	8 <i>4 X DC (+) 4 X DC (-)</i>	33.5%	9.88A (I_SC)	<i>(FUSES TO BE INSTALLED AT DC TERMINAL BLOCK)</i>	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	0.76 (54°C) (ON ROOF)	0.7	12.35A (I_SC)	15.44A (I_SC)	35A > 15.44A PASS	40A <i>(IN CONDUIT)</i>	21.28A <i>(IN CONDUIT)</i>		
4	4	STRING INVERTER OUTPUT: STRING INVERTER TO SOLAR-ONLY LOAD CENTER	1 AWG THWN-2 COPPER	1.50" DIA. EMT <i>(EACH STRING INVERTER OUTPUT SHALL BE IN ITS OWN RESPECTIVE EMT CONDUIT)</i>	4 <i>(L1, L2, L3, N) X 1</i>	33.2%	79.4A (I1) 79.4A (I2) 79.4A (I3) 79.4A (I4)	100A / 3P (CB1) 100A / 3P (CB2) 100A / 3P (CB3) 100A / 3P (CB4)	6 AWG THWN-2 COPPER	0.96 (32°C) (INSIDE STRUCTURE)	0.8	79.4A (I1) 79.4A (I2) 79.4A (I3) 79.4A (I4)	99.25A (I1) 99.25A (I2) 99.25A (I3) 99.25A (I4)	130A > 99.25A PASS	150A <i>(IN CONDUIT)</i>	115.2A <i>(IN CONDUIT)</i>	25 FEET	0.12%
5	1	COMBINED OUTPUT OF STRING INVERTERS: SOLAR-ONLY LOAD CENTER TO FUSED AC DISCONNECT (DS1)	750 MCM THWN-2 COPPER	4.00" DIA. EMT	4 <i>(L1, L2, L3, N) X 1</i>	30.0%	317.6A	400A (F81-83) 400A / 3P (DS1)	2/0 AWG THWN-2 COPPER	0.96 (32°C) (INSIDE STRUCTURE)	0.8	317.6A	397A	475A > 397A PASS	535A <i>(IN CONDUIT)</i>	410.88A <i>(IN CONDUIT)</i>	50 FEET	0.25%
6	1	FUSED AC DISCONNECT (DS1) OUTPUT: FUSED AC DISCONNECT (DS1) TO MAIN SERVICE PANEL "DP1" <i>(LOAD-SIDE POINT OF INTERCONNECTION VIA BACKFED TRIPLE POLE CIRCUIT BREAKER)</i>	750 MCM THWN-2 COPPER	4.00" DIA. EMT	4 <i>(L1, L2, L3, N) X 1</i>	30.0%	317.6A	400A / 3P (CB5)	2/0 AWG THWN-2 COPPER	0.96 (32°C) (INSIDE STRUCTURE)	0.8	317.6A	397A	475A > 397A PASS	535A <i>(IN CONDUIT)</i>	410.88A <i>(IN CONDUIT)</i>	5 FEET	0.03%
ALL CONDUCTORS, OCPD SIZES AND TYPES SPECIFIED ACCORDING TO NEC ARTICLES 690.8(A)(1), NEC ARTICLE 240, AND NEC ARTICLE 690.7.																		

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

THREE-LINE DIAGRAM

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-3F

JUNCTION BOX

1JUNCTION BOX

⚠

WARNING

⚠

ELECTRIC SHOCK HAZARD
THE DC CONDUCTORS OF
THIS PHOTOVOLTAIC SYSTEM
ARE UNGROUNDED AND
MAY BE ENERGIZED

NEC 690.35(F)

2JUNCTION BOX

⚠

DO NOT
DISCONNECT
UNDER LOAD

⚠

NEC 690.16(B)

3JUNCTION BOX

⚠

WARNING

⚠

PHOTOVOLTAIC
POWER SOURCE

NEC 690.35

ALL STRING INVERTERS

4ALL STRING INVERTERS

PHOTOVOLTAIC SYSTEM
DC DISCONNECT

OPERATING VOLTAGE714.6VDC
OPERATING CURRENT95.6A
MAX SYSTEM VOLTAGE990VDC
SHORT CIRCUIT CURRENT98.8A

NEC 690.53

5ALL STRING INVERTERS

⚠

WARNING

⚠

ELECTRIC SHOCK HAZARD
THE DC CONDUCTORS OF
THIS PHOTOVOLTAIC SYSTEM
ARE UNGROUNDED AND
MAY BE ENERGIZED

NEC 690.35(F)

6ALL STRING INVERTERS

⚠

WARNING

⚠

ELECTRIC SHOCK HAZARD
IF GROUND FAULT IS INDICATED
ALL NORMALLY GROUNDED
CONDUCTORS MAY BE
UNGROUNDED AND ENERGIZED

NEC 690.5(C)

7ALL STRING INVERTERS

SOLAR INVERTER
MAXIMUM RATING

OPERATING CURRENT79.4AMPS
OPERATING VOLTAGE480VAC

NEC 690.54

9ALL STRING INVERTERS

SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN
SWITCH TO THE
"OFF" POSITION TO
SHUT DOWN PV SYSTEM
AND REDUCE
SHOCK HAZARD
IN THE ARRAY

RACEWAYS

10RACEWAYS, CABLES PER 10 FT.

⚠

WARNING

⚠

PHOTOVOLTAIC
POWER SOURCE

NEC 690.31(E)(3),(4)

FUSED AC DISCONNECT (DS1)

11FUSED AC DISCONNECT (DS1)

⚠

WARNING

⚠

ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

NEC 690.17.4

12FUSED AC DISCONNECT (DS1)

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING CURRENT317.6AMPS
OPERATING VOLTAGE480VOLTS

NEC 690.54

13FUSED AC DISCONNECT (DS1)

⚠

WARNING

⚠

INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

NEC 705.12(D)(7)

SOLAR-ONLY LOAD CENTER

14STRING INVERTER #1 (BACKFED BREAKER)

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING CURRENT79.4AMPS
OPERATING VOLTAGE480VOLTS

NEC 690.14(C)(2) & NEC 690.54

15STRING INVERTER #2 (BACKFED BREAKER)

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING CURRENT79.4AMPS
OPERATING VOLTAGE480VOLTS

NEC 690.14(C)(2) & NEC 690.54

16STRING INVERTER #3 (BACKFED BREAKER)

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING CURRENT79.4AMPS
OPERATING VOLTAGE480VOLTS

NEC 690.14(C)(2) & NEC 690.54

17STRING INVERTER #4 (BACKFED BREAKER)

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING CURRENT79.4AMPS
OPERATING VOLTAGE480VOLTS

NEC 690.14(C)(2) & NEC 690.54

18SOLAR-ONLY LOAD CENTER

⚠

WARNING

⚠

SOLAR ELECTRIC BREAKER IS BACKFED

19SOLAR-ONLY LOAD CENTER

⚠

WARNING

⚠

INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

NEC 705.12(D)(7)

20SOLAR-ONLY LOAD CENTER

SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN
SWITCH TO THE
"OFF" POSITION TO
SHUT DOWN PV SYSTEM
AND REDUCE
SHOCK HAZARD
IN THE ARRAY

DISTRIBUTION PANEL "DP1"

21DISTRIBUTION PANEL "DP1"

⚠

WARNING

⚠

DUAL POWER SUPPLY
SOURCES: UTILITY GRID AND
PV SOLAR ELECTRIC SYSTEM

NEC 690.56(B)

22DISTRIBUTION PANEL "DP1"

⚠

WARNING

⚠

ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

NEC 690.17.4

23DISTRIBUTION PANEL "DP1"

⚠

WARNING

⚠

INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

NEC 705.12(D)(7)

24TOTAL SOLAR BACKFED CURRENT

PHOTOVOLTAIC SYSTEM
AC DISCONNECT

OPERATING CURRENT317.6AMPS
OPERATING VOLTAGE480VOLTS

NEC 690.14(C)(2) & NEC 690.54

25DISTRIBUTION PANEL "DP1"

⚠

WARNING

⚠

SOLAR ELECTRIC BREAKER IS BACKFED

26DISTRIBUTION PANEL "DP1"

SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN
SWITCH TO THE
"OFF" POSITION TO
SHUT DOWN PV SYSTEM
AND REDUCE
SHOCK HAZARD
IN THE ARRAY

DISTRIBUTION PANEL "DP1"

27DISTRIBUTION PANEL "DP1"

⚠

CAUTION

⚠

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

NEC 690.56(B)

STRING INVERTERS
(LOC. 5TH FLOOR, ELEC. CLOSET)

SOLAR-ONLY LOAD CENTER
(LOC. 5TH FLOOR, ELEC. CLOSET)

AC DISCONNECT
(LOC. 1ST FLOOR, ELEC. ROOM)

DISTRIBUTION PANEL "DP1"
(LOC. 1ST FLOOR, ELEC. ROOM)

N

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

PLACARDS

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-4

SIGNAGE REQUIREMENTS

1	ALL PLACARDS AND SIGNAGE REQUIRED BY THE 2017 NATIONAL ELECTRICAL CODE, AND ANY OTHER STATE CODES OR LOCAL ORDINANCES WILL BE INSTALLED AS REQUIRED.
2	RED BACKGROUND
3	WHITE LETTERING
4	MINIMUM 3/8" LETTER HEIGHT
5	ALL CAPITAL LETTERS
6	AERIAL OR SIMILAR FONT
7	WEATHER RESISTANT MATERIAL, PER UL 969

A
PV-4
PLACARDS
SCALE: N/A

EIITE 1500V

HIGH EFFICIENCY MODULE

ET-M672370WW/WB 370W
ET-M672365WW/WB 365W
ET-M672360WW/WB 360W
ET-M672355WW/WB 355W
ET-M672350WW/WB 350W

Knowing voltage increase as one of the effective methods to decrease line loss, ET's Product Department and R&D Team are devoted to developing high-efficient module while we are trying any probability of more power output by technology innovation like upgrading voltage level and decreasing line loss. ET 1500VDC Module is designed to realize a lower LCOE of the power plant, by allowing longer cable operation and longer string to pull down combiner-box quantity and narrow cable size.

- 1500 Designed for compatible with advanced high voltage1500V solar plant
- Significant saving on BoS cost
- Extending string length up to 50%
- Enhanced module durability
- Higher system performance

IEC 61215 Ed.2
IEC 61730
UL 1703



CONFORMS TO UL STD. 1703
CERTIFIED TO UL-CORD STD.C 17391



ET SOLAR
Tel: +86 25 86898096 Fax: +86 25 86898097



M/ET-PD-EN-US2019V2

ELECTRICAL SPECIFICATIONS

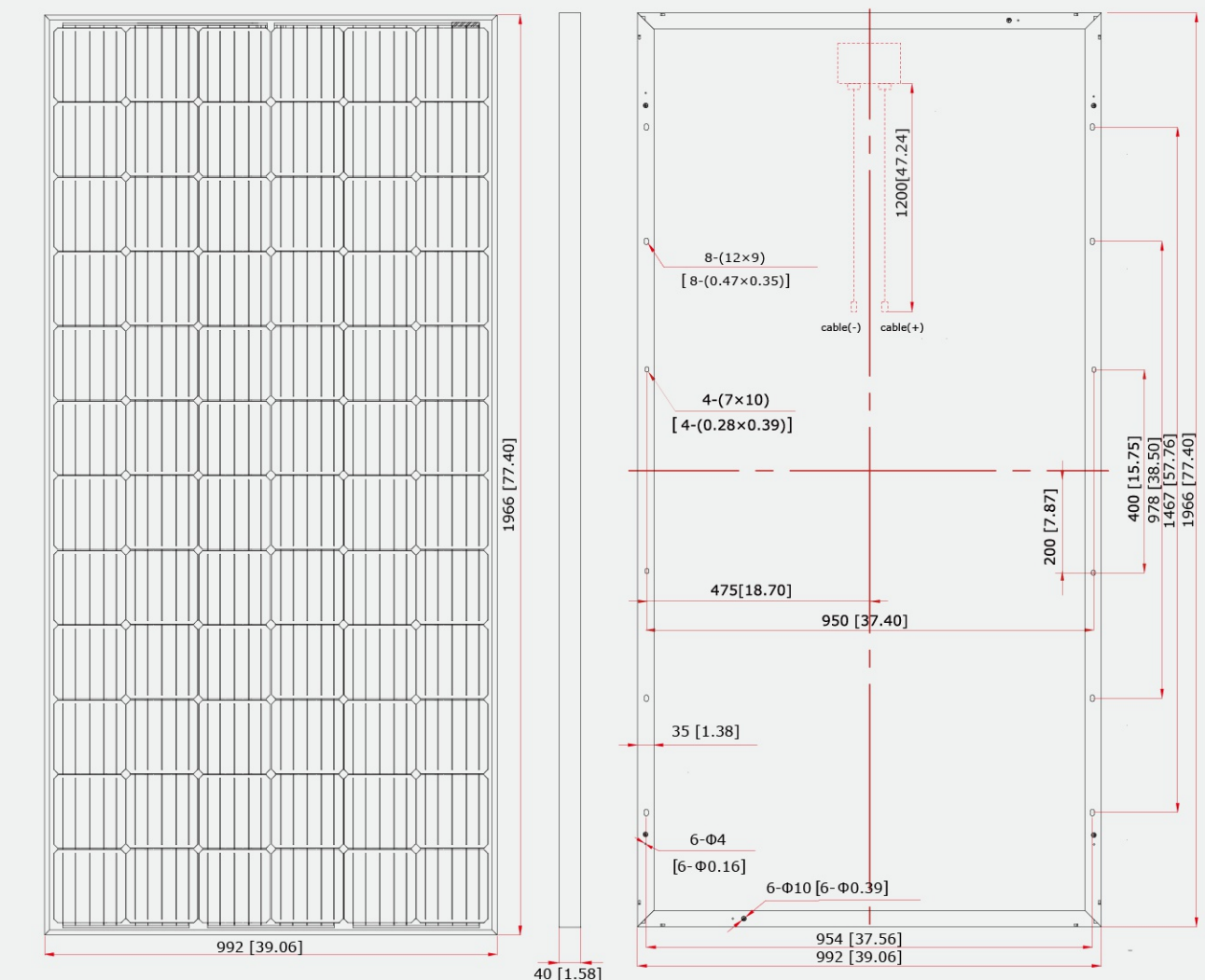
Model Type	ET-M672370WW ET-M672370WB	ET-M672365WW ET-M672365WB	ET-M672360WW ET-M672360WB	ET-M672355WW ET-M672355WB	ET-M672350WW ET-M672350WB
Peak Power (Pmax)	370W	365W	360W	355W	350W
Module Efficiency	18.97%	18.72%	18.46%	18.20%	17.95%
Maximum Power Voltage (Vmp)	39.70V	39.38V	39.05V	38.93V	38.51V
Maximum Power Current (Imp)	9.32A	9.27A	9.22A	9.12A	9.09A
Open Circuit Voltage (Voc)	48.45V	48.22V	47.96V	47.74V	47.64V
Short Circuit Current (Isc)	9.88A	9.77A	9.69A	9.65A	9.59A
Power Tolerance	0 to +5W				
Operating Temperature	- 40 ~ + 85°C				
Maximum System Voltage	DC 1500V				
Nominal Operating Cell Temperature	45±2°C				
Fire Safety	Class C				
Maximum Series Fuse Rating	15A				

MECHANICAL SPECIFICATIONS

Cell Type	156.75mm x 156.75mm
Number of Cells	72 cells in series
Weight	22.6 kg (49.82 lbs)
Dimension	1966×992×40mm (77.40×39.06×1.58 inch)
Max Load	5400 Pascals (112 lb/ft²)
Junction Box	IP67 rated
Connector	MC4 Compatible
Output cable	12AWG:PV Wire

PHYSICAL CHARACTERISTICS

Unit:mm (inch)



TEMPERATURE COEFFICIENT

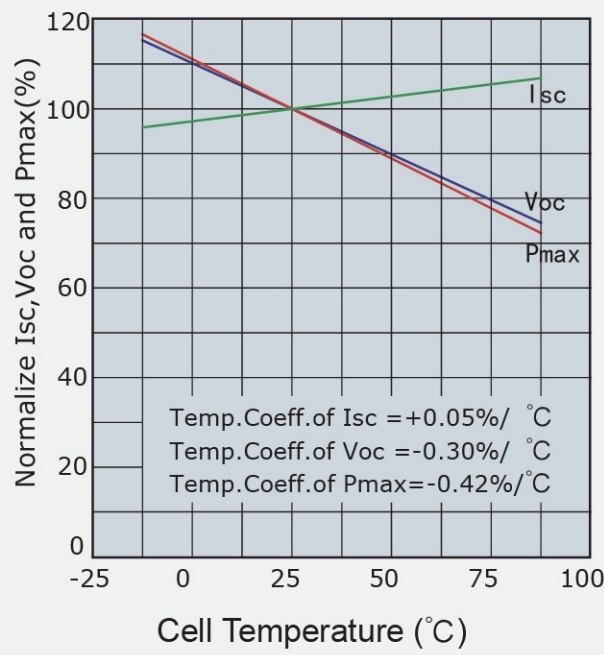
Temp. Coeff. of Isc (TK Isc)	0.05% /°C
Temp. Coeff. of Voc (TK Voc)	-0.30% /°C
Temp. Coeff. of Pmax (TK Pmax)	-0.42% /°C

PACKING MANNER

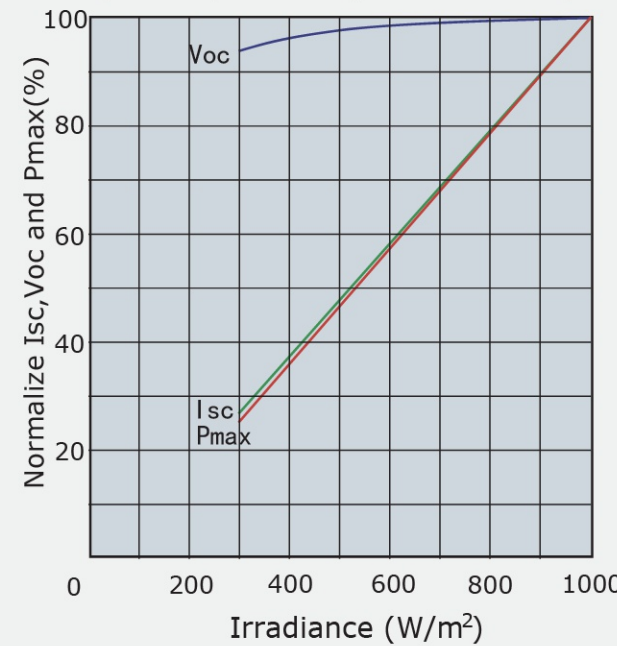
Container	40' HQ
Pieces per Pallet	27
Pieces per Container	708

ELECTRICAL CHARACTERISTICS

Temperature Dependence of Isc, Voc and Pmax



Irradiance Dependence of Isc, Voc and Pmax
(AM1.5, Cell Temperature 25°C)



Note: the specifications are obtained under the Standard Test Conditions (STCs): 1000 W/m² solar irradiance, 1.5 Air Mass, and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800 W/m², 20°C ambient temperature, 1m/s wind speed, AM 1.5 spectrum. Please contact support@etsolar.com for technical support. The actual transactions will be subject to the contracts. This parameters is for reference only and it is not a part of the contracts. The specifications are subject to change without prior notice.

A

PV-5

MODULE DATASHEET
SCALE: NO SCALE

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

MODULE DATASHEET

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-5



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 PVRSS 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.

Key Features

- NEC 2017/2020 PVRSS 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



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



50/60KTL Standard Wire-box



50/60KTL Rapid Shutdown Wire-box



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Chint Power Systems America
6800 Koll Center Parkway, Suite 235 Pleasanton, CA 94566
Tel: 855-584-7168 Mail: AmericaSales@chintpower.com Web: www.chintpowersystems.com



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)	204A (68A per MPPT)		
Number of DC Inputs	15 inputs, 5 per MPPT		
DC Disconnection Type	Load-rated DC switch		
DC Surge Protection	Type II MOV, 2800V _C , 20kA I _{TM} (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 ²	57 - 63Hz		
Power Factor	>0.99 (±0.8 adjustable)		
Current THD @ Rated Load	<3%		
Max. Fault Current Contribution (1 Cycle RMS)	64.1A (1.06/0.88 PU)		
Max. OCPD Rating	110A		125A
AC Disconnection Type	Load-break rated AC switch		
AC Surge Protection	Type II MOV, 1240V _C , 15kA I _{TM} (8/20..S)		
System and Performance			
Topology	Transformerless		
Max. Efficiency	98.8%		
CEC Efficiency	98.5%		
Stand-by / Night Consumption	<1W		
Environment			
Enclosure Protection Degree	NEMA Type 4X		
Cooling Method	Variable speed cooling fans		
Operating Temperature Range ³	-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 / 4000m (derating from 9842.5ft / 3000m)		
Audible Noise	<60dBA @ 1m and 25°C		
Display and Communication			
User Interface and Display	LCD+LED		
Inverter Monitoring	SunSpec, Modbus RS485		
Site Level Monitoring	CPS FlexOM Gateway (1 per 32 inverters)		
Modbus Data Mapping	CPS		
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 ⁶) Wire range: #14 - #6AWG CU		
Fused String Inputs (5 per MPPT) ⁷	RSD ⁶ 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, IEEE1547a-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			
Standard	10 years		
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 ≥V_{min}, at 45°C when PF=1 and MPPT ≥V_{min}, and at 50°C when PF=1 and MPPT V ≥ 700Vdc.
4) See user manual for further requirements regarding non-operating conditions.
5) Shade Cover accessory required for installation angles of 75 degrees or less.
6) RSD wire-box only includes fuses/fuseholders on the positive polarity, compliant with NEC 2017, 690.9 (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.

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

INVERTER DATASHEET

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

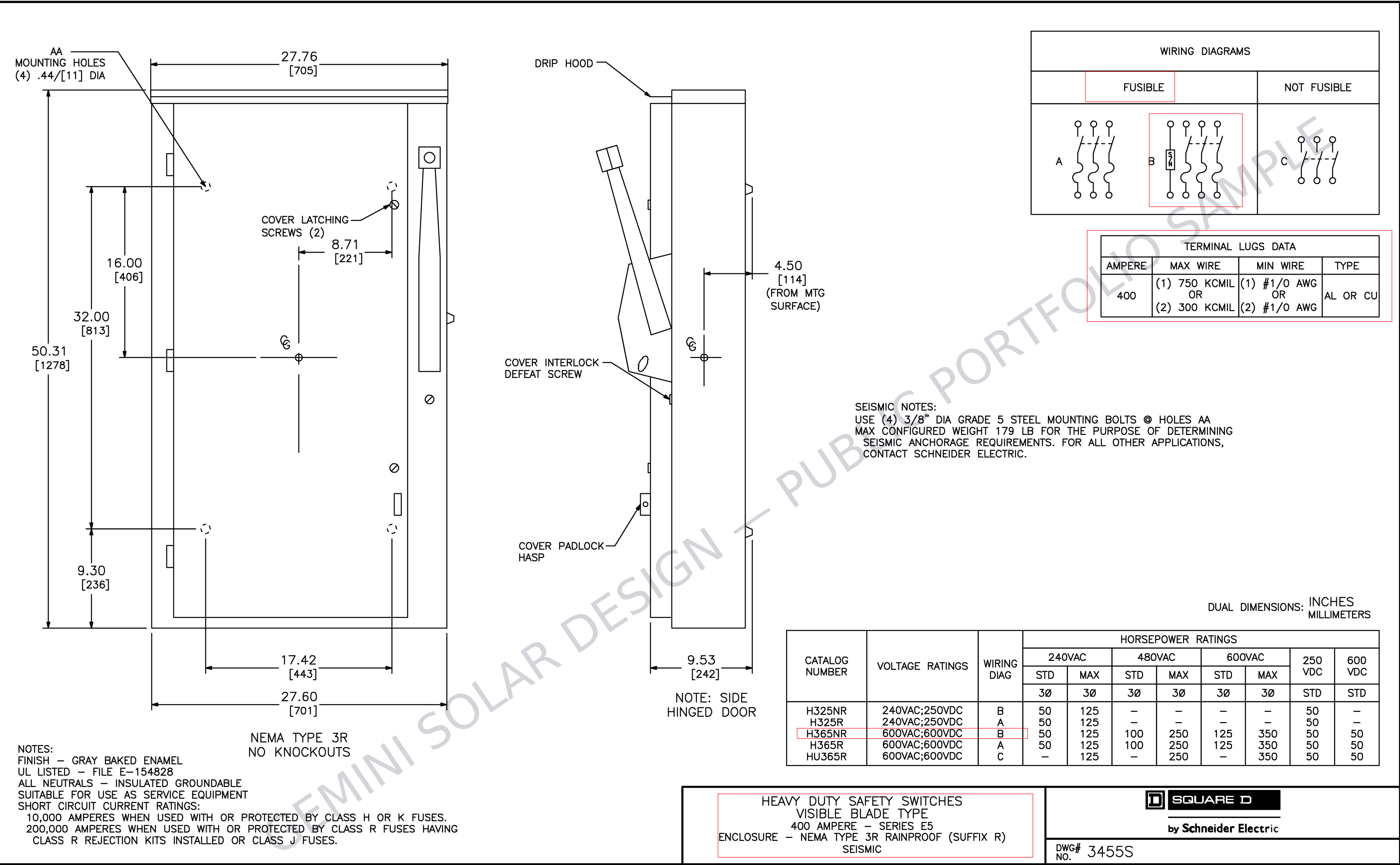
DATE: 5/11/2022

PV-6

A

PV-6

STRING INVERTER DATASHEET
SCALE: NO SCALE



(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

AC DISCO DATASHEET

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-7

A

PV-7

AC DISCONNECT DATASHEET

SCALE: NO SCALE



TS4-A-2F

Module-level PV Rapid Shutdown for Two Modules

The TS4-A-2F (Fire Safety) is the advanced add-on rapid shutdown solution that brings smart module functionality to standard PV modules for higher reliability. Ensure safety by upgrading existing PV systems or by adding safety features to new installations.

The TS4-A-2F complies with NEC 2017 & 2020 690.12 Rapid Shutdown specifications when installed with the Tigo RSS Transmitter or an inverter with built-in Tigo certified transmitter.

Included Features



Fire Safety

Enhanced **safety** for NEC 690.12 rapid shutdown compliance

Easy Installation

Snap to standard module frame or remove clips for rack mounting

PLC Signaling

Control rapid shutdown with the Tigo RSS Transmitter

Automatic Shutdown

PV array enters rapid shutdown in event of AC grid loss



TS4-A-2F SPECIFICATIONS

Environmental

Operating Temperature Range -30°C to +70°C (-22°F to +158°F)

Outdoor Rating IP68, NEMA 3R

Mechanical

Dimensions 138.4mm x 139.7mm x 22.9mm

Weight 590g

Electrical

Max Input Voltage (V_{oc} @ Lowest Temperature) 80V

Input Voltage Range (per input) 16 - 80V

Maximum Output Voltage 160V (80V per input)

Maximum Current (per input) 15A

Maximum Power (total) 1000W

Cable Lengths (in/out) 0.12 and 0.2m/2.2m (standard)
1.2 and 1.3m/ 2.4m (optional)

Connectors MC4 (standard), EVO2 (optional)

Communication Type PLC

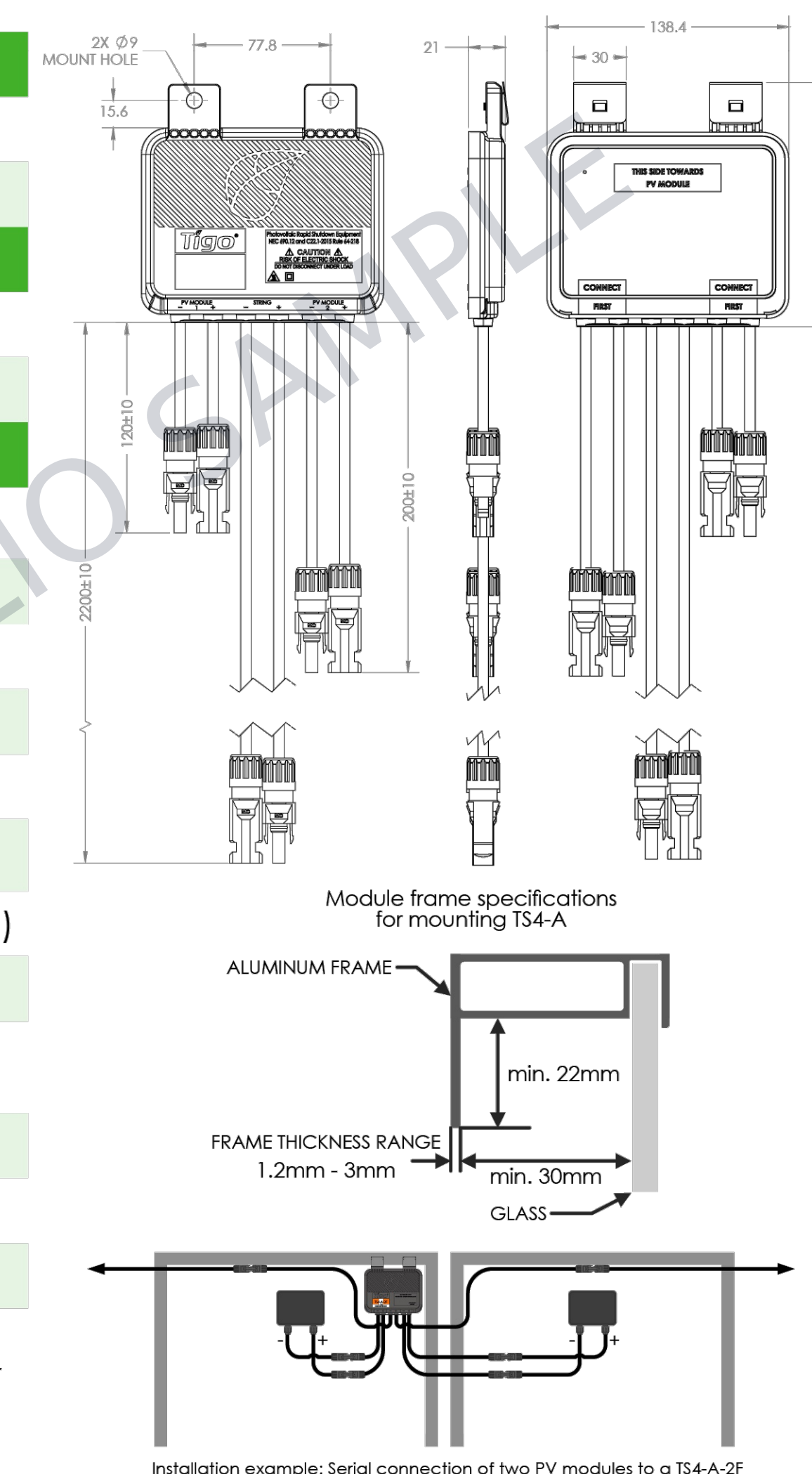
Rapid Shutdown UL Listed (NEC 2017 & 2020 690.12) Yes

Rapid Shutdown Time Limit 30 secs or less**

Conductor AWG Range 10-12AWG

PVRSF Controlled Conductors ≤30 Vdc, ≤240VA, ≤8A**

Rapid shutdown activation of TS4-A-2F requires RSS Transmitter.
*Maximum output voltage of the TS4 is dependent on the PV module voltage. Refer to PV modules nameplate.
**Limits are based on NEC 690.12 rapid shutdown requirements.



ORDERING INFORMATION

Standard

484-00252-22 15A, 1000W, 1500VUL/1000VIEC, 2.2m Cable, MC4

Optional

484-00252-24 15A, 1000W, 1500VUL/1000VIEC, 1.2/1.3/2.4M Cable, MC4

484-00261-22 15A, 1000W, 1500VUL/IEC, 2.2M Cable, EVO2

484-00261-24 15A, 1000W, 1500VUL/IEC, 1.2/1.3/2.4M Cable, EVO2



Tigo®

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www.tigoenergy.com P: +1.408.402.0802 F: +1.408.358.6279 | sales@tigoenergy.com

For sales info:

sales@tigoenergy.com or 1.408.402.0802

For product info:

Visit tigoenergy.com/products

For technical info:

Visit support.tigoenergy.com

For additional info and product selection assistance, use Tigo's online design tool at tigoenergy.com/design



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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

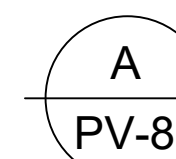
RAPID SHUTDOWN

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

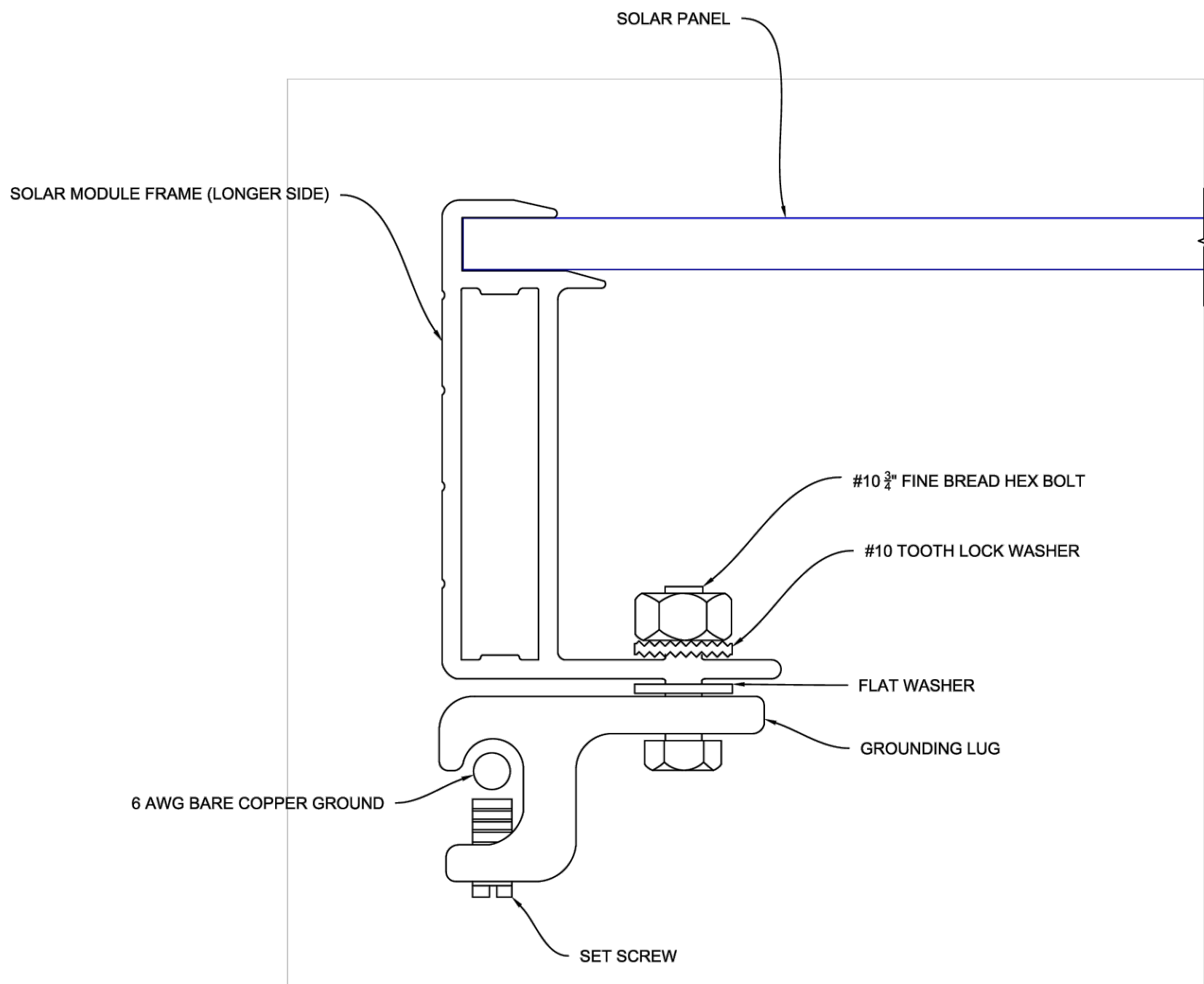
DATE: 5/11/2022

PV-8

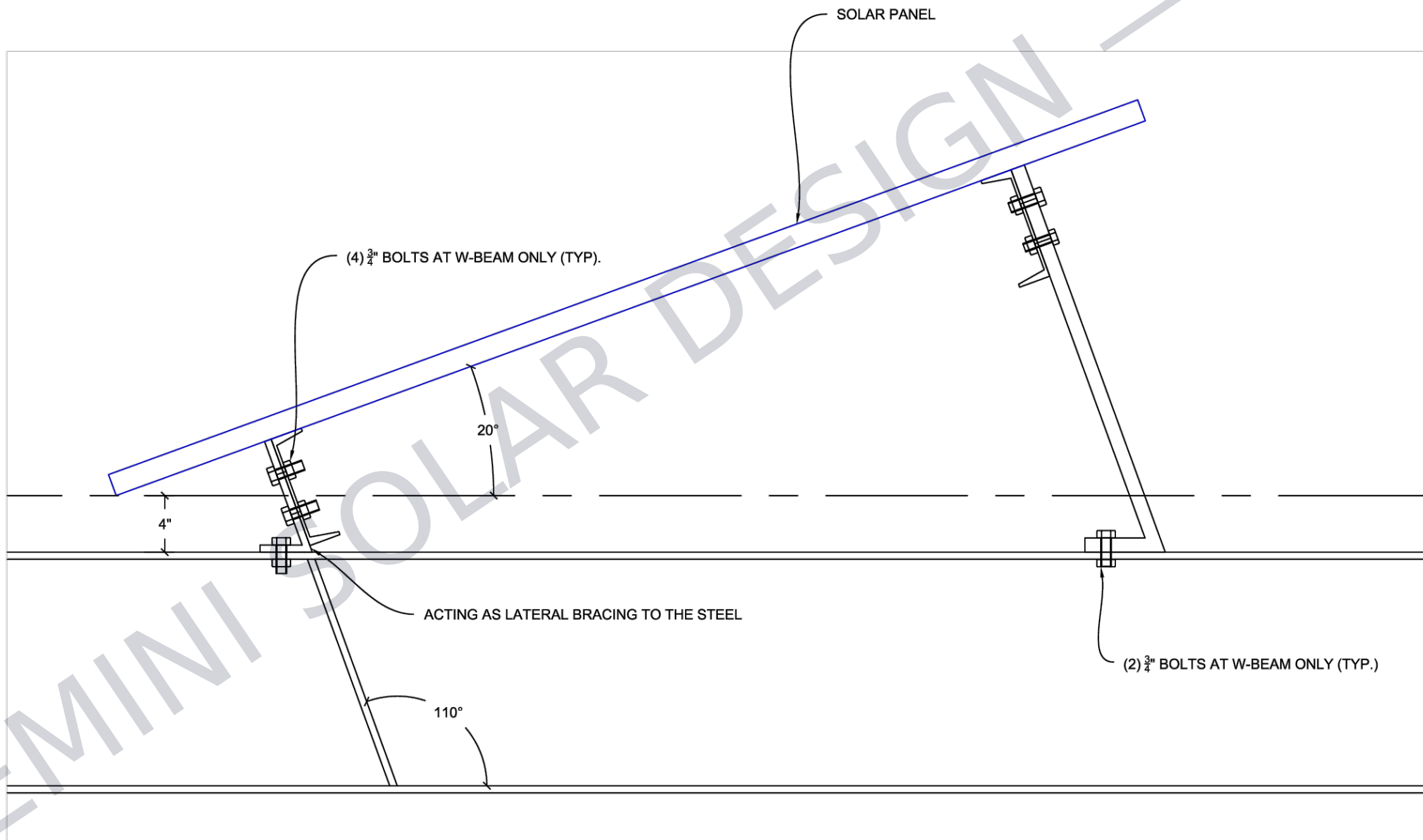


MODULE LEVEL RAPID SHUTDOWN DATASHEET
SCALE: NO SCALE

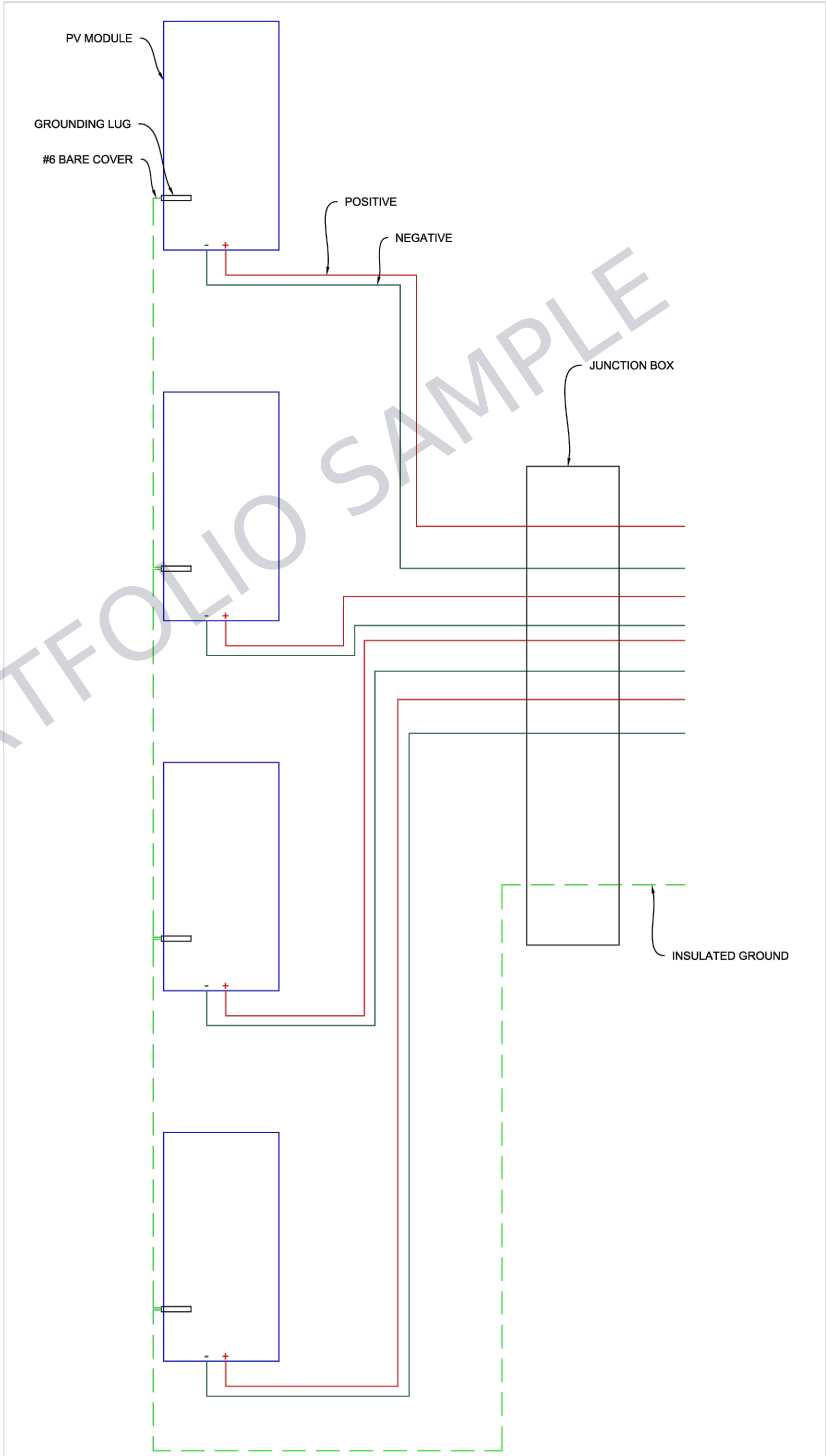
GROUNDING DIAGRAM NOTES	
1	PROPER HARDWARE FOR A COMPLETE GROUNDING AND BONDING SYSTEM SHALL BE INSTALLED BY THE CONTRACTOR, IF NECESSARY.
2	GROUNDING RODS SHALL HAVE A RESISTANCE TO GROUND OF 25 OHMS OR LESS AND SHALL BE 5/8" X 8' MIN, COPPER-BONDED STEEL. ALL GROUND CLAMPS USED SHALL BE UL 467 LISTED.
3	GROUNDING ELECTRODE CONDUCTOR (G.E.C.) SHALL BE CONTINUOUS AND/OR IRREVERSIBLY SPLICED/WELDED.
4	SOLAR PV SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH NEC 690 PART V: GROUNDING.
5	ACCESS TO ELECTRICAL COMPONENTS OVER 150 VOLTS TO GROUND SHALL BE RESTRICTED TO QUALIFIED PERSONNEL.
6	PV MODULES FRAMES SHALL BE BONDED TO RACKING RAIL OR BARE COPPER G.E.C. PER THE MODULE MANUFACTURER'S LISTED INSTRUCTION SHEET.
7	PV MODULES RACKING SHALL BE BONDED TO BARE COPPER G.E.C VIA WEEB LUG, ILSCO GBL-4DBT LAY-IN LUG, OR EQUIVALENT LISTED LUG.



1 GROUNDING LUG DETAIL
Scale: 3"=1'-0"



2 TYPICAL SECTION AT SOLAR PANELS
Scale: 1-1/2"=1'-0"



3 GROUNDING DIAGRAM
Scale: NTS

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

GROUNDING DIAGRAM

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-G1A

GROUNDING DIAGRAM NOTES	
1	PROPER HARDWARE FOR A COMPLETE GROUNDING AND BONDING SYSTEM SHALL BE INSTALLED BY THE CONTRACTOR, IF NECESSARY.
2	GROUNDING RODS SHALL HAVE A RESISTANCE TO GROUND OF 25 OHMS OR LESS AND SHALL BE 5/8" X 8' MIN, COPPER-BONDED STEEL. ALL GROUND CLAMPS USED SHALL BE UL 467 LISTED.
3	GROUNDING ELECTRODE CONDUCTOR (G.E.C.) SHALL BE CONTINUOUS AND/OR IRREVERSIBLY SPLICED/WELDED.
4	SOLAR PV SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH NEC 690 PART V: GROUNDING.
5	ACCESS TO ELECTRICAL COMPONENTS OVER 150 VOLTS TO GROUND SHALL BE RESTRICTED TO QUALIFIED PERSONNEL.
6	PV MODULE FRAMES SHALL BE BONDED TO RACKING RAIL OR BARE COPPER G.E.C. PER THE MODULE MANUFACTURER'S LISTED INSTRUCTION SHEET.
7	PV MODULE RACKING SHALL BE BONDED TO BARE COPPER G.E.C VIA WEEB LUG, ILSCO GBL-4DBT LAY-IN LUG, OR EQUIVALENT LISTED LUG.

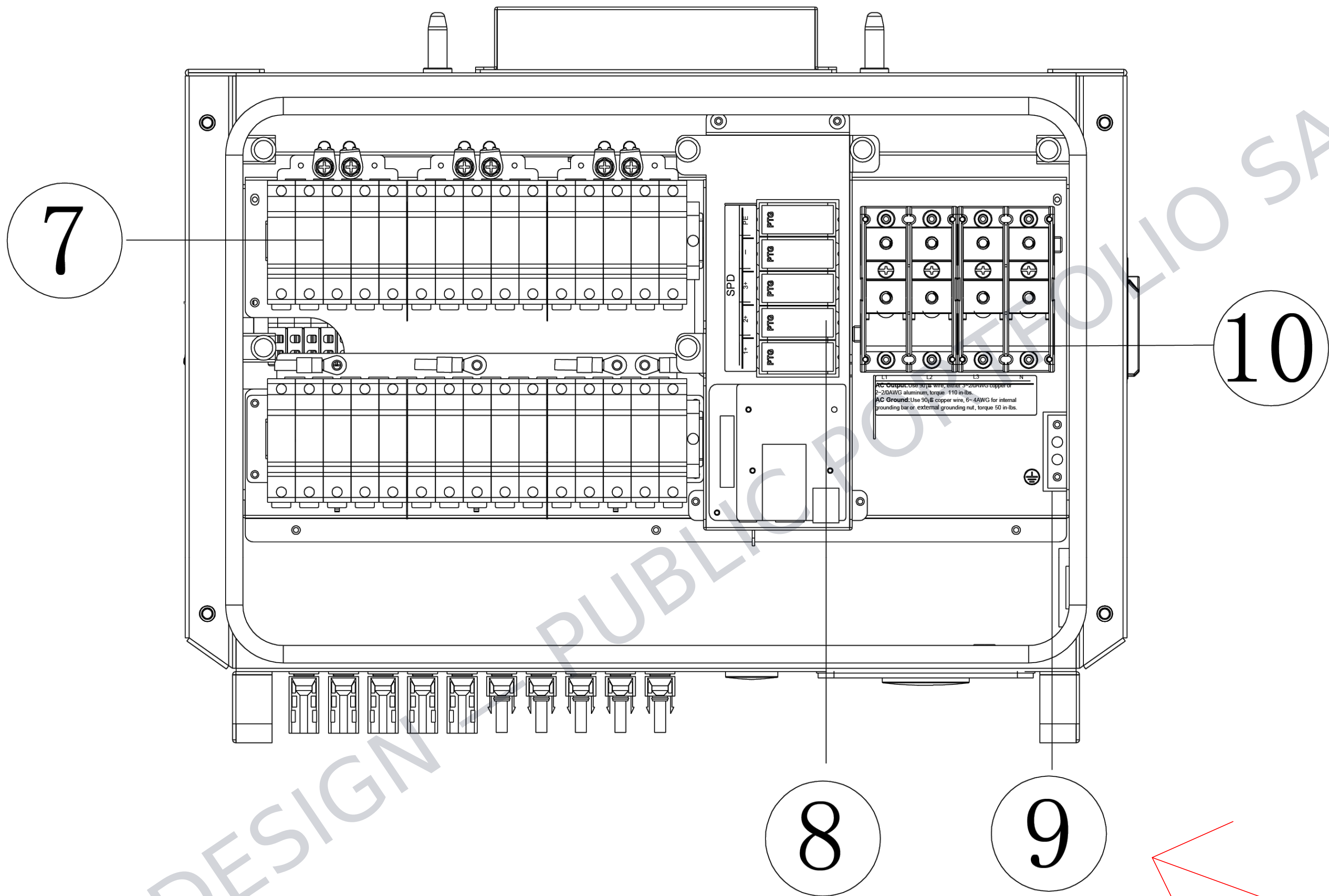


Figure 3-20(b) Internal Connection Points within the H4 wirebox

- ⑦ DC Input fuse holder
- ⑧ DC SPD (Surge Protective Device)
- ⑨ Internal ground terminal
- ⑩ AC output terminal block

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

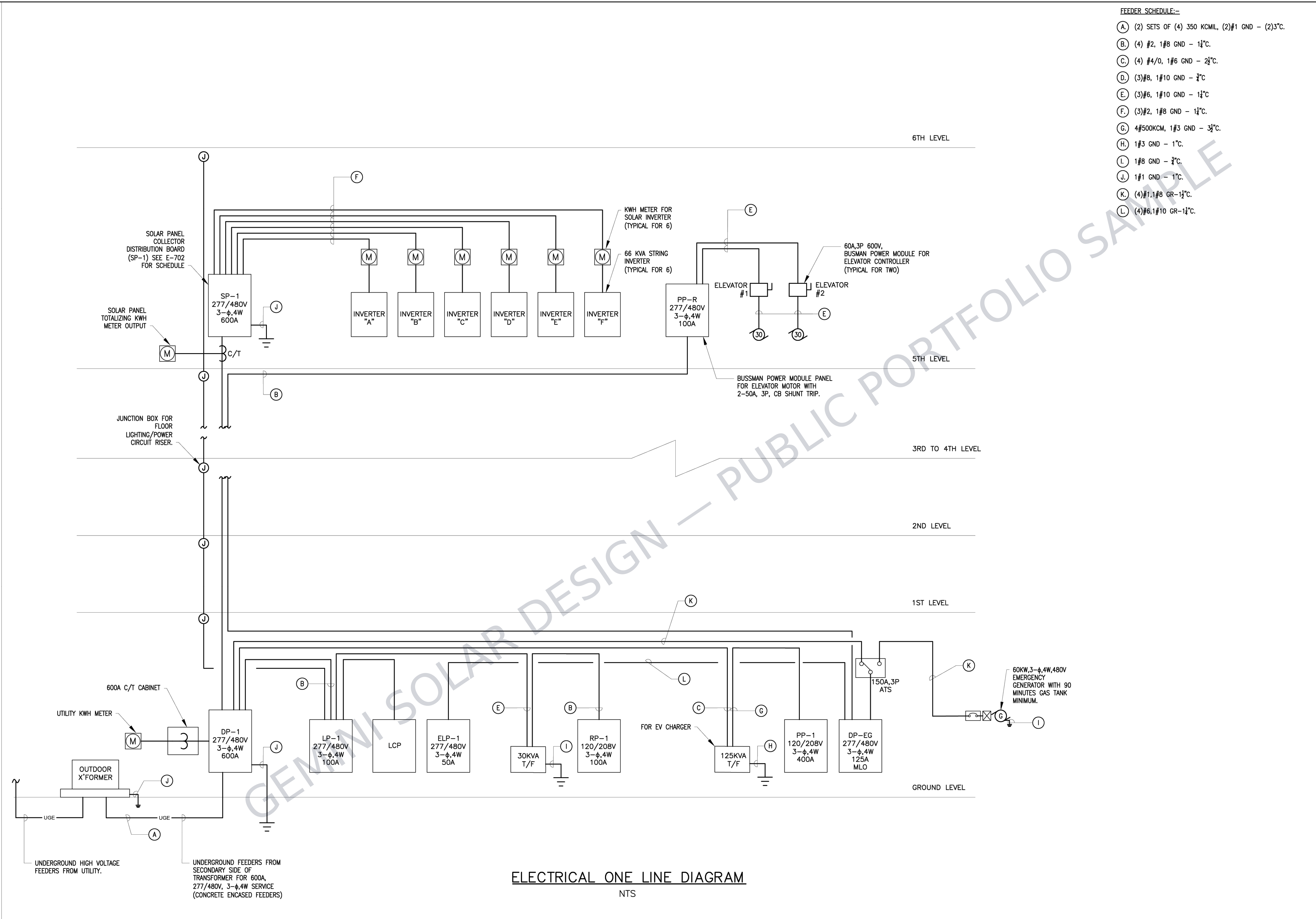
(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE
ARCH D (36" X 24")

GROUNDING DIAGRAM

PROJECT NO: GSD-20220511-175951
DRAWN BY: SCM
DATE: 5/11/2022

PV-G1B



FEEDER SCHEDULE:-

- (A) (2) SETS OF (4) 350 KCMIL, (2)#1 GND - (2)3°C.
- (B) (4) #2, 1#8 GND - 1 $\frac{1}{2}$ °C.
- (C) (4) #4/0, 1#6 GND - 2 $\frac{1}{2}$ °C.
- (D) (3)#8, 1#10 GND - $\frac{3}{4}$ °C.
- (E) (3)#6, 1#10 GND - 1 $\frac{1}{2}$ °C.
- (F) (3)#2, 1#8 GND - 1 $\frac{1}{2}$ °C.
- (G) 4#500KCM, 1#3 GND - $\frac{3}{2}$ °C.
- (H) 1#3 GND - 1°C.
- (I) 1#8 GND - $\frac{3}{4}$ °C.
- (J) 1#1 GND - 1°C.
- (K) (4)#1, 1#8 GR-1 $\frac{1}{2}$ °C.
- (L) (4)#6, 1#10 GR-1 $\frac{1}{2}$ °C.

(LOGO WITHHELD FOR SAMPLE)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

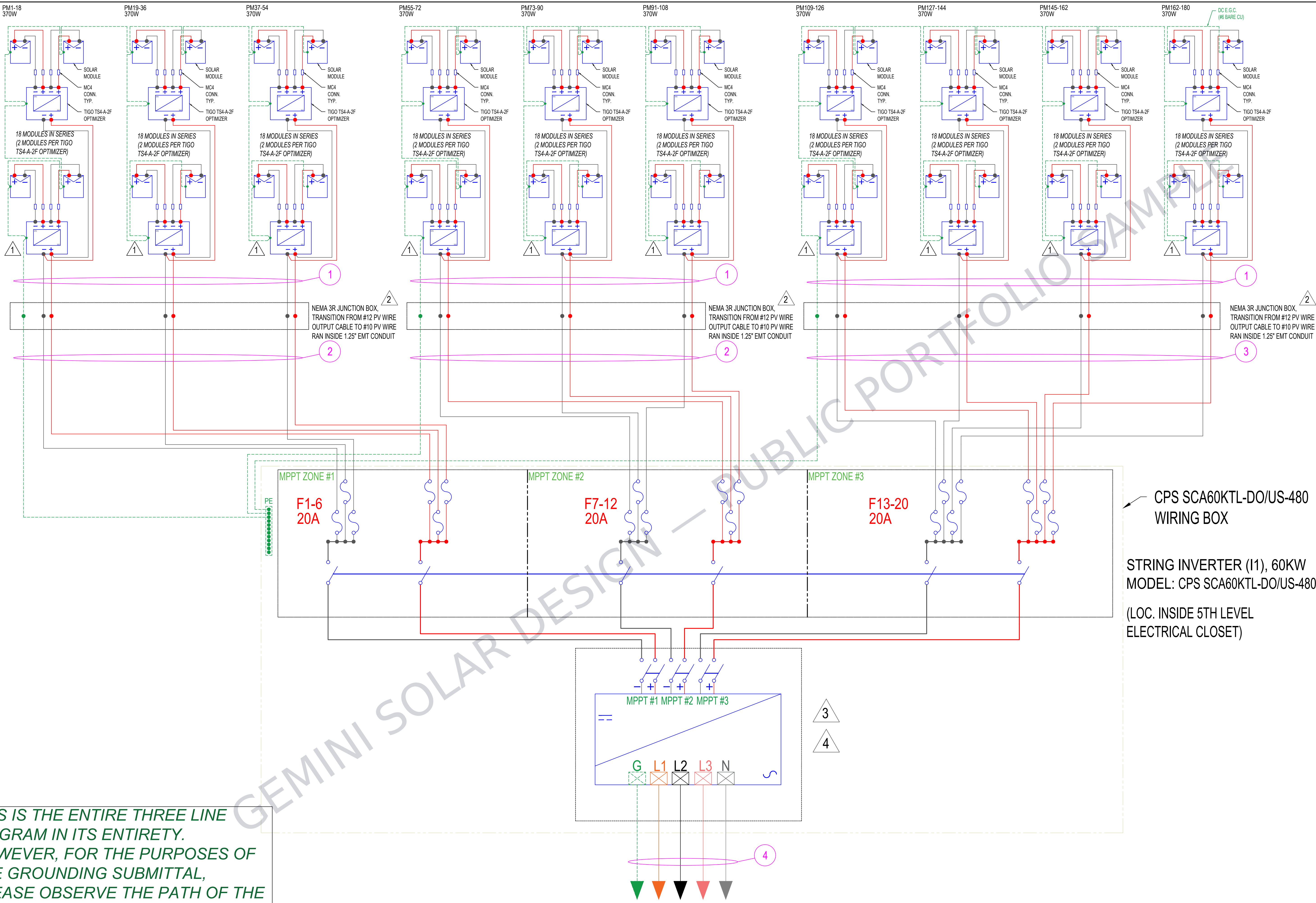
GROUNDING DIAGRAM

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-G1C



THIS IS THE ENTIRE THREE LINE DIAGRAM IN ITS ENTIRETY. HOWEVER, FOR THE PURPOSES OF THE GROUNDING SUBMITTAL, PLEASE OBSERVE THE PATH OF THE GROUNDING AND ONLY THE GROUNDING AS THAT IS THE POINT OF RELEVANCE FOR THE SUBMITTAL.

A THREE-LINE DIAGRAM (INVERTER #1, DC ONLY)
PV-G2 SCALE: NO SCALE

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

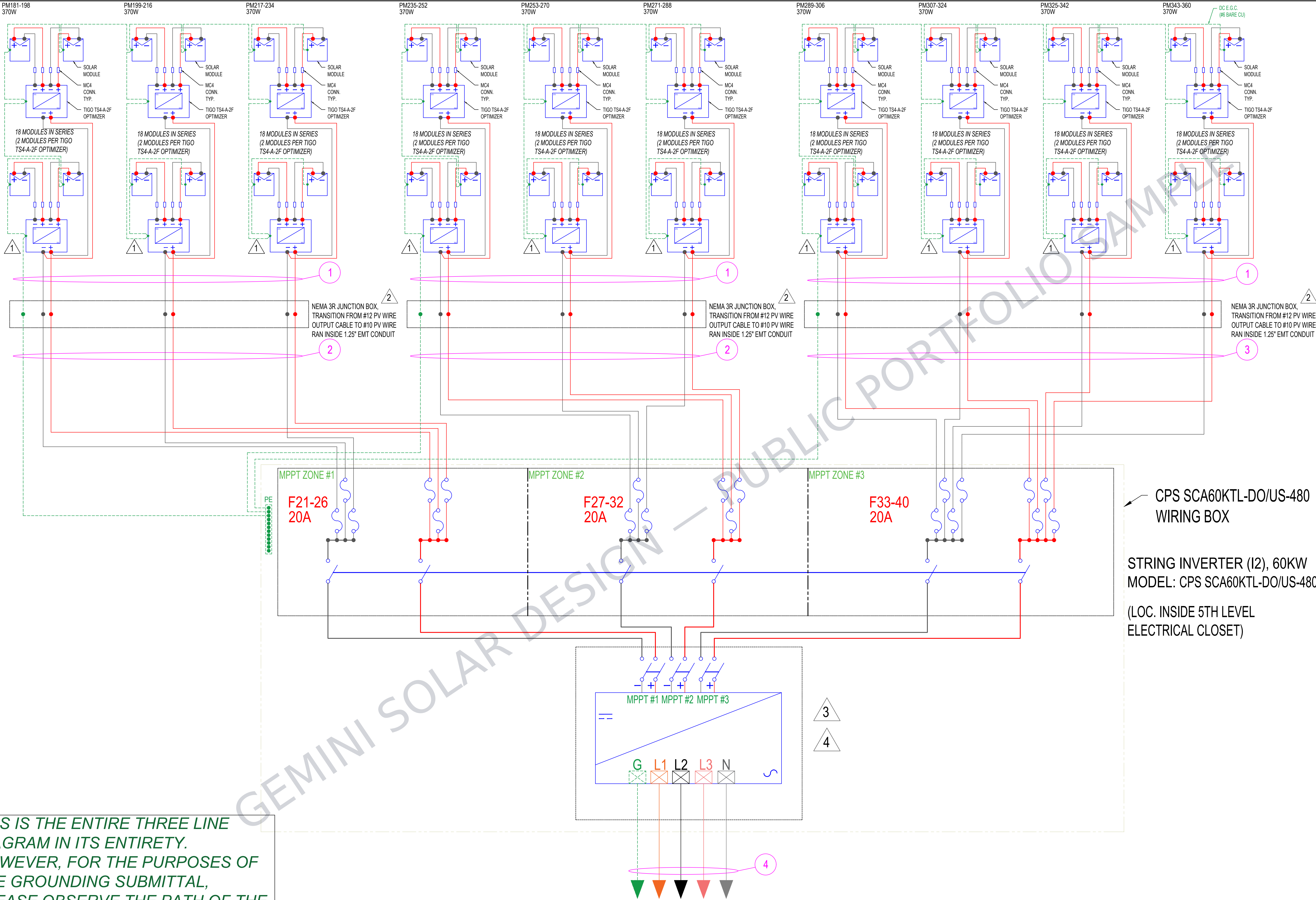
(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE
ARCH D (36" X 24")

GROUNDING DIAGRAM

PROJECT NO: GSD-20220511-175951
DRAWN BY: SCM
DATE: 5/11/2022

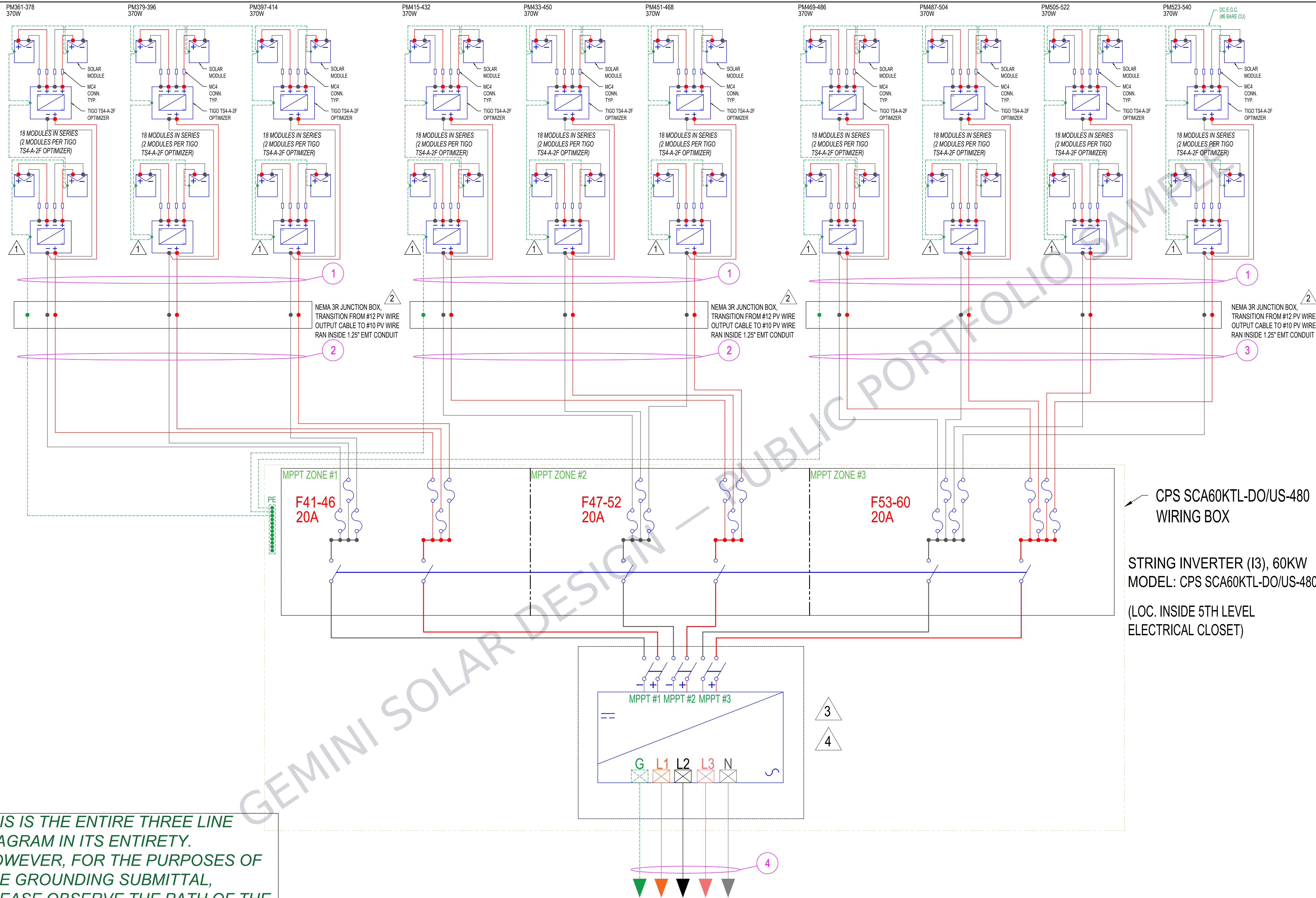
PV-G2



THIS IS THE ENTIRE THREE LINE
DIAGRAM IN ITS ENTIRETY.
HOWEVER, FOR THE PURPOSES OF
THE GROUNDING SUBMITTAL,
PLEASE OBSERVE THE PATH OF THE
GROUNDING AND ONLY THE
GROUNDING AS THAT IS THE POINT
OF RELEVANCE FOR THE SUBMITTAL.

A THREE-LINE DIAGRAM (INVERTER #2, DC ONLY)
PV-G3 SCALE: NO SCALE

(LOGO WITHHELD FOR SAMPLE)	
(INFO WITHHELD)	
PHONE: (INFO WITHHELD)	
LICENSE NO.: (INFO WITHHELD)	
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NEW GRID-TIED SYSTEM 266.40KW DC	(INFO WITHHELD FOR PUBLIC SAMPLE)
SHEET SIZE ARCH D (36" X 24")	
GROUNDING DIAGRAM	
PROJECT NO: GSD-20220511-175951 DRAWN BY: SCM DATE: 5/11/2022	
PV-G3	



THIS IS THE ENTIRE THREE LINE
DIAGRAM IN ITS ENTIRETY.
HOWEVER, FOR THE PURPOSES OF
THE GROUNDING SUBMITTAL,
PLEASE OBSERVE THE PATH OF THE
GROUNDING AND ONLY THE
GROUNDING AS THAT IS THE POINT
OF RELEVANCE FOR THE SUBMITTAL.

A THREE-LINE DIAGRAM (INVERTER #3, DC ONLY)
PV-G4 SCALE: NO SCALE

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

PHONE: (INFO WITHHELD)

LICENSE NO.: (INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE
ARCH D (36" X 24")

GROUNDING DIAGRAM

PROJECT NO: GSD-20220511-175951
DRAWN BY: SCM
DATE: 5/11/2022

PV-G4

CONDUCTOR SCHEDULE WITH NEC ELECTRICAL CALCULATIONS																		
ID	TYP	DESCRIPTION	CONDUCTOR	CONDUIT	NO. OF CURRENT CARRYING CONDUCTORS IN CONDUIT	FILL %	RATED AMPS	OCPD	EGC / NEUTRAL	TEMP. CORR. FACTOR @ 90°C TEMP. RATING	FILL ADJ. FACTOR	CONT. CURRENT	MAXIMUM CURRENT	TERMINAL RATING CHECK (ASSUME 75°C) SHALL EXCEED 1.25X CONT. CURRENT	BASE AMPACITY @ 90°C TEMP. RATING	CONDITIONS OF USE (COU) @ 90°C TEMP. RATING	APPROXIMATE LENGTH OF LONGEST WIRE RUN (IN FEET)	CALCULATED VOLTAGE DROP (IN PERCENT)
1	40	PV SOURCE CIRCUIT: SERIES STRING OUTPUT TO JUNCTION BOX	12 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	FREE AIR	N/A	N/A	9.88A (I_SC)	N/A	6 AWG BARE COPPER	0.76 (54°C) (ON ROOF)	1.0	12.35A (I_SC)	15.44A (I_SC)	25A > 15.44A PASS	40A <i>(IN FREE AIR)</i>	30.4A <i>(IN FREE AIR)</i>	235 FEET	0.73%
2	8	PV SOURCE CIRCUIT (TRANSITIONED): JUNCTION BOX TO STRING INVERTER	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	1.25" DIA. EMT <i>(3 DC STRINGS IN THIS CONDUIT RUN)</i>	6 <i>3 X DC (+) 3 X DC (-)</i>	26.0%	9.88A (I_SC)	20A (F1-20) 20A (F21-40) 20A (F41-60) 20A (F61-80)	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	0.76 (54°C) (ON ROOF)	0.8	12.35A (I_SC)	15.44A (I_SC)	35A > 15.44A PASS	40A <i>(IN CONDUIT)</i>	24.32A <i>(IN CONDUIT)</i>	110 FEET	0.34%
3	4	PV SOURCE CIRCUIT (TRANSITIONED): JUNCTION BOX TO STRING INVERTER	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	1.25" DIA. EMT <i>(4 DC STRINGS IN THIS CONDUIT RUN)</i>	8 <i>4 X DC (+) 4 X DC (-)</i>	33.5%	9.88A (I_SC)	<i>(FUSES TO BE INSTALLED AT DC TERMINAL BLOCK)</i>	10 AWG PV WIRE COPPER <i>(RATED FOR 1000VDC)</i>	0.76 (54°C) (ON ROOF)	0.7	12.35A (I_SC)	15.44A (I_SC)	35A > 15.44A PASS	40A <i>(IN CONDUIT)</i>	21.28A <i>(IN CONDUIT)</i>		
4	4	STRING INVERTER OUTPUT: STRING INVERTER TO SOLAR-ONLY LOAD CENTER	1 AWG THWN-2 COPPER	1.50" DIA. EMT <i>(EACH STRING INVERTER OUTPUT SHALL BE IN ITS OWN RESPECTIVE EMT CONDUIT)</i>	4 <i>(L1, L2, L3, N) X 1</i>	33.2%	79.4A (I1) 79.4A (I2) 79.4A (I3) 79.4A (I4)	100A / 3P (CB1) 100A / 3P (CB2) 100A / 3P (CB3) 100A / 3P (CB4)	6 AWG THWN-2 COPPER	0.96 (32°C) (INSIDE STRUCTURE)	0.8	79.4A (I1) 79.4A (I2) 79.4A (I3) 79.4A (I4)	99.25A (I1) 99.25A (I2) 99.25A (I3) 99.25A (I4)	130A > 99.25A PASS	150A <i>(IN CONDUIT)</i>	115.2A <i>(IN CONDUIT)</i>	25 FEET	0.12%
5	1	COMBINED OUTPUT OF STRING INVERTERS: SOLAR-ONLY LOAD CENTER TO FUSED AC DISCONNECT (DS1)	750 MCM THWN-2 COPPER	4.00" DIA. EMT	4 <i>(L1, L2, L3, N) X 1</i>	30.0%	317.6A	400A (F81-83) 400A / 3P (DS1)	2/0 AWG THWN-2 COPPER	0.96 (32°C) (INSIDE STRUCTURE)	0.8	317.6A	397A	475A > 397A PASS	535A <i>(IN CONDUIT)</i>	410.88A <i>(IN CONDUIT)</i>	50 FEET	0.25%
6	1	FUSED AC DISCONNECT (DS1) OUTPUT: FUSED AC DISCONNECT (DS1) TO MAIN SERVICE PANEL "DP1" <i>(LOAD-SIDE POINT OF INTERCONNECTION VIA BACKFED TRIPLE POLE CIRCUIT BREAKER)</i>	750 MCM THWN-2 COPPER	4.00" DIA. EMT	4 <i>(L1, L2, L3, N) X 1</i>	30.0%	317.6A	400A / 3P (CB5)	2/0 AWG THWN-2 COPPER	0.96 (32°C) (INSIDE STRUCTURE)	0.8	317.6A	397A	475A > 397A PASS	535A <i>(IN CONDUIT)</i>	410.88A <i>(IN CONDUIT)</i>	5 FEET	0.03%
ALL CONDUCTORS, OCPD SIZES AND TYPES SPECIFIED ACCORDING TO NEC ARTICLES 690.8(A)(1), NEC ARTICLE 240, AND NEC ARTICLE 690.7.																		

(LOGO WITHHELD FOR SAMPLE)

(INFO WITHHELD)

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NEW GRID-TIED SYSTEM 266.40KW DC

(INFO WITHHELD FOR PUBLIC SAMPLE)

SHEET SIZE

ARCH D (36" X 24")

GROUNDING DIAGRAM

PROJECT NO: GSD-20220511-175951

DRAWN BY: SCM

DATE: 5/11/2022

PV-G7