



**April 25, 2025
Addendum #2
FOR IMMEDIATE ATTENTION**

ADDENDUM NO. 2 TO ALL BIDDERS:

Reference – Invitation for Bid:	IFB #019-0-2025/SB Woodside High School Main Distribution Switchboards Replacement
For Delivery To:	Newport News Public Schools
Bids Due:	May 9, 2025 at 2:00 PM EST

The above is hereby changed to read:

- 1. Bid Due Date Extended:** The Bid Due Date is hereby changed from May 6, 2025 at 2:00 P.M. EST to “May 9, 2025 at 2:00 pm EST.”
- 2. Public Bid Opening Zoom Link:** The Zoom link for virtual participants remains unchanged.

Topic: Bid Opening - Woodside HS Switchboard Replacement
Time: May 9, 2025 02:00 PM Eastern Time (US and Canada)
<https://nn-k12-va-us.zoom.us/j/84942750215?pwd=y2egg0QJn9Y4nNqGFxm5KI1QcDRkb0.1>
Meeting ID: 849 4275 0215
Passcode: 550608
- 3. Pre-Bid Questions and Responses:** See the following.
- 4. Woodside High School Solar Photovoltaics (PV) Interconnection Specification:** See the following.
- 5. Existing Main Distribution Switchboard #1 and #2:** See the following.

All other provisions of the IFB shall remain unchanged.

Sincerely,
Shannon Bailey, VCCO, VCO
Director of Procurement
shannon.bailey1@nn.k12.va.us
757-591-4560 x10752

Name of Firm

Signature/Title

Date



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JORVAS RODGERS, P.E.

April 25, 2025

ADDENDUM NO. 02

**Woodside HS Switchboard Replacement
Newport News Public Schools
IFB Project No. 019-0-2025SB
Newport News, Virginia
TCE # 21-163**

Except as may be otherwise described, bidding requirements, materials, and workmanship for the work described herein shall conform to all requirements of the original Contract Documents dated March 26, 2025. The following Addendum to the specifications and drawings are made a part of the project and take precedence over the section of the specifications, in part, as originally written and over the drawings, in part, as originally drawn and/or written.

Each Bidder must acknowledge receipt of the Addendum in the space provided on the BID FORM of the Specifications. Failure to do so may subject the Bidder to disqualification.

Questions

Question 1 Some portions of the walls that enclose the switchgear room are going to be removed to allow for the removal and the installation of the new switchgear. This is going to involve removal of the doors and a substantial portion of the cinderblock for this task. Has there been any review of load bearing aspects associated with the removal of the wall? **Answer:** The existing wall is not a load bearing wall.

Question 2 Can the overhead structural support be utilized to mount a chain fall to which will allow for rigging and setting of switchgear. Please provide a load rating for overhead beams. **Answer:** This is a means and methods. If the contractor wants to use the existing overhead structure, it will be the contractor's responsibility to hire a structural engineer to make sure the existing overhead structural integrity is maintained.

Question 3 Can the new gear be stored in the boiler room area during this task? **Answer:** The contractor shall coordinate with Newport News public schools (NNPS), for the location within the existing boiler room for the staging of the switchboards.

Question 4 Portable power will be required during the replacement of the gear from the contractor furnished Generator. Can the temporary cabling be run under the roll up door or will separate penetration be required to get into the room? **Answer:** The cabling

may run under the roll up door. The contractor shall ensure the gap under the door is sealed to eliminate the possibility of rodents entering space.

Question 5 Please provide the load on the emergency panels for sizing temporary generator. **Answer:** Per note 9 on drawing E0.1, the contractor shall provide temporary power to serve panel “E” in the main electrical room during the period of the power outage. Panel “E” is a 250-amp 480/277-volt 3 phase 4 wire panel, as indicated on drawing E0.1 Main Distribution Switchboard (MDS1).

Question 6 Who is responsible for securing systems at each school location? **Answer:** It will be the contractor’s responsibility to disarm and arm the security system at the beginning and end of each workday. Coordinate this with the NNPS.

Question 7 Can removal of the block wall and door begin prior to the start date of this project? This is needed to allow total completion of the contractual documents. **Answer:** The contractor shall coordinate this with the NNPS. A two (2) week notice shall be provided to NNPS prior to work starting.

Question 8 Please provide as built drawings that show existing branch circuit breakers conduits and wire sizes for determinations and new breaker terminations. **Answer:** See attached copies of existing switchboards schedules.

Question 9 The above-referenced project will require the removal of a portion of an interior wall to install the new switchboards. The existing doorway is not large enough to allow for the passage of the new equipment into the electrical room. Are guidelines going to be issued on how this work is to be performed? There is no mention within the electrical drawings and current scope of this work having to take place. Will new door frames and hardware also need to be provided? I am sure this work will also require additional permitting.

Answer: The contractor shall include in his or her bid the following scope of work:

Drawing E1.1 (partial Demo Plan):

1. Existing door located plan north, next to “MDS2” section 1.
 - Remove the existing door and door jamb.
 - Turn over the existing door and door hardware to the owner.
 - Remove a portion of the existing CMU wall and existing MDS2 housekeeping pad located on the left side of MDS2 section 1, to allow for the installation of a new 48”x 80” hollow metal door. Provide a new 48”x 80” hollow metal door with new panic hardware on the electrical room side and locking handle on the boiler room side.
 - Provide a new lock cylinder manufactured by Russwin, Model D2. The lock will be keyed by NNPS to meet their specific keys.
 - The contractor shall ensure all work performed meets all code requirements.
2. Existing door located plan south near existing panel “LE1”:
 - Remove the existing door hardware and turn it over to the owner. Existing wood door to remain.
 - Provide new panic hardware on the electrical room side and locking handle on the boiler room side.

- Provide a new lock cylinder manufactured by Russwin, Model D2. The lock will be keyed by NNPS to meet their specific keys.
- The contractor shall ensure all work performed meets all code requirements.

Question 10 Will there be any plans, specifications, details, etc. provided regarding the reconstruction of the doorways/walls that will require modification to get the old equipment out and the new equipment into the electrical room(s)? Specifically, to ensure the work is done to meet current life safety and building codes. **Answer:** Response to question nine (9) also applies here.

Question 11 The existing door to the electrical rooms is 30" wide by 70" tall, in order to get the new gear in the space. Demo of the existing CMU walls will be required to open the space up in order to fit the new gear in the room. Can you confirm this is the preferred way to gain access, if so, will we go back with a different size door and can you provide specifications on the type of door and door hardware required. Will any structural calcs on the wall be required if CMU blocks are to be demo-ed out to remove/re-install the gear. **Answer:** Response to question nine (9) also applies here.

Question 12 Drawing E0.1 note #4 under the switchboard section stated, "provide bus bar extensions on the line side of the CT compartment for the PV system" From taking with the switchboard manufactures this would have to be completed in the field, the switchboard would not be manufactured this way. If the connection is on the line side of the CT cabinet is the intent to put the stored electricity back on the grid? **Answer:** The contractor shall refer to the specifications provided by Sun Tribe for the required number of lugs needed for the termination of the photovoltaic system. The required termination quantity and size shall be coordinated with the distribution manufacturer so that Sun Tribe can terminate the bussing.

Question 13 The drawings call for panelboard E to remain in service during the shutdown, it looks like panelboard E is already on back power via a generator, can we utilize the existing generator, or should we account for a new generator to power up panelboard E? **Answer:** Contractor shall provide a generator of adequate size per note 9 on drawing E0.1. The current generator is 150 KW.

Question 14 Lead time on larger switchgears could be up to or more than 365 days, if there are issues with getting the switchboard by the time identified in the bid documents, what would be the solution if there are issues with lead time, would the project then turn into weekend work? Or would we wait until a school break. **Answer:** The project shall be completed as indicated in the project documents.

Question 15 Is the wall with the doors to the Electrical Room Structural? **Answer:** No.

Question 16 What are actual loads on Panel E that need to be backed up by generator, and is there a calculated load for those circuits? **Answer:** Response to question five (5) will apply here.

Question 17 According to Dominion Energy's Blue book section 760.8. Connection of customer generation is not allowed on the line side of metering equipment and will not register correctly. This connection is not available from the manufacturer of the new switchboards within the Dominion Energy section. Therefore, is it the responsibility of others to provide a means to and reconnect the photovoltaic system to the NEW switchboard? **Answer:** Per Sun Tribe, the termination will be on the load side of the CT compartment directly to the bussing. The contractor shall refer to the specifications provided by Sun Tribe. Contact Taylor Brown at 423-987-2210 for coordination and questions.

Question 18 The new Switchboards' Dominion Energy approved Incoming & CT compartments are manufactured to Dominion Energy's standards and have received prior approval. In accordance with Dominion Energy's blue book section 680.2 & 680.17 this section is not to be used for customer auxiliary, or are any modifications permitted. Therefore, there is no place for connection to existing photovoltaic system available from the switchboard manufacturer within a Dominion Energy approved incoming & CT compartment. Is it acceptable to provide a Dominion approved section with the responsibility for reconnecting the solar to be by others? **Answer:** The contractor shall refer to the specifications provided by Sun Tribe for the required number of lugs needed for the termination of the photovoltaic system. The required termination quantity and size shall be coordinated with the distribution manufacturer so that Sun Tribe can terminate the bussing.

END OF ADDENDUM NO. 2

Woodside High School PV Interconnection Specification

Project: Woodside High School Solar

Prepared for: Building Owner / Switchboard Manufacturer

Date: 4.24.25

Summary

The 720kW PV system at Woodside High School terminates in the bussed pull section of the 4000A switchboard on the supply side of the main breaker. For the replacement of the switchboard, it is recommended that this supply-side interconnection method be maintained to ensure compatibility with existing PV conductors, cable limiters, and system layout. There are two 600A PV system disconnects and one Power Quality Meter circuit on the exterior of the building that are fed into the electrical room. Refer to As-Built electrical set for full system details.

Conductor Termination Requirements

PV PHASE CONDUCTORS

- (4) sets of 500 kcmil CU THWN-2
- Each terminated with a cable limiter
 - Includes NEMA 2-hole tongue for connection to copper bus
- Bolt stack shall include:
 - Grade 5 hex bolt
 - One flat washer (hardened steel or tin-plated copper) and one Belleville washer (spring washer, high-carbon steel alloy AISI 1074 or equivalent) per bolt
- Conductors shall be reused and re-terminated in the new switchboard as shown in the existing configuration

PV NEUTRAL CONDUCTORS

- (4) 3/0 CU THWN-2 conductors
- Terminated with UL-listed compression lugs (2-hole NEMA pattern)
- Connected to the neutral bus using grade 5 hardware with flat washers
- Conductors shall be reused and re-terminated in the new switchboard as shown in the existing configuration

PV GROUNDING ELECTRODE CONDUCTORS

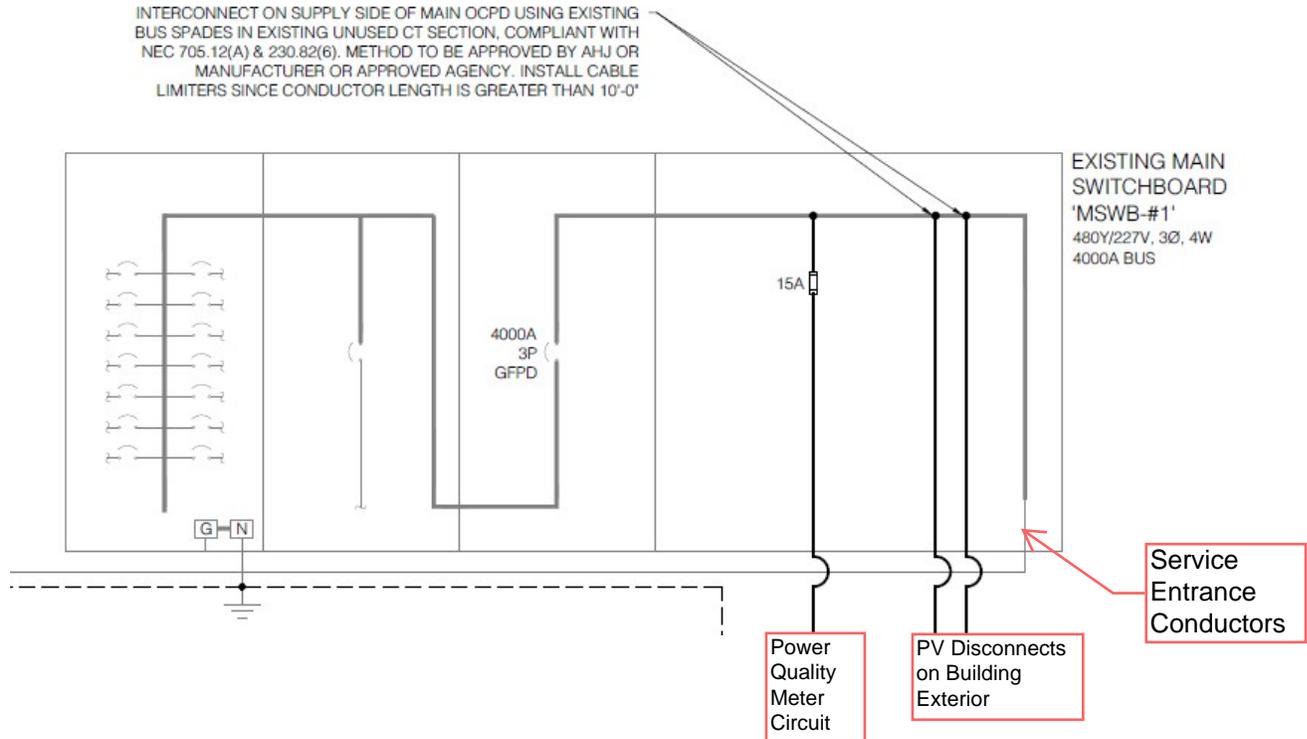
- (2) 2/0 CU THWN-2 conductors
 - Terminated to the ground bus using UL-listed compression lugs with 1-hole tongue
 - Each secured with a flat washer and torque-marked bolt to ensure proper mechanical and electrical contact
-

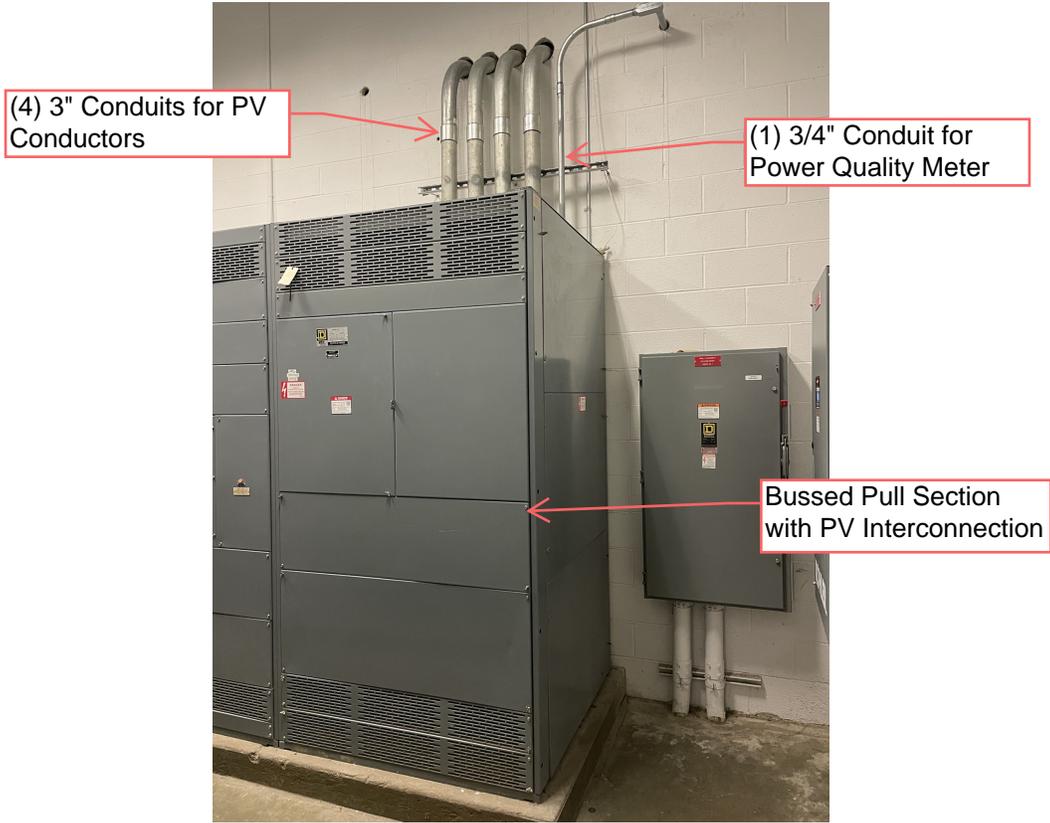
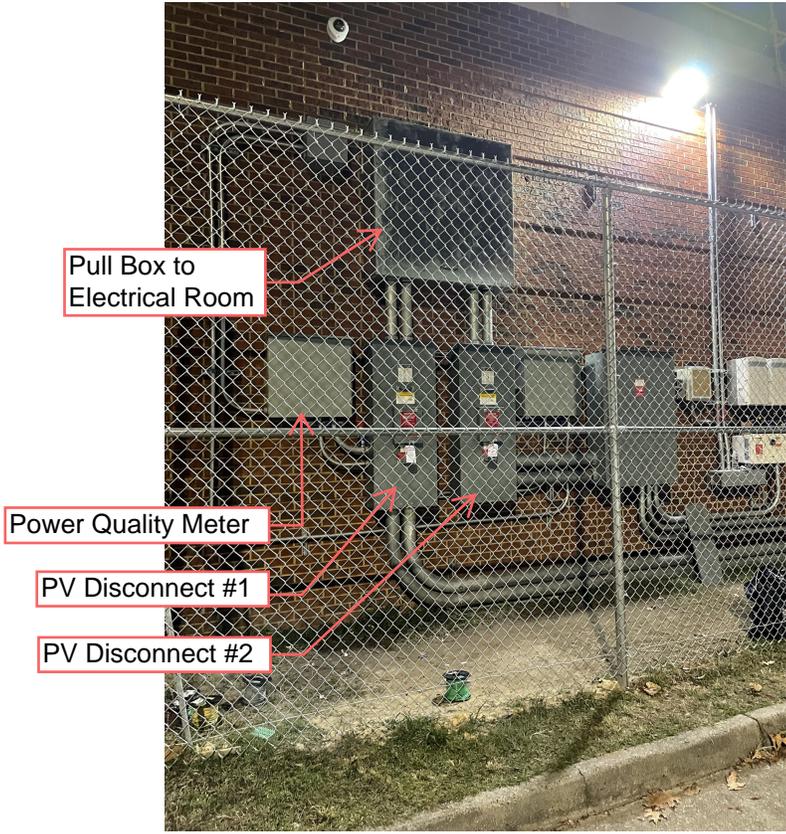
- Conductors shall be reused and re-terminated in the new switchboard as shown in the existing configuration

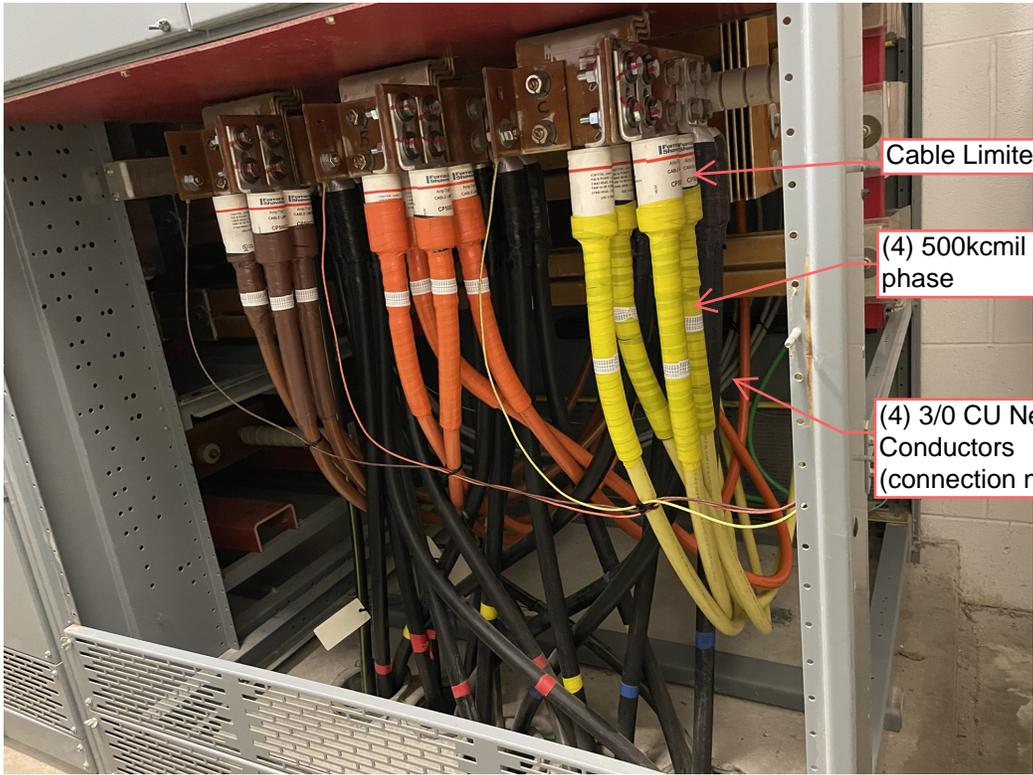
POWER QUALITY METER CIRCUIT

- Phase Conductors - (3) #12 CU THWN-2
- Neutral Conductor - (1) #12 CU THWN-2
- EGC - (1) #12 CU THWN-2
- Fusing:
 - (3) Class CC, 600V, 15A time-delay fuses
 - DIN-rail-mounted touch-safe fuse holders in switchboard bus section
- Wiring:
 - Reuse existing #12 CU THWN-2 conductors
 - Provide terminal blocks or wire lugs as needed to support termination of control and voltage sensing conductors within the switchboard interior
- These components support the voltage sensing and operational integrity of the revenue-grade Power Quality Meter and must be fully replicated in the new switchboard assembly.

Photos





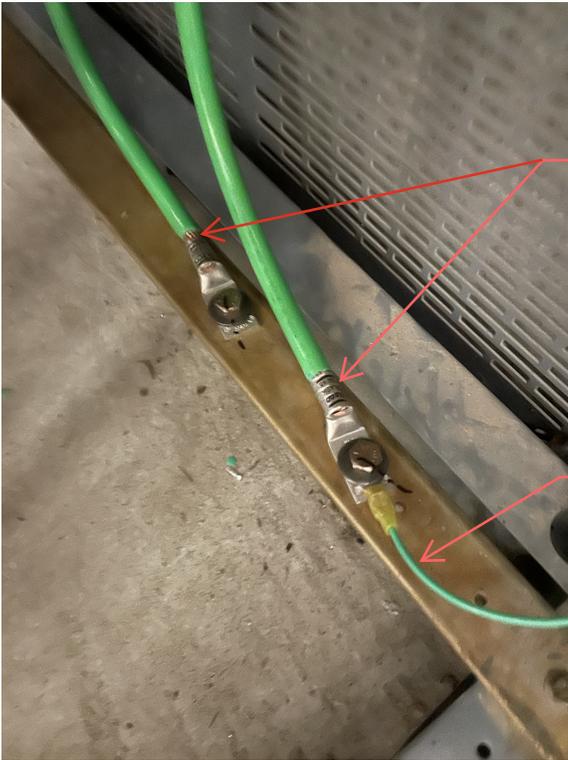


Cable Limiters

(4) 500kcmil CU per phase

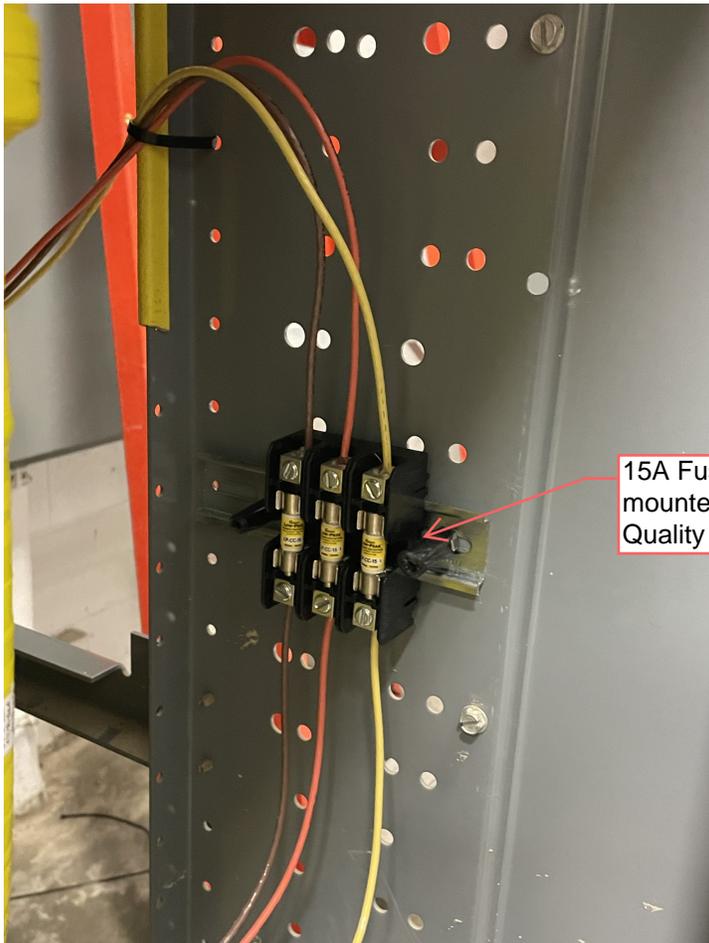
(4) 3/0 CU Neutral Conductors (connection not shown)





(2) GEC connections -
1 for each PV
disconnect.

Power Quality Meter
Grounding Conductor



15A Fuses - DIN rail
mounted for Power
Quality Meter Circuit

MAIN DISTRIBUTION SWITCHBOARD (MSWB #1)

4000 AMP – 480/277 VOLT – 3 ϕ – 4W UL SERV. ENT. RATED PROVIDE WITH 4000 AMP 100% FULLY RATED CIRCUIT BREAKER WITH SHORT CIRCUIT CURRENT RATING OF 100 KAIC. EACH DISTRIBUTION SECTION SHALL BE FULLY BUSSED.

CKT. No.	TO FEED	BREAKER RATING	BREAKER FRAME	FEEDER		
				CONDUIT	WIRE	GROUND
1	PANEL "E" VIA ATS	250	400	1-3"	4 #250	1 #4
2	PANEL "K1"	225	225	1-3"	4 #300	1 #2
3	PANEL "HE1"	225	225	1-3"	4 #300	1 #2
4	PANEL "HM"	225	225	1-3"	4 #300	1 #2
5	PNL'S "K3" & "K4" VIA XFMR "TK1"	175	225	1-2 1/2"	4 #4/0	1 #2
6	PANEL "HE2"	600	600	2-3 1/2"	2-4#500MCM	2 #2/0
7	SSWB A **	2500	2500	10-5"	10-4#750MCM	10#600MCM
8	PANEL "K2" *	400	400	1-4"	4 #750MCM	1 #1
9	VOLTAGE SUPPRESSION PANEL ***	30	100	1-3/4"	4 #10	1 #12
10						

* PROVIDE WITH SHUNT TRIP TYPE CIRCUIT BREAKER.

** PROVIDE 100% RATED CIRCUIT BREAKER.

*** PROVIDE LEVITON PANEL MOUNTED TRANSIENT SUPPRESSION CAT. #57277-M3 OR APPROVED EQUAL.

MAIN DISTRIBUTION SWITCHBOARD (MSWB #2)

4000 AMP – 480/277 VOLT – 3 ϕ – 4W UL SERV. ENT. RATED PROVIDE WITH 4000 AMP 100% FULLY RATED CIRCUIT BREAKER WITH SHORT CIRCUIT CURRENT RATING OF 100 KAIC. EACH DISTRIBUTION SECTION SHALL BE FULLY BUSSED.

CKT. No.	TO FEED	BREAKER RATING	BREAKER FRAME	FEEDER		
				CONDUIT	WIRE	GROUND
1	SSWBB	2000	2000	12-5"	12-4#750MCM	400MCM
2	SSWBC	2000	2000	12-5"	12-4#750MCM	400MCM
3	PANEL "HF1"	1200	1200	4-5"	4-4#750MCM	250MCM
4	VOLTAGE SUPPRESSION PANEL *	30	100	1-3/4"	4 #10	1 #12
5						

* PROVIDE LEVITON PANEL MOUNTED TRANSIENT SUPPRESSION CAT. #57277-M3 OR APPROVED EQUAL.