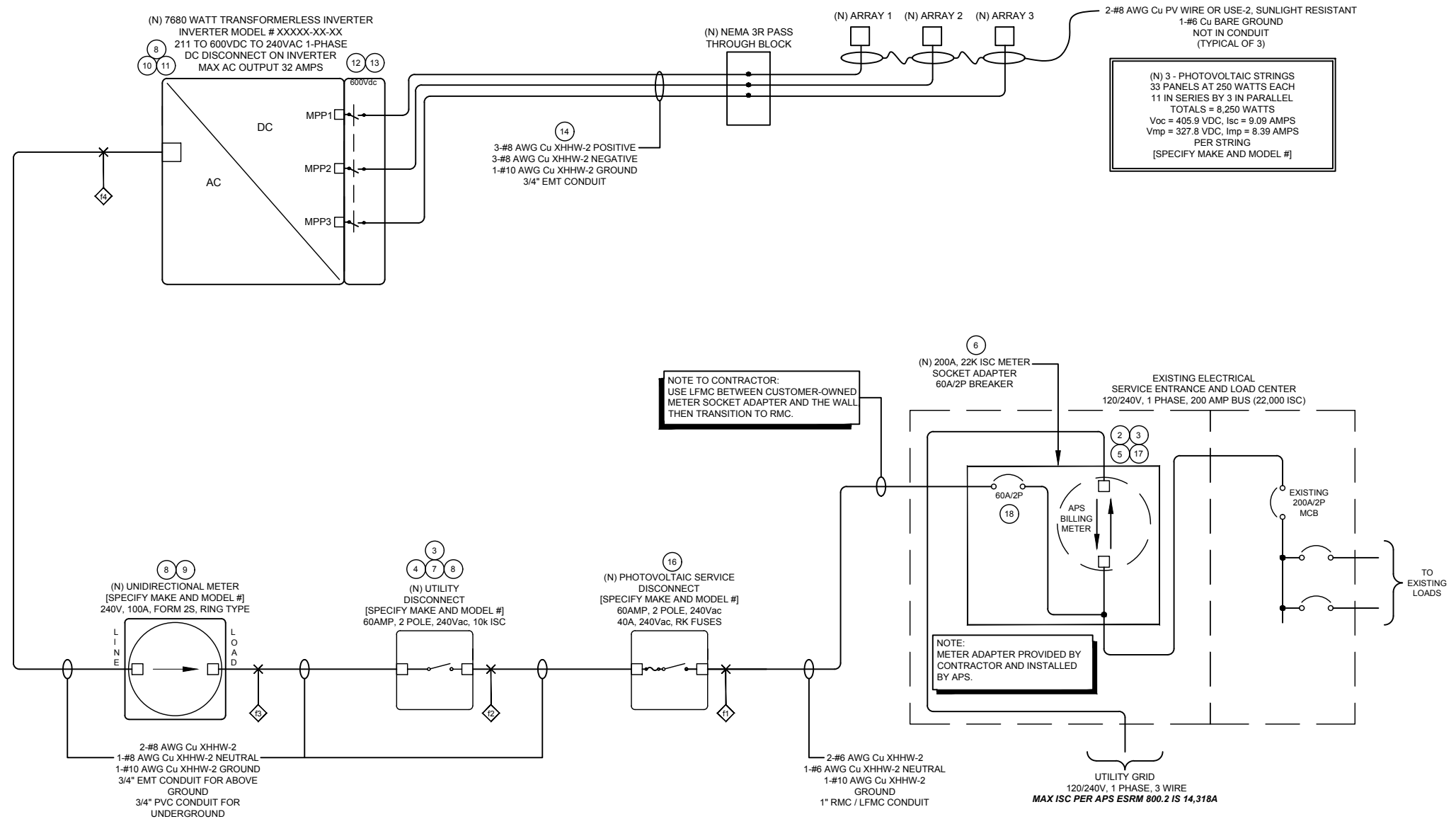


**NOTES:**

- 1 ALL EQUIPMENT SHALL BE INSTALLED AND LABELED IN ACCORDANCE WITH THE NEC AND ALL APPLICABLE REQUIREMENTS OF THE SERVING ELECTRIC UTILITY COMPANY AND OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- 2 BI-DIRECTIONAL UTILITY METER INSTALLED BY UTILITY COMPANY.
- 3 INSTALL A PLACARD AT THE SERVICE ENTRANCE WITH EXPLICIT DIRECTIONS TO THE LOCATION OF THE UTILITY DISCONNECT AND VICE-VERSA, WHEN NOT ADJACENT AS REQUIRED BY APS.
- 4 LABEL "UTILITY DISCONNECT". SWITCH COVER TO BE LOCKED AT ALL TIMES BY UTILITY. SWITCH IS TO BE VISUAL OPEN AND ACCESSIBLE PER UTILITY REQUIREMENT AND CONFORM TO NFPA 70E 120.5(3) AND NEC 705.20, AND IS RATED FOR THE AVAILABLE FAULT CURRENT.
- 5 LABEL "WARNING - A GENERATION SOURCE IS CONNECTED BETWEEN APS BILLING METER AND THE MAIN SERVICE DISCONNECTING MEANS VIA METER SOCKET ADAPTER. FOLLOW PROPER LOCKOUT/TAGOUT PROCEDURES TO ENSURE UTILITY DISCONNECT IS OPEN PRIOR TO PERFORMING WORK ON THIS DEVICE".
- 6 UTILITY SIDE CONNECTION. ANY CONNECTIONS TO UTILITY EQUIPMENT MADE WITHIN UTILITY-SEALED COMPARTMENTS NEEDS TO BE MADE BY QUALIFIED APS PERSONNEL.
- 7 PROVIDE WARNING SIGN PER NEC 690.13(B) READING "WARNING-ELECTRIC SHOCK HAZARD-TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION".
- 8 EQUIPMENT SHALL BE TESTED, LISTED AND MARKED TO WITHSTAND THE AVAILABLE SHORT CIRCUIT CURRENT.
- 9 LABEL "UNIDIRECTIONAL METER". METER SOCKET ENCLOSURE AND SOCKET PROVIDED AND INSTALLED BY CUSTOMER PER APS ESRM. METER PROVIDED AND INSTALLED BY APS.
- 10 LISTING AGENCY NAMES AND NUMBERS TO BE INDICATED ON POWER INVERTER AND SOLAR MODULES PER NEC 110.3(B).
- 11 DC ARC FAULT PROTECTION TO BE INCLUDED IN THE INVERTER PER NEC 690.11 AS REQUIRED BY MUNICIPALITY.
- 12 LABEL "PHOTOVOLTAIC ARRAY DC DISCONNECT DEVICE 1X PER NEC. LABEL WITH OPERATING CURRENT, OPERATING VOLTAGE, MAXIMUM SYSTEM VOLTAGE, AND SHORT CIRCUIT CURRENT PER NEC. SWITCH TO BE LOCKED PER NEC.
- 13 LABEL, "WARNING DO NOT OPEN FUSES UNDER LOAD."
- 14 METALLIC CONDUIT SHALL BE USED WITHIN BUILDING PER NEC 690.31.
- 15 GEC TO BE INSTALLED AS REQUIRED BY MANUFACTURER INSTRUCTIONS AND NEC 250.
- 16 LABEL "PHOTOVOLTAIC SERVICE DISCONNECT". SWITCH COVER TO BE LOCKED AT ALL TIMES BY CUSTOMER. SWITCH CONFORMS TO NEC 230 AND IS RATED FOR THE AVAILABLE FAULT CURRENT. LOCATE ADJACENT TO SES.
- 17 A PERMANENT PLACARD OR DIRECTORY IS INSTALLED PER NEC 705.10.
- 18 LABEL "METER SOCKET ADAPTER DISCONNECT - NOT SERVICE EQUIPMENT". SIMILAR TO NEC 230.82(3) LABEL FOR METER DISCONNECT. SWITCH COVER TO BE LOCKED AT ALL TIMES BY CUSTOMER. THE METER SOCKET ADAPTER DISCONNECT IS NOT LISTED, TESTED OR MARKED (REFER TO UL414) AS A SERVICE DISCONNECT. THEREFORE, THE CONDUCTORS BETWEEN THE LOAD SIDE OF THE MSA DISCONNECT AND THE FUSED SERVICE DISCONNECT ARE CONSIDERED SERVICE CONDUCTORS.



FAULT CALCULATIONS	
1	AVAILABLE = xx,xxx.xx AIC D = x' F = x,xxx M = x,xxx Isc = xx,xxx.xx AIC
2	AVAILABLE = xx,xxx.xx AIC D = x' F = x,xxx M = x,xxx Isc = x,xxx.xx AIC
3	AVAILABLE = x,xxx.xx AIC D = x' F = x,xxx M = x,xxx Isc = x,xxx.xx AIC
4	AVAILABLE = x,xxx.xx AIC D = x' F = x,xxx M = x,xxx Isc = x,xxx.xx AIC

\* SOURCE: COOPER BUSSMAN SPD MANUAL REV 2009. CALCULATIONS IN ACCORDANCE WITH NEC ARTICLE 110.9 & 110.10

NOTE: SYSTEM DESIGNED IN ACCORDANCE WITH THE 2023 NEC

THESE SAMPLE DRAWINGS ARE INTENDED FOR ILLUSTRATION PURPOSES ONLY AND ARE NOT TO BE USED FOR DESIGN OR CONSTRUCTION. THE DRAWINGS AND THEIR SUITABILITY FOR END USE IS NOT IMPLIED. THE INTENT IS TO ONLY ILLUSTRATE TYPICAL MINIMUM INFORMATION REQUIRED AT THE TIME OF APPLICATION TO APS. ADDITIONAL INFORMATION MAY BE REQUIRED.

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SAMPLE METER SOCKET ADAPTER ONE-LINE DIAGRAM

NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W A

JOHN DOE RESIDENCE  
 1234 W. ABC AVENUE, PHOENIX  
 7.68KW(AC) & 8.25KW(DC)  
 ONE-LINE DIAGRAM

SCALE N.T.S.

DATE 5-19-23

DWN JRL EXD  
 CHD SRB RVWD

APPROVED

DRAWING APPROVED BY

DWG 123456 UNIT DISC TYPE SYS NUMBER SHEET 1 OF 5

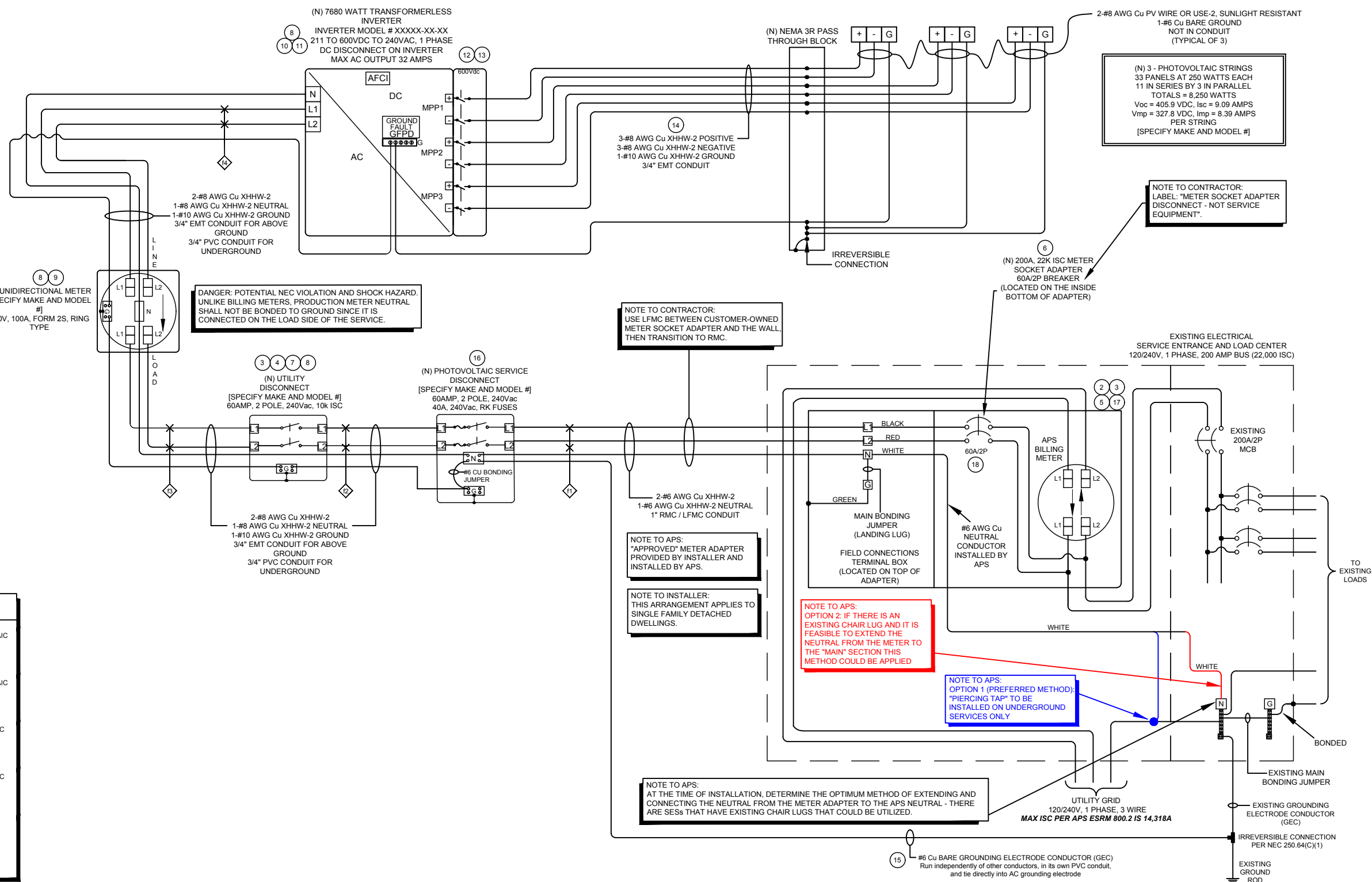
**NOTES:**

- 1 ALL EQUIPMENT SHALL BE INSTALLED AND LABELED IN ACCORDANCE WITH THE NEC AND ALL APPLICABLE REQUIREMENTS OF THE SERVING ELECTRIC UTILITY COMPANY AND OF THE LOCAL AUTHORITY HAVING JURISDICTION.
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- 3 INSTALL A PLACARD AT THE SERVICE ENTRANCE WITH EXPLICIT DIRECTIONS TO THE LOCATION OF THE UTILITY DISCONNECT AND VICE-VERSA, WHEN NOT ADJACENT AS REQUIRED BY APS.
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- 13 LABEL, "WARNING DO NOT OPEN FUSES UNDER LOAD."
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- 15 GEC TO BE INSTALLED AS REQUIRED BY MANUFACTURER INSTRUCTIONS AND NEC 250.
- 16 LABEL "PHOTOVOLTAIC SERVICE DISCONNECT". SWITCH COVER TO BE LOCKED AT ALL TIMES BY CUSTOMER. SWITCH CONFORMS TO NEC 230 AND IS RATED FOR THE AVAILABLE FAULT CURRENT. LOCATE ADJACENT TO SES.
- 17 A PERMANENT PLACARD OR DIRECTORY IS INSTALLED PER NEC 705.10.
- 18 LABEL "METER SOCKET ADAPTER DISCONNECT - NOT SERVICE EQUIPMENT", SIMILAR TO NEC 230.82(3) LABEL FOR METER DISCONNECT. SWITCH COVER TO BE LOCKED AT ALL TIMES BY CUSTOMER. THE METER SOCKET ADAPTER DISCONNECT IS NOT LISTED, TESTED OR MARKED (REFER TO UL414) AS A SERVICE DISCONNECT. THEREFORE, THE CONDUCTORS BETWEEN THE LOAD SIDE OF THE MSA DISCONNECT AND THE FUSED SERVICE DISCONNECT ARE CONSIDERED SERVICE CONDUCTORS.

FAULT CALCULATIONS	
11	AVAILABLE = xx,xxx.xx AIC D = x' F = x,xxx M = x,xxx Isc = xx,xxx.xx AIC
12	AVAILABLE = xx,xxx.xx AIC D = x' F = x,xxx M = x,xxx Isc = x,xxx.xx AIC
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\* SOURCE: COOPER BUSSMAN SPD MANUAL REV 2009. CALCULATIONS IN ACCORDANCE WITH NEC ARTICLE 110.9 & 110.10

NOTE: SYSTEM DESIGNED IN ACCORDANCE WITH THE 2023 NEC



SAMPLE METER SOCKET ADAPTER THREE-LINE DIAGRAM

NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W	A


**JOHN DOE RESIDENCE**  
 1234 W. ABC AVENUE, PHOENIX  
 7.68KW(AC) & 8.25KW(DC)  
**THREE-LINE DIAGRAM**

SCALE N.T.S.

DWN JRL EXD

CHD SRB RVWD

DWG 123456



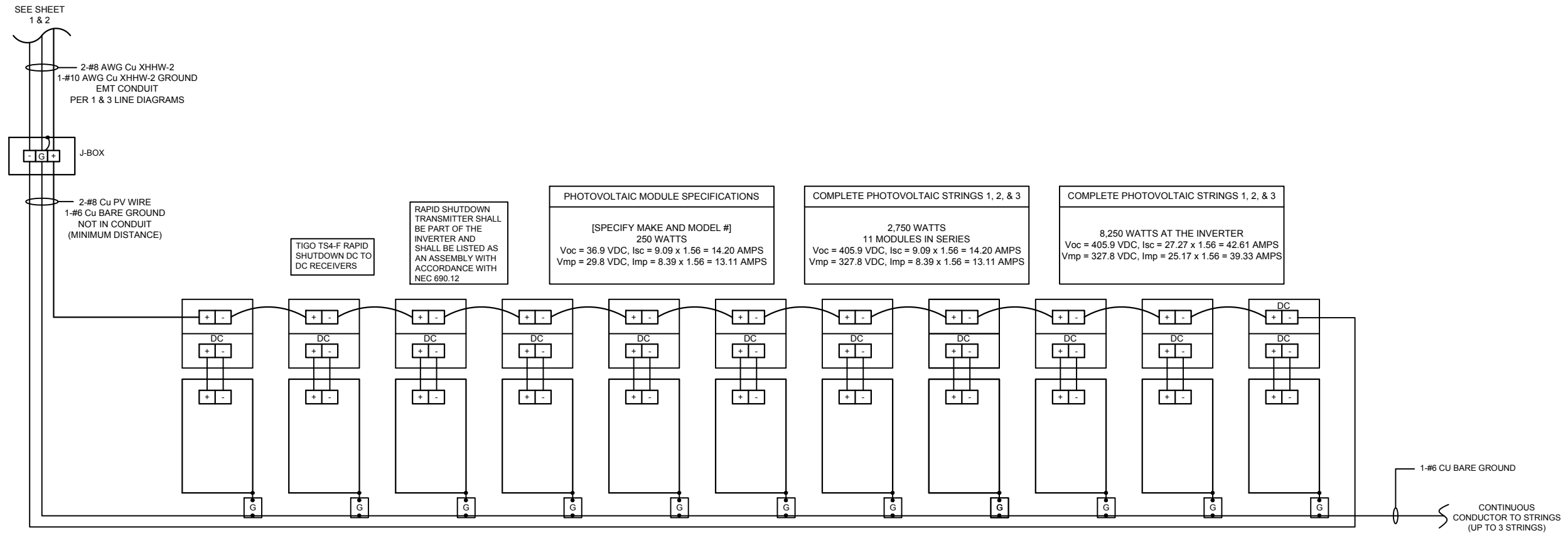
DATE 5-19-23

APPROVED

DRAWING APPROVED BY

UNIT DISC TYPE SYS NUMBER SHEET

2 OF 5



**NOTES:**

- EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND ALL APPLICABLE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- GROUND WIRE MUST BE CONTINUOUS AND INSTALLED TO ALLOW FOR PANEL REMOVAL WITHOUT DISRUPTING CONTINUITY. ALL MODULE GROUND CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE NEC.
- FOLLOW MANUFACTURERS SUGGESTED INSTALLATION PRACTICES AND WIRING SPECIFICATIONS.
- WIRES SHALL BE RATED AND LABELED "SUNLIGHT RESISTANT" WHERE EXPOSED TO AMBIENT CONDITIONS.

NOTE: SYSTEM DESIGNED IN ACCORDANCE WITH THE 2023 NEC

**SAMPLE METER SOCKET ADAPTER ARRAY DIAGRAM**

NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W	A

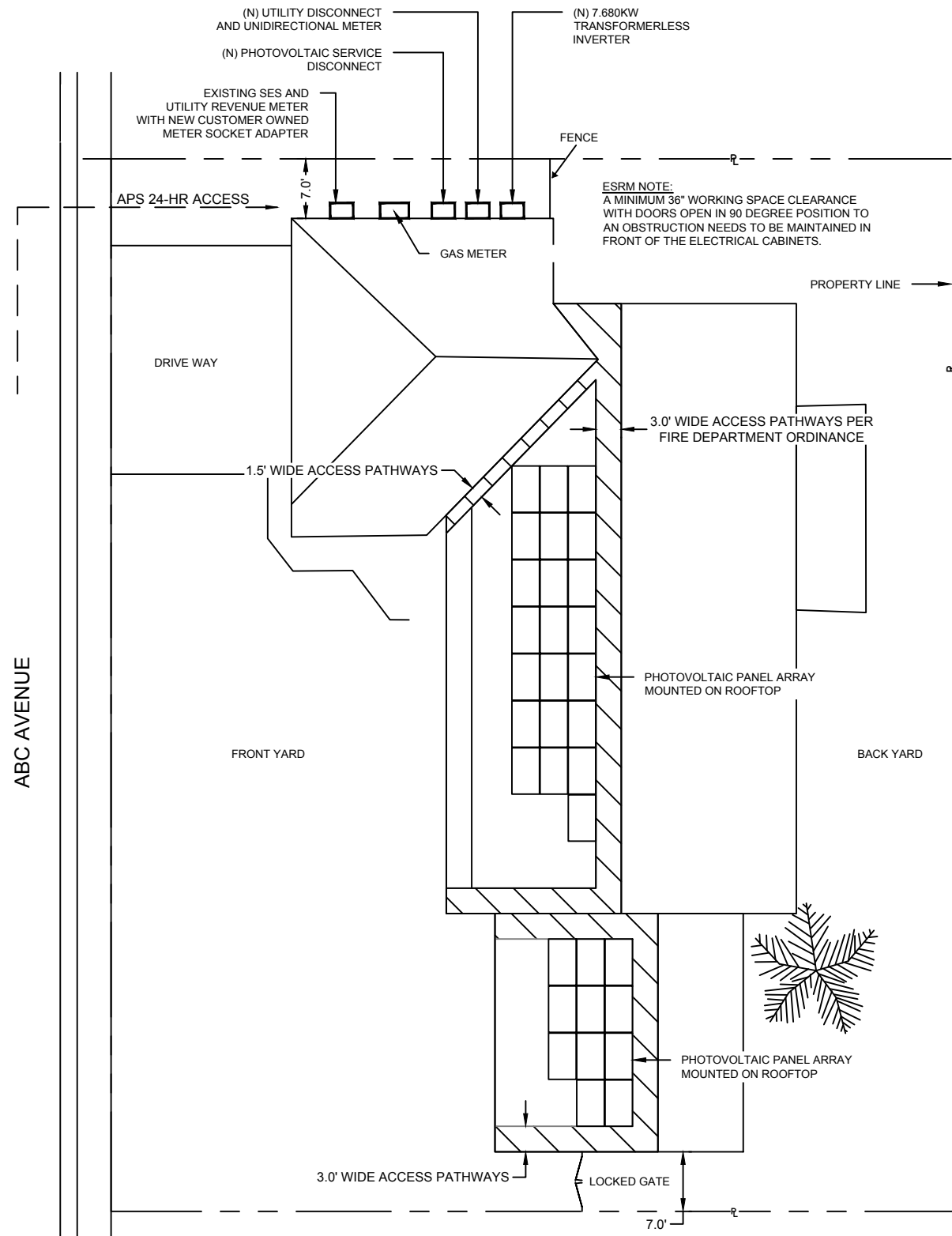
JOHN DOE RESIDENCE  
1234 W. ABC AVENUE, PHOENIX  
7.68KW(AC) & 8.25KW(DC)  
ARRAY DIAGRAM

SCALE N.T.S.

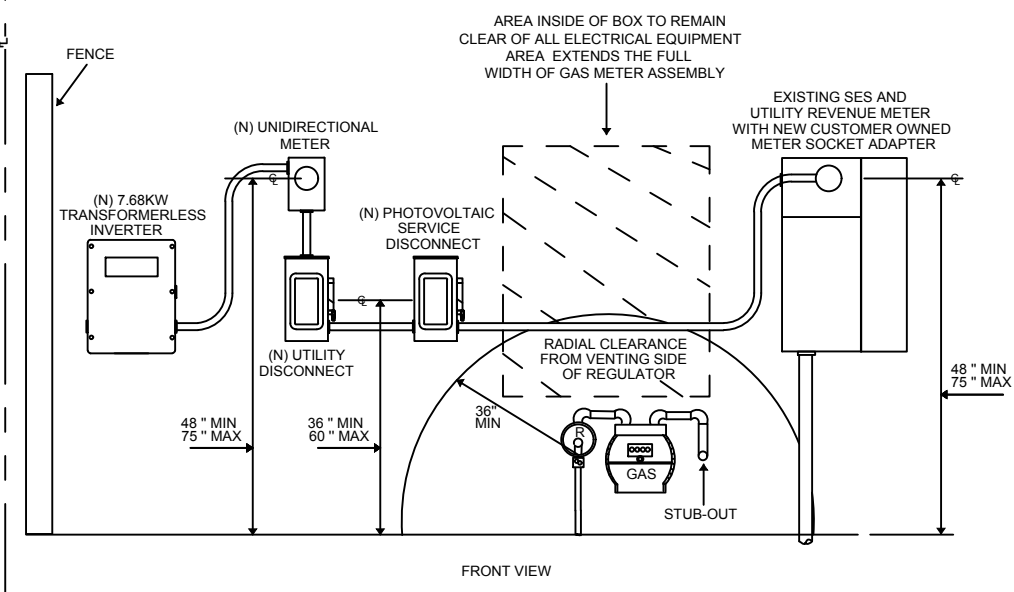
DATE 5-19-23

**aps**

DWN JRL EXD APPROVED  
CHD SRB RVWD DRAWING APPROVED BY  
DWG UNIT DISC TYPE SYS NUMBER SHEET  
123456 3 OF 5



ESRM NOTE:  
A MINIMUM 36" WORKING SPACE CLEARANCE WITH DOORS OPEN IN 90 DEGREE POSITION TO AN OBSTRUCTION NEEDS TO BE MAINTAINED IN FRONT OF THE ELECTRICAL CABINETS.



**NOTE:**


1. UTILITY HAS 24-HR UNRESTRICTED ACCESS TO UTILITY DISCONNECT, APS METERS, AND METER DISCONNECTS
2. WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS ESRM AND NEC REQUIREMENTS.

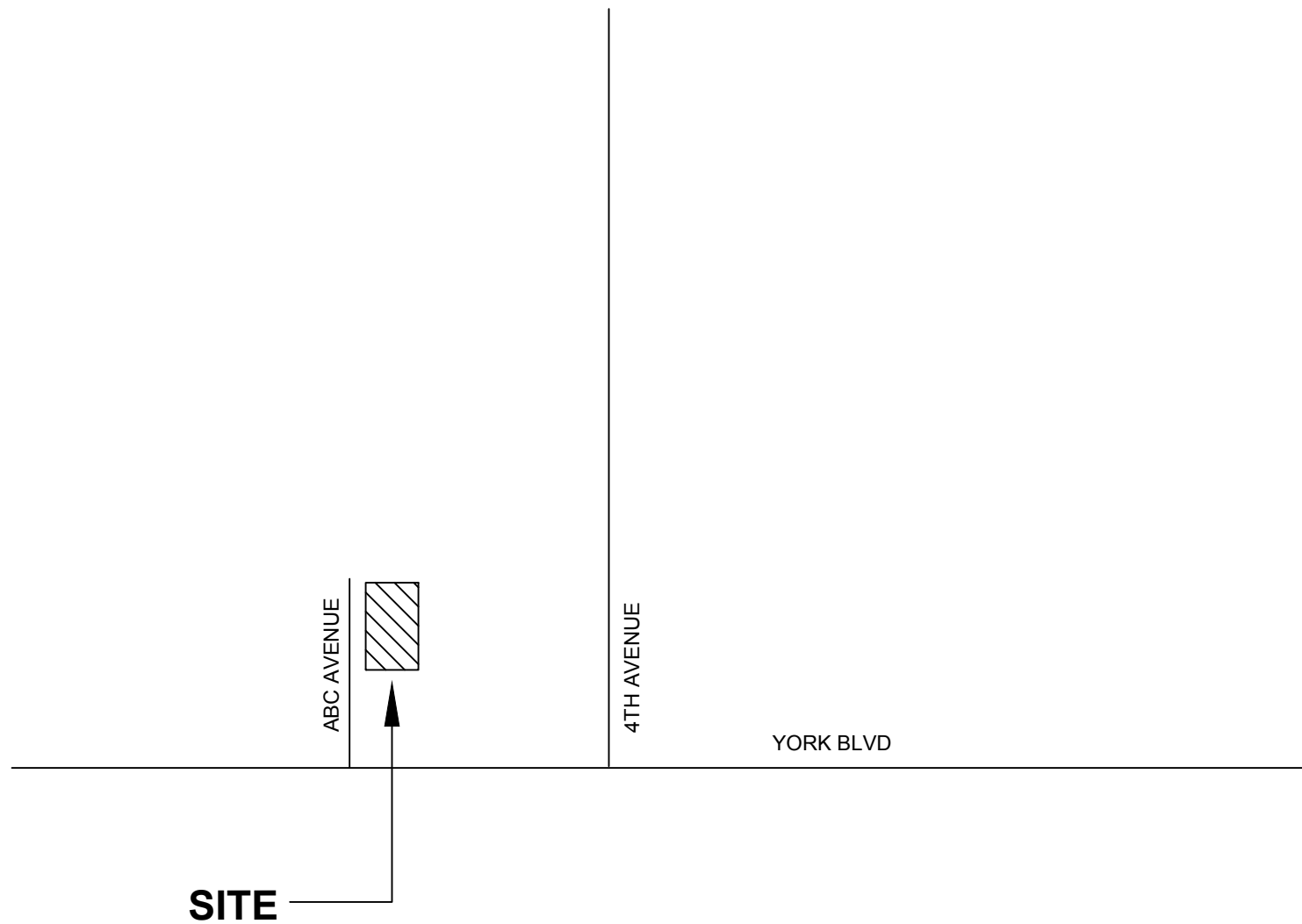
NOTE: SYSTEM DESIGNED IN ACCORDANCE WITH THE 2023 NEC

**SAMPLE METER SOCKET ADAPTER SITE PLAN**

NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W	A

JOHN DOE RESIDENCE  
1234 W. ABC AVENUE  
7.68KW(AC) & 8.25KW(DC)  
SITE PLAN

SCALE		N.T.S.				DATE 5-19-23	
DWN	JRL	EXD	APPROVED				
CHD	SRB	RVWD	DRAWING APPROVED BY				
DWG	UNIT	DISC	TYPE	SYS	NUMBER	SHEET	4 OF 5
123456							



**NOTE:**


1. UTILITY HAS 24-HR UNRESTRICTED ACCESS TO UTILITY DISCONNECT, APS METERS, AND METER DISCONNECTS
2. WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS ESRM AND NEC REQUIREMENTS.

NOTE: SYSTEM DESIGNED IN ACCORDANCE WITH THE 2023 NEC

**SAMPLE METER SOCKET ADAPTER PLANT LOCATION**

NO.	DATE	REVISION	DWN	CHD	EXD	RVWD	APVD	W A

**JOHN DOE RESIDENCE**  
 1234 W. ABC AVENUE, PHOENIX  
 7.68KW(AC) & 8.25KW(DC)  
**VICINITY MAP**

SCALE <u>N.T.S.</u>				DATE <u>5-19-23</u>	
DWN	JRL	EXD	APPROVED		
CHD	SRB	RVWD	DRAWING APPROVED BY		
DWG	UNIT	DISC	TYPE	SYS	NUMBER
123456					
				SHEET	5 OF 5