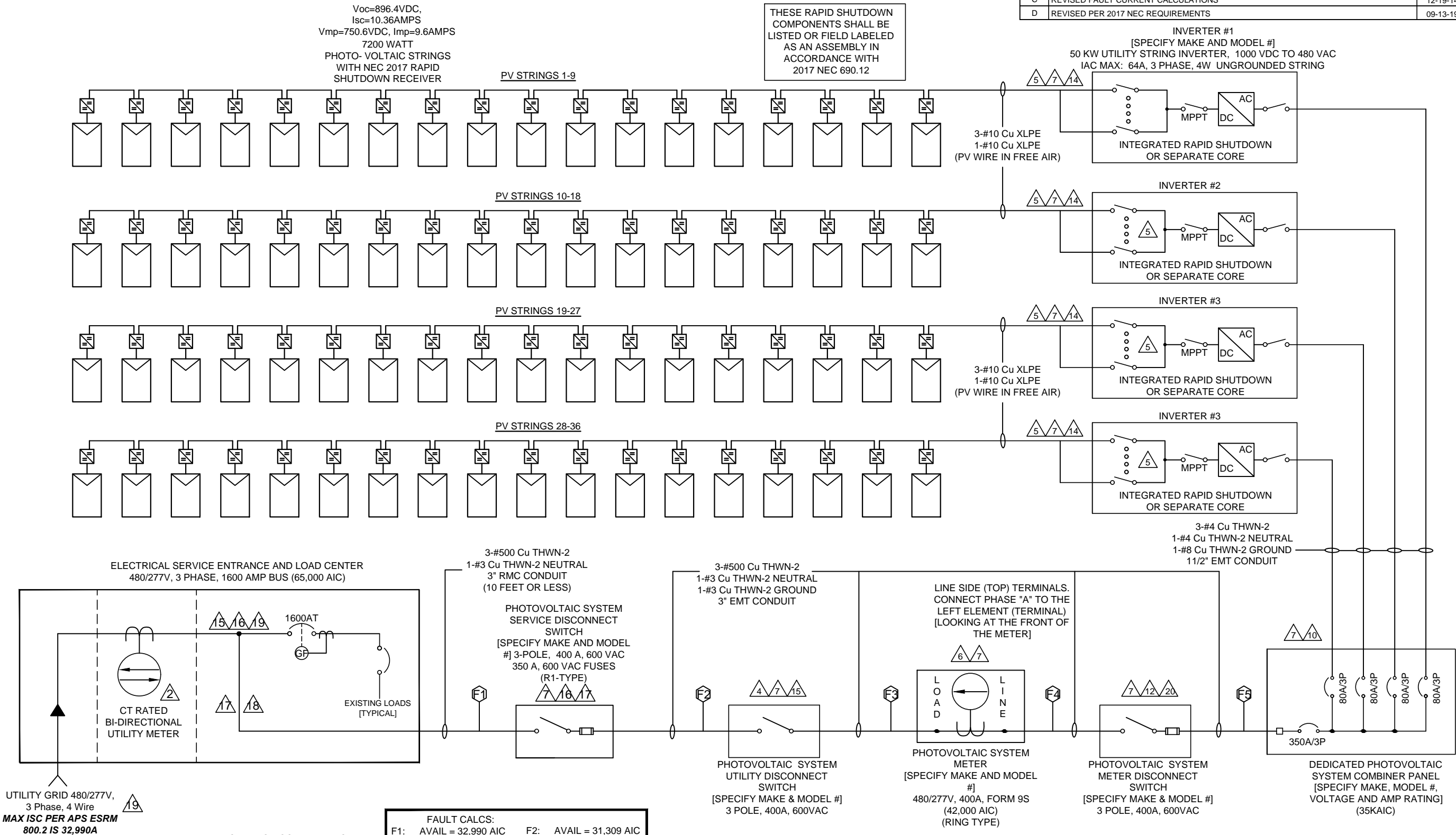


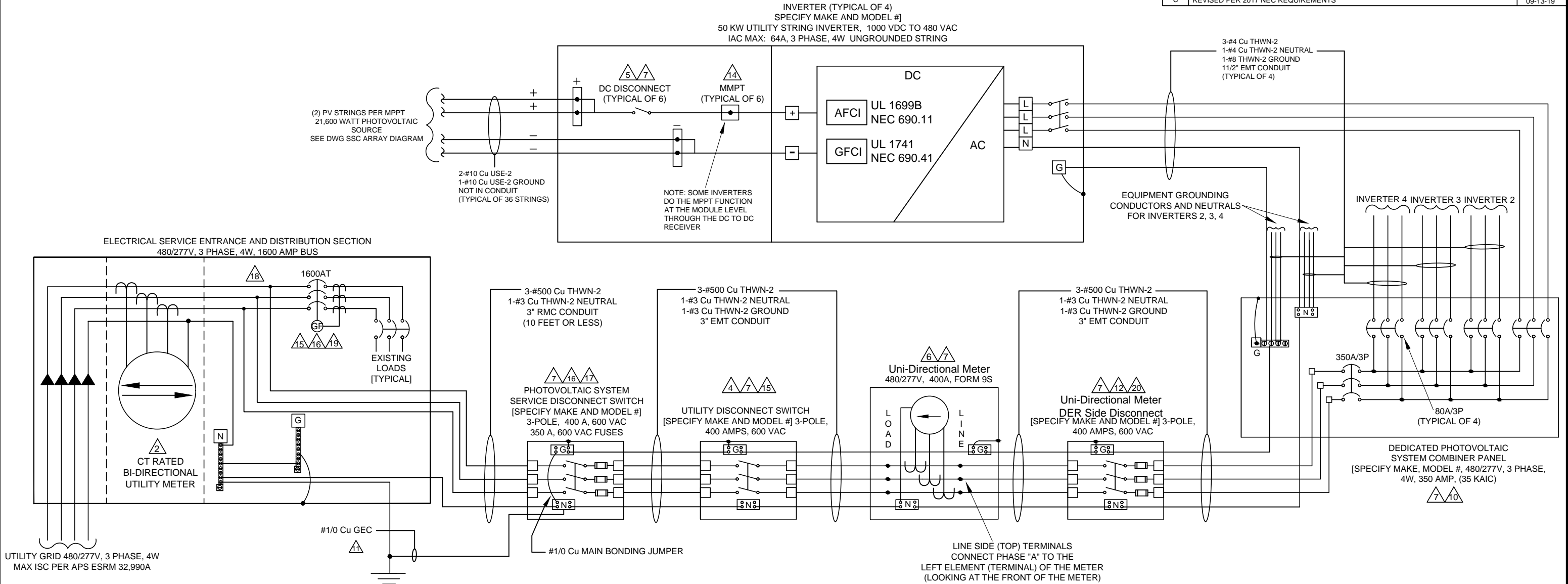
REV.	DESCRIPTION	DATE
A	PRELIMINARY DRAWING SET	09-10-10
B	REVISED PER 2011 NEC REQUIREMENTS	04-30-13
C	REVISED FAULT CURRENT CALCULATIONS	12-19-14
D	REVISED PER 2017 NEC REQUIREMENTS	09-13-19



## SAMPLE SUPPLY SIDE CONNECTION ONE-LINE DRAWING

1234 South Main Street Any City, Arizona 85123 Tel: 602-555-5555		ABC SOLAR COMPANY INC.	
APPROVALS		ONE-LINE ELECTRICAL DIAGRAM 200 KW AC PHOTOVOLTAIC SYSTEM 999 N. CACTUS BIRD RD. ANY CITY, AZ 85123	
DRAWN	ABC	DATE	09-10-10
CHECKED			
ENGINEER			
REV. D		09-13-19	
ABC PROJECT #1111-9999		SIZE	B
		CODE INTENT NO.	NA
		DRAWING NO.	SSC ONE-LINE
		SCALE	REV. D
			SHEET 1 OF 5

REV.	DESCRIPTION:	DATE
A	PRELIMINARY DRAWING SET	09-10-10
B	APS CORRECTIONS	10-10-10
C	REVISED PER 2017 NEC REQUIREMENTS	09-13-19



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 CT-RATED BI-DIRECTIONAL UTILITY METER INSTALLED BY UTILITY COMPANY.
- 3 -----
- 4 LABEL "UTILITY DISCONNECT SWITCH". SWITCH COVER TO BE LOCKED AT ALL TIMES. SWITCH TO BE VISUAL OPEN, ACCESSIBLE PER UTILITY REQUIREMENTS, CONFORM TO NEC 705.22, AND RATED FOR THE AVAILABLE FAULT CURRENT.
- 5 LABEL "PHOTOVOLTAIC DC DISCONNECT PER NEC 690.13(B). LABEL WITH OPERATING CURRENT, OPERATING VOLTAGE, MAXIMUM SYSTEM VOLTAGE, AND SHORT CIRCUIT CURRENT PER NEC 690.53. SWITCH TO BE LOCKED PER NEC 110.26 & 110.27. [SWITCH IS INTERNAL TO INVERTER].
- 6 LABEL "Uni-Directional Meter". METER ENCLOSURE AND SOCKET PROVIDED AND INSTALLED BY CUSTOMER PER APS ESRM. METER, CTs AND TEST SWITCHES PROVIDED BY UTILITY COMPANY WHEN REQUIRED. **NOTE: CUSTOMER TO SUBMIT SHOP DRAWINGS OF METERING CABINET TO APS METERSHOP FOR APPROVAL.**
- 7 PROVIDE WARNING SIGN PER NEC 690.17 READING "WARNING-ELECTRIC SHOCK HAZARD-DO NOT TOUCH TERMINALS-TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OFF POSITION".
- 8 -----
- 9 METALLIC CONDUIT SHALL BE USED WITHIN BUILDING PER NEC 690.31(G).
- 10 LABEL "DEDICATED PHOTOVOLTAIC SYSTEM COMBINER PANEL" AND "DO NOT ADD LOADS TO THIS PANEL".
- 11 GEC TO BE INSTALLED PER NEC 250.

- 12 LABEL "Uni-Directional Meter DER Side Disconnect". SWITCH COVER TO BE LOCKED AT ALL TIMES. SWITCH TO BE ACCESSIBLE PER UTILITY REQUIREMENTS, CONFORM TO NEC 705.22, AND RATED FOR THE AVAILABLE FAULT CURRENT.
- 13 -----
- 14 THE STRING INVERTERS DEPICTED HAVE A MAXIMUM OF TWO STRINGS PER MMPT; THEREFORE, THE STRINGS DO NOT REQUIRE OVERCURRENT DEVICES. FOR STRING INVERTERS WITH THREE STRINGS OR MORE IN PARALLEL EACH SERIES STRING REQUIRES OVERCURRENT DEVICES.
- 15 A PLACARD OR DIRECTORY IS INSTALLED AT THE SERVICE ENTRANCE WITH EXPLICIT DIRECTIONS TO THE LOCATION OF THE PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SWITCH PER APS REQUIREMENTS.
- 16 A PERMANENT PLACARD OR DIRECTORY IS INSTALLED PER NEC 705.10.
- 17 SUPPLY SIDE CONNECTION IS INSTALLED PER NEC 230, APS ESRM AND APS INTERCONNECTION REQUIREMENTS. LABEL "PHOTOVOLTAIC SYSTEM SERVICE DISCONNECT". SWITCH TO BE LOCKED AT ALL TIMES.
- 18 SUPPLY SIDE CONNECTION IS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DOCUMENTATION IS INCLUDED WITH THE APS INTERCONNECTION APPLICATION.
- 19 LABEL "WARNING - A GENERATION SOURCE IS CONNECTED TO THE SUPPLY (UTILITY) SIDE OF THE SERVICE DISCONNECTING MEANS. FOLLOW PROPER LOCKOUT/ TAGOUT PROCEDURES TO ENSURE THE PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SWITCH IS OPENED PRIOR TO PERFORMING WORK ON THIS DEVICE."
- 20 LABEL "PHOTOVOLTAIC SYSTEM METER DISCONNECT SWITCH". SWITCH COVER TO BE LOCKED AT ALL TIMES. SWITCH TO BE VISUAL OPEN AND ACCESSIBLE PER UTILITY REQUIREMENTS, CONFORM TO NEC 705.22, AND RATED FOR THE AVAILABLE FAULT CURRENT.

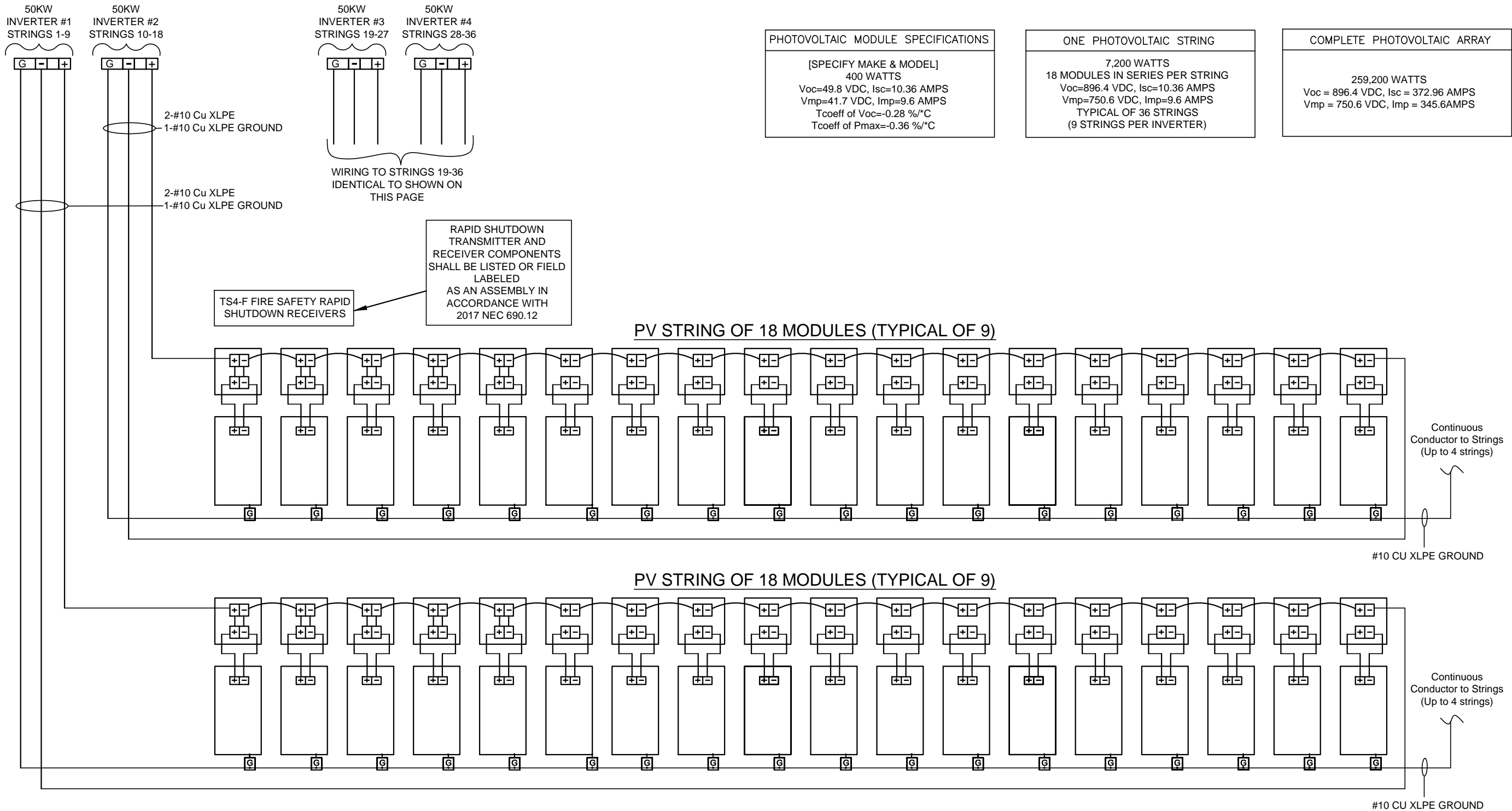
NOTE: All equipment must be utilized in accordance with the manufacturer's intended use and design specifications.

This Sample Drawing is for illustration purposes only and is not to be used for design or construction. This drawing and its suitability for end use is not implied. The intent is to only illustrate typical minimum information required at time of application to APS. Additional information may be required.

SAMPLE SUPPLY SIDE CONNECTION 3-LINE DIAGRAM

1234 South Main Street   Any City, Arizona 85123 Tel: 602-555-5555		ABC SOLAR COMPANY INC.	
APPROVALS		THREE-LINE ELECTRICAL DIAGRAM	
DRAWN ABC		200 KW AC PHOTOVOLTAIC SYSTEM	
CHECKED		999 N. CACTUS BIRD RD.	
ENGINEER		ANY CITY, AZ 85123	
REV. C		SIZE B	CODE INTENT NO.
ABC PROJECT #1111-9999		SCALE NA	REV. C
		SSC THREE-LINE	
		SHEET 2 OF 5	

REV.	DESCRIPTION	DATE
A	PRELIMINARY DRAWING SET	09/10/10
B	REVISED PER 2011 NEC REQUIREMENTS	04/30/13
C	REVISED PER 2017 NEC REQUIREMENTS	09/13/19



NOTES:

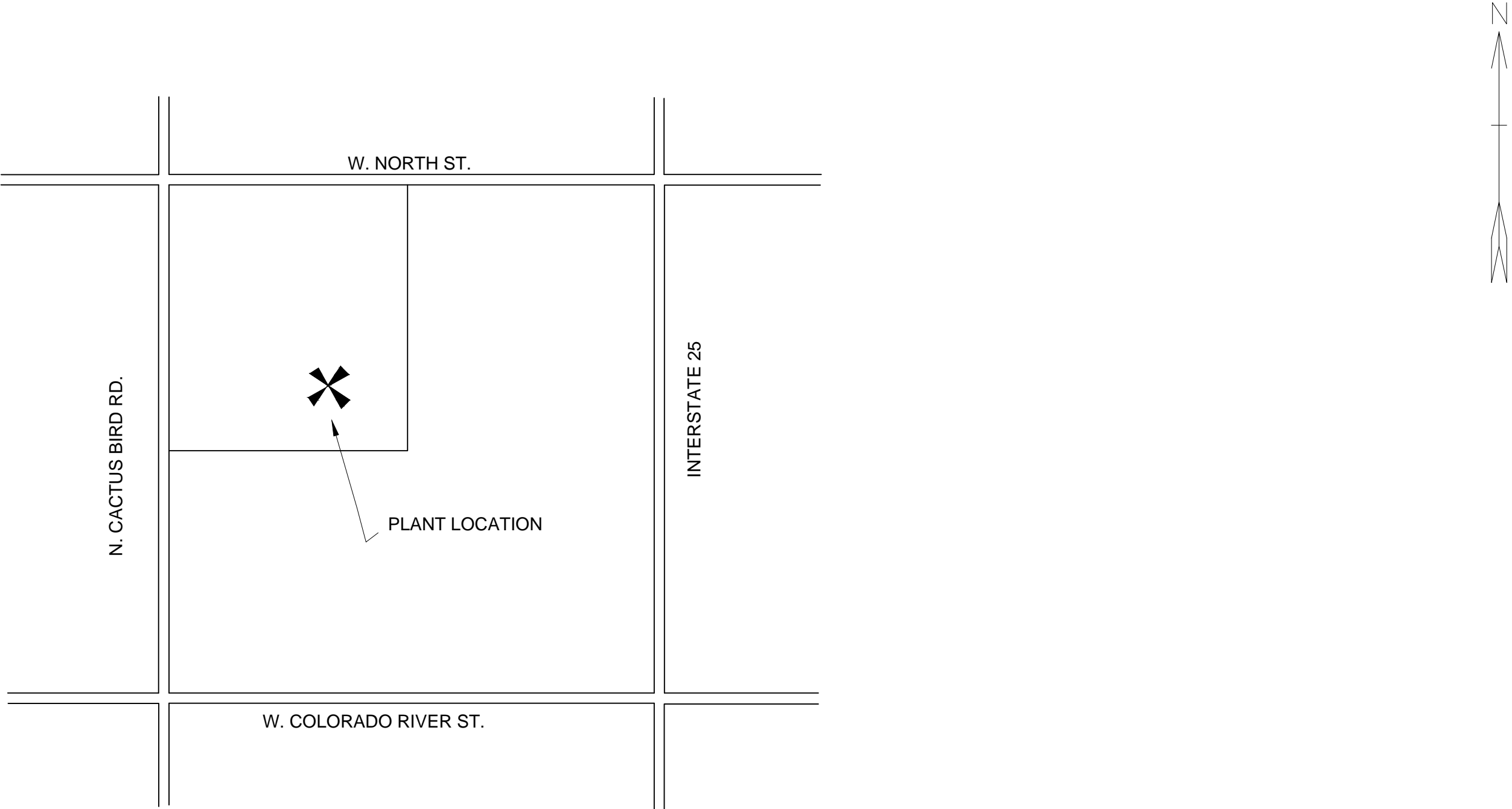
- EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND ALL APPLICABLE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- FOLLOW MANUFACTURERS SUGGESTED INSTALLATION PRACTICES AND WIRING SPECIFICATIONS.
- WIRES SHALL BE RATED AND LABELED "SUNLIGHT RESISTANT" WHERE EXPOSED TO AMBIENT CONDITIONS.

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SAMPLE SUPPLY SIDE CONNECTION ARRAY DRAWING

1234 South Main Street Any City, Arizona 85123 Tel: 602-555-5555		ABC SOLAR COMPANY INC.		
APPROVALS		THREE-LINE ELECTRICAL ARRAY DIAGRAM		
DRAWN ABC		200 KW AC PHOTOVOLTAIC SYSTEM		
CHECKED		999 N. CACTUS BIRD RD.		
ENGINEER		ANY CITY, AZ 85123		
REV. C		09-13-19		
ABC PROJECT #1111-9999		SIZE B	CODE INTENT NO.	DRAWING NO.
		SCALE NA	REV. C	SSC ARRAY DIAGRAM
				SHEET 3 OF 5

REV.	DESCRIPTION:	DATE
A	PRELIMINARY DRAWING SET	09/10/10

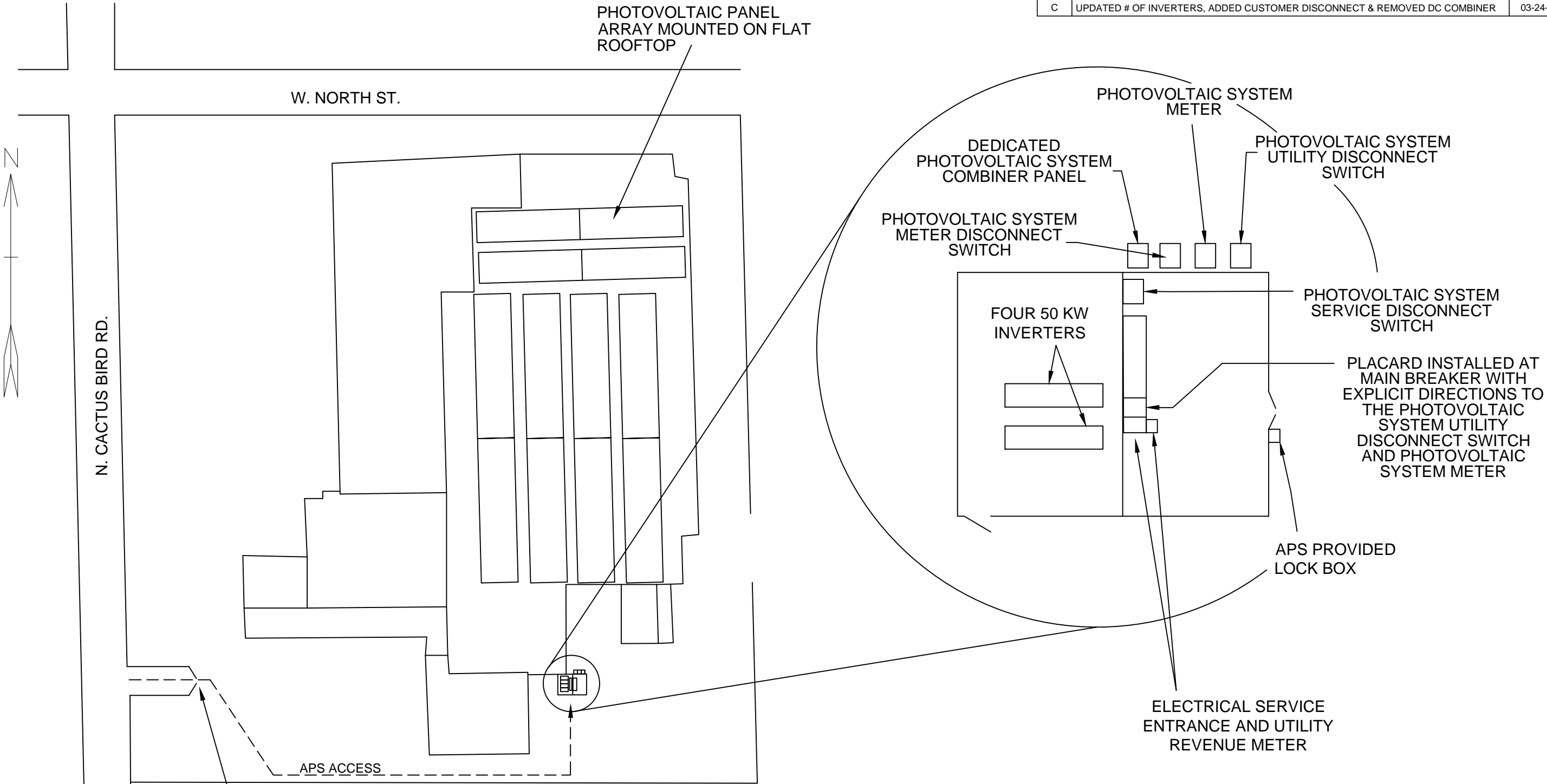


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SAMPLE SUPPLY SIDE CONNECTION PLANT LOCATION

1234 South Main Street Any City, Arizona 85123 Tel: 602-555-5555		ABC SOLAR COMPANY INC.				
APPROVALS		DATE		PLANT LOCATION 200 KW AC PHOTOVOLTAIC SYSTEM 999 N. CACTUS BIRD RD. ANY CITY, AZ 85123		
DRAWN    ABC		09-10-10				
CHECKED						
ENGINEER						
REV. A		09-10-10		SIZE A	CODE INTENT NO.	DRAWING NO.
ABC PROJECT #1111-9999				SSC PLANT LOCATION		
				SCALE NA	REV. A	

REV.	DESCRIPTION:	DATE
A	PRELIMINARY DRAWING SET	09-10-10
B	ADDED METER DISCONNECT SWITCH	02-24-20
C	UPDATED # OF INVERTERS, ADDED CUSTOMER DISCONNECT & REMOVED DC COMBINER	03-24-20



DRIVEWAY WITH GATE & KEY  
CODE SECURITY IN APS  
PROVIDED LOCKBOX

**ACCESS CODE: 12345#**

**NOTE: UTILITY HAS 24-HR UNRESTRICTED  
ACCESS TO THE PHOTOVOLTAIC SYSTEM  
METER AND PHOTOVOLTAIC SYSTEM  
UTILITY DISCONNECT SWITCH THROUGH  
THE SECURITY GATE**

**SAMPLE SUPPLY SIDE CONNECTION SITE PLAN**

1234 South Main Street Any City, Arizona 85123 Tel: 602-555-5555		ABC SOLAR COMPANY INC.	
APPROVALS		DATE	
DRAWN ABC		09-10-10	
CHECKED			
ENGINEER			
REV. C		03-24-20	
ABC PROJECT #1111-9999		SIZE <b>B</b>	CODE INTENT NO. DRAWING NO. <b>SSC SITE PLAN</b>
		SCALE <b>NA</b>	REV. C SHEET <b>5 OF 5</b>

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