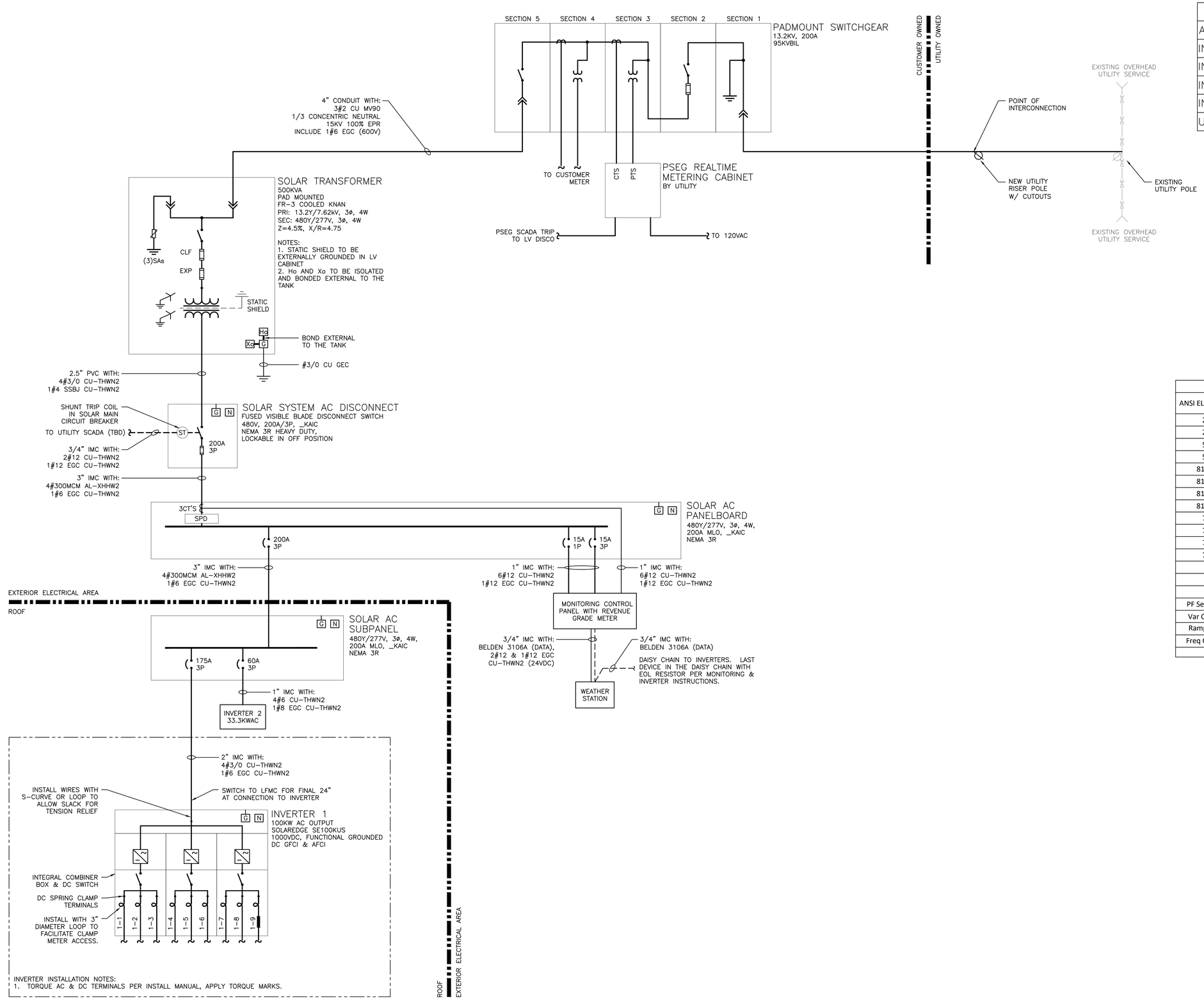

1 ONE LINE DIAGRAM
E300 SCALE: NONE

SYSTEM SUMMARY	
AC SYSTEM SIZE	133.30 KW
INVERTER	SOLAREDGE SE100KUS
INVERTER QTY	1
INVERTER	SOLAREDGE SE33.3KUS
INVERTER QTY	1
UTILITY	PSEG

INVERTER INTERNAL PROTECTIVE SETTINGS: UL1741-SA COMPLIANT					
ANSI ELEMENT #	Pickup	Units*	Level	Total Clear Time (sec)	Description
27	243.9	V	88%	2.00	Slow UV
27	138.6	V	50%	1.10	Fast UV
59	304.8	V	110%	2.00	Slow OV
59	332.6	V	120%	0.16	Fast OV
81U-1	56.50	Hz	94%	0.16	Fast UF
81U-2	58.50	Hz	98%	300.00	Slow UF
81O-1	62.00	Hz	103%	0.16	Fast OF
81O-2	61.20	Hz	102%	300.00	Slow OF
79	263.3	V	95%	300.00	Min Reclosing Voltage Value
79	291.0	V	105%	300.00	Max Reclosing Voltage Value
79	59.5	Hz	99%	300.00	Min Reclosing Frequency Value
79	60.5	Hz	101%	300.00	Max Reclosing Frequency Value
INVERTER INTERNAL OPERATION SETTINGS					
PF Set Point	1.00				Power Factor Control
Var Control	OFF				Reactive Power Control
Ramp Rate	10%/1 sec				dkw / dt
Freq Control	OFF				Speed Control
* voltages based off 277.1V Line to Neutral					

TRANSFORMER NOTES:
1. TRANSFORMER SHALL BE THREE PHASE, SELF COOLED, AND DESIGNED FOR STEP-UP OPERATION. TRANSFORMER SHALL BE UL LISTED. PAD MOUNT, DISTRIBUTION TYPE TRANSFORMERS SHALL COMPLY WITH THE LATEST ISSUE OF IEEE/ANSI C57.12.34.
2. TRANSFORMER SHALL OPERATE AT 60HZ NOMINAL AND SHALL BE TOLERANT OF CONTINUOUS FREQUENCIES BETWEEN 56.5 HZ AND 62.0 HZ.
3. TRANSFORMER SHALL BE CAPABLE OF OPERATING AT 1.1PU VOLTAGE AT FULL LOAD FOR PERIODS OF TIME TYPICAL OF THE EXPECTED GENERATION PROFILE.
4. LOW VOLTAGE WINDING CONFIGURATION IS REQUIRED TO BE 480V Yg WITH A FULLY INSULATED NEUTRAL.
5. TRANSFORMER SHALL BE FURNISHED WITH HIGH VOLTAGE TAPS WITH A MINIMUM OF 2 1/2% TAPS ABOVE AND BELOW NAMEPLATE RATING.

GROUNDING NOTES:
1. PV INVERTER GEC TO BE SIZED PER NEC 250.166. COPPER GROUNDING ELECTRODE ROD 3/4" X 10' MIN TO BE USED.
2. TRANSFORMER GEC TO BE SIZED PER NEC 250.66. COPPER GROUNDING ELECTRODE ROD 3/4" X 10'MIN TO BE USED. FROM TRANSFORMER EARTH GROUND TO COPPER GEC, GROUND SYSTEM RESISTANCE SHALL BE 25 OHMS OR LESS.

SHEET NOTES:
1. CONTRACTOR SHALL FIELD-VERIFY INTERCONNECTION MEANS/METHODS PRIOR TO INSTALLATION. COORDINATED SHUTDOWN MAY BE REQUIRED.
2. PROVIDE TORQUE MARKS INSIDE INVERTERS.
3. SET ELECTRONIC-TRIP BREAKERS TO THE SETTINGS BELOW, UNLESS OTHERWISE NOTED IN POWER STUDY. "NOMINAL TRIP" REFERS TO BREAKER TRIP RATING INDICATED ON ONELINE.
   - L = 100% OF NOMINAL TRIP (EXACT) MINIMUM TIME DELAY
   - S = 125% OF NOMINAL TRIP (OR NEXT HIGHER) MINIMUM TIME DELAY
   - I = 150% OF NOMINAL TRIP (OR NEXT HIGHER)
   - G = 20% OF NOMINAL TRIP (OR NEXT HIGHER) 0.5 SEC TIME DELAY

DRAWING TITLE: ONE LINE DIAGRAM

DRAWING #: E300

DATE	REVISION DESCRIPTION	PM	ENG	CHK	RK	GP	RI
01/18/2021	INTERCONNECTION DOCUMENTS						

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PAGE SIZE: 36" x 24"
PROJECT #: 01488.18

PROJECT: SOLAR ROOFTOP SYSTEM AT 320 FAIRFIELD ROAD
320 FAIRFIELD ROAD
FAIRFIELD, NEW JERSEY 07004

PLOT DATE: 1/18/2021 4:54 PM

RULER IN INCHES: