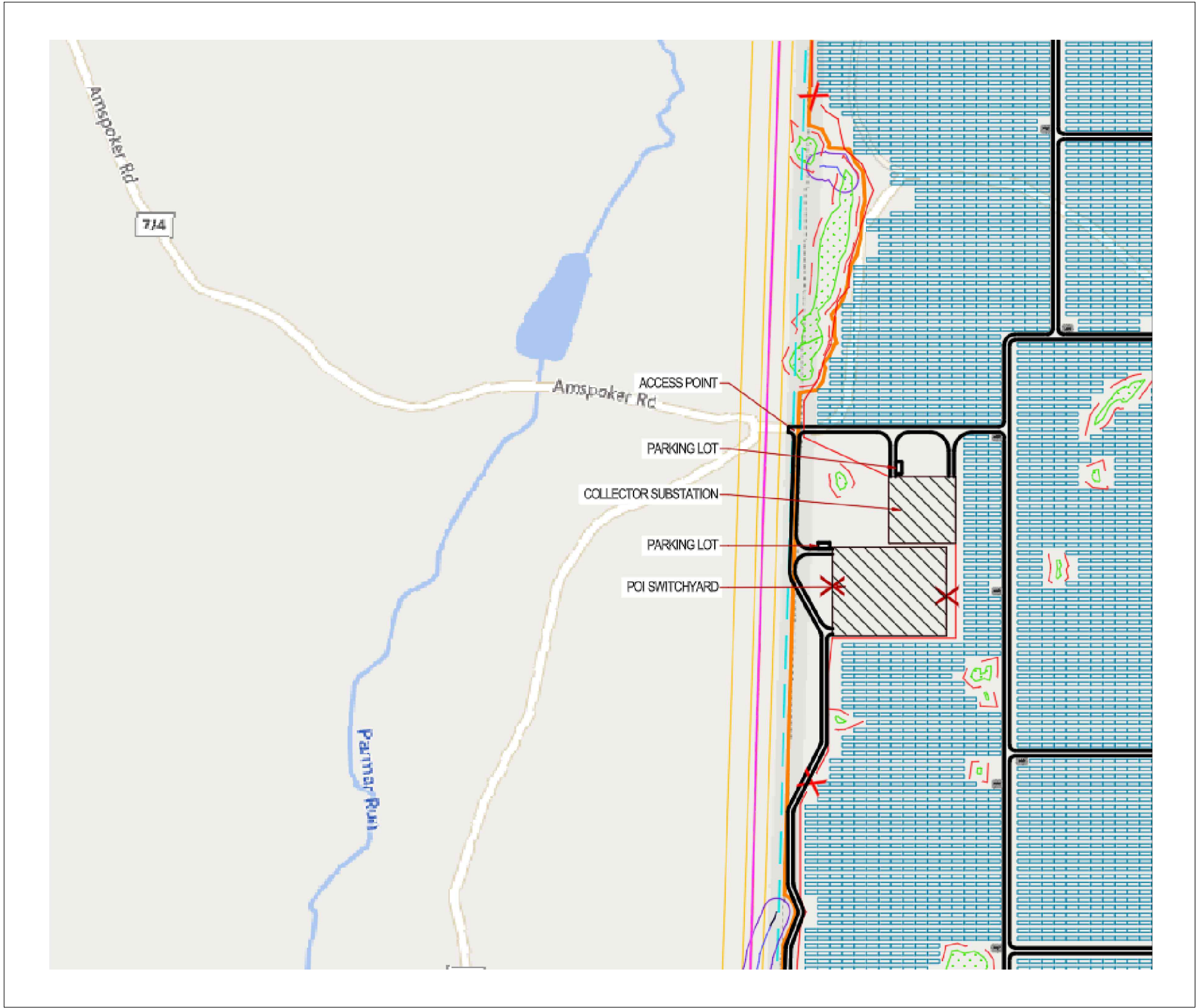
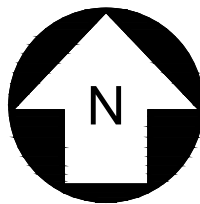


CORNERSTONE SOLAR

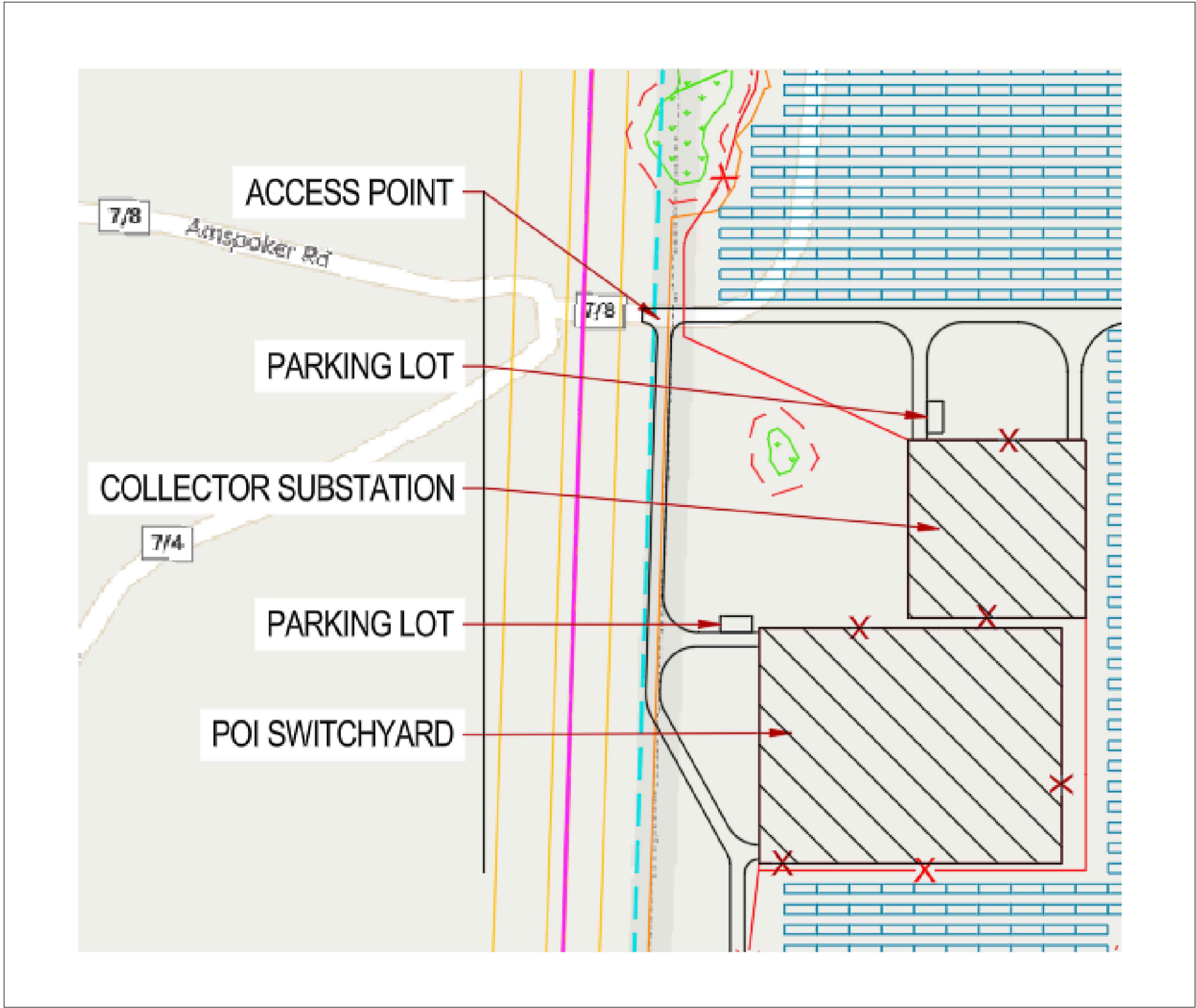
COLLECTOR/POI ELECTRICAL PACKAGE - COVER PAGE

JEFFERSON TOWNSHIP, WASHINGTON COUNTY, PA

Nº PAGE	DESCRIPTION	PHASE	DATE	PAGE VERS.
CS-CVR-01	COVER PAGE & DRAWING INDEX	CONCEPTUAL	10/22/2025	B
CS-E01-01	COLLECTOR SWITCHING ONE LINE DIAGRAM	CONCEPTUAL	10/22/2025	B
CS-E01-02	COLLECTOR RELAY ONE LINE DIAGRAM	CONCEPTUAL	10/22/2025	B
CS-E02-01	POI SWITCHING ONE LINE DIAGRAM	CONCEPTUAL	10/22/2025	B
CS-E02-02	POI RELAY ONE LINE DIAGRAM	CONCEPTUAL	10/22/2025	B
CS-S01-01	COLLECTOR GENERAL ARRANGEMENT	CONCEPTUAL	10/22/2025	B
CS-S02-01	POI GENERAL ARRANGEMENT	CONCEPTUAL	10/22/2025	B



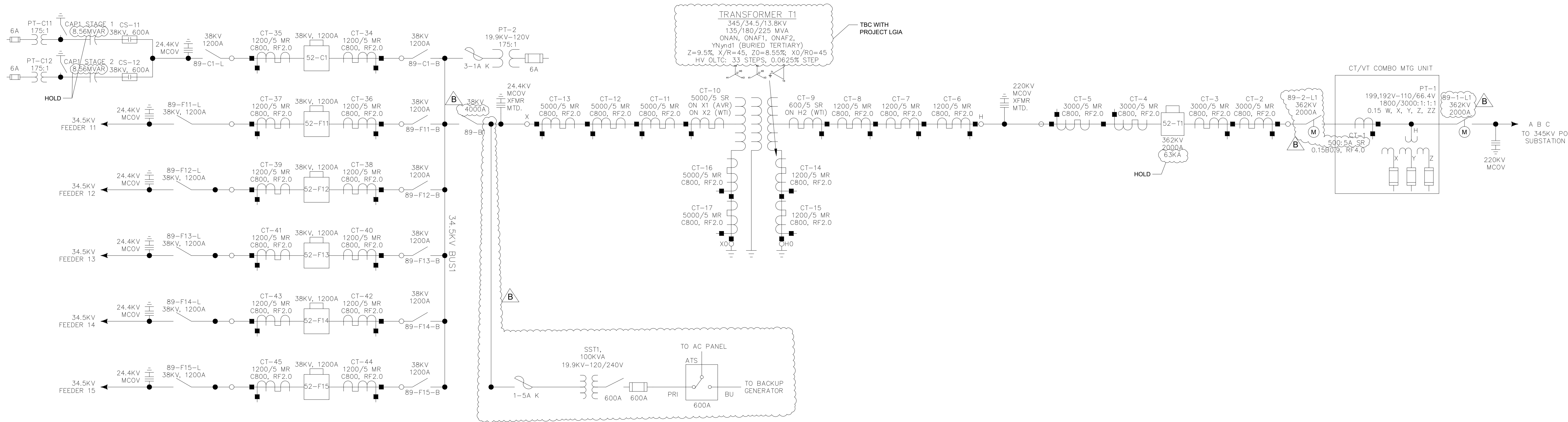
STREET MAP



AERIAL VIEW

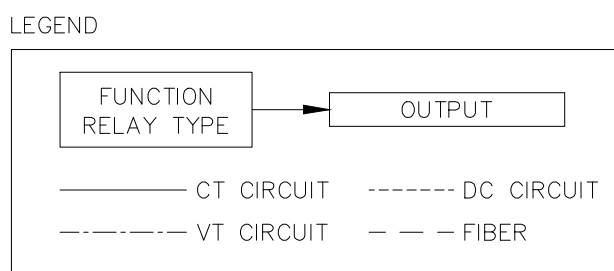
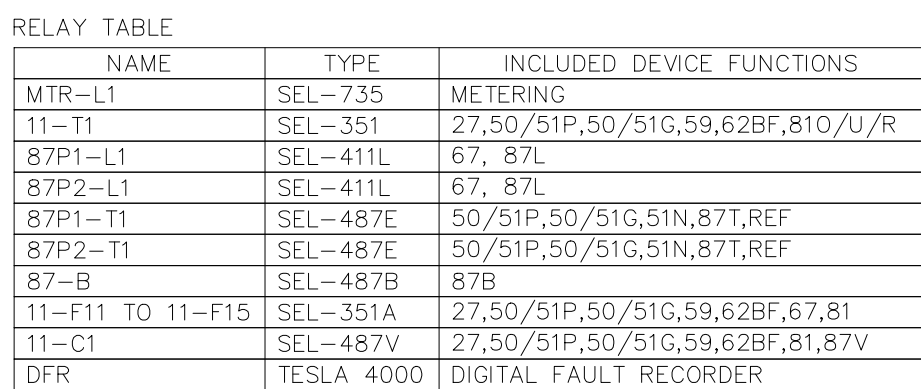
B	JP	10/22/25	RE-ISSUED FOR CONCEPTUAL DESIGN	CRT
A	JP	09/23/25	CONCEPTUAL DESIGN	CRT
NO.	BY	DATE	REVISION	APP'D.
PROJECT: CORNERSTONE SOLAR, LLC				
TITLE: COVER PAGE & DRAWING INDEX COLLECTOR/POI ELECTRICAL PACKAGE				
DRAWN BY: JP		PROJ. NO.: 606374		
CHECKED BY: MC		CS-CVR-01		
APPROVED BY: CRT				
DATE: SEPTEMBER 23, 2025				
		116 North Washington Avenue, 3rd Floor, Suite 312 Scranton, PA 18503 Phone: 570.489.6920 www.trccompanies.com		
FILE NO:				

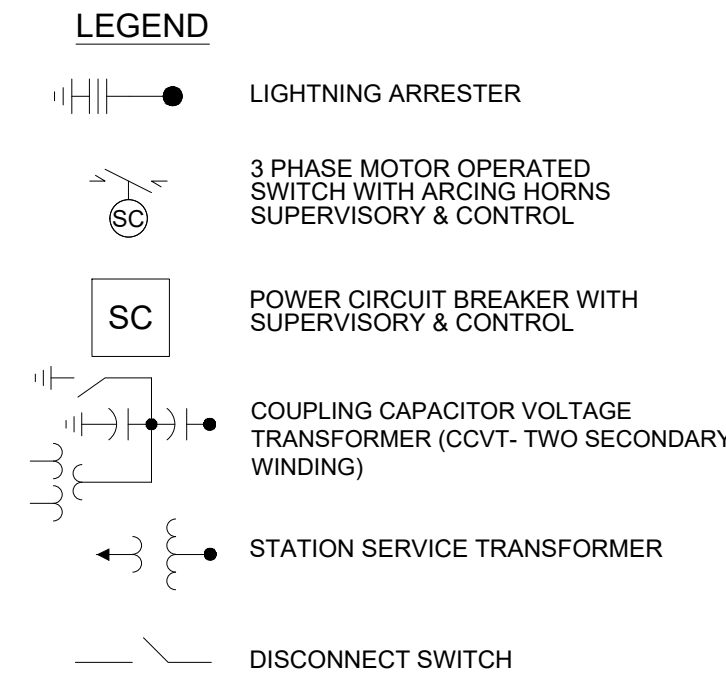
SYMBOL LEGEND					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	POWER TRANSFORMER		CT/VT COMBO UNIT		FUSED DISCONNECT
	CIRCUIT BREAKER		CURRENT TRANSFORMER		STATION SERVICE TRANSFORMER
	GROUP OPERATED SWITCH		VOLTAGE TRANSFORMER		AUTOMATIC TRANSFER SWITCH
	MOTOR OPERATED SWITCH		SURGE ARRESTER		CAPACITOR BANK
	GROUND SWITCH				CAP SWITCHER



NOT TO BE USED
FOR CONSTRUCTION

B	JP	10/22/25	RE-ISSUED FOR CONCEPTUAL DESIGN	CRT
A	JP	09/23/25	CONCEPTUAL DESIGN	CRT
NO	BY	DATE	REVISION	APP'D.
PROJECT: CORNERSTONE SOLAR, LLC				
TITLE: SWITCHING ONE LINE DIAGRAM COLLECTOR SUBSTATION				
DRAWN BY: JP		PROJ. NO: 606374		
CHECKED BY: MC		CS-E01-01		
APPROVED BY: CRT				
DATE: SEPTEMBER 23, 2025				
		116 North Washington Avenue, 3rd Floor, Suite 312 Scranton, PA 18503 Phone: 570.489.6920 www.trccompanies.com		
		FILE NO:		





NOT TO BE USED
FOR CONSTRUCTION



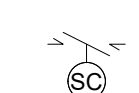
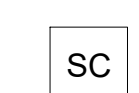
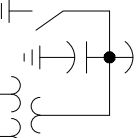
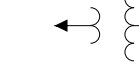
C:\Users\jwheeler\OneDrive\Documents\TRC\CS-E02-02.dwg 10/22/25 1:44:08 PM jwheeler

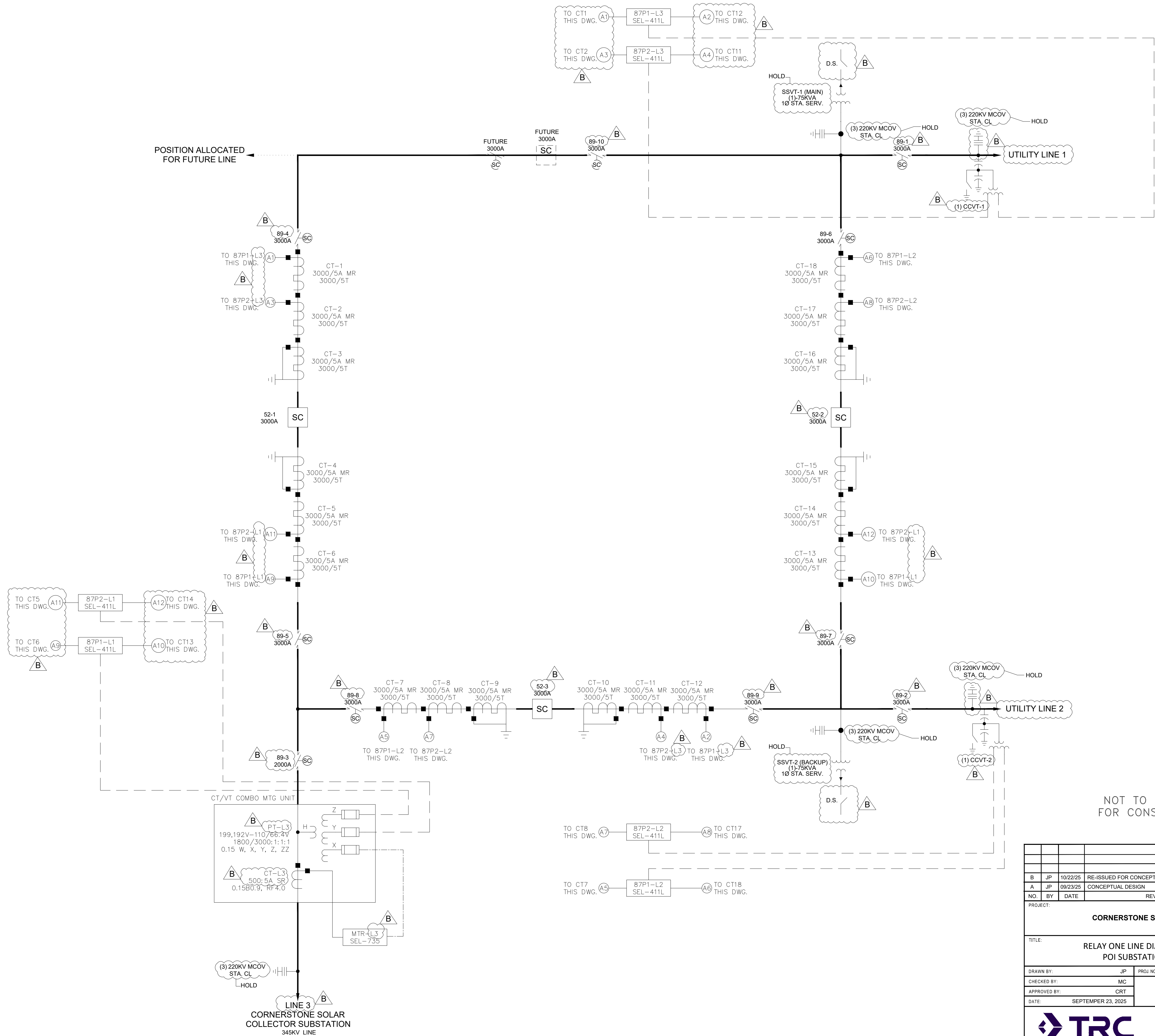
1 Rev Cornerstone-TITLE.dwg

NOTES:

1. THIS IS A TYPICAL SCHEME AND FINAL DESIGN WILL BE APPROVED BY THE INTERCONNECTING UTILITY.

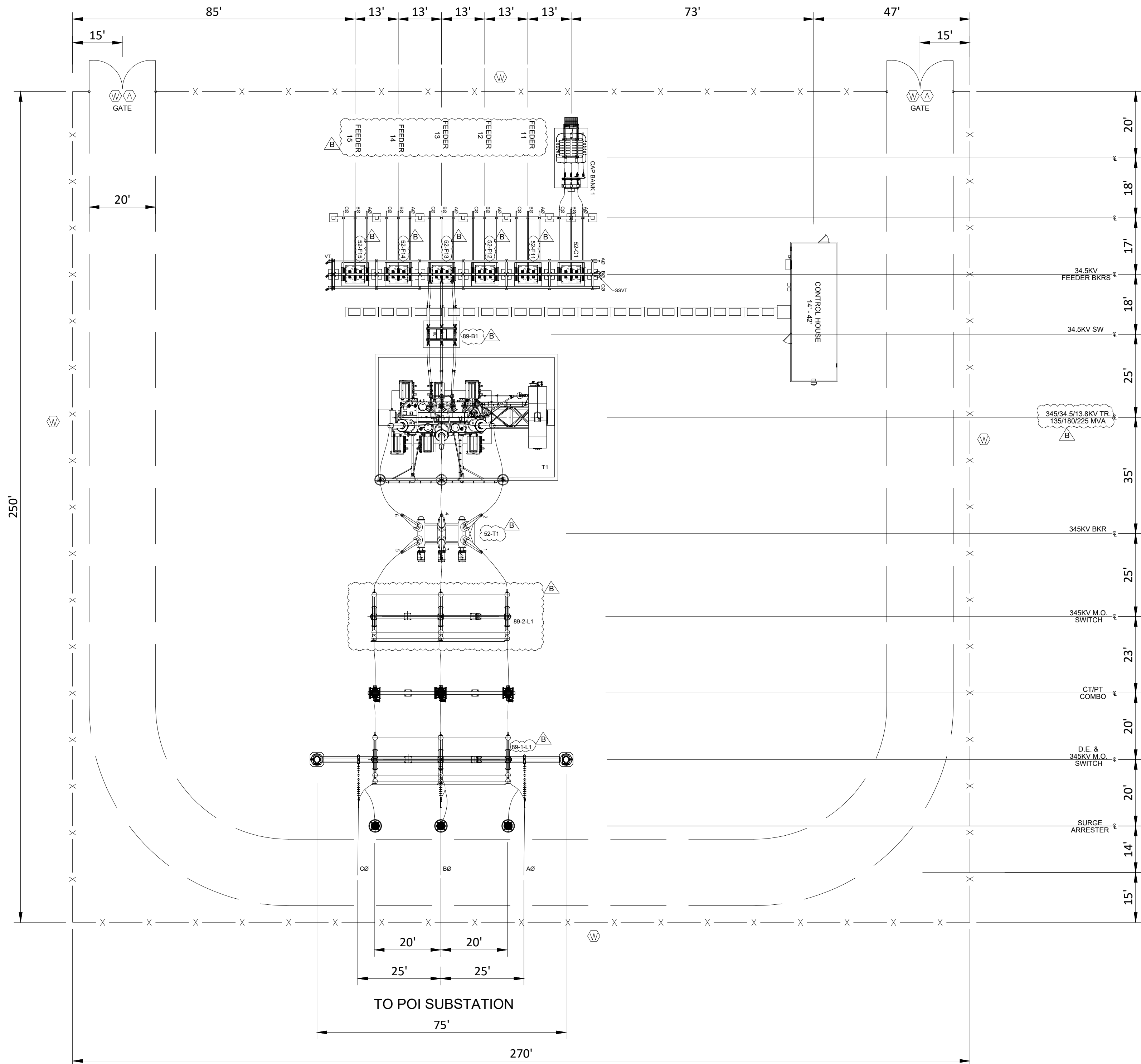
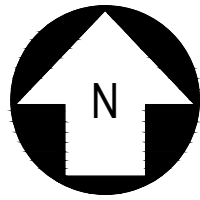
LEGEND

-  LIGHTNING ARRESTER
-  3 PHASE MOTOR OPERATED SWITCH WITH ARCING HORNS SUPERVISORY & CONTROL
-  POWER CIRCUIT BREAKER WITH SUPERVISORY & CONTROL
-  COUPLING CAPACITOR VOLTAGE TRANSFORMER (CCVT- TWO SECONDARY WINDING)
-  STATION SERVICE TRANSFORMER
-  DISCONNECT SWITCH



NOT TO BE USED
FOR CONSTRUCTION

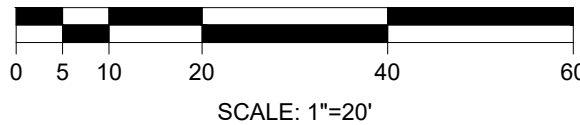
B	JP	10/22/25	RE-ISSUED FOR CONCEPTUAL DESIGN	CRT
A	JP	09/23/25	CONCEPTUAL DESIGN	CRT
NO.	BY	DATE	REVISION	APPD.
PROJECT: CORNERSTONE SOLAR, LLC				
TITLE: RELAY ONE LINE DIAGRAM POI SUBSTATION				
DRAWN BY:		JP	PROJ. NO:	606374
CHECKED BY:		MC	CS-E02-02	
APPROVED BY:		CRT		
DATE:		SEPTEMBER 23, 2025		
			116 North Washington Avenue, 3rd Floor, Suite 312 Scranton, PA 18503 Phone: 570.489.6920 www.trccompanies.com	
FILE NO:				



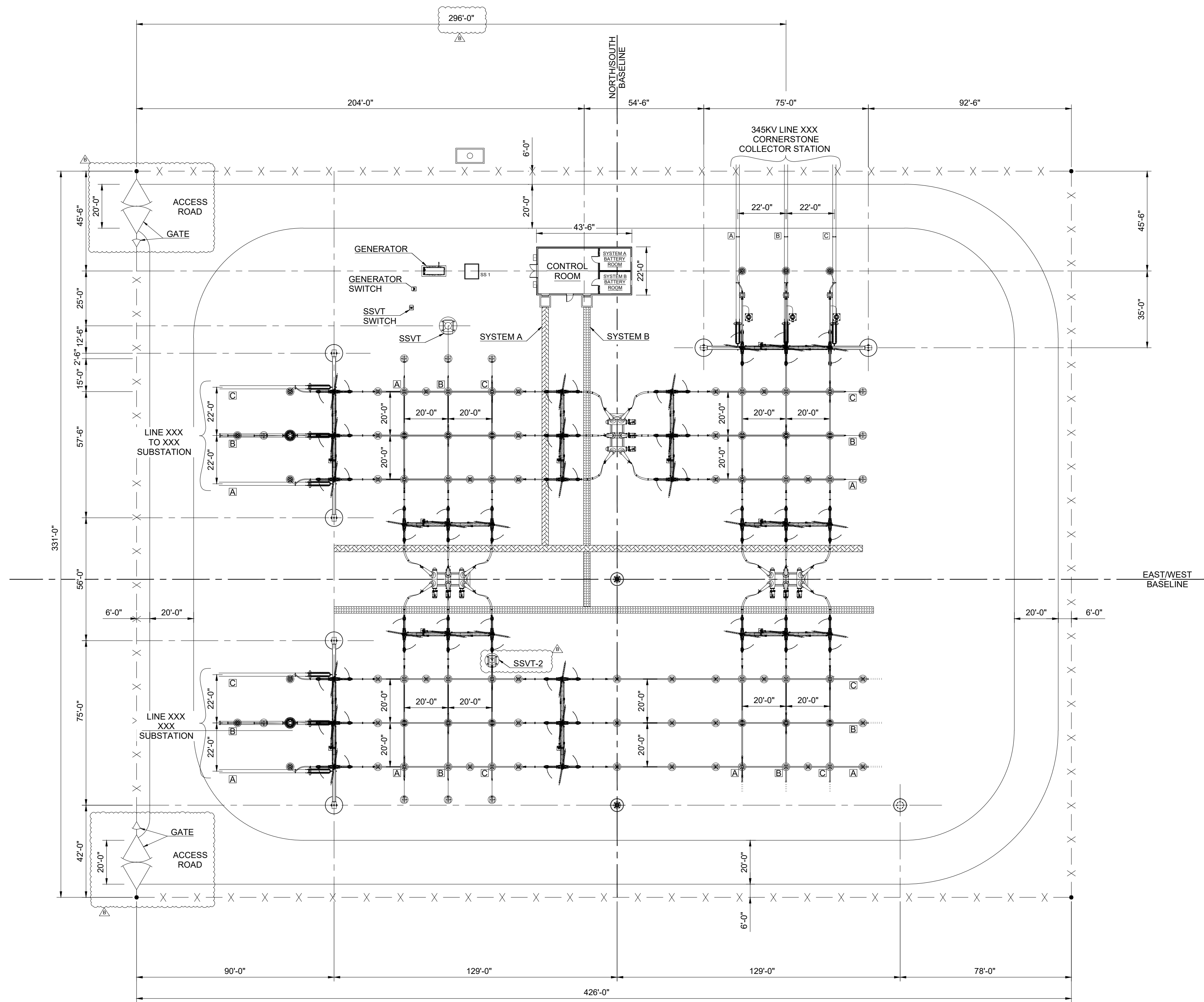
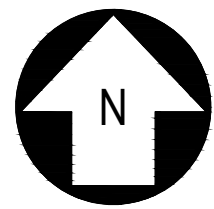
- LEGEND:
- S - SLIP FITTING
 - F - FIXED FITTING
 - E - EXPANSION FITTING
 - - BOLLARD
 - W - SUBSTATION WARNING SIGN: "DANGER HIGH VOLTAGE". TO BE PLACED AT EACH SECTION OF FENCE LINE AND AT VEHICLE GATE ENTRANCES.
 - A - SUBSTATION WARNING SIGN: "CAUTION ENERGIZED LINES OVERHEAD". TO BE PLACED AT VEHICLE GATE ENTRANCES.

- NOTES:
- 1) WHEN INSTALLING BREAKERS VERIFY BUSHING ORIENTATION IS AS SHOWN.
 - 2) WHEN INSTALLING THE 34.5KV CT/PT VERIFY TERMINAL CONNECTIONS ARE AS SHOWN.
 - 3) IT IS RECOMMENDED TO INSTALL WEEP HOLES AT ALL MIDPOINTS OF EVERY HORIZONTAL BUS SPAN. DRILL $\frac{3}{8}$ " WEEP HOLES ON THE BOTTOM OF THE TUBULAR BUS.
 - 4) 34.5KV CONDUCTOR CLEARANCES FOR THIS INSTALLATION SHALL NOT BE LESS THAN THE FOLLOWING VALUES PER IEEE C37.30.1:
 - * PHASE - PHASE (ϵ TO ϵ) = 12'-6"
 - * PHASE - PHASE (METAL TO METAL) = 10'-0"
 - * PHASE - GROUND = 7'-0"
 - 5) 34.5 KV ELECTRICAL BUS & CONDUCTOR CLEARANCES FOR THIS INSTALLATION SHALL NOT BE LESS THAN THE FOLLOWING VALUES PER IEEE C37.30.1 & 1427 AND ADJUSTED PER IEEE C37.100.1 FOR 700' SITE ELEVATION AS APPLICABLE:
 - * PHASE - PHASE (ϵ TO ϵ) = 36"
 - * PHASE - PHASE (METAL TO METAL) = 18"
 - * PHASE - GROUND = 16"
 - 6) AN ACCEPTABLE INSIDE DIAMETER BEND OF TUBULAR BUS IS 5 TO 7 TIMES THE OUTSIDE DIAMETER OF THE TUBE.
 - 7) AN ACCEPTABLE INSIDE DIAMETER BEND FOR WIRE IS 10 TO 15 TIMES THE DIAMETER OF THE CONDUCTOR.
 - 8) INSTALL DAMPING CONDUCTOR IN ALL BUS SECTIONS, TACK WELD TO THE BOTTOM OF THE BUS.
 - 9) PER NESC 124.A.3, ALL POINTS OF INDETERMINATE VOLTAGE, SUCH AS UNGROUNDED PARTS OF INSULATORS OR SURGE ARRESTERS, SHALL HAVE A VERTICAL CLEARANCE OF NO LESS THAN 8'-6" TO ANY PERMANENT SUPPORTING SURFACE.
 - 10) PER NESC TABLE 124-1, THE MINIMUM VERTICAL CLEARANCE TO LIVE PARTS IS AS FOLLOWS:
 - * 34.5KV = 17'-9"
 - * 34.5KV = 9'-6"

DRAWING REFERENCE	
SWITCHING ONE-LINE	CS-E01-01
RELAY ONE-LINE	CS-E01-02



B	JP	10/22/25	RE-ISSUED FOR CONCEPTUAL DESIGN		CRT
A	JP	09/23/25	CONCEPTUAL DESIGN		CRT
NO.	BY	DATE	REVISION		APPD.
PROJECT:					
CORNERSTONE SOLAR, LLC					
TITLE:					
GENERAL ARRANGEMENT COLLECTOR SUBSTATION					
DRAWN BY:			JP	PROJ. NO:	606374
CHECKED BY:			MC	CS-S01-01	
APPROVED BY:			CRT		
DATE:			SEPTEMBER 23, 2025		
				116 North Washington Avenue, 3rd Floor, Suite 312 Scranton, PA 18503 Phone: 570.489.6920 www.trccompanies.com	
FILE NO:					

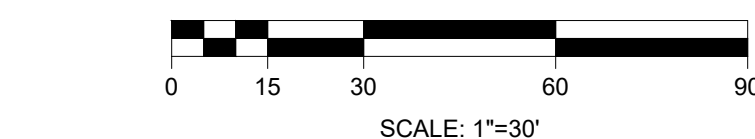


- LEGEND:
- S - SLIP FITTING
 - F - FIXED FITTING
 - E - EXPANSION FITTING
 - - BOLLARD
 - ⚡ - SUBSTATION WARNING SIGN: "DANGER HIGH VOLTAGE". TO BE PLACED AT EACH SECTION OF FENCE LINE AND AT VEHICLE GATE ENTRANCES.
 - ⚠ - SUBSTATION WARNING SIGN: "CAUTION ENERGIZED LINES OVERHEAD". TO BE PLACED AT VEHICLE GATE ENTRANCES.

- NOTES:
- LIGHTNING MASTS SHOWN ARE REPRESENTATIVE ONLY. A DIRECT STRIKE PROTECTION STUDY SHALL BE CONDUCTED DURING DETAILED DESIGN IN ACCORDANCE WITH TM2.71.10 TO DETERMINE HEIGHT AND LOCATION OF MAST.
 - CONTROL HOUSE BUILDING LAYOUT & DESIGN IS ILLUSTRATIVE ONLY.
 - CORNERSTONE SOLAR TO CONFIRM FUTURE LINE EXIT LOCATION. STATION WILL HAVE TO BE EXPANDED TO ACCOMMODATE LINE EXIT FROM NORTH OR WEST
 - PHASING FOR NEW CONSTRUCTION SHALL BE A,B,C. ELECTRICAL SYSTEM PHASE RELATIONSHIP TO BE:

A	B	C
1	2	3
RED	WHITE	BLUE
 - BUS SPAN AND EXACT POSITIONS FOR BUS SUPPORTS WILL BE CONFIRMED WITH RIGID BUS DESIGN CRITERIA.
 - CT SATURATION CALCULATION NEEDS TO BE PERFORMED ON A CASE BY CASE BASIS TO DETERMINE THE DISTANCE THAT THE IPP BREAKER CAN BE INSTALLED FROM THE SUBSTATION
 - EQUIPMENT SHOWN IS ILLUSTRATIVE ONLY. FOR PROJECT DESIGN, EQUIPMENT SHALL BE VERIFIED AND UPDATED WITH VENDOR-SPECIFIC INFORMATION
 - INSTRUMENT TRANSFORMERS FOR REVENUE METERING LOCATION TBD.
 - STATION NAME AND IDENTIFIER ARE PENDING.

DRAWING REFERENCE	
SWITCHING ONE-LINE	CS-E02-01
RELAY ONE-LINE	CS-E02-02



B	JP	10/22/25	RE-ISSUED FOR CONCEPTUAL DESIGN	CRT					
A	JP	09/23/25	CONCEPTUAL DESIGN	CRT					
NO.	BY	DATE	REVISION	APPD.					
PROJECT:									
CORNERSTONE SOLAR, LLC									
TITLE:									
GENERAL ARRANGEMENT POI SWITCHYARD									
DRAWN BY:		JP	PROJ. NO.:	606374					
CHECKED BY:		MC	CS-S02-01						
APPROVED BY:		CRT							
DATE:		SEPTEMBER 23, 2025							
									
116 North Washington Avenue, 3rd Floor, Suite 312 Scranton, PA 18503 Phone: 570.489.6920 www.trccompanies.com									
FILE NO.:									