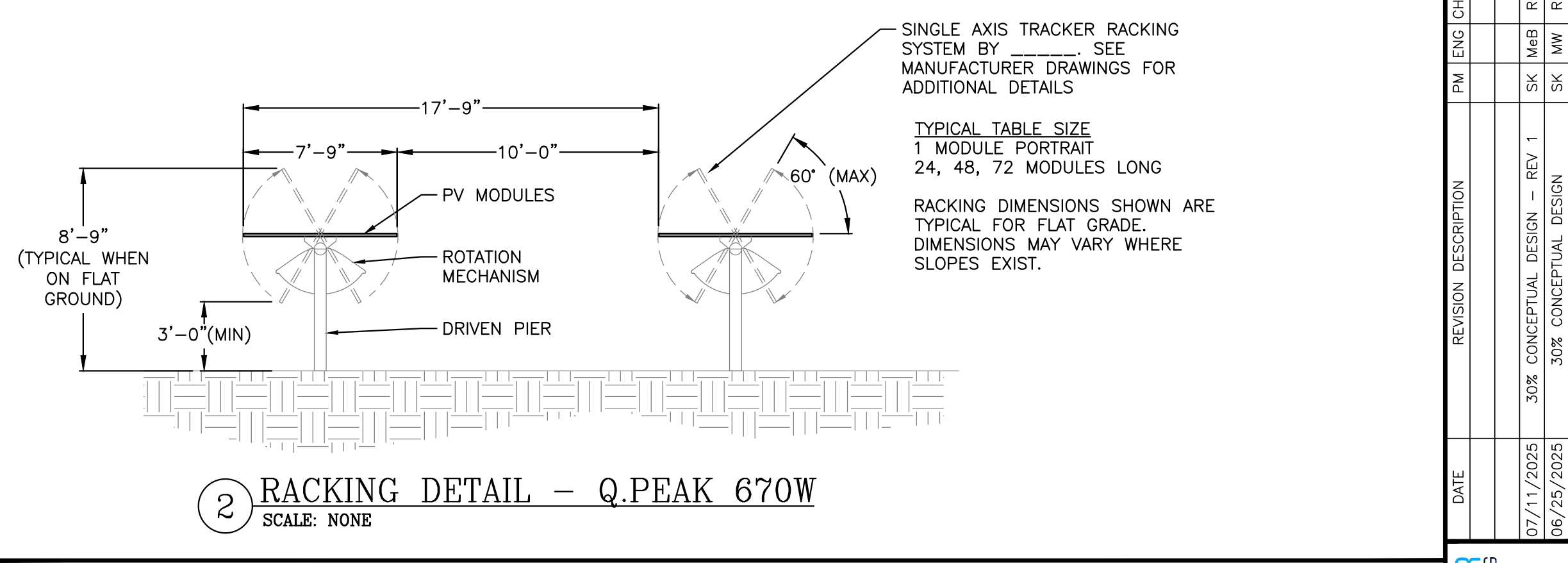


RULER IN INCHES: 0 1/2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 PLOT DATE: 7/11/2025 1:21 PM



1 OVERALL ELECTRICAL PLAN
SCALE: 1" = 40'



DRAWING TITLE
OVERALL ELECTRICAL PLAN

DRAWING #
E100

PROJECT
SOLAR GROUND MOUNT SYSTEM AT
81 LAKE STREET
41.78919, -72.48043
MANCHESTER, CT 06040

PAGE SIZE
36" x 24"
PROJECT #
10036.09

DEVELOPER
Greenskies
a Clean Focus company
127 WASHINGTON AVENUE
NORTH HAVEN, CT 06473
WWW.GREENSKIES.COM

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ENGINEERING
111 WASHINGTON STREET, 11TH FLOOR
MANCHESTER, CT 06040
WWW.PUREPOWER.COM
RICHARD A. MINIS
06/25/2025 30% CONCEPTUAL DESIGN
06/25/2025 30% CONCEPTUAL DESIGN

DATE	REVISION	DESCRIPTION	PM	ENG	CHK
07/11/2025	30% CONCEPTUAL DESIGN - REV 1		SK	MAB	RI
06/25/2025	30% CONCEPTUAL DESIGN		SK	MW	RI

RULER IN INCHES: 0 1/2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 PLOT DATE: 7/11/2025 1:21 PM

SEL 751 RELAY										
SETTINGS ARE PRELIMINARY PENDING UTILITY APPROVAL AND NOT INTENDED FOR CONSTRUCTION. 50/51 SETTINGS ARE PRELIMINARY AND COORDINATION STUDY BY EOR HAS NOT BEEN COMPLETED.										
DG System Base AC Size = 500KVA			12.55A BASE PRIMARY USED FOR 50/51 ELEMENTS				*Total Clear Time = 3 Cycle Breaker Plus Delay (Time Dial or DEF Time)			
0.31A BASE SECONDARY 50/51P,G,N,Q							13279.06V BASE PRIMARY USED FOR 27/59 ELEMENTS			
P,G,N,Q CT RATIO FACTOR = 40							120.72V BASE SECONDARY USED FOR 27/59 ELEMENTS			
P CT Minimum Rating = 200:5 1B0.5 C50 RF = 1 @ 30C							PT RATIO FACTOR = 110			
ANSI ELEMENT #	Unit	Pickup (Secondary)	Real (Primary)	Level	Def. Time Delay (s)	Time Dial	Total Clear Time (s)*	Total Clear Time (cyc)*	Curve	Description
27-1	L-N Volt	106.23	11685.57	88.00%	2.95	-	3.00	180.00	-	Slow UV
27-2	L-N Volt	60.36	6639.53	50.00%	1.05	-	1.10	66.00	-	Fast UV
59-1	L-N Volt	132.79	14606.96	110.00%	1.95	-	2.00	120.00	-	Slow OV
59-2	L-N Volt	144.86	15934.87	120.00%	0.11	-	0.16	9.60	-	Fast OV
79-UV	L-N Volt	114.68	12615.10	95.00%	299.95	-	300.00	18000.00	-	Min Permissive Close Voltage
79-OV	L-N Volt	126.75	13943.01	105.00%	299.95	-	300.00	18000.00	-	Max Permissive Close Voltage
59N	3V0 L-N Volt	20.52	2257.44	17.00%	1.95	-	2.00	120.00	-	Zero Sequence Overvolt
81U-1	Hz	58.50	58.50	97.50%	299.95	-	300.00	18000.00	-	Slow UF
81U-2	Hz	56.50	56.50	94.17%	0.11	-	0.16	9.60	-	Fast UF
81O-1	Hz	61.20	61.20	102.00%	299.95	-	300.00	18000.00	-	Slow OF
81O-2	Hz	62.00	62.00	103.33%	0.11	-	0.16	9.60	-	Fast OF
79-UF	Hz	59.50	59.50	99.17%	299.95	-	300.00	18000.00	-	Min Permissive Close Frequency
79-OF	Hz	60.50	60.50	100.83%	299.95	-	300.00	18000.00	-	Max Permissive Close Frequency
51P	A	0.47	18.83	150.00%	-	2	3.9 @2X	234.02 @2X	U4	Time Phase OC
50P	A	3.77	150.61	1200.00%	0.00	-	0.05	3.00	-	Instantaneous P OC
51G	A	0.06	2.51	20.00%	-	2	3.9 @2X	234.02 @2X	U4	Timed Ground OC
50G	A	0.31	12.55	100.00%	0.00	-	0.05	3.00	-	Instantaneous G OC
74	-	-	-	-	0.00	-	0.05	3.00	-	Relay Alarm

1 RELAY SETTINGS
SCALE: NONE

INVERTER UL1741-SB Compliant				
ANSI ELEMENT #	Pickup	Level	Delay (sec)	Description
27-1	304.84V	88.0%	3.00	Slow UV
27-2	173.21V	50.0%	1.10	Fast UV
59-1	381.05V	110.0%	2.00	Slow OV
59-2	415.69V	120.0%	0.16	Fast OV
81U-1	56.50Hz	94.2%	0.16	Fast UF
81U-2	58.50Hz	97.5%	300.00	Slow UF
81O-1	62.00Hz	103.3%	0.16	Fast OF
81O-2	61.20Hz	102.0%	300.00	Slow OF
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

2 INVERTER SETTINGS
SCALE: NONE

PROJECT

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PROJECT #

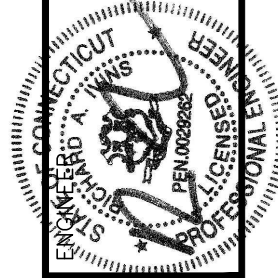
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WWW.PUREPOWER.COM
RICHARD A. IMS
CT LICENSE NO. 0029262

REVISION DESCRIPTION

DATE

PM / ENG / CHK

30% CONCEPTUAL DESIGN - REV 1

07/11/2025

SK

MAB

RI

30% CONCEPTUAL DESIGN

06/25/2025

SK

IMW

RI

