



RIGHT ANGLE ENGINEERING

March 27, 2023

MT Solar
54179 Herak Road
Charlo, MT 59824

RE: Solar ground mount footing and assembly for Tamarack Solar, 288 F St. Arcata, CA 95521

As per your request, I have evaluated the proposed footing and assembly for the solar array. The solar array consists of 4 panels with 1 footings. The following loads were used in the analysis of the pole mount system:

Snow load	60 psf
Wind speed	150 mph (ASCE 7-16)
Exposure Category	B
Soil Lateral Pressure	150 psf/ft
Soil Vertical Pressure	2000 psf

It is my recommendation that the MT Solar design (TE-104) will adequately support the solar array. The footing should be reinforced per detail 6. The 6" schedule 40 pipe supporting the solar array should be embedded as the footing shown.

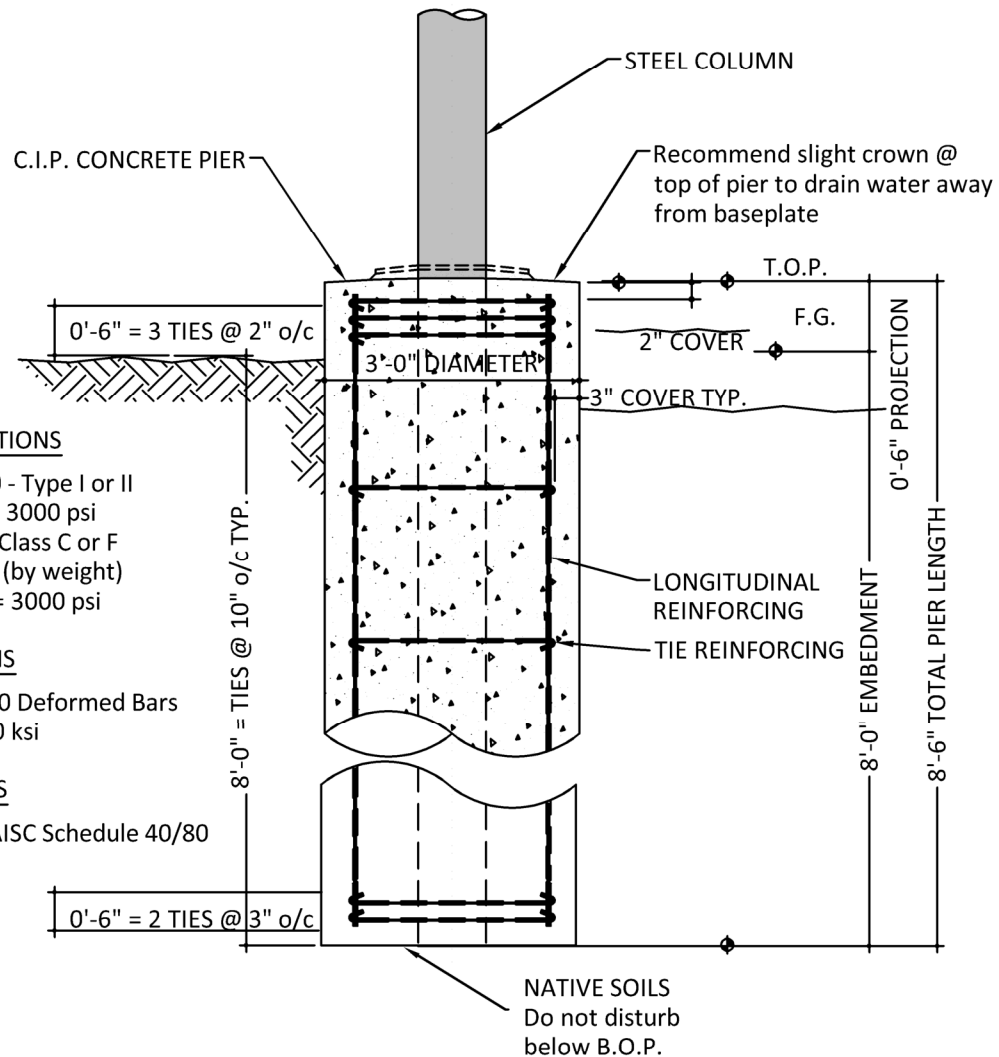
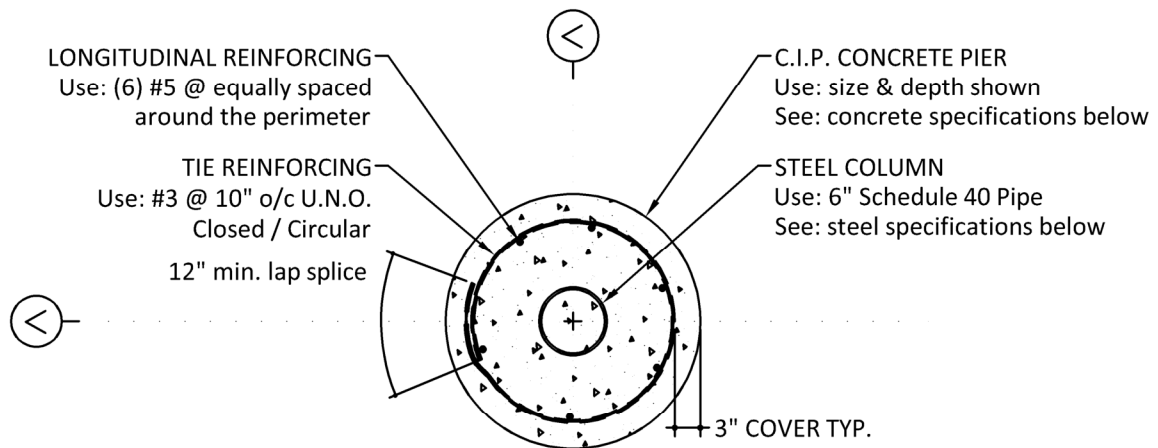
The contractor shall notify the engineer if there are any discrepancies including soil profile. Right Angle Engineering assumes no responsibility for improper installation of solar panels or their components. Alterations to this engineering design and/or sealed plans shall not be made without direct written consent of the engineer of record.

Respectfully,



Mar 27 2023

Robert D Smythe, P.E.
Right Angle Engineering



CONCRETE SPECIFICATIONS

Concrete: ASTM C150 - Type I or II
28-Day Strength: $f'_c = 3000$ psi
Fly Ash: ASTM C618 - Class C or F
permitted up to 25% (by weight)
Non-shrink Grout: $f'_c = 3000$ psi

REBAR SPECIFICATIONS

ASTM A615 - Grade 60 Deformed Bars
Yield Strength: $f_y = 60$ ksi

STEEL SPECIFICATIONS

Column: ASTM A53, AISC Schedule 40/80

Detail 6

THIS CONFIGURATION SATISFIES THE REQUIREMENTS SET FORTH IN THE:

- 2018 INTERNATIONAL BUILDING CODE
- 15TH ED. AISC STEEL DESIGN MANUAL

MATERIALS:

- GR 5 BOLTS USED AT ALL CONNECTION LOCATIONS U.N.O
- STEEL MATERIALS CONFORM TO THE FOLLOWING
- STEEL PIPE: ASTM A53, GR B, Fy=35 KSI
- WIDE FLANGE SECTIONS: ASTM A992, Fy=50 KSI
- RECTANGULAR HSS SECTIONS: ASTM A500, GR C, Fy=50 KSI
- PLATES: ASTM A36 Fy=36 KSI

CONCRETE WORK TO BE IN ACCORDANCE WITH ACI 318-14

- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF (F_c) of 3000 P

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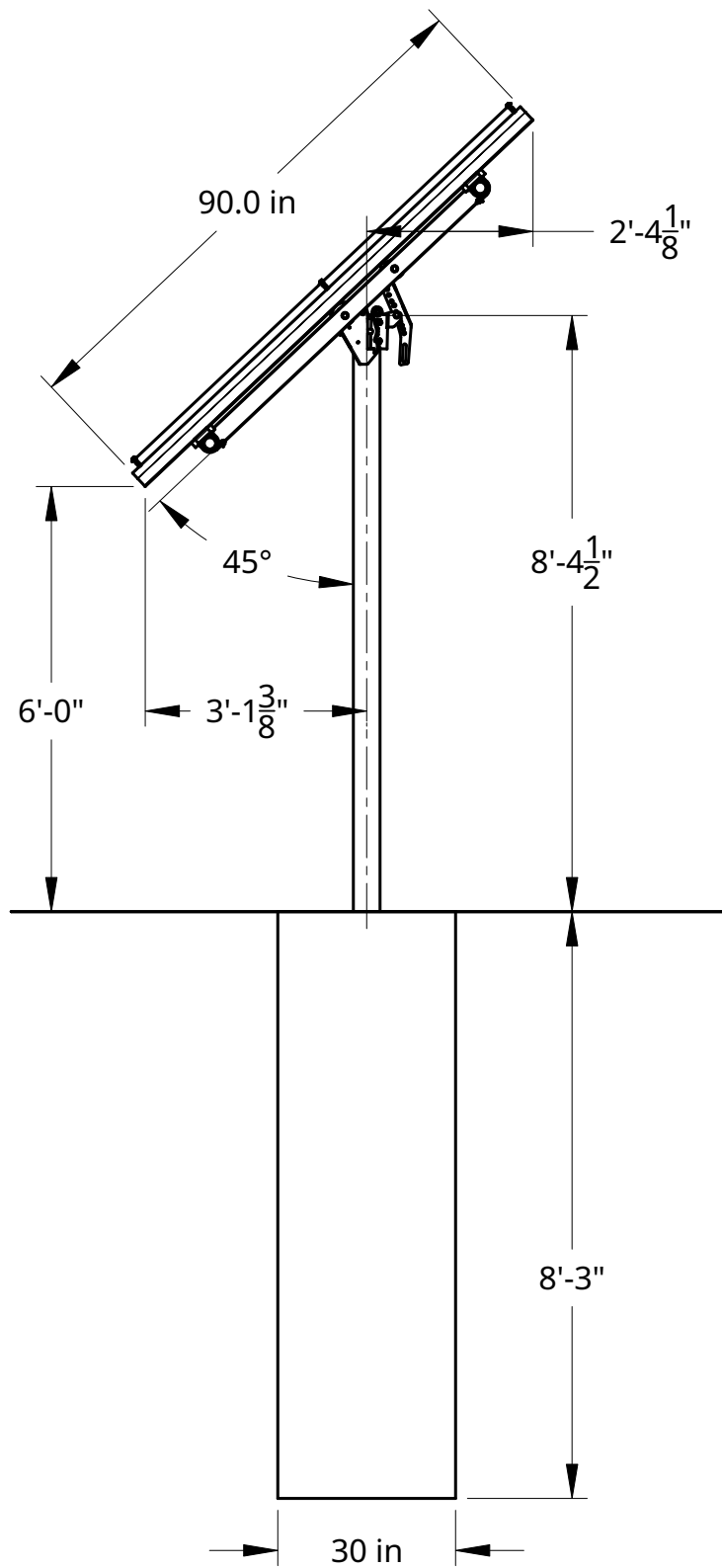
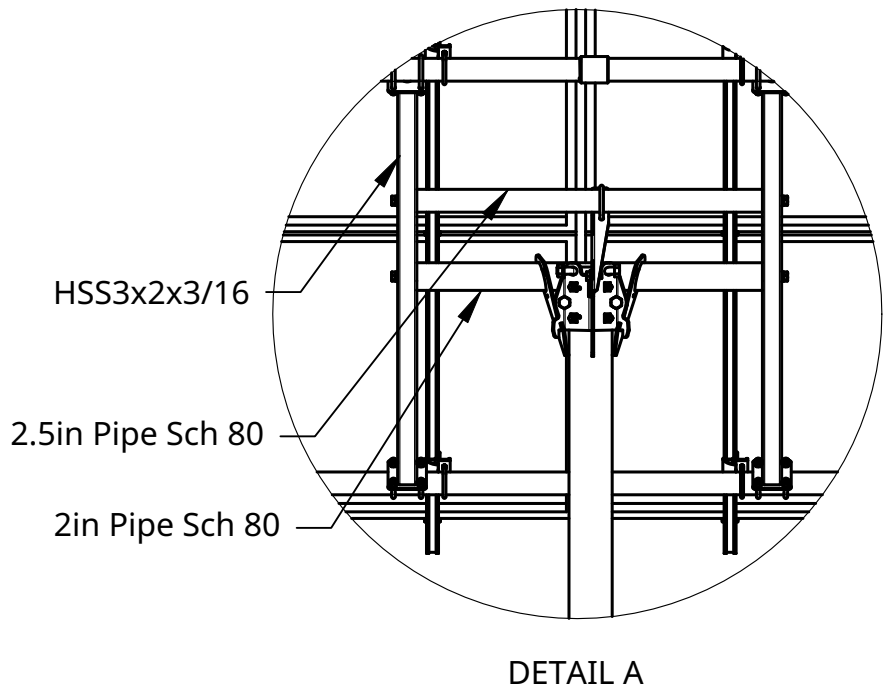
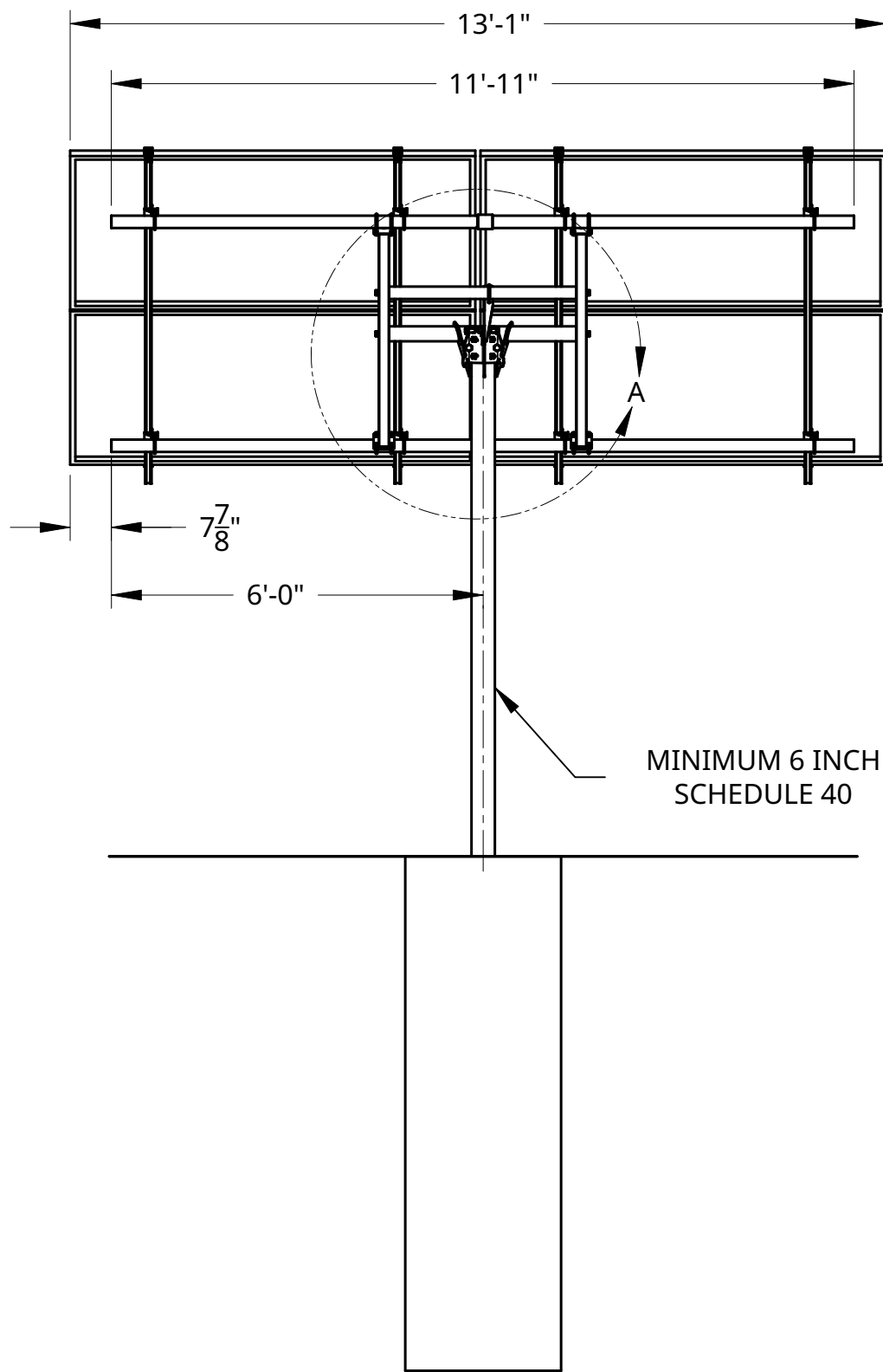
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Item	Quantity	Name
1	1	CB-POLECAP-6
2	1	CYBER-BACKPLATE-6
3	1	CB-LID-6
4	2	BOLT-KIT-CYBER-6
5	1	CYBER-ADJUSTER
6	9	CB-2-U-BOLT
7	2	TUBE-3x2-60IN-SD
8	1	PIPE-2IN-36IN-SD
9	1	PIPE-2.5IN-36IN-SD
10	4	PIPE-KIT-6FT-SD (NOT INCLUDED)
11	1	BOLT-KIT-CB-FRAME
12	1	POLE (NOT INCLUDED)
13	4	3.1 Rail Configurable
14	16	Tamarack Module Clamp Assembly
15	8	Tamarack Rail Adapter Kit
16	8	FM-1040M Tamarack Pipe Mount 2IN
17	1	groundplane
18	1	PALLET-PACKAGING-MATERIALS



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DESIGN CRITERIA	TAMARACK SOLAR TE-104		
MODULE QTY: 4	TTP-A-4-HW		
MODULE DIMENSIONS: 43" X 78"	 <div>288 F St Arcata CA 95521</div>		
WIND SPEED: 150 MPH, EXPOSURE B			
GROUND SNOW: 60 PSF			
SOIL: 4 - NON-COHESIVE, SAND			
SHEET 1 of 1		PV1	DATE 03/20/2023