

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota,

Brett D. Veazie, License No. 56392,
Expiration Date: 30-June-2024

VSE Project Number: U2716-114-191

Packet A5

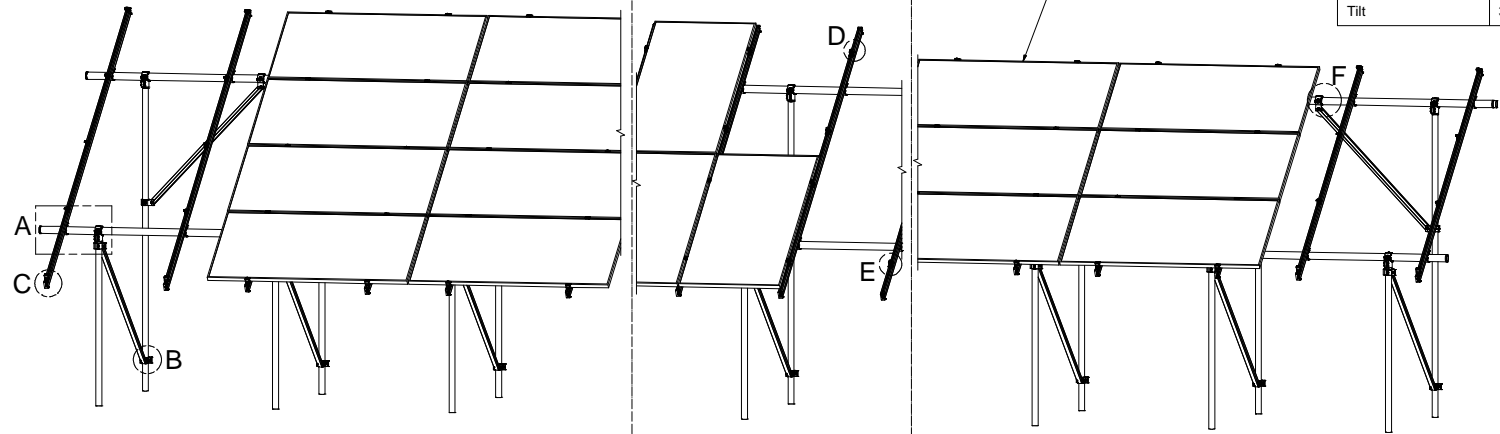
Model Code	ASCE 7-10
Exposure Category	B and Lower
Wind Speed	140 mph and Lower
Ground Snow Load	70 PSF and Lower
Tilt	35 DEG and Lower

NOTES: UNLESS OTHERWISE SPECIFIED

- THIS DRAWING IS NOT FOR CONSTRUCTION UNTIL ENGINEERING HAS REVIEWED AND STAMPED THIS DOCUMENT.
- DIMENSIONS SHOWN ARE INCHES.
- THE SELF-BONDING SYSTEM AND SINGLE GROUND LUG IS FOR USE WITH PV MODULES THAT HAVE A MAXIMUM SERIES FUSE RATING OF 30A.
- MATERIALS ARE AS SPECIFIED OR EQUIVALENT:
 HARDWARE: 304 STAINLESS STEEL
 FABRICATED EXTRUDED PARTS: 6005-T5 ALUMINUM ALLOY
 FABRICATED DIE CAST PARTS: ANSI/AA A380 ALUMINUM ALLOY
 STEEL PIPE: SCHEDULE 40 GALVANIZED
 ALUMINUM PIPE: SCHEDULE 10 ANODIZED
- THE MAXIMUM PERMISSIBLE LENGTH OF ANY STRUCTURE SHALL BE 200 FT. FOR SYSTEMS USING A SHARED RAIL CONFIGURATION, A THERMAL BREAK IS REQUIRED IN THE RAIL EVERY 40 FT. PER THE DRAWING DETAILS.
- 4LXN-3LXN-2PXN-35DEG-GSM-AGM-BGM-PGM.
- PANEL DIMENSIONS ARE AS FOLLOWS
 STANDARD (SP): MAX 82"X42"
 OVERSIZE (OP): MAX 85"X45"
- APPROVED RAIL PROFILES - STANDARD PANELS
 A20288-XXX (HR300 RAIL), A20297-001 (END CAP), K10343-002 (U-CLAMP KIT);
 A20145-XXX (HR350 RAIL), A20285-001 (END CAP), K10343-001 (U-CLAMP KIT).
- APPROVED RAIL PROFILES - OVERSIZE PANELS
 * A20288-XXX (HR300 RAIL), A20297-001 (END CAP), K10343-002 (U-CLAMP KIT);
 * A20145-XXX (HR350 RAIL), A20285-001 (END CAP), K10343-001 (U-CLAMP KIT).
- K10224-XXX END CLAMP KIT OR K10299-XXX ADJ. END CLAMP KIT.
- FOUNDATION TYPES:
 GSM = GROUND SCREW GROUND MOUNT
 AGM = HELICAL AUGER GROUND MOUNT
 PGM = POST-IN-CONCRETE GROUND MOUNT
 BSM = BALLAST GROUND MOUNT



651 W. GALENA PARK BLVD, STE. 101 DRAPER, UTAH 84020
 PHONE (801) 990-1775
 WWW.VECTORSE.COM



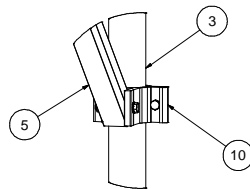
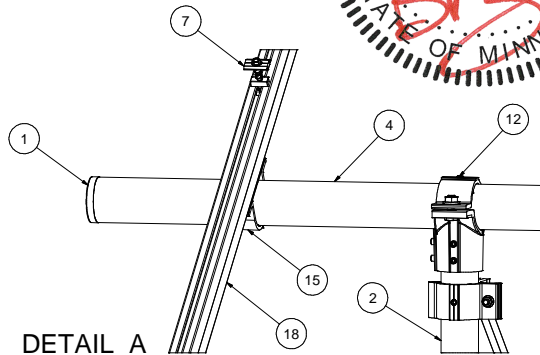
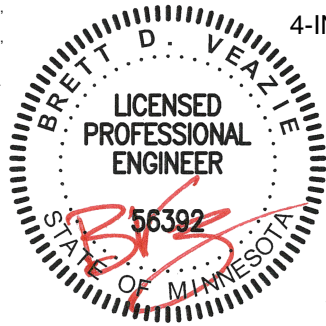
4L
4-IN-LANDSCAPE
02/22/2024

2P
2-IN-PROTRAIT

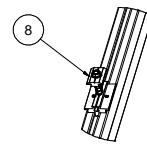
3L
3-IN-LANDSCAPE

STRUCTURAL ONLY

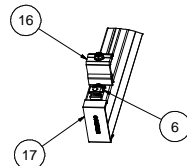
Vector Structural Engineering requires that we review each site-specific install, and we are not liable for installs at site-specific locations we have not reviewed. This document does not address site-specific installations.



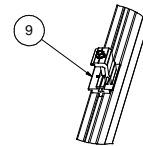
DETAIL B



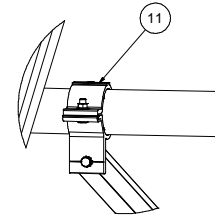
DETAIL D



DETAIL C



DETAIL E



DETAIL F

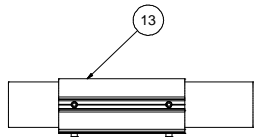
19	PANEL	
18	HELIO-RAIL-VARIES PER NOTE 8 & 9	
17	HELIO-RAIL END CAP-VARIES PER NOTE 8 & 9	
16	END CLAMP KIT. VARIES PER NOTE 10	
15	K10343-001 2.5" AL PIPE U-CLAMP KIT	
14	K10448-001 2.5" PIPE SPLICE KIT	
13	K10342-001 2.5" PIPE SPLICE KIT	
12	K10341-001 2.5" PIPE TEE KIT	
11	K10222-001 2.5" PIPE CLAMP KIT	
10	K10219-001 2" AL PIPE CLAMP KIT	
9	K10183-XXX LANDSCAPE GROUNDING END CLAMP KIT	
8	K10182-001 LANDSCAPE GROUNDING MID CLAMP KIT	
7	K10180-001 GROUNDING MID-CLAMP KIT WITH T COLLAR BOLT AND GROUNDING BASE	
6	K10179-001 SELF-GROUNDING LUG KIT	
5	A50164-XXX 1.5" SQ. STL TUBE BRACE, L=XXX	
4	A21168-XXX PIPE, HSS, 2.875" OD X 12 GAUGE, L=XXX	
3	A21165-XXX PIPE, HSS, 2.375" OD X 12 GAUGE, L=XXX (REAR)	
2	A21165-XXX PIPE, HSS, 2.375" OD X 12 GAUGE, L=XXX (FRONT)	
1	A20380-001 2.5" PIPE END CAP	
ITEM	PART NUMBER	DESCRIPTION
<p>APPROVALS: SEE BOM</p> <p>Third Angle Projection</p> <p>PERSONAL USE ONLY (NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM)</p> <p>DATE: 02/21/2024</p> <p>SCALE: 1" = 1'-0"</p> <p>DATE: 02/21/2024</p> <p>LLJ</p>		
<p>SunModo Corp. 14800 NE 65TH STREET, VANCOUVER WA 98682</p> <p>TITLE: PACKET A5</p> <p>D: DRAWING NUMBER</p> <p>SCALE: SHEET 1 of 4</p>		

THIS DRAWING IS CONFIDENTIAL PROPERTY OF SUNMODO AND ITS CONTENTS MAY NOT BE DISCLOSED WITHOUT THE PRIOR WRITTEN CONSENT OF SUNMODO CORP.

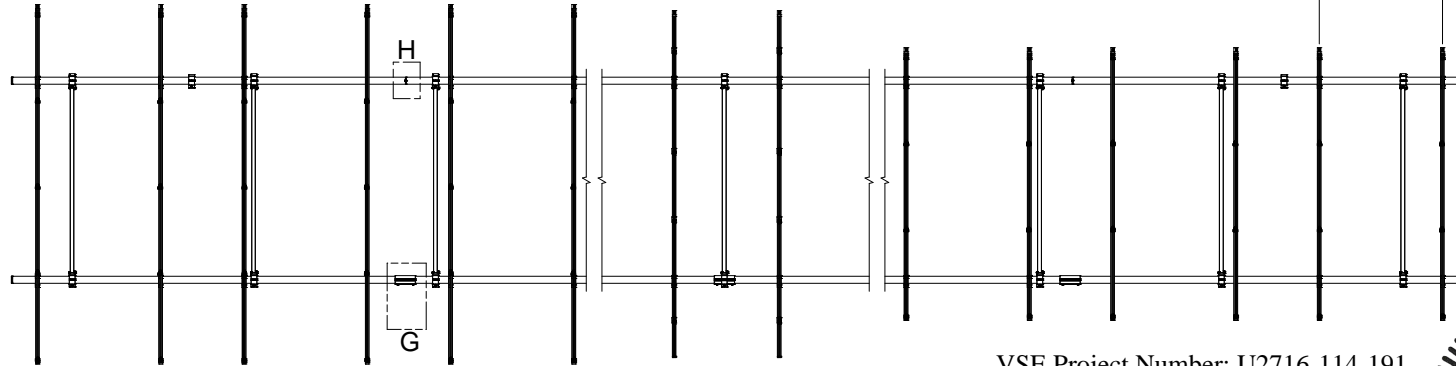
NOTES:
 1. DIMENSIONS LABELED AS MAX ARE MAXIMUM ALLOWABLE
 AND MAY RESULT IN END POSTS BEING OUTSIDE ARRAY EDGES.
 MAXIMUM DIMENSIONS MAY BE REDUCED IF DESIRED.
 2. SEE NOTE 7 OF COVER PAGE FOR PANEL SIZES.

Vector Structural Engineering requires that we review each site-specific install, and we are not liable for installs at site-specific locations we have not reviewed. This document does not address site-specific installations.

RAIL SPACING
 LANDSCAPE: PER PANEL MANUFACTURER
 PORTRAIT: PANEL WIDTH + 0.25"



DETAIL G



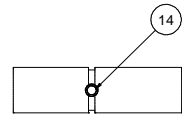
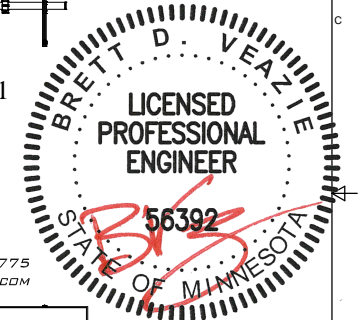
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota, Brett D. Veazie, License No. 56392, Expiration Date: 30-June-2024

VSE Project Number: U2716-114-191

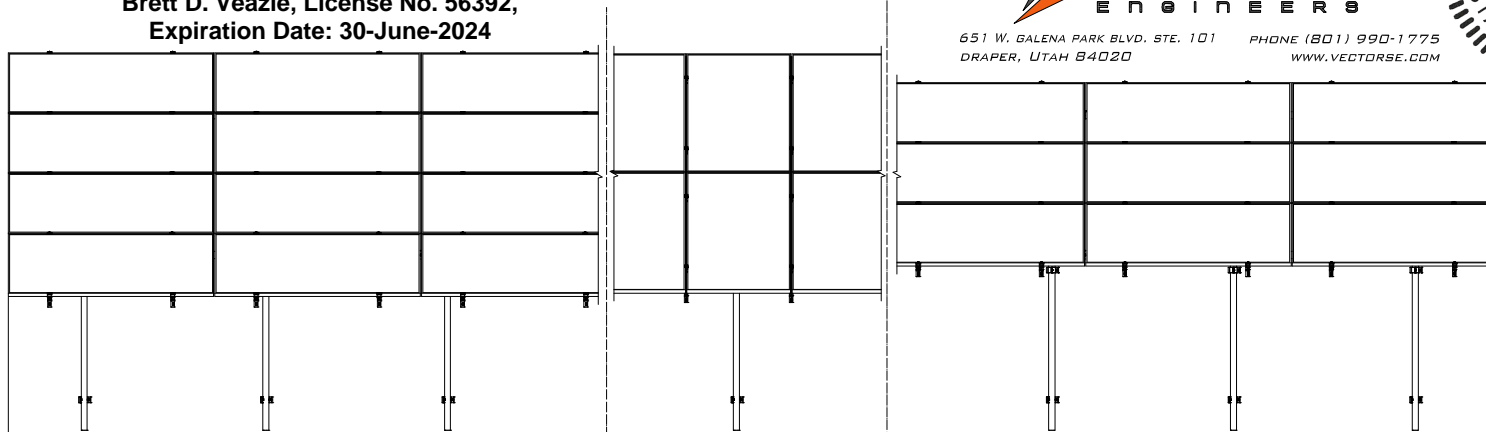
STRUCTURAL ONLY



651 W. GALENA PARK BLVD. STE. 101 DRAPER, UTAH 84020 PHONE (801) 990-1775 WWW.VECTORSE.COM



DETAIL H (ALTERNATE)



34 MAX

84 MAX¹

4L
4-IN-LANDSCAPE

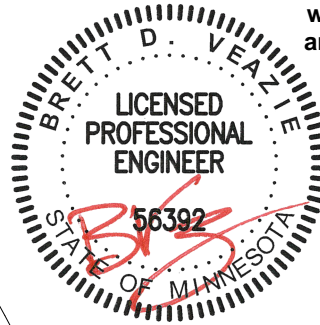
2P
2-IN-PROTRAIT

3L
3-IN-LANDSCAPE

SunModo Corp.	
TITLE	PACKET AS
D	DRAWING NUMBER
SCALE:	SHEET 2 of 4 REV

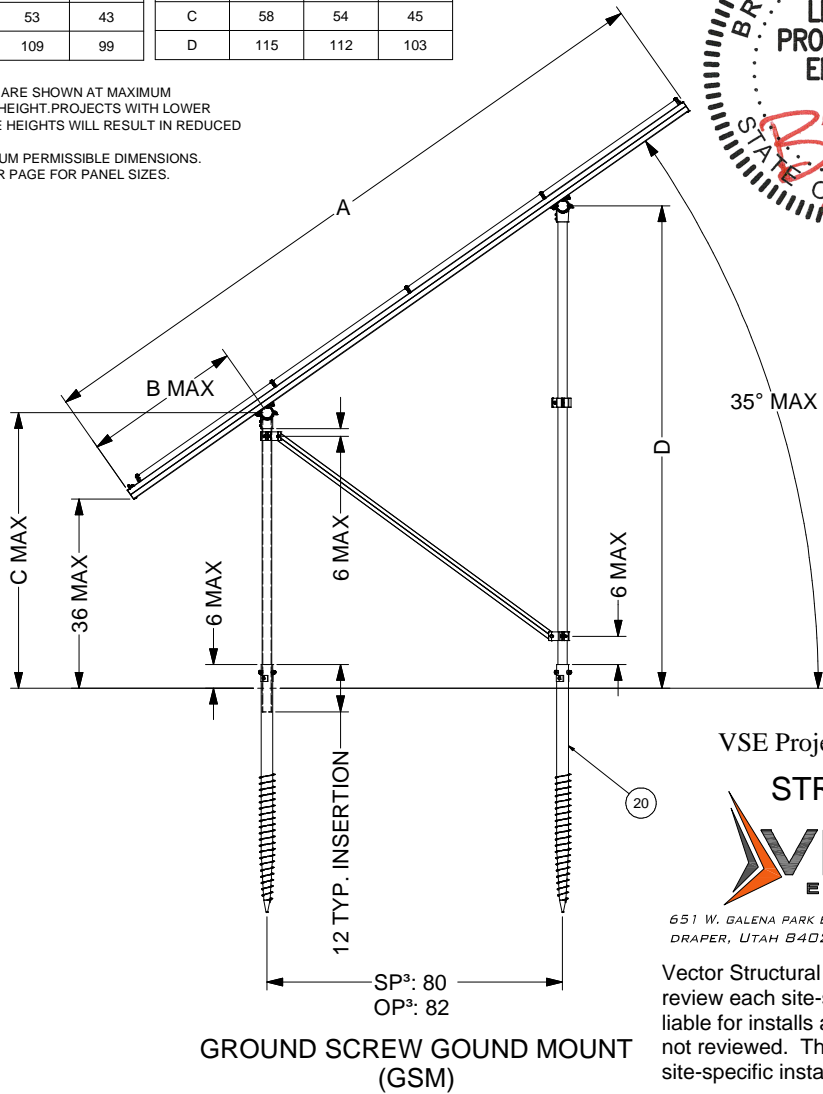
DIMENSIONS - STANDARD PANEL				DIMENSIONS - OVERSIZE PANEL			
ITEM	4L	2P	3L	ITEM	4L	2P	3L
A	172	166	130	A	184	172	140
B	37	34	16	B	42	36	20
C	55	53	43	C	58	54	45
D	111	109	99	D	115	112	103

- NOTES**
1. DIMENSIONS IN TABLE ARE SHOWN AT MAXIMUM TILT & LEADING EDGE HEIGHT. PROJECTS WITH LOWER TILTS & LEADING EDGE HEIGHTS WILL RESULT IN REDUCED DIMENSIONS.
 2. MAX DENOTES MAXIMUM PERMISSIBLE DIMENSIONS.
 3. SEE NOTE 7 OF COVER PAGE FOR PANEL SIZES.

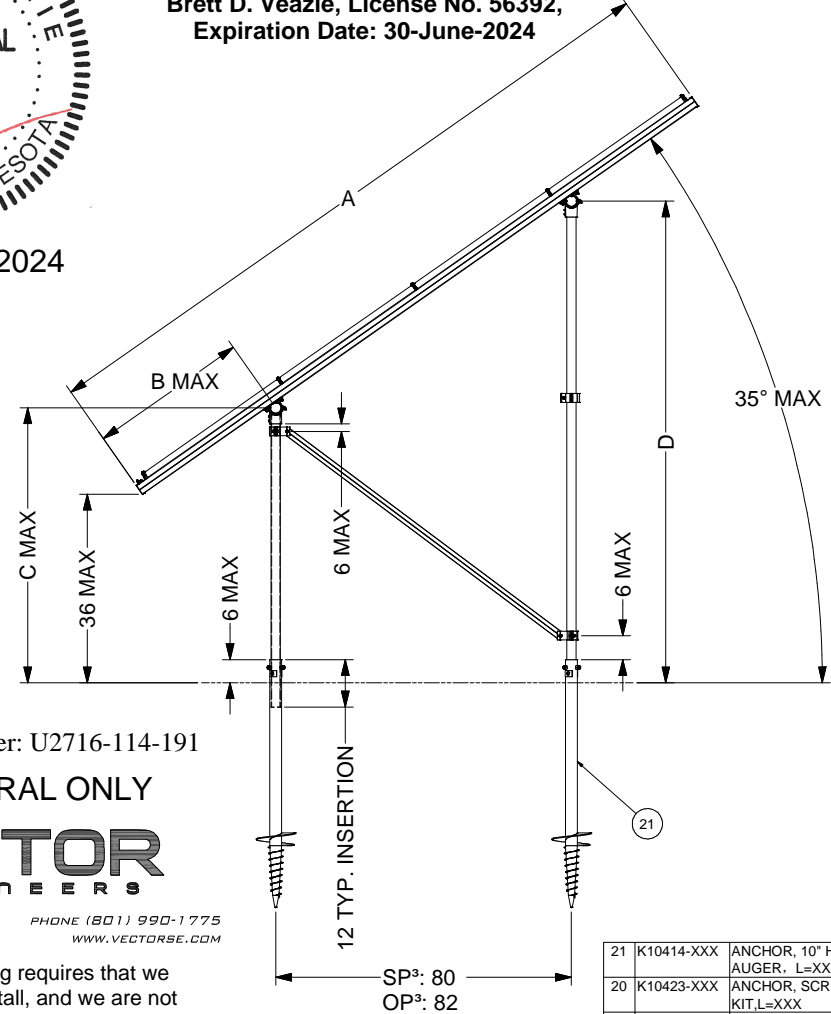


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota, Brett D. Veazie, License No. 56392, Expiration Date: 30-June-2024

02/22/2024



GROUND SCREW GROUND MOUNT (GSM)



AUGER GROUND MOUNT (AGM)

VSE Project Number: U2716-114-191

STRUCTURAL ONLY

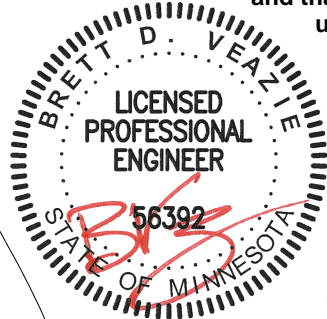


651 W. GALENA PARK BLVD. STE. 101 DRAPER, UTAH 84020 PHONE (801) 990-1775 WWW.VECTORSE.COM

Vector Structural Engineering requires that we review each site-specific install, and we are not liable for installs at site-specific locations we have not reviewed. This document does not address site-specific installations.

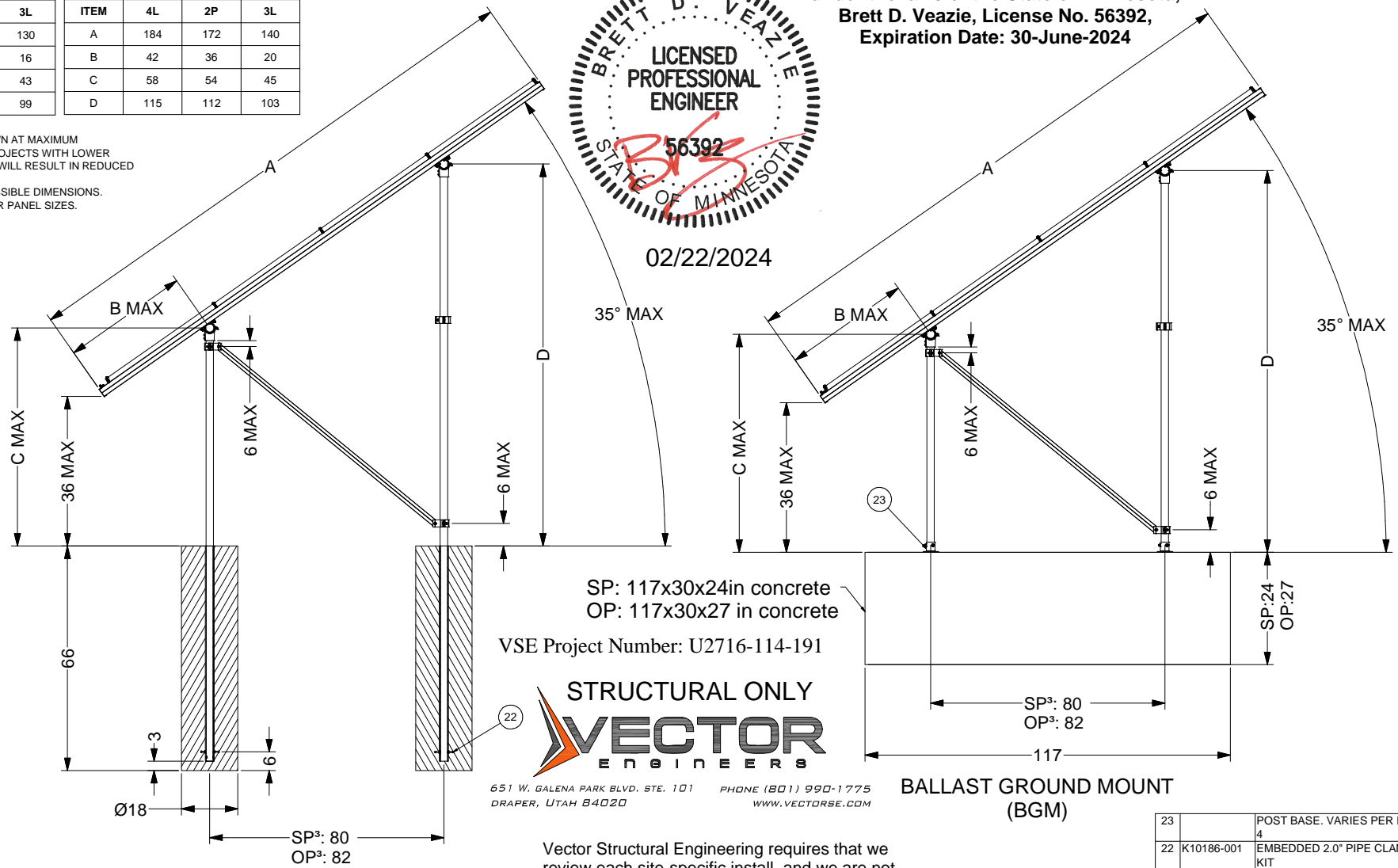
ITEM	PART NUMBER	DESCRIPTION	QTY
21	K10414-XXX	ANCHOR, 10" HELIX SCREW AUGER, L=XXX	
20	K10423-XXX	ANCHOR, SCREW AUGER KIT, L=XXX	
SunModo Corp.			
TITLE: PACKET AS			
D DRAWING NUMBER			
SCALE: SHEET 3 of 4 REV			

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota, Brett D. Veazie, License No. 56392, Expiration Date: 30-June-2024



DIMENSIONS - STANDARD PANEL				DIMENSIONS - OVERSIZE PANEL			
ITEM	4L	2P	3L	ITEM	4L	2P	3L
A	172	166	130	A	184	172	140
B	37	34	16	B	42	36	20
C	55	53	43	C	58	54	45
D	111	109	99	D	115	112	103

- NOTES**
1. DIMENSIONS IN TABLE ARE SHOWN AT MAXIMUM TILT & LEADING EDGE HEIGHT. PROJECTS WITH LOWER TILTS & LEADING EDGE HEIGHTS WILL RESULT IN REDUCED DIMENSIONS.
 2. MAX DENOTES MAXIMUM PERMISSIBLE DIMENSIONS.
 3. SEE NOTE 7 OF COVER PAGE FOR PANEL SIZES.
 4. K10268-005 (2" PIPE BASE KIT) OR K10302-001 (2" PIPE BASE KIT)



SP: 117x30x24in concrete
OP: 117x30x27 in concrete

VSE Project Number: U2716-114-191

STRUCTURAL ONLY
VECTOR ENGINEERS

651 W. GALENA PARK BLVD. STE. 101 DRAPER, UTAH 84020 PHONE (801) 990-1775 WWW.VECTORSE.COM

POST-IN-CONCRETE GROUND MOUNT (PGM)

BALLAST GROUND MOUNT (BGM)

Vector Structural Engineering requires that we review each site-specific install, and we are not liable for installs at site-specific locations we have not reviewed. This document does not address site-specific installations.

23		POST BASE. VARIES PER NOTE	
22	K10186-001	EMBEDDED 2.0" PIPE CLAMP KIT	
ITEM	PART NUMBER	DESCRIPTION	QTY
SunModo Corp.			
TITLE: PACKET AS			
D DRAWING NUMBER			
SCALE:		SHEET 4 of 4	REV