

**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-3SDEG-GSM-AGM-BGM-PGM.
- APPROVED RAIL PROFILES  
A20289-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



**4L  
4-IN-LANDSCAPE  
VSE Project Number: U2716-093-191  
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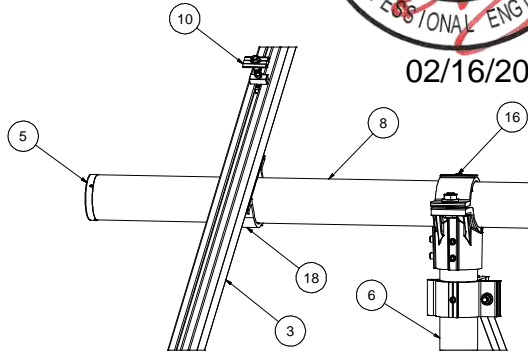
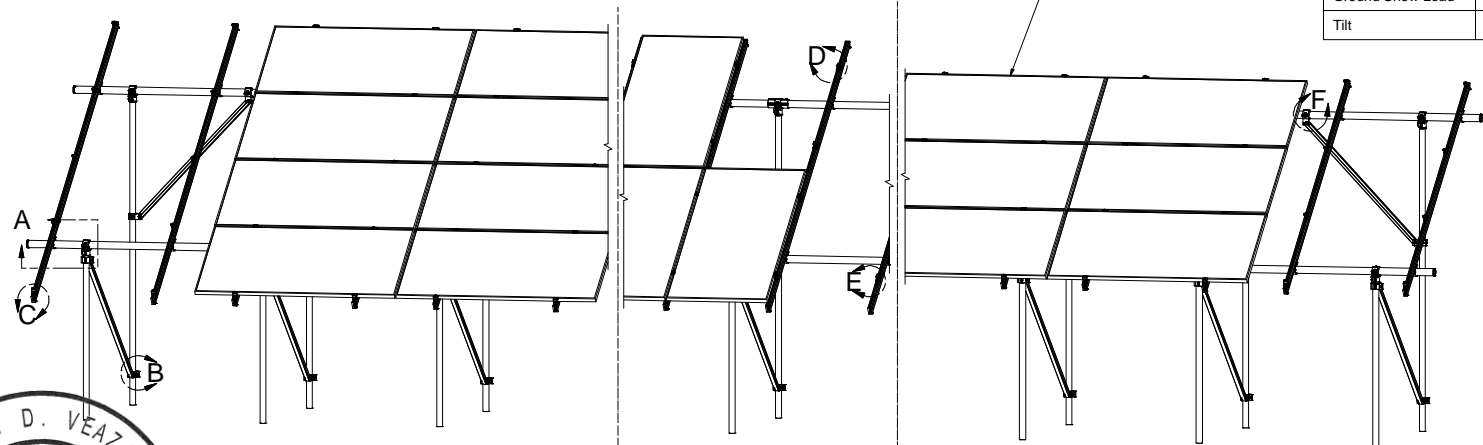
**2P  
2-IN-PROTRAIT**

**3L  
3-IN-LANDSCAPE**

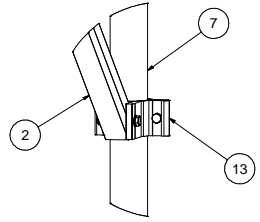


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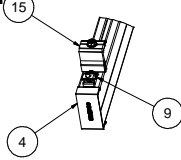
Packet A3	
Model Code	ASCE 7-16
Exposure Category	C and Lower
Wind Speed	135 mph and Lower
Ground Snow Load	60 PSF and Lower
Tilt	35 DEG and Lower



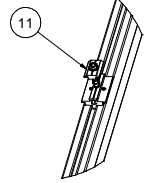
**DETAIL A**



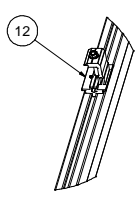
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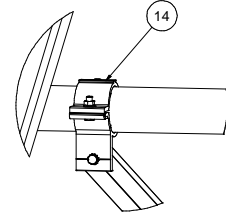
**DETAIL C**



**DETAIL D**



**DETAIL E**



**DETAIL F**

18	K10343-001	2.5" AL PIPE U-CLAMP KIT	
17	K10342-001	2.5" PIPE SPLICE KIT	
16	K10341-001	2.5" PIPE TEE KIT	
15		END CLAMP KIT. VARIES PER NOTE 8	
14	K10222-001	2.5" PIPE CLAMP KIT	
13	K10219-001	2" AL PIPE CLAMP KIT	
12	K10183-XXX	LANDSCAPE GROUNDING END CLAMP KIT	
11	K10182-001	LANDSCAPE GROUNDING MID CLAMP KIT	
10	K10180-001	GROUNDING MID-CLAMP KIT WITH T COLLAR BOLT AND GROUNDING BASE	
9	K10179-001	SELF-GROUNDING LUG KIT	
8	A21168-XXX	PIPE, HSS, 2.875" OD X 12 GAUGE, L=XXX	
7	A21165-XXX (REAR)	PIPE, HSS, 2.375" OD X 12 GAUGE, L=XXX	
6	A21165-XXX (FRONT)	PIPE, HSS, 2.375" OD X 12 GAUGE, L=XXX	
5	A20380-001	2.5" PIPE END CAP	
4		HELIO RAIL END CAP. VARIES PER NOTE 7	
3		HELIO RAIL. VARIES PER NOTE 7	
2	A50164-XXX	1.5" SQ. STL TUBE BRACE, L=XXX	
1		PANEL	

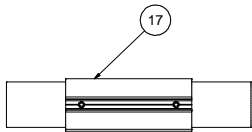
ITEM	PART NUMBER	DESCRIPTION	QTY
SEE BOM			
SunModo Corp.			
14800 NE 65TH STREET, VANCOUVER WA 98682			
TITLE		PACKET A3	
DATE		07/11/2019	
CHECKED BY		D	
APPROVALS		SCALE:	
		SHEET 1 of 4	

Vector Engineers requires that we review each site specific install and is not liable for installs at site specific locations we have not reviewed.

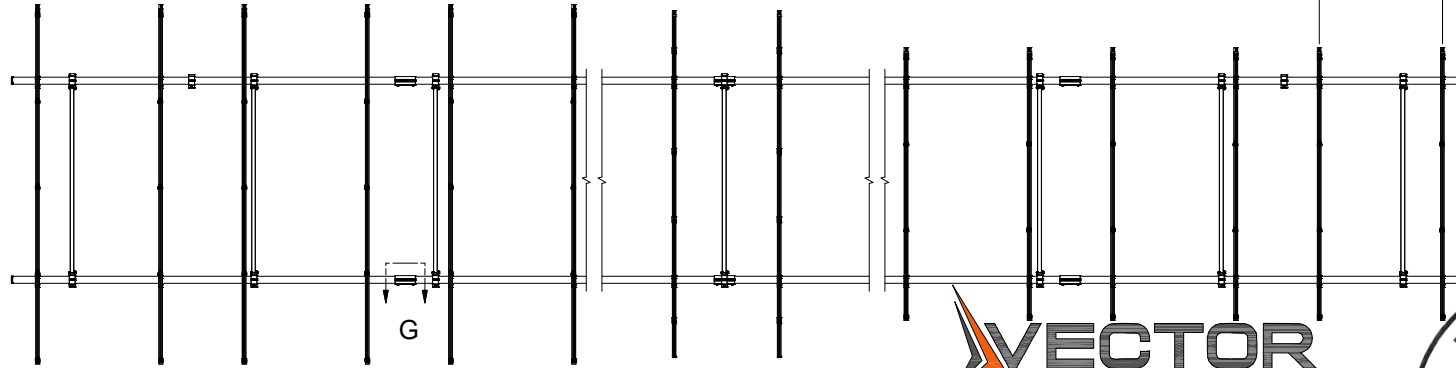
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**NOTES:**  
 1. DIMENSIONS LABELED AS MAX ARE MAXIMUM ALLOWABLE  
 AND MAY RESULT IN END POSTS BEING OUTSIDE ARRAY EDGES.  
 MAXIMUM DIMENSIONS MAY BE REDUCED IF DESIRED.

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



DETAIL G



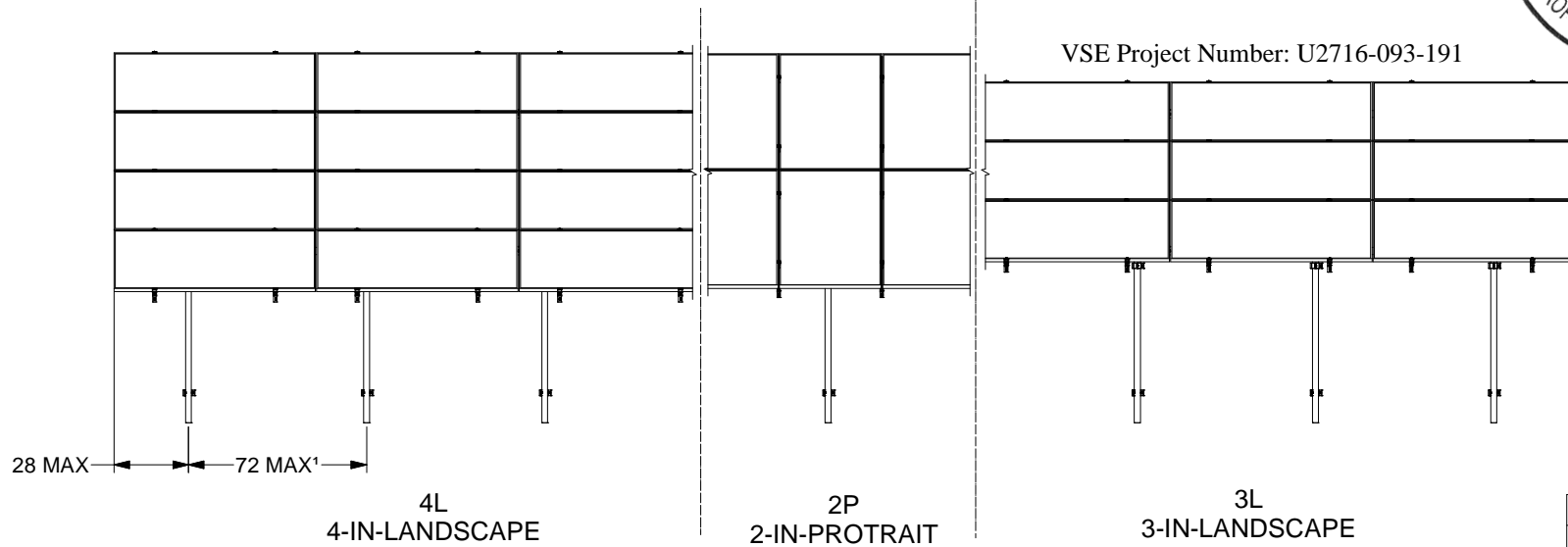
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VSE Project Number: U2716-093-191

02/16/2021



<b>SunModo Corp.</b>	
TITLE	PACKET A3
D	DRAWING NUMBER
SCALE:	SHEET 2 of 4 REV

DIMENSIONS			
ITEM	4L	2P	3L
A	172	166	130
B	38	35	17
C	56	55	44
D	112	110	100

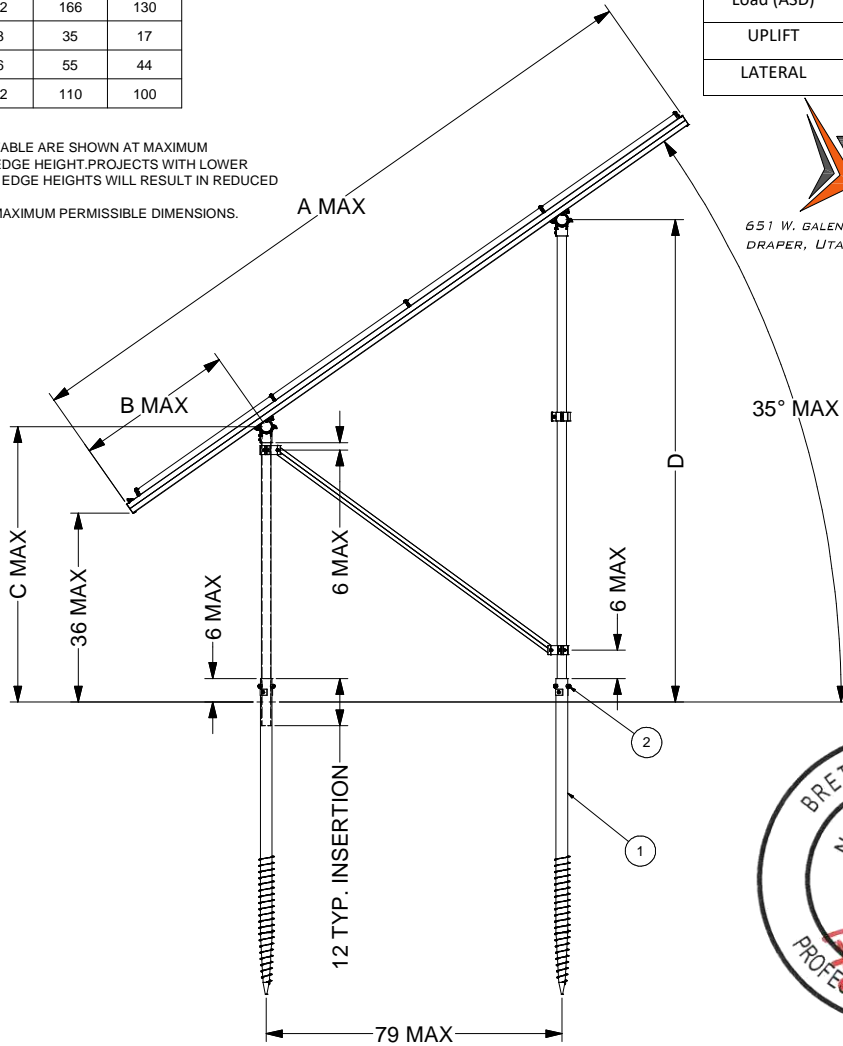
The ground screws and helical piers must be tested to 1.5 times uplift and 2.0 times lateral reactions found in the table below. A minimum of one ground screw or helical pier must be tested.

Load (ASD)	Value (lbs)	Factor of Safety	Test Value (lbs)
UPLIFT	2850	1.5	4275
LATERAL	2000	2	4000

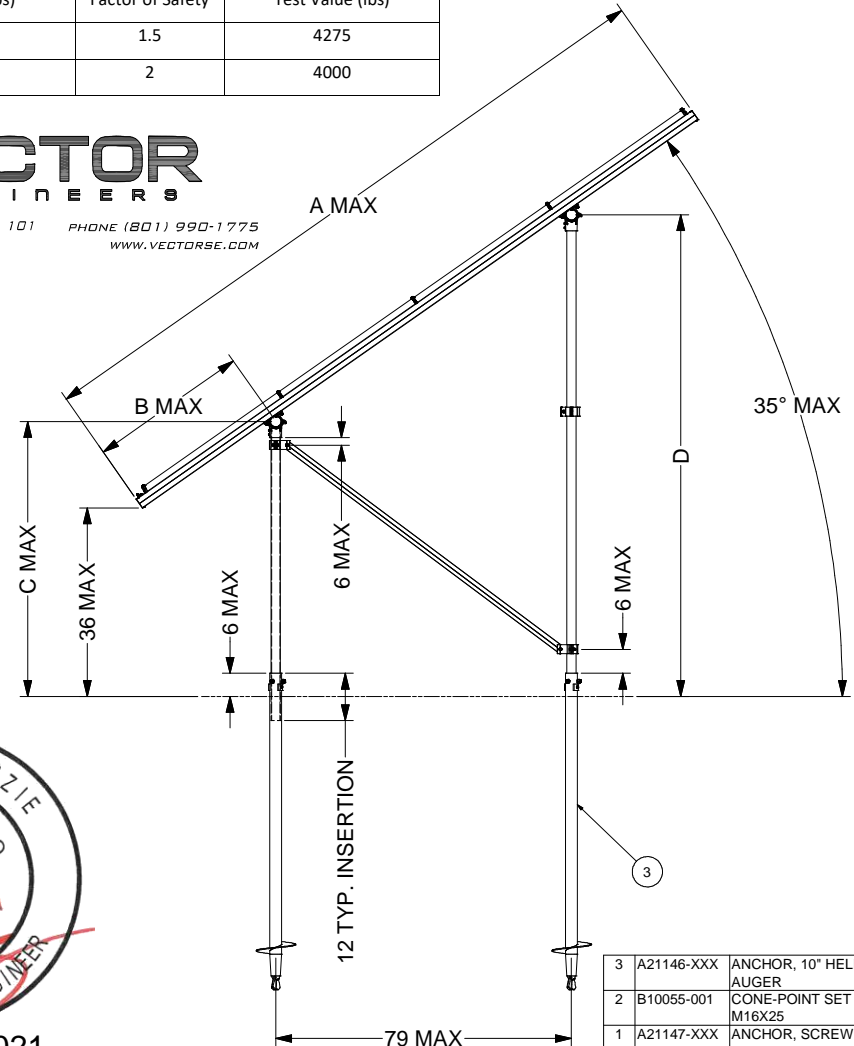
**NOTES**  
 1. DIMENSIONS IN TABLE ARE SHOWN AT MAXIMUM TILT & LEADING EDGE HEIGHT. PROJECTS WITH LOWER TILTS & LEADING EDGE HEIGHTS WILL RESULT IN REDUCED DIMENSIONS.  
 2. MAX DENOTES MAXIMUM PERMISSIBLE DIMENSIONS.

**VECTOR**  
ENGINEERS

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**GROUND SCREW GROUND MOUNT (GSM)**



**AUGER GROUND MOUNT (AGM)**



02/16/2021  
 VSE Project Number: U2716-093-191

**STRUCTURAL ONLY**

3	A21146-XXX	ANCHOR, 10" HELIX BLADE AUGER	
2	B10055-001	CONE-POINT SET SCREW M16X25	
1	A21147-XXX	ANCHOR, SCREW AUGER, L=XXX	
ITEM	PART NUMBER	DESCRIPTION	QTY
<b>SunModo Corp.</b>			
TITLE: PACKET A3			
D DRAWING NUMBER			
SCALE: SHEET 3 of 4 REV			

DIMENSIONS			
ITEM	4L	2P	3L
A	172	166	130
B	38	35	17
C	56	55	44
D	112	110	100

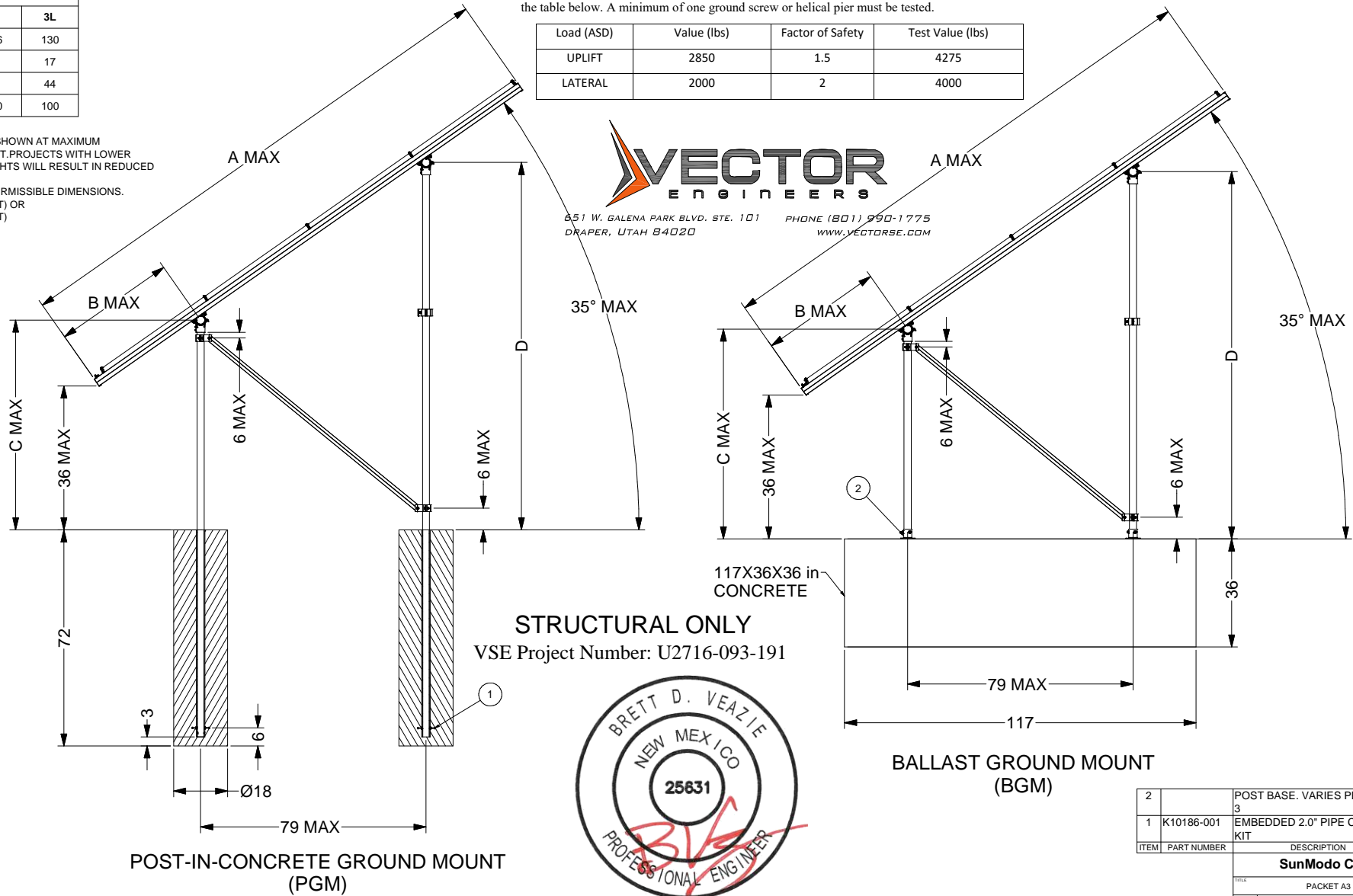
- NOTES**
1. DIMENSIONS IN TABLE ARE SHOWN AT MAXIMUM TILT & LEADING EDGE HEIGHT. PROJECTS WITH LOWER TILTS & LEADING EDGE HEIGHTS WILL RESULT IN REDUCED DIMENSIONS.
  2. MAX DENOTES MAXIMUM PERMISSIBLE DIMENSIONS.
  3. K10268-005 (2" PIPE BASE KIT) OR K10302-001 (2" PIPE BASE KIT)

The ground screws and helical piers must be tested to 1.5 times uplift and 2.0 times lateral reactions found in the table below. A minimum of one ground screw or helical pier must be tested.

Load (ASD)	Value (lbs)	Factor of Safety	Test Value (lbs)
UPLIFT	2850	1.5	4275
LATERAL	2000	2	4000



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**POST-IN-CONCRETE GROUND MOUNT (PGM)**

**BALLAST GROUND MOUNT (BGM)**

2		POST BASE. VARIES PER NOTE	
3		EMBEDDED 2.0" PIPE CLAMP KIT	
1	K10186-001	EMBEDDED 2.0" PIPE CLAMP KIT	
ITEM	PART NUMBER	DESCRIPTION	QTY
<b>SunModo Corp.</b>			
TITLE: PACKET A3			
D: DRAWING NUMBER			
SCALE: SHEET 4 of 4 REV			

02/16/2021