STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
AMERICAN TOWER CORPORATION (ATC) PETITION FOR A DECLARATORY RULING, PURSUANT TO CONNECTICUT GENERAL STATUTES §4-176 AND §16-50K, FOR THE PROPOSED REPLACEMENT OF AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY AND ASSOCIATED EQUIPMENT LOCATED AT 164 COUNTY ROAD, WOLCOTT, CONNECTICUT

PETITION NO. 1650

March 26, 2025

RESPONSES OF AMERICAN TOWER CORPORATION (ATC)
TO CONNECTICUT SITING COUNCIL INTERROGATORIES NO. 28 AND NO. 29

Public Health and Safety

Q28. Provide a Structural Analysis Report for the facility that includes the proposed equipment at this facility, stamped and signed by a professional engineer duly licensed in the State of Connecticut.

A28. Please see the sealed tower and foundation designs prepared by Valmont Structures, signed and sealed by Nathan A. Ross, P.E. License # 34713 included in Attachment 1.

Q29. Provide a Mount Analysis for the proposed equipment that is stamped and signed by a professional engineer duly licensed in the State of Connecticut.

A29. Please see the Mount Analysis Report signed and sealed by Scott A. Wirgau, P.E. License # 30575 included in Attachment 2.

CERTIFICATE OF SERVICE

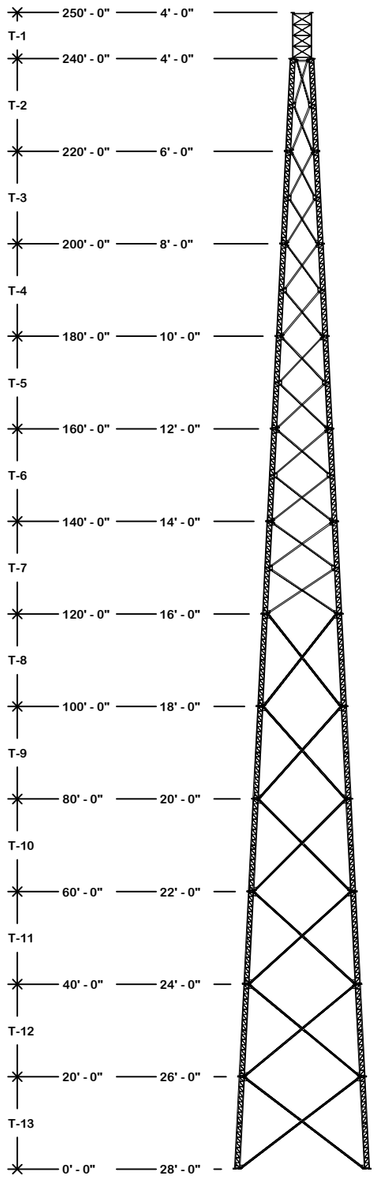
I hereby certify that on this day, one original and fifteen (15) hard copies of the foregoing was sent via overnight Federal Express and electronically to the Connecticut Siting Council in accordance with the Connecticut Siting Council directives.

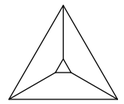
March 26, 2025

Lucia Chiocchio, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, NY 10601
(914) 761-1300
Attorney for the Applicant

cc: American Tower Corporation
Daniel Patrick, Esq., Cuddy & Feder LLP

Attachment 1





SEE PAGE 2 FOR
APPURTENANCES

TOWER DESIGN CRITERIA

Design Standard:	TIA-222-H*
Design Wind Speeds:	120 mph (3-second gust) basic wind speed per ASCE 7-16
	50 mph (1.00" ice)
Service Wind Speed:	60 mph (deflection only)
Risk Category:	II
Exposure Category:	C
Topographic Category:	1
Crest Height:	0 ft.
Latitude:	41.576202
Longitude:	-72.956079

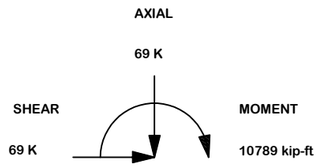
MATERIAL STRENGTHS

Solid Rod	A36	(rod dia. <3/4")
	A572 Gr.50	(3/4" thru 1" dia.)
	A572 Gr.55	(>1" dia.)
Pipe	A500 Gr.B	(antenna pipes)
	A500 Gr.B/C	(tower legs min. Fy 50 ksi)
Angle	A572 Gr.50	
Plate	A572 Gr.50	
Bolts	A-325/A-449	(leg & angle)
AnchorBolt	F1554 Grade 105 or A687	

Finish: Tower & Hardware are hot dip galvanized

1. ALL STRUCTURAL HARDWARE IS GALVANIZED IN ACCORDANCE WITH ASTM A-153 (HDG). TOWER SECTIONS & ASSOCIATED STRUCTURAL COMPONENTS ARE GALVANIZED IN ACCORDANCE WITH ASTM A-123 (HDG).
2. ALL BOLTS & NUTS MUST BE IN PLACE BEFORE ADJOINING SECTION(S) ARE INSTALLED.
3. ALL STRUCTURAL BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC & RCSC SPECIFICATION FOR STRUCTURAL JOINTS UNLESS NOTED OTHERWISE.
4. ALL WELDING TO CONFORM TO AWS D1.1 SPECIFICATION. 5/16" MINIMUM WELD SIZE UNLESS NOTED OTHERWISE.
5. MATERIAL LABELED AS ASTM A-572 GR. 55 OR 55 KSI YIELD STRENGTH ALSO CONFORMS TO ASTM A-572 GR. 50.
6. ANALYSIS PERFORMED USING STEEL GRADES LISTED UNDER MATERIALS STRENGTHS SHOWN ON THIS PAGE.
7. THIS DRAWING DOES NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, SEQUENCES AND PROCEDURES.
8. THE CONTRACTOR MUST BE EXPERIENCED IN THE PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN.
9. (VIBRATION DISCLAIMER) ALTHOUGH RARE,VIBRATIONS SEVERE ENOUGH TO CAUSE DAMAGE CAN OCCASIONALLY OCCUR IN STRUCTURES OF ALL TYPES, BECAUSE THEY ARE INFLUENCED BY MANY INTERACTING VARIABLES. VIBRATIONS ARE GENERALLY UNPREDICTABLE.THE USER'S MAINTENANCE PROGRAM SHOULD INCLUDE OBSERVATION FOR ECCESSIVE VIBRATION AND EXAMINATION FOR ANY STRUCTURAL DAMAGE OR BOLT LOOSENING. THE VALMONT WARRANTY SPECIFICALLY EXCLUDES FATIGUE FAILURE OR SIMILAR PHENOMENA RESULTING FROM INDUCED VIBRATION, HARMONIC OSCILLATION OR RESONANCE ASSOCIATED WITH MOVEMENT OF AIR CURRENTS AROUND THE PRODUCT.
10. THE CONTRACTOR SHALL VERIFY MATERIALS TO BE FREE FROM FAULTS AND DEFECTS UPON ARRIVAL,AND IN CONFORMANCE WITH THE SUPPLIED DOCUMENTS. ALL SUBSTITUTIONS MUST BE DULY APPROVED AND AUTHORIZED IN WRITING BY VALMONT ENGINEERING PRIOR TO FABRICATION AND INSTALLATION. VALMONT IS NOT RESPONSIBLE FOR MATERIALS DAMAGED DURING UNLOADING OR CONSTRUCTION.
11. THE CONTRACTOR SHALL MAINTAIN A CHECK OF TOWER PLUMBNESS DURING ALL PHASES OF CONSTRUCTION WORK. THE TOWER SHALL BE PLUMB WITHIN THE TOLERANCE SPECIFIED IN THE LATEST REVISION OF THE TIA - STANDARD. MEANS AND METHODS ARE FULL RESPONSIBILITY OF THE CONTRACTOR. AFTER COMPLETION OF THE TOWER ERECTION, WITH ALL JOINTS TIGHT, AND ALL APPURTENANCES INSTALLED, THE CONTRACTOR SHALL MAKE A FINAL CHECK OF TOWER PLUMBNESS. CONTRACTOR SHALL SUBMIT DOCUMENTS TO THE THIRD PARTY INSPECTOR APPOINTED BY THE TOWER OWNER AS REQUIRED.
12. ANTENNAS, MOUNTS, MOUNT ACCESSORIES ETC. SHOULD NOT BE ATTACHED TO THE DIAGONALS SHOWN ON THIS DRAWING.

Maximum Base Reactions



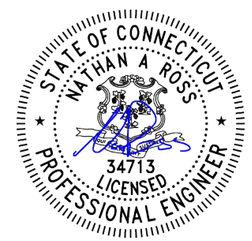
MAX. LEG REACTIONS:

DOWN:	468 K	TORQUE	34 kip-ft
UPLIFT:	-411 K	REACTIONS	120 mph WIND
SHEAR:	45 K		

*Factored Reactions provided per ANSI/TIA-222 Design Criteria & Load Combinations

TOWER COLUMN

SECTION	ELEVATION	FACE WIDTH	PANELS	LEG SIZE	LEG STYLE	LEG BOLT QTY & DIA	DIAGONAL BRACING SIZE	HORIZONAL BRACING SIZE	BRACING BOLT QTY & DIA	SECTION WEIGHT
T1	240' - 250'	4.0'	4	1.25"	SHFAB	2 x 1"	3/4" ROUND	7/8" ROUND		749.41
T2	220' - 240'	6.0'	2	1.25"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"	3/16" x 3" x 3"	1 x 1 "	1963.56
T3	200' - 220'	8.0'	2	1.25"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"		1 x 1 "	1969.53
T4	180' - 200'	10.0'	2	1.50"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"		1 x 1 "	2352.27
T5	160' - 180'	12.0'	2	1.50"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"		1 x 1 "	2404.47
T6	140' - 160'	14.0'	2	1.75"	12BDFH	6 x 1 1/4"	3/16" x 3" x 3"		1 x 1 "	3017.85
T7	120' - 140'	16.0'	2	1.75"	12BDFH	6 x 1 1/4"	3/16" x 3" x 3"		1 x 1 "	3113.85
T8	100' - 120'	18.0'	1	2.00"	12BDH2	12 x 1"	3/16" x 2-1/2" x 2-1/2"		1 x 7/8 "	3826.56
T9	80' - 100'	20.0'	1	2.00"	12BDH2	12 x 1"	3/16" x 3" x 3"		1 x 7/8 "	4142.70
T10	60' - 80'	22.0'	1	2.25"	12BDH2	12 x 1"	3/16" x 3" x 3"		1 x 7/8 "	4730.91
T11	40' - 60'	24.0'	1	2.25"	12BDH2	12 x 1"	3/16" x 3" x 3"		1 x 7/8 "	4798.71
T12	20' - 40'	26.0'	1	2.25"	12BDH2	12 x 1"	3/16" x 3" x 3"		1 x 7/8 "	4867.47
T13	0' - 20'	28.0'	1	2.25"	12BDH2	4 x 1 1/2"	1/4" x 3" x 3"		1 x 7/8 "	5634.96



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
Tower View Page 1

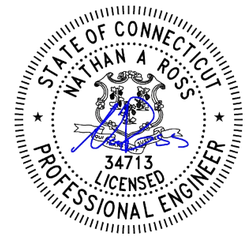
valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

ENG. FILE NO. 603706

DWG. NO. 296803T

DESIGNED APPURTENANCE LOADING	
TYPE	ELEVATION
(1) 5/8" X 7'-6" LIGHTNING ROD	250.0000'
(1) BEACON	250.0000'
(1) 175 SQ. FT. W/ INCREASE FOR ICE	248.0000'
(1) 150 SQ. FT. W/ INCREASE FOR ICE	238.0000'
(1) 150 SQ. FT. W/ INCREASE FOR ICE	228.0000'
(3) OB LIGHT	125.0000'



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REVISION HISTORY

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CAM	SAN	ES	T_F	6/13/2024

SITE

207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION

Tower View Page 2

ENG. FILE NO.

603706

valmont
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR
STRUCTURES

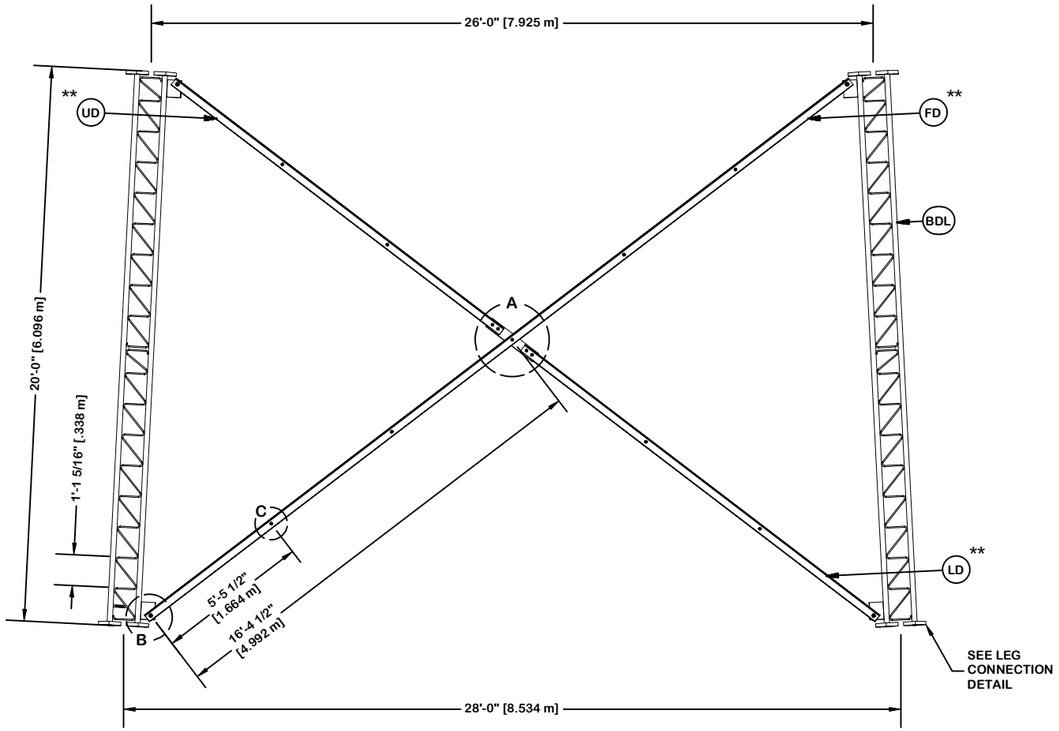
DWG. NO.

296803T

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,

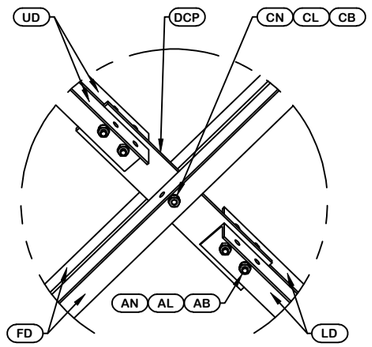
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



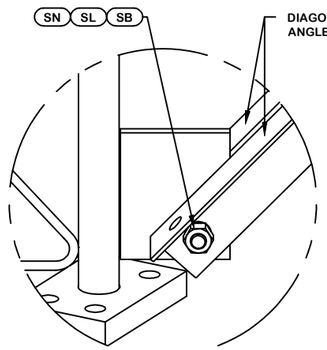
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	281172	#12 BASE SECTION - 2 1/4" LEG - 1/2" BRACE W/ (1)	1199.210	3597.630
UD	6	295735	U-28 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	76.270	457.620
LD	6	295734	U-28 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	82.520	495.120
FD	6	295733	U-28 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	164.350	986.100
ML	24	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	237658	RING FILL SPACER 5/8" THICK 1.049" HOLE	0.090	2.160
MB	24	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	6.240
AB/CB	15	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	3.900
AL / CL	15	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	170048	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	169999	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
SB	12	179316	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	14.760
			Total Wt	5634.96 lb [2558.32 kg]	

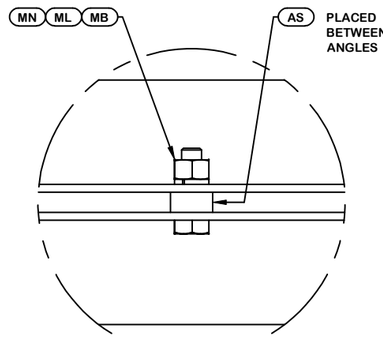
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



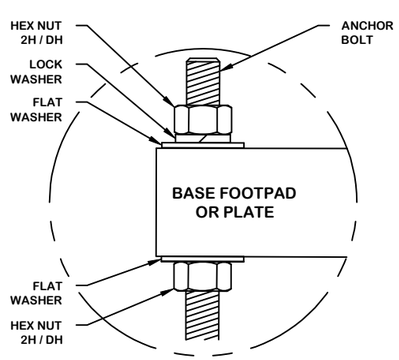
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



ANCHOR BOLT ASSY. (TYP)
SEE FOUNDATION DRAWING FOR DETAILS

STATE OF CONNECTICUT
NATHAN A ROSS
34713
LICENSED
PROFESSIONAL ENGINEER

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-28.0 (0' - 20' ELEVATION)

ENG. FILE NO. 603706

DWG. NO. 296803T

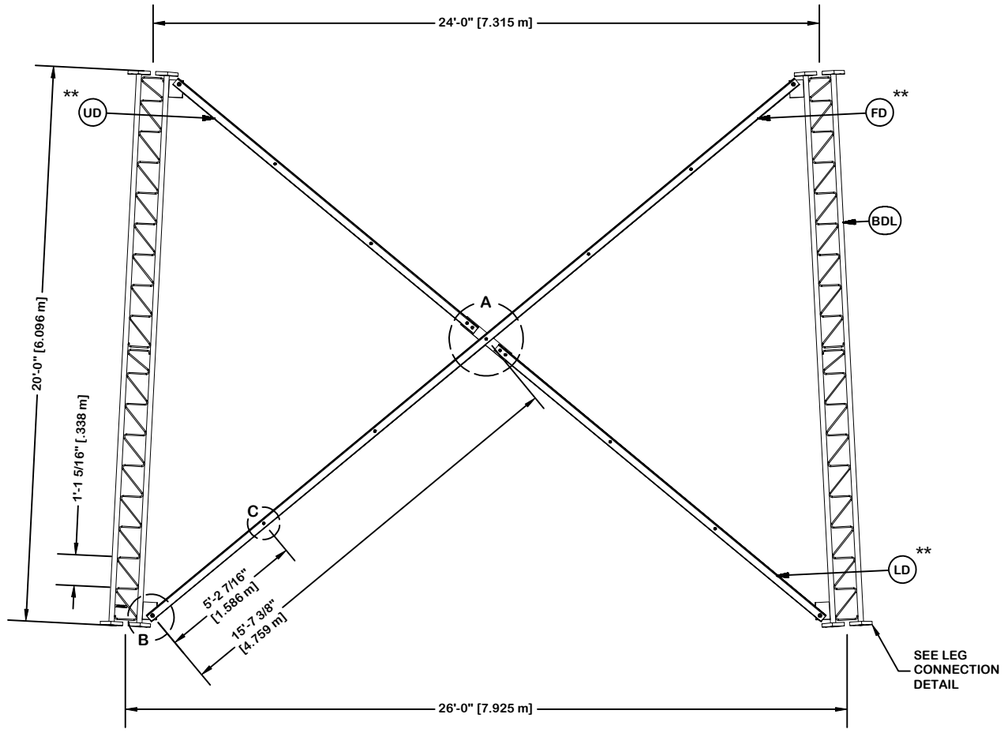
PAGE 3 OF 15

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,

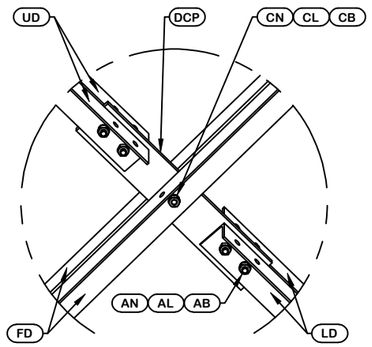
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



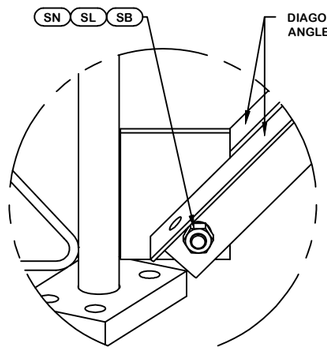
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195960	#12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" B	1100.520	3301.560
UD	6	265769	U-26 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	54.450	326.700
LD	6	265768	U-26 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	59.300	355.800
FD	6	265767	U-26 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	117.800	706.800
ML	24	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	237658	RING FILL SPACER 5/8" THICK 1.049" HOLE	0.090	2.160
MB	24	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	6.240
AB/CB	15	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	3.900
AL / CL	15	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	170048	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	169999	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
SB	12	179316	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	14.760
LCB	36	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	54.720
LCF	36	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	170049	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
			Total Wt		4867.47 lb [2209.87 kg]

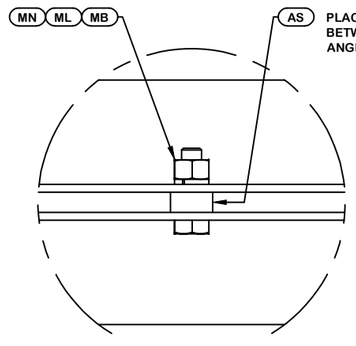
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



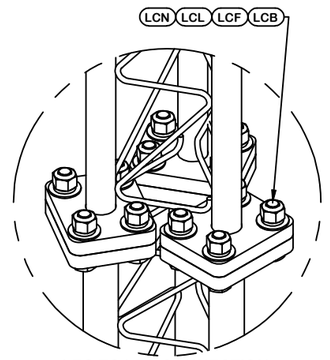
DETAIL A
ANGLE INTERSECTION CONNECTION



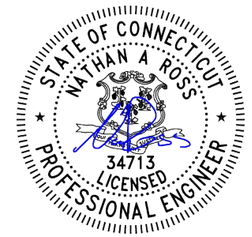
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-26.0 (20' - 40' ELEVATION)

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

ENG. FILE NO. 603706

DWG. NO. 296803T

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,

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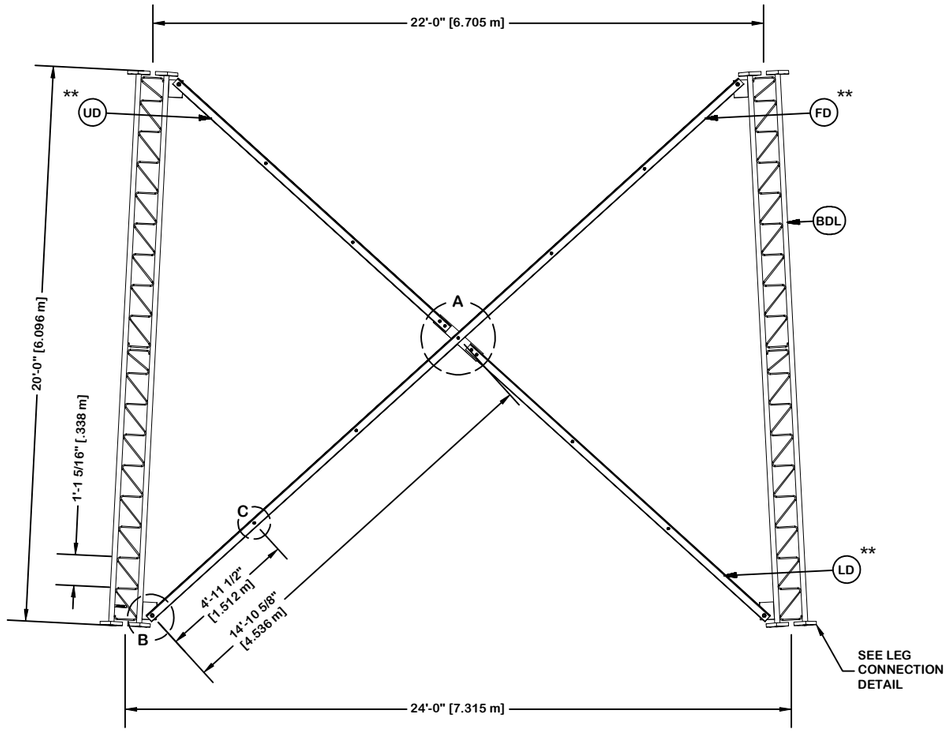
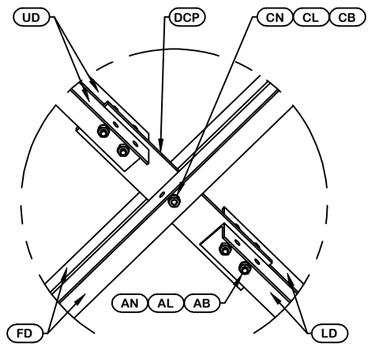


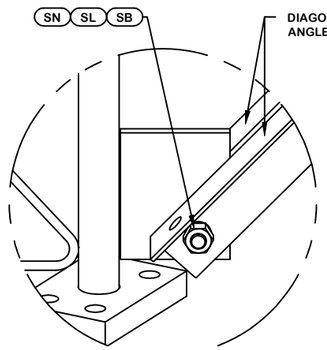
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195960	#12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" B	1100.520	3301.560
UD	6	265745	U-24 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	51.730	310.380
LD	6	265744	U-24 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	56.450	338.700
FD	6	265743	U-24 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	111.910	671.460
ML	24	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	237658	RING FILL SPACER 5/8" THICK 1.049" HOLE	0.090	2.160
MB	24	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	6.240
AB/CB	15	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	3.900
AL / CL	15	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	170048	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	169999	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
SB	12	179316	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	14.760
LCB	36	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	54.720
LCF	36	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	170049	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
			Total Wt		4798.71 lb [2178.66 kg]

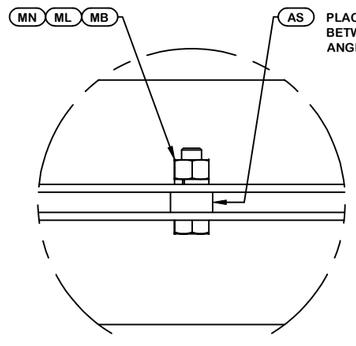
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



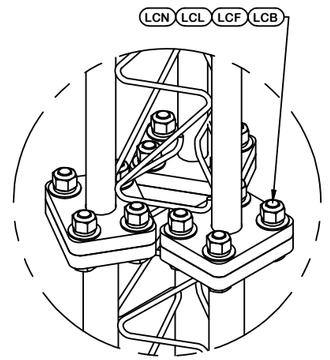
DETAIL A
ANGLE INTERSECTION CONNECTION



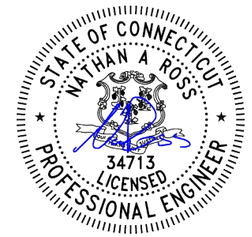
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-24.0 (40' - 60' ELEVATION)

ENG. FILE NO.
603706

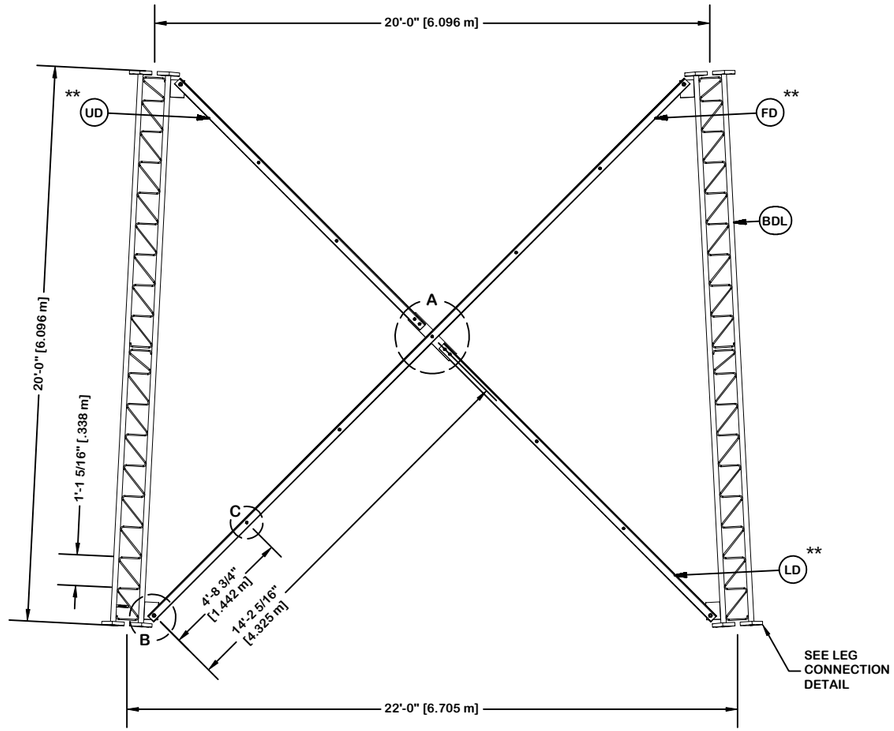
valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DWG. NO.
296803T

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,

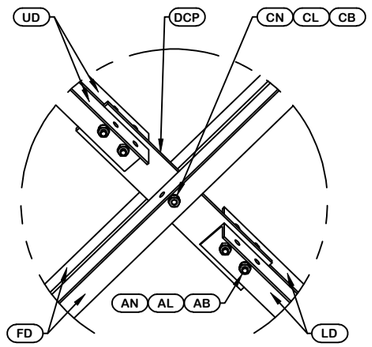
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



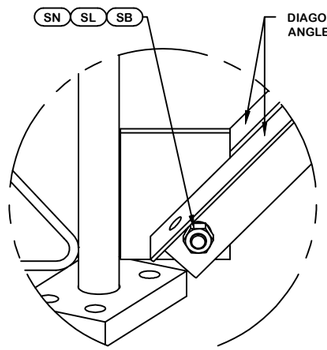
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195960	#12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" B	1100.520	3301.560
UD	6	265721	U-22 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	48.760	292.560
LD	6	265720	U-22 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	53.750	322.500
FD	6	265719	U-22 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	106.280	637.680
ML	24	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.480
MN	24	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.880
AS	24	237658	RING FILL SPACER 5/8" THICK 1.049" HOLE	0.090	2.160
MB	24	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	6.240
AB/CB	15	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	3.900
AL / CL	15	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	170048	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	169999	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
SB	12	179316	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	14.760
LCB	36	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	54.720
LCF	36	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	170049	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
			Total Wt		4730.91 lb [2147.88 kg]

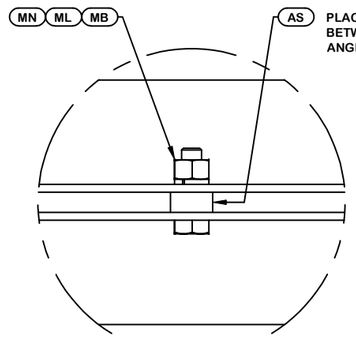
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



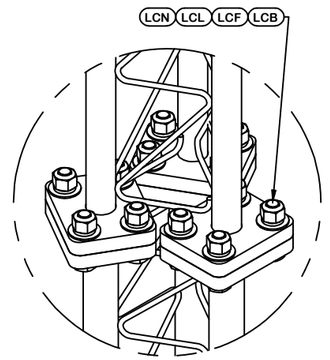
DETAIL A
ANGLE INTERSECTION CONNECTION



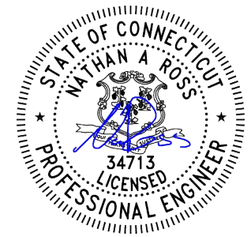
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-22.0 (60' - 80' ELEVATION)

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

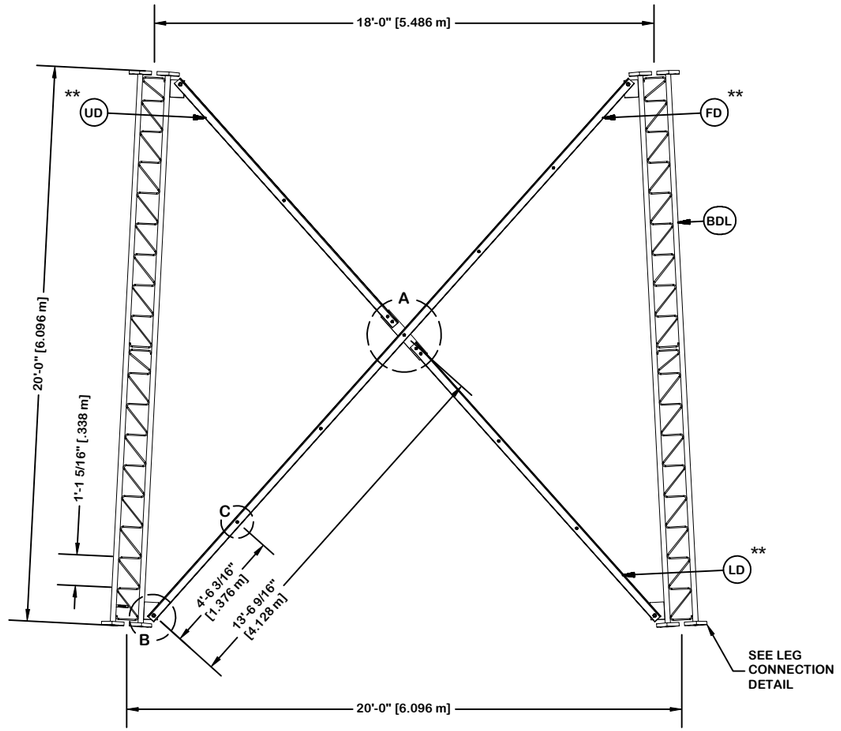
ENG. FILE NO. 603706

DWG. NO. 296803T

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,

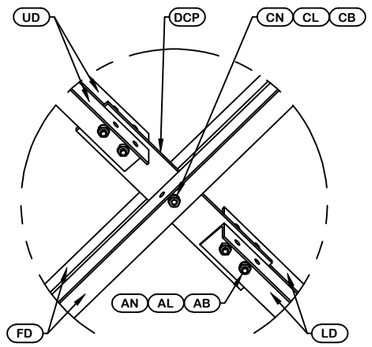
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



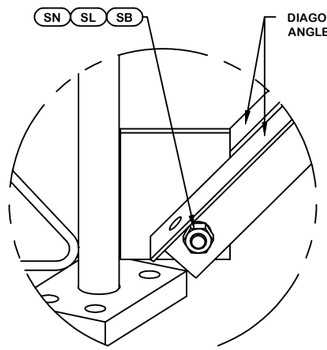
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195639	#12 LEG SECTION - 2" LEG - 1/2" BRACE - 7/8" BOLT	926.920	2780.760
UD	6	265697	U-20 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	45.630	273.780
LD	6	265696	U-20 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	51.240	307.440
FD	6	265695	U-20 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	100.930	605.580
ML	21	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.420
MN	21	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.520
AS	21	237658	RING FILL SPACER 5/8" THICK 1.049" HOLE	0.090	1.890
MB	21	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	5.460
AB/CB	15	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	3.900
AL / CL	15	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	170048	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	169999	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
SB	12	179316	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	14.760
LCB	36	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	54.720
LCF	36	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	170049	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
			Total Wt		4142.70 lb [1880.82 kg]

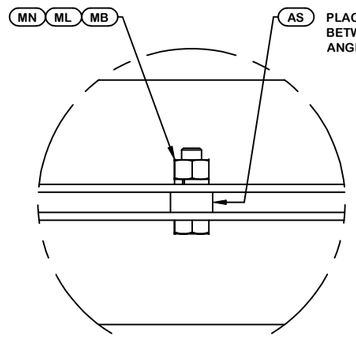
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



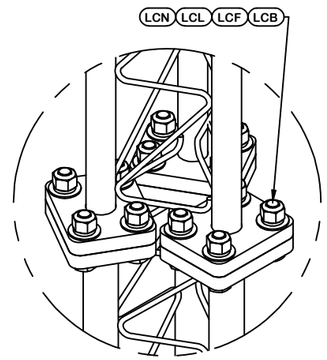
DETAIL A
ANGLE INTERSECTION CONNECTION



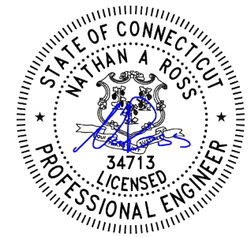
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-20.0 (80' - 100' ELEVATION)

ENG. FILE NO.
603706

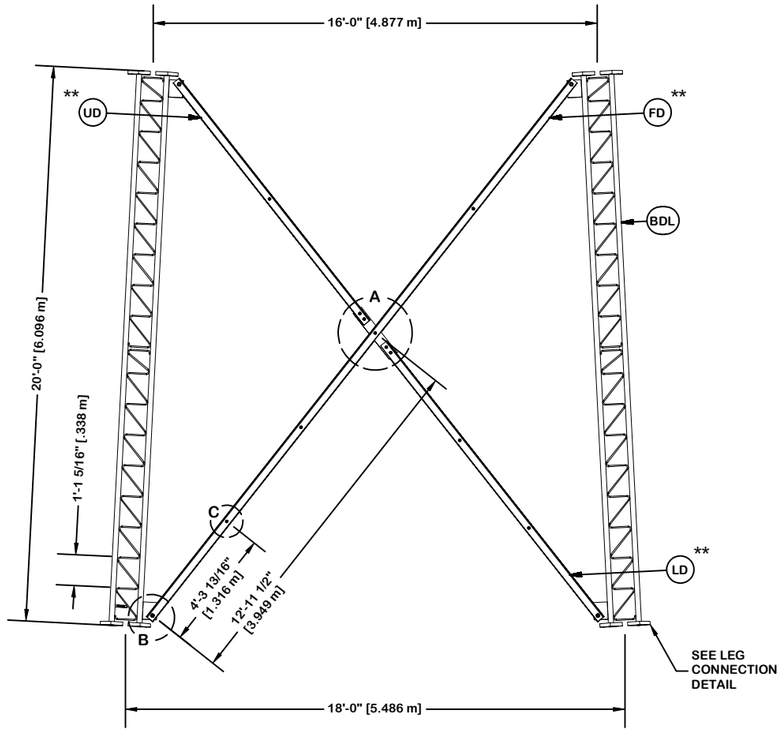
valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DWG. NO.
296803T

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,

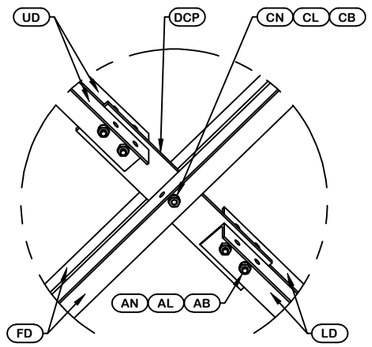
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



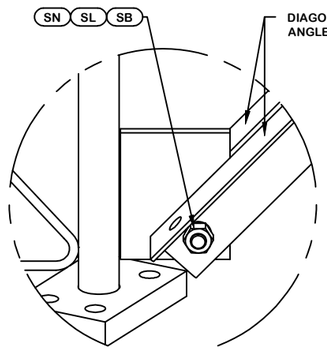
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195637	#12 LEG SECT - 2" TO 1-3/4" TRANS LEG - 1/2" BRACE	906.870	2720.610
UD	6	265673	U-18 UPPER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	35.510	213.060
LD	6	265672	U-18 LOWER ANGLE - SINGLE BOLT FOR 20'-0" LONG TA	40.500	243.000
FD	6	265671	U-18 LONG ANGLE - SINGLE BOLT FOR 20'-0" LONG TAP	79.370	476.220
ML	18	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.360
MN	18	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	2.160
AS	18	237658	RING FILL SPACER 5/8" THICK 1.049" HOLE	0.090	1.620
MB	18	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	4.680
AB/CB	15	169906	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.260	3.900
AL / CL	15	170046	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.300
AN / CN	15	170003	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.590	61.770
SL	12	170048	7/8" GALVANIZED LOCKWASHER	0.050	0.600
SN	12	169999	7/8"-9 HOT DIPPED GALVANIZED NUT	0.300	3.600
SB	12	179316	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.230	14.760
LCB	36	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	54.720
LCF	36	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	36	170049	1" GALVANIZED LOCKWASHER	0.080	2.880
LCN	36	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
			Total Wt	3826.56 lb [1737.29 kg]	

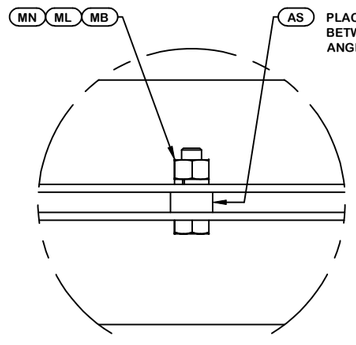
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



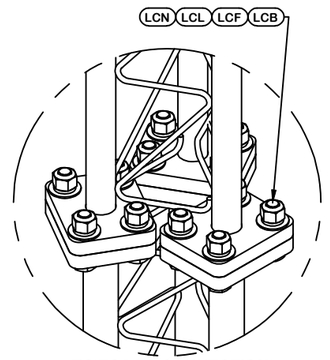
DETAIL A
ANGLE INTERSECTION CONNECTION



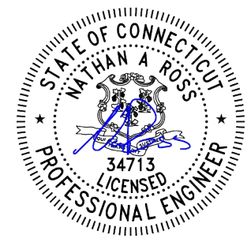
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-18.0 (100' - 120' ELEVATION)

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

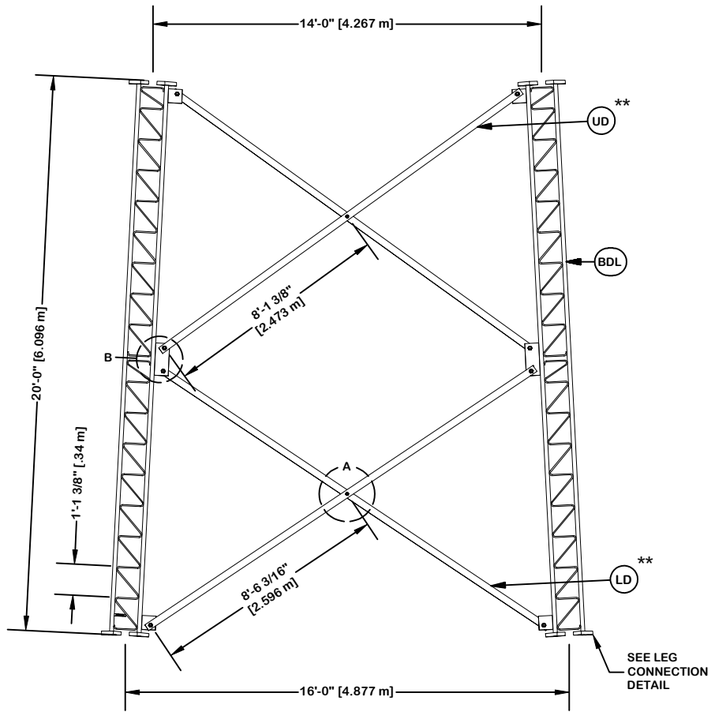
ENG. FILE NO. 603706

DWG. NO. 296803T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

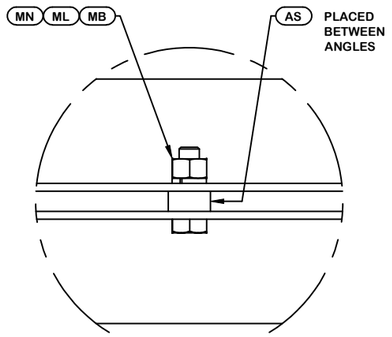
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



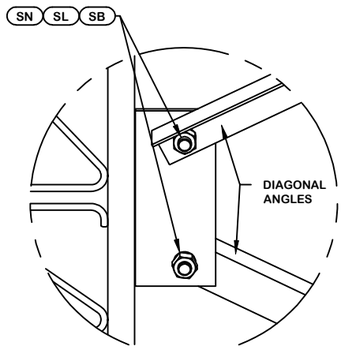
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195217	#12 LEG SECTION - 1-3/4" LEG - 1/2" BRACE - 1" BOL	746.710	2240.130
LD	6	126820	U-16 LOWER DIAGONAL - 3" x 3" x 3/16" ANGLE (A572	66.120	396.720
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	170004	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	170047	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	169904	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	170049	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	192038	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.800	19.200
UD	6	126815	U-16 UPPER DIAGONAL - 3" x 3" x 3/16" ANGLE (A572	62.880	377.280
LCB	18	236716	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	45.540
LCF	18	170025	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	2.340
LCL	18	170051	1-1/4" GALVANIZED LOCKWASHER	0.150	2.700
LCN	18	170006	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	13.140
			Total Wt	3113.85 lb [1413.72 kg]	

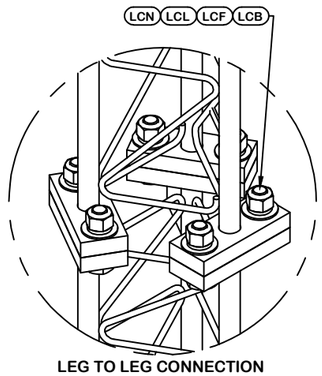
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



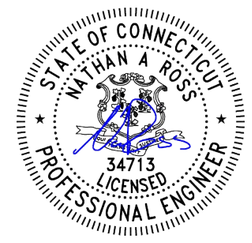
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-16.0 (120' - 140' ELEVATION)

ENG. FILE NO.
603706

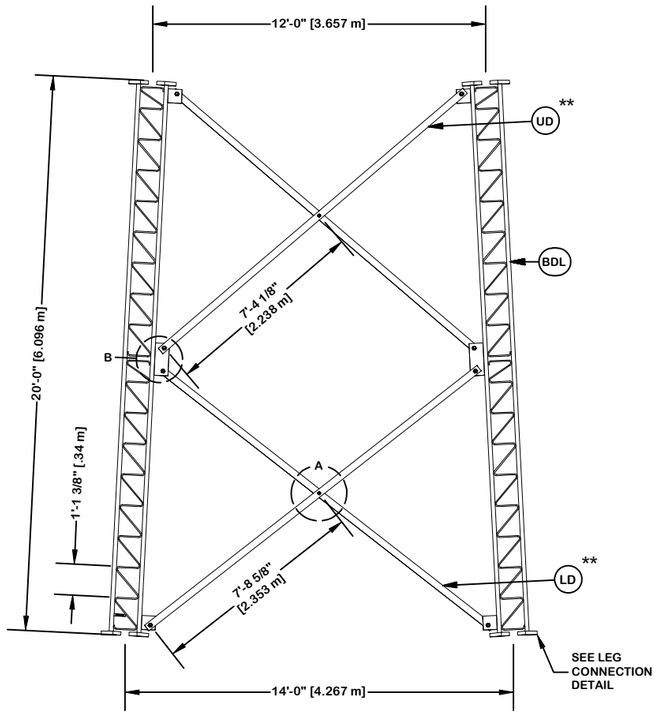
valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DWG. NO.
296803T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

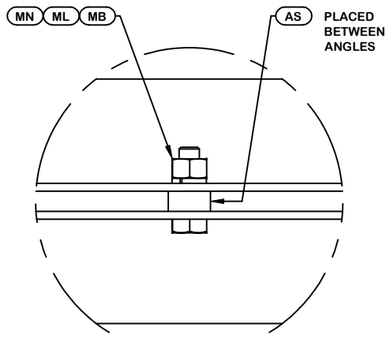
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



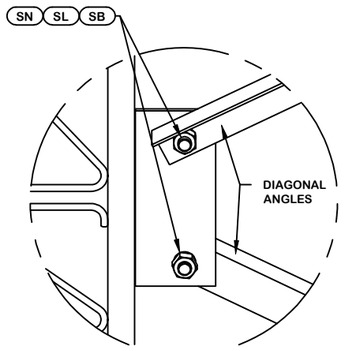
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195213	#12 LEG SECT - 1-3/4" TO 1-1/2" TRANS LEG - 1/2" B	739.890	2219.670
LD	6	126812	U-14 LOWER DIAGONAL - 3" x 3" x 3/16" ANGLE (A572	59.730	358.380
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	170004	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	170047	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	169904	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	170049	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	192038	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.800	19.200
UD	6	126809	U-14 UPPER DIAGONAL - 3" x 3" x 3/16" ANGLE (A572	56.680	340.080
LCB	18	236716	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	45.540
LCF	18	170025	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	2.340
LCL	18	170051	1-1/4" GALVANIZED LOCKWASHER	0.150	2.700
LCN	18	170006	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	13.140
			Total Wt	3017.85 lb [1370.13 kg]	

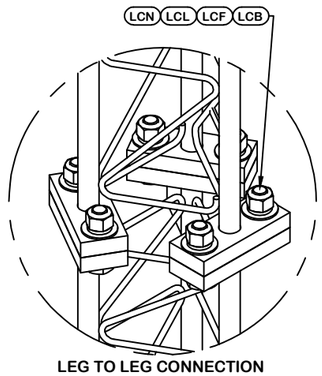
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



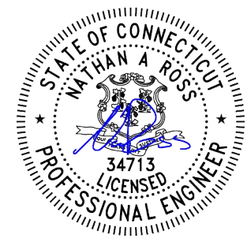
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE

207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION

SECTION U-14.0 (140' - 160' ELEVATION)

valmont
STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

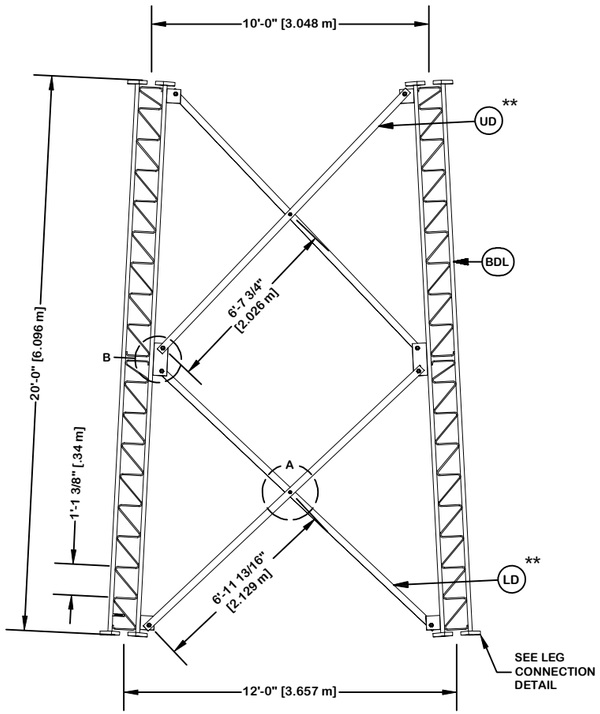
ENG. FILE NO. 603706

DWG. NO. 296803T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

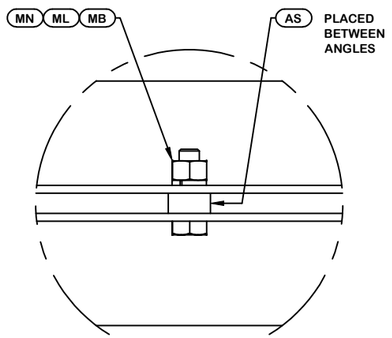
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



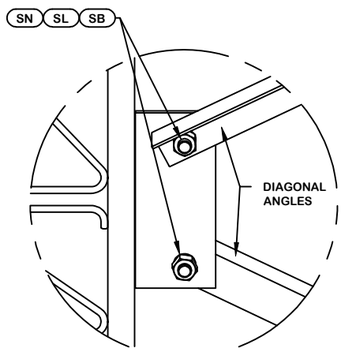
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194651	#12 LEG SECTION - 1-1/2" LEG - 1/2" BRACE - 1" BOL	602.830	1808.490
LD	6	126805	U-12 LOWER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGL	44.570	267.420
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	170004	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	170047	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	169904	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	170049	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	192038	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.800	19.200
UD	6	126801	U-12 UPPER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGL	42.250	253.500
LCB	18	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	27.360
LCF	18	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	170049	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
			Total Wt	2404.47 lb [1091.65 kg]	

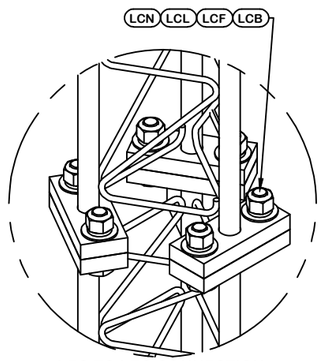
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



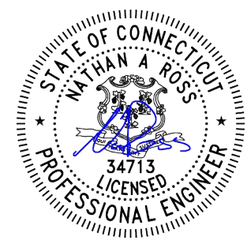
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
	REVISION HISTORY			
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-12.0 (160' - 180' ELEVATION)

ENG. FILE NO.
603706

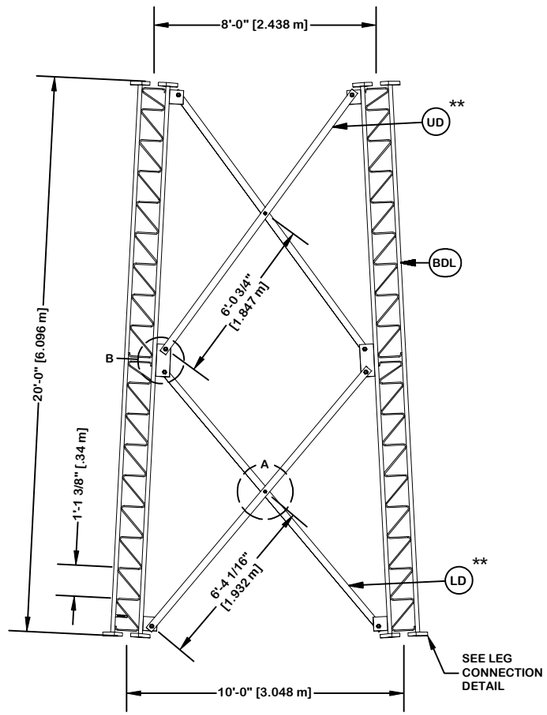
valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DWG. NO.
296803T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

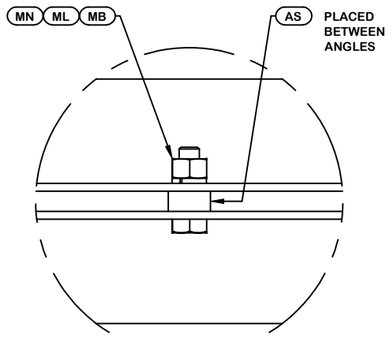
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



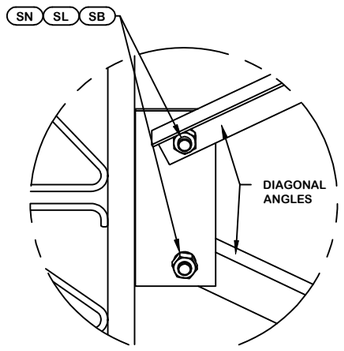
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194651	#12 LEG SECTION - 1-1/2" LEG - 1/2" BRACE - 1" BOL	602.830	1808.490
LD	6	126797	U-10 LOWER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGL	40.070	240.420
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	170004	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	170047	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	169904	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	170049	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	192038	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.800	19.200
UD	6	126793	U-10 UPPER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGL	38.050	228.300
LCB	18	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	27.360
LCF	18	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	170049	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
			Total Wt	2352.27 lb [1067.95 kg]	

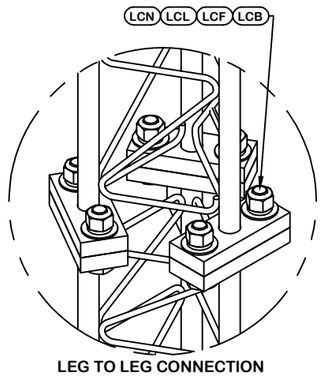
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



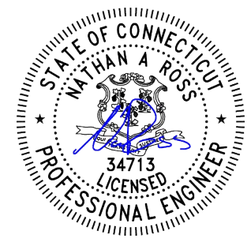
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
	REVISION HISTORY			
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-10.0 (180' - 200' ELEVATION)

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

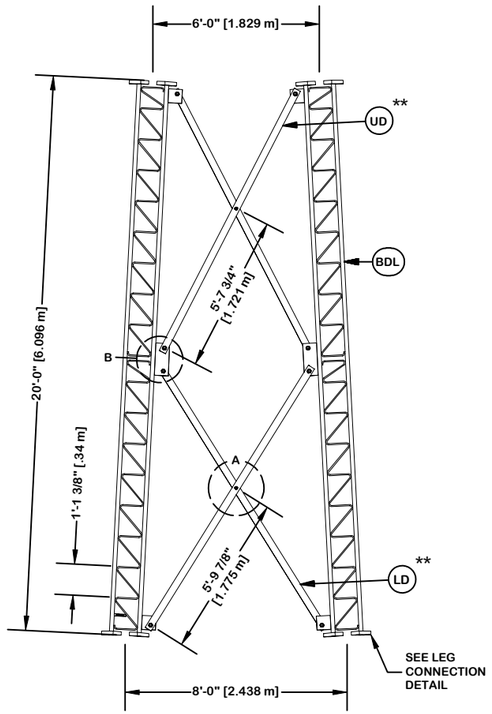
ENG. FILE NO. 603706

DWG. NO. 296803T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

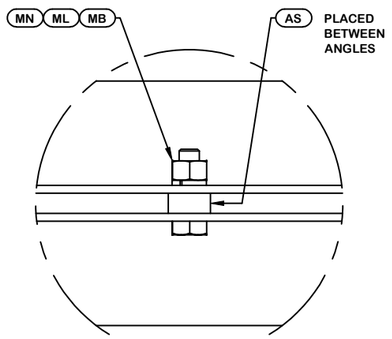
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



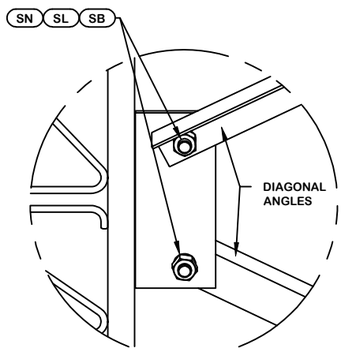
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194434	#12 LEG SECT - 1-1/4" LEG - 1/2" BRACE - 1" BOLT -	489.830	1469.490
LD	6	126789	U-8 LOWER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGLE	36.220	217.320
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	170004	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	170047	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	169904	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	170049	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	192038	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.800	19.200
UD	6	126785	U-8 UPPER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGLE	34.610	207.660
LCB	18	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	27.360
LCF	18	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	170049	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
			Total Wt	1969.53 lb [894.18 kg]	

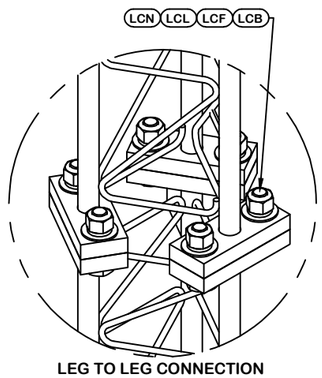
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW.
PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



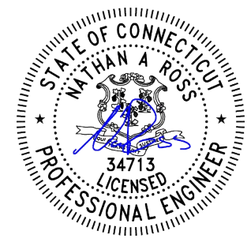
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
	REVISION HISTORY			
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION U-8.0 (200' - 220' ELEVATION)

ENG. FILE NO.
603706

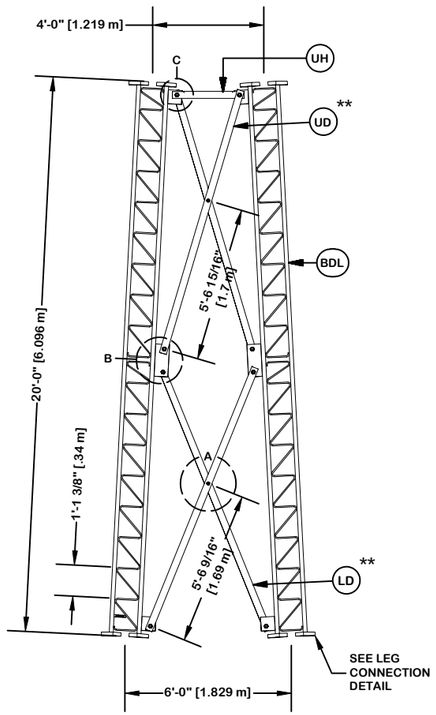
valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DWG. NO.
296803T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

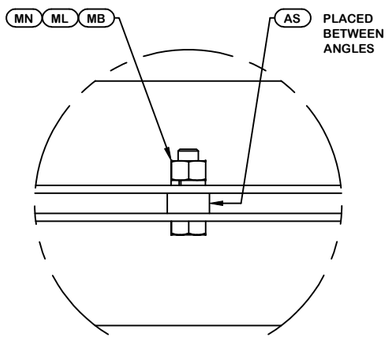
ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

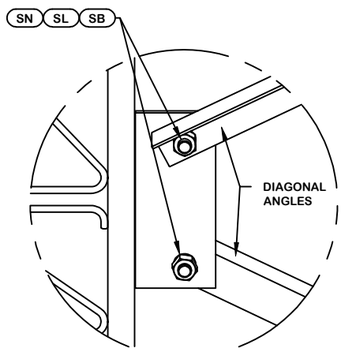


PARTS LIST

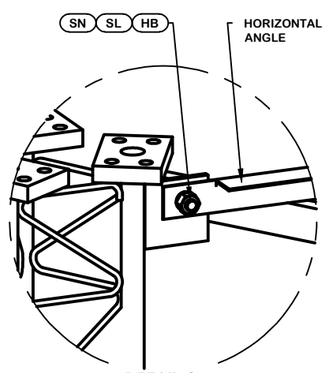
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194434	#12 LEG SECT - 1-1/4" LEG - 1/2" BRACE - 1" BOLT -	489.830	1469.490
LD	6	126782	U-6 LOWER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGLE	33.240	199.440
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	170004	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	170047	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	169904	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	170049	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	18	192038	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.800	14.400
UD	6	126779	U-6 UPPER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGLE	32.160	192.960
UH	3	268778	U-6 TAPERED UPPER HORIZONTAL ANGLE (TYPE 1) - 3" x	8.290	24.870
HB	6	231392	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	6.540
LCB	18	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	27.360
LCF	18	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	170049	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
			Total Wt	1963.56 lb [891.47 kg]	



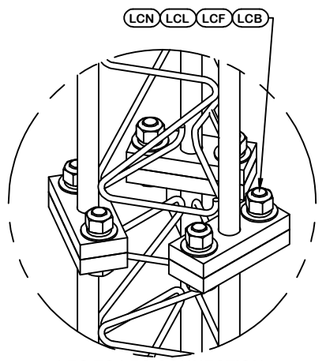
DETAIL A
ANGLE INTERSECTION CONNECTION



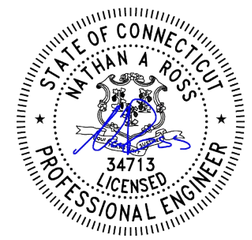
DETAIL B
MID SIDE PLATE ANGLE CONNECTION



DETAIL C
HORIZONTAL CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

SITE

207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION

SECTION U-6.0 (220' - 240' ELEVATION)

ENG. FILE NO. 603706

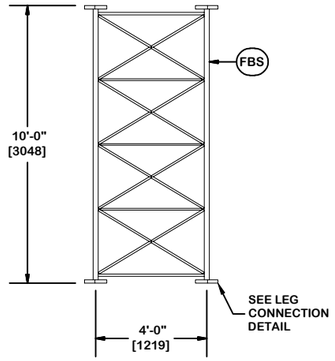
valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

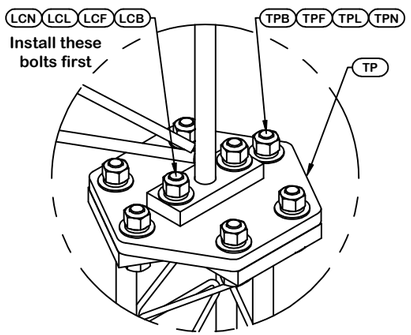
DWG. NO. 296803T

ORIENT SECTION WITH P/N STAMP
TOWARD BOTTOM OF TOWER

PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
FBS	1	233466	#48 SECT W/ FOOTPADS 1 1/4" LEG 3/4" BRACE 10'-0"	445.990	445.990
TP	3	209230	TRANSITION PLATE (6) 1" BOLTS TO (2) 1" BOLTS	83.780	251.340
TPB	18	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	27.360
TPF	18	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
TPL	18	170049	1" GALVANIZED LOCKWASHER	0.080	1.440
TPN	18	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
LCB	6	188536	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.520	9.120
LCF	6	170023	1" GALVANIZED FLAT WASHER (F436)	0.140	0.840
LCL	6	170049	1" GALVANIZED LOCKWASHER	0.080	0.480
LCN	6	170005	1"-8 HOT DIPPED GALVANIZED NUT	0.430	2.580
			Total Wt	749.41 lb [340.24 kg]	





LEG TO LEG CONNECTION
The Transition Plate MUST be attached to the
upper section before installing onto lower section

STATE OF CONNECTICUT
NATHAN A ROSS
34713
LICENSED
PROFESSIONAL ENGINEER

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@B	<ACBATCH>		CAM	6/12/2024
@A	<ACBATCH>		CAM	6/12/2024

REVISION HISTORY

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM	SAN	ES	T_F	6/13/2024

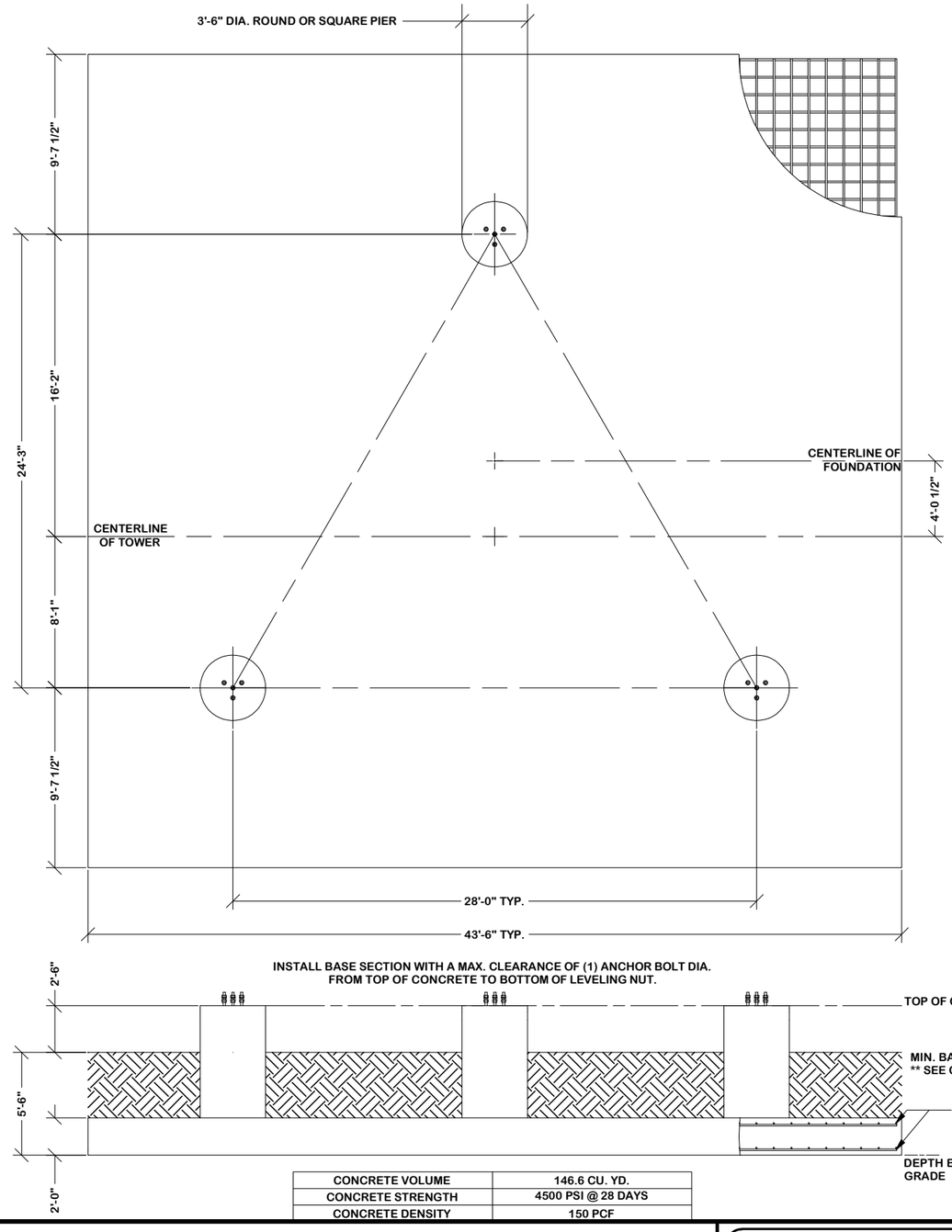
SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SECTION V-4.0 (240' - 250' ELEVATION)

ENG. FILE NO.
603706

valmont
STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DWG. NO.
296803T



CONCRETE VOLUME	146.6 CU. YD.
CONCRETE STRENGTH	4500 PSI @ 28 DAYS
CONCRETE DENSITY	150 PCF

ATTENTION CONTRACTOR INSTALLING ANCHOR BOLTS!
USE 1 1/2" DIA. ANCHOR BOLTS SUPPLIED BY VALMONT.
INSTALL ALL ANCHOR BOLTS WITH LONGER THREADED ENDS EXPOSED
VERIFY THE PART NUMBER AND SIZES FOR ALL COMPONENTS ON THIS PAGE.
IF THERE ARE ANY DISCREPANCIES, PLEASE NOTIFY VALMONT/PIROD, INC
PRIOR TO INSTALLATION!

TEMPLATE INSTALLATION NOTES:
1. THE PROVIDED TEMPLATE ASSEMBLY MUST BE USED TO ENSURE ACCURATE ANCHOR BOLT LOCATION & INSTALLATION ANGLE (BASE LEG REFERENCE ANGLE 0.00°.)
2. USING THE TEMPLATE ASSEMBLY, THE CENTER OF EACH ANCHOR BOLT GROUP MUST BE LOCATED WITHIN (+/- 3") OF THE CENTER OF THE REBAR CAGE SHOWN ON THIS PLAN. FAILURE TO USE THE FULLY ASSEMBLED ANCHOR BOLT TEMPLATE WILL CAUSE MISS-LOCATION OF THE ANCHOR BOLT GROUPS. INCORRECTLY LOCATED ANCHOR BOLT GROUPS WILL CAUSE DIFFICULTY OR ALIGNMENT ISSUES DURING TOWER CONSTRUCTION. IN MORE SEVERE CASES, THIS CAN MAKE IT IMPOSSIBLE TO ERECT THE TOWER.
3. THE ENTIRE TEMPLATE ASSEMBLY MUST BE LEVEL +/- 1°.
4. INSTALLED TEMPLATE CLEARANCE 2" MIN - 4" MAX T.O.C. TO BOTTOM OF LEVELING NUT.
5. MUST USE TEMPLATE ASSEMBLY# 281409

**CONCRETE NOTES

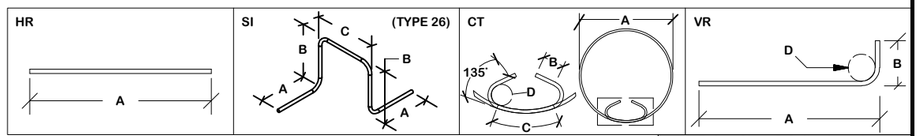
1. BACKFILL MUST NOT EXCEED THE TOP OF THE CONCRETE
2. CONTRACTOR MUST VERIFY THAT THE MINIMUM FILL HEIGHT CAN BE ACHIEVED PRIOR TO INSTALLING REBAR OR CONCRETE.
3. IF MINIMUM FILL HEIGHT CANNOT BE ACHIEVED THE CONTRACTOR MUST CONTACT VALMONT PRIOR TO REBAR OR CONCRETE PLACEMENT.

PARTS LIST				
ITEM	QTY	PART DESCRIPTION	UNIT WT.	NET WT.
1	12	1 1/2" DIA. x 60" LONG ANCHOR BOLT - 282819	36.63	439.53
2	3	EMBEDMENT PLATE - 281260	19.88	59.63

FOUNDATION NOTES:

1. SOIL AS PER REPORT BY DELTA OAKS GROUP PROJECT GEO23-20545-08 REVISION 1, MARCH 15, 2024
2. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR NOT PERMITTED.
3. A COLD JOINT IS PERMISSIBLE UPON CONSULTATION WITH VALMONT. ALL COLD JOINTS SHALL BE COATED WITH BONDING AGENTS PRIOR TO SECOND POUR.
4. ALL FILL SHOULD BE PLACED IN LOOSE LEVEL LIFTS OF NO MORE THAN 12" THICK. FILL MATERIALS SHOULD BE CLEAN AND FREE OF ORGANIC AND FROZEN MATERIALS OR ANY OTHER DELETERIOUS MATERIALS. COMPACT FILL TO 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698. MIN. BACKFILL DENSITY = 110 PCF.
5. BENDING, STRAIGHTENING OR REALIGNING (HOT OR COLD) OF THE ANCHOR BOLTS BY ANY METHOD IS PROHIBITED.
6. CROWN TOP OF FOUNDATION FOR PROPER DRAINAGE.
7. THE ON-SITE GEOTECHNICAL ENGINEER SHALL CONFIRM THAT THE INSITU SOIL STRENGTHS MEET OR EXCEED THOSE PARAMETERS GIVEN IN THE SOIL REPORT.
8. GRADE THE SITE TO DRAIN AWAY FROM FOUNDATION.
9. PROVISIONS SHALL BE MADE TO PROTECT THE SUBGRADE FROM EXCESS MOISTURE.
10. SEE GEOTECHNICAL REPORT FOR ADDITIONAL CONSTRUCTION RECOMMENDATIONS, BACKFILL COMPACTION DETAIL, SUBGRADE PREPARATION, ETC.
11. A SUMP PUMP OR OTHER DEWATERING SYSTEM MAY BE REQUIRED TO LOWER THE WATER TABLE TO FACILITATE THE INSTALLATION OF THE FOUNDATION.
12. AUGER ADVANCEMENT REFUSAL WAS ENCOUNTER DURING THE SUBSURFACE FIELD INVESTIGATION AT A DEPTH OF 5.5FT
13. DIFFICULTIES DURING EXCAVATION MAY ARISE DUE TO THE PRESENCE OF BOULDERS, COBBLES, AND/OR SHALLOW BEDROCK. THE BOULDERS, COBBLES, AND/OR ROCK MUST BE REMOVED FROM THE EXCAVATION OR DRILLED THROUGH.

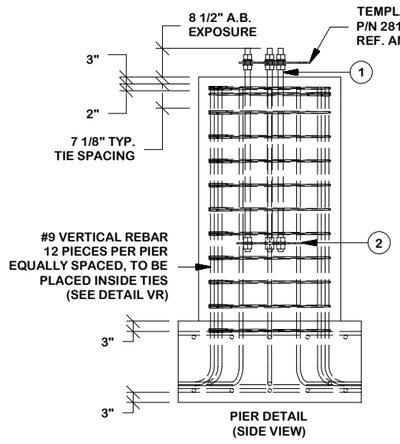
REBAR DETAIL									
BAR	QTY	SIZE	UNBENT LENGTH	A	B	C	D DIAMETER	UNIT WT. (LBS)	NET WT. (LBS)
HR	188	#9	43'	43'				146.43	27527.93
SI	144	#5	6'-11 1/2"	1'-7 3/4"	1'-1 1/2"	1'-10 1/4"		7.26	1045.39
CT	36	#4	11'-3 1/4"	3'	3"	9 7/16"	3"	7.53	271.06
VR	36	#9	8'-8"	7'-3 3/4"	1'-7 3/16"		9"	29.47	1061.10

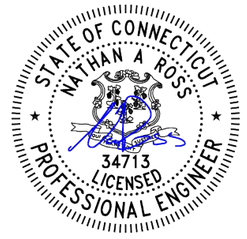


REBAR NOTES: ALL REINFORCING BARS MUST CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS
STANDEES TO BE EQUALLY SPACED BETWEEN GRIDS - 3'-8 7/8" (TYP)

Rebar Class B Splice Length			
Bar Size	(in)	Bar Size	(in)
3	19	8	61
4	25	9	69
5	31	10	77
6	37	11	86
7	53		

CIRCULAR TIE NOTES:
PLACE CIRCULAR TIES SO HOOKS ON ADJACENT TIES ARE APPROX. 180° APART. PLACE ONE TIE AT TOP OF REBAR GRID AND ONE TIE AT TOP OF PIER. EQUALLY SPACE TIES ALONG THE PIER, WITH ONE BAR PLACED 2" DOWN FROM THE TOP TIE. 12 TIES PER PIER (SEE DETAIL CT)





REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@D	UPDATE ACCORDING TO SITE CONDITION		INS	6/28/2024
@C	Update		T_F	6/12/2024
@B	Update		IS717193	6/12/2024
@A	Update		J_L	3/22/2024

REVISION HISTORY

SITE
207941 WOLCOTT-WATERBURY,CT
ATC
U 28 X 250'

DESCRIPTION
SHALLOW MAT WITH RAISED PIERS
TOWER FOUNDATION #1

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DRAWN BY	APPROVED BY	DESIGNED BY	APPROVED BY	RELEASE DATE
CAM		NS	INS	6/28/2024

ENG. FILE NO. 603706

DWG. NO. 296803F

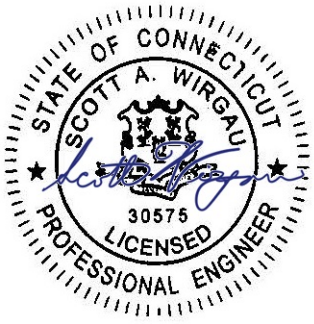
PAGE 1 OF 1

Attachment 2

AMERICAN TOWER®
CORPORATION

Mount Analysis Report

Mount Type	:	8 ft Sector Frame
ATC Asset Name	:	Wolcott-Waterbury
ATC Asset Number	:	211787
Engineering Number	:	14141575_C8_01
Mount Elevation	:	223 ft
Proposed Carrier	:	Dish Wireless L.L.C.
Carrier Site Name	:	BOHVN00036A
Carrier Site Number	:	BOHVN00036A
Site Location	:	164 County Road Wolcott, CT 6716 41.576202, -72.956079
County	:	New Haven
Date	:	March 20, 2025
Max Usage	:	41%
Analysis Result	:	Contingent Pass



Prepared By:
Zach Stoll
Structural Engineer I

COA: PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of the mount analysis performed for Dish Wireless L.L.C. at 223 ft.

Supporting Documents

Specifications Sheet:	Site Pro 1 VFA8-HD, dated June 29, 2018 Site Pro 1 STK-U, dated August 16, 2012 Site Pro 1 BCAM-HDLL, dated June 23, 2017
Radio Frequency Data Sheet:	RFDS ID #BOHVN00036A, dated September 28, 2021
Reference Photos:	Site photos from 2023

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	116 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	48 mph (3-Second Gust) w/ 1.12'' radial ice concurrent
Codes:	ANSI/TIA-222-I
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Sds = 0.17, Sd1 = 0.067
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

***Live Load(s) reduction is confirmed to either not govern or not be applicable**

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Install sector frames on tower leg using a Site Pro 1 BCAM-HDLL large leg adapter kit.
- On all sectors, install a new Site Pro 1 STK-U-NP sector frame tieback kit.
- No structural failures were addressed with the noted contingencies. Contingencies address Carrier's antenna spacing requirements.

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact MountAnalysis@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

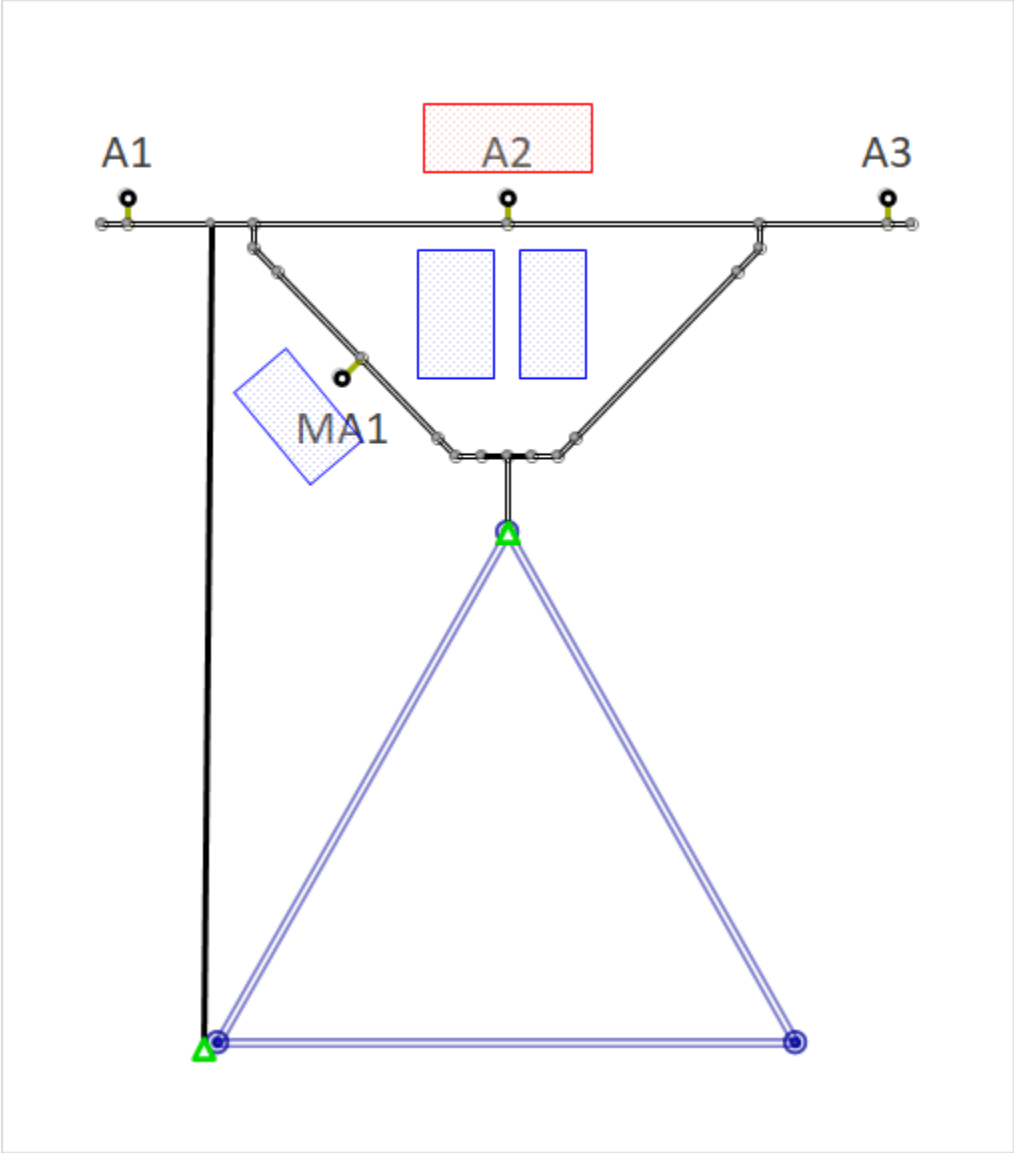
Application Loading

Mount Centerline (ft)	Equipment Centerline (ft)	Qty	Equipment Manufacturer & Model
223.0	223.0	3	JMA Wireless MX08FRO665-21
		1	Raycap RDIDC-9181-PF-48
		3	Fujitsu TA08025-B605
		3	Fujitsu TA08025-B604

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Horizontals	36%	Pass
Verticals	41%	Pass
Diagonals	14%	Pass
Tie-Backs	7%	Pass
Mount Pipes	28%	Pass
Clamp Connection Check	10%	Pass

Mount Layout

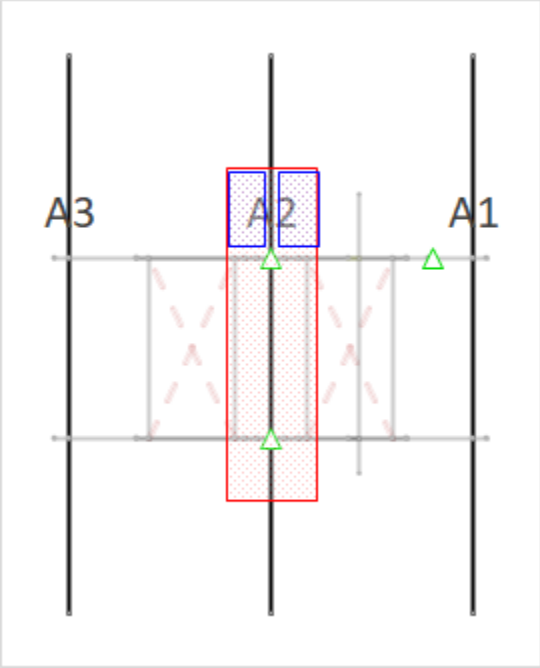


Equipment Position Table

MP	RAD Center (ft)	Qty.	Antenna Model	Max Width (in)	Left (in)	Right (in)
A1	-	-	Empty	-	-	-
A2	223.0	1	JMA Wireless MX08FRO665-21	20	N/A	N/A
	223.0	1	Fujitsu TA08025-B605			
	223.0	1	Fujitsu TA08025-B604			
A3	-	-	Empty	-	-	-
MA1	223.0	1	Raycap RDIDC-9181-PF-48	-	-	-

Equipment Layout

Front View - Alpha



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding equipment, mounts, and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

AMERICAN TOWER®
CORPORATION

Site Number:	*211787*
Project Number:	*14141575_C8_01*
Carrier:	*Dish Wireless L.L.C.*
Mount Elevation:	*223 ft*
Date:	3/20/2025

Mount Analysis Force Calculations

Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	1.18	
Topographic Factor	K_{zt}	1.00	
Rooftop Wind Speed-up Factor	K_s	1.00	
Shielding Factor	K_a	0.90	
Ground Elevation Factor	K_e	1.00	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	116	mph
Velocity Pressure	q_z	38.5	psf
Height Escalation Factor	K_{iz}	1.21	
Thickness of Radial Glaze Ice	T_{iz}	1.36	in

Seismic Load Calculations			
Short Period DSRAP	S_{DS}	0.170	
1 Second DSRAP	S_{D1}	0.067	
Importance Factor	I	1.0	
Response Modification Coefficient	R	2.0	
Seismic Response Coefficient	C_S	0.085	
Amplification Factor	A	1.2	
Total Weight	W	570.1	lbs
Total Shear Force	V_S	48.5	lbs
Horizontal Seismic Load	Eh	58.2	lbs
Vertical Seismic Load	Ev	23.3	lbs

Antenna Calculations (Elevations per Application/RFDS)*

Equipment	Height	Width	Depth	Weight	EPA_N	EPA_T	F_{WN}	F_{WT}
Model #	in	in	in	lbs	sqft	sqft	lb	lb
JMA Wireless MX08FRO665-21	72.0	20.0	8.0	64.5	12.49	2.42	432.82	83.92
Raycap RDIDC-9181-PF-48	16.0	14.0	8.0	21.9	1.87	1.07	64.69	36.97
Fujitsu TA08025-B605	15.7	15.0	9.1	75.0	1.96	1.19	68.01	41.26
Fujitsu TA08025-B604	15.7	15.0	7.9	63.9	1.96	1.03	68.01	35.82

**** Equipment with EPA values N/A were not considered in the mount analysis***
*****Equipment EPA has been adjusted per wind tunnel and CFD testing with K_a =1.0***

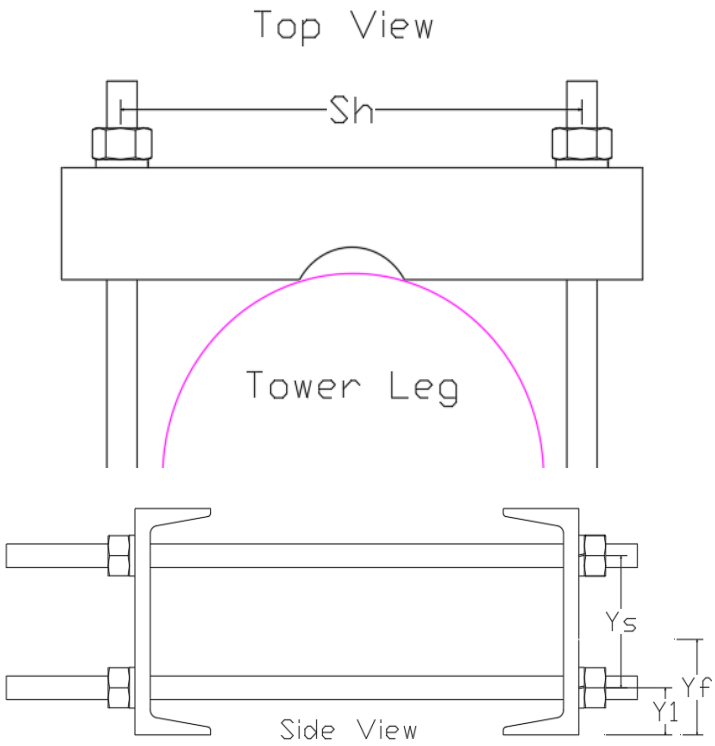
AMERICAN TOWER®
CORPORATION

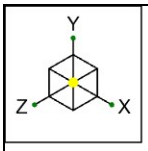
Site Number:	*211787*
Project Number:	*14141575_C8_01*
Carrier:	*Dish Wireless L.L.C.*
Mount Elevation:	*223 ft*
Date:	3/20/2025

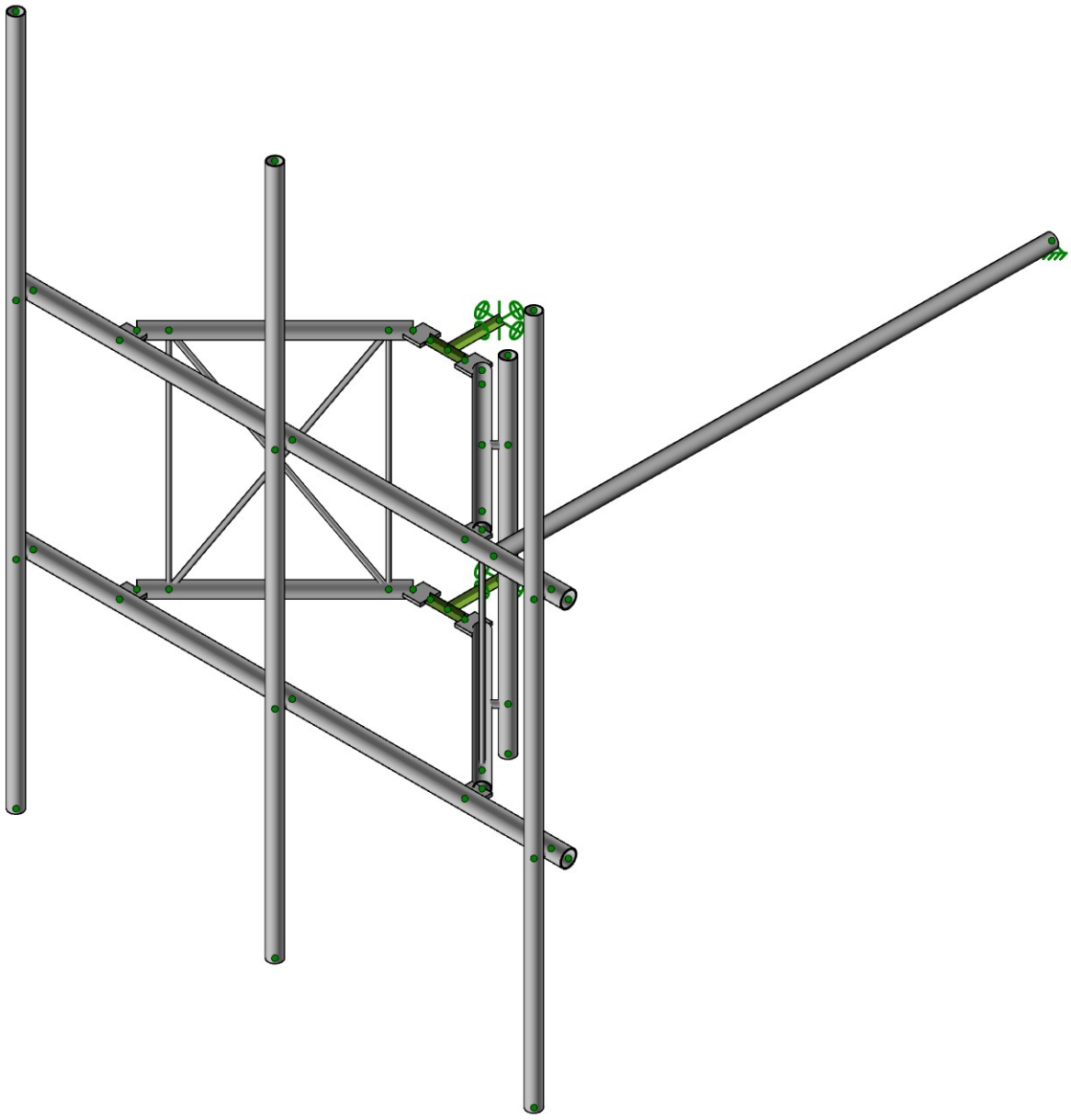
Mount-to-Tower Connection Analysis

Applied Loads from RISA 3D			
Controlling Load Combination		84	
Node Label / Orientation (Degrees)		N006	0
Force in X	Fx	-98.9	lbs
Force in Y	Fy	529.7	lbs
Force in Z	Fz	1219.0	lbs
Moment about X	Mx	-463.3	lb-ft
Moment about Y	My	0.0	lb-ft
Moment about Z	Mz	-6.1	lb-ft

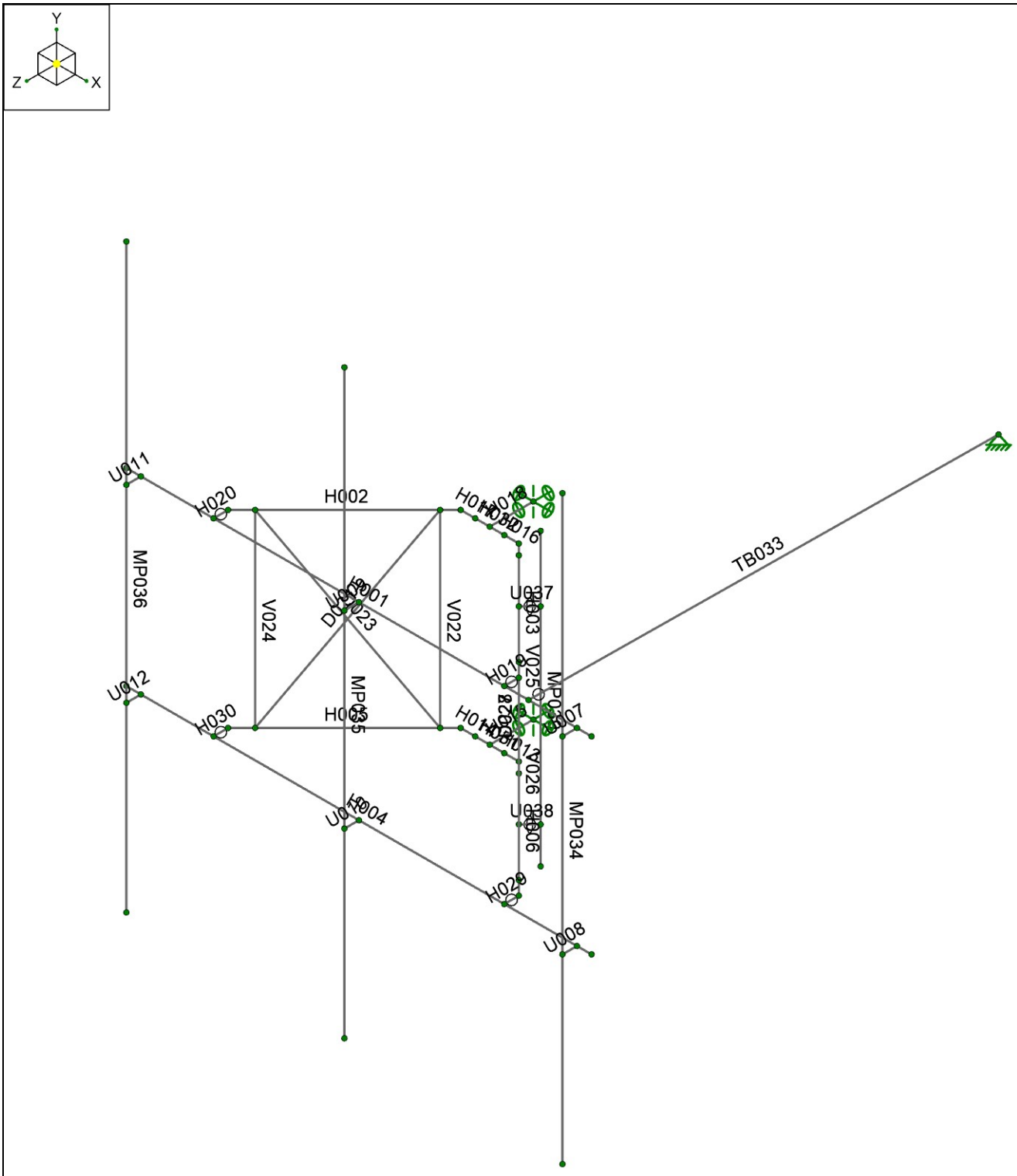
Bolt Capacity			
Bolt Type		Threaded Rod(s)	
Threaded Rod(s) Quantity	n	4	
Bolt Diameter	D_B	5/8	in
Vertical Bolt Spacing	Y_s	4 1/2	in
Lower Bolt Edge Distance	Y_1	1.62	in
Horizontal Bolt Spacing	S_h	17.875	in
Clamp Height	H	7.75	in
Load Eccentricity	Y_f	7.75	in
Bolt Grade		J429-5	
Bolt Fy	Fy_B	92	ksi
Bolt Fu	Fu_B	120	ksi
Max Applied Tension	Tu	2.01	k
Tensile Strength	ϕTn	20.3	k
Connection Capacity	Tu/ϕTn	10%	Pass







American Tower Corp.	211787, Wolcott-Waterbury	SK-1
Zach.Stoll		Mar 20, 2025 at 12:06 PM
14141575_C8_01		R3D. DISH WIRELESS L.L....



American Tower Corp.	211787, Wolcott-Waterbury		SK-2
Zach.Stoll			Mar 20, 2025 at 12:06 PM
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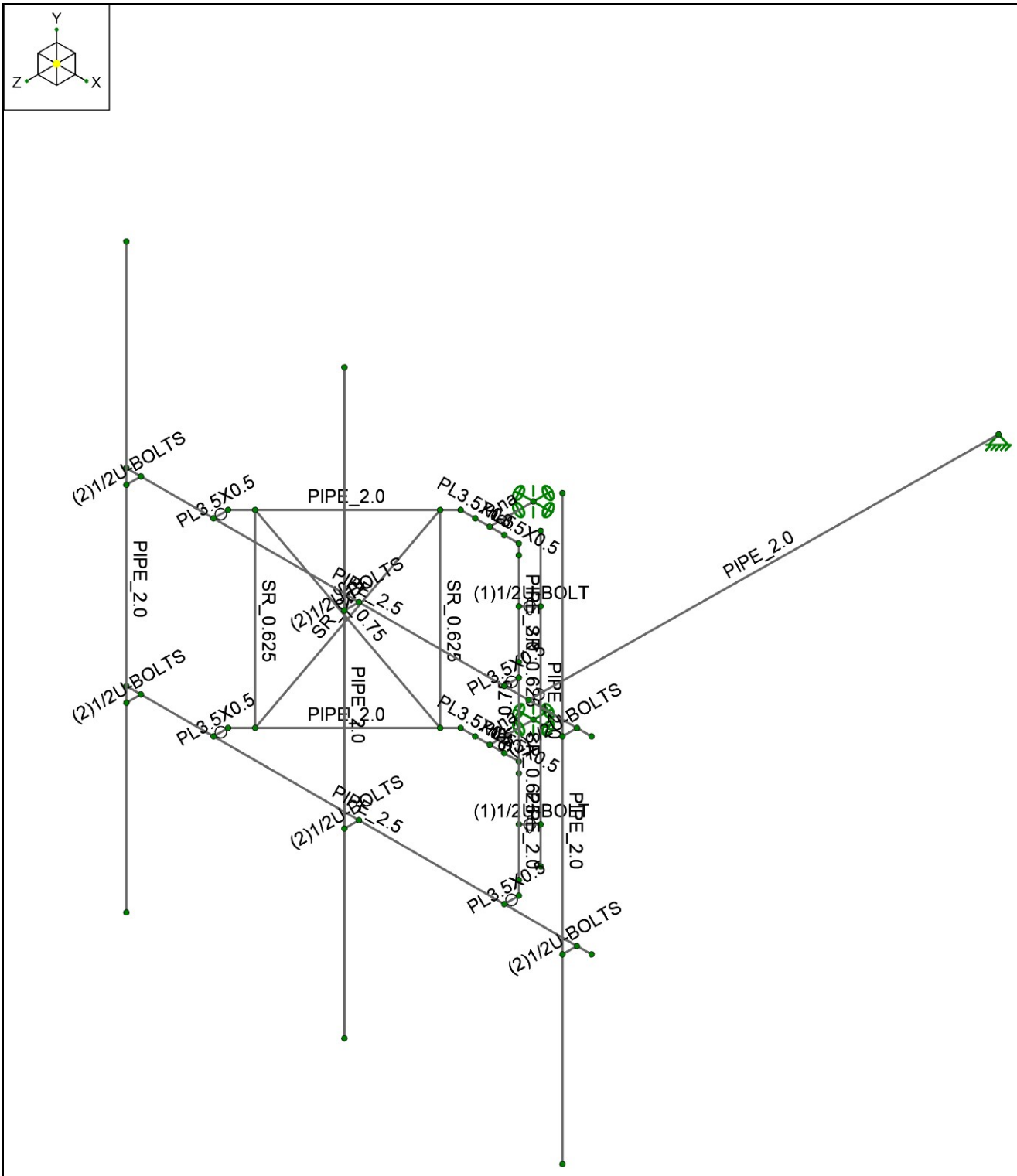

American Tower Corp.		211787, Wolcott-Waterbury	SK-3
Zach.Stoll			Mar 20, 2025 at 12:06 PM
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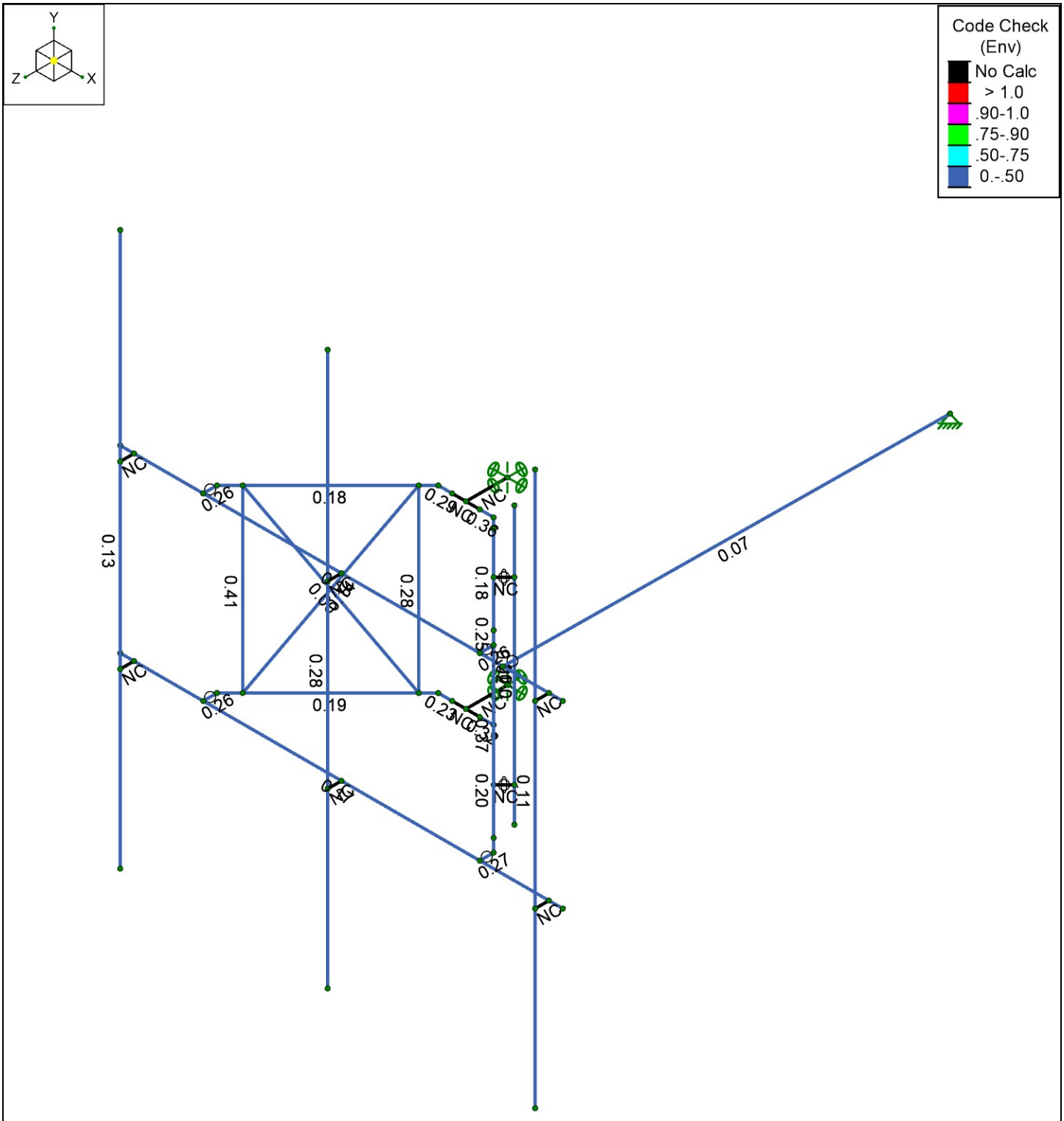
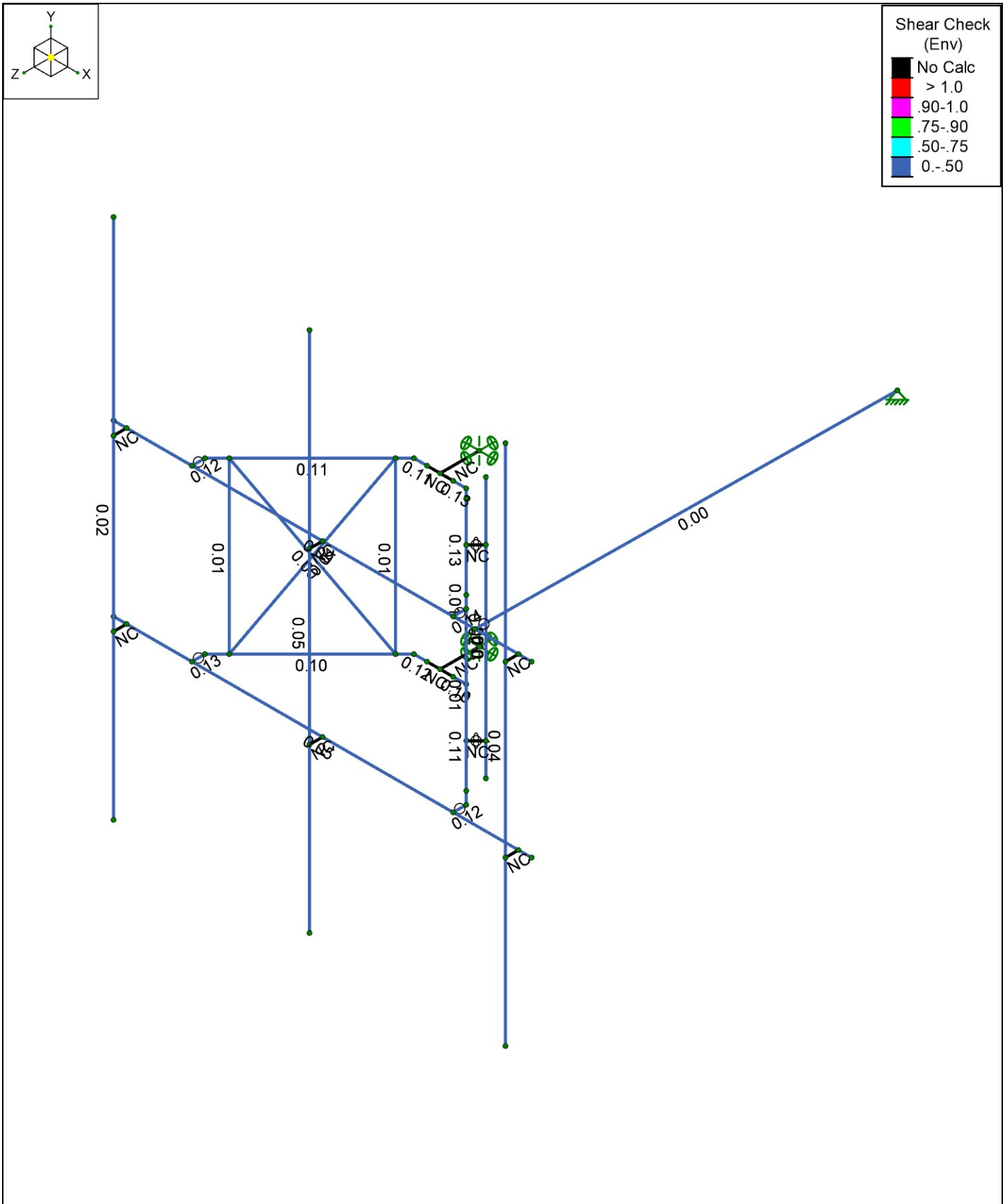


Member Code Checks Displayed (Enveloped)

American Tower Corp.	211787, Wolcott-Waterbury	SK-4
Zach.Stoll		Mar 20, 2025 at 12:06 PM
14141575_C8_01		R3D. DISH WIRELESS L.L....



Member Shear Checks Displayed (Enveloped)

American Tower Corp.	211787, Wolcott-Waterbury	SK-5
Zach.Stoll		Mar 20, 2025 at 12:06 PM
14141575_C8_01		R3D. DISH WIRELESS L.L....

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed
1	D	DL		-1			5	
2	Di	IL						
3	W 0	WL					5	28
4	W 30	WL					10	55
5	W 60	WL					10	55
6	W 90	WL					5	29
7	W 120	WL					10	55
8	W 150	WL					10	55
9	W 180	WL					5	28
10	W 210	WL					10	55
11	W 240	WL					10	55
12	W 270	WL					5	29
13	W 300	WL					10	55
14	W 330	WL					10	55
15	Wi 0	WL						
16	Wi 30	WL						
17	Wi 60	WL						
18	Wi 90	WL						
19	Wi 120	WL						
20	Wi 150	WL						
21	Wi 180	WL						
22	Wi 210	WL						
23	Wi 240	WL						
24	Wi 270	WL						
25	Wi 300	WL						
26	Wi 330	WL						
27	Ws 0	WL					5	28
28	Ws 30	WL					10	55
29	Ws 60	WL					10	55
30	Ws 90	WL					5	29
31	Ws 120	WL					10	55
32	Ws 150	WL					10	55
33	Ws 180	WL					5	28
34	Ws 210	WL					10	55
35	Ws 240	WL					10	55
36	Ws 270	WL					5	29
37	Ws 300	WL					10	55
38	Ws 330	WL					10	55
39	Ev -Y	ELY		-0.041			5	
40	Eh -Z	ELZ			-0.102		5	
41	Eh -X	ELX	-0.102				5	
42	Lv (1)	LL					1	
43	Lv (2)	LL					1	
44	Lv (3)	LL					1	
45	Lv (4)	LL					1	
46	Lv (5)	LL					1	
47	Lv (6)	LL					1	
48	Lv (7)	LL				1		
49	Lv (8)	LL				1		
50	Lv (9)	LL				1		
51	Lv (10)	LL				1		
52	Lm (1)	LL				1		
53	Lm (2)	LL				1		
54	Lm (3)	LL				1		
55	Lm (4)	LL				1		

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4D	Yes	Y	DL	1.4						
2	1.2D + 1.0W [0°]	Yes	Y	DL	1.2	3	1				
3	1.2D + 1.0W [30°]	Yes	Y	DL	1.2	4	1				
4	1.2D + 1.0W [60°]	Yes	Y	DL	1.2	5	1				
5	1.2D + 1.0W [90°]	Yes	Y	DL	1.2	6	1				
6	1.2D + 1.0W [120°]	Yes	Y	DL	1.2	7	1				
7	1.2D + 1.0W [150°]	Yes	Y	DL	1.2	8	1				
8	1.2D + 1.0W [180°]	Yes	Y	DL	1.2	9	1				
9	1.2D + 1.0W [210°]	Yes	Y	DL	1.2	10	1				
10	1.2D + 1.0W [240°]	Yes	Y	DL	1.2	11	1				
11	1.2D + 1.0W [270°]	Yes	Y	DL	1.2	12	1				
12	1.2D + 1.0W [300°]	Yes	Y	DL	1.2	13	1				
13	1.2D + 1.0W [330°]	Yes	Y	DL	1.2	14	1				
14	0.9D + 1.0W [0°]	Yes	Y	DL	0.9	3	1				
15	0.9D + 1.0W [30°]	Yes	Y	DL	0.9	4	1				
16	0.9D + 1.0W [60°]	Yes	Y	DL	0.9	5	1				
17	0.9D + 1.0W [90°]	Yes	Y	DL	0.9	6	1				
18	0.9D + 1.0W [120°]	Yes	Y	DL	0.9	7	1				
19	0.9D + 1.0W [150°]	Yes	Y	DL	0.9	8	1				
20	0.9D + 1.0W [180°]	Yes	Y	DL	0.9	9	1				
21	0.9D + 1.0W [210°]	Yes	Y	DL	0.9	10	1				
22	0.9D + 1.0W [240°]	Yes	Y	DL	0.9	11	1				
23	0.9D + 1.0W [270°]	Yes	Y	DL	0.9	12	1				
24	0.9D + 1.0W [300°]	Yes	Y	DL	0.9	13	1				
25	0.9D + 1.0W [330°]	Yes	Y	DL	0.9	14	1				
26	1.2D + 1.0Di + 1.0Wi [0°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	15	1		
27	1.2D + 1.0Di + 1.0Wi [30°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	16	1		
28	1.2D + 1.0Di + 1.0Wi [60°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	17	1		
29	1.2D + 1.0Di + 1.0Wi [90°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	18	1		
30	1.2D + 1.0Di + 1.0Wi [120°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	19	1		
31	1.2D + 1.0Di + 1.0Wi [150°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	20	1		
32	1.2D + 1.0Di + 1.0Wi [180°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	21	1		
33	1.2D + 1.0Di + 1.0Wi [210°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	22	1		
34	1.2D + 1.0Di + 1.0Wi [240°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	23	1		
35	1.2D + 1.0Di + 1.0Wi [270°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	24	1		
36	1.2D + 1.0Di + 1.0Wi [300°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	25	1		
37	1.2D + 1.0Di + 1.0Wi [330°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	26	1		
38	1.2D + 1.0Ev + 1.0Eh [0°]	Yes	Y	DL	1.2	ELY	1	ELZ	1	ELX	0.001
39	1.2D + 1.0Ev + 1.0Eh [30°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.866	ELX	0.5
40	1.2D + 1.0Ev + 1.0Eh [60°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.5	ELX	0.866
41	1.2D + 1.0Ev + 1.0Eh [90°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.001	ELX	1
42	1.2D + 1.0Ev + 1.0Eh [120°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.5	ELX	0.866
43	1.2D + 1.0Ev + 1.0Eh [150°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.866	ELX	0.5
44	1.2D + 1.0Ev + 1.0Eh [180°]	Yes	Y	DL	1.2	ELY	1	ELZ	-1	ELX	0.001
45	1.2D + 1.0Ev + 1.0Eh [210°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.866	ELX	-0.5
46	1.2D + 1.0Ev + 1.0Eh [240°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.5	ELX	-0.866
47	1.2D + 1.0Ev + 1.0Eh [270°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.001	ELX	-1
48	1.2D + 1.0Ev + 1.0Eh [300°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.5	ELX	-0.866
49	1.2D + 1.0Ev + 1.0Eh [330°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.866	ELX	-0.5
50	0.9D + 1.0Ev + 1.0Eh [0°]	Yes	Y	DL	0.9	ELY	1	ELZ	1	ELX	0.001
51	0.9D + 1.0Ev + 1.0Eh [30°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.866	ELX	0.5
52	0.9D + 1.0Ev + 1.0Eh [60°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.5	ELX	0.866
53	0.9D + 1.0Ev + 1.0Eh [90°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.001	ELX	1
54	0.9D + 1.0Ev + 1.0Eh [120°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.5	ELX	0.866
55	0.9D + 1.0Ev + 1.0Eh [150°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.866	ELX	0.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
56	0.9D + 1.0Ev + 1.0Eh [180°]	Yes	Y	DL	0.9	ELY	1	ELZ	-1	ELX	0.001
57	0.9D + 1.0Ev + 1.0Eh [210°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.866	ELX	-0.5
58	0.9D + 1.0Ev + 1.0Eh [240°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.5	ELX	-0.866
59	0.9D + 1.0Ev + 1.0Eh [270°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.001	ELX	-1
60	0.9D + 1.0Ev + 1.0Eh [300°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.5	ELX	-0.866
61	0.9D + 1.0Ev + 1.0Eh [330°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.866	ELX	-0.5
62	1.2D + 1.5Lv(1)	Yes	Y	DL	1.2	42	1.5				
63	1.2D + 1.5Lv(2)	Yes	Y	DL	1.2	43	1.5				
64	1.2D + 1.5Lv(3)	Yes	Y	DL	1.2	44	1.5				
65	1.2D + 1.5Lv(4)	Yes	Y	DL	1.2	45	1.5				
66	1.2D + 1.5Lv(5)	Yes	Y	DL	1.2	46	1.5				
67	1.2D + 1.5Lv(6)	Yes	Y	DL	1.2	47	1.5				
68	1.2D + 1.5Lv(7)	Yes	Y	DL	1.2	48	1.5				
69	1.2D + 1.5Lv(8)	Yes	Y	DL	1.2	49	1.5				
70	1.2D + 1.5Lv(9)	Yes	Y	DL	1.2	50	1.5				
71	1.2D + 1.5Lv(10)	Yes	Y	DL	1.2	51	1.5				
72	1.2D + 1.5Lm(1) + 1.0Wm [0°]	Yes	Y	DL	1.2	52	1.5	27	1		
73	1.2D + 1.5Lm(1) + 1.0Wm [30°]	Yes	Y	DL	1.2	52	1.5	28	1		
74	1.2D + 1.5Lm(1) + 1.0Wm [60°]	Yes	Y	DL	1.2	52	1.5	29	1		
75	1.2D + 1.5Lm(1) + 1.0Wm [90°]	Yes	Y	DL	1.2	52	1.5	30	1		
76	1.2D + 1.5Lm(1) + 1.0Wm [120°]	Yes	Y	DL	1.2	52	1.5	31	1		
77	1.2D + 1.5Lm(1) + 1.0Wm [150°]	Yes	Y	DL	1.2	52	1.5	32	1		
78	1.2D + 1.5Lm(1) + 1.0Wm [180°]	Yes	Y	DL	1.2	52	1.5	33	1		
79	1.2D + 1.5Lm(1) + 1.0Wm [210°]	Yes	Y	DL	1.2	52	1.5	34	1		
80	1.2D + 1.5Lm(1) + 1.0Wm [240°]	Yes	Y	DL	1.2	52	1.5	35	1		
81	1.2D + 1.5Lm(1) + 1.0Wm [270°]	Yes	Y	DL	1.2	52	1.5	36	1		
82	1.2D + 1.5Lm(1) + 1.0Wm [300°]	Yes	Y	DL	1.2	52	1.5	37	1		
83	1.2D + 1.5Lm(1) + 1.0Wm [330°]	Yes	Y	DL	1.2	52	1.5	38	1		
84	1.2D + 1.5Lm(2) + 1.0Wm [0°]	Yes	Y	DL	1.2	53	1.5	27	1		
85	1.2D + 1.5Lm(2) + 1.0Wm [30°]	Yes	Y	DL	1.2	53	1.5	28	1		
86	1.2D + 1.5Lm(2) + 1.0Wm [60°]	Yes	Y	DL	1.2	53	1.5	29	1		
87	1.2D + 1.5Lm(2) + 1.0Wm [90°]	Yes	Y	DL	1.2	53	1.5	30	1		
88	1.2D + 1.5Lm(2) + 1.0Wm [120°]	Yes	Y	DL	1.2	53	1.5	31	1		
89	1.2D + 1.5Lm(2) + 1.0Wm [150°]	Yes	Y	DL	1.2	53	1.5	32	1		
90	1.2D + 1.5Lm(2) + 1.0Wm [180°]	Yes	Y	DL	1.2	53	1.5	33	1		
91	1.2D + 1.5Lm(2) + 1.0Wm [210°]	Yes	Y	DL	1.2	53	1.5	34	1		
92	1.2D + 1.5Lm(2) + 1.0Wm [240°]	Yes	Y	DL	1.2	53	1.5	35	1		
93	1.2D + 1.5Lm(2) + 1.0Wm [270°]	Yes	Y	DL	1.2	53	1.5	36	1		
94	1.2D + 1.5Lm(2) + 1.0Wm [300°]	Yes	Y	DL	1.2	53	1.5	37	1		
95	1.2D + 1.5Lm(2) + 1.0Wm [330°]	Yes	Y	DL	1.2	53	1.5	38	1		
96	1.2D + 1.5Lm(3) + 1.0Wm [0°]	Yes	Y	DL	1.2	54	1.5	27	1		
97	1.2D + 1.5Lm(3) + 1.0Wm [30°]	Yes	Y	DL	1.2	54	1.5	28	1		
98	1.2D + 1.5Lm(3) + 1.0Wm [60°]	Yes	Y	DL	1.2	54	1.5	29	1		
99	1.2D + 1.5Lm(3) + 1.0Wm [90°]	Yes	Y	DL	1.2	54	1.5	30	1		
100	1.2D + 1.5Lm(3) + 1.0Wm [120°]	Yes	Y	DL	1.2	54	1.5	31	1		
101	1.2D + 1.5Lm(3) + 1.0Wm [150°]	Yes	Y	DL	1.2	54	1.5	32	1		
102	1.2D + 1.5Lm(3) + 1.0Wm [180°]	Yes	Y	DL	1.2	54	1.5	33	1		
103	1.2D + 1.5Lm(3) + 1.0Wm [210°]	Yes	Y	DL	1.2	54	1.5	34	1		
104	1.2D + 1.5Lm(3) + 1.0Wm [240°]	Yes	Y	DL	1.2	54	1.5	35	1		
105	1.2D + 1.5Lm(3) + 1.0Wm [270°]	Yes	Y	DL	1.2	54	1.5	36	1		
106	1.2D + 1.5Lm(3) + 1.0Wm [300°]	Yes	Y	DL	1.2	54	1.5	37	1		
107	1.2D + 1.5Lm(3) + 1.0Wm [330°]	Yes	Y	DL	1.2	54	1.5	38	1		
108	1.2D + 1.5Lm(4) + 1.0Wm [0°]	Yes	Y	DL	1.2	55	1.5	27	1		
109	1.2D + 1.5Lm(4) + 1.0Wm [30°]	Yes	Y	DL	1.2	55	1.5	28	1		
110	1.2D + 1.5Lm(4) + 1.0Wm [60°]	Yes	Y	DL	1.2	55	1.5	29	1		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
111	1.2D + 1.5Lm(4) + 1.0Wm [90°]	Yes	Y	DL	1.2	55	1.5	30	1		
112	1.2D + 1.5Lm(4) + 1.0Wm [120°]	Yes	Y	DL	1.2	55	1.5	31	1		
113	1.2D + 1.5Lm(4) + 1.0Wm [150°]	Yes	Y	DL	1.2	55	1.5	32	1		
114	1.2D + 1.5Lm(4) + 1.0Wm [180°]	Yes	Y	DL	1.2	55	1.5	33	1		
115	1.2D + 1.5Lm(4) + 1.0Wm [210°]	Yes	Y	DL	1.2	55	1.5	34	1		
116	1.2D + 1.5Lm(4) + 1.0Wm [240°]	Yes	Y	DL	1.2	55	1.5	35	1		
117	1.2D + 1.5Lm(4) + 1.0Wm [270°]	Yes	Y	DL	1.2	55	1.5	36	1		
118	1.2D + 1.5Lm(4) + 1.0Wm [300°]	Yes	Y	DL	1.2	55	1.5	37	1		
119	1.2D + 1.5Lm(4) + 1.0Wm [330°]	Yes	Y	DL	1.2	55	1.5	38	1		

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	H001	N003	N002		PIPE_2.5	Beam	None	Q235	Typical
2	H002	N028	N004		PIPE_2.0	Beam	None	Q235	Typical
3	H003	N027	N005		PIPE_2.0	Beam	None	Q235	Typical
4	H004	N008	N007		PIPE_2.5	Beam	None	Q235	Typical
5	H005	N025	N009		PIPE_2.0	Beam	None	Q235	Typical
6	H006	N024	N010		PIPE_2.0	Beam	None	Q235	Typical
7	U007	N011	N014		(2)1/2U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
8	U008	N015	N016		(2)1/2U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
9	U009	N012	N017		(2)1/2U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
10	U010	N018	N019		(2)1/2U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
11	U011	N013	N020		(2)1/2U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
12	U012	N021	N022		(2)1/2U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
13	H013	N043	N024	90	PL3.5X0.5	Beam	None	Q235	Typical
14	H014	N044	N025	90	PL3.5X0.5	Beam	None	Q235	Typical
15	H015	N006	N023		RIGID	None	None	RIGID	Typical
16	H016	N041	N027	90	PL3.5X0.5	Beam	None	Q235	Typical
17	H017	N042	N028	90	PL3.5X0.5	Beam	None	Q235	Typical
18	H018	N001	N026		RIGID	None	None	RIGID	Typical
19	H019	N005	N030	90	PL3.5X0.5	Beam	None	Q235	Typical
20	H020	N004	N029	90	PL3.5X0.5	Beam	None	Q235	Typical
21	D021	N034	N031		SR_0.75	Column	None	Q235	Typical
22	V022	N031	N032		SR_0.625	Column	None	Q235	Typical
23	D023	N032	N033		SR_0.75	Column	None	Q235	Typical
24	V024	N033	N034		SR_0.625	Column	None	Q235	Typical
25	V025	N035	N036		SR_0.625	Column	None	Q235	Typical
26	V026	N037	N038		SR_0.625	Column	None	Q235	Typical
27	D027	N038	N035		SR_0.75	Column	None	Q235	Typical
28	D028	N036	N037		SR_0.75	Column	None	Q235	Typical
29	H029	N010	N040	90	PL3.5X0.5	Beam	None	Q235	Typical
30	H030	N009	N039	90	PL3.5X0.5	Beam	None	Q235	Typical
31	H031	N043	N044		RIGID	None	None	RIGID	Typical
32	H032	N041	N042		RIGID	None	None	RIGID	Typical
33	TB033	N046	N045		PIPE_2.0	Beam	None	Q235	Typical
34	MP034	N047	N048		PIPE_2.0	Column	None	A53 Gr. B	Typical
35	MP035	N049	N050		PIPE_2.0	Column	None	A53 Gr. B	Typical
36	MP036	N051	N052		PIPE_2.0	Column	None	A53 Gr. B	Typical
37	U037	N053	N054		(1)1/2U-BOLT	Beam	None	A36	Typical
38	U038	N055	N056		(1)1/2U-BOLT	Beam	None	A36	Typical
39	MP039	N057	N058		PIPE_2.0	Column	None	A53 Gr. B	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Channel Conn.	a [in]	Function
1	H001	PIPE_2.5	96			Lbyy		1	1	N/A	N/A	Lateral
2	H002	PIPE_2.0	33.941			Lbyy		0.8	1	N/A	N/A	Lateral
3	H003	PIPE_2.0	33.941			Lbyy		0.8	1	N/A	N/A	Lateral
4	H004	PIPE_2.5	96			Lbyy		1	1	N/A	N/A	Lateral
5	H005	PIPE_2.0	33.941			Lbyy		0.8	1	N/A	N/A	Lateral
6	H006	PIPE_2.0	33.941			Lbyy		0.8	1	N/A	N/A	Lateral
7	U007	(2)1/2U-BOLTS	3			Lbyy		0.5	0.5	N/A	N/A	Lateral
8	U008	(2)1/2U-BOLTS	3			Lbyy		0.5	0.5	N/A	N/A	Lateral
9	U009	(2)1/2U-BOLTS	3			Lbyy		0.5	0.5	N/A	N/A	Lateral
10	U010	(2)1/2U-BOLTS	3			Lbyy		0.5	0.5	N/A	N/A	Lateral
11	U011	(2)1/2U-BOLTS	3			Lbyy		0.5	0.5	N/A	N/A	Lateral
12	U012	(2)1/2U-BOLTS	3			Lbyy		0.5	0.5	N/A	N/A	Lateral
13	H013	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
14	H014	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
15	H016	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
16	H017	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
17	H019	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
18	H020	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
19	D021	SR_0.75	47.434			Lbyy		0.65	0.65	N/A	N/A	Lateral
20	V022	SR_0.625	39			Lbyy		0.65	0.65	N/A	N/A	Lateral
21	D023	SR_0.75	47.434			Lbyy		0.65	0.65	N/A	N/A	Lateral
22	V024	SR_0.625	39			Lbyy		0.65	0.65	N/A	N/A	Lateral
23	V025	SR_0.625	39			Lbyy		0.65	0.65	N/A	N/A	Lateral
24	V026	SR_0.625	39			Lbyy		0.65	0.65	N/A	N/A	Lateral
25	D027	SR_0.75	47.434			Lbyy		0.65	0.65	N/A	N/A	Lateral
26	D028	SR_0.75	47.434			Lbyy		0.65	0.65	N/A	N/A	Lateral
27	H029	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
28	H030	PL3.5X0.5	3			Lbyy		2.1	2.1	N/A	N/A	Lateral
29	TB033	PIPE_2.0	96.005			Lbyy		1	1	N/A	N/A	Lateral
30	MP034	PIPE_2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	N/A	N/A	Lateral
31	MP035	PIPE_2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	N/A	N/A	Lateral
32	MP036	PIPE_2.0	120	Segment	Segment	Lbyy	Segment	2.1	2.1	N/A	N/A	Lateral
33	U037	(1)1/2U-BOLT	3.182			Lbyy		0.5	0.5	N/A	N/A	Lateral
34	U038	(1)1/2U-BOLT	3.182			Lbyy		0.5	0.5	N/A	N/A	Lateral
35	MP039	PIPE_2.0	60	Segment	Segment	Lbyy	Segment	2.1	2.1	N/A	N/A	Lateral

Cold Formed Steel Design Parameters

No Data to Print...

Node Boundary Conditions

	Node Label	X [lb/in]	Y [lb/in]	Z [lb/in]	X Rot [k-in/rad]	Z Rot [k-in/rad]
1	N001	Reaction	Reaction	Reaction	Reaction	Reaction
2	N006	Reaction	Reaction	Reaction	Reaction	Reaction
3	N046	Reaction	Reaction	Reaction		

Member Advanced Data

	Label	I Release	J Release	Col-Wall Vert Release	T/C Only	Physical	Deflection Ratio Options	Activation	Seismic DR
1	H001					Yes	N/A		None
2	H002					Yes	N/A		None
3	H003					Yes	N/A		None
4	H004					Yes	N/A		None
5	H005					Yes	N/A		None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	T/C Only	Physical	Deflection Ratio Options	Activation	Seismic DR
6	H006					Yes	N/A		None
7	U007					Yes	N/A	Exclude	None
8	U008					Yes	N/A	Exclude	None
9	U009					Yes	N/A	Exclude	None
10	U010					Yes	N/A	Exclude	None
11	U011					Yes	N/A	Exclude	None
12	U012					Yes	N/A	Exclude	None
13	H013					Yes	N/A		None
14	H014					Yes	N/A		None
15	H015					Yes	** NA **		None
16	H016					Yes	N/A		None
17	H017					Yes	N/A		None
18	H018					Yes	** NA **		None
19	H019		BenPIN			Yes	N/A		None
20	H020		BenPIN			Yes	N/A		None
21	D021				Tension Only	Yes	** NA **		None
22	V022					Yes	** NA **		None
23	D023				Tension Only	Yes	** NA **		None
24	V024					Yes	** NA **		None
25	V025					Yes	** NA **		None
26	V026					Yes	** NA **		None
27	D027				Tension Only	Yes	** NA **		None
28	D028				Tension Only	Yes	** NA **		None
29	H029		BenPIN			Yes	N/A		None
30	H030		BenPIN			Yes	N/A		None
31	H031					Yes	** NA **		None
32	H032					Yes	** NA **		None
33	TB033		BenPIN			Yes	N/A		None
34	MP034					Yes	** NA **		None
35	MP035					Yes	** NA **		None
36	MP036					Yes	** NA **		None
37	U037	OOOXOX				Yes	N/A	Exclude	None
38	U038	OOOXOX				Yes	N/A	Exclude	None
39	MP039					Yes	** NA **		None

Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [lb/ft³]	Yield [psi]	Ry	Fu [psi]	Rt
1	Q235	2.9e+7	1.115e+7	0.3	0.65	490	35000	1.1	58000	1.1
2	SAE J429 Gr. 2	2.9e+7	1.115e+7	0.3	0.65	490	57000	1.1	74000	1.1
3	A36	2.9e+7	1.115e+7	0.3	0.65	490	36000	1.5	58000	1.2
4	A53 Gr. B	2.9e+7	1.115e+7	0.3	0.65	490	35000	1.6	60000	1.2

Cold Formed Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [lb/ft³]	Yield [psi]	Fu [psi]
1	A653 SS Gr33	2.95e+7	1.135e+7	0.3	0.65	490	33000	45000

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N001	max	771.409	100	911.307	73	796.749	15	-189.386	21	0	119	304.778	76
2		min	-1004.149	72	246.531	21	-1498.987	9	-733.892	85	0	1	-262.241	96
3	N006	max	785.576	76	584.694	115	1245.396	96	-110.205	15	0	119	235.706	109
4		min	-832.716	96	141.135	15	-78.78	21	-477.417	91	0	1	-165.874	96

Envelope Node Reactions (Continued)

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
5	N046	max	42.058	18	41.381	2	860.63	12	0	119	0	119	0	119
6		min	-41.718	24	12.461	24	-861.478	6	0	1	0	1	0	1
7	Totals:	max	949.255	6	1416.473	91	1360.323	15						
8		min	-949.255	24	499.855	25	-1360.323	21						

Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
1	H001	PIPE_2.5	0.18	48	9	0.091	13		7	30038.461	50715	3596.25	3596.25	1	H1-1b
2	H002	PIPE_2.0	0.177	30.052	96	0.109	0		96	29191.323	32130	1871.625	1871.625	1	H1-1b
3	H003	PIPE_2.0	0.176	30.052	72	0.126	0		73	29191.323	32130	1871.625	1871.625	1	H1-1b
4	H004	PIPE_2.5	0.169	48	84	0.049	78		96	30038.461	50715	3596.25	3596.25	1	H1-1b
5	H005	PIPE_2.0	0.189	29.698	96	0.1	30.052		104	29191.323	32130	1871.625	1871.625	1	H1-1b
6	H006	PIPE_2.0	0.195	29.698	79	0.112	30.052		79	29191.323	32130	1871.625	1871.625	1	H1-1b
7	H013	PL3.5X0.5	0.316	0	109	0.099	3	y	88	50003.615	55125	574.219	4019.531	1.448	H1-1b
8	H014	PL3.5X0.5	0.232	0	96	0.115	3	y	84	50003.615	55125	574.219	4019.531	1.398	H1-1b
9	H016	PL3.5X0.5	0.363	0	108	0.135	3	y	84	50003.615	55125	574.219	4019.531	1.46	H1-1b
10	H017	PL3.5X0.5	0.287	0	104	0.111	3	y	85	50003.615	55125	574.219	4019.531	1.433	H1-1b
11	H019	PL3.5X0.5	0.261	0	72	0.139	3	y	72	50003.615	55125	574.219	4019.531	1.667	H1-1b
12	H020	PL3.5X0.5	0.26	0	96	0.119	3	y	96	50003.615	55125	574.219	4019.531	1.667	H1-1b
13	D021	SR_0.75	0.142	47.434	96	0.01	0		96	3691.013	13916.274	173.953	173.953	1	H1-1b*
14	V022	SR_0.625	0.281	39	97	0.008	39		96	2633.14	9664.079	100.667	100.667	1	H1-1a
15	D023	SR_0.75	0	47.434	119	0	47.434		119	3691.013	13916.274	173.953	173.953	1	H1-1a
16	V024	SR_0.625	0.407	39	96	0.008	0		13	2633.14	9664.079	100.667	100.667	1	H1-1a
17	V025	SR_0.625	0.247	39	73	0.01	0		96	2633.14	9664.079	100.667	100.667	1	H1-1a
18	V026	SR_0.625	0.374	39	73	0.008	0		7	2633.14	9664.079	100.667	100.667	1	H1-1a
19	D027	SR_0.75	0.143	47.434	76	0.007	47.434		7	3691.013	13916.274	173.953	173.953	1	H1-1b*
20	D028	SR_0.75	0	47.434	119	0	47.434		119	3691.013	13916.274	173.953	173.953	1	H1-1a
21	H029	PL3.5X0.5	0.274	0	79	0.117	3	y	108	50003.615	55125	574.219	4019.531	1.667	H1-1b
22	H030	PL3.5X0.5	0.264	0	96	0.13	0	y	96	50003.615	55125	574.219	4019.531	1.667	H1-1b
23	TB033	PIPE_2.0	0.068	48.003	12	0.004	96.005		2	14914.854	32130	1871.625	1871.625	1	H1-1b
24	MP034	PIPE_2.0	0.108	43.75	7	0.043	43.75		7	18380.609	32130	1871.625	1871.625	1	H1-1b
25	MP035	PIPE_2.0	0.283	42.5	9	0.053	42.5		9	16038.266	32130	1871.625	1871.625	1	H1-1b
26	MP036	PIPE_2.0	0.126	82.5	96	0.023	82.5		96	18380.609	32130	1871.625	1871.625	1	H1-1b
27	MP039	PIPE_2.0	0.024	52.5	115	0.024	13.75		13	18380.609	32130	1871.625	1871.625	1	H1-1b*

Envelope AISI S100-16: LRFD Member Cold Formed Steel Code Checks

No Data to Print...