

SEE PAGE 2 FOR APPURTENANCES

BUILDING_CODE(S): 2009 International Building Code

Design Standard: TIA-222-G

TOWER DESIGN CRITERIA
Basic Wind Speed: 106 mph (no ice)
50 mph (0.75" ice)
80 mph (deflection only)

Structure Class: II
Exposure: C
Topographic Category: 1
Crest Height: 0 ft.

MATERIAL STRENGTHS
Solid Rod A36 (rod dia. <3/4")
A572 Gr.50 (3/4" thru 1" dia.)
A572 Gr.50 (>1" dia. T-6 - T9)
Pipe A500 Gr.B (antenna pipes)
A500 Gr.B/C (tower legs min. Fy 50 ksi)

Angle A36 Gr.36

Plate A572 Gr.50

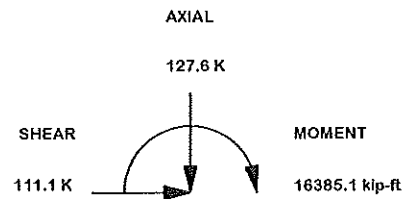
Bolts A-325/A-449 (leg & angle)

Anchor Bolts: F1554 grade 105 or A687

Finish: Tower & Hardware are hotdip galvanized

TOWER COLUMN										
SECTION	ELEVATION	FACE WIDTH	PANELS	LEG SIZE	LEG STYLE	LEG BOLT QTY & DIA	DIAGONAL BRACING SIZE	HORIZONTAL BRACING SIZE	BRACING BOLT QTY & DIA	SECTION WEIGHT
T1	270' - 280'	5.0'	8	1.75"	FAB	5 x 5/8"				1368.75
T2	250' - 270'	5.0'	8	2.00"	FAB	2 x 2"				1868.6
T3	230' - 250'	5.0'	8	2.50"	FAB	6 x 1"				2154.22
T4	220' - 230'	6.0'	1	1.50"	12BD	6 x 1"	5/16" x 3" x 3"	3/16" x 3" x 3"	1 x 1"	1428.03
T5	200' - 220'	8.0'	2	1.75"	12BD	6 x 1"	3/16" x 3" x 3"		1 x 1"	2675.40
T6	180' - 200'	10.0'	2	1.75"	12BD	6 x 1"	5/16" x 3" x 3"	3/16" x 3" x 3"	1 x 1"	3234.33
T7	160' - 180'	12.0'	2	2.00"	12BD	6 x 1-1/4"	5/16" x 3" x 3"	1/4" x 4" x 4"	1 x 1 1/4"	4245.72
T8	140' - 160'	14.0'	2	2.25"	12BD	6 x 1-1/4"	5/16" x 3-1/2" x 3-1/2"	3/8" x 5" x 5"	1 x 1 1/4"	6120.64
T9	120' - 140'	16.0'	2	2.25"	12BD	6 x 1-1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1 1/4"	5536.83
T10	100' - 120'	18.0'	1	2.50"	18BD	12 x 1 1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1"	7092.66
T11	80' - 100'	20.0'	1	2.50"	18BD	12 x 1 1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1"	7203.30
T12	60' - 80'	22.0'	1	2.75"	18BD	12 x 1 1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1"	7972.08
T13	40' - 60'	24.0'	1	2.75"	18BD	12 x 1 1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1"	8096.22
T14	20' - 40'	26.0'	1	3.00"	18BD	12 x 1 1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1"	8937.48
T15	0' - 20'	28.0'	1	3.00"	18BD	6 x 2 1/4"	5/16" x 3-1/2" x 3-1/2"		1 x 1"	9226.50

Reactions - No Ice

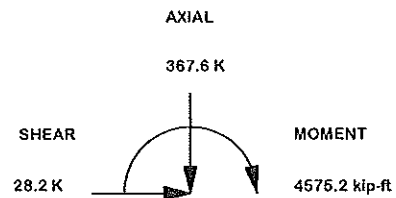


MAX. CORNER REACTIONS AT BASE:

DOWN: 718.2 K
UPLIFT: -624.6 K
SHEAR: 74.3 K

TORQUE 42.5 kip-ft
REACTIONS 106.0 mph WIND (no ice)

Reactions - Ice

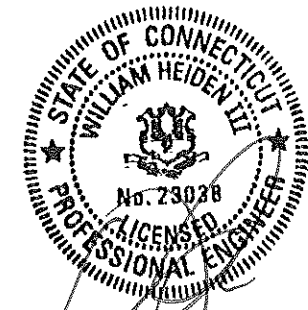


MAX. CORNER REACTIONS AT BASE:

DOWN: 718.2 K
UPLIFT: -624.6 K
SHEAR: 74.3 K

TORQUE 10.2 kip-ft
REACTIONS 50.0 mph WIND (0.75" ice)

REPLACE DIAGONALS AT:
U-10 180'-200' AND U-6 220'-230'
WITH 5/16" X 3" X 3" ANGLE UNDER
REANALYSIS 185135-5-1 (A-116966)

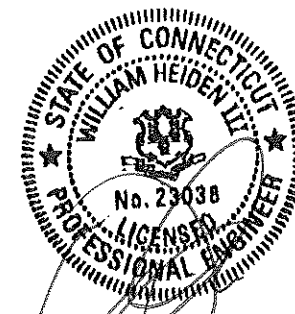


NOV 18 2016

William R. Heiden III, CT P.E. #23038

SITE		DESCRIPTION		valmont STRUCTURES	
SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'		Tower View Page 1		1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
COPYRIGHT 2013		STRUCTURE APPROVAL		ENG. FILE NO.	
PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		SKK 11/15/2016		185135	
REVISION HISTORY		FOUNDATION APPROVAL		DWG. NO.	
@A <ACBATCH>		SKK 11/15/2016		270438T	
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE	PAGE
					1 OF 17

DESIGNED APPURTENANCE LOADING		DESIGNED APPURTENANCE LOADING	
TYPE	ELEVATION	TYPE	ELEVATION
(1) 15' LRE WITH 4' LIGHTNING ROD (ARM=7.75')	280'	(6) RFS FD9R60042C-3L DIPLEXER	140'
(2) 2" X 84" SCH. 40	280'		
(1) 9-ARM HALO MOUNT	280'		
(1) BEACON	280'		
(1) DB420-A	280'		
(1) DB586-XC	280'		
(3) 15' T-FRAME	250'		
(12) 2" X 84" SCH. 40	250'		
(3) LNX-6516DS-A1M	250'		
(3) RR90-17-XXDP	250'		
(6) TMA (12"X12"X8")	250'		
(1) DB420-A	245'		
(1) 2" X 84" SCH. 40	235'		
(1) 9-ARM HALO MOUNT	235'		
(1) DB225-74	235'		
(3) 10' LIGHTWEIGHT T-FRAME	200'		
(9) 2" X 60" SCH. 40	200'		
(9) DB980H120EM & EKL	200'		
(3) 10' LIGHTWEIGHT T-FRAME	190'		
(9) 2" X 60" SCH. 40	190'		
(9) DB980H120EM & EKL	190'		
(3) 10' LIGHTWEIGHT T-FRAME	180'		
(9) 2" X 60" SCH. 40	180'		
(9) DB980H120EM & EKL	180'		
(3) 15' T-FRAME	170'		
(9) 2" X 60" SCH. 40	170'		
(3) ALCATEL-LUCENT ALU TD-RRH8X20	170'		
(3) ALCATEL-LUCENT RRH2X60 (800 MHZ)	170'		
(3) ALCATEL-LUCENT RRH4X45-1900	170'		
(3) APXVSP18-C-A20	170'		
(3) APXVTM14-C-120	170'		
(15) 2" X 72" SCH. 40	160'		
(3) 800 10121	160'		
(3) AM-X-CD-16-65-00T-RET	160'		
(3) COMMSCOPE MTC3615 SECTOR FRAME	160'		
(6) ERICSSON RRUS-32	160'		
(3) ERICSSON RRUS11	160'		
(6) POWERWAVE LGP2140X TMA	160'		
(3) QUINTEL QS66512-3	160'		
(1) RAYCAP DC6-48-60-18-8F	160'		
(3) APXV18-206517S-C	150'		
(3) 12' V FRAME	140'		
(12) 2" X 72" SCH. 40	140'		
(3) ALCATEL-LUCENT RRH2X40-AWS	140'		
(3) BXA-171063-12BFEDIN-X	140'		
(3) HBX-6517DS-VTM	140'		
(3) LNX-6514DS-T4M	140'		
(3) LNX-6514DS-VTM	140'		
(1) RFS DB-B1-6C-12AB-0Z DISTRIBUTION BOX	140'		



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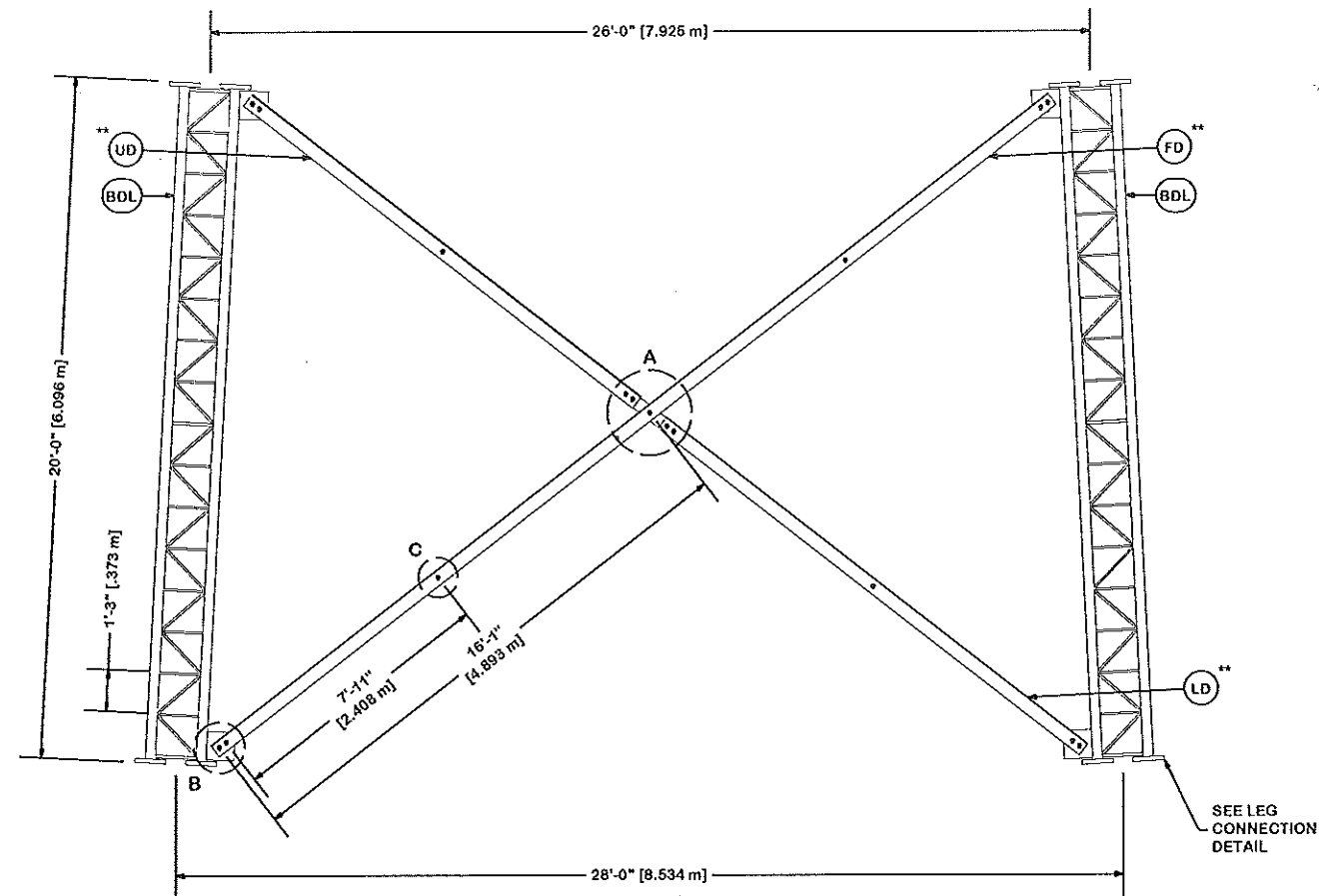
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					SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280' COPYRIGHT 2013		DESCRIPTION Tower View Page 2		 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR		PAGE 2 OF 17
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@A	<ACBATCH>		SKK	11/15/2016							
REV	DESCRIPTION OF REVISIONS			CPD	BY	DATE					
REVISION HISTORY											

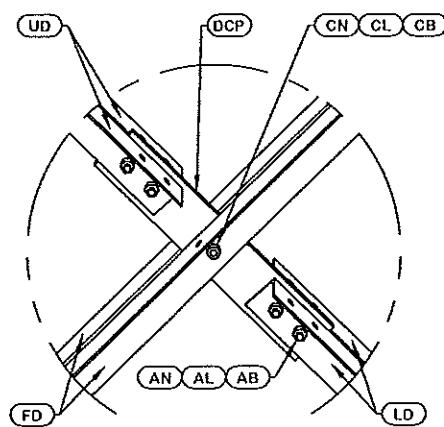
ORIENT LEGS WITH PIN STAMP
TOWARD BOTTOM OF SECTION

** DIAGONAL ANGLES MUST BE
INSTALLED WITH THE NON-BOLTED
FACE UP.

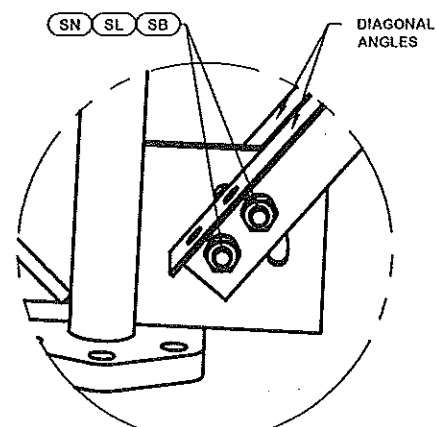
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



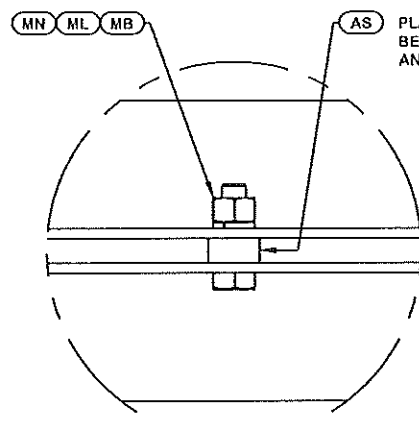
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	112740	#18B BD LEG BASE 3" LEGS 20'	2104.000	6312.000
UD	6	112873	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 14'-5-17/32"	107.110	642.660
LD	6	112869	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 15'-7-7/8" LO	116.030	696.180
FD	6	112799	U-28 DIAG 373 29/32" 3-1/2" X 3-1/2" X 5/16" LONG (233.000	1398.000
AS	24	104293	MID-DIAGONAL SPACER 1-1/16" HOLE 1/2" THICK	0.440	10.560
AL/SL/ML	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
AB/SB/MB	36	222018	1"-8 X 3-1/2" A-325 BOLT WITH 1-3/4" THREAD	1.090	39.240
AN/SN/MN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
DCP	3	112756	DIAGONAL BRACE CENTER PLATE (1" THICK); USE UP TO	28.500	85.500
AN	15	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	6.450
AB	15	222018	1"-8 X 3-1/2" A-325 BOLT WITH 1-3/4" THREAD	1.090	16.350
AL	15	312223	1" GALVANIZED LOCKWASHER	0.080	1.200
Total Wt				9226.50 lb [4188.91 kg]	



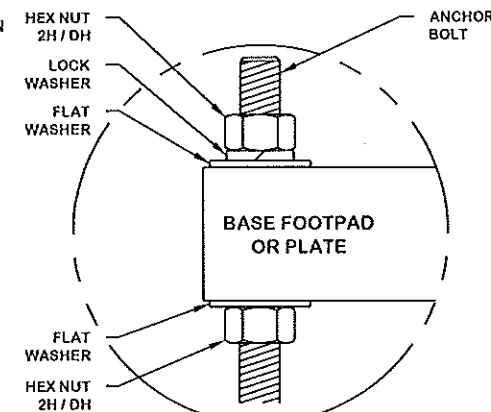
DETAIL A
ANGLE INTERSECTION CONNECTION



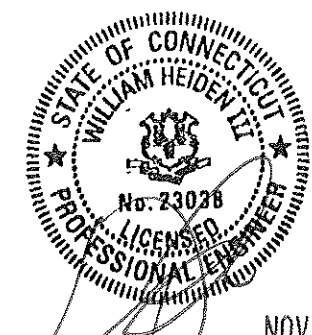
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



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



NOV 18 2016
William R. Heiden III, CT P.E. #23028

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATCH>		SKK	11/15/2016
REVISION HISTORY				

SITE	SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'
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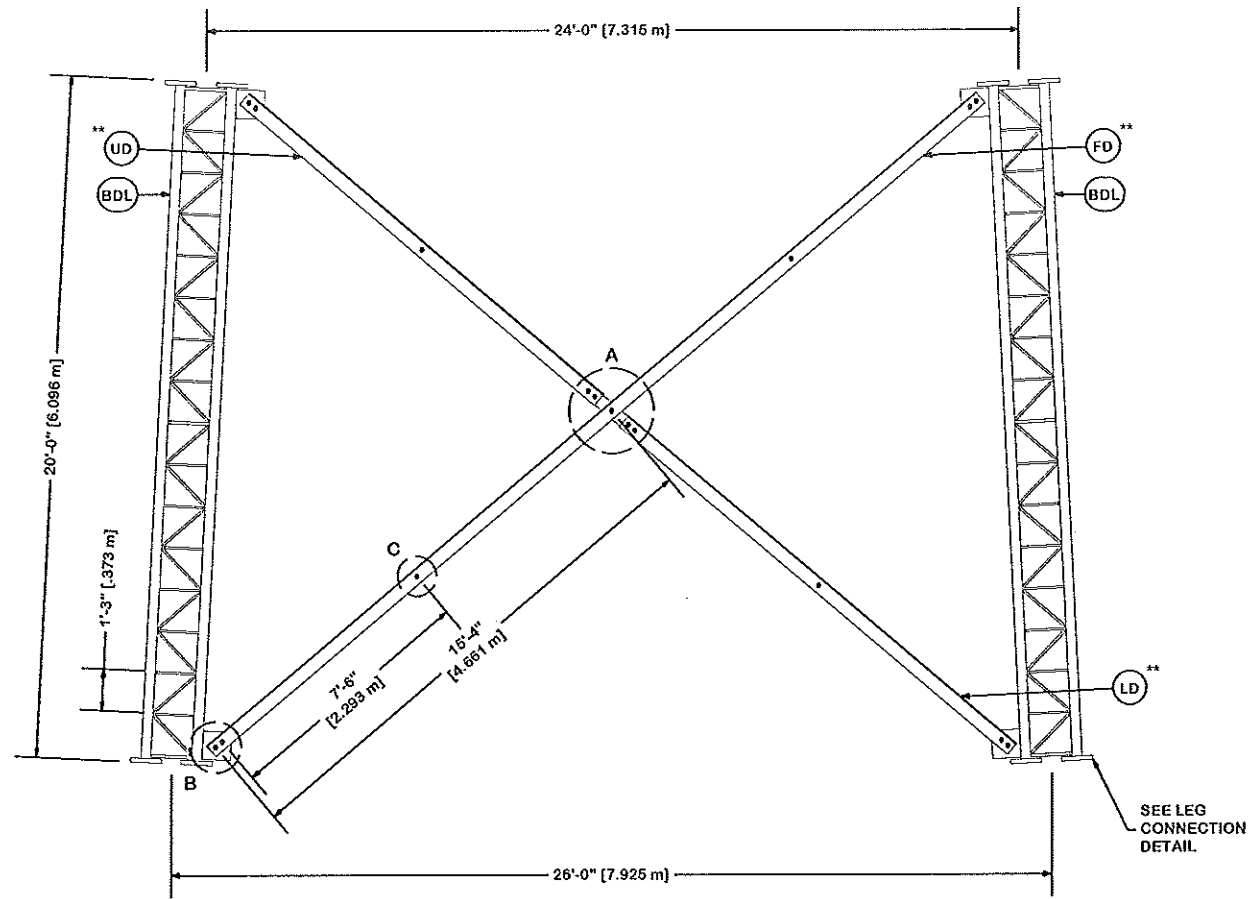
DESCRIPTION	SECTION U-28.0 (0' - 20' ELEVATION)
STRUCTURE APPROVAL	SKK 11/15/2016
FOUNDATION APPROVAL	

valmont STRUCTURES	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	185135
DWG. NO.	270438T
PAGE 3 OF 17	

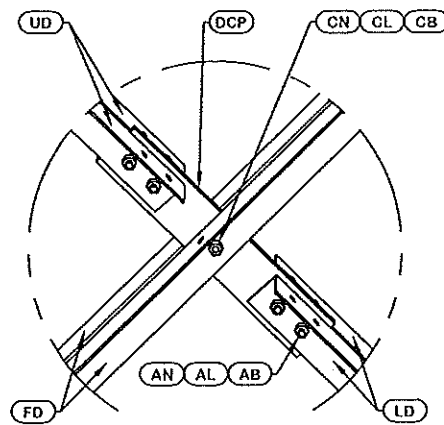
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

** DIAGONAL ANGLES MUST BE
INSTALLED WITH THE NON-BOLTED
FACE UP.

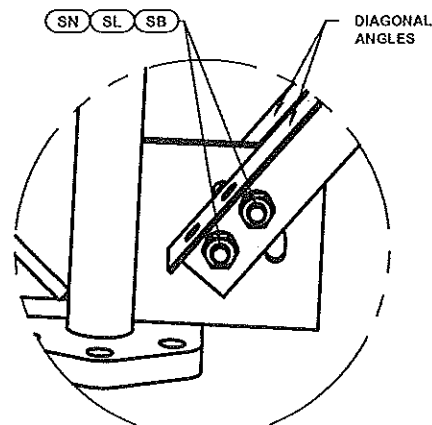
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



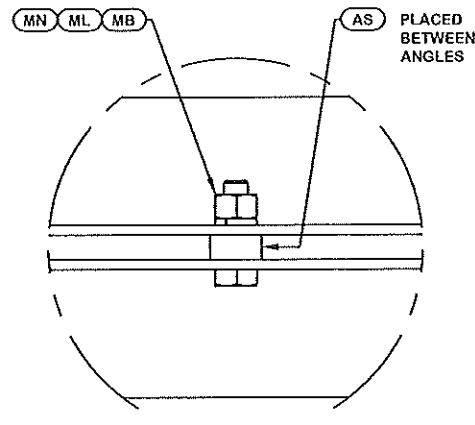
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	112745	#18 BD LEG 3" LEG 20' 12 BOLT	2040.000	6120.000
UD	6	112881	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 13'- 7-15/16"	101.150	606.900
LD	6	112877	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 14'- 10-25/32"	110.380	662.280
FD	6	112803	U-26 DIAG 355 7/32" 3-1/2" X 3-1/2" X 5/16" LONG (213.000	1278.000
AL/SL/ML	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
AB/SB/MB	36	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	39.240
AN/SN/MN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
AS	12	163239	5/8" X 2" X 2" SPACER W/ 1 1/16" HOLE	0.550	6.600
AL	15	312223	1" GALVANIZED LOCKWASHER	0.080	1.200
AB	15	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	16.350
DCP	3	163241	DIAGONAL BRACE CENTER PLATE (5/8" THICK)	20.140	60.420
AN	16	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	6.450
LCB	36	311299	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
LCN	36	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	25.920
Total Wt				8937.48 lb (4057.70 kg)	



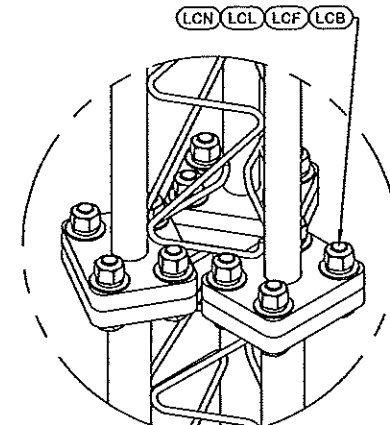
DETAIL A
ANGLE INTERSECTION CONNECTION



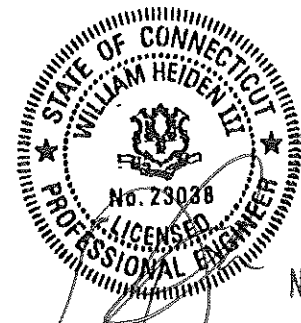
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



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



William R. Heiden III, CT P.E. #23038

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATCH>		SKK	11/15/2016
REVISION HISTORY				

SITE	SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'
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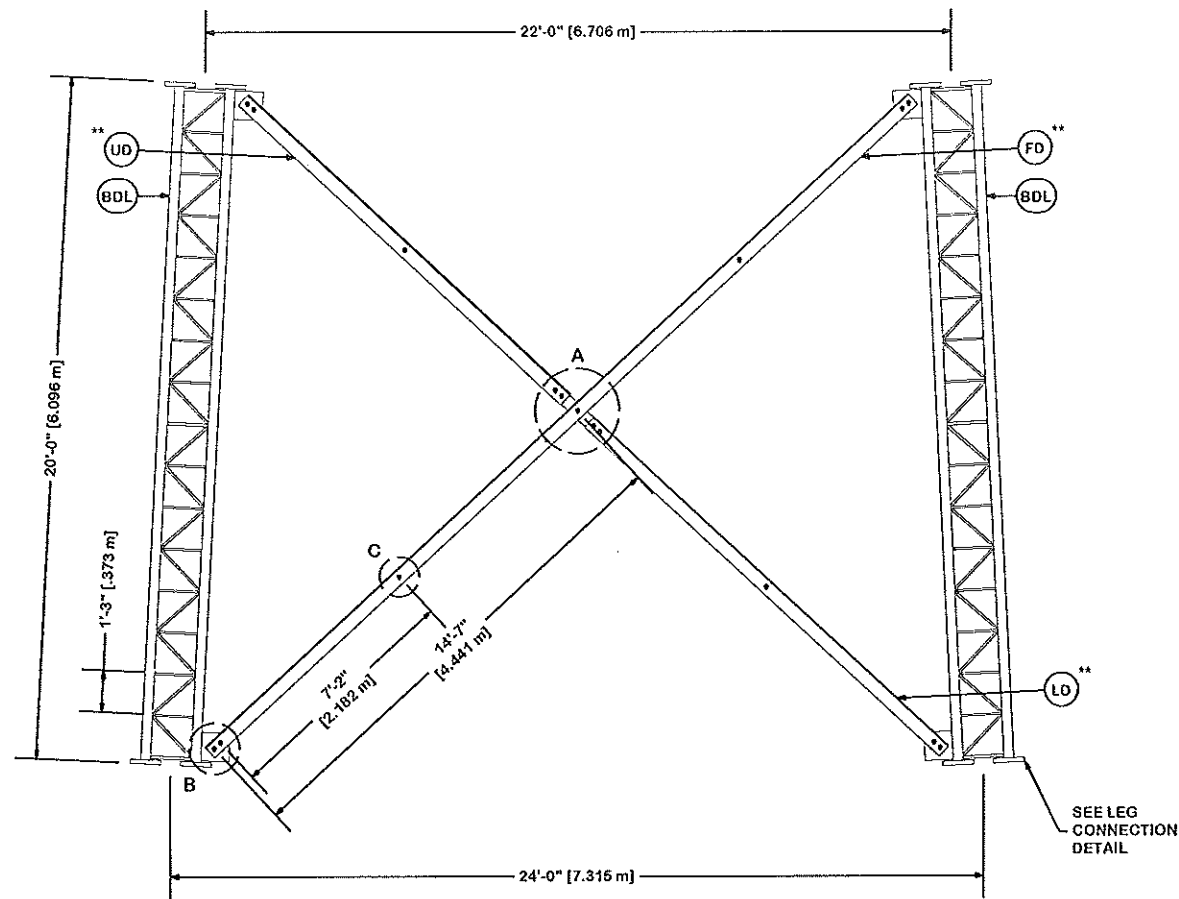
DESCRIPTION	SECTION U-26.0 (20' - 40' ELEVATION)
STRUCTURE APPROVAL	SKK 11/15/2016
FOUNDATION APPROVAL	

valmont	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
STRUCTURES	
ENG. FILE NO.	185135
DWG. NO.	270438T

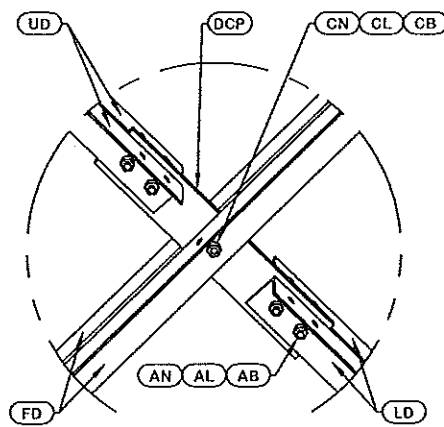
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

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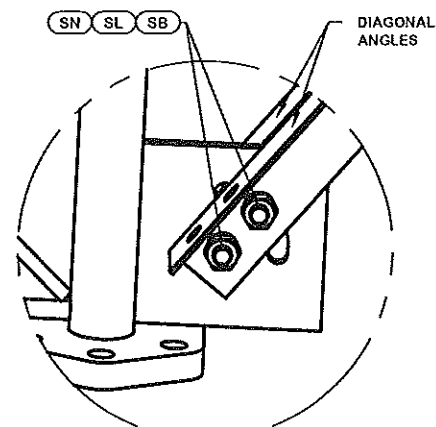
* STITCH BOLT SPACING SHOWN
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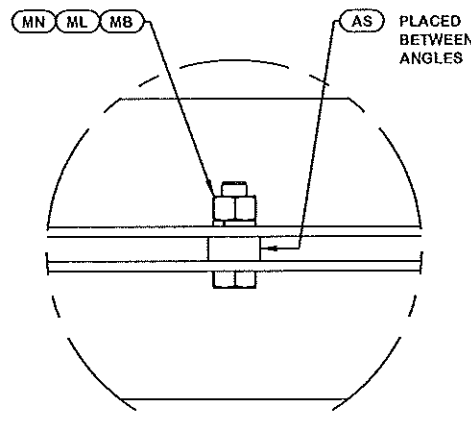
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	112744	#18 BD LEG 2-3/4" LEG 20' 1/2 BOLT	1804.000	5412.000
UD	6	112889	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 12'-10-5/8" L	95.360	572.160
LD	6	112885	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 14'-2-1/16" L	104.960	629.760
FD	6	112807	U-22 DIAG 337 3/16" 3 1/2" X 3 1/2" X 5/16" LONG (202.000	1212.000
AL/SL/ML	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
AB/SB/MB	36	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	39.240
AN/SN/MN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
AS	12	153239	5/8" X 2" X 2" SPACER W/ 1 1/16" HOLE	0.550	6.600
AL	15	312223	1" GALVANIZED LOCKWASHER	0.080	1.200
AB	15	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	16.350
DCP	3	153241	DIAGONAL BRACE CENTER PLATE (5/8" THICK)	20.140	60.420
AN	15	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	6.450
LCB	36	311299	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
LCN	36	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	26.920
Total Wt				8096.22 lb (3675.76 kg)	



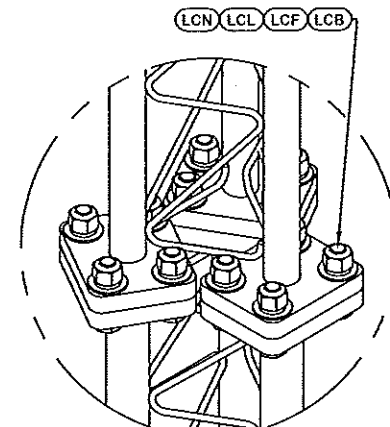
DETAIL A
ANGLE INTERSECTION CONNECTION



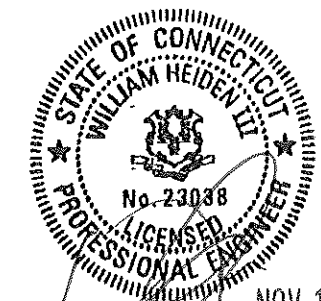
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



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




NOV 18 2016

William R. Heiden III, CT P.E. #23038


REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATQ>		SKK	11/15/2016
REVISION HISTORY				

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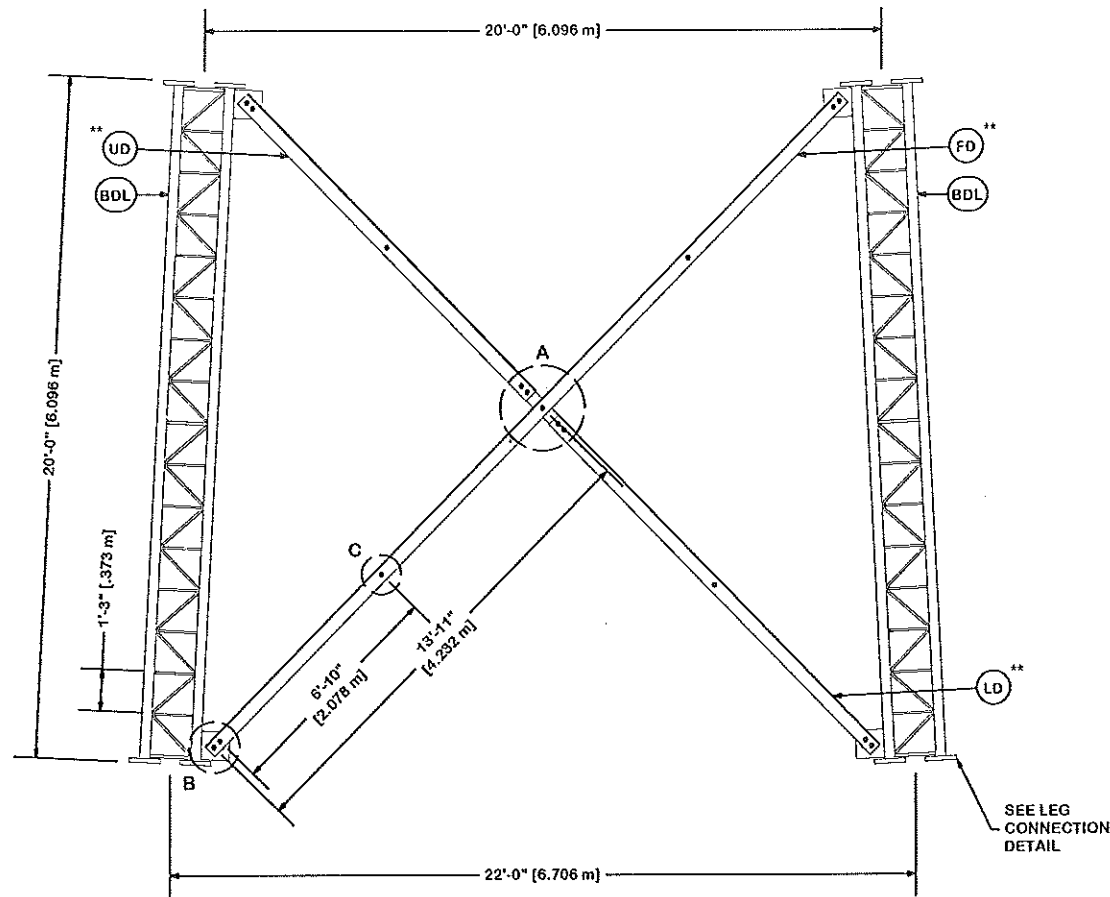
DESCRIPTION	SECTION U-24.0 (40' - 60' ELEVATION)
STRUCTURE APPROVAL	SKK 11/15/2016
FOUNDATION APPROVAL	

valmont 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
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PAGE 5 OF 17	

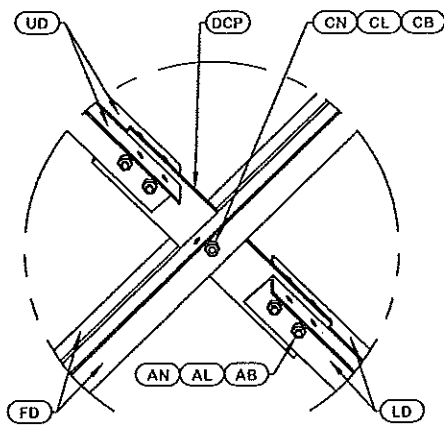
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

** DIAGONAL ANGLES MUST BE
INSTALLED WITH THE NON-BOLTED
FACE UP, 

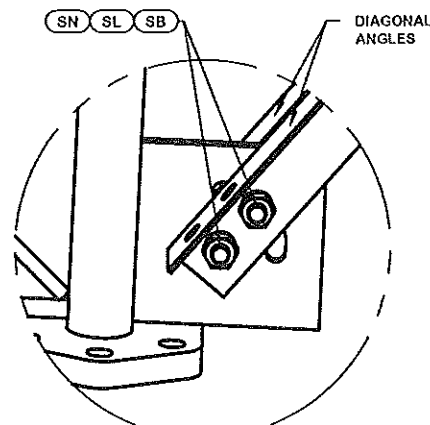
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



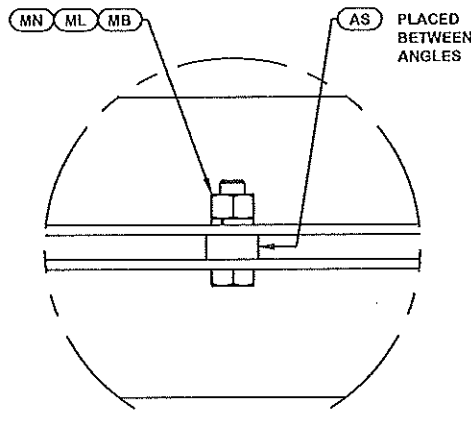
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	112744	#18 BD LEG 2-3/4" LEG 20' 12 BOLT	1804.000	5412.000
UD	6	112899	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 12'-1-5/8" LO	89.760	538.560
LD	6	112894	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 13'-5-7/8" LO	99.870	599.220
FD	6	112812	U-22 DIAG 320" 3-1/2" X 3-1/2" X 5/16" LONG (A36)	192.000	1152.000
AL/SL/ML	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
AB/SL/MB	36	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	39.240
AN/SL/MN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
AS	12	153239	5/8" X 2" X 2" SPACER W/ 1 1/16" HOLE	0.550	6.600
AL	15	312223	1" GALVANIZED LOCKWASHER	0.080	1.200
AB	15	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	16.350
DCP	3	153241	DIAGONAL BRACE CENTER PLATE (5/8" THICK)	20.140	60.420
AN	15	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	6.450
LCB	36	311299	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
LCN	36	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	25.920
Total Wt				7972.08 lb [3619.40kg]	



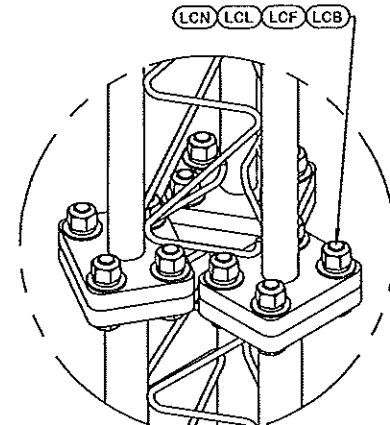
DETAIL A
ANGLE INTERSECTION CONNECTION



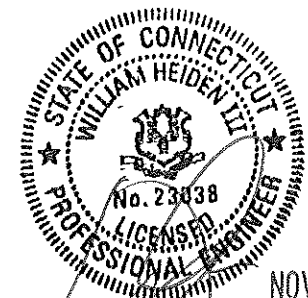
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



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




NOV 18 2016

William R. Heiden Iff, CT P.E. #23038

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATCH>		SKK	11/15/2016
REVISION HISTORY				

SITE	SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'
COPYRIGHT 2013	
<small>PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.</small>	

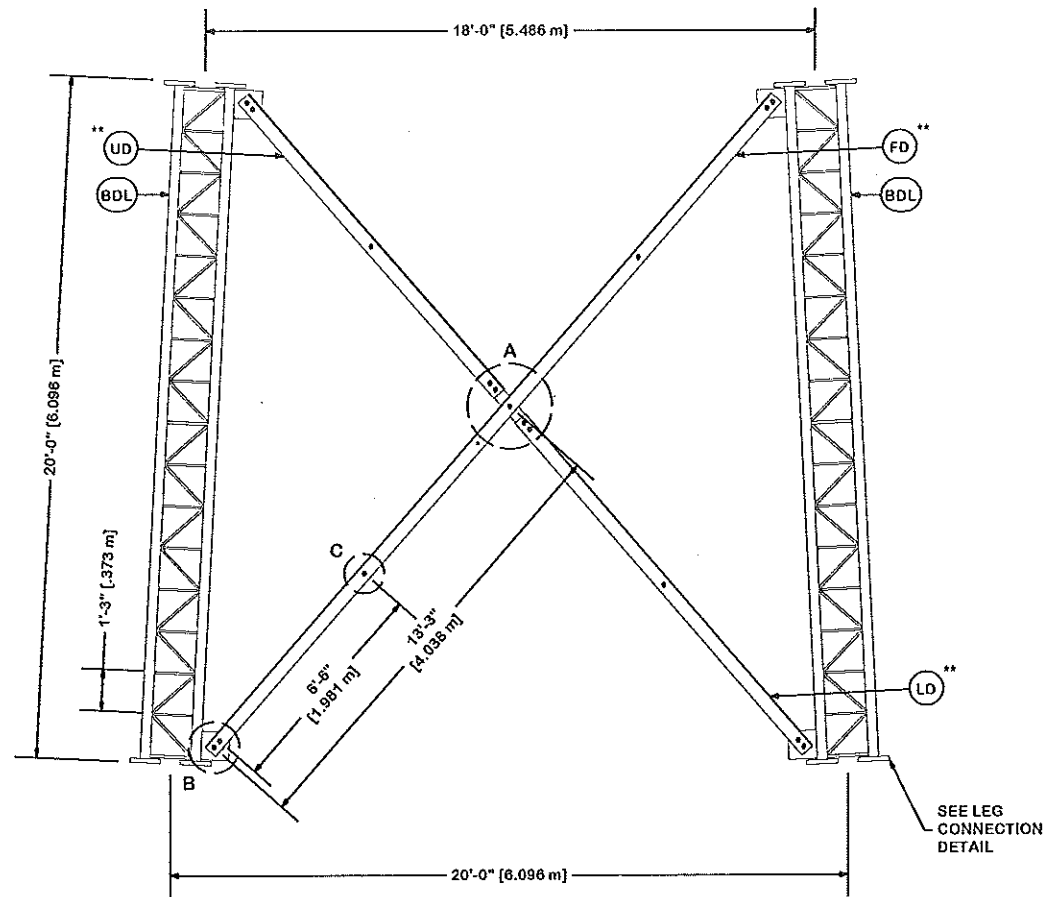
DESCRIPTION	SECTION U-22.0 (60' - 80' ELEVATION)
STRUCTURE APPROVAL	SKK 11/15/2016
FOUNDATION APPROVAL	

valmont 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
STRUCTURES	
ENG. FILE NO.	185135
DWG. NO.	270438T

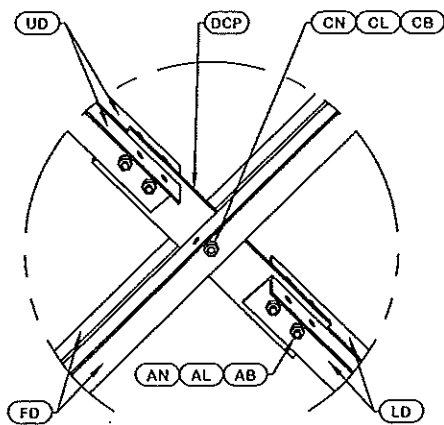
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

** DIAGONAL ANGLES MUST BE
INSTALLED WITH THE NON-BOLTED
FACE UP, 

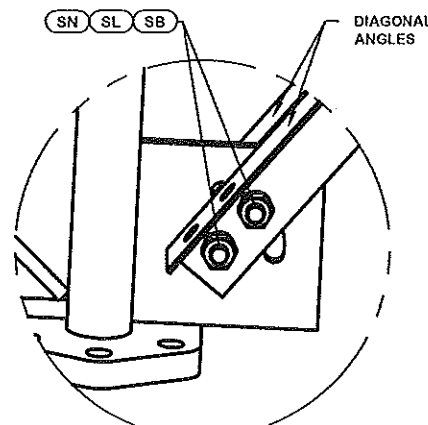
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



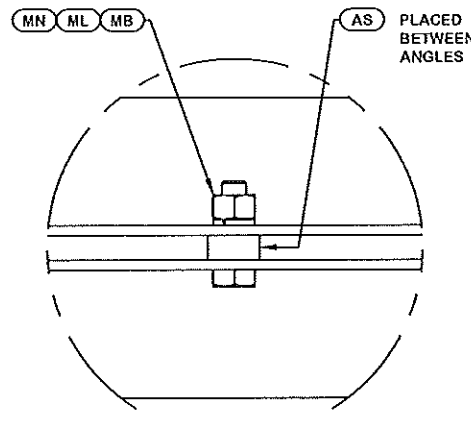
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	112743	#18 BD LEG 2-1/2" LEGS 20' 12 BOLT	1588.000	4764.000
UD	6	112909	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 11'-4-31/32"	84.390	506.340
LD	6	112904	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 12'-10-7/32"	95.110	570.660
FD	6	112817	U-20 DIAG 303 11/16" 3-1/2" X 3-1/2" X 5/16" LONG (182.000	1092.000
AL/SL/ML	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
AB/SB/MB	36	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	39.240
AN/SN/MN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
AS	12	153239	5/8" X 2" X 2" SPACER W/ 1 1/16" HOLE	0.550	6.600
AL	15	312223	1" GALVANIZED LOCKWASHER	0.080	1.200
AB	15	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	16.350
DCP	3	153241	DIAGONAL BRACE CENTER PLATE (5/8" THICK)	20.140	60.420
AN	15	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	6.450
LCB	36	311299	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
LCN	36	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	25.920
Total Wt				7203.30 lb [3270.36 kg]	



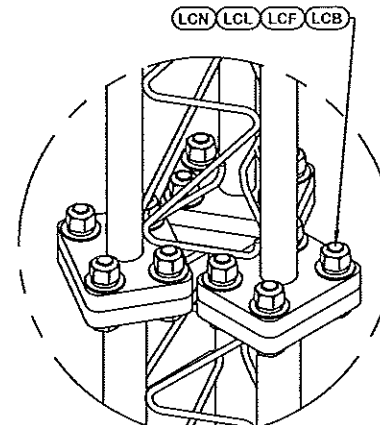
DETAIL A
ANGLE INTERSECTION CONNECTION



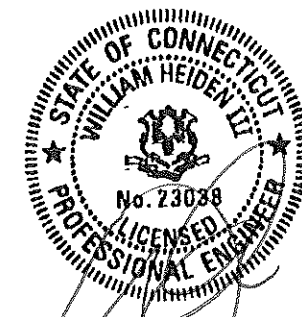
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION




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



NOV 18 2016

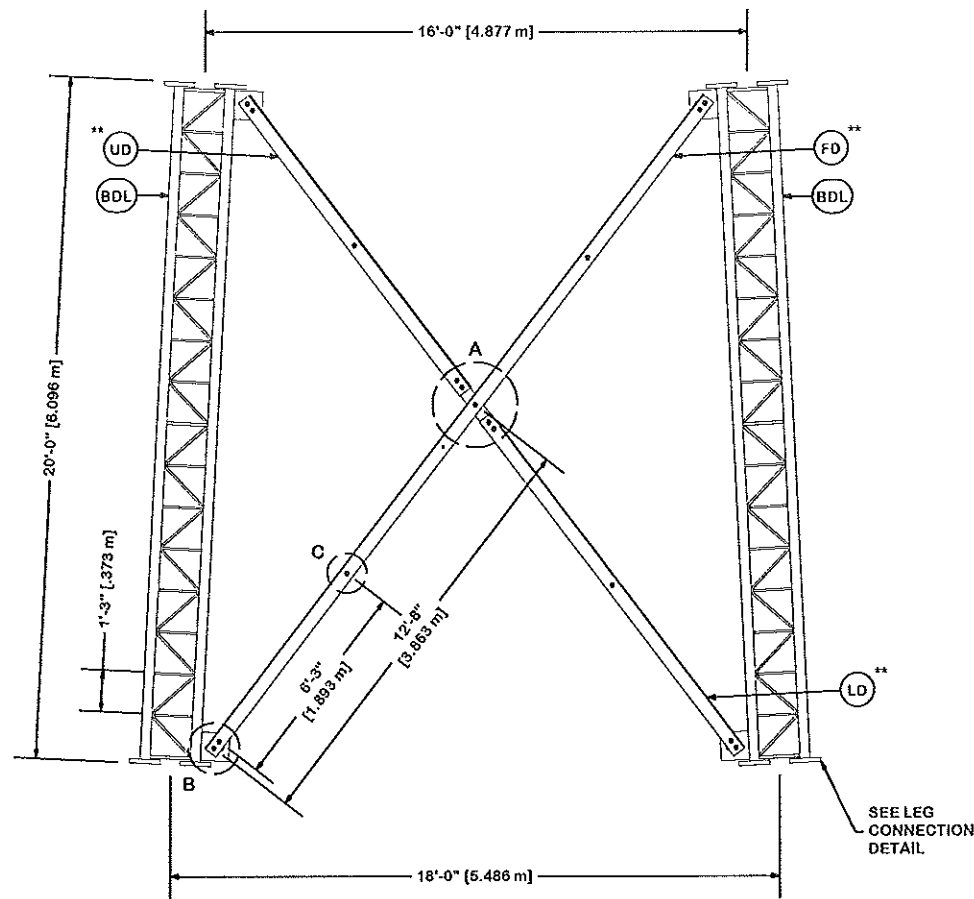
William R. Heiden III, CT P.E. #23038

@A <ACBATQ> REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY				SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280' COPYRIGHT 2013		DESCRIPTION SECTION U-20.0 (80' - 100' ELEVATION)		 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
				PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 11/15/2016		FOUNDATION APPROVAL	
						ENG. FILE NO. 185135		DWG. NO. 270438T	

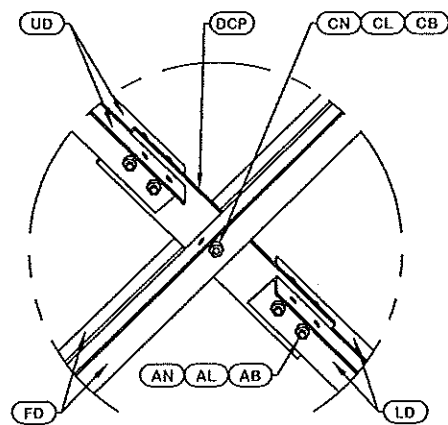
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

** DIAGONAL ANGLES MUST BE
INSTALLED WITH THE NON-BOLTED
FACE UP, 

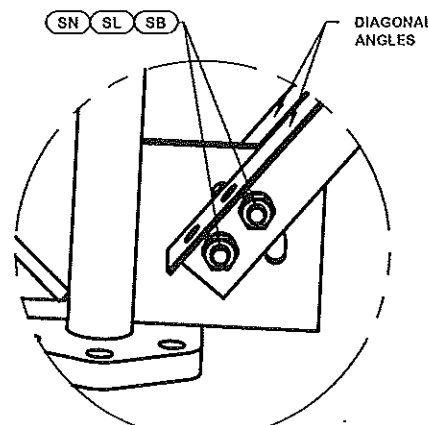
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



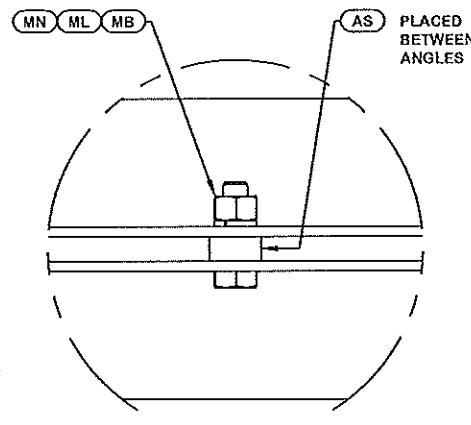
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	112743	#18 BD LEG 2-1/2" LEGS 20' 12 BOLT	1588.000	4764.000
UD	6	114366	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 10'-8-21/32"	79.220	475.320
LD	6	114367	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 12'-3-11/32"	90.840	545.040
FD	6	114362	U-18 DIAG 288 1/2" 3 1/2" X 3 1/2" X 5/16 LONG (A-	173.000	1038.000
AL/SL/ML	36	312223	1" GALVANIZED LOCKWASHER	0.080	2.880
AB/SB/MB	36	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	39.240
AN/SN/MN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	15.480
AS	12	153239	5/8" X 2" X 2" SPACER W/ 1 1/16" HOLE	0.550	6.600
AL	15	312223	1" GALVANIZED LOCKWASHER	0.080	1.200
AB	15	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	16.350
DCP	3	153241	DIAGONAL BRACE CENTER PLATE (5/8" THICK)	20.140	60.420
AN	15	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	6.450
LCB	36	311299	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
LCN	36	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	25.920
Total Wt				7092.66 lb (3220.13 kg)	



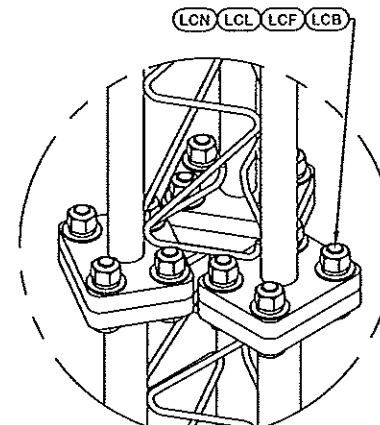
DETAIL A
ANGLE INTERSECTION CONNECTION



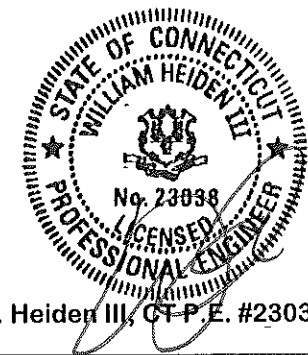
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



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




William R. Heiden III, CT P.E. #23038

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATC>		SKK	11/15/2016
REVISION HISTORY				

SITE	SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'
COPYRIGHT 2013	
PROPRIETARY NOTE:	THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

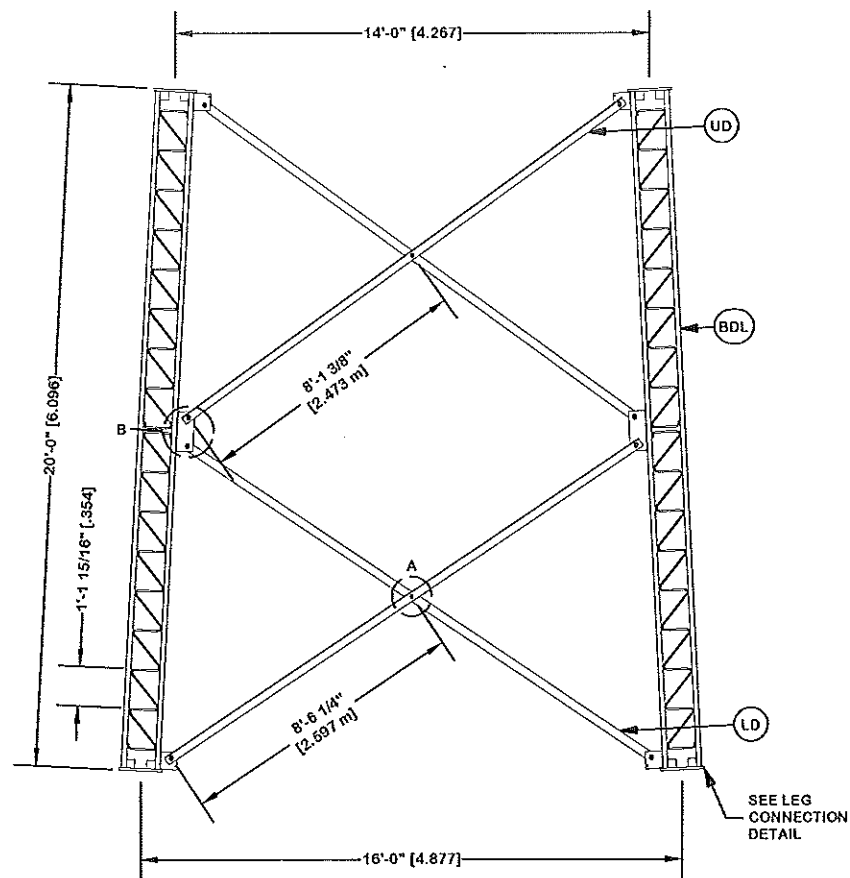
DESCRIPTION	SECTION U-18.0 (100' - 120' ELEVATION)
STRUCTURE APPROVAL	SKK 11/15/2016
FOUNDATION APPROVAL	

valmont 	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
STRUCTURES	
ENG. FILE NO.	185135
DWG. NO.	270438T
	PAGE 8 OF 17

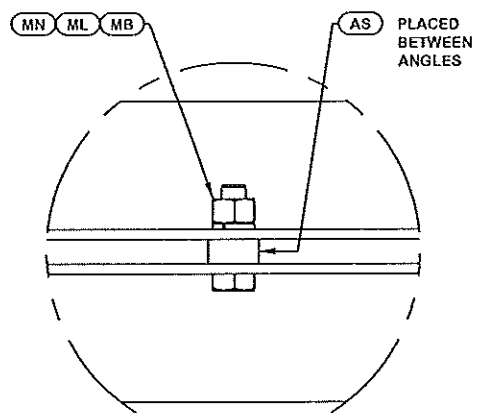
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

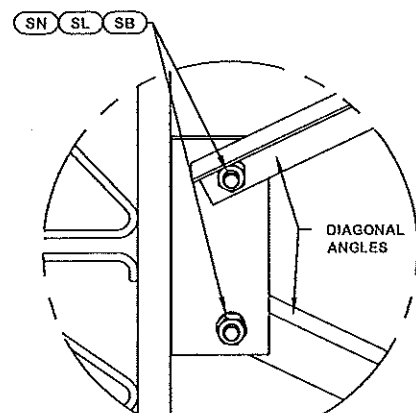
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



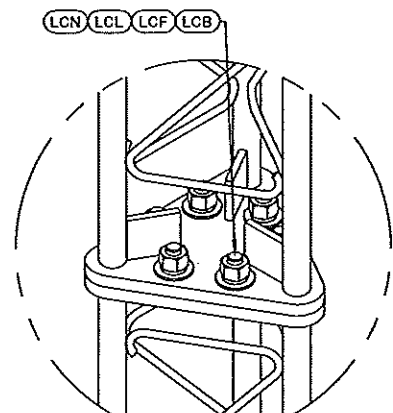
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	105220-1	#12 LEG SECTION 20'-0" LONG, MODEL "U" 2 1/4" LEG	1106.500	3319.500
LD	6	128224	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 16'-8-11/32"	120.000	720.000
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.500	3.000
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SB	24	311288	1-1/4"-7 X 2-3/4" A-325T BOLT WITH FULL THREAD	1.590	38.160
SL	24	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	3.600
SN	24	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	17.280
UD	6	128223	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 15'-10-9/16"	114.000	684.000
NOT SHOWN	3	128693	TRANSITION PLATE - 18" TO 12" BREAKDOWN LEG (1-1/2"	186.350	559.050
TPB	36	311299	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.530	91.080
TPF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	4.680
TPL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.160	5.400
TPN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	26.280
LCB	18	222021	1-1/4"-7 X 5" A-325 BOLT WITH 2" THREAD	2.360	42.480
LCF	18	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	2.340
LCL	18	312283	1-1/4" GALVANIZED LOCKWASHER	0.160	2.700
LCN	18	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	13.140
Total Wt				5536.83 lb [2513.77 kg]	



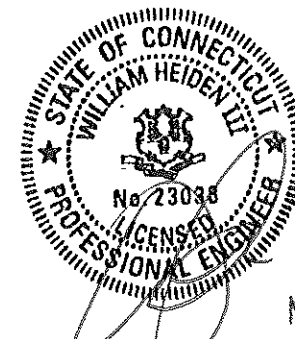
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



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



NOV 1 8 2016

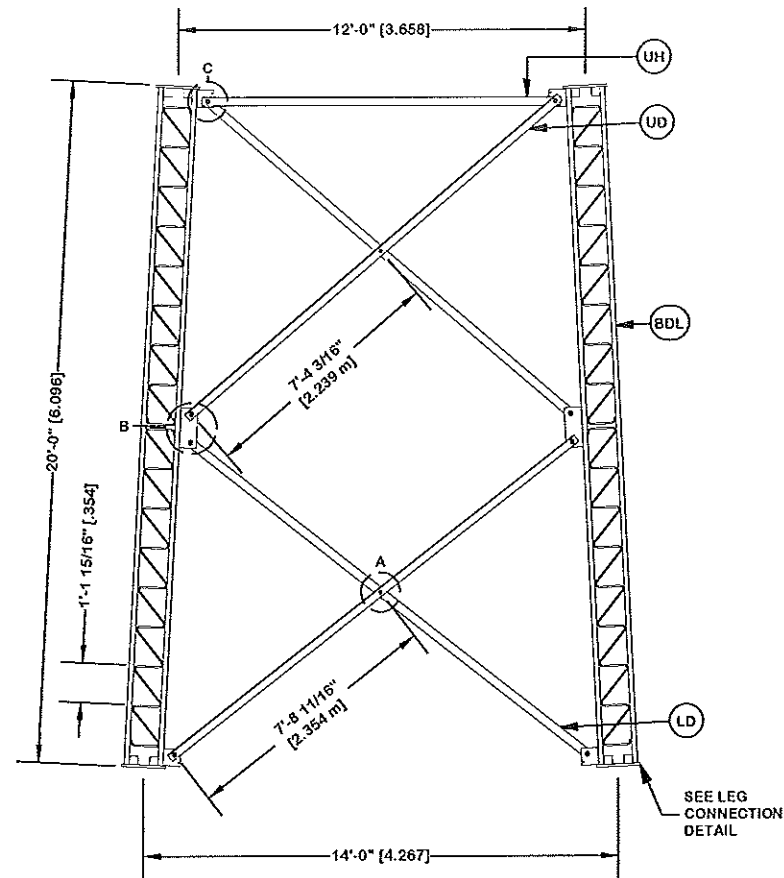
William R. Heiden III, CT P.E. #23038

@A <ACBATCH>				SKK 11/15/2016		SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'		DESCRIPTION SECTION U-16.0 (120' - 140' ELEVATION)			
PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.				COPYRIGHT 2013		STRUCTURE APPROVAL SKK 11/15/2016		FOUNDATION APPROVAL		1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
REVISION HISTORY				REV DESCRIPTION OF REVISIONS CPD BY DATE		ENG. FILE NO. 185135		DWG. No. 270438T		PAGE 9 OF 17	

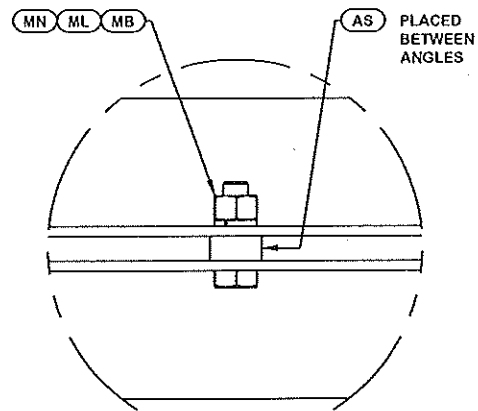
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

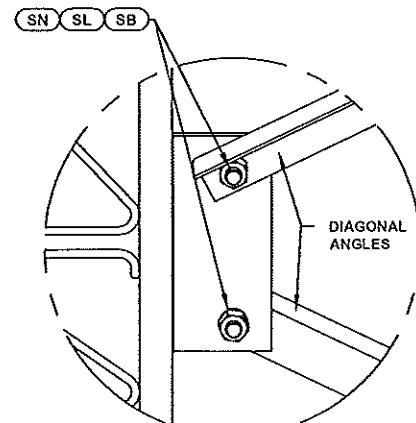
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



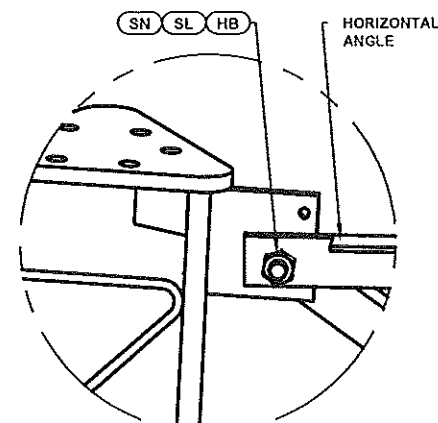
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	105220-1	#12 LEG SECTION 20'-0" LONG, MODEL "U" 2 1/4" LEG	1106.500	3319.500
LD	6	113374	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 15'-1-1/32" L	108.600	651.600
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.500	3.000
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312163	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SB	24	311288	1-1/4"-7 X 2-3/4" A-325T BOLT WITH FULL THREAD	1.590	38.160
SL	24	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	3.600
SN	24	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	17.280
UD	6	113373	DIAG BRACE 5/16" X 3-1/2" X 3-1/2" 14'-3-13/16"	103.000	618.000
UH	3	113420	HORIZONTAL BRACE 10'-4 1/32" LONG (A-36)	133.460	400.380
HB	6	156674	1-1/4"-7 X 3-1/4" A-325 BOLT WITH 2" THREAD	1.710	10.260
LCB	18	311295	1-1/4"-7 X 4-1/2" A-325 BOLT WITH 2" THREAD	2.190	39.420
LCF	18	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	2.340
LCN	18	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	12.960
Total Wt				5120.64 lb (2324.82 kg)	



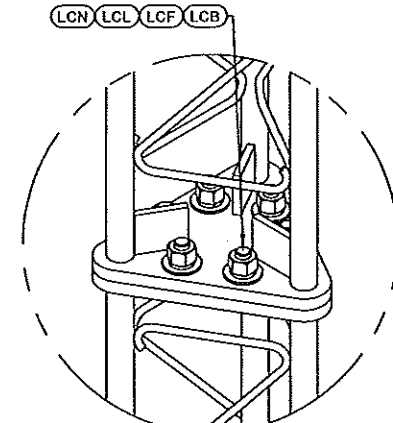
DETAIL A
ANGLE INTERSECTION CONNECTION



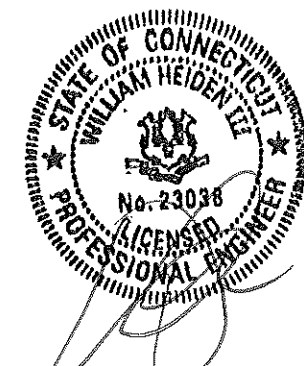
DETAIL B
MID SIDE PLATE ANGLE CONNECTION



DETAIL C
HORIZONTAL CONNECTION



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



NOV 18 2016

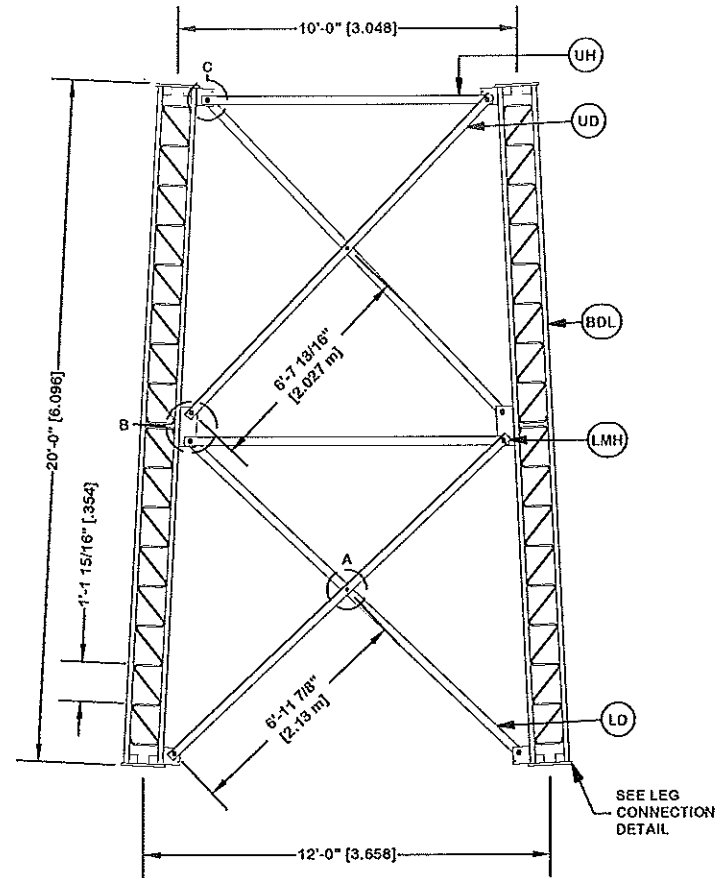
William R. Heiden III, CT P.E. #23038

@A <ACBATCH> REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY		SKK 11/15/2016	SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280' COPYRIGHT 2013	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. 185135	DWG. NO. 270438T	10 OF 17 PAGE
PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.			STRUCTURE APPROVAL SKK 11/15/2016	FOUNDATION APPROVAL	10 OF 17 PAGE			

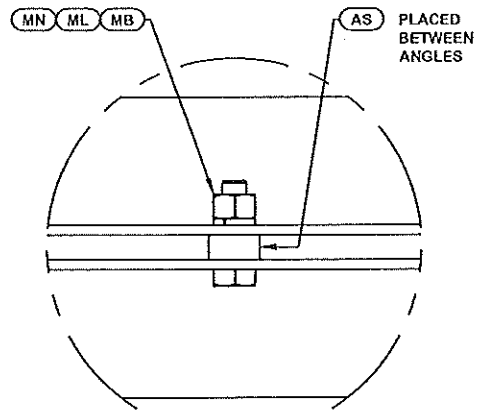
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

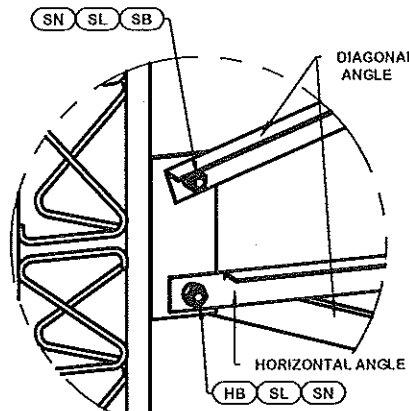
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



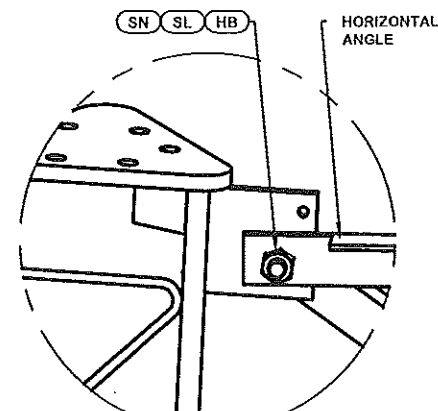
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	105219-1	#12 LEG SECTION 20'-0" LONG, MODEL "U" 2" LEG DIA.	930.510	2791.530
LD	6	116495	DIAG BRACE 5/16" X 3" X 3" 13'-6-31/32" LONG LOW	82.000	492.000
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.500	3.000
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SB	24	311288	1-1/4"-7 X 2-3/4" A-325T BOLT WITH FULL THREAD	1.590	38.160
SL	24	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	3.600
SN	24	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	17.280
LMH	3	107429	HORIZONTAL BRACE 9'-4-1/32" LONG (A-36)	64.680	194.040
UD	6	116494	DIAG BRACE 5/16" X 3" X 3" 12'-10-19/32" LONG UP	79.000	474.000
UH	3	107427	HORIZONTAL BRACE 8'-4-1/32" LONG (A-36)	57.750	173.250
LCB	18	311295	1-1/4"-7 X 4-1/2" A-325 BOLT WITH 2" THREAD	2.190	39.420
LCF	18	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.130	2.340
LCN	18	312281	1-1/4"-7 MECH. GALVANIZED LOCKNUT	0.720	12.960
Total Wt				4245.72 lb [1927.59 kg]	



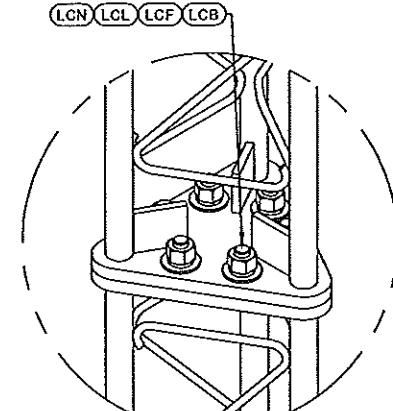
DETAIL A
ANGLE INTERSECTION CONNECTION



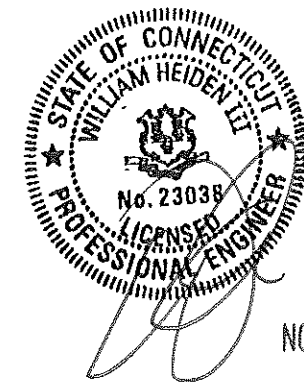
DETAIL B
MID SIDE PLATE ANGLE CONNECTION



DETAIL C
HORIZONTAL CONNECTION



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



NOV 1 8 2016

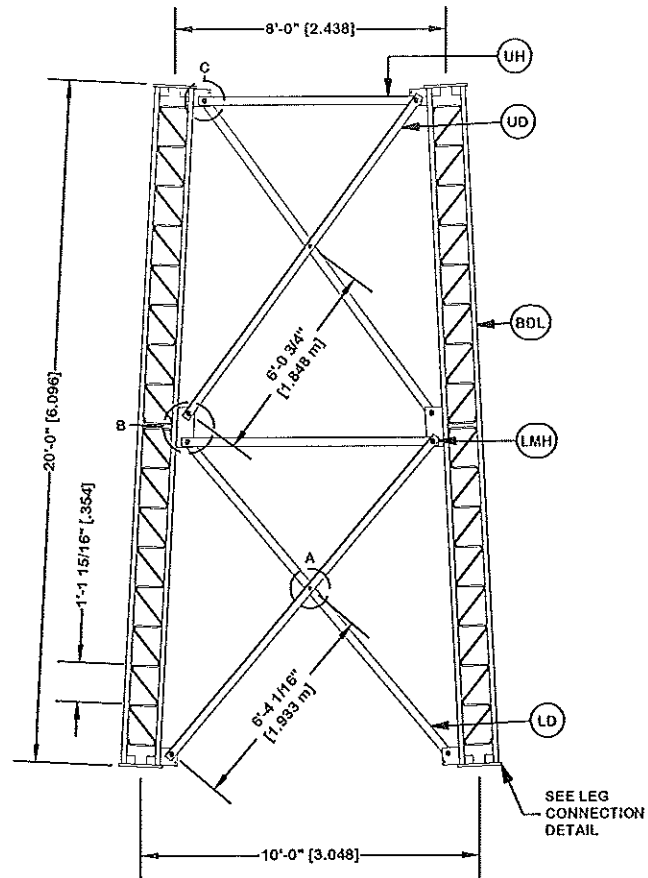
William R. Heiden III, CT P.E. #23038

@A <ACBATG> REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY		SKK 11/15/2016 PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.	SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280' COPYRIGHT 2013	DESCRIPTION SECTION U-12.0 (160' - 180' ELEVATION)	STRUCTURE APPROVAL SKK 11/15/2016	FOUNDATION APPROVAL	valmont STRUCTURES 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR ENG. FILE NO. 185135 DWG. NO. 270438T	11 OF 17 PAGE
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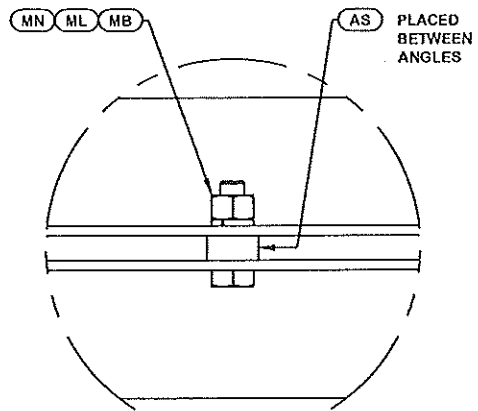
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

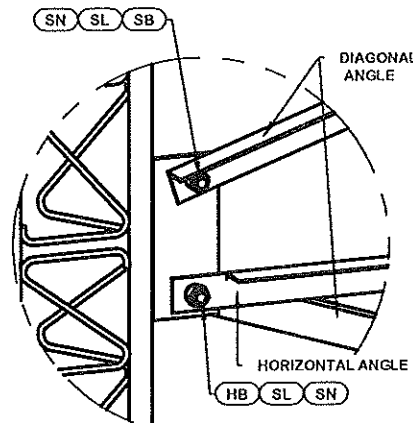
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



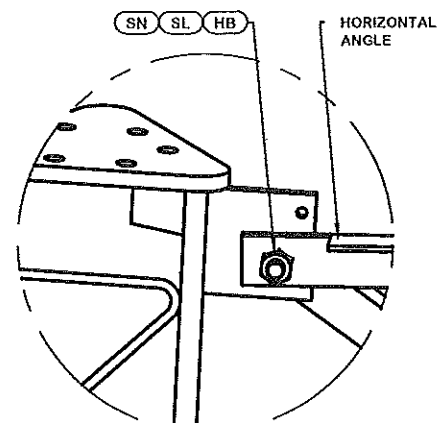
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	105218-1	#12 LEG SECTION 20'-0" LONG, MODEL "U" 1 3/4" LEG	699.160	2097.480
LD	6	105569	ANGLE U-10 LOW 12'-3 5/8"	78.790	472.740
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.500	3.000
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	312223	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	20.160
LMH	3	105943	HORIZONTAL BRACE 7'-7-1/32" LONG (A-36)	23.300	69.900
HBO	6	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	6.540
UD	6	105566	ANGLE U-10 UP 11'-8 7/32"	74.840	449.040
UH	3	105942	HORIZONTAL BRACE 6'-7-1/32" LONG (A-36)	20.230	60.690
HB	6	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	6.540
LCB	18	172272	1"-8 X 4-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	15.120
NOT SHOWN	18	312901	BUSHING 1.032" ID X 1.250" OD X 1.188" LONG (GALV)	0.140	2.520
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	5.040
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
Total Wt				3234.33 lb [1468.41 kg]	



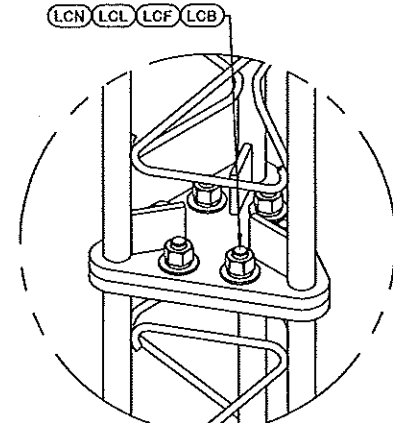
DETAIL A
ANGLE INTERSECTION CONNECTION



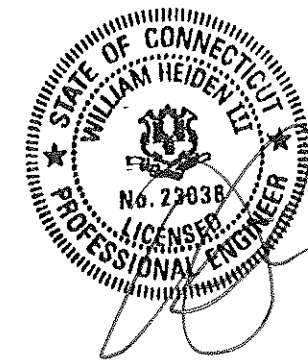
DETAIL B
MID SIDE PLATE ANGLE CONNECTION



DETAIL C
HORIZONTAL CONNECTION



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



NOV 18 2016

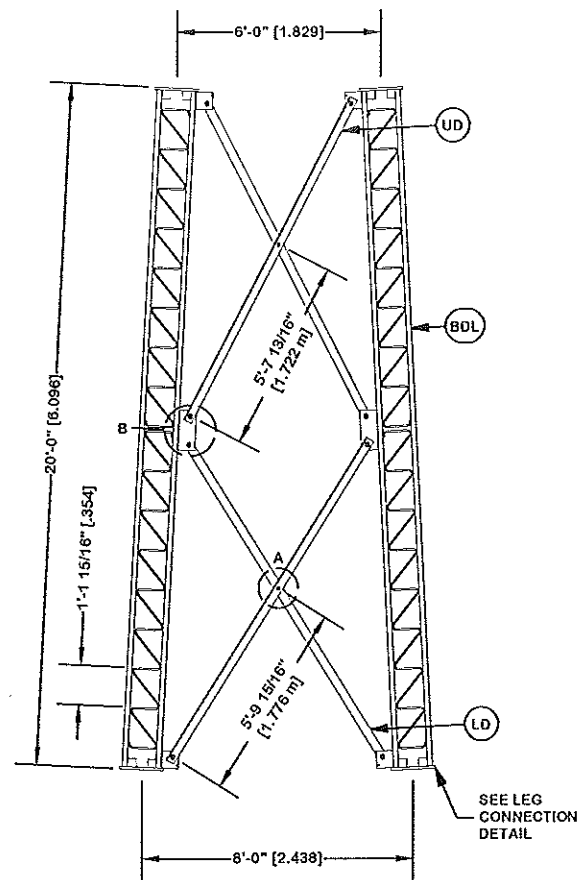
William R. Heiden III, CT P.E. #23038

@A <ACBATQ> REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY		SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280' COPYRIGHT 2013	DESCRIPTION SECTION U-10.0 (180' - 200' ELEVATION)	 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES	ENG. FILE NO. 185135	DWG. NO. 270438T	12 OF 17 PAGE
PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 11/15/2016	FOUNDATION APPROVAL				

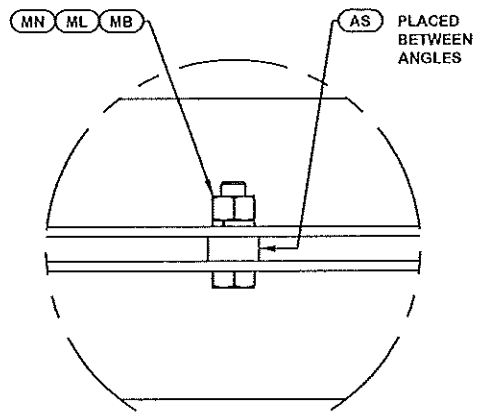
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

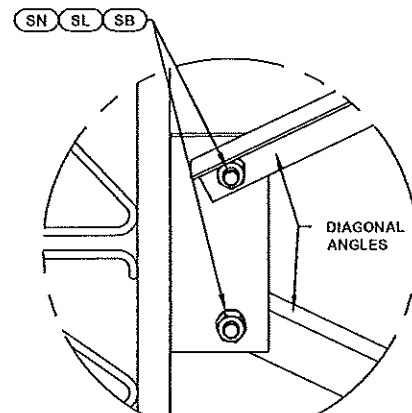
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
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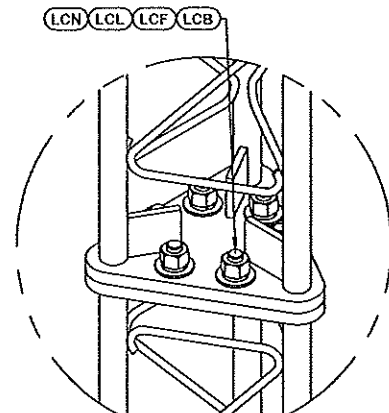
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	105218-1	#12 LEG SECTION 20'-0" LONG, MODEL "U" 1 3/4" LEG	699.160	2097.480
LD	6	105562	ANGLE U-8 LOW 11'-1 15/32"	43.210	259.260
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.500	3.000
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	312223	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	20.160
UD	6	105559	ANGLE U-8 UP 10'-7 9/16"	41.300	247.800
LCB	18	222018	1"-8 X 3-1/2" A-325 BOLT WITH 1-3/4" THREAD	1.090	19.620
LCF	18	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
Total Wt				2675.40 lb [1214.66kg]	



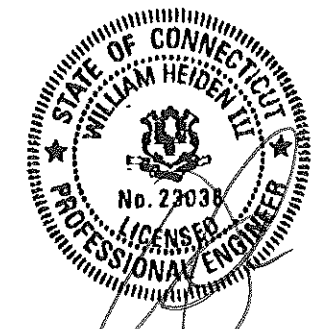
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



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



NOV 1 8 2016

William R. Heiden III, CT P.E. #23038

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATCH>		SKK	11/15/2016
REVISION HISTORY				

SITE	SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'
COPYRIGHT 2013	
<small>PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.</small>	

DESCRIPTION	SECTION U-8.0 (200' - 220' ELEVATION)
STRUCTURE APPROVAL	SKK 11/15/2016
FOUNDATION APPROVAL	

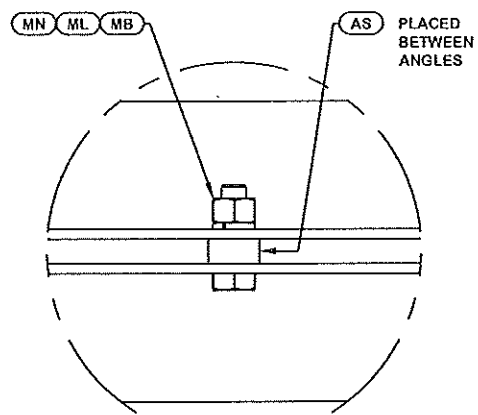
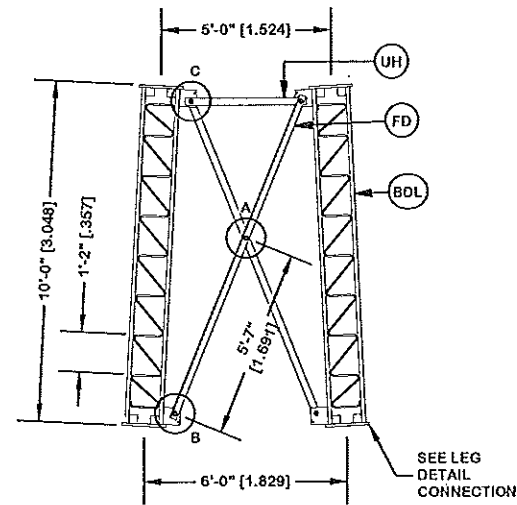
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
ENG. FILE NO.	185135
DWG. NO.	270438T
PAGE 13 OF 17	

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

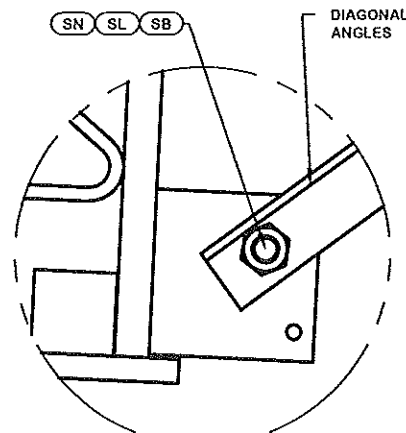
ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
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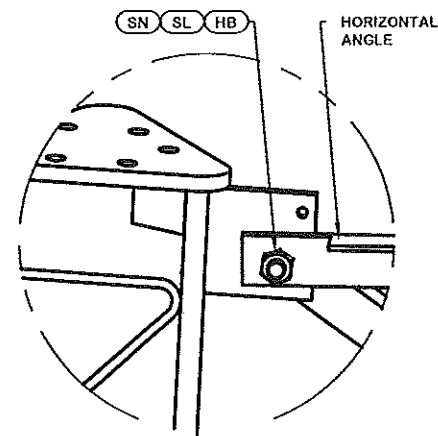
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	105245-1	#12 LEG SECTION 10'-0" LONG MODEL "U" 1 1/2" LEG D	314.980	944.940
LD	6	105901	DIAG BRACE 5/16" X 3" X 3" 10'-2-17/32" LONG (A-	65.400	392.400
AS	3	104291	SPACER 1/2" THICK 13/16" HOLE	0.500	1.500
MN	3	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	0.570
ML	3	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.090
MB	3	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	1.410
SL	12	312223	1" GALVANIZED LOCKWASHER	0.080	0.960
SN	12	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	5.160
SB	12	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	10.080
UH	3	105939	HORIZONTAL BRACE 3'-7-1/32" LONG (A-36)	11.020	33.060
HB	6	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.090	6.540
LCB	18	222018	1"-8 X 3-1/2" A-325 BOLT WITH 1-3/4" THREAD	1.090	19.620
LCF	18	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
Total Wt				1428.03 lb [648.34 kg]	



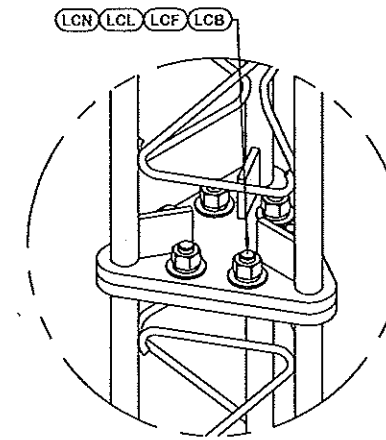
DETAIL A
ANGLE INTERSECTION CONNECTION



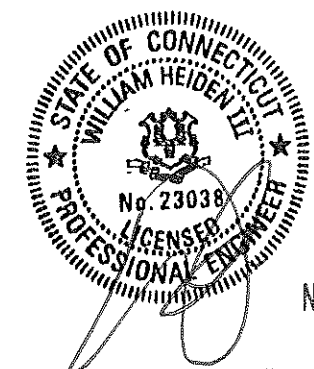
DETAIL B
END PLATE ANGLE CONNECTION



DETAIL C
HORIZONTAL CONNECTION



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



William R. Heiden III, CT P.E. #23038

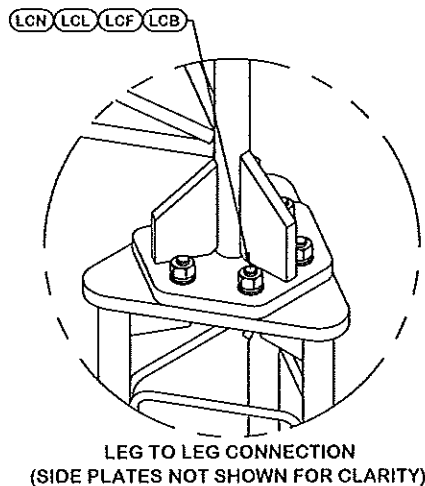
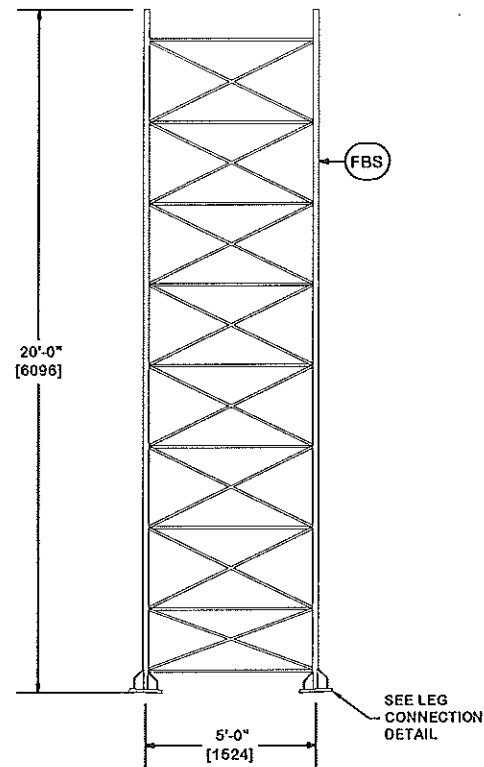
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATQ>		SKK	11/15/2016
REVISION HISTORY				

SITE	SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'
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<small>PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.</small>	

DESCRIPTION	SECTION U-6.0 (220' - 230' ELEVATION)
STRUCTURE APPROVAL	SKK 11/15/2016
FOUNDATION APPROVAL	

valmont	
1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
STRUCTURES	
ENG. FILE NO.	185135
DWG. NO.	270438T

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
FBS	1	127259	#60#60 STRAIGHT TRANSITION SECTION 2-1/2" LEGS 1"	2122.900	2122.900
LCB	18	222018	1"-8 X 3-1/2" A-325 BOLT WITH 1-3/4" THREAD	1.090	19.620
LCF	18	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
Total Wt				2154.22 lb	(978.04 kg)

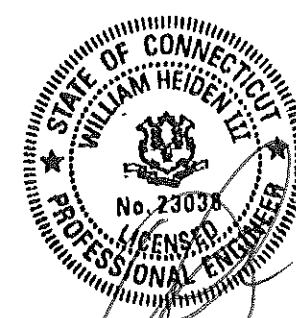
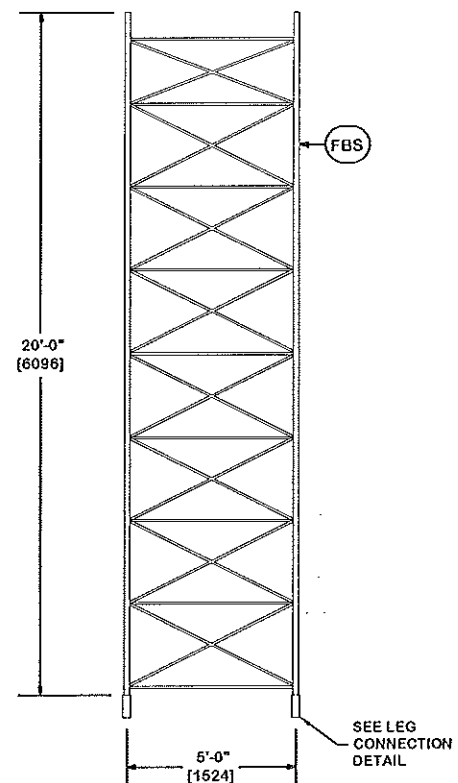


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William R. Heiden III, CT P.E. #23038

			SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280'		DESCRIPTION SECTION V-5.0 (230' - 250' ELEVATION)		 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
			COPYRIGHT 2013				ENG. FILE NO. 185135	
			PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 11/15/2016		FOUNDATION APPROVAL DWG. NO. 270438T	
@A <ACBATCH> REV DESCRIPTION OF REVISIONS CPD BY DATE REVISION HISTORY							PAGE 15 OF 17	

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
FBS	1	106772	#60/60 SEC. 2" LEGS 7/8" BRACE 20' LONG	1484.900	1484.900
LCB	6	311476	2"-4.5 X 8" A-449 BOLT WITH 8" THREAD	10.800	64.800
LCL	6	312393	2" GALVANIZED LOCKWASHER	0.310	1.860
LCN	6	312512	2"-4.5 HOT DIPPED GALVANIZED NUT	2.840	17.040
Total Wt				1568.60 lb [712.16kg]	




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SITE
SEYMOUR, CT
VERTICAL RESOURCES GROUP
U 28 X 280'

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DESCRIPTION
SECTION V-5.0 (250' - 270' ELEVATION)

valmont 
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR **STRUCTURES**
ENG. FILE NO. 185135

PROPRIETARY NOTE:
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

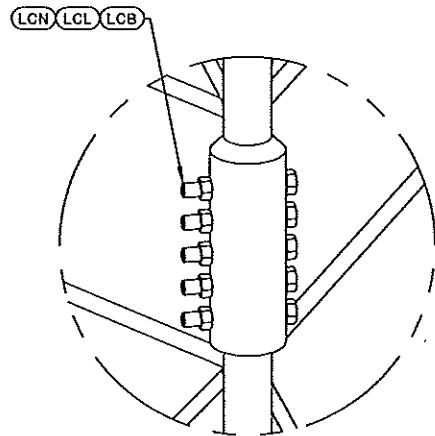
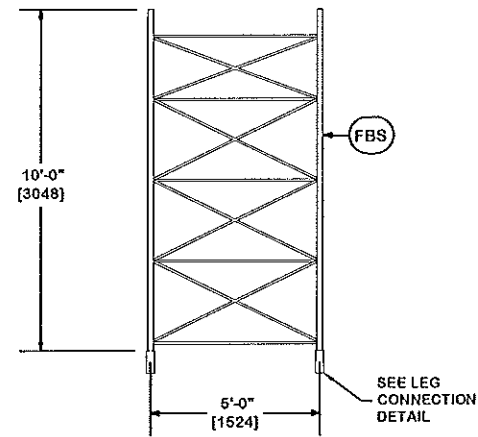
STRUCTURE APPROVAL
SKK 11/15/2016

FOUNDATION APPROVAL
DWG. NO. 270438T

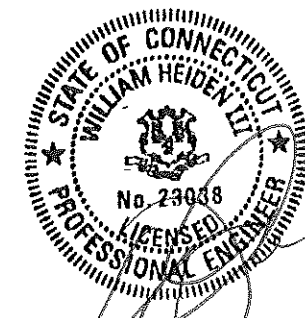
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
@A	<ACBATC>		SKK	11/15/2016

REVISION HISTORY

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
FBS	1	106771	#60 X-BRACED SECTIONS - 1.75" LEGS .8750" BRA	1326.000	1326.000
LCB	15	222011	5/8"-11 X 4-1/2" A-325 BOLT WITH 1-1/4" THREAD	0.430	6.450
LCL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22280)	0.020	0.300
LCN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.800
Total Wt				1334.55 lb (605.90kg)	



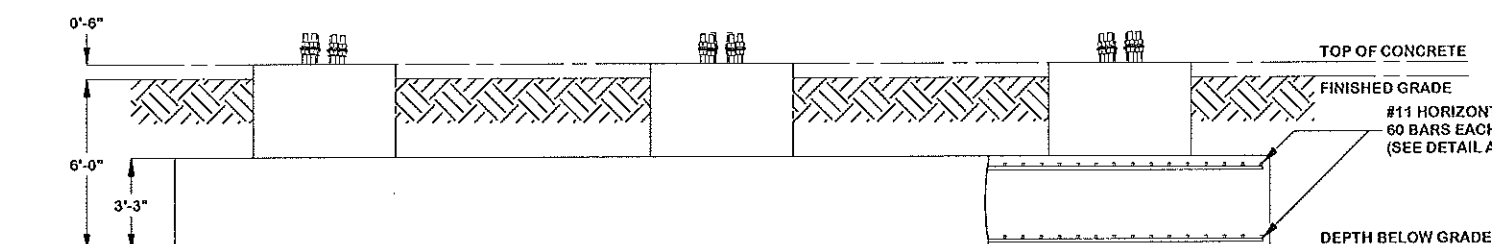
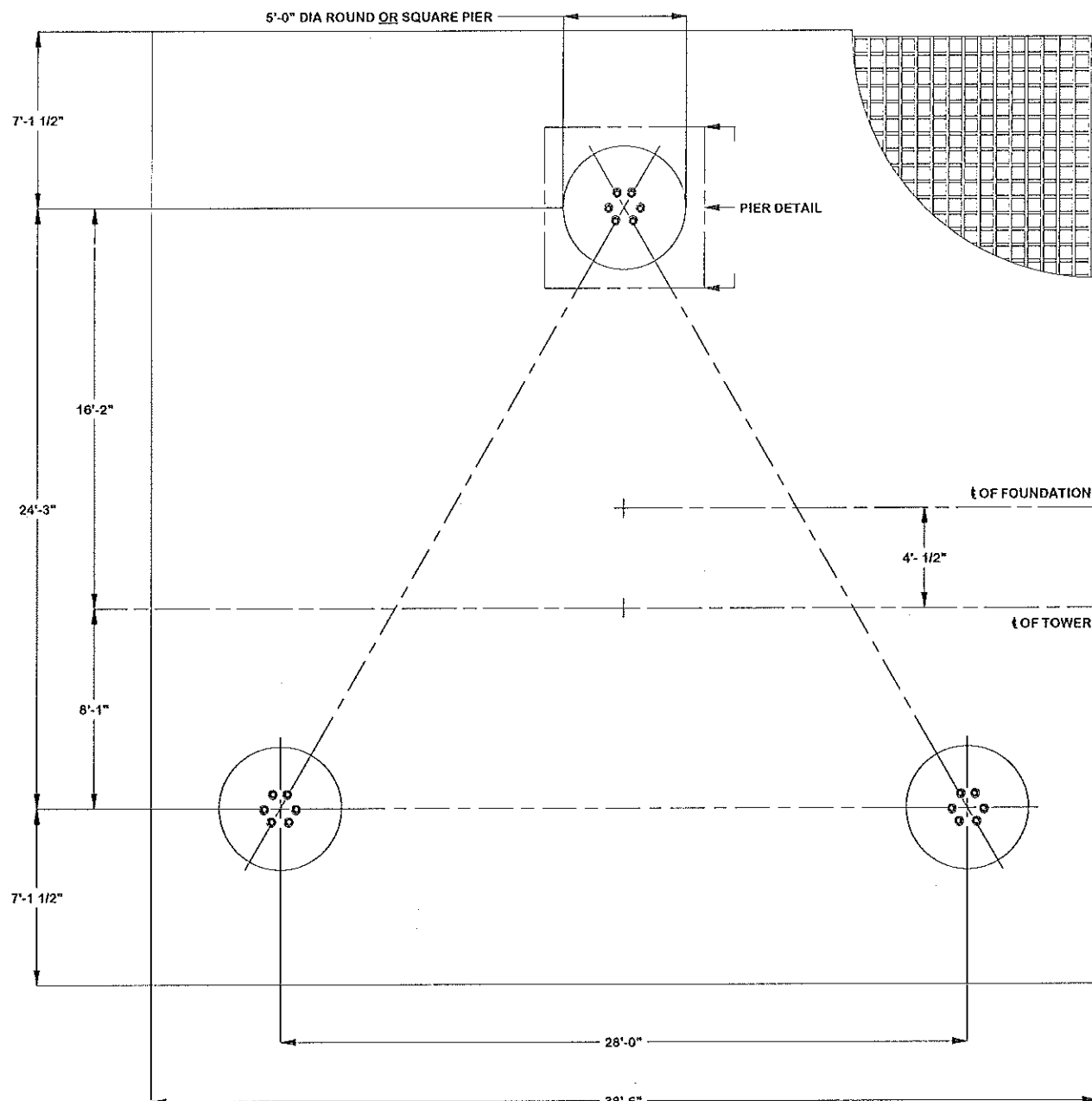
LEG TO LEG CONNECTION



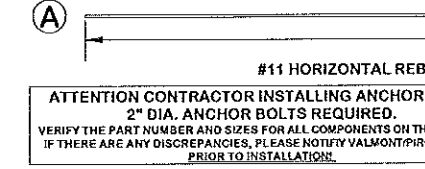
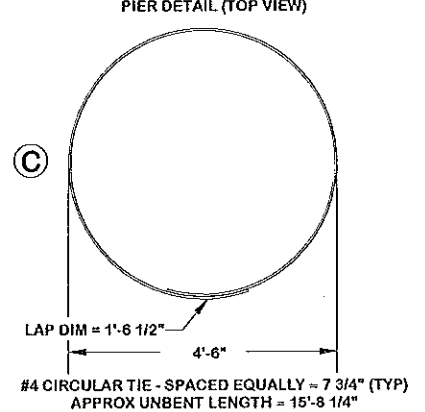
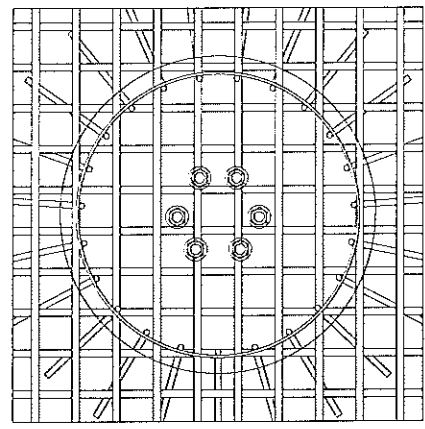
NOV 18 2016

William R. Heiden III, CT P.E. #23038

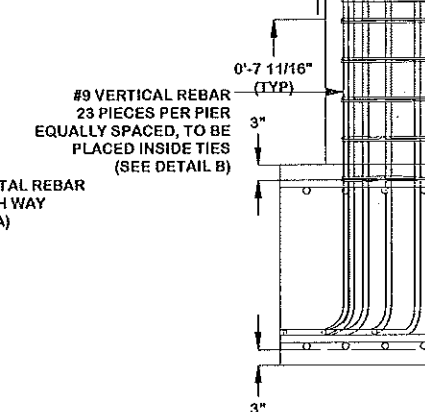
			SITE SEYMOUR, CT VERTICAL RESOURCES GROUP U 28 X 280' COPYRIGHT 2013		DESCRIPTION SECTION V-5.0 (270' - 280' ELEVATION)		 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR	
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@A <ACBATC>			SKK 11/15/2016		ENG. FILE NO. 185135		DWG. NO. 270438T	
REVISION HISTORY			CPD BY DATE		REV DESCRIPTION OF REVISIONS		PAGE 17 OF 17	



PACK NON-SHRINK STRUCTURAL GROUT UNDER FLANGE AFTER LEVELING TOWER
 NON-SHRINK GROUT TO HAVE COMPRESSIVE STRENGTH OF 5000 PSI @28 DAYS
 CONCRETE NOTES: 185.5 CUBIC YARDS OF CONCRETE REQUIRED
 CONCRETE TO HAVE MIN COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS.

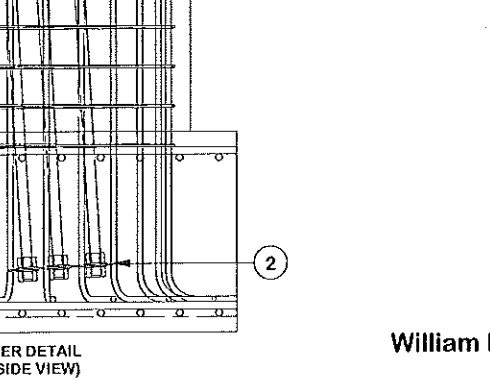
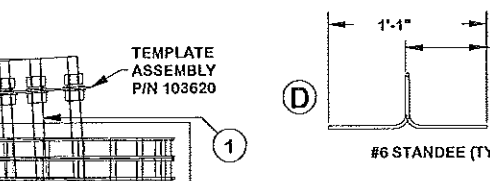
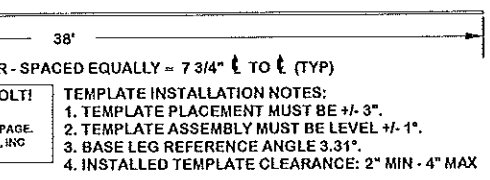


CIRCULAR TIE NOTES:
 PLACE CIRCULAR TIES SO LAPS ON ADJACENT TIES ARE 180 DEGREES APART. PLACE ONE TIE AT TOP OF REBAR GRID AND ONE TIE AT TOP OF PIER. EQUALLY SPACE TIES ALONG THE PIER.



REBAR/ANCHOR STEEL TABLE				
ITEM	QTY	PART DESCRIPTION	UNIT WT.	NET WT.
A	240	HORIZONTAL REBAR (#11 REBAR)	201.9	48456
B	69	VERTICAL REBAR (#9 REBAR)	25.2	1739
C	21	CIRCULAR TIE (#4 REBAR)	10.5	221
D	121	STANDEE (#6 REBAR)	11.7	1416
			APPROX TOTAL WT #	51832

- REBAR NOTES: ALL REINFORCING BARS MUST CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS.
- FOUNDATION NOTES:
- SOIL AS PER REPORT BY AET, DATED 03/31/00 (FILE# 42GT2K)
 - REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 (2008) BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR NOT PERMITTED.
 - A COLD JOINT IS PERMISSIBLE UPON CONSULTATION WITH PIROD. ALL COLD JOINTS SHALL BE COATED WITH BONDING AGENTS PRIOR TO SECOND POUR.
 - 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 97% OF STANDARD PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698.
 - BENDING, STRAIGHTENING OR REALIGNING (HOT OR COLD) OF THE ANCHOR BOLTS BY ANY METHOD IS PROHIBITED.
 - CROWN TOP OF FOUNDATION FOR PROPER DRAINAGE.
 - THE FOUNDATION MUST BEAR ENTIRELY ON EITHER SOIL OR ROCK. THE FOUNDATION IS NOT TO BEAR ON ANY COMBINATION OF SOIL AND BEDROCK AS THIS MAY CAUSE EXCESSIVE DIFFERENTIAL SETTLEMENT.
 - DIFFICULTIES DURING EXCAVATION MAY ARISE DUE TO THE PRESENCE OF SHALLOW BEDROCK, PNEUMATIC HAMMERS, RIPPERS, AND/OR BLASTING MAY BE REQUIRED TO REMOVE MATERIAL FROM THE EXCAVATION.
 - IF THE DIFFICULTIES WITH ROCK ARE TOO CUMBERSOME, IT MAY BE DEEMED NECESSARY TO RELOCATE THE FOUNDATION TO A POINT AT WHICH THE ROCK LIES AT A GREATER DEPTH. THE FOUNDATION SHOULD NOT BE RELOCATED WITHOUT THE CONSENT OF THE GEOTECHNICAL ENGINEERING FIRM AND PIROD, INC.



STATE OF CONNECTICUT
 WILLIAM HEIDEN III
 No. 23038
 LICENSED PROFESSIONAL ENGINEER
 NOV 18 2016
 William R. Heiden III, CT P.E. #23038

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
	REVISION HISTORY			

SITE
 SEYMOUR, CT
 VERTICAL RESOURCES GROUP
 U 28 X 280'
 COPYRIGHT 2013
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DESCRIPTION
 SHALLOW MAT WITH RAISED PIERS
 TOWER FOUNDATION #1
 STRUCTURE APPROVAL
 FOUNDATION APPROVAL
 MS13 11/17/2016

valmont STRUCTURES
 1-877-467-4763 Plymouth, IN
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