



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

VIA ELECTRONIC MAIL

June 17, 2019

Denise Sabo
Northeast Site Solutions
4 Angela's Way
Burlington, CT 06013

RE: **EM-T-MOBILE-018-190606** – T-Mobile notice of intent to modify an existing telecommunications facility located at 37 Carmen Hill Road, Brookfield, Connecticut.

Dear Ms. Sabo:

The Connecticut Siting Council (Council) is in receipt of your correspondence of June 12, 2019 submitted in response to the Council's June 10, 2019 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/IN/emr



Robidoux, Evan

From: Denise Sabo <denise@norheastsitesolutions.com>
Sent: Wednesday, June 12, 2019 11:41 AM
To: Robidoux, Evan
Cc: CSC-DL Siting Council; Sheldon F; Deborah Chase; Victoria Masse
Subject: RE: Council Incomplete Letter for EM-T-MOBILE-018-190606-CarmenHillRd-Brookfield (CT11196A-Anchor)
Attachments: CT11196A-Anchor-Brookfield CSC Response Ltr.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning, Evan

Please see the attached response letter with updated signed and stamped MA.
A hard copy will be sent out today.

Thank you,
Denise

Denise Sabo



860-209-4690
denise@norheastsitesolutions.com

From: Robidoux, Evan [mailto:Evan.Robidoux@ct.gov]
Sent: Wednesday, June 12, 2019 8:13 AM
To: 'denise@norheastsitesolutions.com' <denise@norheastsitesolutions.com>
Cc: CSC-DL Siting Council <Siting.Council@ct.gov>; 'sheldon@norheastsitesolutions.com' <sheldon@norheastsitesolutions.com>
Subject: Council Incomplete Letter for EM-T-MOBILE-018-190606-CarmenHillRd-Brookfield

Please see the attached correspondence.

Evan Robidoux
Clerk Typist
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051



NSS **NORTHEAST**
SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
4 Angela's Way Burlington CT 06013
860-209-4690
denise@northeastsitesolutions.com

June 12, 2019

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
37 Carmen Hill Road, Brookfield CT 06804
T-Mobile Site#: CT11196A_Anchor
EM-T-Mobile-018-190606

Please find the attached signed and stamped mount analysis for our pending application EM-T-Mobile-018-190606.
Thank you.

Sincerely,

Denise Sabo
Mobile: 860-209-4690
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

June 10, 2019

Denise Sabo
Northeast Site Solutions
4 Angela's Way
Burlington, CT 06013

RE: **EM-T-MOBILE-018-190606** – T-Mobile notice of intent to modify an existing telecommunications facility located at 37 Carmen Hill Road, Brookfield, Connecticut..

Dear Ms. Sabo:

The Connecticut Siting Council (Council) received a notice of intent to modify the above-referenced facility on June 6, 2019.

According to Section 16-50j-71 of the Regulations of Connecticut State Agencies, "...any modification, as defined in Section 16-50j-2a of the Regulations of Connecticut State Agencies, to an existing tower site, except as specified in Sections 16-50j-72 and 16-50j-88 of the Regulations of Connecticut State Agencies, may have a substantial adverse environmental effect."

Staff has reviewed this exempt modification request for completeness and has identified a deficiency in the Mount Review Letter (MA) dated April 29, 2019. The MA is signed but not stamped by a Professional Engineer registered in the State of Connecticut.

Therefore, the exempt modification request is incomplete at this time. The Council recommends that Northeast Site Solutions provide a MA for the proposed modification that is stamped and signed by a professional engineer duly licensed in the State of Connecticut, on or before July 12, 2019. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to July 12, 2019. **Please provide an electronic version and one hard copy of the MA for the incomplete request to be rendered complete and processed.**

This notice of incompleteness shall have the effect of tolling the Federal Communications Commission (FCC) 60-day timeframe in accordance with Paragraph 217 of the FCC Wireless Infrastructure Report and Order issued on October 21, 2014 (FCC 14-153).

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,

Melanie Bachman
Executive Director

MAB/IN/emr

- c: The Honorable Stephen C. Dunn, First Selectman, Town of Brookfield
- Francis Lollie, Zoning Enforcement Officer, Town of Brookfield
- Alice Dew, Wetlands Enforcement Officer & Land Use Manager, Town of Brookfield





Vertical Bridge Engineering, LLC
750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
561-406-4094
VerticalBridge.com

April 29, 2019

T-Mobile

40 Holiday Drive, #155
Kingston, PA 18704

Attention: Sheldon Freinle

Reference: Mount Review Letter (US-CT-5009)

Carrier Info: Co-Locate Applicant: T-Mobile
Site Number: CT11196A
Site Name: Brookfield/Junction Rd.

Vertical Bridge Info: VB Site Name: WRKI-FM
VB Site Number: US-CT-5009

Site Data: Latitude: 41.4934 Longitude: -73.4288

Mount Analysis: Site Pro 1
Mount Model Number: VFA14-HD
Job Number: N/A
Job Date: January 25, 2017



Dear Sheldon Freinle,

We are pleased to submit this **‘Mount Review Letter’** for the structural assessment of the aforementioned tower mounting device. The objective of this assessment is to determine the suitability of the existing tower mount to support the complete loading as specified in the attached Collocation Application.

Per the Collocation Application dated March 19, 2019 **T-Mobile** is a current tenant and is proposing to install new equipment. Proposed equipment is listed below in the attached Collocation Application.



Vertical Bridge Engineering, LLC
 750 Park of Commerce Drive
 Suite 200
 Boca Raton, FL 33487
 561-406-4094
 VerticalBridge.com

Table 1 – Proposed Equipment to be installed:

Antenna/Equipment				
Mount (ft.)	RAD (ft.)	Qty.	Antenna	Type
280.0	-	3	Site Pro 1 VFA14-HD	Mount
	280.0	3	RFS APX16DWV-16DWV-S-E-ACU	Panel
		3	RFS APXVAARR24_43-U-NA20	Panel
		3	Ericsson KRY 112144	TMA
		3	Ericsson KRY 112 89-4	TMA
		3	Ericsson RRU 4449 B71B12	RRU
		3	Ericsson AIR6488 2.5GHz	Panel
		3	Ericsson AIR 3246 B66	Panel
		3	Ericsson 4415 B25	RRU

Note: Proposed equipment shown in bold.

Mount Analysis Criteria

The mount was reviewed comparatively using the following design criteria.

Company	Site Pro 1	Vertical Bridge
State	N/A	Connecticut
City / County Building Code	N/A	Fairfield County (IBC 2015)
TIA/EIA Standard Code	TIA-222-G	TIA-222-G
Basic Wind Speed	180 MPH (V_{ult})	115 MPH (V_{ult}) / 89 MPH (V_{asd})
Basic Wind Speed w/ Ice	60 MPH / 2.75" Ice	50 MPH / 0.75" Ice
Exposure Category	B or C	C
Topographic Category (Height)	1 (0.0 ft)	1 (0.0 ft)
Risk Category	I or II	II
Mount Height	400 ft	280 ft
Normal Wind Load	2400 lbs	525 lbs
Normal Wind Load (Ice)	700 lbs	166 lbs
Tangential Wind Load	2400 lbs	208 lbs
Tangential Wind Load (Ice)	700 lbs	66 lbs
Weight Per Mount Pipe	1200 lbs	227 lbs
Weight Per Mount Pipe (Ice)	2800 lbs	439 lbs

Note: Loads are given per mounting location and assume (4) locations per sector and symmetric loading.



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Based on **Site Pro 1's** evaluation and **Vertical Bridge Engineering's** review, **it is acceptable** for the proposed equipment described in Table 1 above to be installed on the existing mount. This review is only valid for the Site Pro 1 VFA14-HD. If any other mount is used another mount analysis should be completed.

If the final antenna configuration installed differs from what is proposed above, an additional assessment should be completed to verify the structural impact.

DISCLAIMER OF WARRANTIES

The engineering services provided by Vertical Bridge Engineering, LLC in connection with the Mount Review Letter are limited to a structural assessment of the existing mount structure to support the proposed equipment. Vertical Bridge Engineering, LLC did not analyze the capacity or assess the condition of the existing structure to support the original tower design loads. The design of all structural systems to support the proposed loads and transfer them to the existing building structure will be prepared by others.

Vertical Bridge Engineering, LLC makes no warranties, expressed or implied, in connection with this report and disclaims any liability arising from the ability of the existing structure to support the design loads for which the mount was originally designed. Vertical Bridge Engineering, LLC will not be responsible whatsoever for or on account of, direct, indirect, punitive, special, consequential and/or incidental damages sustained by any person, firm or organization as a result of any data or conclusions contained in this report. The maximum liability of Vertical Bridge Engineering, LLC pursuant to this report will be limited to the total fee received for preparation of this report.

We appreciate the opportunity of providing our professional services to you. If you have any questions or need further assistance on this project, please feel free to give us a call.

Sincerely,

Review and Report by:

Luke Myrick, EIT
Design Engineer

Reviewed by:

Michael I. De Boer, PE
Vice President of Structural Engineering



Vertical Bridge Engineering, LLC
750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
561-406-4094
VerticalBridge.com

Attachment 1: Calculations

SUPER XLD Heavy-Duty V-Frames



Sector Frames - Super XLD HD V-Frame

- SUPER XLD - Our most robust Sector Frame designed for the most extreme loading conditions
- Features our **New BCAM™** Taper Adjustment System
Easily adjust taper of a fully loaded frame while mounted to tower with battery operated impact gun, by tightening or loosening one nut (Infinitely adjustable from -2.5 to 6 degrees)
- Features our **New Quick-Plate™** for easy grounding and addition of RRU Mounting pipes or Unistrut
Integrated plates accommodate up to eight lugs per plate for grounding (there are four plates per V-Frame)
Slotted holes allow attachment of 2-3/8" - 4-1/2" OD pipes to support RRU's (Pipe and U-Bolts purchased separately in hardware section)
The 3/8" holes can also be used to attach Unistrut to the frame
- Includes Two Stiff Arms and hardware to mount 2-3/8" & 2-7/8" Antenna Mounting Pipes (ordered separately this page or in hardware section)
- Frames rotate for easy azimuth adjustment
- Typical Loading info for VFA10-HD (per antenna pipe)
- 400' Mount Height / Structure Class I or II / Exposure Category B or C
- 180 mph Ultimate Wind Speed / 2.75" Ice Thickness
- Equip Wind Load: 2,400 lb • Equip Dead Load: 1,200 lb
- Equip Wind Load with Ice: 700 lb
- Equip Dead Load with Ice: 2,800lb
- **LEG SIZES 1-1/2" to 9-1/2" Round Legs and 3" to 6" Angle**

On Mon, Apr 29, 2019 at 12:43 PM Mike De Boer <MDeboer@verticalbridge.com> wrote:

This is not our place to decide if the mount will support (12) pipes or not.

We have been issued a PO to do a review of a provided mount analysis.

• VFA14-HD • Super XLD HD V-Frame - Stiff Arm 2, FW 14'-6"

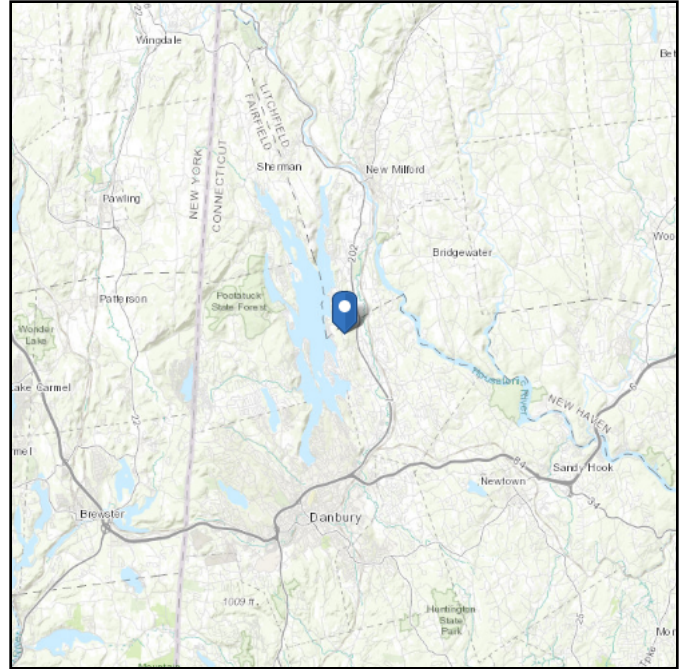
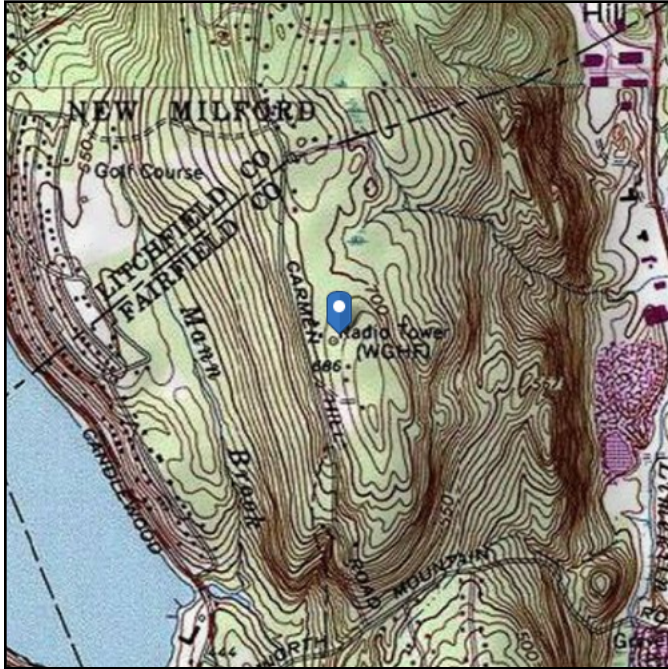
- Face Width 14'-6" • Stiff Arms - 2
- Weight - 701 lbs
- Hardware to mount (4) Antennas
- Leg Sizes 1-1/2" to 9-1/2" Round Legs and 3" to 6" Angles
- SUPER XLD - Our most robust Sector Frame designed for the most extreme loading conditions
- Features our New BCAM™ Taper Adjustment System
Easily adjust taper of fully loaded frame while mounted to tower with a battery operated impact gun by tightening or loosening one nut (Infinitely adjustable from -2.5 to 6 degrees)
- Features our new Quick-Plate™ for easy grounding and addition of RRU Mounting pipes or Unistrut
Integrated plates accommodate up to eight lugs per plate for grounding (there are four plates per V-Frame)
Slotted holes allow attachment of 2-3/8" - 4-1/2" OD pipes to support RRU's (Pipe and U-Bolts purchased separately in hardware section)
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- Frames rotate for easy azimuth adjustment
- Typical Loading info for VFA10-HD (per antenna pipe)
- 400' Mount Height / Structure Class I or II / Exposure Category B or C
- 180 mph Ultimate Wind Speed / 2.75" Ice Thickness
- Equipment Wind Load: 2,400 lb
- Equipment Dead Load: 1,200 lb
- Equipment Wind Load with Ice: 700 lb
- Equipment Dead Load with Ice: 2,800lb
- **Additional Sizes and other Sector Frames** (http://www.sitepro1.com/store/cart.php?m=product_list&c=56)
- **Tower Steel Products** (http://www.sitepro1.com/store/cart.php?m=product_list&c=53)
- **Complete Product Catalog** (<http://www.sitepro1.com/store/cart.php>)

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 718.96 ft (NAVD 88)
Latitude: 41.493439
Longitude: -73.428817



Wind

Results:

Wind Speed:	115 Vmph
10-year MRI	76 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	96 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014

Date Accessed: Mon Apr 29 2019

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

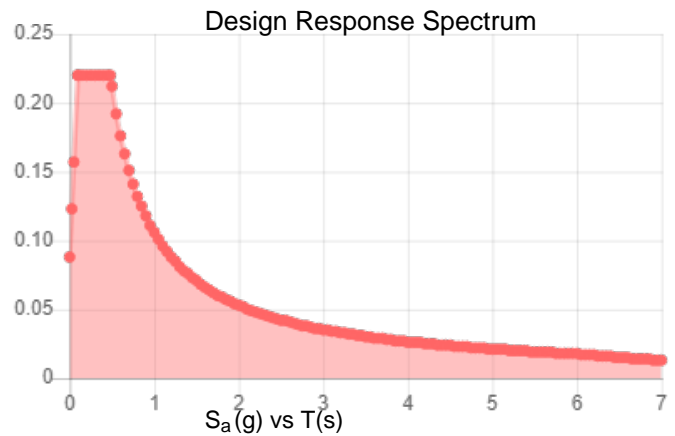
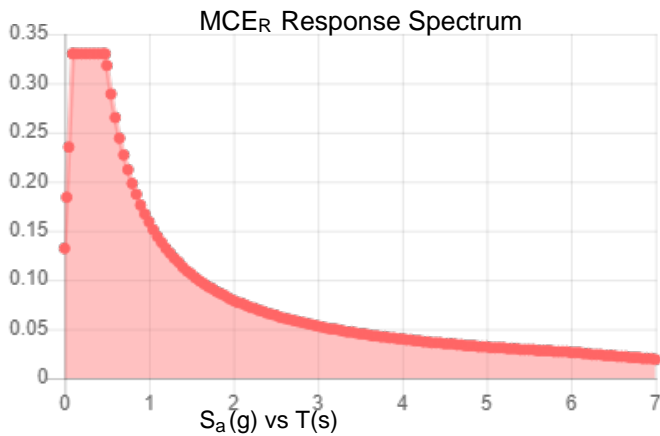
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.207	S_{DS} :	0.22
S_1 :	0.066	S_{D1} :	0.106
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.111
S_{MS} :	0.33	PGA _M :	0.175
S_{M1} :	0.159	F _{PGA} :	1.579
		I_e :	1

Seismic Design Category B



Data Accessed:

Mon Apr 29 2019

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Mon Apr 29 2019

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

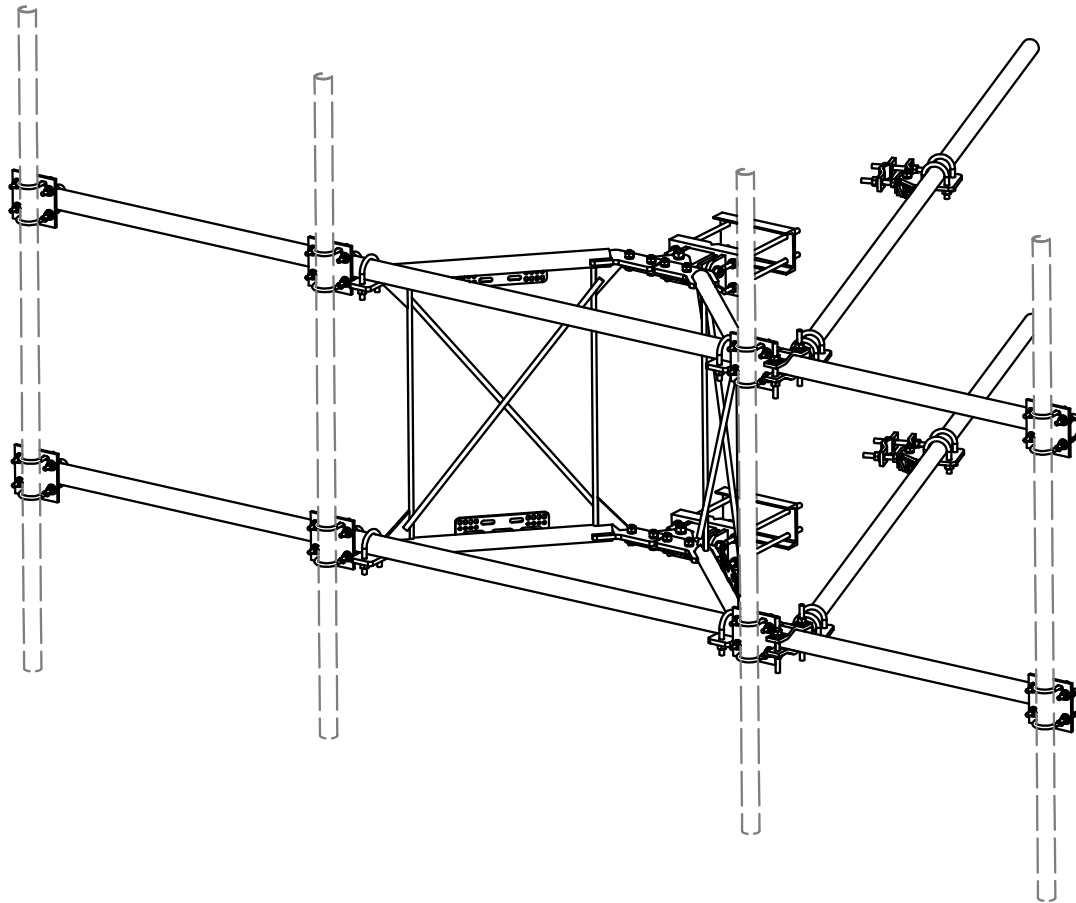
ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



Vertical Bridge Engineering, LLC
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Boca Raton, FL 33487
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Attachment 2: Mount Drawings



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	2	X-HDPMW	HEAVY DUTY PIPE MOUNT WELDMENT		18.61	37.21
3	2	X-HDPMBP	HEAVY DUTY PIPE MOUNT BACKING PLATE	12 in	13.44	26.89
4	2	X-VFAPL3	VFA-HD PIVOT PLATE	24 in	9.69	19.38
5	1	X-LPB	LOWER PIVOT BRACKET		8.84	8.84
6	1	X-UPB	UPPER PIVOT BRACKET		8.84	8.84
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.49
8	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
9	8	SCX2	CROSSOVER PLATE	7 in	4.80	38.37
10	4	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	14.37
11	8	DCP	1/2" THICK, 5-3/4" CTR TO CENTER CLAMP HALF	8 1/8 in	2.42	19.36
13	2	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	81.50
12	2	P30174	2-7/8" O.D. x 174" SCH. 40 PIPE	174 in	84.20	168.39
14	6	A34212	3/4" x 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	2.87
15	6	G34LW	3/4" HDG LOCKWASHER		0.04	0.26
16	6	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	1.27
19	8	G58R-18	5/8" x 18" THREADED ROD (HDG.)	18 in	0.40	3.19
20	4	G58R-12	5/8" x 12" THREADED ROD (HDG.)		1.05	4.18
21	8	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	5.58
17	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
18	8	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
23	8	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
22	8	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	3.55
24	4	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.08
25	20	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.41
26	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
27	70	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.09
28	32	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	23.64
29	16	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	10.00
30	64	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.18
31	64	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.89
32	64	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	4.58
					TOTAL WT. #	700.78

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.060"$)

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
 14' 6" HEAVY DUTY
 V-FRAME ASSEMBLY
 WITH TWO STIFF ARMS

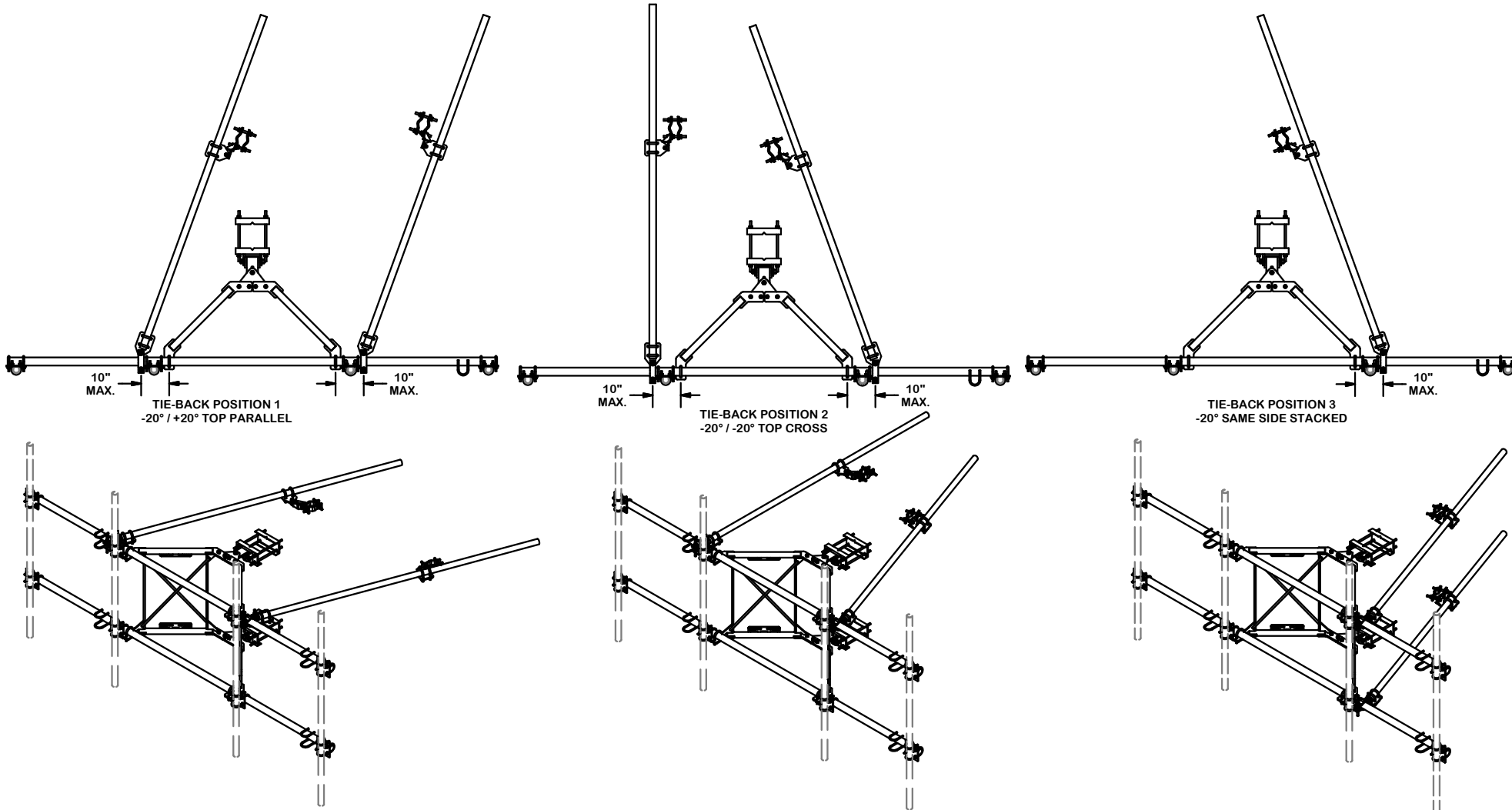
SITE PRO 1
 Engineering Support Team:
 1-888-753-7446
 Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017

CPD NO.	DRAWN BY	ENG. APPROVAL
	CEK 1/25/2017	
CLASS	SUB	DRAWING USAGE
81	02	CUSTOMER
CHECKED BY	DATE	
BMC	8/4/2017	

PART NO.	DWG. NO.
VFA14-HD	VFA14-HD

TIE-BACK POSITIONS



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017
REVISION HISTORY				

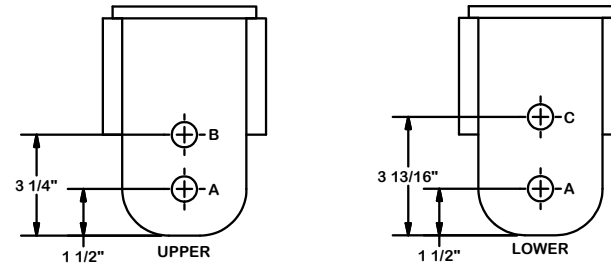
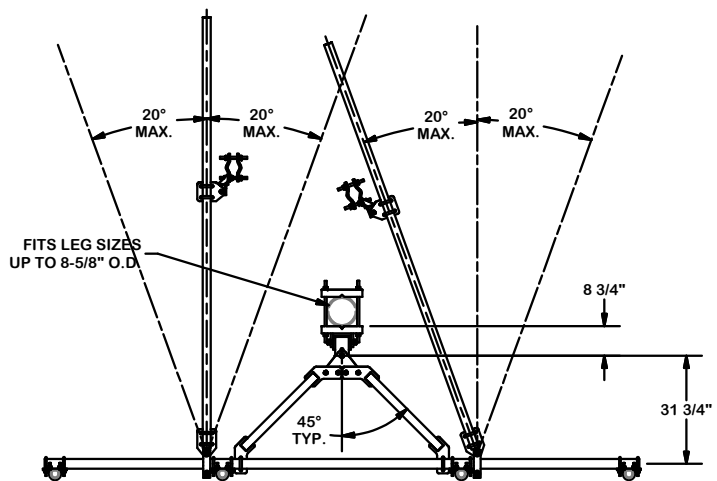
TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.030)
 DRILLED AND GAS CUT HOLES (± 0.030) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.030)
 ALL OTHER ASSEMBLY (± 0.060)

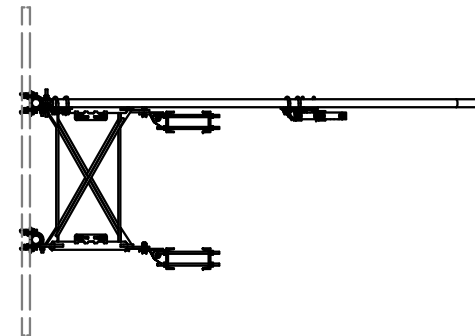
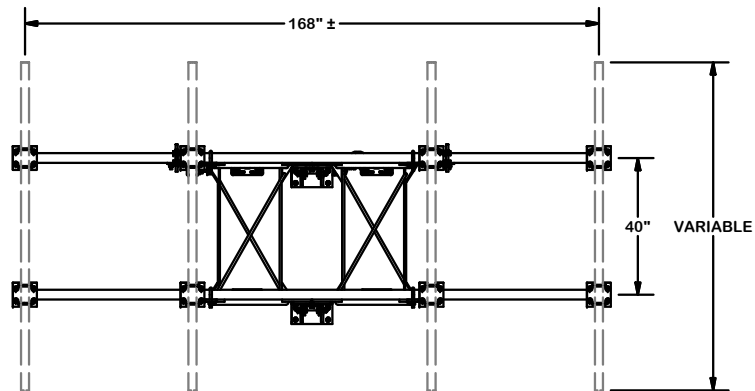
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DESCRIPTION		14' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS	
CPD NO.	DRAWN BY	ENG. APPROVAL	
	CEK	1/25/2017	
CLASS	SUB	DRAWING USAGE	CHECKED BY
81	02	CUSTOMER	BMC

 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
	Engineering Support Team: 1-888-753-7446
PART NO.	VFA14-HD
DWG. NO.	VFA14-HD



- NOTES:**
1. USE HOLE "A" IN UPPER AND LOWER BRACKETS FOR STRAIGHT LEGS.
 2. USE HOLE "A" IN UPPER BRACKET AND HOLE "C" IN LOWER BRACKET FOR 2" IN 20' TAPER LEGS (3.309°)
 3. USE HOLE "B" IN UPPER BRACKET AND HOLE "C" IN LOWER BRACKET FOR 6" IN 20' TAPER LEGS. (0.827°)



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017
REVISION HISTORY				

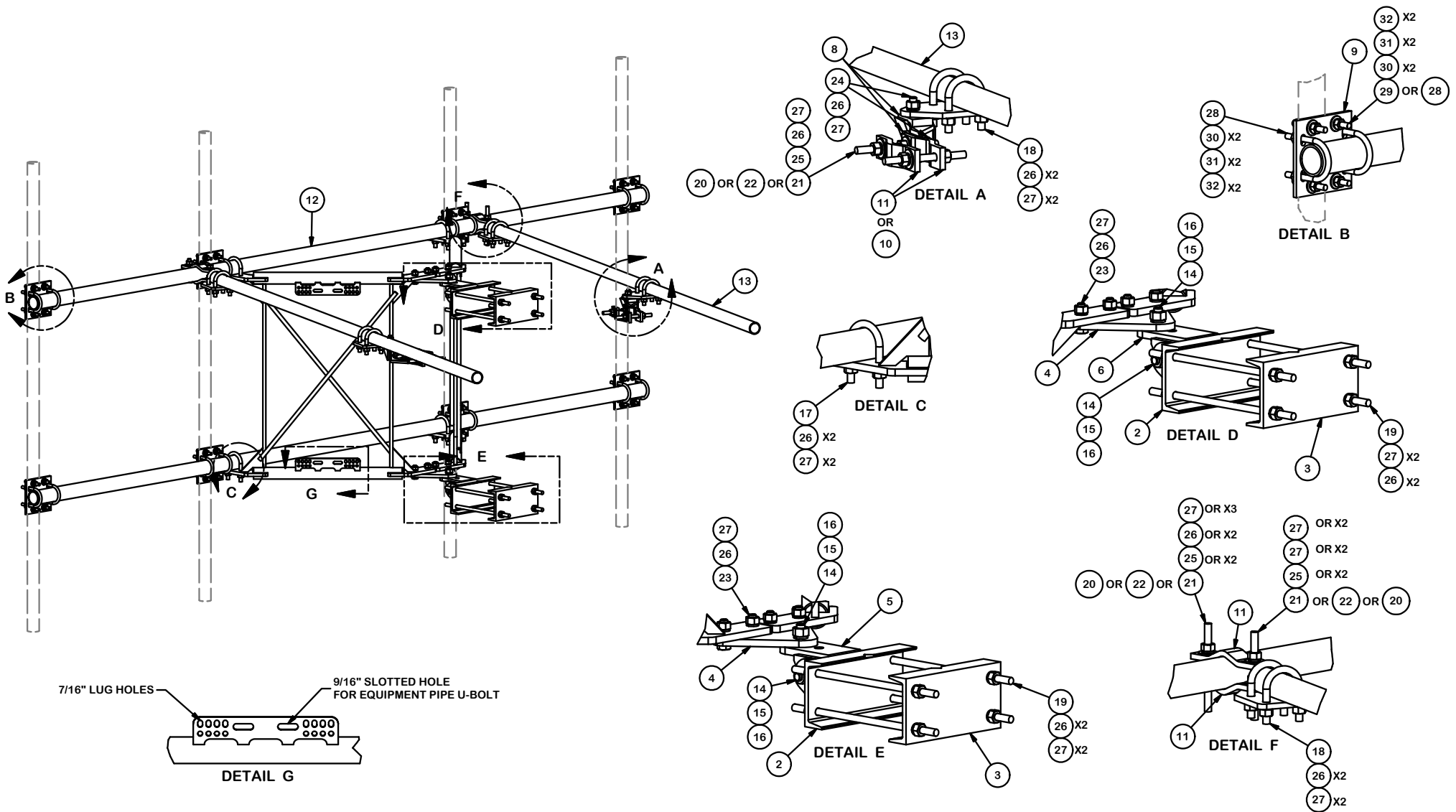
TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.060"$)

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		14' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS	
CPD NO.	DRAWN BY	ENG. APPROVAL	
	CEK 1/25/2017		
CLASS	SUB	DRAWING USAGE	CHECKED BY
81	02	CUSTOMER	BMC 8/4/2017

 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX		
	Engineering Support Team: 1-888-753-7446		
PART NO.	VFA14-HD	PAGE	3 OF 5
DWG. NO.	VFA14-HD		



TOLERANCE NOTES

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DESCRIPTION
 14' 6" HEAVY DUTY
 V-FRAME ASSEMBLY
 WITH TWO STIFF ARMS

SITE PRO 1
 Engineering Support Team:
 1-888-753-7446

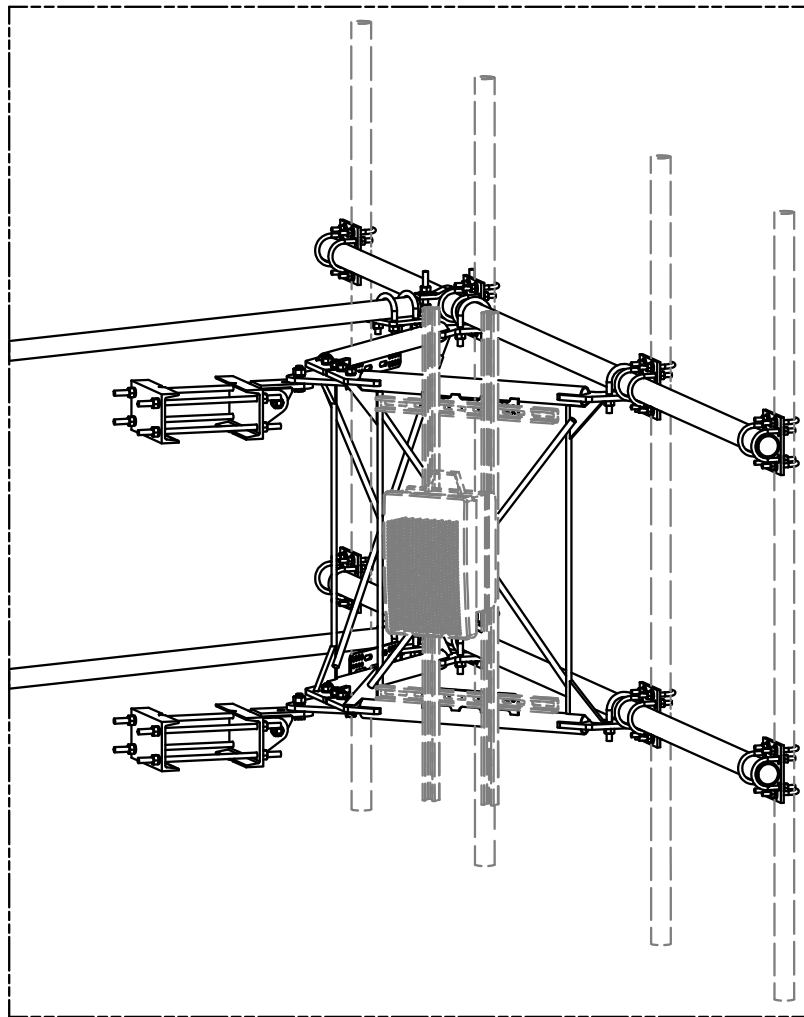
Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

A valmont COMPANY

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017
REVISION HISTORY				

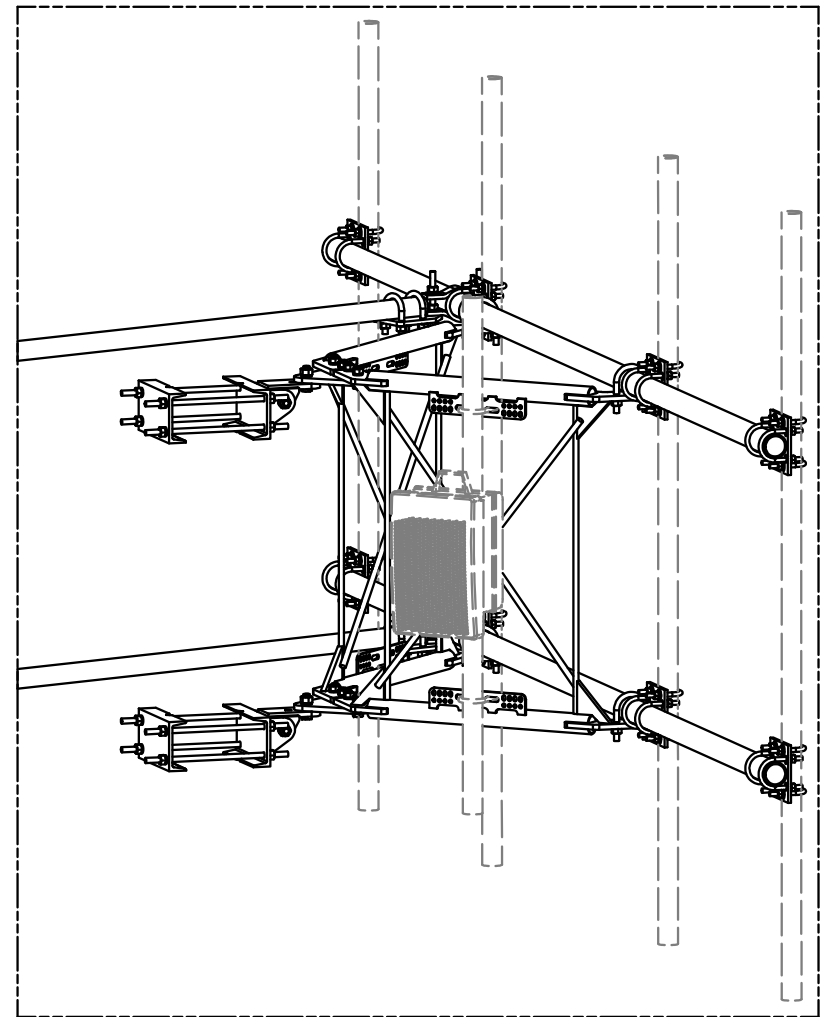
CPD NO.	DRAWN BY	ENG. APPROVAL
	CEK 1/25/2017	
CLASS	SUB	DRAWING USAGE
81	02	CUSTOMER
CHECKED BY	DATE	
BMC	8/4/2017	

PART NO.	DWG. NO.
VFA14-HD	VFA14-HD



UNISTRUT AND HARDWARE
SOLD SEPARATELY.

REQUIRES 3/8" HARDWARE



EQUIPMENT PIPE AND HARDWARE
SOLD SEPARATELY.

REQUIRES 1/2" HARDWARE
AND 2-3/8" TO 4-1/2" O.D. PIPE

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017
REVISION HISTORY				

TOLERANCE NOTES	
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DESCRIPTION	
<p>14' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS</p>	
CPD NO.	DRAWN BY
	CEK 1/25/2017
CLASS	DRAWING USAGE
81	CUSTOMER
SUB	CHECKED BY
02	BMC 8/4/2017

	Engineering	Locations:
	Support Team: 1-888-753-7446	New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
<p>A valmont COMPANY</p>		PART NO.
		VFA14-HD
		DWG. NO.
		VFA14-HD



Vertical Bridge Engineering, LLC
750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
561-406-4094
VerticalBridge.com

Attachment 3: Collocation Application



<input type="checkbox"/> NEW LEASE <input type="checkbox"/> AMENDMENT TO EXISTING LEASE <input type="checkbox"/> RECONTRACT <input type="checkbox"/> BTS ANCHOR TENANT	INTERNAL USE ONLY
	APP VERSION #
	LEASE #
	AMENDMENT #

PLEASE RETURN THIS APPLICATION VIA EMAIL TO: Vertical Bridge 750 Park of Commerce Drive Suite 200 Boca Raton, FL 33487 Attn: Regional Leasing Manager	E-Mail: Phone: VB Site Number: VB Site Name: Application Date: Revision Dates: RSM Approval:
--	--

APPLICANT / CARRIER INFORMATION

Carrier Name:		Contact Name:	
Carrier Site Number:		Contact Number:	
Carrier Site Name:		Contact Fax:	
Carrier Legal Entity Name:		Contact Address:	
State of registration:			
Type of entity (LP, LLC, Corp) d/b/a (if applicable)			
Notice Address for Lease:		Contact E-mail:	
With copies to:		Additional E-mail:	
Carrier Invoice Address:		Other:	
Carrier Invoice Contact - Name, Title, Phone No.		Carrier NOC#	

ADDITIONAL CONTACT INFORMATION

Leasing Contact Name/Number:	
RF Contact Name/Number:	
Construction Contact Name/Number:	
Emergency Contact Name/Number:	

SITE INFORMATION – This information can be found and should match the information on www.verticalbridge.com

Latitude:		N	Existing Structure Type:	
Longitude:		W	Existing Structure Height:	
Site Address:				

FREQUENCY/TECHNOLOGY INFORMATION

Type of Technology for all equipment (i.e., 3G, LTE, CMDA, MW, WiFi, TV, etc.)	
TX Frequency (MHz)	
RX Frequency (MHz)	
Tenants using an unlicensed band must provide exact Frequency Channels and Call Sign(s) to be utilized. (Providing the band range only will not be accepted.)	

PLEASE PROVIDE BRIEF DESCRIPTION OF GENERAL SCOPE OF WORK



PROPOSED FINAL CONFIGURATION TOTALS	
EQUIPMENT TYPE	TOTAL
Panel Antennas	
Omni/Whip Antennas	
RRU	
TMA	
Diplexer / Triplexer	
Bias T	
Surge Suppressor	
MW Dish	
Ice Shield	
ODU	
Filter	
Combiner	
Junction Box	
RET	
Equipment Cabinets	
Other (Please specify)	
Other (Please specify)	
Other (Please specify)	
Other (Please specify)	
Other (Please specify)	

PROPOSED FINAL CONFIGURATION TOTALS	
LINE TYPE	TOTAL
Coax	
Hybrid	
CAT5	
DC/Power	
RET	
Fiber	

ADDITIONAL EQUIPMENT INFORMATION
<ul style="list-style-type: none"> • RRUs, TMAs and ODUs are required to be installed directly behind the antennas / MW dish. Otherwise there will be an additional charge. • All equipment lines are required to be installed inside the tower when space is available. Carriers will be charged an additional \$25.00 per line per month if equipment lines are installed on the outside of the tower even though there is available space inside the tower. Vertical Bridge must approve any installation of lines on the outside of the tower. • All tenant equipment must be installed within one continuous 10 ft vertical envelope. Exceeding this vertical space will be subject to additional rent.



GROUND / INTERIOR SPACE REQUIREMENTS					
Total Ground / Interior Area Dimensions: L' x W' = Total Square Feet Required	X	(Including all Equipment (i.e., Shelter, Equipment Platform or Pad, Generator Pad, Generator Fuel Tank Pad, Antenna Sleds, etc. – provide details below)			
Cabinet Area Dimensions (Pad/Platform)	X	Cabinet Installation Type			
Shelter Pad Dimensions	X	Shelter Manufacturer			
Rooftop Antenna Total Area Required	X	Antenna Sled Dimensions (per sector)	X	Antenna Wall Mount Dimensions (per sector)	X

EQUIPMENT CABINET REQUIREMENTS (Required for rooftops or Vertical Bridge interior space)					
Number of Cabinets Required		Cabinet Dimensions (L' x W' x H')		Manufacturer:	
Number of Cabinets Required		Cabinet Dimensions (L' x W' x H')		Manufacturer:	
Number of Cabinets Required		Cabinet Dimensions (L' x W' x H')		Manufacturer:	
Equipment Cabinet Comments					

GENERATOR REQUIREMENTS					
Generator Required?:		Generator Fuel Type		Generator Size	
Generator Pad Dimensions			Generator Manufacturer		
Generator Fuel Tank Pad Dimensions			Fuel Tank Manufacturer		

AC POWER REQUIREMENTS			
Meter Type		Estimated Monthly Utility Usage Amount	
Voltage		Total Amperage	

FIBER / BACKHAUL					
Fiber Installation Status		Fiber Provider			
Cable Type		Number of Points of Entry		Conduit/Riser Size (in inches)	

STRUCTURAL ANALYSIS DETAILS			
Structural Hardcopies Required?		If wet seals required, please provide address:	

ADDITIONAL COMMENTS