

John Coleman, Project Manager  
c/o Cellco Partnership d/b/a Verizon Wireless  
Centerline Communications, LLC  
750 West Center Street, Floor 3  
West Bridgewater, MA 02379  
Mobile: (240) 615 -7389  
[JColeman@clinellc.com](mailto:JColeman@clinellc.com)

6/27/2022

Melanie A. Bachman  
Acting Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**RE: Notice of Exempt Modification // Site: OLD LYME (ATC: 88016)  
333 GRASSY HILL ROAD, OLD LYME, CT 06371  
N 41.39182500 // W -72.28592778**

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains Six (6) antenna at the 80-ft level on the existing 103ft SST tower, located at 333 Grassy Hill Road, Old Lyme, CT. The tower is owned by American Tower. The property is also owned by the American Tower Inc. The Council approved the use of the existing tower but the original approval from the jurisdictions is not available. Documentation of this was received from the jurisdiction of Lyme, CT and is filed in place of the original approval. Verizon Wireless now intends to remove three (3) antenna and install Nine (9) new antenna for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless intends to install Six (6) RRH's, Two (2) OVP's and associated cabling; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby).

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Timothy Griswold, First Selectman, its Building Official, Mark Wayland, American Tower, the tower owner, and the property owner, American Towers Inc.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated October 07, 2021, by Power of Design, a structural analysis dated May 6, 2021, by American Tower Corporation, and a structural mount analysis by Maser Consulting

Connecticut dated August 13, 2021, and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by American Tower Corporation, dated May 6, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated August 13, 2021, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings, signed and stamped dated October 07, 2021.

For the foregoing reasons, Verizon Wireless respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

*John Coleman*

---

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West Bridgewater, MA 02379  
Mobile: (240) 615 -7389  
[JColeman@clinellc.com](mailto:JColeman@clinellc.com)

Attachments

cc: Timothy Griswold – First Selectman – Chief Elected Official  
Mark Wayland, Building Official - as P&Z official  
American Tower Corporation - as tower owner  
American Towers Inc. – as ground owner

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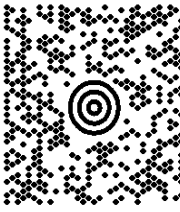
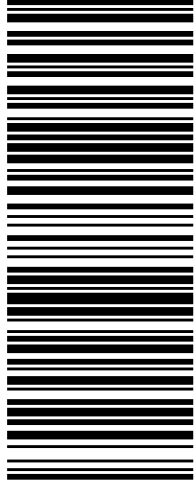
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 450 E CENTER ST  
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<p style="text-align: right;"><b>1 OF 1</b></p> <p style="text-align: center;"><b>1 LBS</b></p> <p>JOHN COLEMAN        2406157389        CENTERLINE COMMUNICATIONS, LLC        750 WEST CENTER STREET        WEST BRIDGEWATER MA 02379</p> <p><b>SHIP TO:</b>        TIMOTHY GRISWOLD &amp; MARK WAYLAND        OLD LYME MEMORIAL TOWN HALL        52 LYME STREET        OLD LYME CT 06371-2331</p>	<p style="font-size: 2em;"><b>CT 063 5-02</b></p>  	<p style="font-size: 1.5em;"><b>UPS GROUND</b></p> <p>TRACKING #: 1Z 9Y4 503 03 2848 5546</p> 	<p style="text-align: center;"><b>BILLING: P/P</b></p> <p style="text-align: center;">  </p> <p>Reference # 1: 88016        Reference # 2: Old Lyme  <small>© 2020-18. W/NTNV50 43.0A 10/2021*</small></p>
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# Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

**Tracking Number**

1Z9Y45030328485546

**Weight**

0.50 LBS

**Service**

UPS Ground

**Shipped / Billed On**

10/20/2021

**Delivered On**

11/23/2021 11:06 A.M.

**Delivered To**

OLD LYME, CT, US

**Received By**

URBOWICZ

**Left At**

Front Desk

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

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UPS

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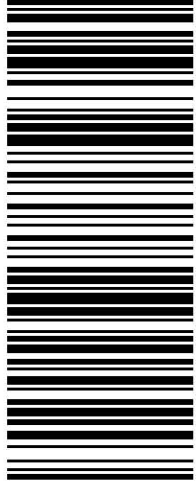

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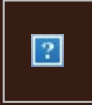
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<p><b>1 OF 1</b></p> <p><b>1 LBS</b></p> <p>CASSANDRA ROSENKRANZ CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 02379</p> <p><b>SHIP TO:</b> JOSHUA ADAMS TOWN HALL OF LYME 480 HAMBURG ROAD LYME CT 06371-3110</p>	<p><b>CT 063 5-02</b></p>  	<p><b>UPS GROUND</b></p> <p>TRACKING #: 1Z 9Y4 503 03 3482 5774</p> 	<p><b>BILLING: P/P</b></p> <p>Reference # 1: 8016 - Old Lyme</p> <p>CS 22.0.18. W/NTNV50 18.0A 04/2022*</p> 
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**From:** [UPS](#)  
**To:** [John Coleman](#)  
**Subject:** UPS Delivery Notification, Tracking Number 1Z9Y45030334825774  
**Date:** Monday, May 9, 2022 3:09:24 PM

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**Hello, your package has been delivered.**

**Delivery Date:** Monday, 05/09/2022

**Delivery Time:** 3:06 PM

**Signed by:** CLERK

## CENTERLINE SITE ACQUISITION

<b>Tracking Number:</b>	<a href="#">1Z9Y45030334825774</a>
<b>Ship To:</b>	TOWN HALL OF LYME 480 HAMBURG ROAD LYME, CT 063713110 US
<b>Number of Packages:</b>	1
<b>UPS Service:</b>	UPS Ground
<b>Package Weight:</b>	1.0 LBS
<b>Reference Number:</b>	8016 - OLD LYME

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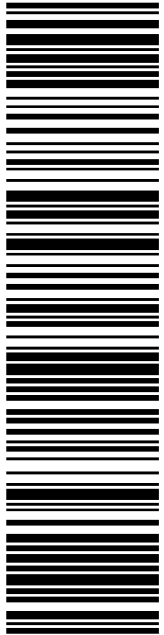
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**PRIORITY MAIL 2-DAY™**

Expected Delivery Date: 11/26/21  
Ref#: 88016  
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11/22/2021

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**9405 5036 9930 0069 9433 23**

Trans. #: 548985754	Priority Mail® Postage: <b>\$8.70</b>
Print Date: 11/22/2021	Total: <b>\$8.70</b>
Ship Date: 11/22/2021	
Expected Delivery Date: 11/26/2021	

**From:** CENTERLINE COMMUNICATIONS Ref#: 88016  
CENTERLINE COMMUNICATIONS LLC  
750 W CENTER ST STE 301  
W BRIDGEWATER MA 02379-1545

**To:** AMERICAN TOWER CORP  
AMERICAN TOWERS INC  
PO BOX 723597  
ATLANTA GA 31139-0597

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**Tracking Number:** 9405503699300069943323

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Your item has been delivered and is available at a PO Box at 11:13 am on November 29, 2021 in ATLANTA, GA 31139.

**USPS Tracking Plus™ Available** ✓

### **Delivered, PO Box**

November 29, 2021 at 11:13 am  
ATLANTA, GA 31139

Feedback

**Get Updates** ✓

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 Confirmation - We Received Your Request

9405503699300069943323

Your updates will be sent to:

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**From:** [Zoning](#)  
**To:** [John Coleman](#)  
**Subject:** Re: CSC FILING REQUIREMENTS / GRASSY HILL ROAD, OLD LYME, CT 06371  
**Date:** Saturday, November 20, 2021 7:34:42 AM

---

Mr. Coleman,

Regarding the telecommunication tower on 333 Grassy Hill Road in the Town of Lyme, CT, the street file records only date back to 1998 and I know for a fact that the tower existed as long ago as 1972. It is possible that records exist in unorganized storage but that is a task that I'm not prepared to undertake. For all practical purposes, there are no records dating back to original construction.

r/

Ross Byrne  
ZEO/WEA  
Lyme, CT

---

**From:** John Coleman <jcoleman@clinellc.com>  
**Sent:** Thursday, November 18, 2021 12:24 PM  
**To:** Zoning <zoning@townlyme.org>  
**Subject:** CSC FILING REQUIREMENTS / GRASSY HILL ROAD, OLD LYME, CT 06371

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Mr. Byrne,

Centerline Communications working on behalf of Verizon Wireless will be filing with the CSC to obtain their approval. I have accessed the CSC website and the original tower approval filing for this site for is not available. The original filing is not listed under the CSC Website. I have attached our drawings as reference to the location of the tower and information on what we will be doing there once we have obtained CSC approval and associated permits.

Per CSC requirements for filing I need to either obtain a copy of the original tower approval from your department or obtain a reply to this e-mail that the City of Lyme no longer has a copy of this approval.

I would greatly appreciate a copy of the original approval if you have one or a response to this e-mail so that we can submit this correction. A copy of this filing is being reprinted today and will be sent out to you tomorrow via UPS 2<sup>nd</sup> day delivery. If you have any questions, please feel free to reach out to me at any time.

Thank you and have a nice day.

John

**John Coleman** | Project Manager  
750 W Center St, Suite 301 | West Bridgewater, MA 02379



Mobile: 240.615.7389  
[jcoleman@clinellc.com](mailto:jcoleman@clinellc.com) |  
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CORPORATION

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## Structural Analysis Report

**Structure** : 100 ft Self Supported Tower  
**ATC Site Name** : Old Lyme, CT  
**ATC Asset Number** : 88016  
**Engineering Number** : 13668861\_C3\_02  
**Proposed Carrier** : VERIZON WIRELESS  
**Carrier Site Name** : LAYSVILLE NO CT  
**Carrier Site Number** : 467749  
**Site Location** : GRASSY HILL ROAD  
OLD LYME, CT 06371-3300  
41.391800,-72.285900  
**County** : New London  
**Date** : May 6, 2021  
**Max Usage** : 60%  
**Result** : Pass

Prepared By:  
Faisal Wakid  
Structural Engineer

*Faisal Wakid*

Reviewed By:



**COA: PEC.0001553**



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## Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 100 ft self supported tower to reflect the change in loading by VERIZON WIRELESS.

## Supporting Documents

<b>Tower Drawings</b>	Analysis by CSEI Site Old Lyme, CT
<b>Foundation Drawing</b>	Geotel Engineering Report #E08-247-F, dated May 14, 2008
<b>Geotechnical Report</b>	Geotel Engineering Report #E08-247-G, dated May 14, 2008

## Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

<b>Basic Wind Speed:</b>	125 mph (3-Second Gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-Second Gust) w/ 1" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
<b>Exposure Category:</b>	B
<b>Risk Category:</b>	II
<b>Topographic Factor Procedure:</b>	Method 1
<b>Topographic Category:</b>	1
<b>Spectral Response:</b>	$S_s = 0.20, S_1 = 0.05$
<b>Site Class:</b>	D - Stiff Soil

## Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at [Engineering@americantower.com](mailto:Engineering@americantower.com). Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



**Existing and Reserved Equipment**

Elev. <sup>1</sup> (ft)	Qty	Antenna	Mount Type	Lines	Carrier
120.0	1	Decibel DB205	Square Platform with Handrails	(2) 7/8" Coax	VALLEY SHORE EMERGENCY COMMUNICATIONS
	1	Decibel DB638			
115.0	3	Ericsson 4424 B25		(3) 1 5/8" Hybriflex	SPRINT NEXTEL
	3	Ericsson Radio 4449 B71 B85A			
	3	Ericsson RRUS 4415 B66			
	3	Ericsson Air6449 B41			
	3	RFS APXVAALL24 43-U-NA20			
104.0	4	RFS APX16DWV-16DWVS-E-A20	-	OTHER	
104.0	4	Generic 12' Horn	-	OTHER	
85.0	1	RAD Data AIRMUX-400 (w/o integrated antenna)	Side Arm	(2) 7/8" Coax (2) 0.38" (9.7mm) Cat 5e	VALLEY SHORE EMERGENCY COMMUNICATIONS
82.8	-	-	Access Platform	-	-
81.0	6	Amphenol Antel LPA-80080-4CF-EDIN-0	Sector Frames	(6) 1 5/8" Coax	VERIZON WIRELESS

**Equipment to be Removed**

Elev. <sup>1</sup> (ft)	Qty	Antenna	Mount Type	Lines	Carrier
82.0	3	Amphenol Antel BXA-171085-8BF-EDIN-X	-	(6) 1 5/8" Coax	VERIZON WIRELESS
	3	Amphenol Antel BXA-70063-6CF-EDIN-X			
81.0	6	RFS FD9R6004/2C-3L (3.1 lbs)			

**Proposed Equipment**

Elev. <sup>1</sup> (ft)	Qty	Antenna	Mount Type	Lines	Carrier
81.0	3	Samsung B5/B13 RRH-BR04C	Sector Frames	(2) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung B2/B66A RRH-BR049			
	2	Raycap RVZDC-6627-PF-48			
	3	Samsung MT6407-77A			
	6	Commscope NHH-65B-R2B			

<sup>1</sup> Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines alongside existing VERIZON WIRELESS lines.





**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Legs	42%	Pass
Diagonals	60%	Pass
Horizontals	33%	Pass
Anchor Bolts	40%	Pass

**Foundations**

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	100.2	29%
Axial (Kips)	130.3	2%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

**Deflection, Twist and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
81.0	Commscope NHH-65B-R2B	VERIZON WIRELESS	0.026	0.005	0.037
	Raycap RVZDC-6627-PF-48				
	Samsung B2/B66A RRH-BR049				
	Samsung B5/B13 RRH-BR04C				
	Samsung MT6407-77A				

\*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H



## 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 antenna, 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.

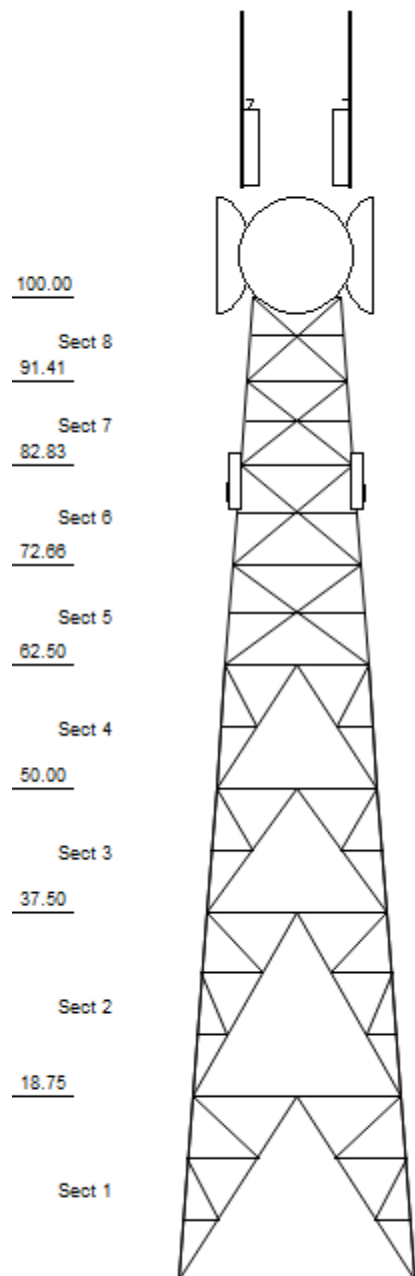
All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

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.

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.

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Loads: 125 mph no ice  
 50 mph w/ 1" radial ice  
 Site Class: D Ss: 0.20 S1: 0.05  
 60 mph Serviceability



Job Information			
Client : VERIZON WIRELESS			
Tower : 88016	Location : Old Lyme, CT	Base Width : 24.25 ft	
Code : ANSI/TIA-222-H	Topo Method: Method 1	Top Width : 9.00 ft	
Risk Cat : II	Topo: 1	Tower Ht : 100.00 ft	
	Exposure : B	Shape : Square	

Sections Properties				
Section	Leg Members	Diagonal Members	Horizontal Members	
1	SAE 36 ksi 8X8X0.625	DAS 36 ksi 3X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25	
2	SAE 36 ksi 6X6X0.625	DAE 36 ksi 2.5X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25	
3	SAE 36 ksi 6X6X0.5625	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25	
4	SAE 36 ksi 6X6X0.4375	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25	
5	SAE 36 ksi 5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	SAU 36 ksi 3X2.5X0.25	
6	SAE 36 ksi 5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	DAL 36 ksi 3X2.5X0.25	
7	SAE 36 ksi 5X5X0.3125	SAE 36 ksi 3X3X0.25	SAU 36 ksi 3X2.5X0.25	
8	SAE 36 ksi 5X5X0.3125	SAE 36 ksi 3X3X0.25	CHN 36 ksi C8 x 11.5	

Redundant Secondary Bracing						
Section	Sub Diag 1	Sub Horiz 1	Sub Diag 2	Sub Horiz 2	Sub Diag 3	Sub Horiz 3
1 - 2	S2X2X0.25	S2X2X0.25	S2X2X0.25	S2X2X0.25	-	-
3 - 4	S2X2X0.25	S2X2X0.25	-	-	-	-
5 - 8	-	S2X2X0.25	-	-	-	-

Discrete Appurtenance			
Elev (ft)	Type	Qty	Description
120.00	Whip	1	Decibel DB638
120.00	Whip	1	Decibel DB205
115.00	Panel	3	RFS APXVAALL24 43-U-NA20
115.00	Panel	3	RFS APX16DWV-16DWVS-E-A20
115.00	Panel	3	Ericsson Air6449 B41
115.00		3	Ericsson 4424 B25
115.00		3	Ericsson Radio 4449 B71 B85A
115.00		3	Ericsson RRUS 4415 B66
104.00	Dish	4	Generic 12' Horn
100.00	Platform	1	20' Platform w/ Handrails
85.00		1	RAD Data AIRMUX-400 (w/o integ
82.80	Platform	1	Access Platform
81.00	Panel	6	Commscope NHH-65B-R2B
81.00	Panel	6	Amphenol Antel LPA-80080-4CF-E
81.00	Panel	3	Samsung MT6407-77A
81.00		2	Raycap RVZDC-6627-PF-48
81.00		3	Samsung B2/B66A RRR-BR049
81.00		3	Samsung B5/B13 RRR-BR04C
78.00	Mounting Frame	3	Flat Light Sector Frame

Linear Appurtenance				
Elev (ft)		Qty	Description	
From	To			
0.00	120.00	2	7/8" Coax	
0.00	115.00	3	1 5/8" Hybriflex	
10.00	100.00	1	Waveguide	
10.00	100.00	1	Climbing Ladder	
10.00	92.00	1	Wave Guide	
0.00	88.00	2	7/8" Coax	
0.00	85.00	2	0.38" (9.7mm) Cat 5e	
10.00	82.00	1	Wave Guide	
10.00	81.00	6	1 5/8" Coax	
0.00	81.00	2	1 5/8" Hybriflex	
10.00	30.00	4	Coax Cage	

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Job Information		
Client : VERIZON WIRELESS		
Tower : 88016	Location : Old Lyme, CT	Base Width : 24.25 ft
Code : ANSI/TIA-222-H	Topo Method: Method 1	Top Width : 9.00 ft
Risk Cat : II	Topo: 1	Tower Ht : 100.00 ft
	Exposure : B	Shape : Square

Global Base Foundation Design Loads			
Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	3,879.19	68.89	50.69
DL + WL + IL	799.74	110.56	10.22

Individual Base Foundation Design Loads		
Vertical (kip)	Uplift (kip)	Horizontal (kip)
130.32	100.16	20.81

Site Number: 88016

Code:

ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Analysis Parameters

Location:	New London County, CT	Height (ft):	100
Code:	ANSI/TIA-222-H	Base Elevation (ft):	0.00
Shape:	Square	Bottom Face Width (ft):	24.25
Tower Manufacturer:	AT&T TAG	Top Face Width (ft):	9.00
Tower Type:	Self Support	Anchor Bolt Detail Type	c
Kd:	0.85		
Ke:	0.99		

### Ice & Wind Parameters

Exposure Category:	B	Design Windspeed Without Ice:	125 mph
Risk Category:	II	Design Windspeed With Ice:	50 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	362.00 ft

### Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	0.40		
T <sub>L</sub> (sec):	6	p:	1.3
S <sub>S</sub> :	0.204	S <sub>1</sub> :	0.054
F <sub>a</sub> :	1.600	F <sub>V</sub> :	2.400
S <sub>ds</sub> :	0.218	S <sub>d1</sub> :	0.086
		C <sub>S</sub> :	0.072
		C <sub>S</sub> , Max:	0.072
		C <sub>S</sub> , Min:	0.030

### Load Cases

1.2D + 1.0W Normal	125 mph Normal with No Ice
1.2D + 1.0W 45 deg	125 mph 45 degree with No Ice
1.2D + 1.0W 90 deg	125 mph 90 degree with No Ice
0.9D + 1.0W Normal	125 mph Normal with No Ice (Reduced DL)
0.9D + 1.0W 45 deg	125 mph 45 deg with No Ice (Reduced DL)
0.9D + 1.0W 90 deg	125 mph 90 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 45 deg	50 mph 45 deg with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic Normal
1.2D + 1.0Ev + 1.0Eh 45 deg	Seismic 45 deg
1.2D + 1.0Ev + 1.0Eh 90 deg	Seismic 90 deg
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL) Normal
0.9D - 1.0Ev + 1.0Eh 45 deg	Seismic (Reduced DL) 45 deg
0.9D - 1.0Ev + 1.0Eh 90 deg	Seismic (Reduced DL) 90 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 45 deg	Serviceability - 60 mph Wind 45 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Tower Loading

#### Discrete Appurtenance Properties 1.2D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
120.0	Decibel DB205	1	38	3.9	18.0	3.0	3.0	1.00	1.00	0.0	0.0	34.94	115	46
120.0	Decibel DB638	1	40	4.8	16.1	3.0	3.0	1.00	1.00	0.0	0.0	34.94	143	48
115.0	Ericsson 4424 B25	3	86	2.1	1.4	14.4	11.3	0.80	0.67	0.0	0.0	34.51	97	310
115.0	Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	34.51	252	374
115.0	Ericsson Radio 4449	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.0	34.51	58	270
115.0	Ericsson RRUS 4415	3	46	1.6	1.3	13.2	5.4	0.80	0.50	0.0	0.0	34.51	58	166
115.0	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.80	0.60	0.0	0.0	34.51	278	147
115.0	RFS APXVAALL24	3	123	20.2	8.0	24.0	8.5	0.80	0.63	0.0	0.0	34.51	898	442
104.0	Generic 12' Horn	4	2500	156.8	12.0	144.0	0.0	1.00	1.00	0.0	0.0	33.54	17882	12000
100.0	20' Platform w/	1	9000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	33.16	2255	10800
85.00	RAD Data AIRMUX-	1	5	0.7	0.9	7.8	3.0	1.00	1.00	0.0	0.0	31.66	20	6
82.80	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	31.42	1202	6000
81.00	Amphenol Antel LPA-	6	12	5.4	3.9	5.5	13.2	0.80	0.62	0.0	0.0	31.22	426	86
81.00	Commscope NHH-	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.0	31.22	710	315
81.00	Raycap RVZDC-6627-	2	32	3.8	2.4	15.7	10.3	0.80	0.77	0.0	0.0	31.22	124	77
81.00	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.0	31.22	60	304
81.00	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.0	31.22	60	253
81.00	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.0	31.22	183	294
78.00	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	30.89	709	1440
Totals		53	27814	1042.9									25530	33377

#### Discrete Appurtenance Properties 0.9D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
120.0	Decibel DB205	1	38	3.9	18.0	3.0	3.0	1.00	1.00	0.0	0.0	34.94	115	34
120.0	Decibel DB638	1	40	4.8	16.1	3.0	3.0	1.00	1.00	0.0	0.0	34.94	143	36
115.0	Ericsson 4424 B25	3	86	2.1	1.4	14.4	11.3	0.80	0.67	0.0	0.0	34.51	97	232
115.0	Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	34.51	252	281
115.0	Ericsson Radio 4449	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.0	34.51	58	203
115.0	Ericsson RRUS 4415	3	46	1.6	1.3	13.2	5.4	0.80	0.50	0.0	0.0	34.51	58	124
115.0	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.80	0.60	0.0	0.0	34.51	278	110
115.0	RFS APXVAALL24	3	123	20.2	8.0	24.0	8.5	0.80	0.63	0.0	0.0	34.51	898	332
104.0	Generic 12' Horn	4	2500	156.8	12.0	144.0	0.0	1.00	1.00	0.0	0.0	33.54	17882	9000
100.0	20' Platform w/	1	9000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	33.16	2255	8100
85.00	RAD Data AIRMUX-	1	5	0.7	0.9	7.8	3.0	1.00	1.00	0.0	0.0	31.66	20	5
82.80	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	31.42	1202	4500
81.00	Amphenol Antel LPA-	6	12	5.4	3.9	5.5	13.2	0.80	0.62	0.0	0.0	31.22	426	65
81.00	Commscope NHH-	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.0	31.22	710	236
81.00	Raycap RVZDC-6627-	2	32	3.8	2.4	15.7	10.3	0.80	0.77	0.0	0.0	31.22	124	58
81.00	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.0	31.22	60	228
81.00	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.0	31.22	60	190
81.00	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.0	31.22	183	220
78.00	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	30.89	709	1080
Totals		53	27814	1042.9									25530	25032

#### Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
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Site Number: 88016

Code:

ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Tower Loading

120.0	Decibel DB205	1	104	8.0	18.0	3.0	3.0	1.00	1.00	0.0	0.0	5.59	38	112
120.0	Decibel DB638	1	117	8.5	16.1	3.0	3.0	1.00	1.00	0.0	0.0	5.59	40	125
115.0	Ericsson 4424 B25	3	133	2.7	1.4	14.4	11.3	0.80	0.67	0.0	0.0	5.52	20	449
115.0	Ericsson Air6449	3	191	6.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	5.52	48	636
115.0	Ericsson Radio 4449	3	113	2.2	1.3	13.2	10.5	0.80	0.50	0.0	0.0	5.52	12	385
115.0	Ericsson RRUS 4415	3	74	2.2	1.3	13.2	5.4	0.80	0.50	0.0	0.0	5.52	12	249
115.0	RFS APX16DWV-	3	115	8.0	4.7	13.3	3.1	0.80	0.60	0.0	0.0	5.52	54	370
115.0	RFS APXVAALL24	3	372	22.6	8.0	24.0	8.5	0.80	0.63	0.0	0.0	5.52	160	1188
104.0	Generic 12' Horn	4	3612	161.7	12.0	144.0	0.0	1.00	1.00	0.0	0.0	5.37	2950	16449
100.0	20' Platform w/	1	13004	115.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.31	521	14804
85.00	RAD Data AIRMUX-	1	17	1.1	0.9	7.8	3.0	1.00	1.00	0.0	0.0	5.07	5	18
82.80	Access Platform	1	7179	64.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.03	276	8179
81.00	Amphenol Antel LPA-	6	84	6.6	3.9	5.5	13.2	0.80	0.62	0.0	0.0	5.00	83	519
81.00	Commscope NHH-	6	153	9.8	6.0	11.9	7.1	0.80	0.69	0.0	0.0	5.00	138	969
81.00	Raycap RVZDC-6627-	2	101	4.6	2.4	15.7	10.3	0.80	0.77	0.0	0.0	5.00	24	214
81.00	Samsung B2/B66A	3	124	2.4	1.3	15.0	10.0	0.80	0.50	0.0	0.0	5.00	12	424
81.00	Samsung B5/B13	3	106	2.4	1.3	15.0	8.1	0.80	0.50	0.0	0.0	5.00	12	360
81.00	Samsung MT6407-	3	145	5.7	2.9	16.1	5.5	0.80	0.61	0.0	0.0	5.00	35	485
78.00	Flat Light Sector	3	588	27.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	4.94	173	2005
Totals		53	42379	1198.7									4616	47942

### Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
120.0	Decibel DB205	1	38	3.9	18.0	3.0	3.0	1.00	1.00	0.0	0.0	8.05	26	38
120.0	Decibel DB638	1	40	4.8	16.1	3.0	3.0	1.00	1.00	0.0	0.0	8.05	33	40
115.0	Ericsson 4424 B25	3	86	2.1	1.4	14.4	11.3	0.80	0.67	0.0	0.0	7.95	22	258
115.0	Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	7.95	58	312
115.0	Ericsson Radio 4449	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.0	7.95	13	225
115.0	Ericsson RRUS 4415	3	46	1.6	1.3	13.2	5.4	0.80	0.50	0.0	0.0	7.95	13	138
115.0	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.80	0.60	0.0	0.0	7.95	64	122
115.0	RFS APXVAALL24	3	123	20.2	8.0	24.0	8.5	0.80	0.63	0.0	0.0	7.95	207	368
104.0	Generic 12' Horn	4	2500	156.8	12.0	144.0	0.0	1.00	1.00	0.0	0.0	7.73	4120	10000
100.0	20' Platform w/	1	9000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.64	520	9000
85.00	RAD Data AIRMUX-	1	5	0.7	0.9	7.8	3.0	1.00	1.00	0.0	0.0	7.29	5	5
82.80	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.24	277	5000
81.00	Amphenol Antel LPA-	6	12	5.4	3.9	5.5	13.2	0.80	0.62	0.0	0.0	7.19	98	72
81.00	Commscope NHH-	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.0	7.19	164	262
81.00	Raycap RVZDC-6627-	2	32	3.8	2.4	15.7	10.3	0.80	0.77	0.0	0.0	7.19	28	64
81.00	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.0	7.19	14	253
81.00	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.0	7.19	14	211
81.00	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.0	7.19	42	245
78.00	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	7.12	163	1200
Totals		53	27814	1042.9									5882	27814

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Tower Loading

#### Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	120.0	7/8" Coax	2	1.09	0.33	100	3	Individual	0.00	N	1.00	1.00	0.00
0.00	115.0	1 5/8" Hybriflex	3	1.98	1.30	100	2	Individual	0.00	N	1.00	1.00	0.00
10.00	100.0	Climbing Ladder	1	2.00	6.90	100	1	Individual	0.00	N	1.00	1.00	0.00
10.00	100.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
10.00	92.00	Wave Guide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	88.00	7/8" Coax	2	1.09	0.33	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	85.00	0.38" (9.7mm) Cat	2	0.38	0.09	100	3	Individual	0.00	N	1.00	1.00	0.00
10.00	82.00	Wave Guide	1	3.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	81.00	1 5/8" Hybriflex	2	1.98	1.30	100	3	Individual	0.00	N	1.00	1.00	0.00
10.00	81.00	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	N	1.00	1.00	0.00
10.00	30.00	Coax Cage	4	12.0	25.0	100	1,3	Individual	0.00	N	1.00	1.00	0.00



Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Section Forces

#### LoadCase 1.2D + 1.0W Normal

125 mph Normal with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	32.75	20.777	0.000	0.000	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1863	0	1627	215	1842
7	87.12	31.88	18.249	0.000	0.000	0.187	3.04	1.00	1.00	0.0	18.25	55.43	0.00	1719	0	1502	274	1776
6	77.75	30.86	22.495	0.000	0.000	0.173	3.10	1.00	1.00	0.0	22.50	69.74	0.00	2725	0	1829	593	2422
5	67.58	29.65	23.832	0.000	0.000	0.163	3.14	1.00	1.00	0.0	23.83	74.91	0.00	2622	0	1888	614	2502
4	56.25	28.14	25.184	0.000	0.000	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	4252	0	2004	716	2720
3	43.75	26.19	26.044	0.000	0.000	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4760	0	1955	667	2622
2	28.13	23.49	39.579	0.000	0.000	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	8455	0	2714	1975	4689
1	9.38	23.49	49.329	0.000	0.000	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	9116	0	3338	1437	4775
														35513	0			23349

#### LoadCase 1.2D + 1.0W 45 deg

125 mph 45 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	32.75	20.777	0.000	0.000	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1863	0	1920	215	2135
7	87.12	31.88	18.249	0.000	0.000	0.187	3.04	1.14	1.14	0.0	20.81	63.19	0.00	1719	0	1713	274	1986
6	77.75	30.86	22.495	0.000	0.000	0.173	3.10	1.13	1.13	0.0	25.41	78.77	0.00	2725	0	2066	593	2659
5	67.58	29.65	23.832	0.000	0.000	0.163	3.14	1.12	1.12	0.0	26.75	84.09	0.00	2622	0	2119	614	2733
4	56.25	28.14	25.184	0.000	0.000	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	4252	0	2191	716	2907
3	43.75	26.19	26.044	0.000	0.000	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4760	0	2124	667	2791
2	28.13	23.49	39.579	0.000	0.000	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	8455	0	2924	1975	4899
1	9.38	23.49	49.329	0.000	0.000	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	9116	0	3619	1437	5056
														35513	0			25168

#### LoadCase 1.2D + 1.0W 90 deg

125 mph 90 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	32.75	20.777	0.000	0.000	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1863	0	1627	215	1842
7	87.12	31.88	18.249	0.000	0.000	0.187	3.04	1.00	1.00	0.0	18.25	55.43	0.00	1719	0	1502	274	1776
6	77.75	30.86	22.495	0.000	0.000	0.173	3.10	1.00	1.00	0.0	22.50	69.74	0.00	2725	0	1829	593	2422
5	67.58	29.65	23.832	0.000	0.000	0.163	3.14	1.00	1.00	0.0	23.83	74.91	0.00	2622	0	1888	614	2502
4	56.25	28.14	25.184	0.000	0.000	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	4252	0	2004	716	2720
3	43.75	26.19	26.044	0.000	0.000	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4760	0	1955	667	2622
2	28.13	23.49	39.579	0.000	0.000	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	8455	0	2714	1975	4689
1	9.38	23.49	49.329	0.000	0.000	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	9116	0	3338	1437	4775
														35513	0			23349

### Section Forces

LoadCase 0.9D + 1.0W Normal

125 mph Normal with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	32.75	20.777	0.000	0.000	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1397	0	1627	215	1842
7	87.12	31.88	18.249	0.000	0.000	0.187	3.04	1.00	1.00	0.0	18.25	55.43	0.00	1289	0	1502	274	1776
6	77.75	30.86	22.495	0.000	0.000	0.173	3.10	1.00	1.00	0.0	22.50	69.74	0.00	2044	0	1829	593	2422
5	67.58	29.65	23.832	0.000	0.000	0.163	3.14	1.00	1.00	0.0	23.83	74.91	0.00	1967	0	1888	614	2502
4	56.25	28.14	25.184	0.000	0.000	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3189	0	2004	716	2720
3	43.75	26.19	26.044	0.000	0.000	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3570	0	1955	667	2622
2	28.13	23.49	39.579	0.000	0.000	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	6342	0	2714	1975	4689
1	9.38	23.49	49.329	0.000	0.000	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	6837	0	3338	1437	4775
														26634	0			23349

LoadCase 0.9D + 1.0W 45 deg

125 mph 45 deg with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	32.75	20.777	0.000	0.000	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1397	0	1920	215	2135
7	87.12	31.88	18.249	0.000	0.000	0.187	3.04	1.14	1.14	0.0	20.81	63.19	0.00	1289	0	1713	274	1986
6	77.75	30.86	22.495	0.000	0.000	0.173	3.10	1.13	1.13	0.0	25.41	78.77	0.00	2044	0	2066	593	2659
5	67.58	29.65	23.832	0.000	0.000	0.163	3.14	1.12	1.12	0.0	26.75	84.09	0.00	1967	0	2119	614	2733
4	56.25	28.14	25.184	0.000	0.000	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3189	0	2191	716	2907
3	43.75	26.19	26.044	0.000	0.000	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	3570	0	2124	667	2791
2	28.13	23.49	39.579	0.000	0.000	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	6342	0	2924	1975	4899
1	9.38	23.49	49.329	0.000	0.000	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	6837	0	3619	1437	5056
														26634	0			25168

LoadCase 0.9D + 1.0W 90 deg

125 mph 90 deg with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	32.75	20.777	0.000	0.000	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1397	0	1627	215	1842
7	87.12	31.88	18.249	0.000	0.000	0.187	3.04	1.00	1.00	0.0	18.25	55.43	0.00	1289	0	1502	274	1776
6	77.75	30.86	22.495	0.000	0.000	0.173	3.10	1.00	1.00	0.0	22.50	69.74	0.00	2044	0	1829	593	2422
5	67.58	29.65	23.832	0.000	0.000	0.163	3.14	1.00	1.00	0.0	23.83	74.91	0.00	1967	0	1888	614	2502
4	56.25	28.14	25.184	0.000	0.000	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3189	0	2004	716	2720
3	43.75	26.19	26.044	0.000	0.000	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3570	0	1955	667	2622
2	28.13	23.49	39.579	0.000	0.000	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	6342	0	2714	1975	4689
1	9.38	23.49	49.329	0.000	0.000	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	6837	0	3338	1437	4775
														26634	0			23349

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

5/6/2021 4:37:02 PM

Customer: VERIZON WIRELESS

### Section Forces

#### LoadCase 1.2D + 1.0Di + 1.0Wi Normal

#### 50 mph Normal with 1.00 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor :1.00

Ice Importance Factor :1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	5.24	20.777	9.665	9.665	0.346	2.44	1.00	1.00	1.1	30.44	74.22	9.67	3627	1763	331	82	412
7	87.12	5.10	18.249	10.184	10.18	0.286	2.64	1.00	1.00	1.1	28.43	75.01	10.18	3455	1736	325	112	437
6	77.75	4.94	22.495	11.650	11.65	0.259	2.74	1.00	1.00	1.1	34.15	93.62	11.65	5291	2566	393	219	612
5	67.58	4.74	23.832	12.204	12.20	0.244	2.80	1.00	1.00	1.1	36.04	100.87	12.20	5164	2542	407	223	630
4	56.25	4.50	25.184	12.296	12.29	0.183	3.05	1.00	1.00	1.1	37.48	114.40	12.30	7918	3666	438	269	707
3	43.75	4.19	26.044	12.505	12.50	0.169	3.12	1.00	1.00	1.0	38.55	120.17	12.51	8500	3740	428	249	677
2	28.13	3.76	39.579	16.323	16.32	0.145	3.23	1.00	1.00	1.0	55.90	180.60	16.32	14264	5809	577	513	1090
1	9.38	3.76	49.329	15.263	15.26	0.146	3.22	1.00	1.00	0.9	64.59	208.31	15.26	14397	5281	665	380	1046
														62615	27102			5610

#### LoadCase 1.2D + 1.0Di + 1.0Wi 45 deg

#### 50 mph 45 deg with 1.00 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor :1.00

Ice Importance Factor :1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	5.24	20.777	9.665	9.665	0.346	2.44	1.20	1.20	1.1	36.53	89.06	9.67	3627	1763	397	82	478
7	87.12	5.10	18.249	10.184	10.18	0.286	2.64	1.20	1.20	1.1	34.12	90.01	10.18	3455	1736	390	112	502
6	77.75	4.94	22.495	11.650	11.65	0.259	2.74	1.19	1.19	1.1	40.77	111.78	11.65	5291	2566	469	219	688
5	67.58	4.74	23.832	12.204	12.20	0.244	2.80	1.18	1.18	1.1	42.63	119.32	12.20	5164	2542	481	223	704
4	56.25	4.50	25.184	12.296	12.29	0.183	3.05	1.14	1.14	1.1	42.64	130.14	12.30	7918	3666	498	269	767
3	43.75	4.19	26.044	12.505	12.50	0.169	3.12	1.13	1.13	1.0	43.44	135.40	12.51	8500	3740	482	249	732
2	28.13	3.76	39.579	16.323	16.32	0.145	3.23	1.11	1.11	1.0	61.96	200.18	16.32	14264	5809	640	513	1153
1	9.38	3.76	49.329	15.263	15.26	0.146	3.22	1.11	1.11	0.9	71.65	231.08	15.26	14397	5281	738	380	1119
														62615	27102			6142

#### LoadCase 1.2D + 1.0Di + 1.0Wi 90 deg

#### 50 mph 90 deg with 1.00 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor :1.00

Ice Importance Factor :1.00

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	5.24	20.777	9.665	9.665	0.346	2.44	1.00	1.00	1.1	30.44	74.22	9.67	3627	1763	331	82	412
7	87.12	5.10	18.249	10.184	10.18	0.286	2.64	1.00	1.00	1.1	28.43	75.01	10.18	3455	1736	325	112	437
6	77.75	4.94	22.495	11.650	11.65	0.259	2.74	1.00	1.00	1.1	34.15	93.62	11.65	5291	2566	393	219	612
5	67.58	4.74	23.832	12.204	12.20	0.244	2.80	1.00	1.00	1.1	36.04	100.87	12.20	5164	2542	407	223	630
4	56.25	4.50	25.184	12.296	12.29	0.183	3.05	1.00	1.00	1.1	37.48	114.40	12.30	7918	3666	438	269	707
3	43.75	4.19	26.044	12.505	12.50	0.169	3.12	1.00	1.00	1.0	38.55	120.17	12.51	8500	3740	428	249	677
2	28.13	3.76	39.579	16.323	16.32	0.145	3.23	1.00	1.00	1.0	55.90	180.60	16.32	14264	5809	577	513	1090
1	9.38	3.76	49.329	15.263	15.26	0.146	3.22	1.00	1.00	0.9	64.59	208.31	15.26	14397	5281	665	380	1046
														62615	27102			5610

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

5/6/2021 4:37:02 PM

Customer: VERIZON WIRELESS

### Section Forces

#### LoadCase 1.0D + 1.0W Service Normal

#### Serviceability - 60 mph Wind Normal

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	7.55	20.777	0.000	0.000	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1553	0	375	50	424
7	87.12	7.35	18.249	0.000	0.000	0.187	3.04	1.00	1.00	0.0	18.25	55.43	0.00	1432	0	346	63	409
6	77.75	7.11	22.495	0.000	0.000	0.173	3.10	1.00	1.00	0.0	22.50	69.74	0.00	2271	0	421	137	558
5	67.58	6.83	23.832	0.000	0.000	0.163	3.14	1.00	1.00	0.0	23.83	74.91	0.00	2185	0	435	141	576
4	56.25	6.48	25.184	0.000	0.000	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3543	0	462	165	627
3	43.75	6.03	26.044	0.000	0.000	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3967	0	451	154	604
2	28.13	5.41	39.579	0.000	0.000	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	7046	0	625	455	1080
1	9.38	5.41	49.329	0.000	0.000	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	7597	0	769	331	1100
														29594	0			5380

#### LoadCase 1.0D + 1.0W Service 45 deg

#### Serviceability - 60 mph Wind 45 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	7.55	20.777	0.000	0.000	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1553	0	442	50	492
7	87.12	7.35	18.249	0.000	0.000	0.187	3.04	1.14	1.14	0.0	20.81	63.19	0.00	1432	0	395	63	458
6	77.75	7.11	22.495	0.000	0.000	0.173	3.10	1.13	1.13	0.0	25.41	78.77	0.00	2271	0	476	137	613
5	67.58	6.83	23.832	0.000	0.000	0.163	3.14	1.12	1.12	0.0	26.75	84.09	0.00	2185	0	488	141	630
4	56.25	6.48	25.184	0.000	0.000	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3543	0	505	165	670
3	43.75	6.03	26.044	0.000	0.000	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	3967	0	489	154	643
2	28.13	5.41	39.579	0.000	0.000	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	7046	0	674	455	1129
1	9.38	5.41	49.329	0.000	0.000	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	7597	0	834	331	1165
														29594	0			5799

#### LoadCase 1.0D + 1.0W Service 90 deg

#### Serviceability - 60 mph Wind 90 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q <sub>z</sub> (psf)	A <sub>f</sub> (sf)	A <sub>r</sub> (sf)	Ice A <sub>r</sub> (sf)	e	C <sub>f</sub>	D <sub>f</sub>	D <sub>r</sub>	T <sub>iz</sub> (in)	A <sub>e</sub> (sf)	EPA <sub>a</sub> (sf)	EPA <sub>ai</sub> (sf)	Wt. (lb)	Ice Wt. (lb)	F <sub>st</sub> (lb)	F <sub>a</sub> (lb)	Force (lb)
8	95.70	7.55	20.777	0.000	0.000	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1553	0	375	50	424
7	87.12	7.35	18.249	0.000	0.000	0.187	3.04	1.00	1.00	0.0	18.25	55.43	0.00	1432	0	346	63	409
6	77.75	7.11	22.495	0.000	0.000	0.173	3.10	1.00	1.00	0.0	22.50	69.74	0.00	2271	0	421	137	558
5	67.58	6.83	23.832	0.000	0.000	0.163	3.14	1.00	1.00	0.0	23.83	74.91	0.00	2185	0	435	141	576
4	56.25	6.48	25.184	0.000	0.000	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3543	0	462	165	627
3	43.75	6.03	26.044	0.000	0.000	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3967	0	451	154	604
2	28.13	5.41	39.579	0.000	0.000	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	7046	0	625	455	1080
1	9.38	5.41	49.329	0.000	0.000	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	7597	0	769	331	1100
														29594	0			5380

Site Number: 88016  
 Site Name: Old Lyme, CT  
 Customer: VERIZON WIRELESS

Code: ANSI/TIA-222-H  
 Engineering Number: 13668861\_C3\_02

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## Equivalent Lateral Force Method

Spectral Response Acceleration for Short Period ( $S_{\xi}$ ):	0.20
Spectral Response Acceleration at 1.0 Second Period ( $S_{\xi_1}$ ):	0.05
Long-Period Transition Period ( $T_L$ - Seconds):	6
Importance Factor ( $I_p$ ):	1.00
Site Coefficient $F_a$ :	1.60
Site Coefficient $F_v$ :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.22
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.09
Seismic Response Coefficient ( $C_s$ ):	0.07
Upper Limit $C_s$ :	0.07
Lower Limit $C_s$ :	0.03
Period based on Rayleigh Method (sec):	0.40
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.00
Total Unfactored Dead Load:	57.41 k
Seismic Base Shear (E):	5.35 k

### LoadCase 1.2D + 1.0Ev + 1.0Eh

### Seismic

Section	Height Above Base (ft)	Weight (lb)	$W_z$ (lb-ft)	$C_{vx}$	Horizontal Force (lb)	Vertical Force (lb)
8	95.70	1,553	148,601	0.038	205	1,931
7	87.12	1,432	124,774	0.032	172	1,781
6	77.75	2,271	176,550	0.045	243	2,824
5	67.58	2,185	147,669	0.038	203	2,717
4	56.25	3,543	199,302	0.051	274	4,406
3	43.75	3,967	173,557	0.045	239	4,933
2	28.13	7,046	198,175	0.051	273	8,762
1	9.38	7,597	71,219	0.018	98	9,447
Decibel DB205	100.00	38	3,800	0.001	5	47
Decibel DB638	100.00	40	4,000	0.001	6	50
Ericsson 4424 B25	100.00	258	25,800	0.007	36	321
Ericsson Air6449 B41	100.00	312	31,200	0.008	43	388
Ericsson Radio 4449 B71 B85A	100.00	225	22,500	0.006	31	280
Ericsson RRUS 4415 B66	100.00	138	13,800	0.004	19	172
RFS APX16DWV-16DWVS-E-A20	100.00	122	12,210	0.003	17	152
RFS APXVAALL24 43-U-NA20	100.00	368	36,840	0.009	51	458
Generic 12' Horn	100.00	10,000	1,000,000	0.257	1,377	12,435
20' Platform w/ Handrails	100.00	9,000	900,000	0.231	1,239	11,192
RAD Data AIRMUX-400 (w/o integrated	85.00	5	442	0.000	1	6
Access Platform	82.80	5,000	414,000	0.106	570	6,218
Amphenol Antel LPA-80080-4CF-EDIN-0	81.00	72	5,832	0.002	8	90
Commscope NHH-65B-R2B	81.00	262	21,238	0.005	29	326
Raycap RVZDC-6627-PF-48	81.00	64	5,184	0.001	7	80
Samsung B2/B66A RRH-BR049	81.00	253	20,509	0.005	28	315
Samsung B5/B13 RRH-BR04C	81.00	211	17,083	0.004	24	262

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

Equivalent Lateral Force Method

Samsung MT6407-77A	81.00	245	19,829	0.005	27	304
Flat Light Sector Frame	78.00	1,200	93,600	0.024	129	1,492
		57,408	3,887,715	1.000	5,351	71,388

LoadCase 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
8	95.70	1,553	148,601	0.038	205	1,330
7	87.12	1,432	124,774	0.032	172	1,227
6	77.75	2,271	176,550	0.045	243	1,945
5	67.58	2,185	147,669	0.038	203	1,871
4	56.25	3,543	199,302	0.051	274	3,035
3	43.75	3,967	173,557	0.045	239	3,398
2	28.13	7,046	198,175	0.051	273	6,035
1	9.38	7,597	71,219	0.018	98	6,506
Decibel DB205	100.00	38	3,800	0.001	5	33
Decibel DB638	100.00	40	4,000	0.001	6	34
Ericsson 4424 B25	100.00	258	25,800	0.007	36	221
Ericsson Air6449 B41	100.00	312	31,200	0.008	43	267
Ericsson Radio 4449 B71 B85A	100.00	225	22,500	0.006	31	193
Ericsson RRUS 4415 B66	100.00	138	13,800	0.004	19	118
RFS APX16DWV-16DWVS-E-A20	100.00	122	12,210	0.003	17	105
RFS APXVAALL24 43-U-NA20	100.00	368	36,840	0.009	51	316
Generic 12' Horn	100.00	10,000	1,000,000	0.257	1,377	8,565
20' Platform w/ Handrails	100.00	9,000	900,000	0.231	1,239	7,708
RAD Data AIRMUX-400 (w/o integrated	85.00	5	442	0.000	1	4
Access Platform	82.80	5,000	414,000	0.106	570	4,282
Amphenol Antel LPA-80080-4CF-EDIN-0	81.00	72	5,832	0.002	8	62
Commscope NHH-65B-R2B	81.00	262	21,238	0.005	29	225
Raycap RVZDC-6627-PF-48	81.00	64	5,184	0.001	7	55
Samsung B2/B66A RRH-BR049	81.00	253	20,509	0.005	28	217
Samsung B5/B13 RRH-BR04C	81.00	211	17,083	0.004	24	181
Samsung MT6407-77A	81.00	245	19,829	0.005	27	210
Flat Light Sector Frame	78.00	1,200	93,600	0.024	129	1,028
		57,408	3,887,715	1.000	5,351	49,169

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Force/Stress Summary

Section: 1		Section 1 (Base)		Bot Elev (ft): 0.00		Height (ft): 18.750									
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
<b>Max Compression Member</b>															
LEG	SAE - 8X8X0.625	-114.24	1.2D + 1.0W 45 deg	18.86	33	33	33	47.3	36.0	321.66	0	0	0.00	0.00	35 Member Z
HORIZ	DAE - 2.5X2.5X0.25	-6.50	1.2D + 1.0W Normal	10.69	100	100	25	148.8	36.0	30.75	0	0	0.00	0.00	21 Member X
DIAG	DAS - 3X2.5X0.25	-13.58	1.2D + 1.0W Normal	22.37	32	64	16	143.7	36.0	36.43	0	0	0.00	0.00	37 Member Y
<b>Max Tension Member</b>															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 8X8X0.625	86.58	0.9D + 1.0W 45 deg	36	58	311.36	0	0	0.00	0.00			27	Member	
HORIZ	DAE - 2.5X2.5X0.25	6.85	1.2D + 1.0W Normal	36	58	77.11	0	0	0.00	0.00	0.00		8	Member	
DIAG	DAS - 3X2.5X0.25	12.67	1.2D + 1.0W Normal	36	58	85.21	0	0	0.00	0.00	0.00		14	Member	
<b>Max Splice Forces</b>															
		Pu (kip)	Load Case		phiRnt (kip)	Use %	Num Bolts	Bolt Type							
Top Tension		85.89	0.9D + 1.0W 45 deg		0.00	0	0								
Top Compression		113.51	1.2D + 1.0W 45 deg		0.00	0									
Bot Tension		101.95	0.9D + 1.0W 45 deg		434.69	6	4	2" A36							
Bot Compression		130.99	1.2D + 1.0W 45 deg		359.74	40									

Section: 2		Section 2		Bot Elev (ft): 18.75		Height (ft): 18.750									
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
<b>Max Compression Member</b>															
LEG	SAE - 6X6X0.625	-94.71	1.2D + 1.0W 45 deg	18.86	33	33	33	63.3	36.0	223.72	0	0	0.00	0.00	42 Member Z
HORIZ	DAE - 2.5X2.5X0.25	-6.50	1.2D + 1.0W Normal	9.265	100	100	25	135.1	36.0	37.31	0	0	0.00	0.00	17 Member X
DIAG	DAE - 2.5X2.5X0.25	-15.34	1.2D + 1.0W Normal	21.63	32	34	16	112.5	36.0	51.58	0	0	0.00	0.00	29 Member Y
<b>Max Tension Member</b>															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 6X6X0.625	70.28	0.9D + 1.0W 45 deg	36	58	230.36	0	0	0.00	0.00			30	Member	
HORIZ	DAE - 2.5X2.5X0.25	6.70	1.2D + 1.0W Normal	36	58	77.11	0	0	0.00	0.00	0.00		8	Member	
DIAG	DAE - 2.5X2.5X0.25	14.12	1.2D + 1.0W Normal	36	58	77.11	0	0	0.00	0.00	0.00		18	Member	
<b>Max Splice Forces</b>															
		Pu (kip)	Load Case		phiRnt (kip)	Use %	Num Bolts	Bolt Type							
Top Tension		69.60	0.9D + 1.0W 45 deg		0.00	0	0								
Top Compression		94.00	1.2D + 1.0W 45 deg		0.00	0									
Bot Tension		85.89	0.9D + 1.0W 45 deg		0.00	0									
Bot Compression		0.00			0.00	0									

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Force/Stress Summary

Section: 3		Section 3		Bot Elev (ft): 37.50				Height (ft): 12.500							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
<b>Max Compression Member</b>															
LEG	SAE - 6X6X0.5625	-80.48	1.2D + 1.0W 45 deg	12.57	50	50	50	63.9	36.0	201.73	0	0	0.00	0.00	39 Member Z
HORIZ	DAE - 2.5X2.5X0.25	-6.23	1.2D + 1.0W Normal	8.312	100	100	25	126.0	36.0	42.93	0	0	0.00	0.00	14 Member X
DIAG	DAL - 2.5X2X0.25	-11.66	1.2D + 1.0W Normal	15.58	48	96	12	172.6	36.0	20.46	0	0	0.00	0.00	57 Member Y
<b>Max Tension Member</b>															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 6X6X0.5625	58.99	0.9D + 1.0W 45 deg	36	58	208.33	0	0	0.00	0.00			28	Member	
HORIZ	DAE - 2.5X2.5X0.25	6.42	1.2D + 1.0W Normal	36	58	77.11	0	0	0.00	0.00	0.00		8	Member	
DIAG	DAL - 2.5X2X0.25	10.92	1.2D + 1.0W Normal	36	58	69.01	0	0	0.00	0.00	0.00		15	Member	
<b>Max Splice Forces</b>															
		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		58.33	0.9D + 1.0W 45 deg	0.00	0	0									
Top Compression		79.80	1.2D + 1.0W 45 deg	0.00	0										
Bot Tension		69.60	0.9D + 1.0W 45 deg	0.00	0										
Bot Compression		0.00		0.00	0										

Section: 4		Section 4		Bot Elev (ft): 50.00				Height (ft): 12.500							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
<b>Max Compression Member</b>															
LEG	SAE - 6X6X0.4375	-65.23	1.2D + 1.0W 45 deg	12.57	50	50	50	63.4	36.0	159.14	0	0	0.00	0.00	40 Member Z
HORIZ	DAE - 2.5X2.5X0.25	-6.18	1.2D + 1.0W Normal	7.359	100	100	25	114.8	36.0	50.15	0	0	0.00	0.00	12 Member X
DIAG	DAL - 2.5X2X0.25	-12.58	1.2D + 1.0W Normal	15.04	48	97	13	170.6	36.0	20.95	0	0	0.00	0.00	60 Member Y
<b>Max Tension Member</b>															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 6X6X0.4375	45.71	0.9D + 1.0W 45 deg	36	58	163.94	0	0	0.00	0.00			27	Member	
HORIZ	DAE - 2.5X2.5X0.25	7.33	1.2D + 1.0W Normal	36	58	77.11	0	0	0.00	0.00	0.00		9	Member	
DIAG	DAL - 2.5X2X0.25	11.94	1.2D + 1.0W Normal	36	58	69.01	0	0	0.00	0.00	0.00		17	Member	
<b>Max Splice Forces</b>															
		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		44.87	0.9D + 1.0W 45 deg	0.00	0	0									
Top Compression		64.28	1.2D + 1.0W 45 deg	0.00	0										
Bot Tension		58.33	0.9D + 1.0W 45 deg	0.00	0										
Bot Compression		0.00		0.00	0										



Site Number: 88016  
 Site Name: Old Lyme, CT  
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### Force/Stress Summary

Section: 5		Section 5		Bot Elev (ft): 62.50				Height (ft): 10.165							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
<b>Max Compression Member</b>															
LEG	SAE - 5X5X0.4375	-55.31	1.2D + 1.0W 45 deg	10.22	50	50	50	62.2	36.0	132.17	0	0	0.00	0.00	41 Member Z
HORIZ	SAU - 3X2.5X0.25	-2.69	0.9D + 1.0W 90 deg	13.16	92	92	92	215.5	36.0	8.07	0	0	0.00	0.00	33 Member Z
DIAG	SAE - 3.5X3.5X0.25	-9.24	1.2D + 1.0W Normal	17.27	49	49	49	147.6	36.0	22.20	0	0	0.00	0.00	41 Member Z
<b>Max Tension Member</b>															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 5X5X0.4375	38.03	0.9D + 1.0W 45 deg	36	58	135.43	0	0	0.00	0.00			28	Member	
HORIZ	SAU - 3X2.5X0.25	4.81	1.2D + 1.0W 90 deg	36	58	42.44	0	0	0.00	0.00	0.00		11	Member	
DIAG	SAE - 3.5X3.5X0.25	7.80	0.9D + 1.0W Normal	36	58	54.76	0	0	0.00	0.00	0.00		14	Member	
<b>Max Splice Forces</b>															
		Pu (kip)	Load Case			phiRnt (kip)	Use %	Num Bolts	Bolt Type						
Top Tension		32.24	0.9D + 1.0W 45 deg			0.00	0	0							
Top Compression		51.20	1.2D + 1.0W 45 deg			0.00	0								
Bot Tension		44.87	0.9D + 1.0W 45 deg			0.00	0								
Bot Compression		0.00				0.00	0								

Section: 6		Section 6		Bot Elev (ft): 72.66				Height (ft): 10.165							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
<b>Max Compression Member</b>															
LEG	SAE - 5X5X0.4375	-41.55	1.2D + 1.0W 45 deg	10.22	50	50	50	62.2	36.0	132.17	0	0	0.00	0.00	31 Member Z
HORIZ	DAL - 3X2.5X0.25	-1.99	0.9D + 1.0W 90 deg	11.61	93	93	47	169.0	36.0	26.35	0	0	0.00	0.00	7 Member Y
DIAG	SAE - 3.5X3.5X0.25	-9.97	1.2D + 1.0W Normal	16.04	48	48	48	134.3	36.0	26.80	0	0	0.00	0.00	37 Member Z
<b>Max Tension Member</b>															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 5X5X0.4375	25.14	0.9D + 1.0W 45 deg	36	58	135.43	0	0	0.00	0.00			18	Member	
HORIZ	DAL - 3X2.5X0.25	3.64	1.2D + 1.0W 90 deg	36	58	85.21	0	0	0.00	0.00	0.00		4	Member	
DIAG	SAE - 3.5X3.5X0.25	8.35	0.9D + 1.0W Normal	36	58	54.76	0	0	0.00	0.00	0.00		15	Member	
<b>Max Splice Forces</b>															
		Pu (kip)	Load Case			phiRnt (kip)	Use %	Num Bolts	Bolt Type						
Top Tension		17.78	0.9D + 1.0W 45 deg			0.00	0	0							
Top Compression		36.30	1.2D + 1.0W 45 deg			0.00	0								
Bot Tension		32.24	0.9D + 1.0W 45 deg			0.00	0								
Bot Compression		0.00				0.00	0								

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Force/Stress Summary

Section: 7		Section 7		Bot Elev (ft): 82.83				Height (ft): 8.583							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	SAE - 5X5X0.3125	-25.99	1.2D + 1.0W 45 deg	8.63	50	50	50	52.1	35.9	99.49	0	0	0.00	0.00	26 Member Z
HORIZ	SAU - 3X2.5X0.25	-0.87	0.9D + 1.0W 90 deg	10.30	96	96	96	184.5	36.0	11.01	0	0	0.00	0.00	7 Member Z
DIAG	SAE - 3X3X0.25	-8.49	1.2D + 1.0W Normal	13.93	49	49	49	138.4	36.0	21.50	0	0	0.00	0.00	39 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	SAE - 5X5X0.3125	13.96	0.9D + 1.0W 45 deg	36	58	98.17	0	0	0.00	0.00		14	Member
HORIZ	SAU - 3X2.5X0.25	2.80	1.2D + 1.0W 90 deg	36	58	42.44	0	0	0.00	0.00	0.00	6	Member
DIAG	SAE - 3X3X0.25	7.06	1.2D + 1.0W Normal	36	58	46.66	0	0	0.00	0.00	0.00	15	Member

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		7.95	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression		21.48	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension		17.78	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression		0.00		0.00	0		

Section: 8		Section 8		Bot Elev (ft): 91.41				Height (ft): 8.583							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	SAE - 5X5X0.3125	-13.33	1.2D + 1.0W 45 deg	8.63	50	50	50	52.1	35.9	99.49	0	0	0.00	0.00	13 Member Z
HORIZ	CHN - C8 x 11.5	-2.95	1.2D + 1.0W Normal	9.000	100	100	100	172.8	36.0	32.40	0	0	0.00	0.00	9 Member Y
DIAG	SAE - 3X3X0.25	-9.63	1.2D + 1.0W Normal	12.93	50	50	50	131.1	36.0	23.98	0	0	0.00	0.00	Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	SAE - 5X5X0.3125	1.99	0.9D + 1.0W 45 deg	36	58	98.17	0	0	0.00	0.00		2	Member
HORIZ	CHN - C8 x 11.5	2.57	1.2D + 1.0W 45 deg	36	58	109.51	0	0	0.00	0.00	0.00	2	Member
DIAG	SAE - 3X3X0.25	8.00	0.9D + 1.0W 90 deg	36	58	46.66	0	0	0.00	0.00	0.00	17	Member

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		0.00		0.00	0	0	
Top Compression		11.57	1.2D + 1.0Di + 1.0Wi	0.00	0		
Bot Tension		7.95	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression		0.00		0.00	0		

Site Number: 88016

Code: ANSI/TIA-222-H

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

### Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
<b>1.2D + 1.0W Normal</b>	17.15	00.00	45	1	-7.02	95.31	-14.09	
	17.15	00.00	135	1a	4.07	-59.79	-11.12	
	17.15	00.00	225	1b	-4.71	-59.84	-10.43	
	17.15	00.00	315	1c	7.66	93.21	-13.24	
<b>1.2D + 1.0W 45 deg</b>	17.15	00.00	45	1	-14.17	130.32	-15.24	
	17.15	00.00	135	1a	-6.67	18.32	-3.64	
	17.15	00.00	225	1b	-12.29	-95.90	-11.37	
	17.15	00.00	315	1c	-2.72	16.16	-5.60	
<b>1.2D + 1.0W 90 deg</b>	17.15	00.00	45	1	-13.24	94.26	-7.74	
	17.15	00.00	135	1a	-14.09	96.41	7.10	
	17.15	00.00	225	1b	-11.12	-60.89	-4.15	
	17.15	00.00	315	1c	-10.43	-60.89	4.79	
<b>0.9D + 1.0W Normal</b>	17.15	00.00	45	1	-6.66	90.98	-13.71	
	17.15	00.00	135	1a	4.45	-64.34	-11.50	
	17.15	00.00	225	1b	-5.09	-64.11	-10.79	
	17.15	00.00	315	1c	7.30	89.14	-12.88	
<b>0.9D + 1.0W 45 deg</b>	17.15	00.00	45	1	-13.81	125.97	-14.86	
	17.15	00.00	135	1a	-6.29	13.74	-4.02	
	17.15	00.00	225	1b	-12.66	-100.16	-11.73	
	17.15	00.00	315	1c	-3.08	12.12	-5.24	
<b>0.9D + 1.0W 90 deg</b>	17.15	00.00	45	1	-12.88	89.92	-7.36	
	17.15	00.00	135	1a	-13.71	91.80	6.72	
	17.15	00.00	225	1b	-11.50	-65.16	-4.51	
	17.15	00.00	315	1c	-10.79	-64.90	5.15	
<b>1.2D + 1.0Di + 1.0Wi Normal</b>	17.15	00.00	45	1	-3.43	43.36	-5.04	
	17.15	00.00	135	1a	-1.28	13.55	-0.21	
	17.15	00.00	225	1b	1.17	12.07	-0.20	
	17.15	00.00	315	1c	3.54	41.57	-4.78	
<b>1.2D + 1.0Di + 1.0Wi 45 deg</b>	17.15	00.00	45	1	-4.98	50.75	-5.28	
	17.15	00.00	135	1a	-3.52	29.29	1.31	
	17.15	00.00	225	1b	-0.46	4.50	-0.41	
	17.15	00.00	315	1c	1.36	26.01	-3.22	
<b>1.2D + 1.0Di + 1.0Wi 90 deg</b>	17.15	00.00	45	1	-4.78	43.18	-3.66	
	17.15	00.00	135	1a	-5.04	45.03	3.55	
	17.15	00.00	225	1b	-0.21	11.88	1.15	
	17.15	00.00	315	1c	-0.20	10.46	-1.04	
<b>1.2D + 1.0Ev + 1.0Eh Normal M1</b>	17.15	00.00	45	1	-1.32	14.38	-1.66	
	17.15	00.00	135	1a	-0.76	6.99	0.42	
	17.15	00.00	225	1b	0.76	6.99	0.42	
	17.15	00.00	315	1c	1.32	14.38	-1.66	
<b>1.2D + 1.0Ev + 1.0Eh 45 deg M1</b>	17.15	00.00	45	1	-1.68	15.91	-1.68	
	17.15	00.00	135	1a	-1.28	10.69	0.80	
	17.15	00.00	225	1b	0.40	5.46	0.40	
	17.15	00.00	315	1c	0.80	10.69	-1.28	
<b>1.2D + 1.0Ev + 1.0Eh 90 deg M1</b>	17.15	00.00	45	1	-1.66	14.38	-1.32	
	17.15	00.00	135	1a	-1.66	14.38	1.32	
	17.15	00.00	225	1b	0.42	6.99	0.76	
	17.15	00.00	315	1c	0.42	6.99	-0.76	

Site Number: 88016

Code:

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Site Name: Old Lyme, CT

Engineering Number: 13668861\_C3\_02

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Customer: VERIZON WIRELESS

<b>0.9D - 1.0Ev + 1.0Eh Normal M1</b>	17.15	00.00	45	1	-1.00	11.06	-1.34
	17.15	00.00	135	1a	-0.43	3.66	0.09
	17.15	00.00	225	1b	0.43	3.66	0.09
	17.15	00.00	315	1c	1.00	11.06	-1.34
<b>0.9D - 1.0Ev + 1.0Eh 45 deg M1</b>	17.15	00.00	45	1	-1.35	12.59	-1.35
	17.15	00.00	135	1a	-0.96	7.36	0.47
	17.15	00.00	225	1b	0.08	2.13	0.08
	17.15	00.00	315	1c	0.47	7.36	-0.96
<b>0.9D - 1.0Ev + 1.0Eh 90 deg M1</b>	17.15	00.00	45	1	-1.34	11.06	-1.00
	17.15	00.00	135	1a	-1.34	11.06	1.00
	17.15	00.00	225	1b	0.09	3.66	0.43
	17.15	00.00	315	1c	0.09	3.66	-0.43
<b>1.0D + 1.0W Service Normal</b>	17.15	00.00	45	1	-2.48	32.32	-4.16
	17.15	00.00	135	1a	0.02	-2.72	-1.64
	17.15	00.00	225	1b	-0.17	-3.40	-1.54
	17.15	00.00	315	1c	2.63	31.20	-3.92
<b>1.0D + 1.0W Service 45 deg</b>	17.15	00.00	45	1	-4.13	40.38	-4.43
	17.15	00.00	135	1a	-2.45	15.26	0.07
	17.15	00.00	225	1b	-1.91	-11.70	-1.75
	17.15	00.00	315	1c	0.24	13.46	-2.15
<b>1.0D + 1.0W Service 90 deg</b>	17.15	00.00	45	1	-3.92	32.08	-2.69
	17.15	00.00	135	1a	-4.16	33.24	2.55
	17.15	00.00	225	1b	-1.64	-3.64	-0.09
	17.15	00.00	315	1c	-1.53	-4.28	0.24

Max Uplift:	100.16 (kip)	Moment Ice:	799.74 (kip-ft)	Moment:	3,879.19 (kip-ft)	1.2D + 1.0W 45 deg
Max Down:	130.32 (kip)	Total Down Ice:	110.56 (kip)	Total Down:	68.89 (kip)	
Max Shear:	20.81 (kip)	Total Shear Ice:	10.22 (kip)	Total Shear:	50.69 (kip)	

### Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
125 mph Normal with No Ice	82.83	0.108	-0.0130	0.1459	0.1464
125 mph Normal with No Ice	100.00	0.155	-0.0291	0.1542	0.1567
125 mph 45 degree with No Ice	82.83	0.112	-0.0237	0.1508	0.1518
125 mph 45 degree with No Ice	100.00	0.160	-0.0406	0.1615	0.1662
125 mph 90 degree with No Ice	82.83	0.110	-0.0205	0.1515	0.1520
125 mph 90 degree with No Ice	100.00	0.159	-0.0283	0.1618	0.1644
125 mph Normal with No Ice (Reduced DL)	82.83	0.108	-0.0130	0.1464	0.1469
125 mph Normal with No Ice (Reduced DL)	100.00	0.156	-0.0291	0.1548	0.1573
125 mph 45 deg with No Ice (Reduced DL)	82.83	0.112	-0.0236	0.1507	0.1517
125 mph 45 deg with No Ice (Reduced DL)	100.00	0.160	-0.0406	0.1614	0.1661
125 mph 90 deg with No Ice (Reduced DL)	82.83	0.110	-0.0205	0.1505	0.1511
125 mph 90 deg with No Ice (Reduced DL)	100.00	0.159	-0.0283	0.1603	0.1629
50 mph Normal with 1.00 in Radial Ice	82.83	0.021	-0.0019	0.0250	0.0250
50 mph Normal with 1.00 in Radial Ice	100.00	0.028	-0.0051	0.0257	0.0261
50 mph 45 deg with 1.00 in Radial Ice	82.83	0.024	-0.0038	0.0293	0.0295
50 mph 45 deg with 1.00 in Radial Ice	100.00	0.032	-0.0070	0.0328	0.0336
50 mph 90 deg with 1.00 in Radial Ice	82.83	0.024	-0.0036	0.0333	0.0334
50 mph 90 deg with 1.00 in Radial Ice	100.00	0.034	-0.0049	0.0397	0.0400
Seismic Normal M1	82.83	0.005	0.0002	0.0052	0.0052
Seismic Normal M1	100.00	0.006	0.0000	0.0045	0.0045
Seismic 45 deg M1	82.83	0.005	0.0003	0.0053	0.0053
Seismic 45 deg M1	100.00	0.006	0.0000	0.0045	0.0045
Seismic 90 deg M1	82.83	0.005	0.0002	0.0052	0.0052
Seismic 90 deg M1	100.00	0.006	0.0000	0.0045	0.0045
Seismic (Reduced DL) Normal M1	82.83	0.005	0.0002	0.0051	0.0051
Seismic (Reduced DL) Normal M1	100.00	0.006	0.0000	0.0045	0.0045
Seismic (Reduced DL) 45 deg M1	82.83	0.005	0.0003	0.0051	0.0051
Seismic (Reduced DL) 45 deg M1	100.00	0.006	0.0000	0.0045	0.0045
Seismic (Reduced DL) 90 deg M1	82.83	0.005	0.0002	0.0051	0.0051
Seismic (Reduced DL) 90 deg M1	100.00	0.006	0.0000	0.0045	0.0045
Serviceability - 60 mph Wind Normal	82.83	0.024	-0.0026	0.0323	0.0324
Serviceability - 60 mph Wind Normal	100.00	0.035	-0.0067	0.0340	0.0346
Serviceability - 60 mph Wind 45 deg	82.83	0.026	-0.0050	0.0347	0.0349
Serviceability - 60 mph Wind 45 deg	100.00	0.037	-0.0094	0.0373	0.0384
Serviceability - 60 mph Wind 90 deg	82.83	0.026	-0.0046	0.0369	0.0370
Serviceability - 60 mph Wind 90 deg	100.00	0.038	-0.0065	0.0408	0.0414

### Maximum Reactions Summary

Anchor Group	Vertical (kip)				Horizontal (kip)		Moment (kip-ft)	
	DL+WL	DL+WL+IL	UpLift	Shear	DL+WL	DL+WL+IL	DL+WL	DL+WL+IL
Base	68.89	110.56	130.32	20.81	50.69	10.22	3879.19	799.74

## Foundation

### Design Loads (Factored)

Compression/Leg:	130.30	k
Uplift/Leg:	100.20	k
Shear/Leg:	20.80	k

Face Width @ Top of Pier ( $d_1$ ):	3.00	ft
Face Width @ Bottom of Pier ( $d_2$ ):	5.50	ft
Total Length of Pier ( $l$ ):	5.50	ft
Height of Pedestal Above Ground ( $h$ ):	0.33	ft
Width of Pad ( $W$ ):	15.00	ft
Length of Pad ( $L$ ):	15.00	ft
Thickness of Pad ( $t$ ):	3.00	ft
Water Table Depth ( $w$ ):	99.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	140.0	pcf
Unit Weight of Soil (Below Water Table):	77.6	pcf
Friction Angle of Uplift ( $A$ ):	30	°
Ultimate Compressive Bearing Pressure:	36000	psf
Ultimate Skin Friction:	1400	psf

Volume Pier (Total):	102.21	ft <sup>3</sup>
Volume Pad (Total):	675.00	ft <sup>3</sup>
Volume Soil (Total):	1575.36	ft <sup>3</sup>
Volume Pier (Buoyant):	0.00	ft <sup>3</sup>
Volume Pad (Buoyant):	0.00	ft <sup>3</sup>
Volume Soil (Buoyant):	0.00	ft <sup>3</sup>
Weight Pier:	15.33	k
Weight Pad:	101.25	k
Weight Soil:	220.55	k

### Uplift Check

$\phi_s$ Uplift Resistance (k)	Ratio	Result
340.55	0.29	<b>OK</b>

### Axial Check

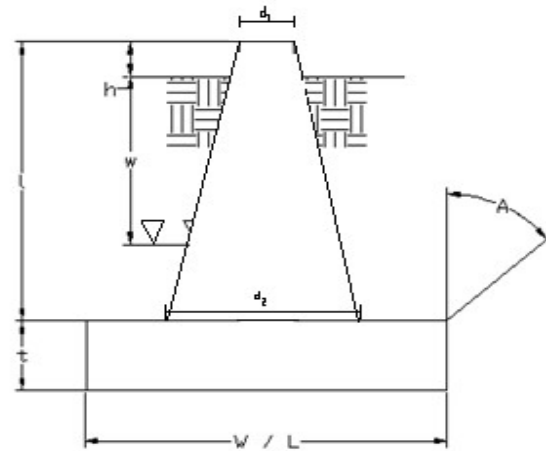
$\phi_s$ Axial Resistance (k)	Ratio	Result
6075.00	0.02	<b>OK</b>

### Anchor Bolt Check

Bolt Diameter (in)	2
# of Bolts	4
Steel Grade	A36
Steel Fy	36
Steel Fu	58
Detail Type	C

Usage Ratio	Result
0.30	<b>OK</b>

Site No.:	88016
Engineer:	F.WAKID
Date:	04/29/21
Carrier:	VERIZON WIRELESS



Ultimate Skin Friction:	252.00	k
Difference in Soil Volume 1:	693.17	ft <sup>3</sup>
Difference in Soil Volume 2:	142.12	ft <sup>3</sup>
Diff. in Bouyant Soil Vol. 1:	0.00	ft <sup>3</sup>
Diff. in Bouyant Soil Vol. 2:	0.00	ft <sup>3</sup>
Difference in Soil Weight:	116.94	k
Diff. in Bouyant Soil Wt:	0.00	k



Maser Consulting Connecticut  
2000 Midlantic Drive, Suite 100  
Mt. Laurel, NJ 08054  
856.797.0412  
peter.albano@colliersengineering.com

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## Replacement Antenna Mount Analysis Report and PMI Requirements

Mount Analysis-R

SMART Tool Project #: 10050441  
Maser Consulting Connecticut Project #: 21777467A

August 13, 2021

### Site Information

Site ID: 467749-VZW / LAYSVILLE NORTH CT  
Site Name: LAYSVILLE NORTH CT  
Carrier Name: Verizon Wireless  
Address: 333 Grassy Hill Road  
Old Lyme, Connecticut 06371  
New London County  
Latitude: 41.391825°  
Longitude: -72.285928°

### Structure Information

Tower Type: 100-Ft Self-Support  
Mount Type: 12.50-Ft Sector Frame

**FUZE ID # 16272182**

### Analysis Results

Sector Frame: **38.5% Pass**

### \*\*\*Contractor PMI Requirements:

*Included at the end of this MA report*

*Available & Submitted via portal at <https://pmi.vzwsmart.com>*

*Contractor - Please Review Specific Site PMI Requirements Upon Award  
Requirements may also be Noted on A & E drawings*

Report Prepared By: Jared Adkins

STATE OF CONNECTICUT  
Derek H. Hartzell  
12770  
LICENSED  
PROFESSIONAL ENGINEER

Digitally signed by Derek Hartzell  
Date: 2021.08.13 14:00:54-07'00'

**Executive Summary:**

The objective of this report is to determine the capacity of the proposed antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. The proposed mount was assumed to be installed properly to the existing tower per the manufacturer's instructions. Maser Consulting Connecticut cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

**Sources of Information:**

Document Type	Remarks
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS Site ID: 674950, dated March 23, 2021</i>
<i>Tower Structural Analysis</i>	<i>American Tower Corporation, Site #: 88016, dated May 14, 2021</i>
<i>Mount Specification Sheets</i>	<i>Site Pro 1, Part #: VFA12-HD</i>

**Analysis Criteria:**

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), $V_{ULT}$ : 125 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, $K_e$ : 0.987
Seismic Parameters:	$S_s$ : 0.204 $S_1$ : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, $L_v$ : 250 lbs. Maintenance Live Load, $L_m$ : 500 lbs.
Analysis Software:	RISA-3D (V17)



**Final Loading Configuration:**

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
80.00	80.00	6	Commscope	NHH-65B-R2B	Added
		3	Samsung	MT6407-77A	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		2	RFS	DB-B1-6C-12AB-0Z	
		3	Antel	LPA-80080/4CF	Retained

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

**Standard Conditions:**

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by Maser Consulting Connecticut, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
- Channel, Solid Round, Angle, Plate      ASTM A36 (Gr. 36)
  - HSS (Rectangular)                              ASTM 500 (Gr. B-46)
  - Pipe    ASTM A53 (Gr. B-35)
  - Threaded Rod                                    F1554 (Gr. 36)
  - Bolts     ASTM A325

**Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Maser Consulting Connecticut.**

**Analysis Results:**

Component	Utilization %	Pass/Fail
Standoff Horizontal	15.6%	Pass
Standoff Bracing	7.3%	Pass
Standoff Plate	38.5%	Pass
Mount Pipe	35.5%	Pass
Tie-Back	11.0%	Pass
Face Horizontal	23.3%	Pass
Connection Check	10.6%	Pass

<b>Structure Rating – (Controlling Utilization of all Components)</b>	<b>38.5%</b>
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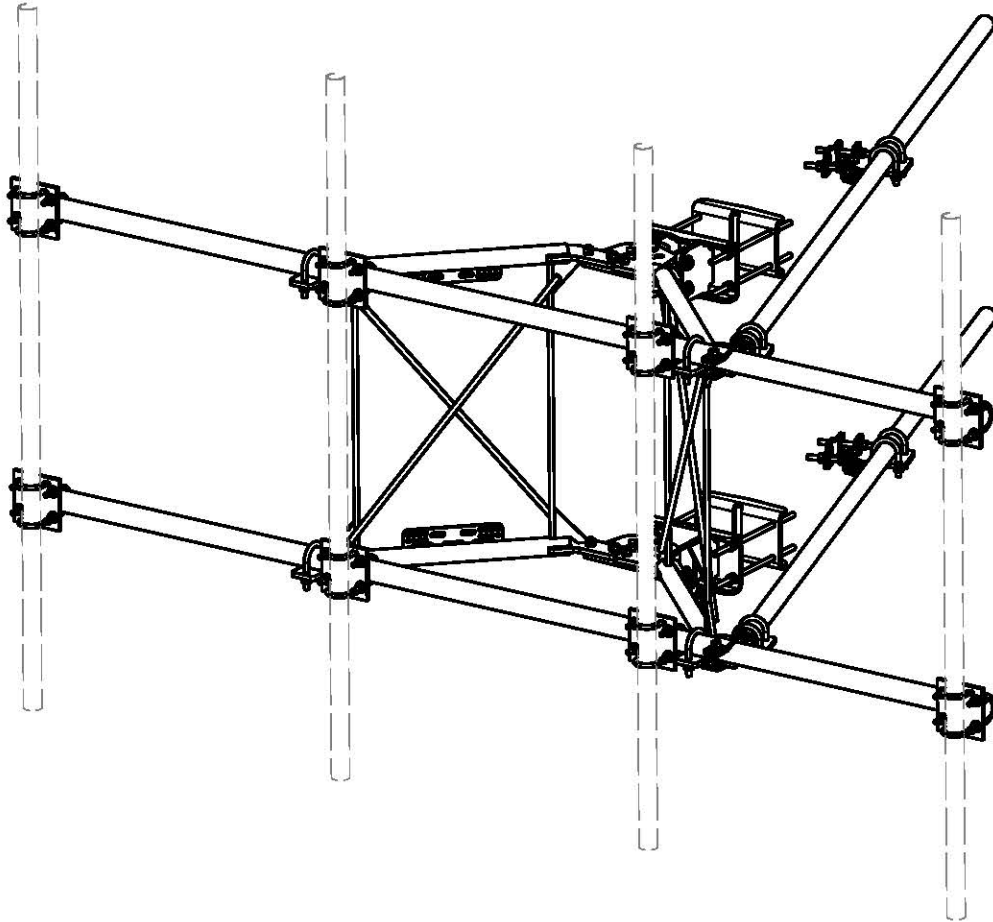
**Recommendation:**

The proposed antenna mounts are **SUFFICIENT** for the final loading configuration and do not require modifications.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

**Attachments:**

1. Mount Specification Sheets
2. Analysis Calculations
3. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
4. Antenna Placement Diagrams
5. TIA Adoption and Wind Speed Usage Letter



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86	33.86
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
4	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
5	2	X-LCBP4	BENT BACKING PLATE	13 in	19.00	38.01
6	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.49
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
10	8	SCX2	CROSSOVER PLATE	7 in	4.80	38.37
11	4	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CENTER TO CENTER CLAMP HALF	8 1/8 in	2.36	18.90
13	2	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	81.50
14	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	153.87
15	4	A34212	3/4" X 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
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	4	G58R-8	5/8" X 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" X 7" HDG HEX BOLT GR5 FULL THREAD	7 in	0.70	1.41
25	1	G5806	5/8" X 6" HDG HEX BOLT GR5 FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" X 4" HDG HEX BOLT GR5		0.44	3.55
27	4	G5802	5/8" X 2" HDG HEX BOLT GR5		0.27	1.08
28	8	A582114	5/8" X 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
29	25	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.76
30	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
31	71	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.22
32	32	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	23.64
33	16	X-UB1212	1/2" X 2" X 3" X 1-1/4" U-BOLT (HDG.)		0.60	9.56
34	64	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.18
35	64	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.89
36	64	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	4.58
					TOTAL WT. #	738.06

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
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B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017

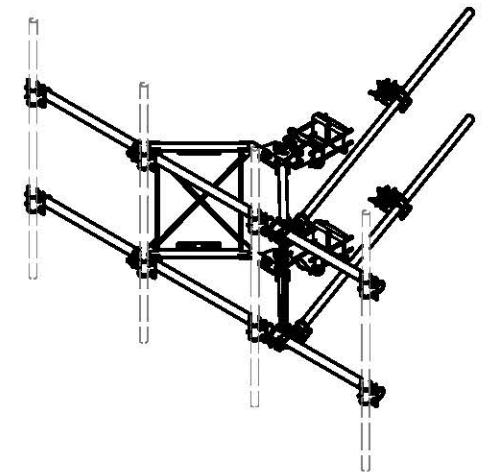
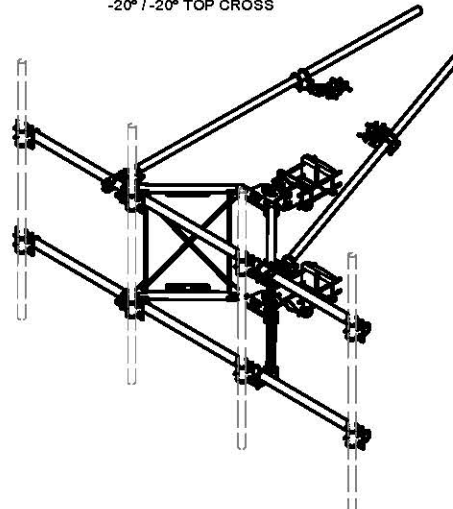
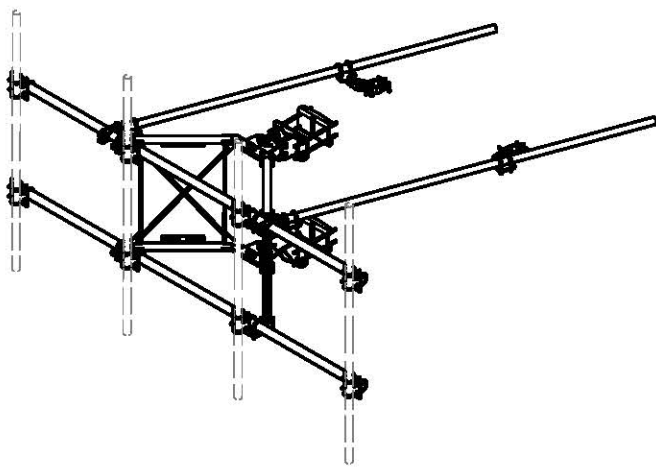
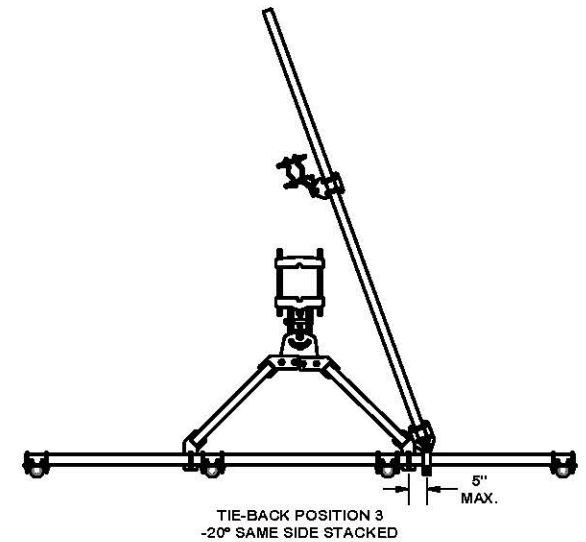
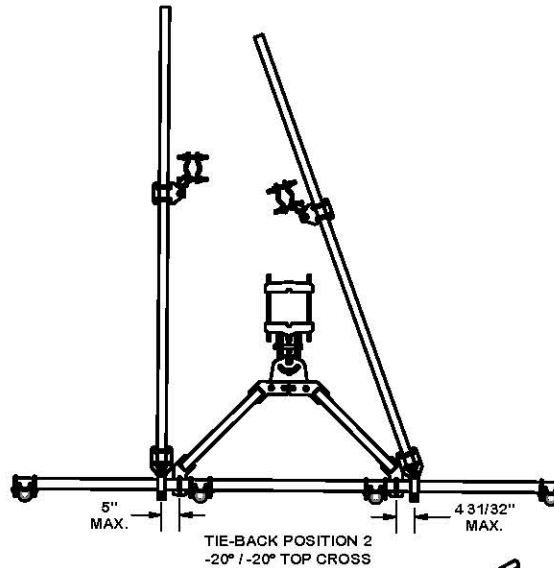
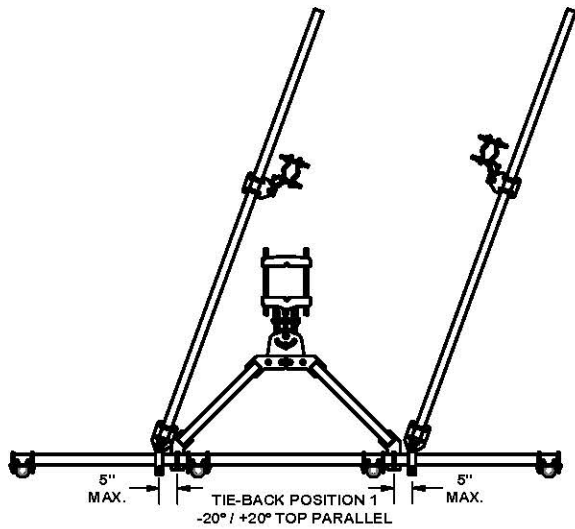
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 ALL OTHER ASSEMBLY ( $\pm 0.060"$ )

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DESCRIPTION		
12' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS		
CPD NO.	DRAWN BY	ENG. APPROVAL
	CEK 1/25/2017	
CLASS	DRAWING USAGE	CHECKED BY
81	CUSTOMER	BMC 12/13/2017

 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.	VFA12-HD
DWG. NO.	VFA12-HD

# TIE-BACK POSITIONS



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
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B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
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## TOLERANCE NOTES

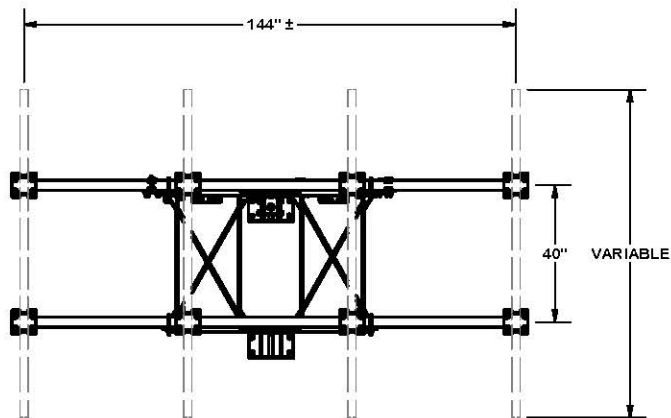
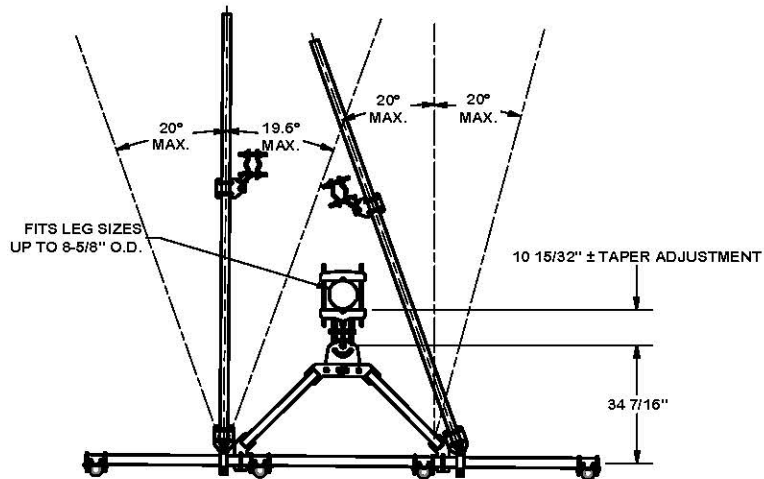
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DESCRIPTION  
 12' 6" HEAVY DUTY  
 V-FRAME ASSEMBLY  
 WITH TWO STIFF ARMS

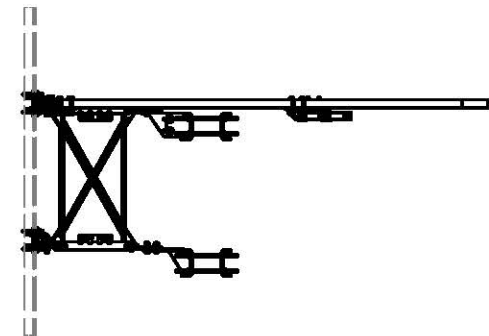
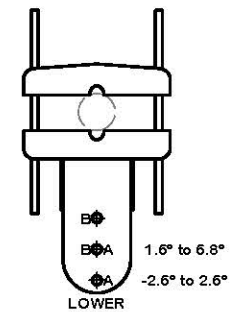
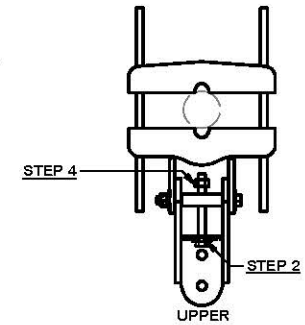
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	CEK 1/25/2017	
CLASS	DRAWING USAGE	CHECKED BY
81	CUSTOMER	BMC 12/13/2017

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PART NO.	VFA12-HD
DWG. NO.	VFA12-HD



**ANGLE CALIBRATING PROCEDURE:**

1. MEASURE TOWER TAPER AND PICK LOWER BRACKET HOLE:
  - HOLE A = -2.6° TO 2.6°
  - HOLE B = 1.6° TO 6.8°
2. USE CALIBRATING BOLT TO ADJUST FRAME TO DESIRED TAPER
3. TORQUE LOCKING BOLTS TO 100 ft.-lbs.
4. ADVANCE LOCKING NUT TO POSITIONING PLATE, THEN TIGHTEN.



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REVISION HISTORY				

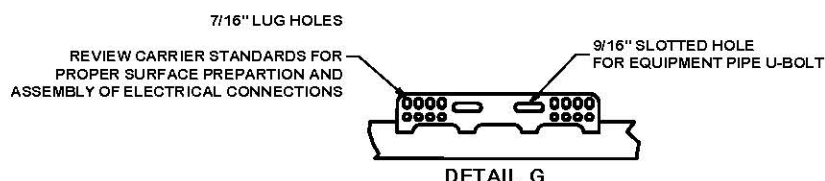
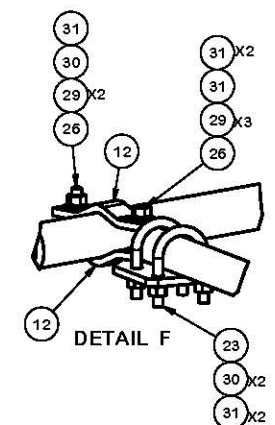
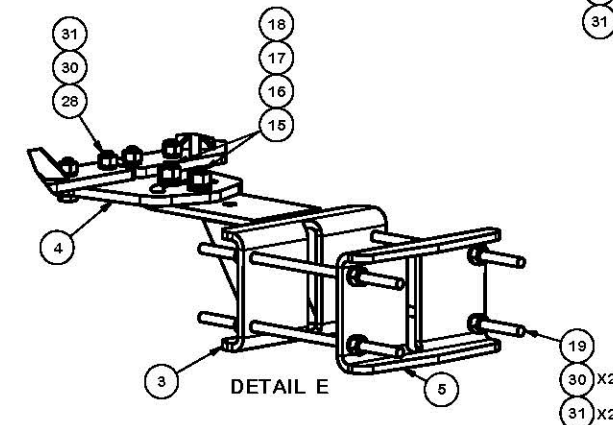
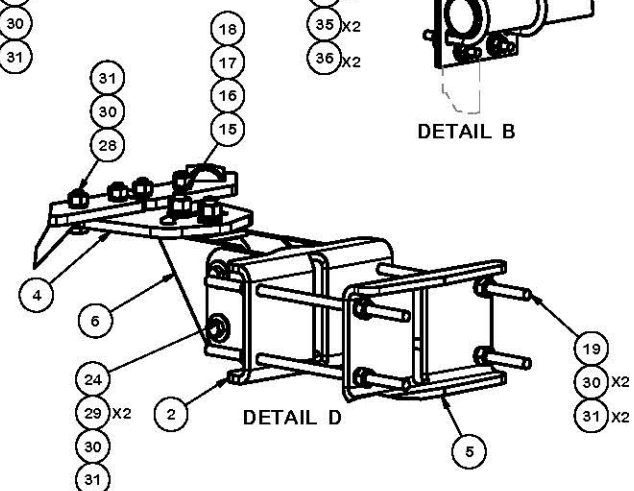
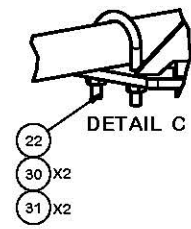
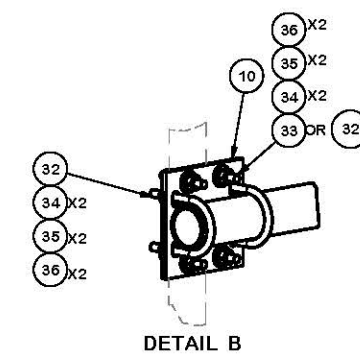
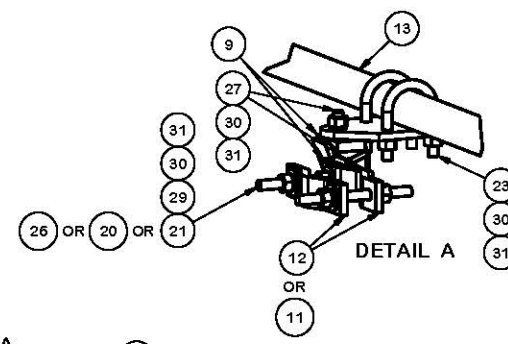
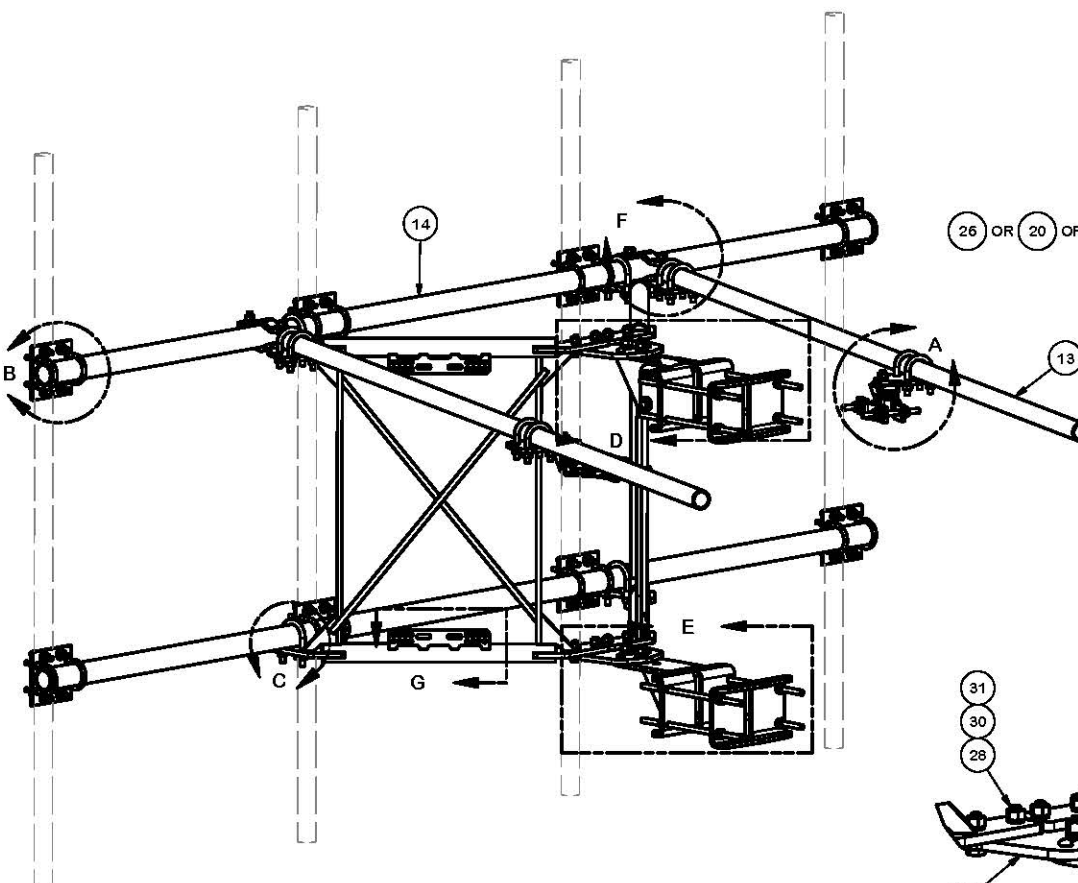
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12' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS		CEK 1/25/2017			
CPD NO.	DRAWING USAGE	CHECKED BY	DATE		
81 02	CUSTOMER	BMC	12/13/2017		

SITE PRO 1		Locations:	
Engineering Support Team: 1-888-753-7446		New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX	
PART NO.	DWG. NO.	PAGE	
VFA12-HD	VFA12-HD	3 OF 5	



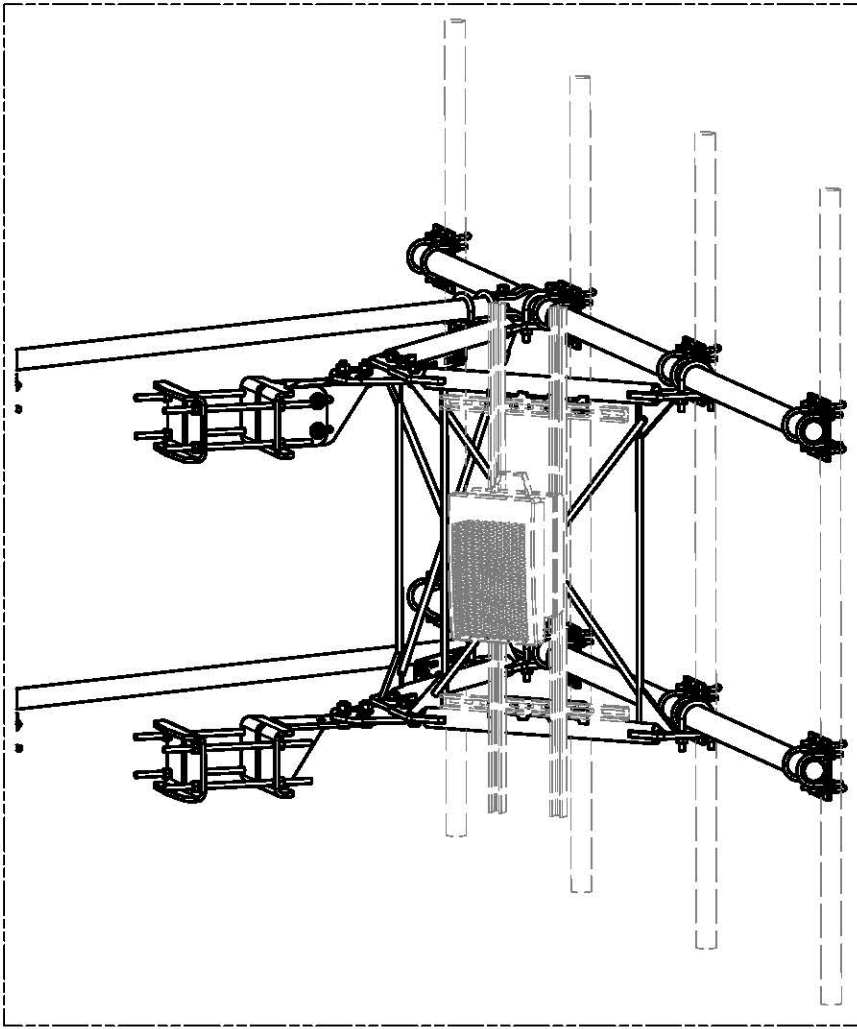
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REVISION HISTORY				

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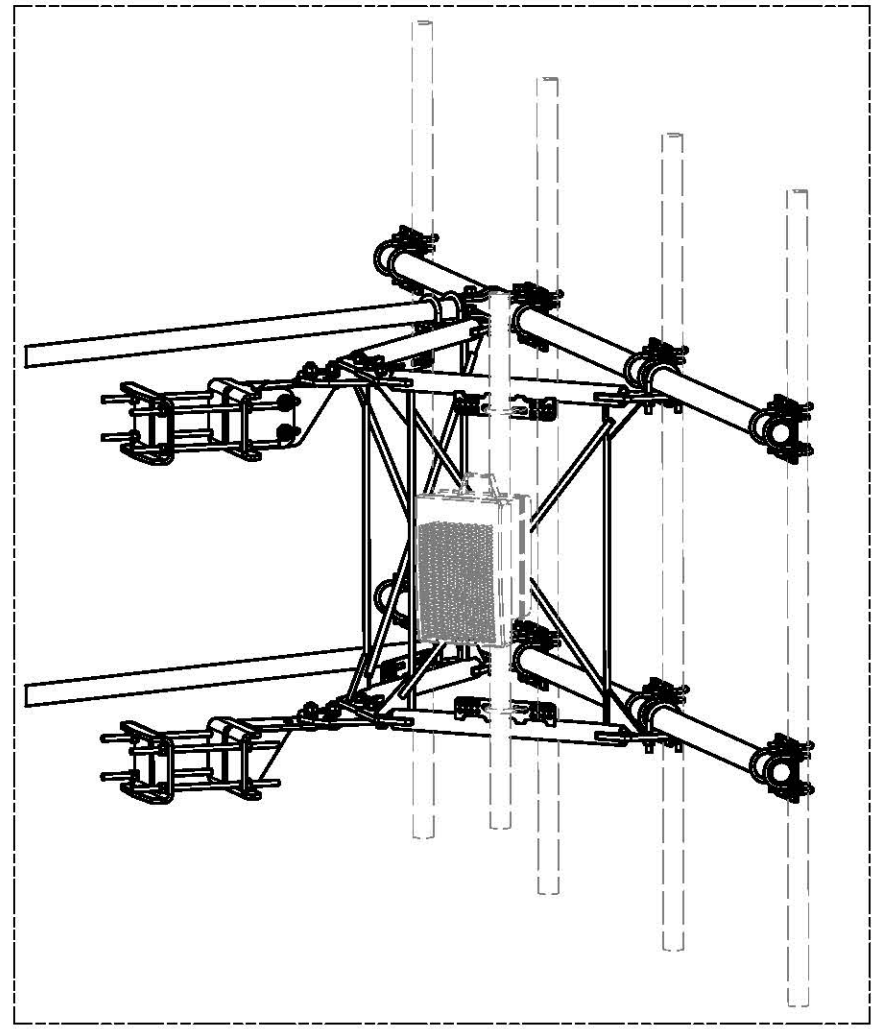
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	Engineering Support Team: 1-888-753-7446
PART NO.	VFA12-HD
DWG. NO.	VFA12-HD



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

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REVISION HISTORY


**TOLERANCE NOTES**

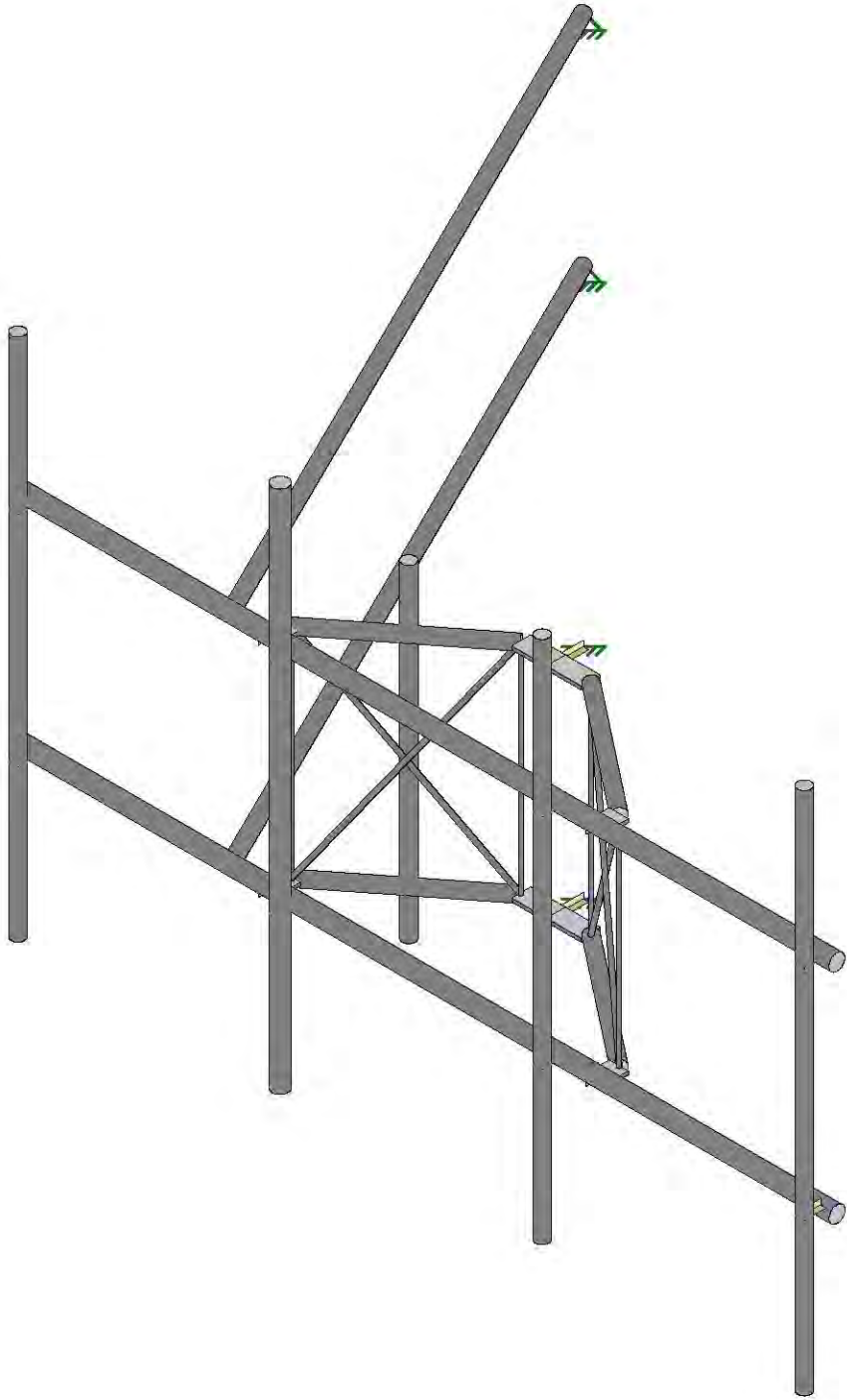
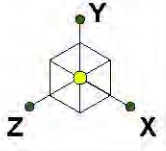
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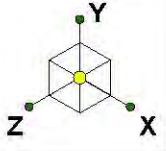
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PART NO.	VFA12-HD
DWG. NO.	VFA12-HD

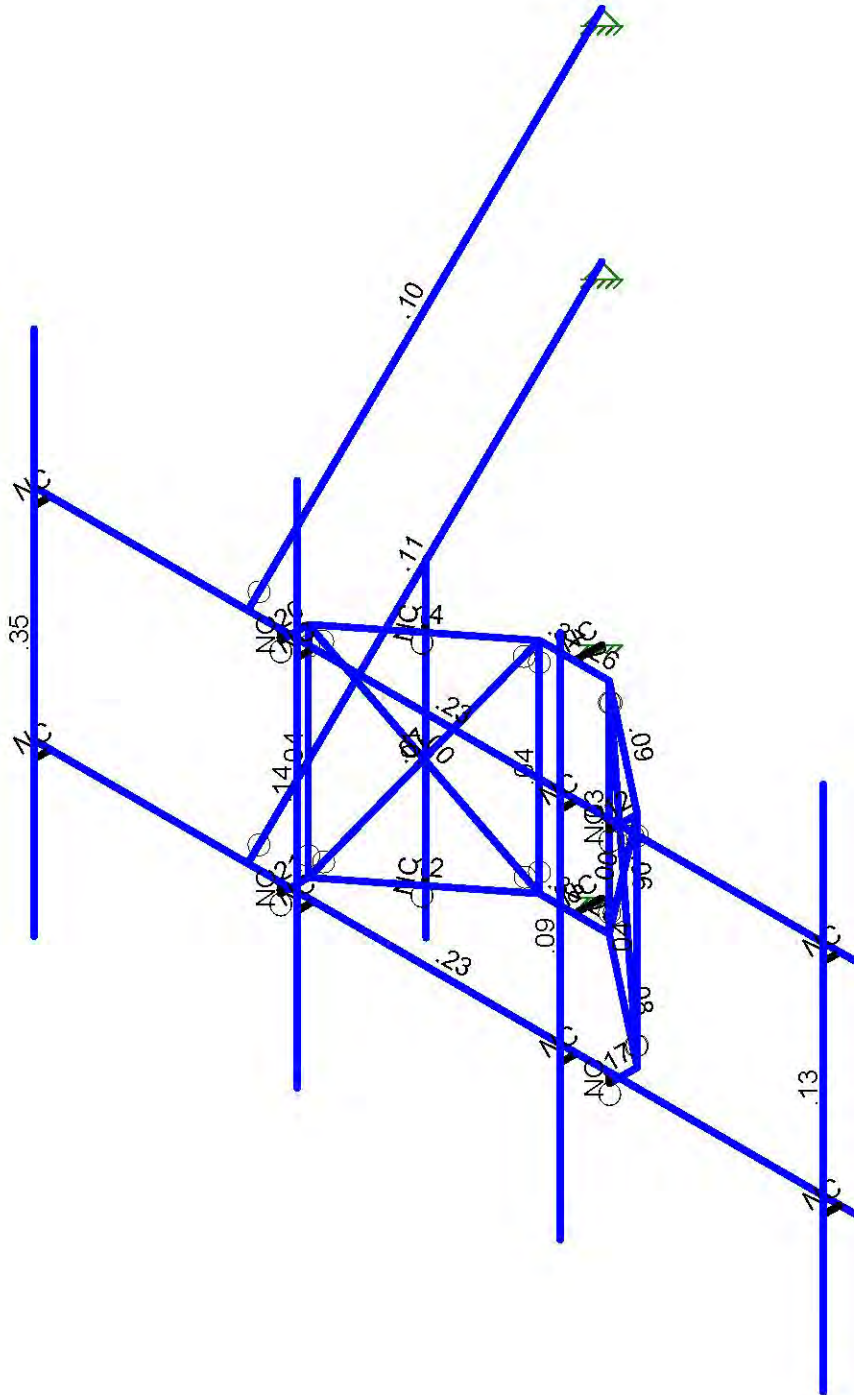
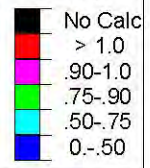



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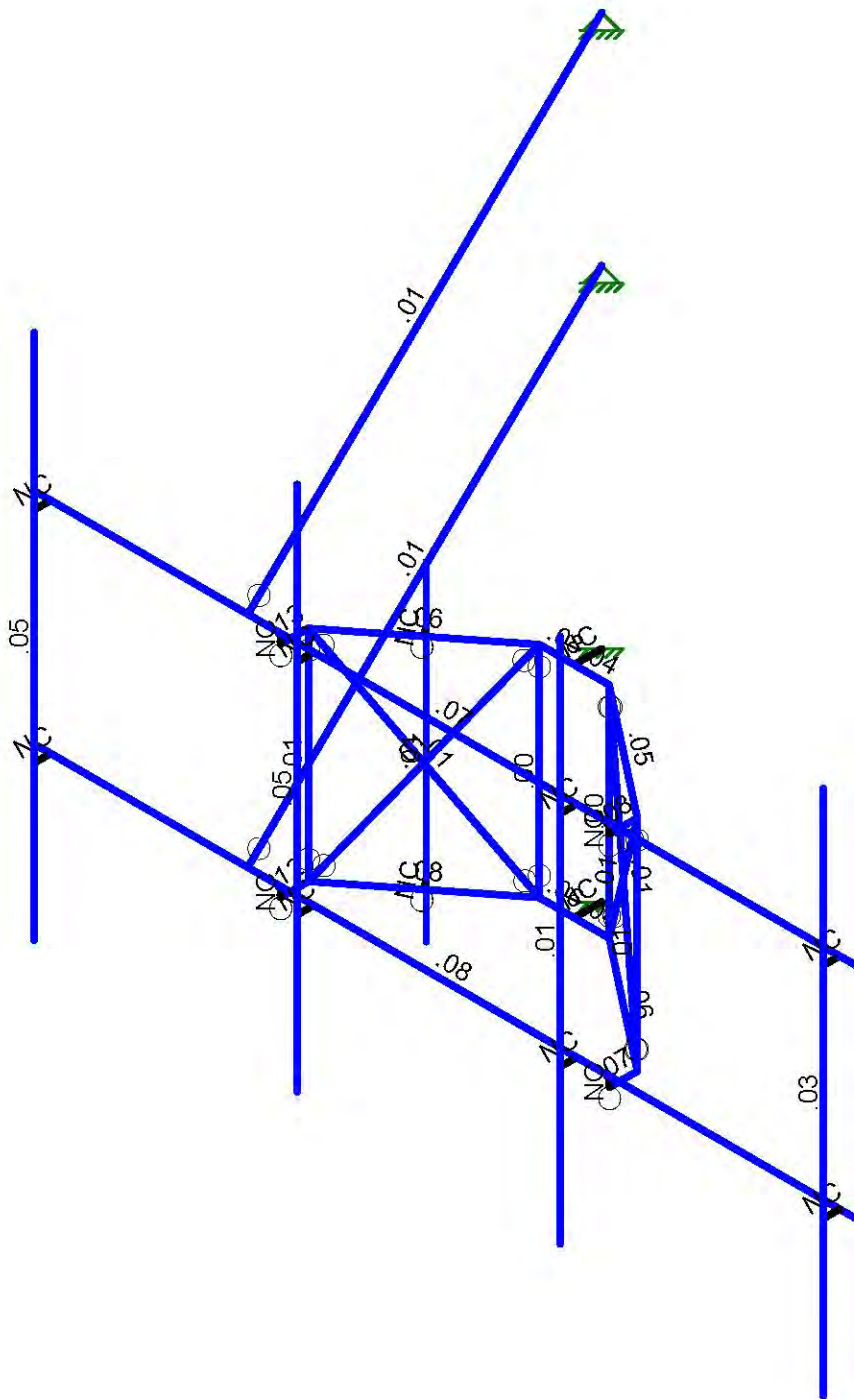
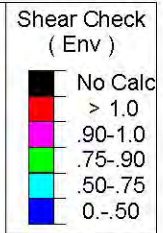
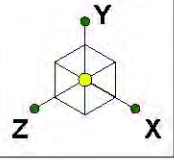


Code Check  
( Env )



Member Code Checks Displayed (Enveloped)  
Results for LC 1, 1.2D+1.0Wo (0 Deg)

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		467749-VZW_MT_LOT_A_H - Cop...



Member Shear Checks Displayed (Enveloped)  
Results for LC 1, 1.2D+1.0Wo (0 Deg)

		SK - 4
		Aug 13, 2021 at 1:58 PM
		467749-VZW_MT_LOT_A_H - Co...



Company :  
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### Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...Density[k/f...	Yield[ksi]	Ry	Fu[ksi]	Rt	
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3
7	Q235	29000	11154	.3	.65	.49	35	1.5	58	1.2

### Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Face Horizo...	PIPE 2.5	Beam	Pipe	Q235	Typical	1.61	1.45	1.45	2.89
3	Standoff Hor...	PIPE 2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
4	Standoff Dia...	SR 0.75	Beam	BAR	Q235	Typical	.442	.016	.016	.031
5	Tieback	PIPE 2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
6	Standoff Ver...	SR 0.625	Beam	BAR	Q235	Typical	.307	.007	.007	.015
7	Standoff Plate	PL5/8X3.5	Beam	BAR	Q235	Typical	2.188	.071	2.233	.253
8	tower pipe	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
9	DualMount ...	PIPE 2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89

### Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torq...	Kyy	Kzz	Cb	Function
1	M1	Face Horizo...	150				Lbyy					Lateral
2	M2	Face Horizo...	150				Lbyy					Lateral
3	M13	Standoff Pla...	5.063									Lateral
4	M14	Standoff Pla...	5.063									Lateral
5	M15	Standoff Pla...	5.063									Lateral
6	M16	Standoff Pla...	5.063									Lateral
7	M17	Standoff Ho...	30.007				Lbyy		.65	.65		Lateral
8	M18	Standoff Ho...	30.007				Lbyy		.65	.65		Lateral
9	M19	Standoff Ho...	30.007				Lbyy		.65	.65		Lateral
10	M20	Standoff Ho...	30.007				Lbyy		.65	.65		Lateral
11	M21	Standoff Pla...	6.375	3.5								Lateral
12	M22	Standoff Pla...	6.375	3.5								Lateral
13	M23	Standoff Pla...	6.375	3.5								Lateral
14	M24	Standoff Pla...	6.375	3.5								Lateral
15	M25	Standoff Di...	50.004				Lbyy		.7	.7		Lateral
16	M26	Standoff Di...	50.004				Lbyy		.7	.7		Lateral
17	M27	Standoff Di...	50.004				Lbyy		.7	.7		Lateral
18	M28	Standoff Di...	50.004				Lbyy		.7	.7		Lateral
19	MP4A	Mount Pipe	96				Lbyy					Lateral
20	MP3A	Dual Mount ...	96				Lbyy					Lateral
21	MP2A	Mount Pipe	96				Lbyy					Lateral
22	MP1A	Mount Pipe	96				Lbyy					Lateral
23	M44	Standoff Ve...	40				Lbyy		.7	.7		Lateral
24	M45	Standoff Ve...	40				Lbyy		.7	.7		Lateral
25	M46	Standoff Ve...	40				Lbyy		.7	.7		Lateral
26	M47	Standoff Ve...	40				Lbyy		.7	.7		Lateral
27	M43	Tieback	146.09				Lbyy					Lateral
28	OVP	Mount Pipe	60				Lbyy					Lateral
29	M47A	Tieback	146.09				Lbyy					Lateral

### Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N1			Face Horizontal	Beam	Pipe	Q235	Typical
2	M2	N4	N3			Face Horizontal	Beam	Pipe	Q235	Typical
3	M3	N5	N13			RIGID	None	None	RIGID	Typical
4	M4	N6	N14			RIGID	None	None	RIGID	Typical
5	M5	N8	N16			RIGID	None	None	RIGID	Typical
6	M6	N7	N15			RIGID	None	None	RIGID	Typical
7	M9	N10	N18			RIGID	None	None	RIGID	Typical
8	M10	N9	N17			RIGID	None	None	RIGID	Typical
9	M11	N12	N20			RIGID	None	None	RIGID	Typical
10	M12	N11	N19			RIGID	None	None	RIGID	Typical
11	M13	N22	N26		90	Standoff Plate	Beam	BAR	Q235	Typical
12	M14	N21	N25		90	Standoff Plate	Beam	BAR	Q235	Typical
13	M15	N23	N27		90	Standoff Plate	Beam	BAR	Q235	Typical
14	M16	N24	N28		90	Standoff Plate	Beam	BAR	Q235	Typical
15	M17	N26	N32			Standoff Horiz...	Beam	Pipe	Q235	Typical
16	M18	N25	N31			Standoff Horiz...	Beam	Pipe	Q235	Typical
17	M19	N27	N33			Standoff Horiz...	Beam	Pipe	Q235	Typical
18	M20	N28	N34			Standoff Horiz...	Beam	Pipe	Q235	Typical
19	M21	N32	N30		90	Standoff Plate	Beam	BAR	Q235	Typical
20	M22	N34	N30		90	Standoff Plate	Beam	BAR	Q235	Typical
21	M23	N31	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
22	M24	N33	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
23	M25	N31	N26			Standoff Diago...	Beam	BAR	Q235	Typical
24	M26	N32	N25			Standoff Diago...	Beam	BAR	Q235	Typical
25	M27	N33	N28			Standoff Diago...	Beam	BAR	Q235	Typical
26	M28	N27	N34			Standoff Diago...	Beam	BAR	Q235	Typical
27	M29	N29	N35			RIGID	None	None	RIGID	Typical
28	M30	N30	N36			RIGID	None	None	RIGID	Typical
29	MP4A	N39	N43			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
30	MP3A	N40	N44			DualMount Pi...	Column	Pipe	A53 Gr. B	Typical
31	MP2A	N41	N45			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
32	MP1A	N42	N46			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
33	M44	N25	N26			Standoff Vertical	Beam	BAR	Q235	Typical
34	M45	N31	N32			Standoff Vertical	Beam	BAR	Q235	Typical
35	M46	N33	N34			Standoff Vertical	Beam	BAR	Q235	Typical
36	M47	N27	N28			Standoff Vertical	Beam	BAR	Q235	Typical
37	M47B	N22	N60			RIGID	None	None	RIGID	Typical
38	M48A	N21	N59			RIGID	None	None	RIGID	Typical
39	M49A	N24	N62			RIGID	None	None	RIGID	Typical
40	M50A	N23	N61			RIGID	None	None	RIGID	Typical
41	M43	N59A	N63			Tieback	Beam	Pipe	Q235	Typical
42	M45A	N64	N65			RIGID	None	None	RIGID	Typical
43	M45B	N66	N67			RIGID	None	None	RIGID	Typical
44	OVP	N64A	N65A			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
45	M45C	N30	N36			RIGID	None	None	RIGID	Typical
46	M46A	N29	N35			RIGID	None	None	RIGID	Typical
47	M47A	N68	N69			Tieback	Beam	Pipe	Q235	Typical

### Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N1	41.	1.75	97.	0	
2	N2	-109.	1.75	97.	0	
3	N3	41.	41.75	97.	0	
4	N4	-109.	41.75	97.	0	



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**Joint Coordinates and Temperatures (Continued)**

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
5	N5	-106.	1.75	97.	0	
6	N6	-106.	41.75	97.	0	
7	N7	-58.	1.75	97.	0	
8	N8	-58.	41.75	97.	0	
9	N9	-10.	1.75	97.	0	
10	N10	-10.	41.75	97.	0	
11	N11	38.	1.75	97.	0	
12	N12	38.	41.75	97.	0	
13	N13	-106.	1.75	100.	0	
14	N14	-106.	41.75	100.	0	
15	N15	-58.	1.75	100.	0	
16	N16	-58.	41.75	100.	0	
17	N17	-10.	1.75	100.	0	
18	N18	-10.	41.75	100.	0	
19	N19	38.	1.75	100.	0	
20	N20	38.	41.75	100.	0	
21	N21	-64.	0	97.	0	
22	N22	-64.	40.	97.	0	
23	N23	-4.	0	97.	0	
24	N24	-4.	40.	97.	0	
25	N25	-64.	0	91.9375	0	
26	N26	-64.	40.	91.9375	0	
27	N27	-4.	0	91.9375	0	
28	N28	-4.	40.	91.9375	0	
29	N29	-34.	0	73.4375	0	
30	N30	-34.	40.	73.4375	0	
31	N31	-40.375	0	73.4375	0	
32	N32	-40.375	40.	73.4375	0	
33	N33	-27.625	0	73.4375	0	
34	N34	-27.625	40.	73.4375	0	
35	N35	-34.	0	68.4375	0	
36	N36	-34.	40.	68.4375	0	
37	N39	-106.	69.75	100.	0	
38	N40	-58.	69.75	100.	0	
39	N41	-10.	69.75	100.	0	
40	N42	38.	69.75	100.	0	
41	N43	-106.	-26.25	100.	0	
42	N44	-58.	-26.25	100.	0	
43	N45	-10.	-26.25	100.	0	
44	N46	38.	-26.25	100.	0	
45	N58	-64.	40.	92.5	0	
46	N76	-35.125	0	73.4375	0	
47	N77	-38.75	0	73.4375	0	
48	N78	-32.875	0	73.4375	0	
49	N79	-29.25	0	73.4375	0	
50	N80	-35.125	40.	73.4375	0	
51	N81	-38.75	40.	73.4375	0	
52	N82	-32.875	40.	73.4375	0	
53	N83	-29.25	40.	73.4375	0	
54	N58A	-34.	41.75	97.	0	
55	N59	-64.	1.75	97.	0	
56	N60	-64.	41.75	97.	0	
57	N61	-4.	1.75	97.	0	
58	N62	-4.	41.75	97.	0	
59	N59A	-70.	41.75	97.	0	
60	N60A	2.	41.75	97.	0	
61	N63	-135.823376	38.75	-33.385876	0	



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**Joint Coordinates and Temperatures (Continued)**

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
62	N64	-52.1875	40.	82.6875	0	
63	N65	-53.728832	40.	80.719177	0	
64	N64A	-53.728832	50.	80.719177	0	
65	N65A	-53.728832	-10.	80.719177	0	
66	N66	-52.1875	0	82.6875	0	
67	N67	-53.728832	0	80.719177	0	
68	N68	-70.	1.75	97.	0	
69	N69	-135.823376	-1.25	-33.385876	0	

**Joint Loads and Enforced Displacements**

Joint Label	L,D,M	Direction	Magnitude[(lb.k-ft), (in.rad), (lb*s^2...
No Data to Print ...			

**Member Distributed Loads (BLC 40 : Structure Di)**

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in.%]	End Location[in.%]
1	M1	-5.296	-5.296	0	%100
2	M2	-5.296	-5.296	0	%100
3	M13	-6.204	-6.204	0	%100
4	M14	-6.204	-6.204	0	%100
5	M15	-6.204	-6.204	0	%100
6	M16	-6.204	-6.204	0	%100
7	M17	-4.629	-4.629	0	%100
8	M18	-4.629	-4.629	0	%100
9	M19	-4.629	-4.629	0	%100
10	M20	-4.629	-4.629	0	%100
11	M21	-6.204	-6.204	0	%100
12	M22	-6.204	-6.204	0	%100
13	M23	-6.204	-6.204	0	%100
14	M24	-6.204	-6.204	0	%100
15	M25	-2.46	-2.46	0	%100
16	M26	-2.46	-2.46	0	%100
17	M27	-2.46	-2.46	0	%100
18	M28	-2.46	-2.46	0	%100
19	MP4A	-4.629	-4.629	0	%100
20	MP3A	-4.629	-4.629	0	%100
21	MP2A	-4.629	-4.629	0	%100
22	MP1A	-4.629	-4.629	0	%100
23	M44	-2.293	-2.293	0	%100
24	M45	-2.293	-2.293	0	%100
25	M46	-2.293	-2.293	0	%100
26	M47	-2.293	-2.293	0	%100
27	M43	-4.629	-4.629	0	%100
28	OVP	-4.629	-4.629	0	%100
29	M47A	-4.629	-4.629	0	%100

**Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in.%]	End Location[in.%]
1	M1	0	0	0	%100
2	M1	-8.998	-8.998	0	%100
3	M2	0	0	0	%100
4	M2	-8.998	-8.998	0	%100
5	M13	0	0	0	%100
6	M13	0	0	0	%100



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**Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]	
7	M14	X	0	0	%100	
8	M14	Z	0	0	%100	
9	M15	X	0	0	%100	
10	M15	Z	0	0	%100	
11	M16	X	0	0	%100	
12	M16	Z	0	0	%100	
13	M17	X	0	0	%100	
14	M17	Z	-3.553	-3.553	0	%100
15	M18	X	0	0	%100	
16	M18	Z	-3.553	-3.553	0	%100
17	M19	X	0	0	%100	
18	M19	Z	-3.553	-3.553	0	%100
19	M20	X	0	0	%100	
20	M20	Z	-3.553	-3.553	0	%100
21	M21	X	0	0	%100	
22	M21	Z	-1.956	-1.956	0	%100
23	M22	X	0	0	%100	
24	M22	Z	-1.956	-1.956	0	%100
25	M23	X	0	0	%100	
26	M23	Z	-1.956	-1.956	0	%100
27	M24	X	0	0	%100	
28	M24	Z	-1.956	-1.956	0	%100
29	M25	X	0	0	%100	
30	M25	Z	-2.026	-2.026	0	%100
31	M26	X	0	0	%100	
32	M26	Z	-2.026	-2.026	0	%100
33	M27	X	0	0	%100	
34	M27	Z	-2.026	-2.026	0	%100
35	M28	X	0	0	%100	
36	M28	Z	-2.026	-2.026	0	%100
37	MP4A	X	0	0	%100	
38	MP4A	Z	-7.433	-7.433	0	%100
39	MP3A	X	0	0	%100	
40	MP3A	Z	-7.433	-7.433	0	%100
41	MP2A	X	0	0	%100	
42	MP2A	Z	-7.433	-7.433	0	%100
43	MP1A	X	0	0	%100	
44	MP1A	Z	-7.433	-7.433	0	%100
45	M44	X	0	0	%100	
46	M44	Z	-1.956	-1.956	0	%100
47	M45	X	0	0	%100	
48	M45	Z	-1.956	-1.956	0	%100
49	M46	X	0	0	%100	
50	M46	Z	-1.956	-1.956	0	%100
51	M47	X	0	0	%100	
52	M47	Z	-1.956	-1.956	0	%100
53	M43	X	0	0	%100	
54	M43	Z	-1.51	-1.51	0	%100
55	OVP	X	0	0	%100	
56	OVP	Z	-7.433	-7.433	0	%100
57	M47A	X	0	0	%100	
58	M47A	Z	-1.51	-1.51	0	%100

**Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]	
1	M1	X	3.374	3.374	0	%100



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**Member Distributed Loads (BLC 42 : Structure Wo (30 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
2	M1	Z	-5.844	-5.844	0 %100
3	M2	X	3.374	3.374	0 %100
4	M2	Z	-5.844	-5.844	0 %100
5	M13	X	.245	.245	0 %100
6	M13	Z	-.423	-.423	0 %100
7	M14	X	.245	.245	0 %100
8	M14	Z	-.423	-.423	0 %100
9	M15	X	.245	.245	0 %100
10	M15	Z	-.423	-.423	0 %100
11	M16	X	.245	.245	0 %100
12	M16	Z	-.423	-.423	0 %100
13	M17	X	.4	.4	0 %100
14	M17	Z	-.693	-.693	0 %100
15	M18	X	.4	.4	0 %100
16	M18	Z	-.693	-.693	0 %100
17	M19	X	2.809	2.809	0 %100
18	M19	Z	-4.865	-4.865	0 %100
19	M20	X	2.809	2.809	0 %100
20	M20	Z	-4.865	-4.865	0 %100
21	M21	X	.734	.734	0 %100
22	M21	Z	-1.27	-1.27	0 %100
23	M22	X	.734	.734	0 %100
24	M22	Z	-1.27	-1.27	0 %100
25	M23	X	.734	.734	0 %100
26	M23	Z	-1.27	-1.27	0 %100
27	M24	X	.734	.734	0 %100
28	M24	Z	-1.27	-1.27	0 %100
29	M25	X	.81	.81	0 %100
30	M25	Z	-1.403	-1.403	0 %100
31	M26	X	.81	.81	0 %100
32	M26	Z	-1.403	-1.403	0 %100
33	M27	X	1.165	1.165	0 %100
34	M27	Z	-2.018	-2.018	0 %100
35	M28	X	1.165	1.165	0 %100
36	M28	Z	-2.018	-2.018	0 %100
37	MP4A	X	3.717	3.717	0 %100
38	MP4A	Z	-6.437	-6.437	0 %100
39	MP3A	X	3.717	3.717	0 %100
40	MP3A	Z	-6.437	-6.437	0 %100
41	MP2A	X	3.717	3.717	0 %100
42	MP2A	Z	-6.437	-6.437	0 %100
43	MP1A	X	3.717	3.717	0 %100
44	MP1A	Z	-6.437	-6.437	0 %100
45	M44	X	.978	.978	0 %100
46	M44	Z	-1.694	-1.694	0 %100
47	M45	X	.978	.978	0 %100
48	M45	Z	-1.694	-1.694	0 %100
49	M46	X	.978	.978	0 %100
50	M46	Z	-1.694	-1.694	0 %100
51	M47	X	.978	.978	0 %100
52	M47	Z	-1.694	-1.694	0 %100
53	M43	X	2.601	2.601	0 %100
54	M43	Z	-4.506	-4.506	0 %100
55	OVP	X	3.717	3.717	0 %100
56	OVP	Z	-6.437	-6.437	0 %100
57	M47A	X	2.601	2.601	0 %100
58	M47A	Z	-4.506	-4.506	0 %100





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**Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	M1	X	1.948	1.948	0	%100
2	M1	Z	-1.125	-1.125	0	%100
3	M2	X	1.948	1.948	0	%100
4	M2	Z	-1.125	-1.125	0	%100
5	M13	X	1.27	1.27	0	%100
6	M13	Z	-.734	-.734	0	%100
7	M14	X	1.27	1.27	0	%100
8	M14	Z	-.734	-.734	0	%100
9	M15	X	1.27	1.27	0	%100
10	M15	Z	-.734	-.734	0	%100
11	M16	X	1.27	1.27	0	%100
12	M16	Z	-.734	-.734	0	%100
13	M17	X	.098	.098	0	%100
14	M17	Z	-.056	-.056	0	%100
15	M18	X	.098	.098	0	%100
16	M18	Z	-.056	-.056	0	%100
17	M19	X	4.27	4.27	0	%100
18	M19	Z	-2.466	-2.466	0	%100
19	M20	X	4.27	4.27	0	%100
20	M20	Z	-2.466	-2.466	0	%100
21	M21	X	.423	.423	0	%100
22	M21	Z	-.245	-.245	0	%100
23	M22	X	.423	.423	0	%100
24	M22	Z	-.245	-.245	0	%100
25	M23	X	.423	.423	0	%100
26	M23	Z	-.245	-.245	0	%100
27	M24	X	.423	.423	0	%100
28	M24	Z	-.245	-.245	0	%100
29	M25	X	1.315	1.315	0	%100
30	M25	Z	-.759	-.759	0	%100
31	M26	X	1.315	1.315	0	%100
32	M26	Z	-.759	-.759	0	%100
33	M27	X	1.931	1.931	0	%100
34	M27	Z	-1.115	-1.115	0	%100
35	M28	X	1.931	1.931	0	%100
36	M28	Z	-1.115	-1.115	0	%100
37	MP4A	X	6.437	6.437	0	%100
38	MP4A	Z	-3.717	-3.717	0	%100
39	MP3A	X	6.437	6.437	0	%100
40	MP3A	Z	-3.717	-3.717	0	%100
41	MP2A	X	6.437	6.437	0	%100
42	MP2A	Z	-3.717	-3.717	0	%100
43	MP1A	X	6.437	6.437	0	%100
44	MP1A	Z	-3.717	-3.717	0	%100
45	M44	X	1.694	1.694	0	%100
46	M44	Z	-.978	-.978	0	%100
47	M45	X	1.694	1.694	0	%100
48	M45	Z	-.978	-.978	0	%100
49	M46	X	1.694	1.694	0	%100
50	M46	Z	-.978	-.978	0	%100
51	M47	X	1.694	1.694	0	%100
52	M47	Z	-.978	-.978	0	%100
53	M43	X	6.417	6.417	0	%100
54	M43	Z	-3.705	-3.705	0	%100
55	OVP	X	6.437	6.437	0	%100
56	OVP	Z	-3.717	-3.717	0	%100
57	M47A	X	6.417	6.417	0	%100



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**Member Distributed Loads (BLC 43 : Structure Wo (60 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
58 M47A	Z	-3.705	-3.705	0	%100

**Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1 M1	X	0	0	0	%100
2 M1	Z	0	0	0	%100
3 M2	X	0	0	0	%100
4 M2	Z	0	0	0	%100
5 M13	X	1.956	1.956	0	%100
6 M13	Z	0	0	0	%100
7 M14	X	1.956	1.956	0	%100
8 M14	Z	0	0	0	%100
9 M15	X	1.956	1.956	0	%100
10 M15	Z	0	0	0	%100
11 M16	X	1.956	1.956	0	%100
12 M16	Z	0	0	0	%100
13 M17	X	2.178	2.178	0	%100
14 M17	Z	0	0	0	%100
15 M18	X	2.178	2.178	0	%100
16 M18	Z	0	0	0	%100
17 M19	X	2.178	2.178	0	%100
18 M19	Z	0	0	0	%100
19 M20	X	2.178	2.178	0	%100
20 M20	Z	0	0	0	%100
21 M21	X	0	0	0	%100
22 M21	Z	0	0	0	%100
23 M22	X	0	0	0	%100
24 M22	Z	0	0	0	%100
25 M23	X	0	0	0	%100
26 M23	Z	0	0	0	%100
27 M24	X	0	0	0	%100
28 M24	Z	0	0	0	%100
29 M25	X	1.823	1.823	0	%100
30 M25	Z	0	0	0	%100
31 M26	X	1.823	1.823	0	%100
32 M26	Z	0	0	0	%100
33 M27	X	1.823	1.823	0	%100
34 M27	Z	0	0	0	%100
35 M28	X	1.823	1.823	0	%100
36 M28	Z	0	0	0	%100
37 MP4A	X	7.433	7.433	0	%100
38 MP4A	Z	0	0	0	%100
39 MP3A	X	7.433	7.433	0	%100
40 MP3A	Z	0	0	0	%100
41 MP2A	X	7.433	7.433	0	%100
42 MP2A	Z	0	0	0	%100
43 MP1A	X	7.433	7.433	0	%100
44 MP1A	Z	0	0	0	%100
45 M44	X	1.956	1.956	0	%100
46 M44	Z	0	0	0	%100
47 M45	X	1.956	1.956	0	%100
48 M45	Z	0	0	0	%100
49 M46	X	1.956	1.956	0	%100
50 M46	Z	0	0	0	%100
51 M47	X	1.956	1.956	0	%100
52 M47	Z	0	0	0	%100



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**Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]
53	M43	X	5.923	5.923	0	%100
54	M43	Z	0	0	0	%100
55	OVP	X	7.433	7.433	0	%100
56	OVP	Z	0	0	0	%100
57	M47A	X	5.923	5.923	0	%100
58	M47A	Z	0	0	0	%100

**Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]
1	M1	X	1.948	1.948	0	%100
2	M1	Z	1.125	1.125	0	%100
3	M2	X	1.948	1.948	0	%100
4	M2	Z	1.125	1.125	0	%100
5	M13	X	1.27	1.27	0	%100
6	M13	Z	.734	.734	0	%100
7	M14	X	1.27	1.27	0	%100
8	M14	Z	.734	.734	0	%100
9	M15	X	1.27	1.27	0	%100
10	M15	Z	.734	.734	0	%100
11	M16	X	1.27	1.27	0	%100
12	M16	Z	.734	.734	0	%100
13	M17	X	4.27	4.27	0	%100
14	M17	Z	2.466	2.466	0	%100
15	M18	X	4.27	4.27	0	%100
16	M18	Z	2.466	2.466	0	%100
17	M19	X	.098	.098	0	%100
18	M19	Z	.056	.056	0	%100
19	M20	X	.098	.098	0	%100
20	M20	Z	.056	.056	0	%100
21	M21	X	.423	.423	0	%100
22	M21	Z	.245	.245	0	%100
23	M22	X	.423	.423	0	%100
24	M22	Z	.245	.245	0	%100
25	M23	X	.423	.423	0	%100
26	M23	Z	.245	.245	0	%100
27	M24	X	.423	.423	0	%100
28	M24	Z	.245	.245	0	%100
29	M25	X	1.931	1.931	0	%100
30	M25	Z	1.115	1.115	0	%100
31	M26	X	1.931	1.931	0	%100
32	M26	Z	1.115	1.115	0	%100
33	M27	X	1.315	1.315	0	%100
34	M27	Z	.759	.759	0	%100
35	M28	X	1.315	1.315	0	%100
36	M28	Z	.759	.759	0	%100
37	MP4A	X	6.437	6.437	0	%100
38	MP4A	Z	3.717	3.717	0	%100
39	MP3A	X	6.437	6.437	0	%100
40	MP3A	Z	3.717	3.717	0	%100
41	MP2A	X	6.437	6.437	0	%100
42	MP2A	Z	3.717	3.717	0	%100
43	MP1A	X	6.437	6.437	0	%100
44	MP1A	Z	3.717	3.717	0	%100
45	M44	X	1.694	1.694	0	%100
46	M44	Z	.978	.978	0	%100
47	M45	X	1.694	1.694	0	%100



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**Member Distributed Loads (BLC 45 : Structure Wo (120 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
48	M45	Z	.978	.978	0	%100
49	M46	X	1.694	1.694	0	%100
50	M46	Z	.978	.978	0	%100
51	M47	X	1.694	1.694	0	%100
52	M47	Z	.978	.978	0	%100
53	M43	X	1.931	1.931	0	%100
54	M43	Z	1.115	1.115	0	%100
55	OVP	X	6.437	6.437	0	%100
56	OVP	Z	3.717	3.717	0	%100
57	M47A	X	1.931	1.931	0	%100
58	M47A	Z	1.115	1.115	0	%100

**Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	3.374	3.374	0	%100
2	M1	Z	5.844	5.844	0	%100
3	M2	X	3.374	3.374	0	%100
4	M2	Z	5.844	5.844	0	%100
5	M13	X	.245	.245	0	%100
6	M13	Z	.423	.423	0	%100
7	M14	X	.245	.245	0	%100
8	M14	Z	.423	.423	0	%100
9	M15	X	.245	.245	0	%100
10	M15	Z	.423	.423	0	%100
11	M16	X	.245	.245	0	%100
12	M16	Z	.423	.423	0	%100
13	M17	X	2.809	2.809	0	%100
14	M17	Z	4.865	4.865	0	%100
15	M18	X	2.809	2.809	0	%100
16	M18	Z	4.865	4.865	0	%100
17	M19	X	.4	.4	0	%100
18	M19	Z	.693	.693	0	%100
19	M20	X	.4	.4	0	%100
20	M20	Z	.693	.693	0	%100
21	M21	X	.734	.734	0	%100
22	M21	Z	1.27	1.27	0	%100
23	M22	X	.734	.734	0	%100
24	M22	Z	1.27	1.27	0	%100
25	M23	X	.734	.734	0	%100
26	M23	Z	1.27	1.27	0	%100
27	M24	X	.734	.734	0	%100
28	M24	Z	1.27	1.27	0	%100
29	M25	X	1.165	1.165	0	%100
30	M25	Z	2.018	2.018	0	%100
31	M26	X	1.165	1.165	0	%100
32	M26	Z	2.018	2.018	0	%100
33	M27	X	.81	.81	0	%100
34	M27	Z	1.403	1.403	0	%100
35	M28	X	.81	.81	0	%100
36	M28	Z	1.403	1.403	0	%100
37	MP4A	X	3.717	3.717	0	%100
38	MP4A	Z	6.437	6.437	0	%100
39	MP3A	X	3.717	3.717	0	%100
40	MP3A	Z	6.437	6.437	0	%100
41	MP2A	X	3.717	3.717	0	%100
42	MP2A	Z	6.437	6.437	0	%100



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**Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
43	MP1A	X	3.717	3.717	0	%100
44	MP1A	Z	6.437	6.437	0	%100
45	M44	X	.978	.978	0	%100
46	M44	Z	1.694	1.694	0	%100
47	M45	X	.978	.978	0	%100
48	M45	Z	1.694	1.694	0	%100
49	M46	X	.978	.978	0	%100
50	M46	Z	1.694	1.694	0	%100
51	M47	X	.978	.978	0	%100
52	M47	Z	1.694	1.694	0	%100
53	M43	X	.012	.012	0	%100
54	M43	Z	.02	.02	0	%100
55	OVP	X	3.717	3.717	0	%100
56	OVP	Z	6.437	6.437	0	%100
57	M47A	X	.012	.012	0	%100
58	M47A	Z	.02	.02	0	%100

**Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0	%100
2	M1	Z	8.998	8.998	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	8.998	8.998	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	3.553	3.553	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	3.553	3.553	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	3.553	3.553	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	3.553	3.553	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	1.956	1.956	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	1.956	1.956	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	1.956	1.956	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	1.956	1.956	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	2.026	2.026	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	2.026	2.026	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	2.026	2.026	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	2.026	2.026	0	%100
37	MP4A	X	0	0	0	%100



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**Member Distributed Loads (BLC 47 : Structure Wo (180 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
38	MP4A	Z	7.433	7.433	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	7.433	7.433	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	7.433	7.433	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	7.433	7.433	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	1.956	1.956	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	1.956	1.956	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	1.956	1.956	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	1.956	1.956	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	1.51	1.51	0	%100
55	OVP	X	0	0	0	%100
56	OVP	Z	7.433	7.433	0	%100
57	M47A	X	0	0	0	%100
58	M47A	Z	1.51	1.51	0	%100

**Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-3.374	-3.374	0	%100
2	M1	Z	5.844	5.844	0	%100
3	M2	X	-3.374	-3.374	0	%100
4	M2	Z	5.844	5.844	0	%100
5	M13	X	-.245	-.245	0	%100
6	M13	Z	.423	.423	0	%100
7	M14	X	-.245	-.245	0	%100
8	M14	Z	.423	.423	0	%100
9	M15	X	-.245	-.245	0	%100
10	M15	Z	.423	.423	0	%100
11	M16	X	-.245	-.245	0	%100
12	M16	Z	.423	.423	0	%100
13	M17	X	-.4	-.4	0	%100
14	M17	Z	.693	.693	0	%100
15	M18	X	-.4	-.4	0	%100
16	M18	Z	.693	.693	0	%100
17	M19	X	-2.809	-2.809	0	%100
18	M19	Z	4.865	4.865	0	%100
19	M20	X	-2.809	-2.809	0	%100
20	M20	Z	4.865	4.865	0	%100
21	M21	X	-.734	-.734	0	%100
22	M21	Z	1.27	1.27	0	%100
23	M22	X	-.734	-.734	0	%100
24	M22	Z	1.27	1.27	0	%100
25	M23	X	-.734	-.734	0	%100
26	M23	Z	1.27	1.27	0	%100
27	M24	X	-.734	-.734	0	%100
28	M24	Z	1.27	1.27	0	%100
29	M25	X	-.81	-.81	0	%100
30	M25	Z	1.403	1.403	0	%100
31	M26	X	-.81	-.81	0	%100
32	M26	Z	1.403	1.403	0	%100



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**Member Distributed Loads (BLC 48 : Structure Wo (210 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
33	M27	X	-1.165	-1.165	0	%100
34	M27	Z	2.018	2.018	0	%100
35	M28	X	-1.165	-1.165	0	%100
36	M28	Z	2.018	2.018	0	%100
37	MP4A	X	-3.717	-3.717	0	%100
38	MP4A	Z	6.437	6.437	0	%100
39	MP3A	X	-3.717	-3.717	0	%100
40	MP3A	Z	6.437	6.437	0	%100
41	MP2A	X	-3.717	-3.717	0	%100
42	MP2A	Z	6.437	6.437	0	%100
43	MP1A	X	-3.717	-3.717	0	%100
44	MP1A	Z	6.437	6.437	0	%100
45	M44	X	-.978	-.978	0	%100
46	M44	Z	1.694	1.694	0	%100
47	M45	X	-.978	-.978	0	%100
48	M45	Z	1.694	1.694	0	%100
49	M46	X	-.978	-.978	0	%100
50	M46	Z	1.694	1.694	0	%100
51	M47	X	-.978	-.978	0	%100
52	M47	Z	1.694	1.694	0	%100
53	M43	X	-2.601	-2.601	0	%100
54	M43	Z	4.506	4.506	0	%100
55	OVP	X	-3.717	-3.717	0	%100
56	OVP	Z	6.437	6.437	0	%100
57	M47A	X	-2.601	-2.601	0	%100
58	M47A	Z	4.506	4.506	0	%100

**Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	M1	X	-1.948	-1.948	0	%100
2	M1	Z	1.125	1.125	0	%100
3	M2	X	-1.948	-1.948	0	%100
4	M2	Z	1.125	1.125	0	%100
5	M13	X	-1.27	-1.27	0	%100
6	M13	Z	.734	.734	0	%100
7	M14	X	-1.27	-1.27	0	%100
8	M14	Z	.734	.734	0	%100
9	M15	X	-1.27	-1.27	0	%100
10	M15	Z	.734	.734	0	%100
11	M16	X	-1.27	-1.27	0	%100
12	M16	Z	.734	.734	0	%100
13	M17	X	-.098	-.098	0	%100
14	M17	Z	.056	.056	0	%100
15	M18	X	-.098	-.098	0	%100
16	M18	Z	.056	.056	0	%100
17	M19	X	-4.27	-4.27	0	%100
18	M19	Z	2.466	2.466	0	%100
19	M20	X	-4.27	-4.27	0	%100
20	M20	Z	2.466	2.466	0	%100
21	M21	X	-.423	-.423	0	%100
22	M21	Z	.245	.245	0	%100
23	M22	X	-.423	-.423	0	%100
24	M22	Z	.245	.245	0	%100
25	M23	X	-.423	-.423	0	%100
26	M23	Z	.245	.245	0	%100
27	M24	X	-.423	-.423	0	%100

**Member Distributed Loads (BLC 49 : Structure Wo (240 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
28	M24	Z	.245	.245	0	%100
29	M25	X	-1.315	-1.315	0	%100
30	M25	Z	.759	.759	0	%100
31	M26	X	-1.315	-1.315	0	%100
32	M26	Z	.759	.759	0	%100
33	M27	X	-1.931	-1.931	0	%100
34	M27	Z	1.115	1.115	0	%100
35	M28	X	-1.931	-1.931	0	%100
36	M28	Z	1.115	1.115	0	%100
37	MP4A	X	-6.437	-6.437	0	%100
38	MP4A	Z	3.717	3.717	0	%100
39	MP3A	X	-6.437	-6.437	0	%100
40	MP3A	Z	3.717	3.717	0	%100
41	MP2A	X	-6.437	-6.437	0	%100
42	MP2A	Z	3.717	3.717	0	%100
43	MP1A	X	-6.437	-6.437	0	%100
44	MP1A	Z	3.717	3.717	0	%100
45	M44	X	-1.694	-1.694	0	%100
46	M44	Z	.978	.978	0	%100
47	M45	X	-1.694	-1.694	0	%100
48	M45	Z	.978	.978	0	%100
49	M46	X	-1.694	-1.694	0	%100
50	M46	Z	.978	.978	0	%100
51	M47	X	-1.694	-1.694	0	%100
52	M47	Z	.978	.978	0	%100
53	M43	X	-6.417	-6.417	0	%100
54	M43	Z	3.705	3.705	0	%100
55	OVP	X	-6.437	-6.437	0	%100
56	OVP	Z	3.717	3.717	0	%100
57	M47A	X	-6.417	-6.417	0	%100
58	M47A	Z	3.705	3.705	0	%100

**Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-1.956	-1.956	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-1.956	-1.956	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-1.956	-1.956	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-1.956	-1.956	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-2.178	-2.178	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-2.178	-2.178	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-2.178	-2.178	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-2.178	-2.178	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100





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**Member Distributed Loads (BLC 50 : Structure Wo (270 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-1.823	-1.823	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-1.823	-1.823	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-1.823	-1.823	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-1.823	-1.823	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-7.433	-7.433	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-7.433	-7.433	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-7.433	-7.433	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-7.433	-7.433	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-1.956	-1.956	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-1.956	-1.956	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-1.956	-1.956	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-1.956	-1.956	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	-5.923	-5.923	0	%100
54	M43	Z	0	0	0	%100
55	OVP	X	-7.433	-7.433	0	%100
56	OVP	Z	0	0	0	%100
57	M47A	X	-5.923	-5.923	0	%100
58	M47A	Z	0	0	0	%100

**Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]
1	M1	X	-1.948	-1.948	0	%100
2	M1	Z	-1.125	-1.125	0	%100
3	M2	X	-1.948	-1.948	0	%100
4	M2	Z	-1.125	-1.125	0	%100
5	M13	X	-1.27	-1.27	0	%100
6	M13	Z	-0.734	-0.734	0	%100
7	M14	X	-1.27	-1.27	0	%100
8	M14	Z	-0.734	-0.734	0	%100
9	M15	X	-1.27	-1.27	0	%100
10	M15	Z	-0.734	-0.734	0	%100
11	M16	X	-1.27	-1.27	0	%100
12	M16	Z	-0.734	-0.734	0	%100
13	M17	X	-4.27	-4.27	0	%100
14	M17	Z	-2.466	-2.466	0	%100
15	M18	X	-4.27	-4.27	0	%100
16	M18	Z	-2.466	-2.466	0	%100
17	M19	X	-0.098	-0.098	0	%100



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**Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
18	M19	Z	-0.056	-0.056	0	%100
19	M20	X	-0.098	-0.098	0	%100
20	M20	Z	-0.056	-0.056	0	%100
21	M21	X	-0.423	-0.423	0	%100
22	M21	Z	-0.245	-0.245	0	%100
23	M22	X	-0.423	-0.423	0	%100
24	M22	Z	-0.245	-0.245	0	%100
25	M23	X	-0.423	-0.423	0	%100
26	M23	Z	-0.245	-0.245	0	%100
27	M24	X	-0.423	-0.423	0	%100
28	M24	Z	-0.245	-0.245	0	%100
29	M25	X	-1.931	-1.931	0	%100
30	M25	Z	-1.115	-1.115	0	%100
31	M26	X	-1.931	-1.931	0	%100
32	M26	Z	-1.115	-1.115	0	%100
33	M27	X	-1.315	-1.315	0	%100
34	M27	Z	-0.759	-0.759	0	%100
35	M28	X	-1.315	-1.315	0	%100
36	M28	Z	-0.759	-0.759	0	%100
37	MP4A	X	-6.437	-6.437	0	%100
38	MP4A	Z	-3.717	-3.717	0	%100
39	MP3A	X	-6.437	-6.437	0	%100
40	MP3A	Z	-3.717	-3.717	0	%100
41	MP2A	X	-6.437	-6.437	0	%100
42	MP2A	Z	-3.717	-3.717	0	%100
43	MP1A	X	-6.437	-6.437	0	%100
44	MP1A	Z	-3.717	-3.717	0	%100
45	M44	X	-1.694	-1.694	0	%100
46	M44	Z	-0.978	-0.978	0	%100
47	M45	X	-1.694	-1.694	0	%100
48	M45	Z	-0.978	-0.978	0	%100
49	M46	X	-1.694	-1.694	0	%100
50	M46	Z	-0.978	-0.978	0	%100
51	M47	X	-1.694	-1.694	0	%100
52	M47	Z	-0.978	-0.978	0	%100
53	M43	X	-1.931	-1.931	0	%100
54	M43	Z	-1.115	-1.115	0	%100
55	OVP	X	-6.437	-6.437	0	%100
56	OVP	Z	-3.717	-3.717	0	%100
57	M47A	X	-1.931	-1.931	0	%100
58	M47A	Z	-1.115	-1.115	0	%100

**Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-3.374	-3.374	0	%100
2	M1	Z	-5.844	-5.844	0	%100
3	M2	X	-3.374	-3.374	0	%100
4	M2	Z	-5.844	-5.844	0	%100
5	M13	X	-0.245	-0.245	0	%100
6	M13	Z	-0.423	-0.423	0	%100
7	M14	X	-0.245	-0.245	0	%100
8	M14	Z	-0.423	-0.423	0	%100
9	M15	X	-0.245	-0.245	0	%100
10	M15	Z	-0.423	-0.423	0	%100
11	M16	X	-0.245	-0.245	0	%100
12	M16	Z	-0.423	-0.423	0	%100



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**Member Distributed Loads (BLC 52 : Structure Wo (330 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
13	M17	X	-2.809	-2.809	0 %100
14	M17	Z	-4.865	-4.865	0 %100
15	M18	X	-2.809	-2.809	0 %100
16	M18	Z	-4.865	-4.865	0 %100
17	M19	X	-.4	-.4	0 %100
18	M19	Z	-.693	-.693	0 %100
19	M20	X	-.4	-.4	0 %100
20	M20	Z	-.693	-.693	0 %100
21	M21	X	-.734	-.734	0 %100
22	M21	Z	-1.27	-1.27	0 %100
23	M22	X	-.734	-.734	0 %100
24	M22	Z	-1.27	-1.27	0 %100
25	M23	X	-.734	-.734	0 %100
26	M23	Z	-1.27	-1.27	0 %100
27	M24	X	-.734	-.734	0 %100
28	M24	Z	-1.27	-1.27	0 %100
29	M25	X	-1.165	-1.165	0 %100
30	M25	Z	-2.018	-2.018	0 %100
31	M26	X	-1.165	-1.165	0 %100
32	M26	Z	-2.018	-2.018	0 %100
33	M27	X	-.81	-.81	0 %100
34	M27	Z	-1.403	-1.403	0 %100
35	M28	X	-.81	-.81	0 %100
36	M28	Z	-1.403	-1.403	0 %100
37	MP4A	X	-3.717	-3.717	0 %100
38	MP4A	Z	-6.437	-6.437	0 %100
39	MP3A	X	-3.717	-3.717	0 %100
40	MP3A	Z	-6.437	-6.437	0 %100
41	MP2A	X	-3.717	-3.717	0 %100
42	MP2A	Z	-6.437	-6.437	0 %100
43	MP1A	X	-3.717	-3.717	0 %100
44	MP1A	Z	-6.437	-6.437	0 %100
45	M44	X	-.978	-.978	0 %100
46	M44	Z	-1.694	-1.694	0 %100
47	M45	X	-.978	-.978	0 %100
48	M45	Z	-1.694	-1.694	0 %100
49	M46	X	-.978	-.978	0 %100
50	M46	Z	-1.694	-1.694	0 %100
51	M47	X	-.978	-.978	0 %100
52	M47	Z	-1.694	-1.694	0 %100
53	M43	X	-.012	-.012	0 %100
54	M43	Z	-.02	-.02	0 %100
55	OVP	X	-3.717	-3.717	0 %100
56	OVP	Z	-6.437	-6.437	0 %100
57	M47A	X	-.012	-.012	0 %100
58	M47A	Z	-.02	-.02	0 %100

**Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0 %100
2	M1	Z	-2.534	-2.534	0 %100
3	M2	X	0	0	0 %100
4	M2	Z	-2.534	-2.534	0 %100
5	M13	X	0	0	0 %100
6	M13	Z	0	0	0 %100
7	M14	X	0	0	0 %100



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**Member Distributed Loads (BLC 53 : Structure Wi (0 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
8	M14	Z	0	0	%100
9	M15	X	0	0	%100
10	M15	Z	0	0	%100
11	M16	X	0	0	%100
12	M16	Z	0	0	%100
13	M17	X	0	0	%100
14	M17	Z	-1.105	-1.105	%100
15	M18	X	0	0	%100
16	M18	Z	-1.105	-1.105	%100
17	M19	X	0	0	%100
18	M19	Z	-1.105	-1.105	%100
19	M20	X	0	0	%100
20	M20	Z	-1.105	-1.105	%100
21	M21	X	0	0	%100
22	M21	Z	-.96	-.96	%100
23	M22	X	0	0	%100
24	M22	Z	-.96	-.96	%100
25	M23	X	0	0	%100
26	M23	Z	-.96	-.96	%100
27	M24	X	0	0	%100
28	M24	Z	-.96	-.96	%100
29	M25	X	0	0	%100
30	M25	Z	-1.232	-1.232	%100
31	M26	X	0	0	%100
32	M26	Z	-1.232	-1.232	%100
33	M27	X	0	0	%100
34	M27	Z	-1.232	-1.232	%100
35	M28	X	0	0	%100
36	M28	Z	-1.232	-1.232	%100
37	MP4A	X	0	0	%100
38	MP4A	Z	-2.284	-2.284	%100
39	MP3A	X	0	0	%100
40	MP3A	Z	-2.284	-2.284	%100
41	MP2A	X	0	0	%100
42	MP2A	Z	-2.284	-2.284	%100
43	MP1A	X	0	0	%100
44	MP1A	Z	-2.284	-2.284	%100
45	M44	X	0	0	%100
46	M44	Z	-1.272	-1.272	%100
47	M45	X	0	0	%100
48	M45	Z	-1.272	-1.272	%100
49	M46	X	0	0	%100
50	M46	Z	-1.272	-1.272	%100
51	M47	X	0	0	%100
52	M47	Z	-1.272	-1.272	%100
53	M43	X	0	0	%100
54	M43	Z	-.464	-.464	%100
55	OVP	X	0	0	%100
56	OVP	Z	-2.284	-2.284	%100
57	M47A	X	0	0	%100
58	M47A	Z	-.464	-.464	%100

**Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	M1	X	.95	.95	%100
2	M1	Z	-1.646	-1.646	%100



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**Member Distributed Loads (BLC 54 : Structure Wi (30 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
3	M2	.95	.95	0	%100
4	M2	-1.646	-1.646	0	%100
5	M13	.119	.119	0	%100
6	M13	-.206	-.206	0	%100
7	M14	.119	.119	0	%100
8	M14	-.206	-.206	0	%100
9	M15	.119	.119	0	%100
10	M15	-.206	-.206	0	%100
11	M16	.119	.119	0	%100
12	M16	-.206	-.206	0	%100
13	M17	.124	.124	0	%100
14	M17	-.215	-.215	0	%100
15	M18	.124	.124	0	%100
16	M18	-.215	-.215	0	%100
17	M19	.874	.874	0	%100
18	M19	-1.514	-1.514	0	%100
19	M20	.874	.874	0	%100
20	M20	-1.514	-1.514	0	%100
21	M21	.36	.36	0	%100
22	M21	-.623	-.623	0	%100
23	M22	.36	.36	0	%100
24	M22	-.623	-.623	0	%100
25	M23	.36	.36	0	%100
26	M23	-.623	-.623	0	%100
27	M24	.36	.36	0	%100
28	M24	-.623	-.623	0	%100
29	M25	.492	.492	0	%100
30	M25	-.853	-.853	0	%100
31	M26	.492	.492	0	%100
32	M26	-.853	-.853	0	%100
33	M27	.708	.708	0	%100
34	M27	-1.227	-1.227	0	%100
35	M28	.708	.708	0	%100
36	M28	-1.227	-1.227	0	%100
37	MP4A	1.142	1.142	0	%100
38	MP4A	-1.978	-1.978	0	%100
39	MP3A	1.142	1.142	0	%100
40	MP3A	-1.978	-1.978	0	%100
41	MP2A	1.142	1.142	0	%100
42	MP2A	-1.978	-1.978	0	%100
43	MP1A	1.142	1.142	0	%100
44	MP1A	-1.978	-1.978	0	%100
45	M44	.636	.636	0	%100
46	M44	-1.101	-1.101	0	%100
47	M45	.636	.636	0	%100
48	M45	-1.101	-1.101	0	%100
49	M46	.636	.636	0	%100
50	M46	-1.101	-1.101	0	%100
51	M47	.636	.636	0	%100
52	M47	-1.101	-1.101	0	%100
53	M43	.799	.799	0	%100
54	M43	-1.384	-1.384	0	%100
55	OVP	1.142	1.142	0	%100
56	OVP	-1.978	-1.978	0	%100
57	M47A	.799	.799	0	%100
58	M47A	-1.384	-1.384	0	%100



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**Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	M1	X	.549	.549	0 %100
2	M1	Z	-.317	-.317	0 %100
3	M2	X	.549	.549	0 %100
4	M2	Z	-.317	-.317	0 %100
5	M13	X	.618	.618	0 %100
6	M13	Z	-.357	-.357	0 %100
7	M14	X	.618	.618	0 %100
8	M14	Z	-.357	-.357	0 %100
9	M15	X	.618	.618	0 %100
10	M15	Z	-.357	-.357	0 %100
11	M16	X	.618	.618	0 %100
12	M16	Z	-.357	-.357	0 %100
13	M17	X	.03	.03	0 %100
14	M17	Z	-.018	-.018	0 %100
15	M18	X	.03	.03	0 %100
16	M18	Z	-.018	-.018	0 %100
17	M19	X	1.329	1.329	0 %100
18	M19	Z	-.767	-.767	0 %100
19	M20	X	1.329	1.329	0 %100
20	M20	Z	-.767	-.767	0 %100
21	M21	X	.208	.208	0 %100
22	M21	Z	-.12	-.12	0 %100
23	M22	X	.208	.208	0 %100
24	M22	Z	-.12	-.12	0 %100
25	M23	X	.208	.208	0 %100
26	M23	Z	-.12	-.12	0 %100
27	M24	X	.208	.208	0 %100
28	M24	Z	-.12	-.12	0 %100
29	M25	X	.8	.8	0 %100
30	M25	Z	-.462	-.462	0 %100
31	M26	X	.8	.8	0 %100
32	M26	Z	-.462	-.462	0 %100
33	M27	X	1.174	1.174	0 %100
34	M27	Z	-.678	-.678	0 %100
35	M28	X	1.174	1.174	0 %100
36	M28	Z	-.678	-.678	0 %100
37	MP4A	X	1.978	1.978	0 %100
38	MP4A	Z	-1.142	-1.142	0 %100
39	MP3A	X	1.978	1.978	0 %100
40	MP3A	Z	-1.142	-1.142	0 %100
41	MP2A	X	1.978	1.978	0 %100
42	MP2A	Z	-1.142	-1.142	0 %100
43	MP1A	X	1.978	1.978	0 %100
44	MP1A	Z	-1.142	-1.142	0 %100
45	M44	X	1.101	1.101	0 %100
46	M44	Z	-.636	-.636	0 %100
47	M45	X	1.101	1.101	0 %100
48	M45	Z	-.636	-.636	0 %100
49	M46	X	1.101	1.101	0 %100
50	M46	Z	-.636	-.636	0 %100
51	M47	X	1.101	1.101	0 %100
52	M47	Z	-.636	-.636	0 %100
53	M43	X	1.971	1.971	0 %100
54	M43	Z	-1.138	-1.138	0 %100
55	OVP	X	1.978	1.978	0 %100
56	OVP	Z	-1.142	-1.142	0 %100
57	M47A	X	1.971	1.971	0 %100



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**Member Distributed Loads (BLC 55 : Structure Wi (60 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
58	M47A	Z	-1.138	-1.138	0 %100

**Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	%100
2	M1	Z	0	0	%100
3	M2	X	0	0	%100
4	M2	Z	0	0	%100
5	M13	X	.951	.951	0 %100
6	M13	Z	0	0	%100
7	M14	X	.951	.951	0 %100
8	M14	Z	0	0	%100
9	M15	X	.951	.951	0 %100
10	M15	Z	0	0	%100
11	M16	X	.951	.951	0 %100
12	M16	Z	0	0	%100
13	M17	X	.678	.678	0 %100
14	M17	Z	0	0	%100
15	M18	X	.678	.678	0 %100
16	M18	Z	0	0	%100
17	M19	X	.678	.678	0 %100
18	M19	Z	0	0	%100
19	M20	X	.678	.678	0 %100
20	M20	Z	0	0	%100
21	M21	X	0	0	%100
22	M21	Z	0	0	%100
23	M22	X	0	0	%100
24	M22	Z	0	0	%100
25	M23	X	0	0	%100
26	M23	Z	0	0	%100
27	M24	X	0	0	%100
28	M24	Z	0	0	%100
29	M25	X	1.108	1.108	0 %100
30	M25	Z	0	0	%100
31	M26	X	1.108	1.108	0 %100
32	M26	Z	0	0	%100
33	M27	X	1.108	1.108	0 %100
34	M27	Z	0	0	%100
35	M28	X	1.108	1.108	0 %100
36	M28	Z	0	0	%100
37	MP4A	X	2.284	2.284	0 %100
38	MP4A	Z	0	0	%100
39	MP3A	X	2.284	2.284	0 %100
40	MP3A	Z	0	0	%100
41	MP2A	X	2.284	2.284	0 %100
42	MP2A	Z	0	0	%100
43	MP1A	X	2.284	2.284	0 %100
44	MP1A	Z	0	0	%100
45	M44	X	1.272	1.272	0 %100
46	M44	Z	0	0	%100
47	M45	X	1.272	1.272	0 %100
48	M45	Z	0	0	%100
49	M46	X	1.272	1.272	0 %100
50	M46	Z	0	0	%100
51	M47	X	1.272	1.272	0 %100
52	M47	Z	0	0	%100



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**Member Distributed Loads (BLC 56 : Structure Wi (90 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]
53	M43	X	1.82	1.82	0	%100
54	M43	Z	0	0	0	%100
55	OVP	X	2.284	2.284	0	%100
56	OVP	Z	0	0	0	%100
57	M47A	X	1.82	1.82	0	%100
58	M47A	Z	0	0	0	%100

**Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.%]	End Location[in.%]
1	M1	X	.549	.549	0	%100
2	M1	Z	.317	.317	0	%100
3	M2	X	.549	.549	0	%100
4	M2	Z	.317	.317	0	%100
5	M13	X	.618	.618	0	%100
6	M13	Z	.357	.357	0	%100
7	M14	X	.618	.618	0	%100
8	M14	Z	.357	.357	0	%100
9	M15	X	.618	.618	0	%100
10	M15	Z	.357	.357	0	%100
11	M16	X	.618	.618	0	%100
12	M16	Z	.357	.357	0	%100
13	M17	X	1.329	1.329	0	%100
14	M17	Z	.767	.767	0	%100
15	M18	X	1.329	1.329	0	%100
16	M18	Z	.767	.767	0	%100
17	M19	X	.03	.03	0	%100
18	M19	Z	.018	.018	0	%100
19	M20	X	.03	.03	0	%100
20	M20	Z	.018	.018	0	%100
21	M21	X	.208	.208	0	%100
22	M21	Z	.12	.12	0	%100
23	M22	X	.208	.208	0	%100
24	M22	Z	.12	.12	0	%100
25	M23	X	.208	.208	0	%100
26	M23	Z	.12	.12	0	%100
27	M24	X	.208	.208	0	%100
28	M24	Z	.12	.12	0	%100
29	M25	X	1.174	1.174	0	%100
30	M25	Z	.678	.678	0	%100
31	M26	X	1.174	1.174	0	%100
32	M26	Z	.678	.678	0	%100
33	M27	X	.8	.8	0	%100
34	M27	Z	.462	.462	0	%100
35	M28	X	.8	.8	0	%100
36	M28	Z	.462	.462	0	%100
37	MP4A	X	1.978	1.978	0	%100
38	MP4A	Z	1.142	1.142	0	%100
39	MP3A	X	1.978	1.978	0	%100
40	MP3A	Z	1.142	1.142	0	%100
41	MP2A	X	1.978	1.978	0	%100
42	MP2A	Z	1.142	1.142	0	%100
43	MP1A	X	1.978	1.978	0	%100
44	MP1A	Z	1.142	1.142	0	%100
45	M44	X	1.101	1.101	0	%100
46	M44	Z	.636	.636	0	%100
47	M45	X	1.101	1.101	0	%100





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**Member Distributed Loads (BLC 57 : Structure Wi (120 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
48	M45	Z	.636	.636	0	%100
49	M46	X	1.101	1.101	0	%100
50	M46	Z	.636	.636	0	%100
51	M47	X	1.101	1.101	0	%100
52	M47	Z	.636	.636	0	%100
53	M43	X	.593	.593	0	%100
54	M43	Z	.343	.343	0	%100
55	OVP	X	1.978	1.978	0	%100
56	OVP	Z	1.142	1.142	0	%100
57	M47A	X	.593	.593	0	%100
58	M47A	Z	.343	.343	0	%100

**Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	.95	.95	0	%100
2	M1	Z	1.646	1.646	0	%100
3	M2	X	.95	.95	0	%100
4	M2	Z	1.646	1.646	0	%100
5	M13	X	.119	.119	0	%100
6	M13	Z	.206	.206	0	%100
7	M14	X	.119	.119	0	%100
8	M14	Z	.206	.206	0	%100
9	M15	X	.119	.119	0	%100
10	M15	Z	.206	.206	0	%100
11	M16	X	.119	.119	0	%100
12	M16	Z	.206	.206	0	%100
13	M17	X	.874	.874	0	%100
14	M17	Z	1.514	1.514	0	%100
15	M18	X	.874	.874	0	%100
16	M18	Z	1.514	1.514	0	%100
17	M19	X	.124	.124	0	%100
18	M19	Z	.215	.215	0	%100
19	M20	X	.124	.124	0	%100
20	M20	Z	.215	.215	0	%100
21	M21	X	.36	.36	0	%100
22	M21	Z	.623	.623	0	%100
23	M22	X	.36	.36	0	%100
24	M22	Z	.623	.623	0	%100
25	M23	X	.36	.36	0	%100
26	M23	Z	.623	.623	0	%100
27	M24	X	.36	.36	0	%100
28	M24	Z	.623	.623	0	%100
29	M25	X	.708	.708	0	%100
30	M25	Z	1.227	1.227	0	%100
31	M26	X	.708	.708	0	%100
32	M26	Z	1.227	1.227	0	%100
33	M27	X	.492	.492	0	%100
34	M27	Z	.853	.853	0	%100
35	M28	X	.492	.492	0	%100
36	M28	Z	.853	.853	0	%100
37	MP4A	X	1.142	1.142	0	%100
38	MP4A	Z	1.978	1.978	0	%100
39	MP3A	X	1.142	1.142	0	%100
40	MP3A	Z	1.978	1.978	0	%100
41	MP2A	X	1.142	1.142	0	%100
42	MP2A	Z	1.978	1.978	0	%100



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**Member Distributed Loads (BLC 58 : Structure Wi (150 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
43	MP1A	X	1.142	1.142	0	%100
44	MP1A	Z	1.978	1.978	0	%100
45	M44	X	.636	.636	0	%100
46	M44	Z	1.101	1.101	0	%100
47	M45	X	.636	.636	0	%100
48	M45	Z	1.101	1.101	0	%100
49	M46	X	.636	.636	0	%100
50	M46	Z	1.101	1.101	0	%100
51	M47	X	.636	.636	0	%100
52	M47	Z	1.101	1.101	0	%100
53	M43	X	.004	.004	0	%100
54	M43	Z	.006	.006	0	%100
55	OVP	X	1.142	1.142	0	%100
56	OVP	Z	1.978	1.978	0	%100
57	M47A	X	.004	.004	0	%100
58	M47A	Z	.006	.006	0	%100

**Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0	%100
2	M1	Z	2.534	2.534	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	2.534	2.534	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	1.105	1.105	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	1.105	1.105	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	1.105	1.105	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	1.105	1.105	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	.96	.96	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	.96	.96	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	.96	.96	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	.96	.96	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	1.232	1.232	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	1.232	1.232	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	1.232	1.232	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	1.232	1.232	0	%100
37	MP4A	X	0	0	0	%100



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**Member Distributed Loads (BLC 59 : Structure Wi (180 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
38	MP4A	Z	2.284	2.284	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	2.284	2.284	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	2.284	2.284	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	2.284	2.284	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	1.272	1.272	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	1.272	1.272	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	1.272	1.272	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	1.272	1.272	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	.464	.464	0	%100
55	OVP	X	0	0	0	%100
56	OVP	Z	2.284	2.284	0	%100
57	M47A	X	0	0	0	%100
58	M47A	Z	.464	.464	0	%100

**Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-.95	-.95	0	%100
2	M1	Z	1.646	1.646	0	%100
3	M2	X	-.95	-.95	0	%100
4	M2	Z	1.646	1.646	0	%100
5	M13	X	-.119	-.119	0	%100
6	M13	Z	.206	.206	0	%100
7	M14	X	-.119	-.119	0	%100
8	M14	Z	.206	.206	0	%100
9	M15	X	-.119	-.119	0	%100
10	M15	Z	.206	.206	0	%100
11	M16	X	-.119	-.119	0	%100
12	M16	Z	.206	.206	0	%100
13	M17	X	-.124	-.124	0	%100
14	M17	Z	.215	.215	0	%100
15	M18	X	-.124	-.124	0	%100
16	M18	Z	.215	.215	0	%100
17	M19	X	-.874	-.874	0	%100
18	M19	Z	1.514	1.514	0	%100
19	M20	X	-.874	-.874	0	%100
20	M20	Z	1.514	1.514	0	%100
21	M21	X	-.36	-.36	0	%100
22	M21	Z	.623	.623	0	%100
23	M22	X	-.36	-.36	0	%100
24	M22	Z	.623	.623	0	%100
25	M23	X	-.36	-.36	0	%100
26	M23	Z	.623	.623	0	%100
27	M24	X	-.36	-.36	0	%100
28	M24	Z	.623	.623	0	%100
29	M25	X	-.492	-.492	0	%100
30	M25	Z	.853	.853	0	%100
31	M26	X	-.492	-.492	0	%100
32	M26	Z	.853	.853	0	%100



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**Member Distributed Loads (BLC 60 : Structure Wi (210 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
33	M27	X	- .708	- .708	0	%100
34	M27	Z	1.227	1.227	0	%100
35	M28	X	- .708	- .708	0	%100
36	M28	Z	1.227	1.227	0	%100
37	MP4A	X	-1.142	-1.142	0	%100
38	MP4A	Z	1.978	1.978	0	%100
39	MP3A	X	-1.142	-1.142	0	%100
40	MP3A	Z	1.978	1.978	0	%100
41	MP2A	X	-1.142	-1.142	0	%100
42	MP2A	Z	1.978	1.978	0	%100
43	MP1A	X	-1.142	-1.142	0	%100
44	MP1A	Z	1.978	1.978	0	%100
45	M44	X	- .636	- .636	0	%100
46	M44	Z	1.101	1.101	0	%100
47	M45	X	- .636	- .636	0	%100
48	M45	Z	1.101	1.101	0	%100
49	M46	X	- .636	- .636	0	%100
50	M46	Z	1.101	1.101	0	%100
51	M47	X	- .636	- .636	0	%100
52	M47	Z	1.101	1.101	0	%100
53	M43	X	- .799	- .799	0	%100
54	M43	Z	1.384	1.384	0	%100
55	OVP	X	-1.142	-1.142	0	%100
56	OVP	Z	1.978	1.978	0	%100
57	M47A	X	- .799	- .799	0	%100
58	M47A	Z	1.384	1.384	0	%100

**Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	- .549	- .549	0	%100
2	M1	Z	.317	.317	0	%100
3	M2	X	- .549	- .549	0	%100
4	M2	Z	.317	.317	0	%100
5	M13	X	- .618	- .618	0	%100
6	M13	Z	.357	.357	0	%100
7	M14	X	- .618	- .618	0	%100
8	M14	Z	.357	.357	0	%100
9	M15	X	- .618	- .618	0	%100
10	M15	Z	.357	.357	0	%100
11	M16	X	- .618	- .618	0	%100
12	M16	Z	.357	.357	0	%100
13	M17	X	- .03	- .03	0	%100
14	M17	Z	.018	.018	0	%100
15	M18	X	- .03	- .03	0	%100
16	M18	Z	.018	.018	0	%100
17	M19	X	-1.329	-1.329	0	%100
18	M19	Z	.767	.767	0	%100
19	M20	X	-1.329	-1.329	0	%100
20	M20	Z	.767	.767	0	%100
21	M21	X	- .208	- .208	0	%100
22	M21	Z	.12	.12	0	%100
23	M22	X	- .208	- .208	0	%100
24	M22	Z	.12	.12	0	%100
25	M23	X	- .208	- .208	0	%100
26	M23	Z	.12	.12	0	%100
27	M24	X	- .208	- .208	0	%100



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**Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb./ft....]	End Magnitude[lb./ft....]	Start Location[in.-%]	End Location[in.-%]
28	M24	Z	.12	.12	0	%100
29	M25	X	-.8	-.8	0	%100
30	M25	Z	.462	.462	0	%100
31	M26	X	-.8	-.8	0	%100
32	M26	Z	.462	.462	0	%100
33	M27	X	-1.174	-1.174	0	%100
34	M27	Z	.678	.678	0	%100
35	M28	X	-1.174	-1.174	0	%100
36	M28	Z	.678	.678	0	%100
37	MP4A	X	-1.978	-1.978	0	%100
38	MP4A	Z	1.142	1.142	0	%100
39	MP3A	X	-1.978	-1.978	0	%100
40	MP3A	Z	1.142	1.142	0	%100
41	MP2A	X	-1.978	-1.978	0	%100
42	MP2A	Z	1.142	1.142	0	%100
43	MP1A	X	-1.978	-1.978	0	%100
44	MP1A	Z	1.142	1.142	0	%100
45	M44	X	-1.101	-1.101	0	%100
46	M44	Z	.636	.636	0	%100
47	M45	X	-1.101	-1.101	0	%100
48	M45	Z	.636	.636	0	%100
49	M46	X	-1.101	-1.101	0	%100
50	M46	Z	.636	.636	0	%100
51	M47	X	-1.101	-1.101	0	%100
52	M47	Z	.636	.636	0	%100
53	M43	X	-1.971	-1.971	0	%100
54	M43	Z	1.138	1.138	0	%100
55	OVP	X	-1.978	-1.978	0	%100
56	OVP	Z	1.142	1.142	0	%100
57	M47A	X	-1.971	-1.971	0	%100
58	M47A	Z	1.138	1.138	0	%100

**Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))**

	Member Label	Direction	Start Magnitude[lb./ft....]	End Magnitude[lb./ft....]	Start Location[in.-%]	End Location[in.-%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-.951	-.951	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-.951	-.951	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-.951	-.951	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-.951	-.951	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.678	-.678	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.678	-.678	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.678	-.678	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.678	-.678	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100



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**Member Distributed Loads (BLC 62 : Structure Wi (270 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.-%]	End Location[in.-%]
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-1.108	-1.108	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-1.108	-1.108	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-1.108	-1.108	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-1.108	-1.108	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-2.284	-2.284	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-2.284	-2.284	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-2.284	-2.284	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-2.284	-2.284	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-1.272	-1.272	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-1.272	-1.272	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-1.272	-1.272	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-1.272	-1.272	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	-1.82	-1.82	0	%100
54	M43	Z	0	0	0	%100
55	OVP	X	-2.284	-2.284	0	%100
56	OVP	Z	0	0	0	%100
57	M47A	X	-1.82	-1.82	0	%100
58	M47A	Z	0	0	0	%100

**Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in.-%]	End Location[in.-%]
1	M1	X	-.549	-.549	0	%100
2	M1	Z	-.317	-.317	0	%100
3	M2	X	-.549	-.549	0	%100
4	M2	Z	-.317	-.317	0	%100
5	M13	X	-.618	-.618	0	%100
6	M13	Z	-.357	-.357	0	%100
7	M14	X	-.618	-.618	0	%100
8	M14	Z	-.357	-.357	0	%100
9	M15	X	-.618	-.618	0	%100
10	M15	Z	-.357	-.357	0	%100
11	M16	X	-.618	-.618	0	%100
12	M16	Z	-.357	-.357	0	%100
13	M17	X	-1.329	-1.329	0	%100
14	M17	Z	-.767	-.767	0	%100
15	M18	X	-1.329	-1.329	0	%100
16	M18	Z	-.767	-.767	0	%100
17	M19	X	-.03	-.03	0	%100



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**Member Distributed Loads (BLC 63 : Structure Wi (300 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
18	M19	Z	-018	-018	0	%100
19	M20	X	-03	-03	0	%100
20	M20	Z	-018	-018	0	%100
21	M21	X	-208	-208	0	%100
22	M21	Z	-12	-12	0	%100
23	M22	X	-208	-208	0	%100
24	M22	Z	-12	-12	0	%100
25	M23	X	-208	-208	0	%100
26	M23	Z	-12	-12	0	%100
27	M24	X	-208	-208	0	%100
28	M24	Z	-12	-12	0	%100
29	M25	X	-1.174	-1.174	0	%100
30	M25	Z	-678	-678	0	%100
31	M26	X	-1.174	-1.174	0	%100
32	M26	Z	-678	-678	0	%100
33	M27	X	-8	-8	0	%100
34	M27	Z	-462	-462	0	%100
35	M28	X	-8	-8	0	%100
36	M28	Z	-462	-462	0	%100
37	MP4A	X	-1.978	-1.978	0	%100
38	MP4A	Z	-1.142	-1.142	0	%100
39	MP3A	X	-1.978	-1.978	0	%100
40	MP3A	Z	-1.142	-1.142	0	%100
41	MP2A	X	-1.978	-1.978	0	%100
42	MP2A	Z	-1.142	-1.142	0	%100
43	MP1A	X	-1.978	-1.978	0	%100
44	MP1A	Z	-1.142	-1.142	0	%100
45	M44	X	-1.101	-1.101	0	%100
46	M44	Z	-636	-636	0	%100
47	M45	X	-1.101	-1.101	0	%100
48	M45	Z	-636	-636	0	%100
49	M46	X	-1.101	-1.101	0	%100
50	M46	Z	-636	-636	0	%100
51	M47	X	-1.101	-1.101	0	%100
52	M47	Z	-636	-636	0	%100
53	M43	X	-593	-593	0	%100
54	M43	Z	-343	-343	0	%100
55	OVP	X	-1.978	-1.978	0	%100
56	OVP	Z	-1.142	-1.142	0	%100
57	M47A	X	-593	-593	0	%100
58	M47A	Z	-343	-343	0	%100

**Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-95	-95	0	%100
2	M1	Z	-1.646	-1.646	0	%100
3	M2	X	-95	-95	0	%100
4	M2	Z	-1.646	-1.646	0	%100
5	M13	X	-119	-119	0	%100
6	M13	Z	-206	-206	0	%100
7	M14	X	-119	-119	0	%100
8	M14	Z	-206	-206	0	%100
9	M15	X	-119	-119	0	%100
10	M15	Z	-206	-206	0	%100
11	M16	X	-119	-119	0	%100
12	M16	Z	-206	-206	0	%100



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**Member Distributed Loads (BLC 64 : Structure Wi (330 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
13	M17	X	- .874	- .874	0 %100
14	M17	Z	-1.514	-1.514	0 %100
15	M18	X	- .874	- .874	0 %100
16	M18	Z	-1.514	-1.514	0 %100
17	M19	X	- .124	- .124	0 %100
18	M19	Z	- .215	- .215	0 %100
19	M20	X	- .124	- .124	0 %100
20	M20	Z	- .215	- .215	0 %100
21	M21	X	- .36	- .36	0 %100
22	M21	Z	- .623	- .623	0 %100
23	M22	X	- .36	- .36	0 %100
24	M22	Z	- .623	- .623	0 %100
25	M23	X	- .36	- .36	0 %100
26	M23	Z	- .623	- .623	0 %100
27	M24	X	- .36	- .36	0 %100
28	M24	Z	- .623	- .623	0 %100
29	M25	X	- .708	- .708	0 %100
30	M25	Z	-1.227	-1.227	0 %100
31	M26	X	- .708	- .708	0 %100
32	M26	Z	-1.227	-1.227	0 %100
33	M27	X	- .492	- .492	0 %100
34	M27	Z	- .853	- .853	0 %100
35	M28	X	- .492	- .492	0 %100
36	M28	Z	- .853	- .853	0 %100
37	MP4A	X	-1.142	-1.142	0 %100
38	MP4A	Z	-1.978	-1.978	0 %100
39	MP3A	X	-1.142	-1.142	0 %100
40	MP3A	Z	-1.978	-1.978	0 %100
41	MP2A	X	-1.142	-1.142	0 %100
42	MP2A	Z	-1.978	-1.978	0 %100
43	MP1A	X	-1.142	-1.142	0 %100
44	MP1A	Z	-1.978	-1.978	0 %100
45	M44	X	- .636	- .636	0 %100
46	M44	Z	-1.101	-1.101	0 %100
47	M45	X	- .636	- .636	0 %100
48	M45	Z	-1.101	-1.101	0 %100
49	M46	X	- .636	- .636	0 %100
50	M46	Z	-1.101	-1.101	0 %100
51	M47	X	- .636	- .636	0 %100
52	M47	Z	-1.101	-1.101	0 %100
53	M43	X	- .004	- .004	0 %100
54	M43	Z	- .006	- .006	0 %100
55	OVP	X	-1.142	-1.142	0 %100
56	OVP	Z	-1.978	-1.978	0 %100
57	M47A	X	- .004	- .004	0 %100
58	M47A	Z	- .006	- .006	0 %100

**Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0 %100
2	M1	Z	- .518	- .518	0 %100
3	M2	X	0	0	0 %100
4	M2	Z	- .518	- .518	0 %100
5	M13	X	0	0	0 %100
6	M13	Z	0	0	0 %100
7	M14	X	0	0	0 %100





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**Member Distributed Loads (BLC 65 : Structure Wm (0 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb./ft....]	End Magnitude[lb./ft....]	Start Location[in, %]	End Location[in, %]
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-.205	-.205	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-.205	-.205	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-.205	-.205	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-.205	-.205	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-.113	-.113	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-.113	-.113	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-.113	-.113	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-.113	-.113	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-.117	-.117	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-.117	-.117	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-.117	-.117	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-.117	-.117	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-.428	-.428	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-.428	-.428	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-.428	-.428	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-.428	-.428	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-.113	-.113	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-.113	-.113	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-.113	-.113	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-.113	-.113	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	-.087	-.087	0	%100
55	OVP	X	0	0	0	%100
56	OVP	Z	-.428	-.428	0	%100
57	M47A	X	0	0	0	%100
58	M47A	Z	-.087	-.087	0	%100

**Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))**

	Member Label	Direction	Start Magnitude[lb./ft....]	End Magnitude[lb./ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	.194	.194	0	%100
2	M1	Z	-.337	-.337	0	%100



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**Member Distributed Loads (BLC 66 : Structure Wm (30 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb./ft....]	End Magnitude[lb./ft....]	Start Location[in, %]	End Location[in, %]
3	M2	.194	.194	0	%100
4	M2	-.337	-.337	0	%100
5	M13	.014	.014	0	%100
6	M13	-.024	-.024	0	%100
7	M14	.014	.014	0	%100
8	M14	-.024	-.024	0	%100
9	M15	.014	.014	0	%100
10	M15	-.024	-.024	0	%100
11	M16	.014	.014	0	%100
12	M16	-.024	-.024	0	%100
13	M17	.023	.023	0	%100
14	M17	-.04	-.04	0	%100
15	M18	.023	.023	0	%100
16	M18	-.04	-.04	0	%100
17	M19	.162	.162	0	%100
18	M19	-.28	-.28	0	%100
19	M20	.162	.162	0	%100
20	M20	-.28	-.28	0	%100
21	M21	.042	.042	0	%100
22	M21	-.073	-.073	0	%100
23	M22	.042	.042	0	%100
24	M22	-.073	-.073	0	%100
25	M23	.042	.042	0	%100
26	M23	-.073	-.073	0	%100
27	M24	.042	.042	0	%100
28	M24	-.073	-.073	0	%100
29	M25	.047	.047	0	%100
30	M25	-.081	-.081	0	%100
31	M26	.047	.047	0	%100
32	M26	-.081	-.081	0	%100
33	M27	.067	.067	0	%100
34	M27	-.116	-.116	0	%100
35	M28	.067	.067	0	%100
36	M28	-.116	-.116	0	%100
37	MP4A	.214	.214	0	%100
38	MP4A	-.371	-.371	0	%100
39	MP3A	.214	.214	0	%100
40	MP3A	-.371	-.371	0	%100
41	MP2A	.214	.214	0	%100
42	MP2A	-.371	-.371	0	%100
43	MP1A	.214	.214	0	%100
44	MP1A	-.371	-.371	0	%100
45	M44	.056	.056	0	%100
46	M44	-.098	-.098	0	%100
47	M45	.056	.056	0	%100
48	M45	-.098	-.098	0	%100
49	M46	.056	.056	0	%100
50	M46	-.098	-.098	0	%100
51	M47	.056	.056	0	%100
52	M47	-.098	-.098	0	%100
53	M43	.15	.15	0	%100
54	M43	-.26	-.26	0	%100
55	OVP	.214	.214	0	%100
56	OVP	-.371	-.371	0	%100
57	M47A	.15	.15	0	%100
58	M47A	-.26	-.26	0	%100



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**Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))**

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	M1	X	.112	.112	0 %100
2	M1	Z	-.065	-.065	0 %100
3	M2	X	.112	.112	0 %100
4	M2	Z	-.065	-.065	0 %100
5	M13	X	.073	.073	0 %100
6	M13	Z	-.042	-.042	0 %100
7	M14	X	.073	.073	0 %100
8	M14	Z	-.042	-.042	0 %100
9	M15	X	.073	.073	0 %100
10	M15	Z	-.042	-.042	0 %100
11	M16	X	.073	.073	0 %100
12	M16	Z	-.042	-.042	0 %100
13	M17	X	.006	.006	0 %100
14	M17	Z	-.003	-.003	0 %100
15	M18	X	.006	.006	0 %100
16	M18	Z	-.003	-.003	0 %100
17	M19	X	.246	.246	0 %100
18	M19	Z	-.142	-.142	0 %100
19	M20	X	.246	.246	0 %100
20	M20	Z	-.142	-.142	0 %100
21	M21	X	.024	.024	0 %100
22	M21	Z	-.014	-.014	0 %100
23	M22	X	.024	.024	0 %100
24	M22	Z	-.014	-.014	0 %100
25	M23	X	.024	.024	0 %100
26	M23	Z	-.014	-.014	0 %100
27	M24	X	.024	.024	0 %100
28	M24	Z	-.014	-.014	0 %100
29	M25	X	.076	.076	0 %100
30	M25	Z	-.044	-.044	0 %100
31	M26	X	.076	.076	0 %100
32	M26	Z	-.044	-.044	0 %100
33	M27	X	.111	.111	0 %100
34	M27	Z	-.064	-.064	0 %100
35	M28	X	.111	.111	0 %100
36	M28	Z	-.064	-.064	0 %100
37	MP4A	X	.371	.371	0 %100
38	MP4A	Z	-.214	-.214	0 %100
39	MP3A	X	.371	.371	0 %100
40	MP3A	Z	-.214	-.214	0 %100
41	MP2A	X	.371	.371	0 %100
42	MP2A	Z	-.214	-.214	0 %100
43	MP1A	X	.371	.371	0 %100
44	MP1A	Z	-.214	-.214	0 %100
45	M44	X	.098	.098	0 %100
46	M44	Z	-.056	-.056	0 %100
47	M45	X	.098	.098	0 %100
48	M45	Z	-.056	-.056	0 %100
49	M46	X	.098	.098	0 %100
50	M46	Z	-.056	-.056	0 %100
51	M47	X	.098	.098	0 %100
52	M47	Z	-.056	-.056	0 %100
53	M43	X	.37	.37	0 %100
54	M43	Z	-.213	-.213	0 %100
55	OVP	X	.371	.371	0 %100
56	OVP	Z	-.214	-.214	0 %100
57	M47A	X	.37	.37	0 %100



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**Member Distributed Loads (BLC 67 : Structure Wm (60 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
58	M47A	Z	-.213	-.213	0	%100

**Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	.113	.113	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	.113	.113	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	.113	.113	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	.113	.113	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.125	.125	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.125	.125	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.125	.125	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.125	.125	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	.105	.105	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	.105	.105	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	.105	.105	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	.105	.105	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	.428	.428	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	.428	.428	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	.428	.428	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	.428	.428	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	.113	.113	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	.113	.113	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	.113	.113	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	.113	.113	0	%100
52	M47	Z	0	0	0	%100



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**Member Distributed Loads (BLC 68 : Structure Wm (90 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
53	M43	X	.341	.341	0	%100
54	M43	Z	0	0	0	%100
55	OVP	X	.428	.428	0	%100
56	OVP	Z	0	0	0	%100
57	M47A	X	.341	.341	0	%100
58	M47A	Z	0	0	0	%100

**Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	.112	.112	0	%100
2	M1	Z	.065	.065	0	%100
3	M2	X	.112	.112	0	%100
4	M2	Z	.065	.065	0	%100
5	M13	X	.073	.073	0	%100
6	M13	Z	.042	.042	0	%100
7	M14	X	.073	.073	0	%100
8	M14	Z	.042	.042	0	%100
9	M15	X	.073	.073	0	%100
10	M15	Z	.042	.042	0	%100
11	M16	X	.073	.073	0	%100
12	M16	Z	.042	.042	0	%100
13	M17	X	.246	.246	0	%100
14	M17	Z	.142	.142	0	%100
15	M18	X	.246	.246	0	%100
16	M18	Z	.142	.142	0	%100
17	M19	X	.006	.006	0	%100
18	M19	Z	.003	.003	0	%100
19	M20	X	.006	.006	0	%100
20	M20	Z	.003	.003	0	%100
21	M21	X	.024	.024	0	%100
22	M21	Z	.014	.014	0	%100
23	M22	X	.024	.024	0	%100
24	M22	Z	.014	.014	0	%100
25	M23	X	.024	.024	0	%100
26	M23	Z	.014	.014	0	%100
27	M24	X	.024	.024	0	%100
28	M24	Z	.014	.014	0	%100
29	M25	X	.111	.111	0	%100
30	M25	Z	.064	.064	0	%100
31	M26	X	.111	.111	0	%100
32	M26	Z	.064	.064	0	%100
33	M27	X	.076	.076	0	%100
34	M27	Z	.044	.044	0	%100
35	M28	X	.076	.076	0	%100
36	M28	Z	.044	.044	0	%100
37	MP4A	X	.371	.371	0	%100
38	MP4A	Z	.214	.214	0	%100
39	MP3A	X	.371	.371	0	%100
40	MP3A	Z	.214	.214	0	%100
41	MP2A	X	.371	.371	0	%100
42	MP2A	Z	.214	.214	0	%100
43	MP1A	X	.371	.371	0	%100
44	MP1A	Z	.214	.214	0	%100
45	M44	X	.098	.098	0	%100
46	M44	Z	.056	.056	0	%100
47	M45	X	.098	.098	0	%100



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**Member Distributed Loads (BLC 69 : Structure Wm (120 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
48	M45	Z	.056	.056	0	%100
49	M46	X	.098	.098	0	%100
50	M46	Z	.056	.056	0	%100
51	M47	X	.098	.098	0	%100
52	M47	Z	.056	.056	0	%100
53	M43	X	.111	.111	0	%100
54	M43	Z	.064	.064	0	%100
55	OVP	X	.371	.371	0	%100
56	OVP	Z	.214	.214	0	%100
57	M47A	X	.111	.111	0	%100
58	M47A	Z	.064	.064	0	%100

**Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	.194	.194	0	%100
2	M1	Z	.337	.337	0	%100
3	M2	X	.194	.194	0	%100
4	M2	Z	.337	.337	0	%100
5	M13	X	.014	.014	0	%100
6	M13	Z	.024	.024	0	%100
7	M14	X	.014	.014	0	%100
8	M14	Z	.024	.024	0	%100
9	M15	X	.014	.014	0	%100
10	M15	Z	.024	.024	0	%100
11	M16	X	.014	.014	0	%100
12	M16	Z	.024	.024	0	%100
13	M17	X	.162	.162	0	%100
14	M17	Z	.28	.28	0	%100
15	M18	X	.162	.162	0	%100
16	M18	Z	.28	.28	0	%100
17	M19	X	.023	.023	0	%100
18	M19	Z	.04	.04	0	%100
19	M20	X	.023	.023	0	%100
20	M20	Z	.04	.04	0	%100
21	M21	X	.042	.042	0	%100
22	M21	Z	.073	.073	0	%100
23	M22	X	.042	.042	0	%100
24	M22	Z	.073	.073	0	%100
25	M23	X	.042	.042	0	%100
26	M23	Z	.073	.073	0	%100
27	M24	X	.042	.042	0	%100
28	M24	Z	.073	.073	0	%100
29	M25	X	.067	.067	0	%100
30	M25	Z	.116	.116	0	%100
31	M26	X	.067	.067	0	%100
32	M26	Z	.116	.116	0	%100
33	M27	X	.047	.047	0	%100
34	M27	Z	.081	.081	0	%100
35	M28	X	.047	.047	0	%100
36	M28	Z	.081	.081	0	%100
37	MP4A	X	.214	.214	0	%100
38	MP4A	Z	.371	.371	0	%100
39	MP3A	X	.214	.214	0	%100
40	MP3A	Z	.371	.371	0	%100
41	MP2A	X	.214	.214	0	%100
42	MP2A	Z	.371	.371	0	%100



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**Member Distributed Loads (BLC 70 : Structure Wm (150 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
43	MP1A	X	.214	.214	0	%100
44	MP1A	Z	.371	.371	0	%100
45	M44	X	.056	.056	0	%100
46	M44	Z	.098	.098	0	%100
47	M45	X	.056	.056	0	%100
48	M45	Z	.098	.098	0	%100
49	M46	X	.056	.056	0	%100
50	M46	Z	.098	.098	0	%100
51	M47	X	.056	.056	0	%100
52	M47	Z	.098	.098	0	%100
53	M43	X	.000673	.000673	0	%100
54	M43	Z	.001	.001	0	%100
55	OVP	X	.214	.214	0	%100
56	OVP	Z	.371	.371	0	%100
57	M47A	X	.000673	.000673	0	%100
58	M47A	Z	.001	.001	0	%100

**Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0	%100
2	M1	Z	.518	.518	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.518	.518	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	.205	.205	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	.205	.205	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.205	.205	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	.205	.205	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	.113	.113	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	.113	.113	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	.113	.113	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	.113	.113	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	.117	.117	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	.117	.117	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	.117	.117	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	.117	.117	0	%100
37	MP4A	X	0	0	0	%100



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**Member Distributed Loads (BLC 71 : Structure Wm (180 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
38	MP4A	Z	.428	.428	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	.428	.428	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	.428	.428	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	.428	.428	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	.113	.113	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	.113	.113	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	.113	.113	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	.113	.113	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	.087	.087	0	%100
55	OVP	X	0	0	0	%100
56	OVP	Z	.428	.428	0	%100
57	M47A	X	0	0	0	%100
58	M47A	Z	.087	.087	0	%100

**Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-.194	-.194	0	%100
2	M1	Z	.337	.337	0	%100
3	M2	X	-.194	-.194	0	%100
4	M2	Z	.337	.337	0	%100
5	M13	X	-.014	-.014	0	%100
6	M13	Z	.024	.024	0	%100
7	M14	X	-.014	-.014	0	%100
8	M14	Z	.024	.024	0	%100
9	M15	X	-.014	-.014	0	%100
10	M15	Z	.024	.024	0	%100
11	M16	X	-.014	-.014	0	%100
12	M16	Z	.024	.024	0	%100
13	M17	X	-.023	-.023	0	%100
14	M17	Z	.04	.04	0	%100
15	M18	X	-.023	-.023	0	%100
16	M18	Z	.04	.04	0	%100
17	M19	X	-.162	-.162	0	%100
18	M19	Z	.28	.28	0	%100
19	M20	X	-.162	-.162	0	%100
20	M20	Z	.28	.28	0	%100
21	M21	X	-.042	-.042	0	%100
22	M21	Z	.073	.073	0	%100
23	M22	X	-.042	-.042	0	%100
24	M22	Z	.073	.073	0	%100
25	M23	X	-.042	-.042	0	%100
26	M23	Z	.073	.073	0	%100
27	M24	X	-.042	-.042	0	%100
28	M24	Z	.073	.073	0	%100
29	M25	X	-.047	-.047	0	%100
30	M25	Z	.081	.081	0	%100
31	M26	X	-.047	-.047	0	%100
32	M26	Z	.081	.081	0	%100





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**Member Distributed Loads (BLC 72 : Structure Wm (210 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
33	M27	X	-.067	-.067	0	%100
34	M27	Z	.116	.116	0	%100
35	M28	X	-.067	-.067	0	%100
36	M28	Z	.116	.116	0	%100
37	MP4A	X	-.214	-.214	0	%100
38	MP4A	Z	.371	.371	0	%100
39	MP3A	X	-.214	-.214	0	%100
40	MP3A	Z	.371	.371	0	%100
41	MP2A	X	-.214	-.214	0	%100
42	MP2A	Z	.371	.371	0	%100
43	MP1A	X	-.214	-.214	0	%100
44	MP1A	Z	.371	.371	0	%100
45	M44	X	-.056	-.056	0	%100
46	M44	Z	.098	.098	0	%100
47	M45	X	-.056	-.056	0	%100
48	M45	Z	.098	.098	0	%100
49	M46	X	-.056	-.056	0	%100
50	M46	Z	.098	.098	0	%100
51	M47	X	-.056	-.056	0	%100
52	M47	Z	.098	.098	0	%100
53	M43	X	-.15	-.15	0	%100
54	M43	Z	.26	.26	0	%100
55	OVP	X	-.214	-.214	0	%100
56	OVP	Z	.371	.371	0	%100
57	M47A	X	-.15	-.15	0	%100
58	M47A	Z	.26	.26	0	%100

**Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-.112	-.112	0	%100
2	M1	Z	.065	.065	0	%100
3	M2	X	-.112	-.112	0	%100
4	M2	Z	.065	.065	0	%100
5	M13	X	-.073	-.073	0	%100
6	M13	Z	.042	.042	0	%100
7	M14	X	-.073	-.073	0	%100
8	M14	Z	.042	.042	0	%100
9	M15	X	-.073	-.073	0	%100
10	M15	Z	.042	.042	0	%100
11	M16	X	-.073	-.073	0	%100
12	M16	Z	.042	.042	0	%100
13	M17	X	-.006	-.006	0	%100
14	M17	Z	.003	.003	0	%100
15	M18	X	-.006	-.006	0	%100
16	M18	Z	.003	.003	0	%100
17	M19	X	-.246	-.246	0	%100
18	M19	Z	.142	.142	0	%100
19	M20	X	-.246	-.246	0	%100
20	M20	Z	.142	.142	0	%100
21	M21	X	-.024	-.024	0	%100
22	M21	Z	.014	.014	0	%100
23	M22	X	-.024	-.024	0	%100
24	M22	Z	.014	.014	0	%100
25	M23	X	-.024	-.024	0	%100
26	M23	Z	.014	.014	0	%100
27	M24	X	-.024	-.024	0	%100

**Member Distributed Loads (BLC 73 : Structure Wm (240 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
28	M24	Z	.014	.014	0	%100
29	M25	X	-.076	-.076	0	%100
30	M25	Z	.044	.044	0	%100
31	M26	X	-.076	-.076	0	%100
32	M26	Z	.044	.044	0	%100
33	M27	X	-.111	-.111	0	%100
34	M27	Z	.064	.064	0	%100
35	M28	X	-.111	-.111	0	%100
36	M28	Z	.064	.064	0	%100
37	MP4A	X	-.371	-.371	0	%100
38	MP4A	Z	.214	.214	0	%100
39	MP3A	X	-.371	-.371	0	%100
40	MP3A	Z	.214	.214	0	%100
41	MP2A	X	-.371	-.371	0	%100
42	MP2A	Z	.214	.214	0	%100
43	MP1A	X	-.371	-.371	0	%100
44	MP1A	Z	.214	.214	0	%100
45	M44	X	-.098	-.098	0	%100
46	M44	Z	.056	.056	0	%100
47	M45	X	-.098	-.098	0	%100
48	M45	Z	.056	.056	0	%100
49	M46	X	-.098	-.098	0	%100
50	M46	Z	.056	.056	0	%100
51	M47	X	-.098	-.098	0	%100
52	M47	Z	.056	.056	0	%100
53	M43	X	-.37	-.37	0	%100
54	M43	Z	.213	.213	0	%100
55	OVP	X	-.371	-.371	0	%100
56	OVP	Z	.214	.214	0	%100
57	M47A	X	-.37	-.37	0	%100
58	M47A	Z	.213	.213	0	%100

**Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-.113	-.113	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-.113	-.113	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-.113	-.113	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-.113	-.113	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.125	-.125	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.125	-.125	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.125	-.125	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.125	-.125	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100



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**Member Distributed Loads (BLC 74 : Structure Wm (270 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-105	-105	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-105	-105	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-105	-105	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-105	-105	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-428	-428	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-428	-428	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-428	-428	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-428	-428	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-113	-113	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-113	-113	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-113	-113	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-113	-113	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	-341	-341	0	%100
54	M43	Z	0	0	0	%100
55	OVP	X	-428	-428	0	%100
56	OVP	Z	0	0	0	%100
57	M47A	X	-341	-341	0	%100
58	M47A	Z	0	0	0	%100

**Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-112	-112	0	%100
2	M1	Z	-065	-065	0	%100
3	M2	X	-112	-112	0	%100
4	M2	Z	-065	-065	0	%100
5	M13	X	-073	-073	0	%100
6	M13	Z	-042	-042	0	%100
7	M14	X	-073	-073	0	%100
8	M14	Z	-042	-042	0	%100
9	M15	X	-073	-073	0	%100
10	M15	Z	-042	-042	0	%100
11	M16	X	-073	-073	0	%100
12	M16	Z	-042	-042	0	%100
13	M17	X	-246	-246	0	%100
14	M17	Z	-142	-142	0	%100
15	M18	X	-246	-246	0	%100
16	M18	Z	-142	-142	0	%100
17	M19	X	-006	-006	0	%100



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**Member Distributed Loads (BLC 75 : Structure Wm (300 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
18	M19	Z	-0.003	-0.003	0	%100
19	M20	X	-0.006	-0.006	0	%100
20	M20	Z	-0.003	-0.003	0	%100
21	M21	X	-0.024	-0.024	0	%100
22	M21	Z	-0.014	-0.014	0	%100
23	M22	X	-0.024	-0.024	0	%100
24	M22	Z	-0.014	-0.014	0	%100
25	M23	X	-0.024	-0.024	0	%100
26	M23	Z	-0.014	-0.014	0	%100
27	M24	X	-0.024	-0.024	0	%100
28	M24	Z	-0.014	-0.014	0	%100
29	M25	X	-0.111	-0.111	0	%100
30	M25	Z	-0.064	-0.064	0	%100
31	M26	X	-0.111	-0.111	0	%100
32	M26	Z	-0.064	-0.064	0	%100
33	M27	X	-0.076	-0.076	0	%100
34	M27	Z	-0.044	-0.044	0	%100
35	M28	X	-0.076	-0.076	0	%100
36	M28	Z	-0.044	-0.044	0	%100
37	MP4A	X	-0.371	-0.371	0	%100
38	MP4A	Z	-0.214	-0.214	0	%100
39	MP3A	X	-0.371	-0.371	0	%100
40	MP3A	Z	-0.214	-0.214	0	%100
41	MP2A	X	-0.371	-0.371	0	%100
42	MP2A	Z	-0.214	-0.214	0	%100
43	MP1A	X	-0.371	-0.371	0	%100
44	MP1A	Z	-0.214	-0.214	0	%100
45	M44	X	-0.098	-0.098	0	%100
46	M44	Z	-0.056	-0.056	0	%100
47	M45	X	-0.098	-0.098	0	%100
48	M45	Z	-0.056	-0.056	0	%100
49	M46	X	-0.098	-0.098	0	%100
50	M46	Z	-0.056	-0.056	0	%100
51	M47	X	-0.098	-0.098	0	%100
52	M47	Z	-0.056	-0.056	0	%100
53	M43	X	-0.111	-0.111	0	%100
54	M43	Z	-0.064	-0.064	0	%100
55	OVP	X	-0.371	-0.371	0	%100
56	OVP	Z	-0.214	-0.214	0	%100
57	M47A	X	-0.111	-0.111	0	%100
58	M47A	Z	-0.064	-0.064	0	%100

**Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	M1	X	-0.194	-0.194	0	%100
2	M1	Z	-0.337	-0.337	0	%100
3	M2	X	-0.194	-0.194	0	%100
4	M2	Z	-0.337	-0.337	0	%100
5	M13	X	-0.014	-0.014	0	%100
6	M13	Z	-0.024	-0.024	0	%100
7	M14	X	-0.014	-0.014	0	%100
8	M14	Z	-0.024	-0.024	0	%100
9	M15	X	-0.014	-0.014	0	%100
10	M15	Z	-0.024	-0.024	0	%100
11	M16	X	-0.014	-0.014	0	%100
12	M16	Z	-0.024	-0.024	0	%100



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**Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
13	M17	X	-162	-162	0 %100
14	M17	Z	-28	-28	0 %100
15	M18	X	-162	-162	0 %100
16	M18	Z	-28	-28	0 %100
17	M19	X	-023	-023	0 %100
18	M19	Z	-04	-04	0 %100
19	M20	X	-023	-023	0 %100
20	M20	Z	-04	-04	0 %100
21	M21	X	-042	-042	0 %100
22	M21	Z	-073	-073	0 %100
23	M22	X	-042	-042	0 %100
24	M22	Z	-073	-073	0 %100
25	M23	X	-042	-042	0 %100
26	M23	Z	-073	-073	0 %100
27	M24	X	-042	-042	0 %100
28	M24	Z	-073	-073	0 %100
29	M25	X	-067	-067	0 %100
30	M25	Z	-116	-116	0 %100
31	M26	X	-067	-067	0 %100
32	M26	Z	-116	-116	0 %100
33	M27	X	-047	-047	0 %100
34	M27	Z	-081	-081	0 %100
35	M28	X	-047	-047	0 %100
36	M28	Z	-081	-081	0 %100
37	MP4A	X	-214	-214	0 %100
38	MP4A	Z	-371	-371	0 %100
39	MP3A	X	-214	-214	0 %100
40	MP3A	Z	-371	-371	0 %100
41	MP2A	X	-214	-214	0 %100
42	MP2A	Z	-371	-371	0 %100
43	MP1A	X	-214	-214	0 %100
44	MP1A	Z	-371	-371	0 %100
45	M44	X	-056	-056	0 %100
46	M44	Z	-098	-098	0 %100
47	M45	X	-056	-056	0 %100
48	M45	Z	-098	-098	0 %100
49	M46	X	-056	-056	0 %100
50	M46	Z	-098	-098	0 %100
51	M47	X	-056	-056	0 %100
52	M47	Z	-098	-098	0 %100
53	M43	X	-000673	-000673	0 %100
54	M43	Z	-001	-001	0 %100
55	OVP	X	-214	-214	0 %100
56	OVP	Z	-371	-371	0 %100
57	M47A	X	-000673	-000673	0 %100
58	M47A	Z	-001	-001	0 %100

**Basic Load Cases**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Antenna D	None				33		
2	Antenna Di	None				33		
3	Antenna Wo (0 Deg)	None				33		
4	Antenna Wo (30 Deg)	None				33		
5	Antenna Wo (60 Deg)	None				33		
6	Antenna Wo (90 Deg)	None				33		



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**Basic Load Cases (Continued)**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
7	Antenna Wo (120 Deg)	None					33		
8	Antenna Wo (150 Deg)	None					33		
9	Antenna Wo (180 Deg)	None					33		
10	Antenna Wo (210 Deg)	None					33		
11	Antenna Wo (240 Deg)	None					33		
12	Antenna Wo (270 Deg)	None					33		
13	Antenna Wo (300 Deg)	None					33		
14	Antenna Wo (330 Deg)	None					33		
15	Antenna Wi (0 Deg)	None					33		
16	Antenna Wi (30 Deg)	None					33		
17	Antenna Wi (60 Deg)	None					33		
18	Antenna Wi (90 Deg)	None					33		
19	Antenna Wi (120 Deg)	None					33		
20	Antenna Wi (150 Deg)	None					33		
21	Antenna Wi (180 Deg)	None					33		
22	Antenna Wi (210 Deg)	None					33		
23	Antenna Wi (240 Deg)	None					33		
24	Antenna Wi (270 Deg)	None					33		
25	Antenna Wi (300 Deg)	None					33		
26	Antenna Wi (330 Deg)	None					33		
27	Antenna Wm (0 Deg)	None					33		
28	Antenna Wm (30 Deg)	None					33		
29	Antenna Wm (60 Deg)	None					33		
30	Antenna Wm (90 Deg)	None					33		
31	Antenna Wm (120 De...	None					33		
32	Antenna Wm (150 De...	None					33		
33	Antenna Wm (180 De...	None					33		
34	Antenna Wm (210 De...	None					33		
35	Antenna Wm (240 De...	None					33		
36	Antenna Wm (270 De...	None					33		
37	Antenna Wm (300 De...	None					33		
38	Antenna Wm (330 De...	None					33		
39	Structure D	None		-1					
40	Structure Di	None						29	
41	Structure Wo (0 Deg)	None						58	
42	Structure Wo (30 Deg)	None						58	
43	Structure Wo (60 Deg)	None						58	
44	Structure Wo (90 Deg)	None						58	
45	Structure Wo (120 D...	None						58	
46	Structure Wo (150 D...	None						58	
47	Structure Wo (180 D...	None						58	
48	Structure Wo (210 D...	None						58	
49	Structure Wo (240 D...	None						58	
50	Structure Wo (270 D...	None						58	
51	Structure Wo (300 D...	None						58	
52	Structure Wo (330 D...	None						58	
53	Structure Wi (0 Deg)	None						58	
54	Structure Wi (30 Deg)	None						58	
55	Structure Wi (60 Deg)	None						58	
56	Structure Wi (90 Deg)	None						58	
57	Structure Wi (120 De...	None						58	
58	Structure Wi (150 De...	None						58	
59	Structure Wi (180 De...	None						58	
60	Structure Wi (210 De...	None						58	
61	Structure Wi (240 De...	None						58	
62	Structure Wi (270 De...	None						58	
63	Structure Wi (300 De...	None						58	



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**Basic Load Cases (Continued)**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
64 Structure Wm (330 De...	None						58	
65 Structure Wm (0 Deg)	None						58	
66 Structure Wm (30 De...	None						58	
67 Structure Wm (60 De...	None						58	
68 Structure Wm (90 De...	None						58	
69 Structure Wm (120 D...	None						58	
70 Structure Wm (150 D...	None						58	
71 Structure Wm (180 D...	None						58	
72 Structure Wm (210 D...	None						58	
73 Structure Wm (240 D...	None						58	
74 Structure Wm (270 D...	None						58	
75 Structure Wm (300 D...	None						58	
76 Structure Wm (330 D...	None						58	
77 Lm1	None					1		
78 Lm2	None					1		
79 Lv1	None					1		
80 Lv2	None					1		

**Load Combinations**

Description	Sol.	PD	SR	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
1 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	3	1	41	1									
2 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	4	1	42	1									
3 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	5	1	43	1									
4 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	6	1	44	1									
5 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	7	1	45	1									
6 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	8	1	46	1									
7 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	9	1	47	1									
8 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	10	1	48	1									
9 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	11	1	49	1									
10 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	12	1	50	1									
11 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	13	1	51	1									
12 1.2D+1.0...	Yes	Y		1	1.2	39	1.2	14	1	52	1									
13 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1					
14 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1					
15 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1					
16 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1					
17 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1					
18 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1					
19 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1					
20 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1					
21 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1					
22 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1					
23 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1					
24 1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1					
25 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1							
26 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1							
27 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1							
28 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1							
29 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1							
30 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1							
31 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1							
32 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1							
33 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1							
34 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1							
35 1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1							



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**Load Combinations (Continued)**

Description	Sol.	PD	SR	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
36	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1	
37	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1	
38	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1	
39	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1	
40	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1	
41	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1	
42	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1	
43	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1	
44	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1	
45	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1	
46	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1	
47	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1	
48	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1	
49	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	79	1.5					
50	1.2D + 1.5...	Yes	Y	1	1.2	39	1.2	80	1.5					
51	1.4D	Yes	Y	1	1.4	39	1.4							
52	Seismic M...		Y	1	1	39	1							
53	1.2D + 1.0...		Y	1	1.2	39	1.2	SX		SY	1	SZ	-1	
54	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866	
55	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5	
56	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	1	SY	1	SZ		
57	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	.866	SY	1	SZ	.5	
58	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	.5	SY	1	SZ	.866	
59	1.2D + 1.0...		Y	1	1.2	39	1.2	SX		SY	1	SZ	1	
60	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866	
61	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5	
62	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	-1	SY	1	SZ		
63	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5	
64	1.2D + 1.0...		Y	1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866	

**Envelope Joint Reactions**

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1	N35	max	426.56	33	1014.908	17	1255.706	14	-.169	8	.063	7	.071	25
2		min	-1123.005	39	468.112	11	-188.075	8	-.43	14	-.102	1	-.191	43
3	N36	max	1129.804	45	990.984	18	378.35	2	-.159	8	.071	8	.067	26
4		min	-536.758	3	468.421	12	-1386.003	8	-.408	14	-.033	2	-.181	44
5	N63	max	218.143	11	53.953	23	415.619	11	0	51	0	51	0	51
6		min	-260.62	5	14.061	5	-499.748	5	0	1	0	1	0	1
7	N69	max	258.302	11	57.515	23	495.166	11	0	51	0	51	0	51
8		min	-215.87	5	16.095	5	-411.088	5	0	1	0	1	0	1
9	Totals:	max	1284.271	10	2108.221	14	1717.242	1						
10		min	-1284.271	4	1009.467	8	-1717.245	7						

**Envelope AISC 15th(360-16): LRFD Steel Code Checks**

Member	Shape	Code C...	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn	
1	M23	PL5/8X3.5	.385	6.375	38	.063	1.594	y	38	67591.76	68906.25	.897	5.024	1...	H1-1b
2	M21	PL5/8X3.5	.374	6.375	44	.081	6.375	y	8	67591.76	68906.25	.897	5.024	1...	H1-1b
3	MP4A	PIPE 2.0	.355	68	40	.052	68		40	14916.096	32130	1.872	1.872	4...	H1-1b
4	M24	PL5/8X3.5	.264	6.375	25	.044	6.375	y	1	67591.76	68906.25	.897	5.024	1...	H1-1b
5	M22	PL5/8X3.5	.258	6.375	31	.041	6.375	y	7	67591.76	68906.25	.897	5.024	1...	H1-1b
6	M1	PIPE 2.5	.230	45.313	38	.082	104.6...		31	14558.792	50715	3.596	3.596	2...	H1-1b
7	M2	PIPE 2.5	.226	45.313	44	.070	45.313		44	14558.792	50715	3.596	3.596	2...	H1-1b
8	M14	PL5/8X3.5	.210	0	41	.124	5.063	y	2	66184.77	68906.25	.897	5.024	1...	H1-1b
9	M13	PL5/8X3.5	.196	5.063	44	.132	5.063	y	8	66184.77	68906.25	.897	5.024	1...	H1-1b





Company :  
 Designer :  
 Job Number :  
 Model Name :

Aug 13, 2021  
 2:07 PM  
 Checked By: \_\_\_\_\_

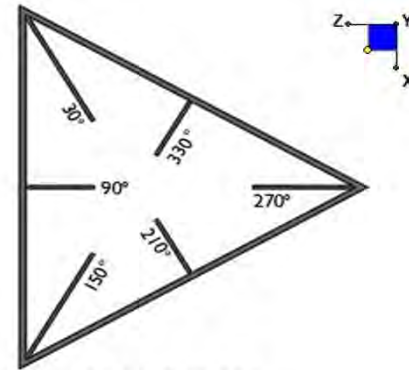
**Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)**

Member	Shape	Code C...	Loc[in]	LC Shear ...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn		
10	M15	PL5/8X3.5	.171	0	25	.072	0	y	1	66184.77	68906.25	.897	5.024	1...	H1-1b
11	MP3A	PIPE 2.5	.139	28	44	.048	28		9	30038.461	50715	3.596	3.596	4...	H1-1b
12	M17	PIPE 2.0	.136	0	8	.065	0		14	31128.25	32130	1.872	1.872	2...	H1-1b
13	MP1A	PIPE 2.0	.127	68	21	.032	28		6	14916.096	32130	1.872	1.872	4...	H1-1b
14	M16	PL5/8X3.5	.121	5.063	31	.079	0	y	7	66184.77	68906.25	.897	5.024	1...	H1-1b
15	M18	PIPE 2.0	.120	0	2	.082	0		39	31128.25	32130	1.872	1.872	1...	H1-1b
16	M47A	PIPE 2.0	.110	73.045	9	.006	146.09		21	6636.947	32130	1.872	1.872	1...	H1-1b
17	M43	PIPE 2.0	.100	73.045	9	.006	146.09		21	6636.947	32130	1.872	1.872	1...	H1-1b
18	MP2A	PIPE 2.0	.087	28	42	.015	49		40	14916.096	32130	1.872	1.872	4...	H1-1b
19	M20	PIPE 2.0	.086	0	7	.051	0		25	31128.25	32130	1.872	1.872	2...	H1-1b
20	M19	PIPE 2.0	.075	30.007	2	.061	0		25	31128.25	32130	1.872	1.872	1...	H1-1b
21	M26	SR 0.75	.070	0	44	.014	0		38	2863.936	13916.259	.174	.174	1...	H1-1b*
22	M28	SR 0.75	.056	50.004	31	.007	0		33	2863.936	13916.259	.174	.174	1...	H1-1b*
23	M44	SR 0.625	.040	20	11	.011	0		43	2158.269	9664.074	.101	.101	1...	H1-1b
24	M45	SR 0.625	.039	20	8	.004	0		43	2158.269	9664.074	.101	.101	1...	H1-1b
25	M47	SR 0.625	.035	20	7	.006	0		42	2158.269	9664.074	.101	.101	1	H1-1b
26	M46	SR 0.625	.032	20	7	.002	0		19	2158.269	9664.074	.101	.101	1	H1-1b
27	OVP	PIPE 2.0	.011	20.625	7	.015	10		7	23808.54	32130	1.872	1.872	1	H1-1b
28	M25	SR 0.75	.000	0	51	.008	0		8	2863.936	13916.259	.174	.174	1...	H1-1a
29	M27	SR 0.75	.000	0	51	.005	0		3	2863.936	13916.259	.174	.174	1...	H1-1a

## I. Mount-to-Tower Connection Check

### RISA Model Data

Nodes (labeled per RISA)	Orientation (per graphic of typical platform)
N35	90
N36	90



TYPICAL PLATFORM

### Tower Connection Bolt Checks

Any moment resistance?:

Bolt Quantity per Reaction:

$d_x$  (in) (Delta X of typ. bolt config. sketch):

$d_y$  (in) (Delta Y of typ. bolt config. sketch):

Bolt Type:

Bolt Diameter (in):

Required Tensile Strength (kips):

Required Shear Strength (kips):

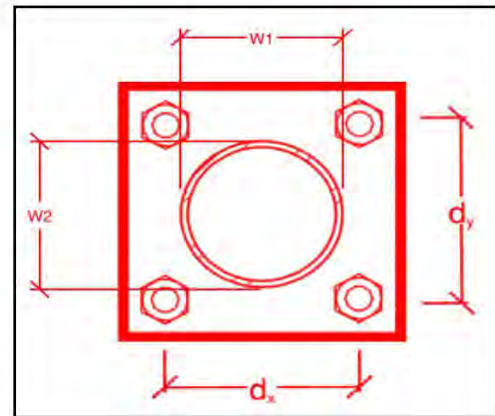
Tensile Strength / bolt (kips):

Shear Strength / bolt (kips):

Tensile Capacity Overall:

Shear Capacity Overall:

yes
4
9.5
3.5
A307
0.625
4.2
2.0
10.0
6.0
10.5%*
8.5%



\*Note: Tension reduction not required if tension or shear capacity < 30%

# Mount Desktop – Post Modification Inspection (PMI) Report Requirements

## Documents & Photos Required from Contractor – **New Mount Passing MA**

---

**Purpose** – to provide Maser Consulting Connecticut the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

### **Base Requirements:**

- Any special photos outside of the standard requirements will be indicated on the passing MA
- Verification that loading is as communicated in the Mount Analysis. NOTE If loading is different than what is conveyed in the modification drawing contact Maser Consulting Connecticut immediately.
- Verification that the New Mount Installed is as specified in the MA
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to <https://pmi.vzwsmart.com> as depicted on the drawings

### **Photo Requirements:**

- Base and “During Installation Photos”
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - “During Installation Photos if provided - must be placed only in this folder
- Photos taken at ground level
  - Overall tower structure before and after installation of the modifications
  - Photos of the appropriate mount before and after installation of the new mount;
- Photos taken at Mount Elevation
  - Photos showing each individual sector before and also after installation of equipment.
    - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
  - Photos showing the newly installed mount that is as specified in the Mount Analysis

- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the climbing facility and safety climb if present.
- Photos showing the climbing facility and safety climb if present.

**Antenna & equipment placement and Geometry Confirmation:**

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.
- The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.
- The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual:	Company	
	Name	
	Signature	

**New Mount Certification:**

- The contractor must certify that the New Mount installed is as specified
- The contractor certifies that the New Mount installed is as specified in the Passing Mount Analysis
- The contractor notes that the New Mount installed is not as specified and engineering approval was received for the New Mount Installed
- The contractor did not install the New Mount specified in the Passing Mount Analysis

Certifying Individual:	Company	
	Name	
	Signature	

**Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:**

**Issue:**

Contractor to install proposed OVPs on (2) 60" long P2 STD pipes connected to standoff horizontals of alpha and gamma sectors with 1/2" Dia. U-Bolts (4 total, 2 per sector) installed in existing brackets.

Dual mounted antennas are to be installed on a proposed 96" Long P2 1/2 STD mount pipe in position 3 (1 per sector, 3 total) in position 3 (looking out from tower).

Contractor is to install 96" long P2 STD mount pipes (9 total, 3 per sector) in positions 1, 2, and 4 using included hardware.

Contractor is to replace tie-back pipes with new 156" P2 STD (6 total, 2 per sector). Tie-backs are to be installed in stacked configuration connected to mount at face horizontals 6" ( $\pm 3$ ") from right v-arm (looking out from tower) and connecting back to adjacent tower leg.

Contractor to inspect climbing facilities at site and ensure that the safety climb is in good condition and that the wire rope does not or will not interfere with the existing or proposed mount connections. Contractor shall install safety climb wire rope guides around mount connections as needed (SitePro1, Part #: 120-203/317 or EOR approved equivalent).

**Response:**

--

## **Schedule A – Photo & Document File Structure**

VzW Site Number / Name

Base & “During Installation” Photos

Pre-Installation Photos

Alpha

Beta

Gamma

Ground Level

Tape Drop

Post-Installation Photos

Alpha

Beta

Gamma

Ground Level

Tape Drop

Photos of climbing facility and safety climb – If Present

Certifications – Submission of this document including certifications

Specific Required Additional Photos

Sector: **A**  
 Structure Type: Monopole  
 Mount Elev: 80.00

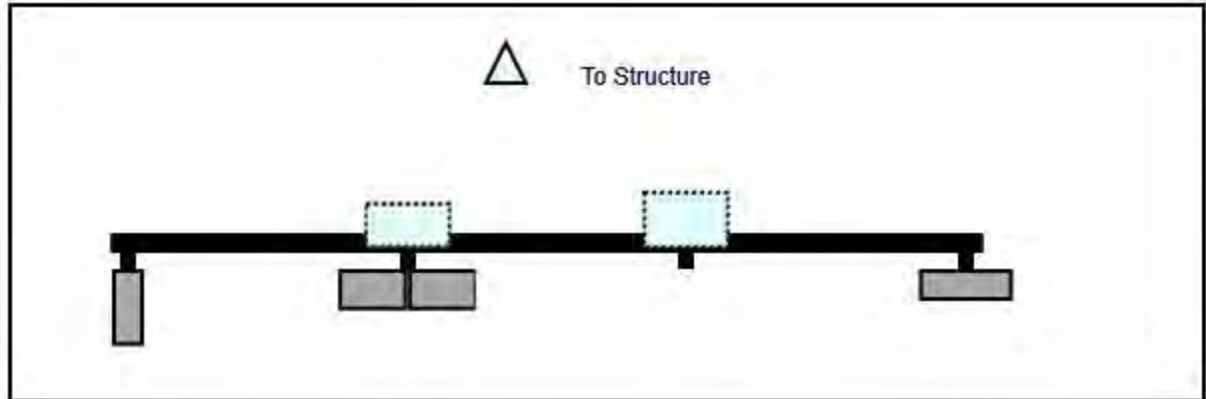
10050441

8/13/2021

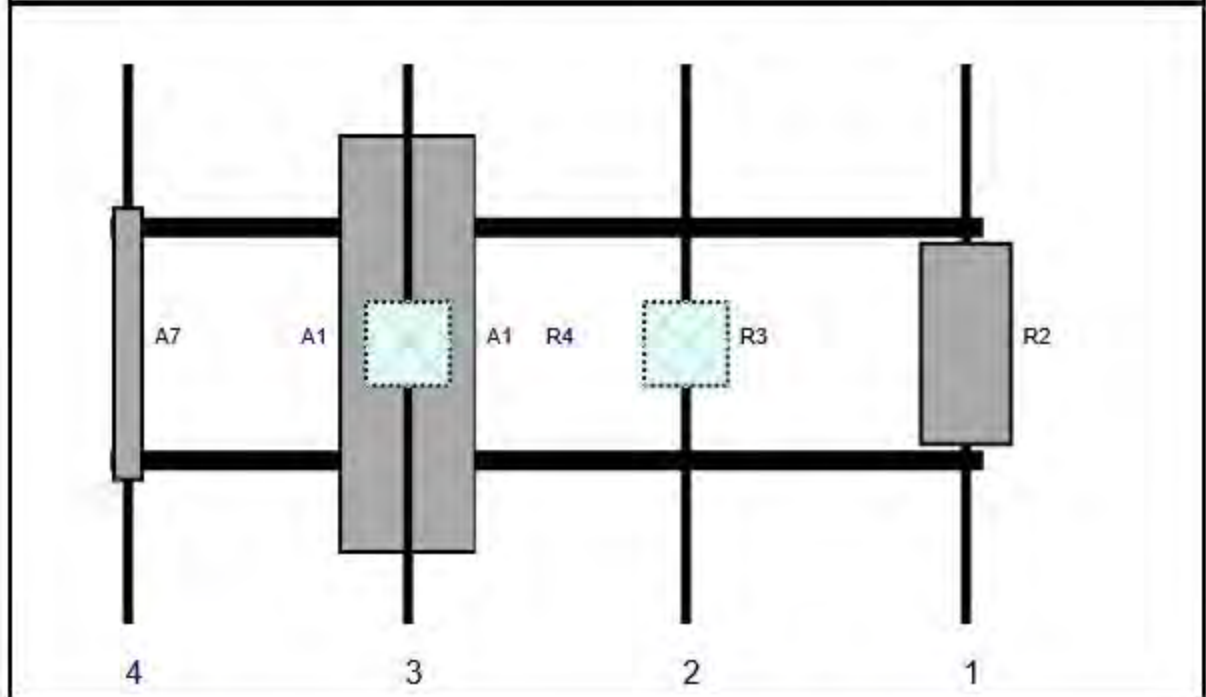
Page: 1



Plan View



Front View  
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	147	1	a	Front	48	0	Added	
R3	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	99	2	a	Behind	48	0	Added	
A1	NHH-65B-R2B	72	11.9	51	3	a	Front	48	6	Added	
A1	NHH-65B-R2B	72	11.9	51	3	b	Front	48	-6	Added	
R4	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	51	3	a	Behind	48	0	Added	
A7	LPA-80080/4CF	47.2	5.5	3	4	a	Front	48	0	Retained	

Sector: **B**  
 Structure Type: Monopole  
 Mount Elev: 80.00

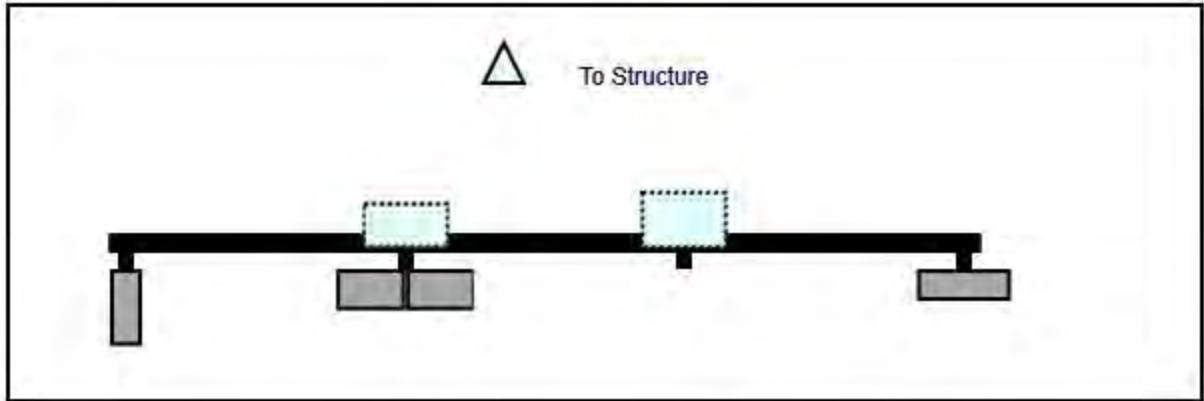
10050441

8/13/2021

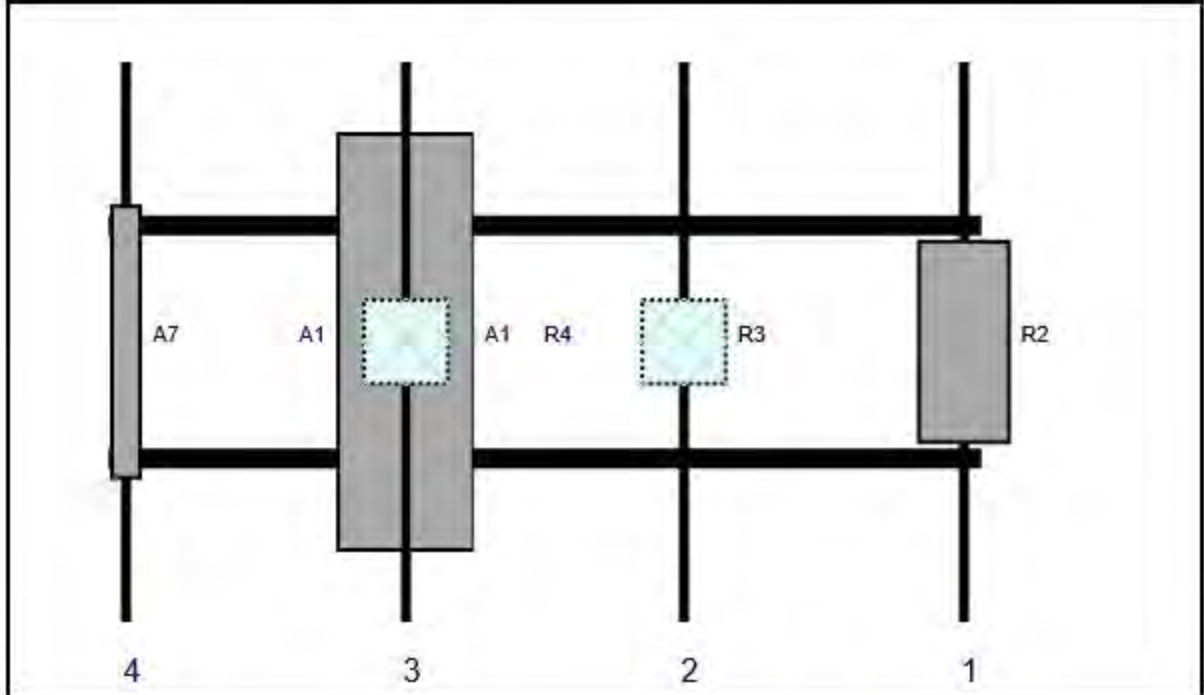
Page: 2



Plan View



Front View  
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	147	1	a	Front	48	0	Added	
R3	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	99	2	a	Behind	48	0	Added	
A1	NHH-65B-R2B	72	11.9	51	3	a	Front	48	6	Added	
A1	NHH-65B-R2B	72	11.9	51	3	b	Front	48	-6	Added	
R4	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	51	3	a	Behind	48	0	Added	
A7	LPA-80080/4CF	47.2	5.5	3	4	a	Front	48	0	Retained	



Sector: C  
 Structure Type: Monopole  
 Mount Elev: 80.00

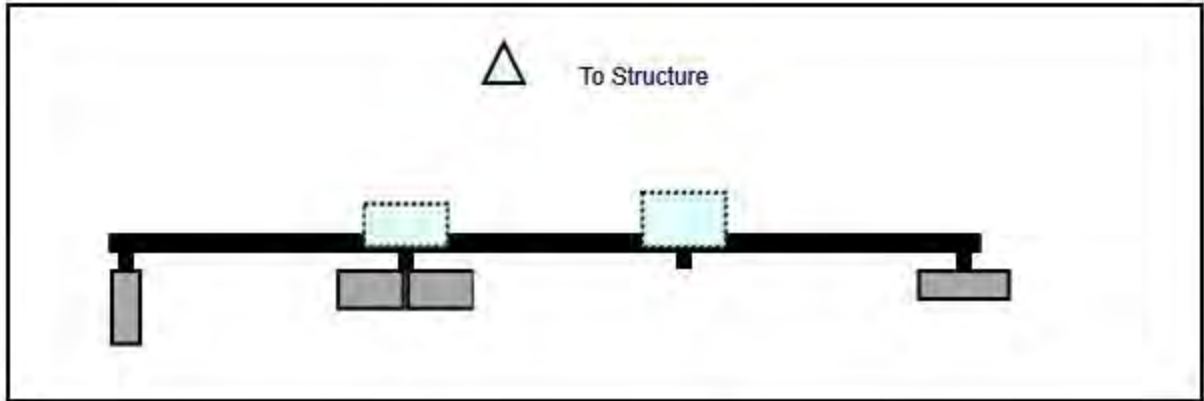
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8/13/2021

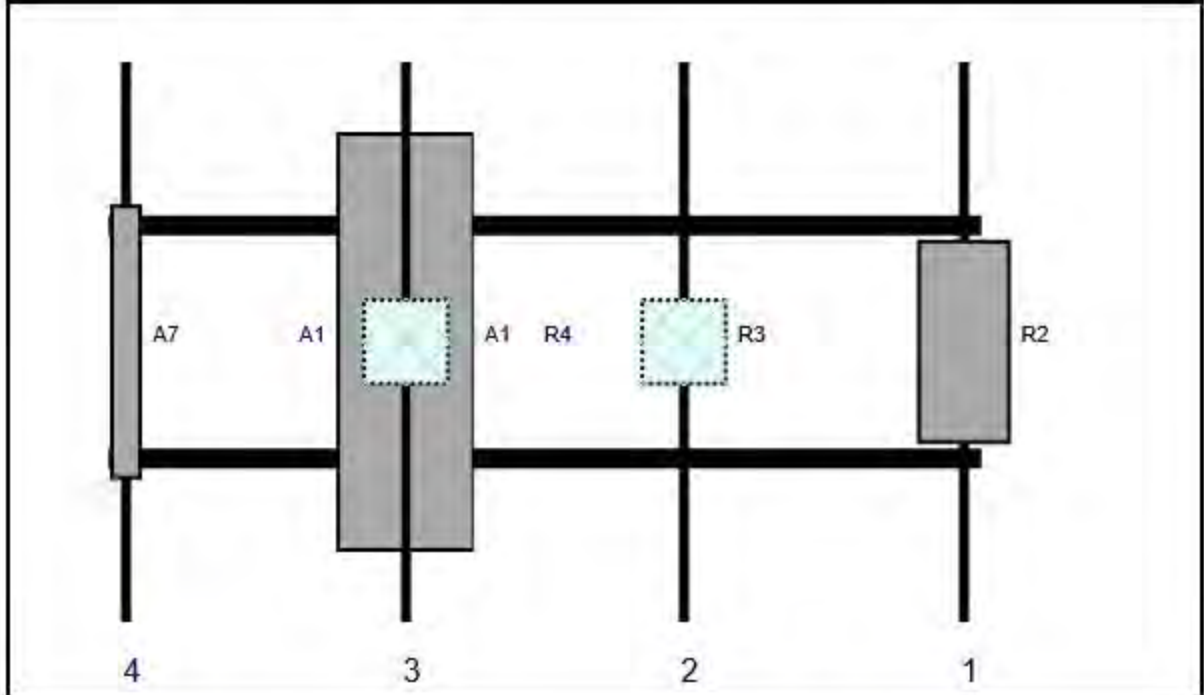
Page: 3



Plan View



Front View  
 Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	147	1	a	Front	48	0	Added	
R3	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	99	2	a	Behind	48	0	Added	
A1	NHH-65B-R2B	72	11.9	51	3	a	Front	48	6	Added	
A1	NHH-65B-R2B	72	11.9	51	3	b	Front	48	-6	Added	
R4	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	51	3	a	Behind	48	0	Added	
A7	LPA-80080/4CF	47.2	5.5	3	4	a	Front	48	0	Retained	

# Maser Consulting Connecticut

**Subject***TIA-222-H Usage***Site Information**

*Site ID: 467749-VZW / LAYSVILLE NORTH CT*  
*Site Name: LAYSVILLE NORTH CT*  
*Carrier Name: Verizon Wireless*  
*Address: 333 Grassy Hill Road*  
*Old Lyme, Connecticut 06371*  
*New London County*  
*Latitude: 41.391825°*  
*Longitude: -72.285928°*

**Structure Information**

*Tower Type: 100-Ft Self-Support*  
*Mount Type: 12.50-Ft Sector Frame*

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H Standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,



Derek Hartzell, PE  
Technical Specialist

Site Name: **LAYSVILLE NORTH CT**

**Cumulative Power Density**

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	(%)
VZW 700	751	4	487	1946	80	0.0109	0.5007	2.18%
VZW CDMA	877.26	2	336	671	80	0.0038	0.5848	0.65%
VZW Cellular	874	4	330	1321	80	0.0074	0.5827	1.27%
VZW PCS	1977.5	4	1112	4447	80	0.0250	1.0000	2.50%
VZW AWS	2120	4	1112	4447	80	0.0250	1.0000	2.50%
VZW CBAND	3730.08	4	6531	26125	80	0.1468	1.0000	14.68%

**Total Percentage of Maximum Permissible Exposure** 23.78%

\*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

\*\*Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

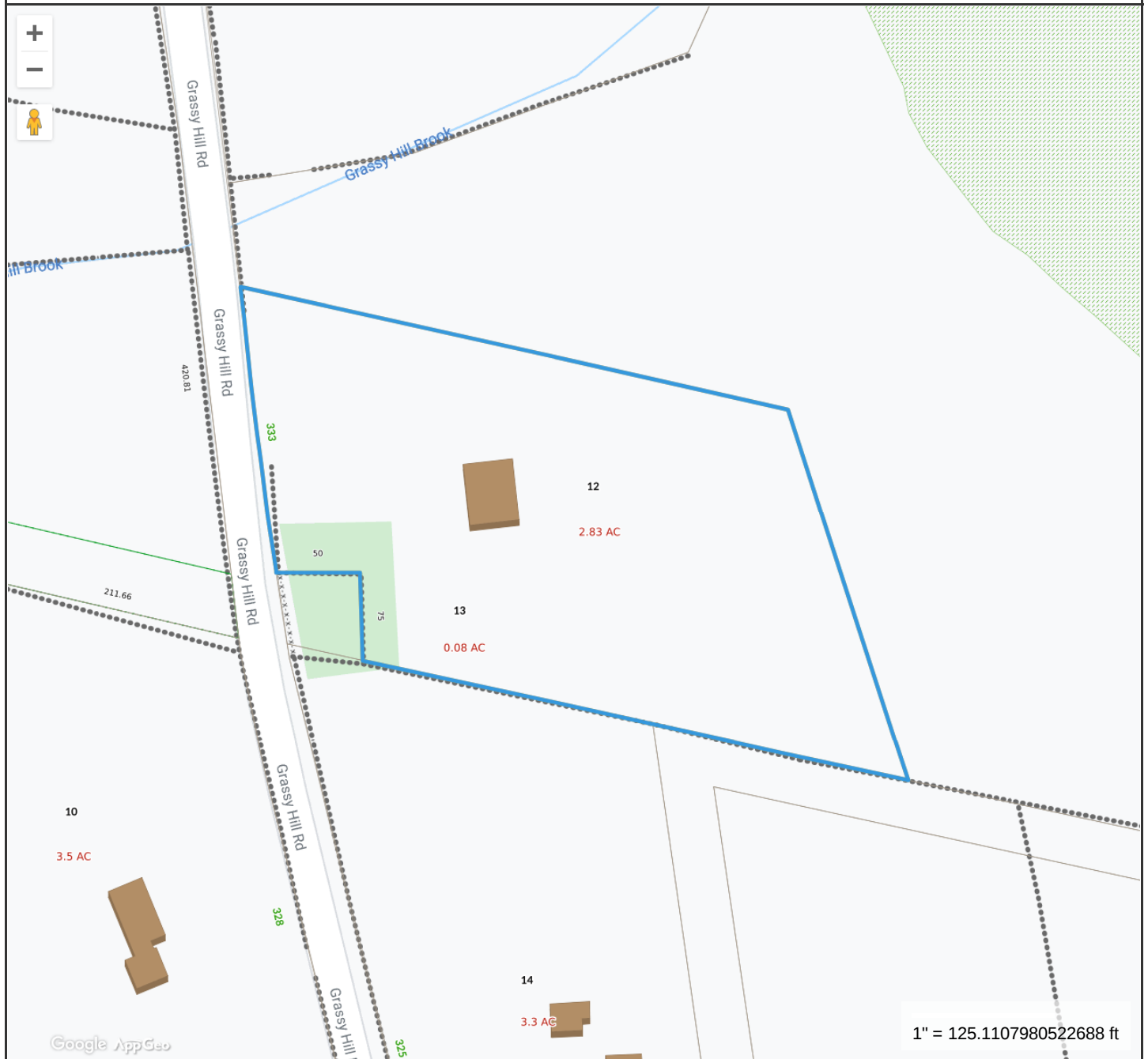
MHz = Megahertz

mW/cm<sup>2</sup> = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

### 88016-Old Lyme GIS MAP



**Property Information**

**Property ID** 50-12  
**Location** 333 GRASSY HILL RD  
**Owner** AMERICAN TOWERS INC



**MAP FOR REFERENCE ONLY  
NOT A LEGAL DOCUMENT**

Town of Lyme, CT makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 6/8/2021  
Data updated Daily

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

CURRENT OWNER		TOPO.	UTILITIES	STRT./ROAD	LOCATION	CURRENT ASSESSMENT					
AMERICAN TOWERS INC C/O AMERICAN TOWER CORP P.O. BOX 723597		4	Rolling	1	Paved	3	Rural	Description	Code	Appraised Value	Assessed Value
ATLANTA, GA 31139 Additional Owners:						UTL LAND	4-1	196,300	137,400	6075 LYME, CT	
						UTL BLDG	4-2	69,700	48,800		
						UTL OUTBL	4-3	110,200	77,100		
SUPPLEMENTAL DATA											
Other ID: 31/33/ / /		Dev Map #		Dev Lot #		Flood Plain		Census Tract			
PID2 00155900		1559		ASSOC PID#		Total		376,200		263,300	

**VISION**

RECORD OF OWNERSHIP				BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.	PREVIOUS ASSESSMENTS (HISTORY)											
AMERICAN TOWERS INC AMERICAN TEL + TEL CO				111/ 706 61/ 598	02/23/2000 07/29/1966	Q U	1	146,070 0		Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value			
										2019	4-1	137,400	2018	4-1	137,400	2017	4-1	157,200			
										2019	4-2	48,800	2018	4-2	48,800	2017	4-2	52,000			
										2019	4-3	77,100	2018	4-3	77,100	2017	4-3	64,500			
										Total:			263,300	Total:			263,300	Total:			273,700

EXEMPTIONS				OTHER ASSESSMENTS			
Year	Type	Description	Amount	Code	Description	Number	Amount
Total:							

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD				
NBHD/ SUB	NBHD Name	Street Index Name	Tracing	Batch
0060/A				

APPRAISED VALUE SUMMARY	
Appraised Bldg. Value (Card)	69,700
Appraised XF (B) Value (Bldg)	0
Appraised OB (L) Value (Bldg)	110,200
Appraised Land Value (Bldg)	196,300
Special Land Value	0
Total Appraised Parcel Value	376,200
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	376,200

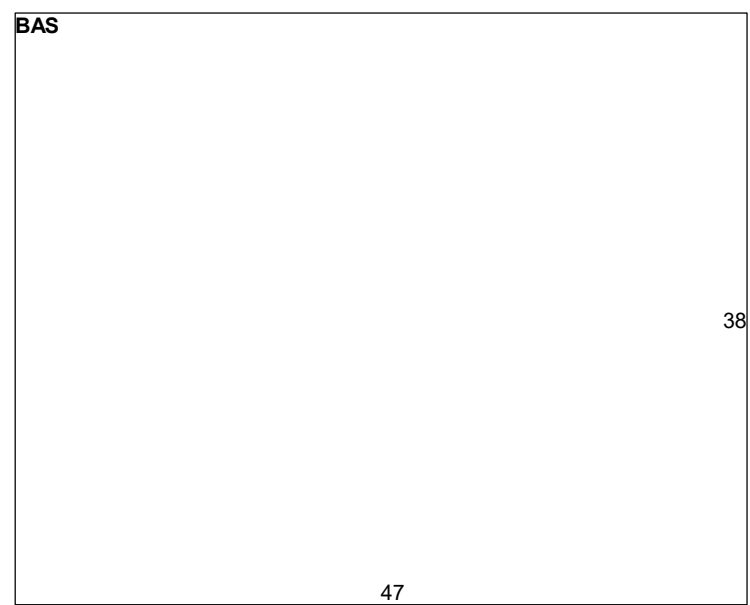
NOTES	
RELAY STATION & TOWER SELF SUPPORTING TOWER HT=130 FT,30 FT BASE SIDE MICROWAVE 15X16 PRE FAB GATED LOCKED 11/2008	
ECO=USE+LOC	

BUILDING PERMIT RECORD									
Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments	
07310318	07/25/2018	RE	Remodel	20,000	03/03/2020	100	03/03/2020	ALTERATION TO ANT	
07310318-1	07/25/2018	CO	CO ISSUED	0	03/03/2020	100	03/03/2020	CO ISSUED	
	06/25/2008	NC	New Construct	55,000	09/30/2008	100		EQUIPMENT BLDG/AD	

VISIT/ CHANGE HISTORY									
Date	Type	IS	ID	Cd.	Purpose/Result				
02/09/2018			ES	01	Measur+I Visit				
11/03/2008			KC	54	Field Review				
09/30/2008			DK	26	Building Permit				
09/30/2008			DK	04	Measur/Vac/Boarded up				
02/10/1999			BD	04	Measur/Vac/Boarded up				

LAND LINE VALUATION SECTION																			
B #	Use Code	Use Description	Zone	D	Front	Depth	Units	Unit Price	I. Factor	S.A.	Acre Disc	C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing	S Adj Fact	Adj. Unit Price	Land Value
1	4310	TEL REL TW MDL-96	RU80				3	5,000.00	1.0000	0	1.0000	1.00	0060	1.15	USE		1.00		16,300
1	4310	TEL REL TW MDL-96	RU80				1.00	180,000.00	1.0000	0	1.0000	1.00		0.00			1.00		180,000

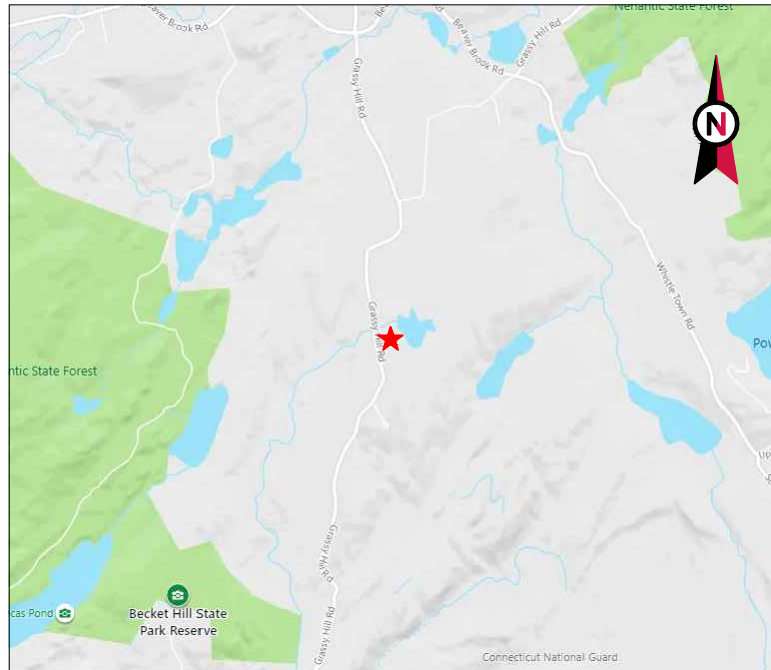
CONSTRUCTION DETAIL				CONSTRUCTION DETAIL (CONTINUED)			
Element	Cd.	Ch.	Description	Element	Cd.	Ch.	Description
Style	40		Light Indust				
Model	96		Commercial				
Grade	03		Average				
Stories	1						
Occupancy							
Exterior Wall 1	15		Concr/Cinder				
Exterior Wall 2							
Roof Structure	01		Flat				
Roof Cover	04		T & G/Rubber				
Interior Wall 1	01		Minim/Masonry				
Interior Wall 2							
Interior Floor 1	03		Concr-Finished	Adj. Base Rate:			65.00
Interior Floor 2							
Heating Fuel	02		Oil	Replace Cost			116,090
Heating Type	04		Forced Air-Duc	AYB			1966
AC Type	03		Central	Dep Code			A
Bldg Use	4310		TEL REL TW MDL-96	Remodel Rating			
Total Rooms				Year Remodeled			
Total Bedrms	00			Dep %			40
Total Baths	0			Functional Obslnc			0
				External Obslnc			0
				Cost Trend Factor			
Heat/AC	01		Heat AC Pkg	Condition			
Frame Type	03		Masonry	% Complete			
Baths/Plumbing	00		None	Overall % Cond			60
Ceiling/Wall	00		None	Apprais Val			69,700
Rooms/Prtns	02		Average	Dep % Ovr			0
Wall Height	12			Dep Ovr Comment			
% Conn Wall	0			Misc Imp Ovr			0
				Misc Imp Ovr Comment			
				Cost to Cure Ovr			0
				Cost to Cure Ovr Comment			



OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)												
Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
PAV1	PAVING-ASPH			L	3,500	0.90	1999		0		50	1,600
FN3	FENCE-6' CHA			L	144	9.00	1999		0		50	600
	TOWER			L	130	1,000.00	1966		0		0	0
	CELL TENANT			L	2	60,000.00	2018	C		E	90	108,000

No Photo On Record

BUILDING SUB-AREA SUMMARY SECTION							
Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value	
BAS	First Floor	1,786	1,786	1,786	65.00	116,090	
<b>Ttl. Gross Liv/Lease Area:</b>		<b>1,786</b>	<b>1,786</b>	<b>1,786</b>		<b>116,090</b>	

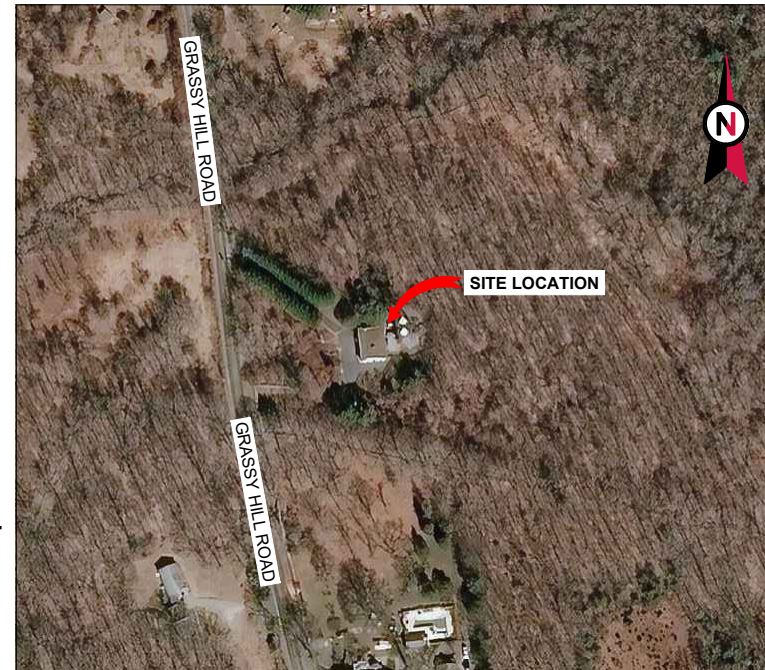


VICINITY MAP



**AMERICAN TOWER®**

ATC SITE NAME: OLD LYME  
 ATC SITE NUMBER: 88016  
 VERIZON WIRELESS SITE NAME: LAYSVILLE NORTH CT  
 VERIZON WIRELESS SITE NUMBER: 467749  
 SITE ADDRESS: 333 GRASSY HILL ROAD  
 OLD LYME, CT 06371



LOCATION MAP

**VERIZON WIRELESS  
 ANTENNA AMENDMENT PLAN**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX					
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.  1. 2018 CT STATE BUILDING CODES / 2015 INTERNATIONAL BUILDING CODE (IBC) W/ CT AMENDMENTS 2. 2018 CT STATE BUILDING CODES / 2017 NATIONAL ELECTRIC CODE (NEC) W/ CT AMENDMENTS 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 333 GRASSY HILL ROAD OLD LYME, CT 06371 COUNTY: NEW LONDON  <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.39182500 LONGITUDE: -72.28592778 GROUND ELEVATION: 375' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE (3) ANTENNA(S)  INSTALL (9) ANTENNA(S), (6) RRH(S), (2) OVP(S), (2) 6X12 HYBRID CABLE(S), AND MOUNT REPLACEMENT PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT DATED AUGUST 13, 2021  EXISTING (3) ANTENNA(S) AND (6) COAX CABLE(S) TO REMAIN  <u>GROUND WORK:</u> REMOVE (3) RRH(S)  THE PROPOSED PROJECT DOES NOT INCLUDE ELECTRICAL SCOPE	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:	
	<u>PROJECT TEAM</u>  <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801  <u>ENGINEER:</u> POWER OF DESIGN GROUP 11490 BLUEGRASS PARKWAY LOUISVILLE, KY 40299  <u>PROPERTY OWNER:</u> AMERICAN TOWERS INC P.O. BOX 723597 ATLANTA, GA 31139	<u>APPLICANT:</u> VERIZON WIRELESS 20 ALEXANDER DR, 2ND FLOOR WALLINGFORD, CT 06492	<u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED. 6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION REMOVAL AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).	G-001	TITLE SHEET	1	10/22/21	SM
		<u>PROJECT LOCATION DIRECTIONS</u> DIRECTIONS FROM GOODSPEED AIRPORT-42B (15 LUMBER YARD RD, EAST HADDAM, CT 06423)  1. FOLLOW LUMBER YARD RD TO CT-82 E 2. FOLLOW CT-82 E TO RAY HILL RD 3. TURN RIGHT ONTO RAY HILL RD 4. CONTINUE ON CT-82 E TO LYME 5. TURN LEFT ONTO BEAVER BROOK RD 6. TURN RIGHT ONTO GRASSY HILL RD		G-002	TITLE SHEET	0	10/07/21	NM
<u>UTILITY COMPANIES</u>  POWER COMPANY: NOT AVAILABLE PHONE: NOT AVAILABLE  TELEPHONE COMPANY: NOT AVAILABLE PHONE: NOT AVAILABLE			C-101	DETAILED SITE PLAN	0	10/07/21	NM	
			C-201	TOWER ELEVATION	0	10/07/21	NM	
			C-401	RF SCHEDULE AND ANTENNA INSTALLATION	1	10/22/21	SM	
			C-501	CONSTRUCTION DETAILS	0	10/07/21	NM	
			E-501	GROUNDING DETAILS	0	10/07/21	NM	
			R-601	SUPPLEMENTAL				
			R-602	SUPPLEMENTAL				
			R-603	SUPPLEMENTAL				
			R-604	SUPPLEMENTAL				

**AMERICAN TOWER®**

**POD**  
 POWER OF DESIGN  
 11490 BLUEGRASS PKWY  
 LOUISVILLE, KY 40299  
 502-437-5252

REV.	DESCRIPTION	BY	DATE
△	FOR CONSTRUCTION	NM	10/07/21
△	FOR CONSTRUCTION	SM	10/22/21
△			
△			

ATC SITE NUMBER:  
**88016**

ATC SITE NAME:  
**OLD LYME**

VERIZON WIRELESS SITE NAME:  
**LAYSVILLE NORTH CT**

SITE ADDRESS:  
 333 GRASSY HILL ROAD  
 OLD LYME, CT 06371

SEAL:

DATE DRAWN:	10/07/21
ATC JOB NO:	13668861
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	467749

**TITLE SHEET**

SHEET NUMBER: <b>G-001</b>	REVISION: <b>1</b>
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**GENERAL CONSTRUCTION NOTES:**

1. OWNER FURNISHED MATERIALS, VERIZON WIRELESS "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
  - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
  - B. AC/TELCO INTERFACE BOX (PPC)
  - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
  - D. TOWERS, MONOPOLES
  - E. TOWER LIGHTING
  - F. GENERATORS & LIQUID PROPANE TANK
  - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
  - H. ANTENNAS (INSTALLED BY OTHERS)
  - I. TRANSMISSION LINE
  - J. TRANSMISSION LINE JUMPERS
  - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
  - L. TRANSMISSION LINE GROUND KITS
  - M. HANGERS
  - N. HOISTING GRIPS
  - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON WIRELESS TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSIEIA/NTIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON WIRELESS REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON WIRELESS REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON WIRELESS AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR

- WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
  23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
  24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
  25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
  26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
  27. CONTRACTOR SHALL NOTIFY VERIZON WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
  28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
  29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
  30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON WIRELESS REP. ANY WORK FOUND BY THE VERIZON WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
  31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
  32. VERIZON WIRELESS FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WIRELESS WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
  33. VERIZON WIRELESS OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON WIRELESS OR THEIR ARCHITECT/ENGINEER.

**SPECIAL CONSTRUCTION**

**ANTENNA INSTALLATION NOTES:**

1. WORK INCLUDED:
  - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON WIRELESS UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
  - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON WIRELESS SPECIFICATIONS.
  - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
  - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
  - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
  - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
  - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR

- EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



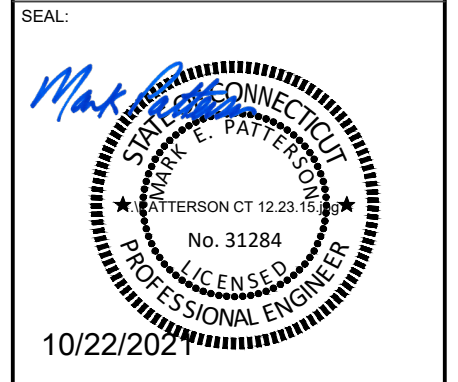
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NM	10/07/21

ATC SITE NUMBER:  
**88016**

ATC SITE NAME:  
**OLD LYME**

VERIZON WIRELESS SITE NAME:  
**LAYSVILLE NORTH CT**

SITE ADDRESS:  
333 GRASSY HILL ROAD  
OLD LYME, CT 06371



DATE DRAWN:	10/07/21
ATC JOB NO:	13668861
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	467749

<b>TITLE SHEET</b>	
SHEET NUMBER: <b>G-002</b>	REVISION: <b>0</b>

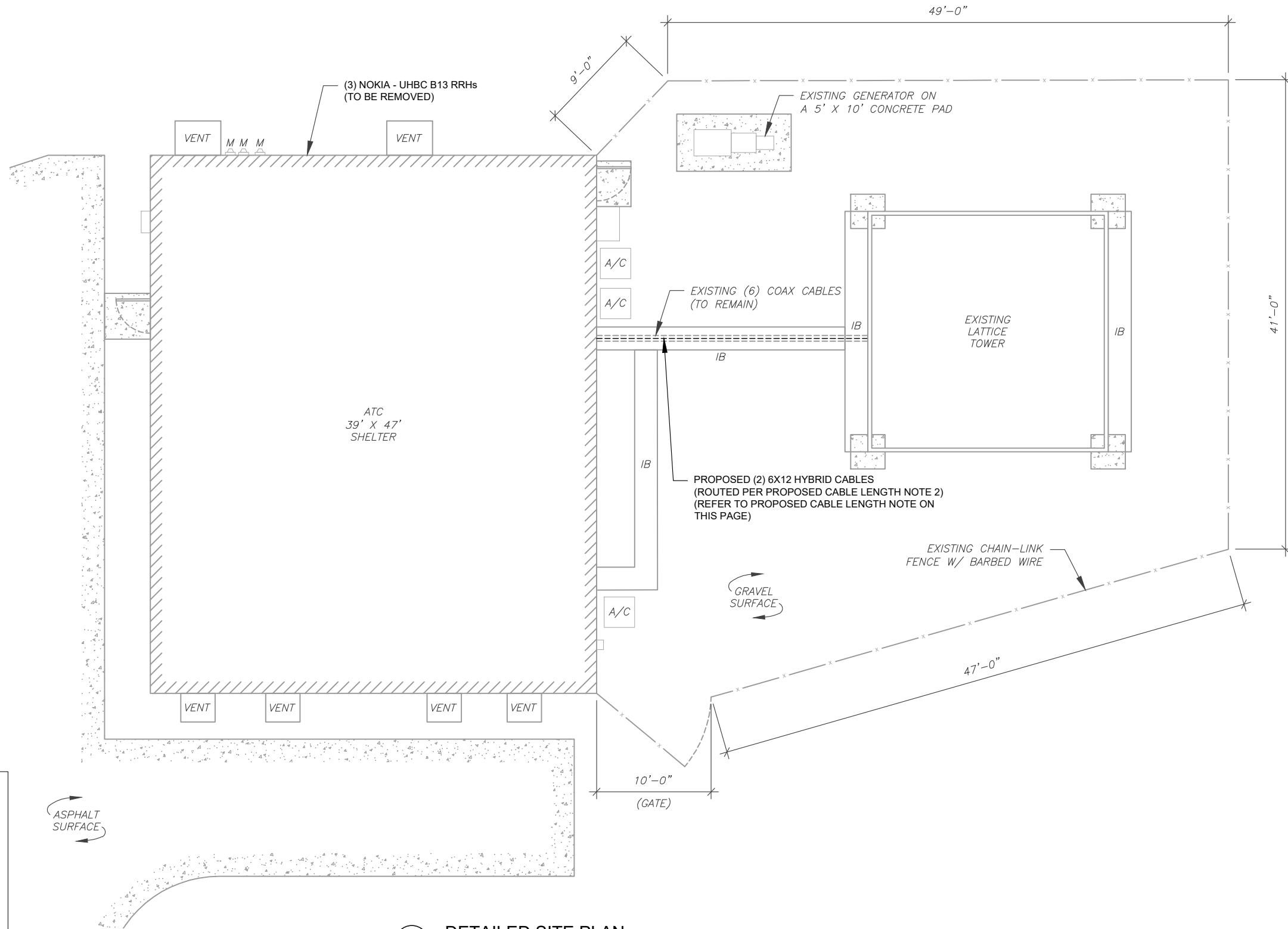
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**SITE PLAN NOTES:**

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.

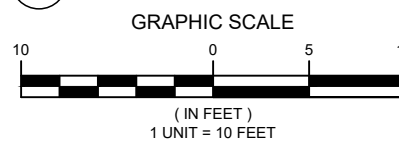
LEGEND	
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
— x —	CHAINLINK FENCE



**PROPOSED CABLE LENGTH:**

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **145'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).

**1 DETAILED SITE PLAN**



**AMERICAN TOWER®**

**POD**  
 POWER OF DESIGN

11490 BLUEGRASS PKWY  
 LOUISVILLE, KY 40299  
 502-437-5252

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NM	10/07/21

ATC SITE NUMBER:  
**88016**

ATC SITE NAME:  
**OLD LYME**

VERIZON WIRELESS SITE NAME:  
**LAYSVILLE NORTH CT**

SITE ADDRESS:  
 333 GRASSY HILL ROAD  
 OLD LYME, CT 06371

SEAL:

10/22/2021



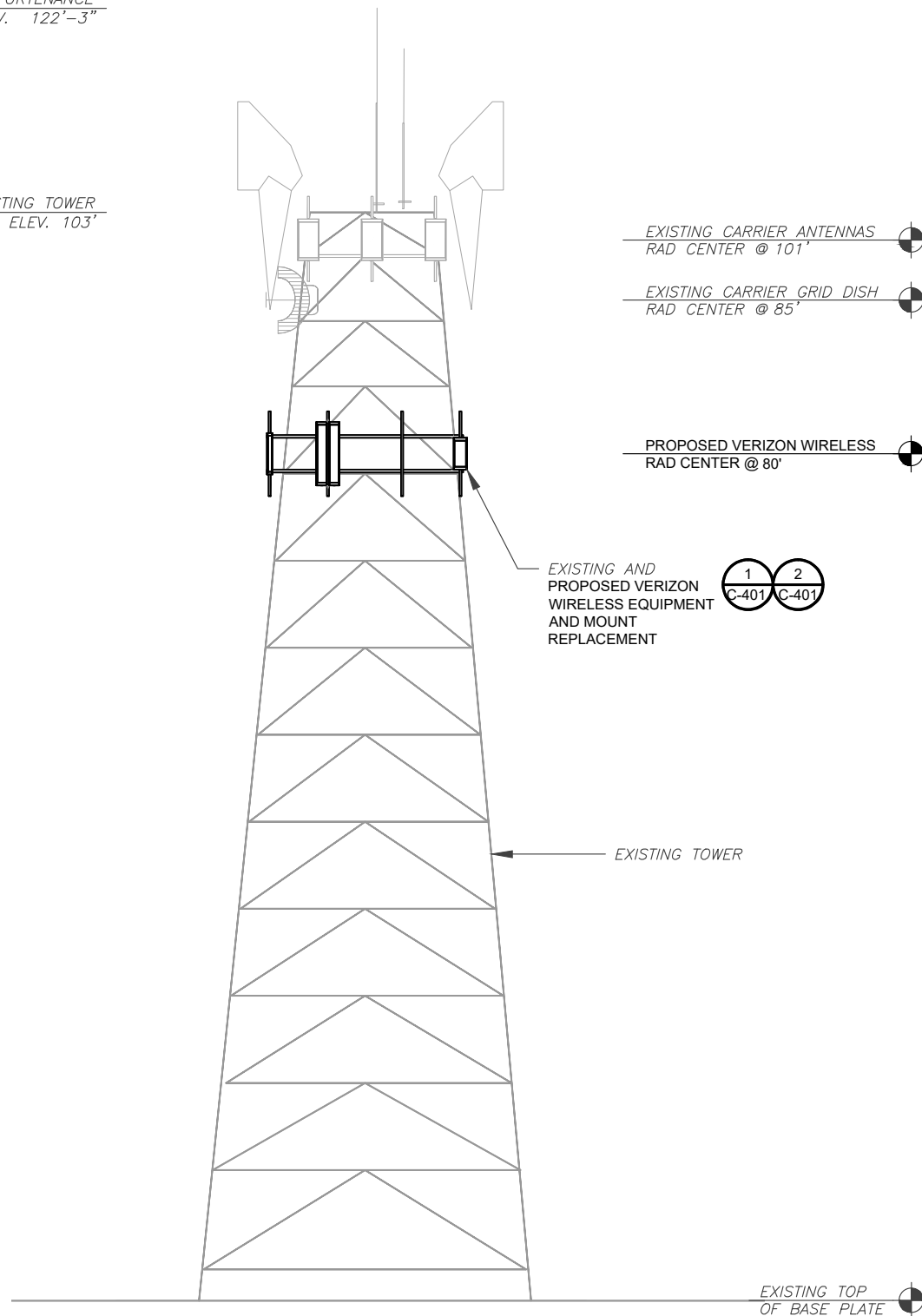
DATE DRAWN:	10/07/21
ATC JOB NO:	13668861
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	467749

<b>DETAILED SITE PLAN</b>	
SHEET NUMBER: <b>C-101</b>	REVISION: <b>0</b>

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TOP OF EXISTING  
HIGHEST APPURTENANCE  
ELEV. 122'-3"

TOP OF EXISTING TOWER  
ELEV. 103'



PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED AUGUST 13, 2021, THE PROPOSED MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING

EXISTING CARRIER ANTENNAS  
RAD CENTER @ 101'

EXISTING CARRIER GRID DISH  
RAD CENTER @ 85'

PROPOSED VERIZON WIRELESS  
RAD CENTER @ 80'

EXISTING AND PROPOSED VERIZON WIRELESS EQUIPMENT AND MOUNT REPLACEMENT

1 2  
C-401 C-401

EXISTING TOWER

EXISTING TOP  
OF BASE PLATE

1 TOWER ELEVATION  
SCALE: N.T.S.

TOWER NOTE:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
- WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
- ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
- TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)



REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NM	10/07/21

ATC SITE NUMBER:  
88016

ATC SITE NAME:  
OLD LYME

VERIZON WIRELESS SITE NAME:  
LAYSVILLE NORTH CT

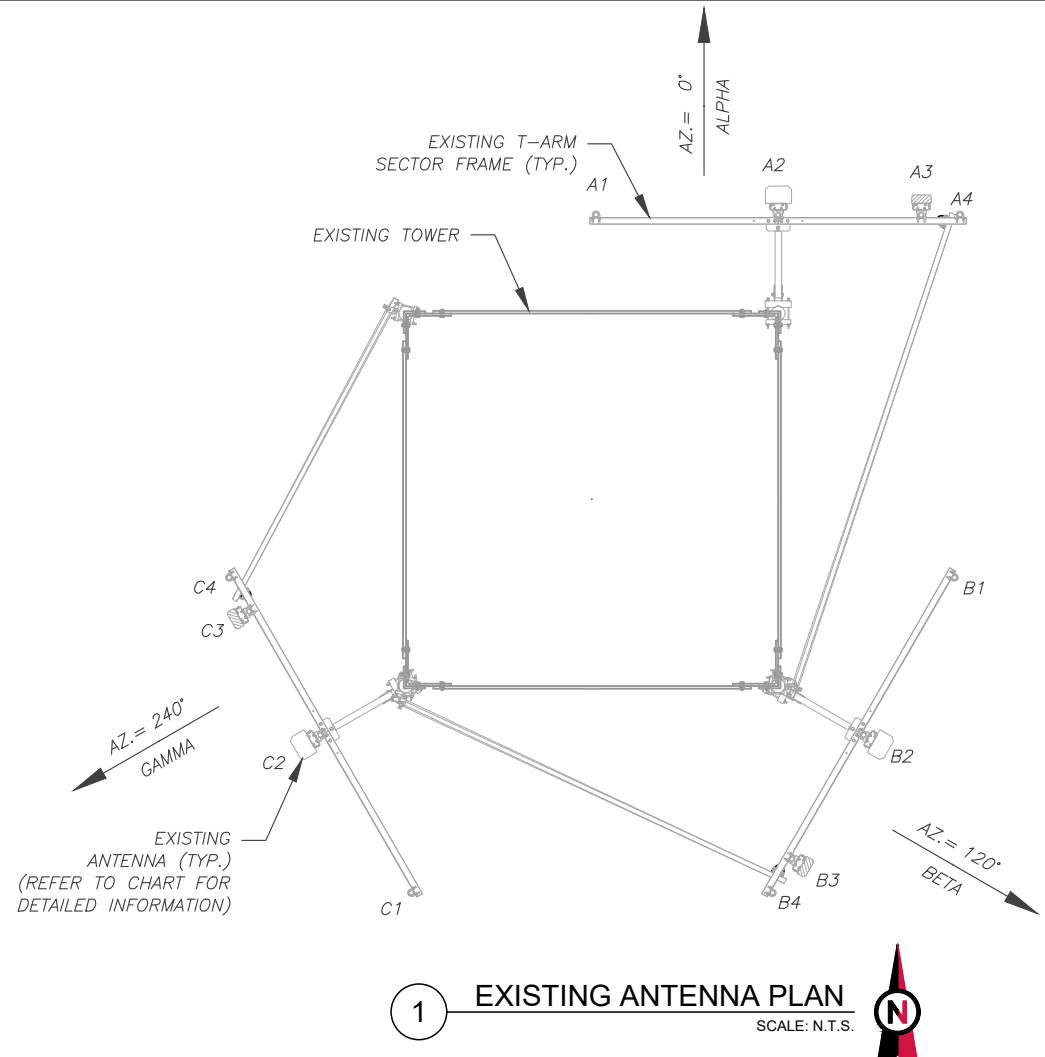
SITE ADDRESS:  
333 GRASSY HILL ROAD  
OLD LYME, CT 06371

SEAL:

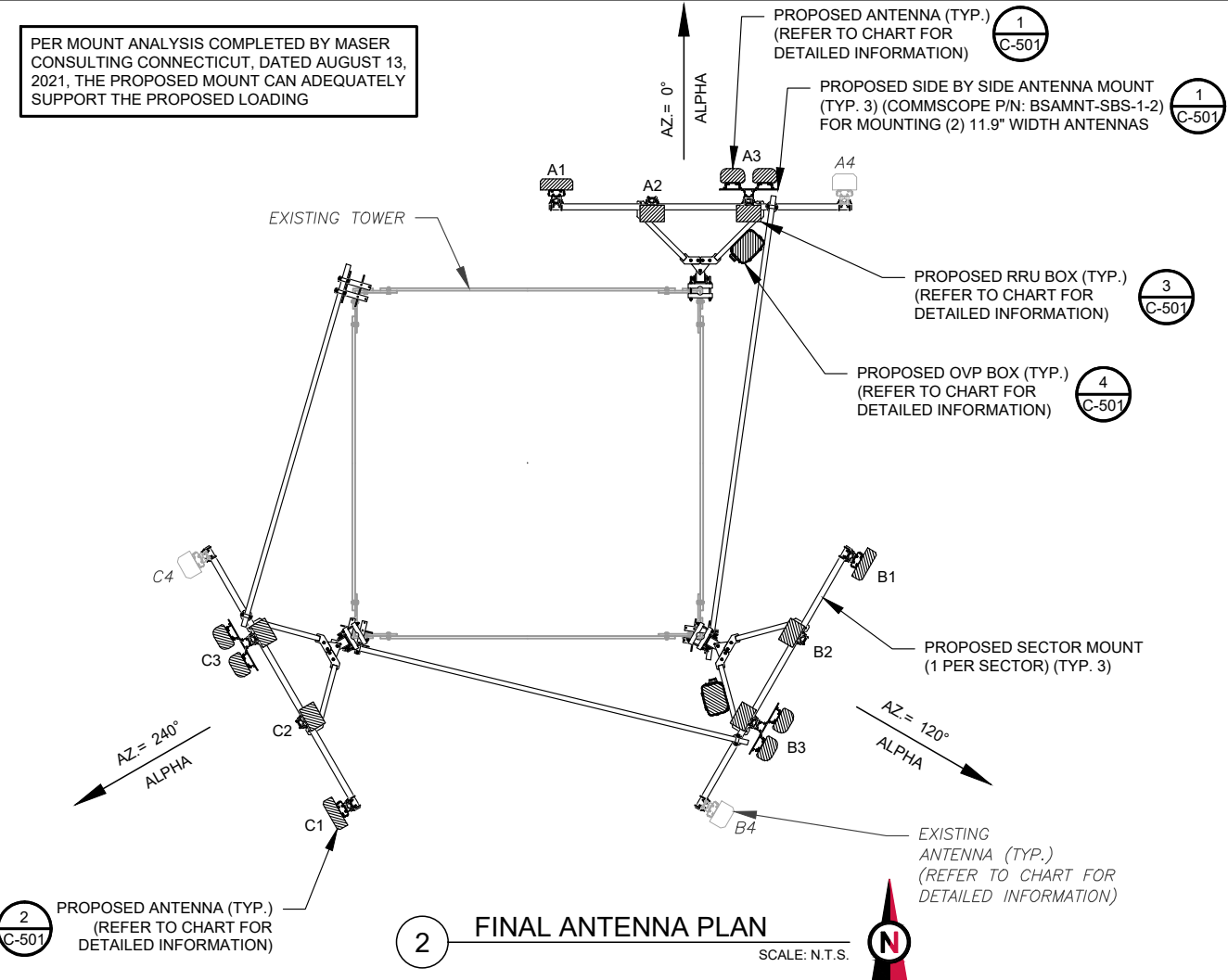
DATE DRAWN:	10/07/21
ATC JOB NO:	13668861
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	467749

TOWER ELEVATION	
SHEET NUMBER: <b>C-201</b>	REVISION: <b>0</b>

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**1 EXISTING ANTENNA PLAN**  
SCALE: N.T.S.



**2 FINAL ANTENNA PLAN**  
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED AUGUST 13, 2021, THE PROPOSED MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING

EXISTING ANTENNA SCHEDULE									
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	80'	0°	A1	-	-	-	-	-	-
			A2	LPA-80080/4CF	CDMA	-	REL	-	-
			A3	BXA-70063-6CF	LTE	-	RMV	-	-
			A4	-	-	-	-	-	-
BETA	80'	120°	B1	-	-	-	-	-	-
			B2	LPA-80080/4CF	CDMA	-	REL	-	-
			B3	BXA-70063-6CF	LTE	-	RMV	-	-
			B4	-	-	-	-	-	-
GAMMA	80'	240°	C1	-	-	-	-	-	-
			C2	LPA-80080/4CF	CDMA	-	REL	-	-
			C3	BXA-70063-6CF	LTE	-	RMV	-	-
			C4	-	-	-	-	-	-

**NOTES**

- CONFIRM WITH VERIZON WIRELESS REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
- CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

**STATUS ABBREVIATIONS**

RMV: TO BE REMOVED  
 RMN: TO REMAIN  
 REL: TO BE RELOCATED  
 ADD: TO BE ADDED

FINAL ANTENNA SCHEDULE									
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	80'	0°	A1	MT6407-77A	5G	-	ADD	-	-
			A2	-	-	-	-	B2/B66A RRH-BR049	ADD
			A3	(2) NHH-65B-R2B	LTE	-	ADD	B5/B13 RRH-BR04C	ADD
			A4	LPA-80080/4CF	CDMA	-	REL	-	-
BETA	80'	120°	B1	MT6407-77A	5G	-	ADD	-	-
			B2	-	-	-	-	B2/B66A RRH-BR049	ADD
			B3	(2) NHH-65B-R2B	LTE	-	ADD	B5/B13 RRH-BR04C	ADD
			B4	LPA-80080/4CF	CDMA	-	REL	-	-
GAMMA	80'	240°	C1	MT6407-77A	5G	-	ADD	-	-
			C2	-	-	-	-	B2/B66A RRH-BR049	ADD
			C3	(2) NHH-65B-R2B	LTE	-	ADD	B5/B13 RRH-BR04C	ADD
			C4	LPA-80080/4CF	CDMA	-	REL	-	-

**CABLE LENGTHS FOR JUMPERS**

JUNCTION BOX TO RRU: 15'  
 RRU TO ANTENNA: 10'

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	(6) 1-5/8"	-	RMN
-	-	-	-	-

**3 EQUIPMENT SCHEDULES**

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	(6) 1-5/8"	-	RMN
(2) RVZDC-6627-PF-48	ADD	-	(2) 6X12	ADD

**AMERICAN TOWER®**

**POD**  
POWER OF DESIGN

11490 BLUEGRASS PKWY  
LOUISVILLE, KY 40299  
502-437-5252

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NM	10/07/21
1	FOR CONSTRUCTION	SM	10/22/21

ATC SITE NUMBER:  
**88016**

ATC SITE NAME:  
**OLD LYME**

VERIZON WIRELESS SITE NAME:  
**LAYSVILLE NORTH CT**

SITE ADDRESS:  
333 GRASSY HILL ROAD  
OLD LYME, CT 06371

SEAL:

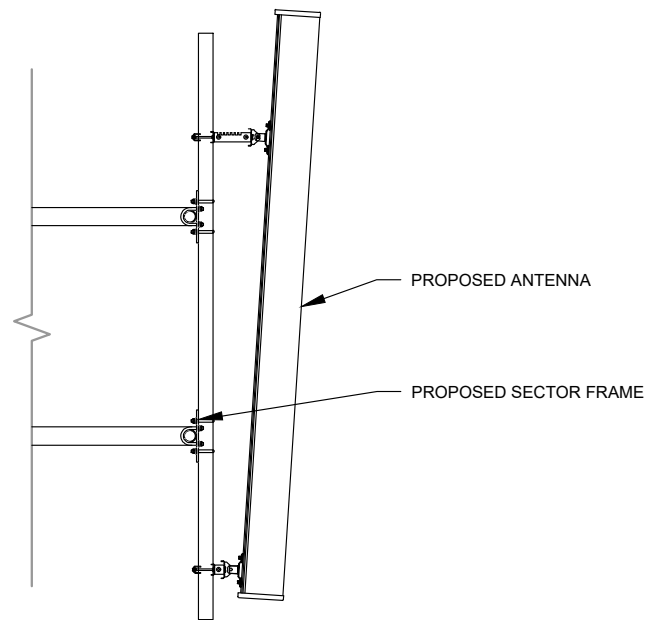
10/22/2021

**verizon**

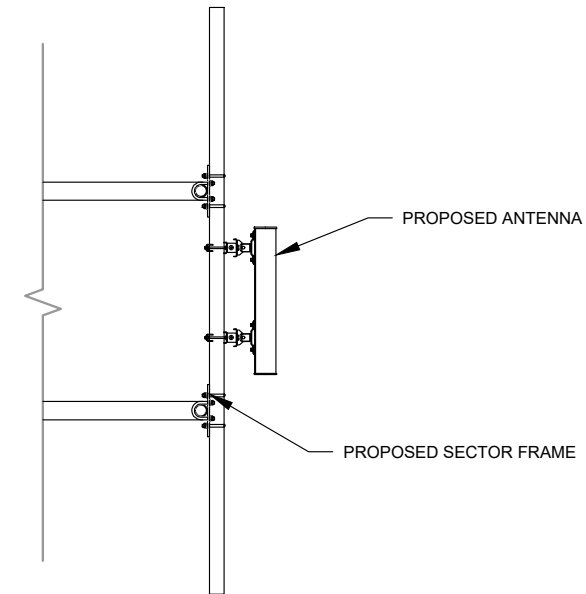
DATE DRAWN:	10/07/21
ATC JOB NO:	13668861
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	467749

**RF SCHEDULE AND ANTENNA INSTALLATION**

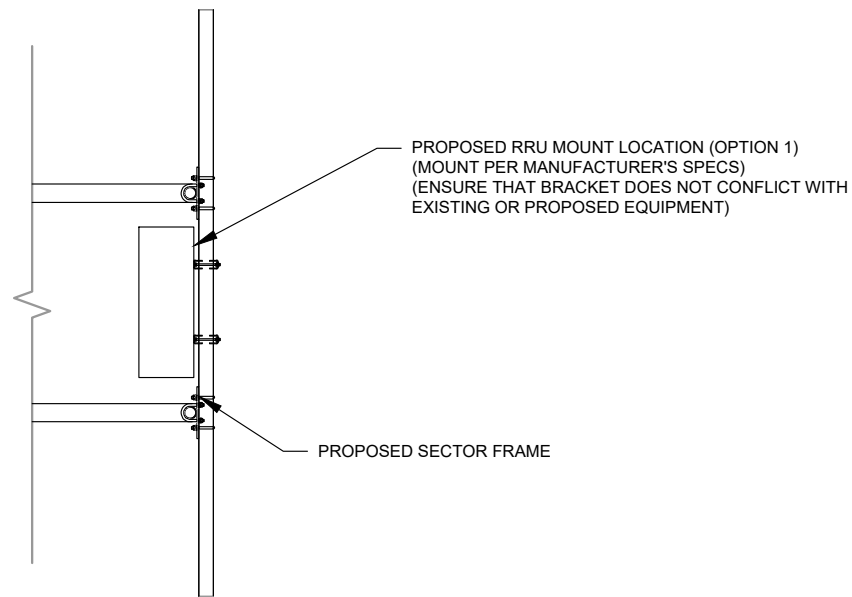
SHEET NUMBER: <b>C-401</b>	REVISION: <b>1</b>
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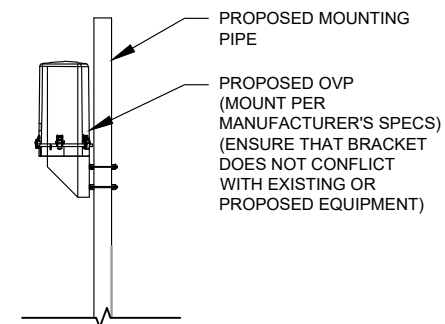
1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL  
SCALE: NOT TO SCALE



2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL  
SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL  
SCALE: N.T.S.



4 PROPOSED OVP MOUNTING  
SCALE: N.T.S.



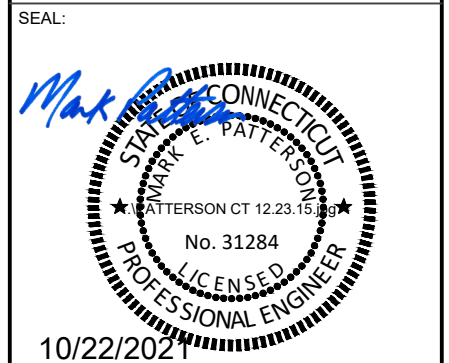
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NM	10/07/21

ATC SITE NUMBER:  
**88016**

ATC SITE NAME:  
**OLD LYME**

VERIZON WIRELESS SITE NAME:  
**LAYSVILLE NORTH CT**

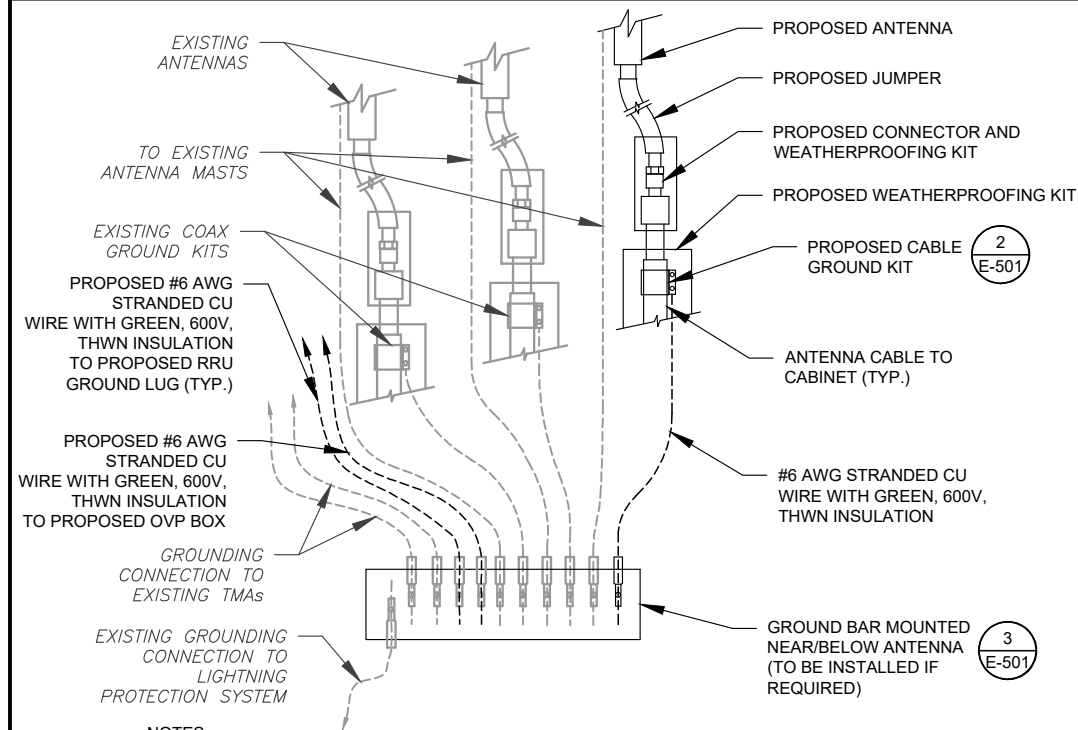
SITE ADDRESS:  
333 GRASSY HILL ROAD  
OLD LYME, CT 06371



DATE DRAWN:	10/07/21
ATC JOB NO:	13668861
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	467749

**CONSTRUCTION  
DETAILS**

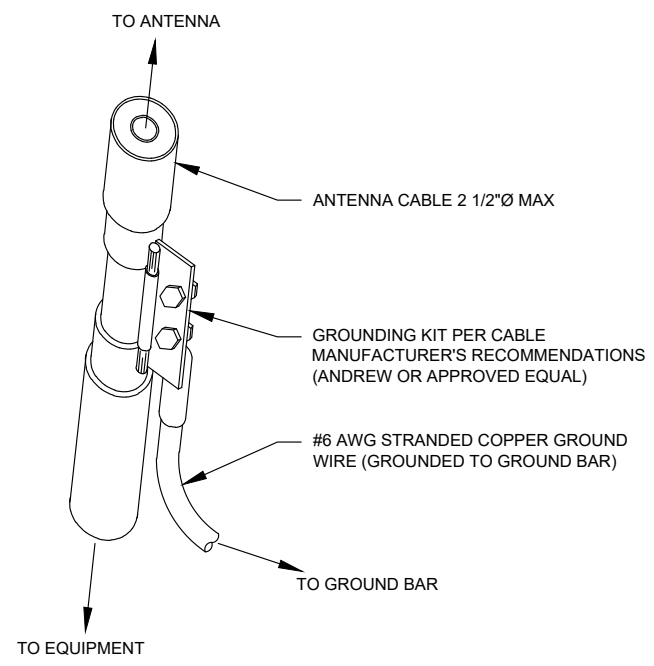
SHEET NUMBER:	REVISION:
<b>C-501</b>	<b>0</b>



**NOTES:**

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON WIRELESS GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON WIRELESS GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

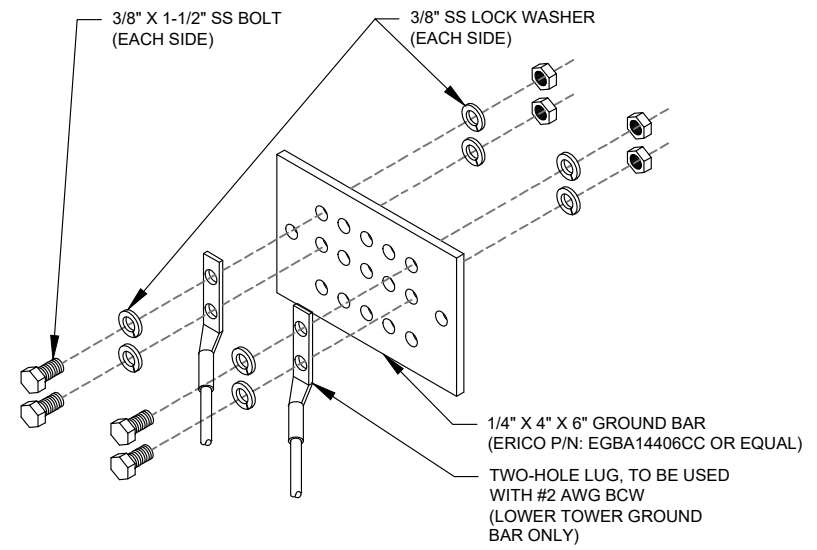
**1 TYPICAL ANTENNA GROUNDING DIAGRAM**  
SCALE: N.T.S.



**GROUND KIT NOTES:**

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

**2 CABLE GROUND KIT CONNECTION DETAIL**  
SCALE: N.T.S.



**GROUND BAR NOTES:**

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

**3 TOWER GROUND BAR DETAIL**  
SCALE: N.T.S.



REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NM	10/07/21

ATC SITE NUMBER:  
**88016**

ATC SITE NAME:  
**OLD LYME**

VERIZON WIRELESS SITE NAME:  
**LAYSVILLE NORTH CT**

SITE ADDRESS:  
333 GRASSY HILL ROAD  
OLD LYME, CT 06371

SEAL:



DATE DRAWN:	10/07/21
ATC JOB NO:	13668861
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	467749

**GROUNDING DETAILS**

SHEET NUMBER:	REVISION:
<b>E-501</b>	<b>0</b>



Maser Consulting Connecticut  
 2000 Midlantic Drive, Suite 100  
 Mt. Laurel, NJ 08054  
 856.797.0412  
 peter.albano@colliersengineering.com

Mount Structural Analysis Report  
 (3) 12.50-Ft Sector Frame

August 13, 2021  
 Site ID: 467749-VZW / LAYSVILLE NORTH CT  
 Page | 2

## Replacement Antenna Mount Analysis Report and PMI Requirements

Mount Analysis-R

SMART Tool Project #: 10050441  
 Maser Consulting Connecticut Project #: 21777467A

August 13, 2021

### Site Information

Site ID: 467749-VZW / LAYSVILLE NORTH CT  
 Site Name: LAYSVILLE NORTH CT  
 Carrier Name: Verizon Wireless  
 Address: 333 Grassy Hill Road  
 Old Lyme, Connecticut 06371  
 New London County  
 Latitude: 41.391825°  
 Longitude: -72.285928°

### Structure Information

Tower Type: 100-Ft Self-Support  
 Mount Type: 12.50-Ft Sector Frame

FUZE ID # 16272182

### Analysis Results

Sector Frame: **38.5% Pass**

### \*\*\*Contractor PMI Requirements:

Included at the end of this MA report

Available & Submitted via portal at <https://pmi.vzwsmart.com>

Contractor - Please Review Specific Site PMI Requirements Upon Award  
 Requirements may also be Noted on A & E drawings

Report Prepared By: Jared Adkins



Digitally signed by Derek Hartzell  
 Date: 2021.08.13 14:30:54-07'00'

### Executive Summary:

The objective of this report is to determine the capacity of the proposed antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. The proposed mount was assumed to be installed properly to the existing tower per the manufacturer's instructions. Maser Consulting Connecticut cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

### Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 674950, dated March 23, 2021
Tower Structural Analysis	American Tower Corporation, Site # 88016, dated May 14, 2021
Mount Specification Sheets	Site Pro 1, Part #: VFA12-HD

### Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), $V_{ULT}$ : 125 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in. Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, $K_e$ : 0.987
Seismic Parameters:	$S_s$ : 0.204 $S_1$ : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, $L_v$ : 250 lbs. Maintenance Live Load, $L_m$ : 500 lbs.
Analysis Software:	RISA-3D (V17)

Mount Structural Analysis Report  
 (3) 12.50-Ft Sector Frame

August 13, 2021  
 Site ID: 467749-VZW / LAYSVILLE NORTH CT  
 Page | 4

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
- Channel, Solid Round, Angle, Plate     ASTM A36 (Gr. 36)
  - HSS (Rectangular)                     ASTM 500 (Gr. B-46)
  - Pipe   ASTM A53 (Gr. B-35)
  - Threaded Rod                             F1554 (Gr. 36)
  - Bolts                                        ASTM A325

**Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Maser Consulting Connecticut.**

**Analysis Results:**

Component	Utilization %	Pass/Fail
Standoff Horizontal	15.6%	Pass
Standoff Bracing	7.3%	Pass
Standoff Plate	38.5%	Pass
Mount Pipe	35.5%	Pass
Tie-Back	11.0%	Pass
Face Horizontal	23.3%	Pass
Connection Check	10.6%	Pass
<b>Structure Rating – (Controlling Utilization of all Components)</b>	<b>38.5%</b>	

**Recommendation:**

The proposed antenna mounts are **SUFFICIENT** for the final loading configuration and do not require modifications.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

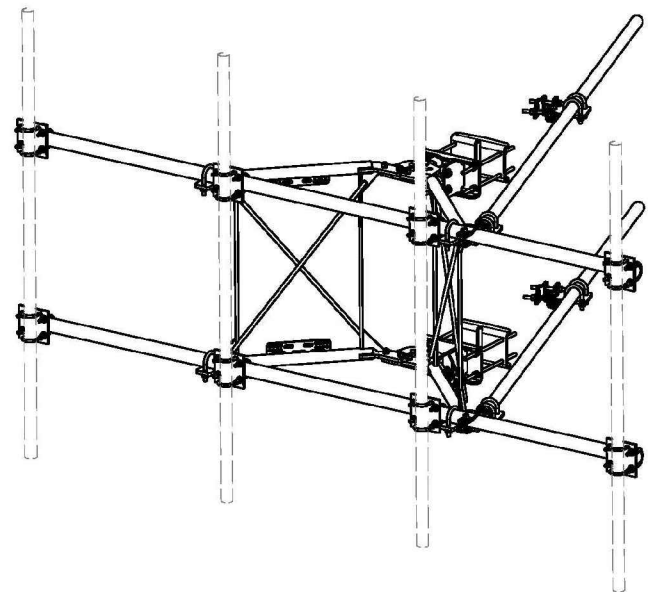
**Attachments:**

1. Mount Specification Sheets
2. Analysis Calculations
3. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
4. Antenna Placement Diagrams
5. TIA Adoption and Wind Speed Usage Letter

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

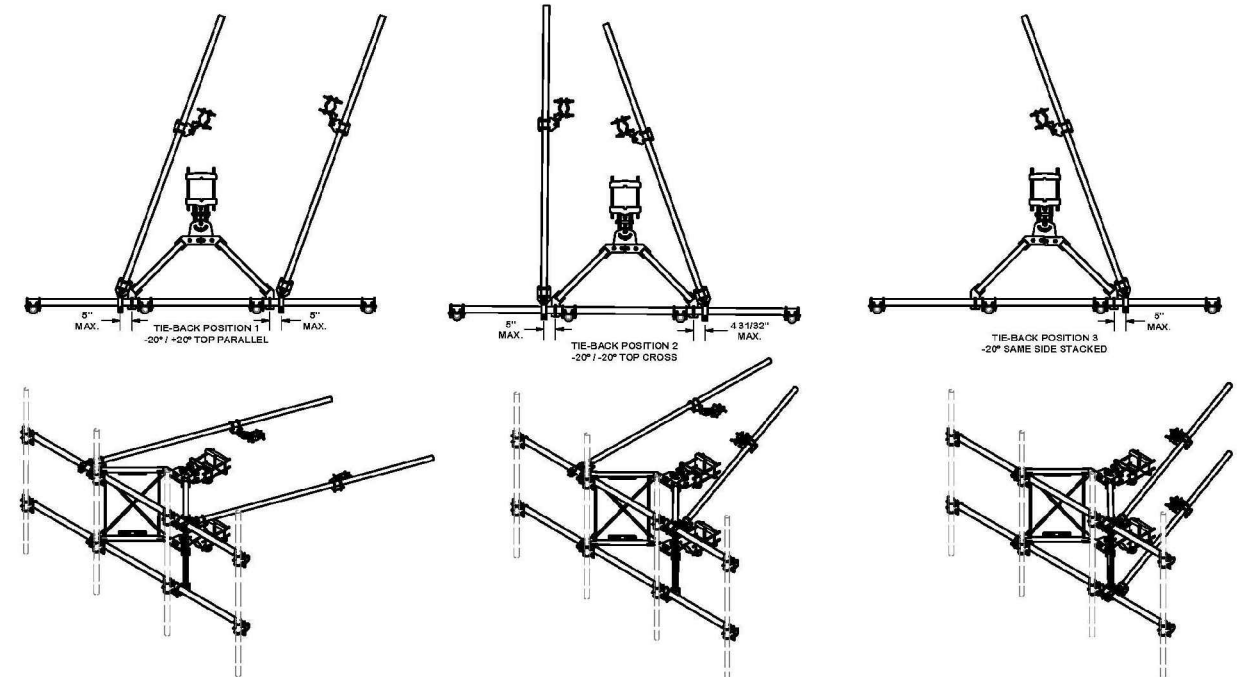
SUPPLEMENTAL

SHEET NUMBER: <b>R-602</b>	REVISION: <b>0</b>
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ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.96	33.96
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
4	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
5	2	X-LCBP4	BENT BACKING PLATE	13 in	19.00	38.01
6	1	X-HDCAMDS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.30	16.30
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	6 1/2 in	5.87	23.48
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.88	2.88
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
10	8	SCX2	CROSSOVER PLATE	7 in	4.60	36.87
11	4	MCP	CLAMP HALF 1/2" THICK, 11-98" LONG	12 1/16 in	3.59	14.37
12	8	DGP	1/2" THICK, 5-3/4" CENTER TO CENTER CLAMP HALF	8 1/8 in	2.35	18.90
13	2	P212E	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	81.50
14	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	153.87
15	4	A34212	3/4" x 2-1/2" UNC HEX BOLT (A305)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY ZH HEX NUT		0.21	0.86
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	4	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-UBS900	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UBS258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" x 7" HDG HEX BOLT GR5 FULL THREAD	7 in	0.70	1.41
25	1	G5806	5/8" x 6" HDG HEX BOLT GR5 FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	3.55
27	4	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.08
28	8	A592114	5/8" x 2-1/4" HDG A328 HEX BOLT	2 1/4 in	0.31	2.50
29	28	G56FW	5/8" HDG USS FLATWASHER		0.07	1.76
30	68	G56LW	5/8" HDG LOCKWASHER		0.03	1.72
31	71	G56NUT	5/8" HDG HEAVY ZH HEX NUT		0.13	9.22
32	32	X-UB1300	1/2" X 3" X 6" X 2" GALV U-BOLT		0.74	23.64
33	16	X-UB1212	1/2" X 2" X 3" X 1-1/4" U-BOLT (HDG.)		0.60	9.56
34	64	G12FW	1/2" HDG USS FLATWASHER		0.03	2.18
35	64	G12LW	1/2" HDG LOCKWASHER		0.01	0.99
36	64	G12NUT	1/2" HDG HEAVY ZH HEX NUT		0.07	4.55
					TOTAL WT. #	738.08

TIE-BACK POSITIONS



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	02/28/2018
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION		CEK	12/7/2017
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	5/2/2017

**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 ± 1/2 DEGREE  
 ALL OTHER MACHINING (# 0.030")  
 ALL OTHER ASSEMBLY (# 0.060")

DESCRIPTION: 12" 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS

Engineering Support Team  
 1-800-753-7446  
 Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, MI; Salem, OR; Dallas, TX

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	02/28/2018
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**TOLERANCE NOTES**  
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DESCRIPTION: 12" 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS

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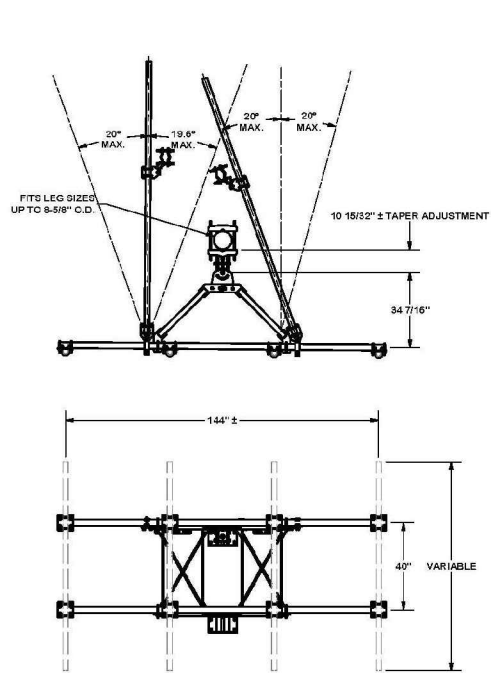
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	02/28/2018
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B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	5/2/2017

SUPPLEMENTAL

SHEET NUMBER: **R-603** REVISION: **0**

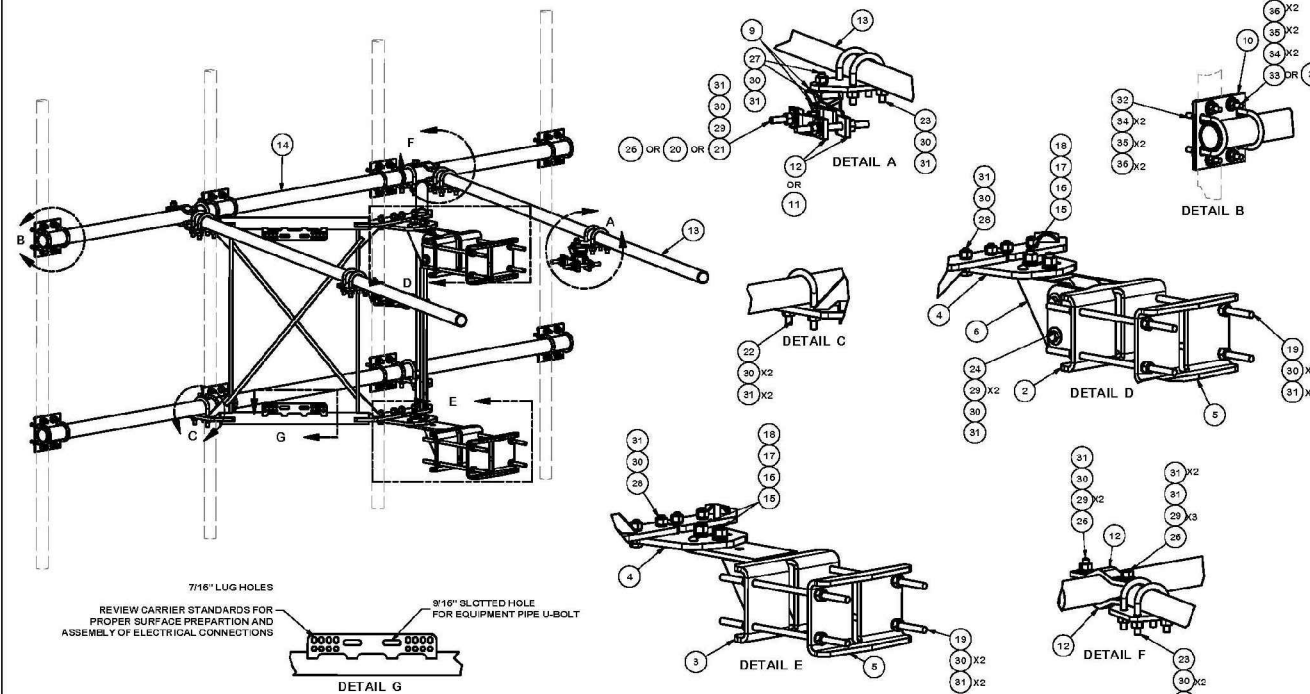
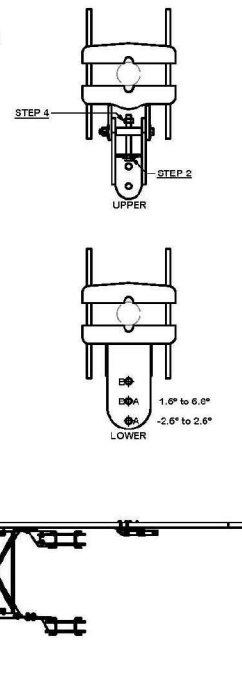
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONSTRUCTION.





**ANGLE CALIBRATING PROCEDURE:**

1. MEASURE TOWER TAPER AND PICK LOWER BRACKET HOLE:
  - HOLE A = -2.6° TO 2.6°
  - HOLE B = 1.6° TO 6.8°
2. USE CALIBRATING BOLT TO ADJUST FRAME TO DESIRED TAPER
3. TORQUE LOCKING BOLTS TO 100 ft.-lbs.
4. ADVANCE LOCKING NUT TO POSITIONING PLATE, THEN TIGHTEN.



**TOLERANCE NOTES**  
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
SAWED, SHEARED AND GAS CUT EDGES (# 0.0007)  
DRILLED AND GAS CUT HOLES (# 0.0007) - NO CONING OF HOLES  
LASER CUT EDGES AND HOLES (# 0.0107) - NO CONING OF HOLES  
BENDS ARE ± 1/2 DEGREE  
ALL OTHER MACHINING (# 0.0007)  
ALL OTHER ASSEMBLY (# 0.0007)

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BEAM VERSION 1 TO BEAM VERSION 2	CEK		6/29/2018
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION	CEK		12/7/2017
B	CHANGED TIE-BACK BACK CONNECTION	CEK		7/9/2017
A	CHANGED TIE-BACK FRONT CONNECTION	CEK		2/2/2017

REVISION HISTORY

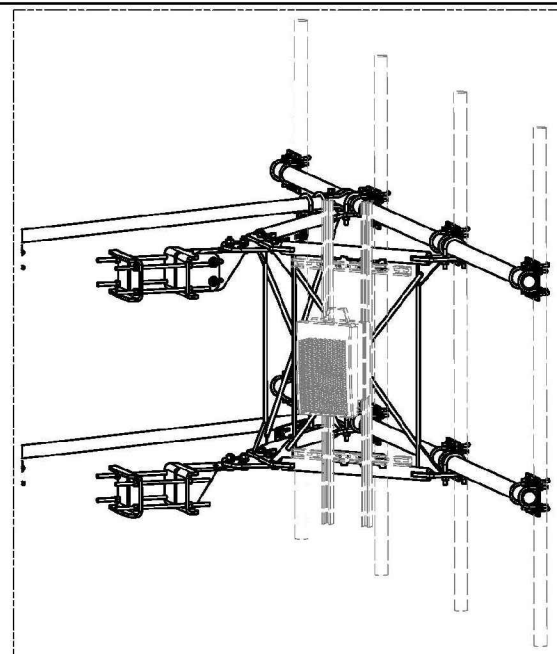
DESCRIPTION	12" 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS
CLASS	81
SUB	02
DRAWING USAGE	CUSTOMER
CHECKED BY	BMC
DATE	12/13/2017
PART NO.	VFA12-HD
DWG. NO.	VFA12-HD

**TOLERANCE NOTES**  
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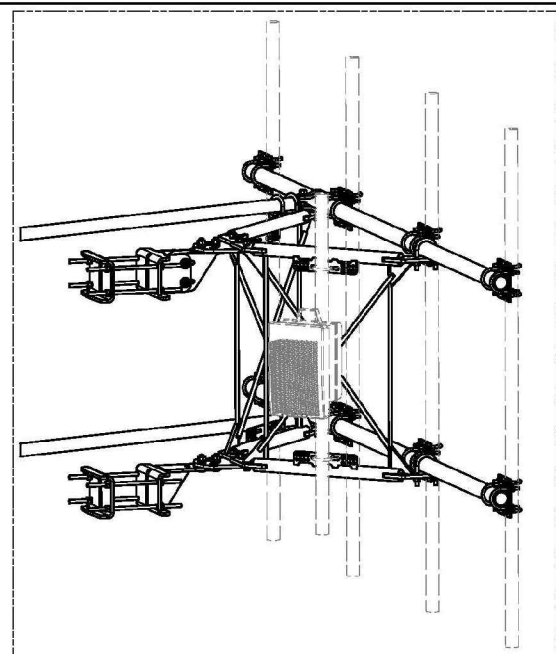
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UNISTRUT AND HARDWARE SOLD SEPARATELY.  
REQUIRES 3/8" HARDWARE



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

**TOLERANCE NOTES**  
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
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DRILLED AND GAS CUT HOLES (# 0.0007) - NO CONING OF HOLES  
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REVISION HISTORY

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**SUPPLEMENTAL**

SHEET NUMBER: **R-604**  
REVISION: **0**