



**Cellco Partnership d/b/a
Verizon Wireless**
Cullen Morgan
Site Acquisition Consultant
750 W Center Street
Suite 301
West Bridgewater, MA 02379
(941)549-7263
cmorgan@clinellc.com

July 15, 2024

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

**RE: NOTICE OF EXEMPT MODIFICATION
333 Grassy Hill Road, Old Lyme, CT 06371
Latitude: 41.39182500
Longitude: -72.28592778
Site: OLD LYME (ATC: 88016)**

Dear Members of the Siting Council:

Cellco Partnership d/b/a Verizon Wireless ("Verizon") currently maintains twelve (12) antennas at the 81-foot level of the existing 101-foot tower at 333 Grassy Hill Road, Old Lyme, CT 06371. The 101-foot tower and the underlying property are owned by American Tower Corporation. Verizon now intends to replace (3) Sector Frames, (6) Antennas, and (2) Fiber Cables, Remove (6) Diplexers, and install (6) RRUs and (2) OVPs to their existing telecommunications facility. All tower-mounted equipment will be installed at the 81-foot level of the tower.

Planned Modifications:

Remove Existing:

- (3) Sector Frames
- (3) LPA-80080-4CF-EDIN-0 Antennas
- (3) BXA-70063-6CF Antennas
- (6) FD9R6004/2C-3L Diplexers
- (2) 1-5/8" Coax cables

Install New:

- (3) Sector Frames
- (3) NHH-65B-R2B Antennas
- (3) MT6413-77A Antennas
- (3) RF4461D-13A RRUs
- (3) RF4439D-25A RRUs

750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

(2) 1-1/4" Hybrid Cables

Existing to Remain:

(3) NHH-65B-R2B Antennas

(3) LPA-80080-4CF-EDIN-0 Antennas

(6) 1-5/8" Coax

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, or 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 First Selectman David Lahm, chief elected official for the Town of Lyme, Joshua Adams, Building Official for the Town of Lyme, and American Tower Corporation, the property owner and tower owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

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 replacement 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.

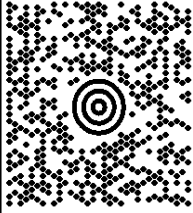
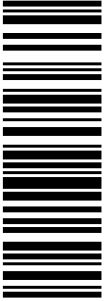
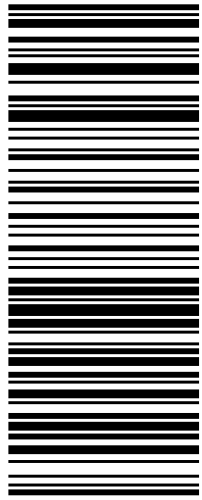
For the foregoing reasons, Verizon respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Respectfully,

Cullen Morgan
Site Acquisition Consultant
Centerline Communications, LLC (Agent to Verizon)
Mobile: (941) 549-7263
cmorgan@clinellc.com

Attachments

cc: First Selectman David Lahm, chief elected official – Town of Lyme
Joshua Adams, Building Official – Town of Winchester
American Tower Corporation – Property Owner & Tower Owner

C/O CULLEN MORGAN 9415497263 CENTERLINE COMMUNICATIONS LLC 12579 SAGEWOOD DRIVE VENICE FL 34293		2 LBS	1 OF 1
SHIP TO: CONNECTICUT SITING COUNCIL 10 FRANKLIN SQUARE NEW BRITAIN CT 06051-2655			
	CT 067 9-06 		
UPS GROUND			
TRACKING #: 1Z 9Y4 503 03 3737 8270			
			
BILLING: P/P			
Reference # 1: 14852508 OLD LYME CT			
CS 24.5.00. MACNV50 30.0A 07/202.4*			
 ™			



CENTERLINE

EXHIBIT A

Property Card

CURRENT OWNER				TOPO		UTILITIES		STRT / ROAD		LOCATION		CURRENT ASSESSMENT						6075 LYME, CT VISION													
AMERICAN TOWERS INC C/O AMERICAN TOWER CORP P.O. BOX 723597 ATLANTA GA 31139				4 Rolling				1 Paved	3 Rural			Description		Code	Appraised		Assessed														
												UTL LAND		4-1	383,800		268,700														
												UTL BLDG		4-2	111,800		78,300														
												UTL OUTBL		4-3	724,700		507,300														
SUPPLEMENTAL DATA																															
Alt Prcl ID 31/ 33/ / /						Dev Map # Dev Lot # Flood Plain Census Tr																									
PID2 00155900						1559																									
SIDE																															
GIS ID 50/12						Assoc Pid#																									
										Total		1,220,300		854,300																	
RECORD OF OWNERSHIP				BK-VOL/PAGE		SALE DATE		Q/U		V/I		SALE PRICE		VC		PREVIOUS ASSESSMENTS (HISTORY)															
AMERICAN TOWERS INC AMERICAN TEL + TEL CO				0111		0706		02-23-2000		Q		I		146,070		U		Year		Code		Assessed		Year		Code		Assessed			
				0061		0598		07-29-1966		U				0						2023		4-1		268,700		2022		4-1		137,400	
																				4-2		78,300		48,800		4-2		125,900			
																				4-3		507,300		77,100							
										Total		854,300		Total		263,300		Total		263,300											
EXEMPTIONS						OTHER ASSESSMENTS						This signature acknowledges a visit by a Data Collector or Assessor																			
Year		Code		Description		Amount		Code		Description												Number		Amount		Comm Int					
				Total		0.00																									
ASSESSING NEIGHBORHOOD																															
Nbhd				Nbhd Name				B				Tracing				Batch															
0060																															
NOTES																															
RELAY STATION & TOWER SELF SUPPORTING TOWER HT=130 FT,30 FT BASE SIDE 4 CELL TENANTS 2023														Appraised Bldg. Value (Card)						111,800											
														Appraised Xf (B) Value (Bldg)						0											
														Appraised Ob (B) Value (Bldg)						724,700											
														Appraised Land Value (Bldg)						383,800											
														Special Land Value						0											
														Total Appraised Parcel Value						1,220,300											
														Valuation Method						C											
														Total Appraised Parcel Value						1,220,300											
BUILDING PERMIT RECORD														VISIT / CHANGE HISTORY																	
Permit Id		Issue Date		Type		Description		Amount		Insp Date		% Comp		Date Comp		Comments				Date		Id		Type		Is		Cd		Purpost/Result	
01270122		03-14-2022		CO		CO ISSUED		45,000		03-03-2020		100		09-06-2022		REPLACE/ADD ANTENNAS				08-29-2023		JW						01		Measur+1Visit	
01270222		03-04-2022		CO		CO ISSUED		20,000				100		09-06-2022		UPGRADE TELECOMM EQUI				02-09-2018		ES						01		Measur+1Visit	
09030519-1		07-25-2018		CO								100		03-03-2020		CO ISSUED				11-03-2008		KC						54		Field Review	
07310318		07-25-2018		RE		Remodel		20,000		09-30-2008		0				ALTERATION TO ANTENNA				09-30-2008		DK						04		Measur/Vac/Boarded up	
		06-25-2008		NC		New Construct		55,000				100				EQUIPMENT BLDG/ADD ANT				09-30-2008		DK						26		Building Permit	
																				02-10-1999		BD						04		Measur/Vac/Boarded up	
LAND LINE VALUATION SECTION																															
B	Use Code	Description		Zone	Land Type	Land Units		Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nhbd Adj	Notes		Location Adjustment		Adj Unit Pric	Land Value												
1	4310	TEL REL TW MD		RU8		80,150	SF	1.69	1.00000	5	1.00	0060	1.150	CELL SITE					0	155,800											
1	4310	TEL REL TW MD		RU8		0.990	AC	7,000.00	1.00000	0	1.00	0060	1.150						0	8,000											
1	4310	TEL REL TW MD				1.000	BL	220,000.00	1.00000	0	1.00		1.000						0	220,000											
Total Card Land Units						2.8300	AC	Parcel Total Land Area: 2.8300						Total Land Value						383,800											

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)					
Element		Cd	Description			Element		Cd	Description		
Style:		40	Light Indust								
Model		96	Commercial								
Grade		06	Good								
Stories:		1									
Occupancy		1.00									
Exterior Wall 1		23	Pre-cast Concr								
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								
Interior Floor 2											
Heating Fuel		02	Oil								
Heating Type		04	Forced Air-Duc								
AC Type		03	Central								
Bldg Use		4310	TEL REL TW MDL-96								
Total Rooms											
Total Bedrms		00									
Total Baths		0									
Heat/AC		01	Heat AC Pkg								
Frame Type		03	Masonry								
Baths/Plumbing		00	None								
Ceiling/Wall		00	None								
Rooms/Prtns		02	Average								
Wall Height		14.00									
% Comn Wall		0.00									
1st Floor Use:		4310									

OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value
PAV1	PAVING-ASPH	L	5,000	1.50	1999		50		0.00	3,800
FN3	FENCE-6' CHAI	L	144	12.00	1999		50		0.00	900
MSC3	CELL TENANT	L	4	180000.0	2018	E	100	C	0.00	720,000

BUILDING SUB-AREA SUMMARY SECTION							
Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value	
BAS	First Floor	1,786	1,786	1,786	88.18	157,488	
Ttl Gross Liv / Lease Area		1,786	1,786	1,786		157,488	

47

BAS

38

47



EXHIBIT B

Structural Analysis Report



AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by



Structural Analysis Report

Structure : 100 ft Self Support Tower
ATC Asset Name : OLD LYME
ATC Asset Number : 88016
Engineering Number : 14852508_C3_03
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : LAYSVILLE NORTH CT
Carrier Site Number : 5000247020
Site Location : GRASSY HILL ROAD
OLD LYME, CT 06371-3300
41.3918° N, 72.2859° W
County : New London
Date : June 5, 2024
Max Usage : 61%
Analysis Result : Pass

Created By:

Uma Toluganti
POD



Jason Cheronis

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Calculations.....	Attached

Introduction

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

Supporting Documents

Tower:	Analysis by CSEI Site Old Lyme, CT
Foundation:	Geotel Engineering Report #E08-247-F, dated May 14, 2008
Geotechnical:	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.

Basic Wind Speed:	125 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Feature:	Flat
Spectral Response:	$S_s = 0.20$, $S_i = 0.05$
Site Class:	D - Stiff Soil - Default

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

Structure Usages

Structural Component	Usage	Control	Location	Result
Leg	43.0%	Member Z	Section 2	Pass
Diagonal	61.0%	Member Y	Section 3	Pass
Horizontal	37.0%	Member Z	Section 5	Pass
Bolt	6.0%	-	Section 1	Pass
Serviceability Usage	1.3%	Deflection	Elevation 100 ft	Pass
Foundation	44.0 %	Uplift	0 ft	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Self Support Base (Global)	3,997.6	71.4	-	52.2
Self Support Base (Local)	-	134.5	102.9	21.4

**Reactions shown are maximum overall and not limited by Load Case*

Structure base reactions were analyzed using available geotechnical and foundation information.

VERIZON WIRELESS Final Loading

Elev (ft)	Qty	Equipment	Lines
81.0	2	Raycap RRFDC-3315-PF-48	(2) 1 1/4" (1.25" - 31.8mm) Fiber (6) 1 5/8" Coax
	3	Amphenol Antel LPA-80080-4CF-EDIN-0	
	3	Samsung B2/B66A RRH ORAN (RF 4439d-25A)	
	3	Samsung MT6413-77A	
	3	Samsung RF4461d-13A	
	6	Commscope NHH-65B-R2B	
78.0	3	Light Sector Frame	-

Install proposed lines in the place of the existing VERIZON WIRELESS lines.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
130.0	2	dbSpectra DS4C06F36D-N	-	VALLEY SHORE EMERGENCY COMMUNICATIONS
124.0	-	-	(4) 7/8" Coax	
108.3	4	12' Horn	-	UNKNOWN
105.0	3	Ericsson Air6449 B41	(3) 1.99" (50.7mm) Hybrid	SPRINT NEXTEL
	3	Ericsson Radio 4460 B25+B66		
	3	Ericsson Radio 4480 B71+B85A		
	3	RFS APXVAALL24 43-U-NA20		
100.0	1	20' Platform w/ Handrails	-	-
90.2	1	Scala PR-900	-	VALLEY SHORE EMERGENCY COMMUNICATIONS
87.0	1	Radio Waves HPD3-5W	(2) 0.38" (9.7mm) Cat 5e	
82.8	1	Access Platform	-	-
80.0	-	-	(6) 1 5/8" Coax	VERIZON WIRELESS
78.7	3	Diplexer / Coupler	-	
51.0	1	Rest Platform	-	-

(If table breaks across pages, please see previous page for data in merged cells)



Standard Conditions

All engineering services performed by POD Group 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 POD Group

It is the responsibility of the client to ensure that the information provided to POD Group and used in the performance of our engineering services is correct and complete.

POD Group assumes that all structures were constructed in accordance with the drawings and specifications.

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

Unless explicitly agreed by both the client and POD Group, all services will be performed in accordance with the current revision of ANSI/TIA-222.

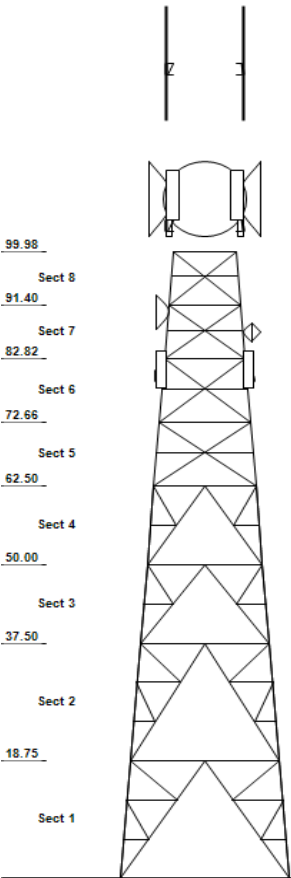
Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

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

ANALYSIS PARAMETERS			
Nominal Wind:	125 mph	Ice Wind:	50 mph w/ 1" ice
Risk Category:	II	Exposure:	B
Topo Category:	1	Topo Factor:	Method 1
Structure Height:	100 ft	Base Elevation:	0 ft
Base Width:	24.25 ft	Top Width:	9 ft
Service Wind:	60 mph	S _g :	0.204
		S _t :	0.054
		Topo Feature:	
		Shape:	Square

Quadrant 1

Tower Elevation View



TOWER SECTION 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

SECONDARY BRACING MEMBERS			
Section	Sub Diagonal 1	Sub Diagonal 2	Sub Diagonal 3
1 - 2	S2X2X0.25	S2X2X0.25	-
3 - 4	S2X2X0.25	-	-
Section	Sub Horizontal 1	Sub Horizontal 2	Sub Horizontal 3
1 - 2	S2X2X0.25	S2X2X0.25	-
3 - 4	S2X2X0.25	-	-
5 - 8	S2X2X0.25	-	-

DISCRETE APPURTENANCE		LINEAR APPURTENANCE	
Elev (ft)	Description	Elev To (ft)	Description
130.0	(2) dbSpectra DS4C06F36D-N	124.0	(4) 7/8" Coax
108.3	(4) Generic 12' Horn	105.0	(3) 1.99" (50.7mm) Hybrid
105.0	(3) Ericsson Radio 4480 B71+B85A	100.0	(1) Waveguide
105.0	(3) RFS APXVAALL24 43-U-NA20	100.0	(1) Climbing Ladder
105.0	(3) Ericsson Air6449 B41	92.0	(1) Wave Guide
105.0	(3) Ericsson Radio 4460 B25+B66	87.0	(2) 0.38" (9.7mm) Cat 5e
100.0	(1) 20' Platform w/ Handrails	82.0	(1) Waveguide
90.2	(1) Scala PR-900	81.0	(6) 1 5/8" Coax
87.0	(1) Radio Waves HPD3-5W	81.0	(2) 1 1/4" (1.25"- 31.8mm) Fiber
82.8	(1) Access Platform	80.0	(6) 1 5/8" Coax
81.0	(6) Commscope NHH-65B-R2B	30.0	(4) Coax Cage
81.0	(3) Samsung B2/B66A RRR ORAN (RF 4		
81.0	(3) Samsung MT6413-77A		
81.0	(3) Amphenol Antel LPA-80080-4CF-E		
81.0	(3) Samsung RF4461d-13A		
81.0	(2) Raycap RRFDC-3315-PF-48		
78.7	(3) Generic Diplexer / Coupler		
78.0	(3) Generic Flat Light Sector Fram		
51.0	(1) Rest Platform		

GLOBAL BASE REACTIONS			INDIVIDUAL BASE REACTIONS	
	DL+WL	DL+WL+IL		
Moment (k-ft):	3997.62	850.19	Comp (k):	134.54
Axial (k):	71.40	115.28	Uplift (k):	102.88
Shear (k):	52.16	11.03	Shear (k):	21.43

ANALYSIS PARAMETERS			
Location:	New London County, CT	Height:	100 ft
Type and Shape:	Self Support, Square	Base Elevation:	0.00 ft
Manufacturer:	AT&T TAG	Bottom Face Width:	24.25 ft
Kd	0.85	Top Face Width:	9.00 ft
Ke:	0.99	Anchor Bolt Detail Type:	c

ICE & WIND PARAMETERS			
Exposure Category:	B	Design Wind Speed Without Ice:	125 mph
Risk Category:	II	Design Wind Speed with Ice:	50 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	Flat	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	360 ft

SEISMIC PARAMETERS			
Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	0.40
T _L (sec):	6	P:	1.3
S _s :	0.204	S ₁ :	0.054
F _a :	1.600	F _v :	2.400
S _{ds} :	0.218	S _{d1} :	0.086
		C _s :	0.071
		C _{s, Max} :	0.071
		C _{s, Min} :	0.030

LOAD CASES	
1.2D + 1.0W Normal	1.2D + 1.0W Normal - 125 mph Wind with No Ice
1.2D + 1.0W 45°	1.2D + 1.0W 45° - 125 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90° - 125 mph Wind with No Ice
1.2D + 1.0W 135°	1.2D + 1.0W 135° - 125 mph Wind with No Ice
1.2D + 1.0W 180°	1.2D + 1.0W 180° - 125 mph Wind with No Ice
1.2D + 1.0W 225°	1.2D + 1.0W 225° - 125 mph Wind with No Ice
1.2D + 1.0W 270°	1.2D + 1.0W 270° - 125 mph Wind with No Ice
1.2D + 1.0W 315°	1.2D + 1.0W 315° - 125 mph Wind with No Ice
0.9D + 1.0W Normal	0.9D + 1.0W Normal - 125 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 45°	0.9D + 1.0W 45° - 125 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 90°	0.9D + 1.0W 90° - 125 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 135°	0.9D + 1.0W 135° - 125 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 180°	0.9D + 1.0W 180° - 125 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 225°	0.9D + 1.0W 225° - 125 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 270°	0.9D + 1.0W 270° - 125 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 315°	0.9D + 1.0W 315° - 125 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Di + 1.0Wi 45°	1.2D + 1.0Di + 1.0Wi 45° - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Di + 1.0Wi 135°	1.2D + 1.0Di + 1.0Wi 135° - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Di + 1.0Wi 180°	1.2D + 1.0Di + 1.0Wi 180° - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Di + 1.0Wi 225°	1.2D + 1.0Di + 1.0Wi 225° - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Di + 1.0Wi 270°	1.2D + 1.0Di + 1.0Wi 270° - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Di + 1.0Wi 315°	1.2D + 1.0Di + 1.0Wi 315° - 50 mph Wind with 1" Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh Normal - Seismic
1.2D + 1.0Ev + 1.0Eh 45°	1.2D + 1.0Ev + 1.0Eh 45° - Seismic

LOAD CASES	
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90° - Seismic
1.2D + 1.0Ev + 1.0Eh 135°	1.2D + 1.0Ev + 1.0Eh 135° - Seismic
1.2D + 1.0Ev + 1.0Eh 180°	1.2D + 1.0Ev + 1.0Eh 180° - Seismic
1.2D + 1.0Ev + 1.0Eh 225°	1.2D + 1.0Ev + 1.0Eh 225° - Seismic
1.2D + 1.0Ev + 1.0Eh 270°	1.2D + 1.0Ev + 1.0Eh 270° - Seismic
1.2D + 1.0Ev + 1.0Eh 315°	1.2D + 1.0Ev + 1.0Eh 315° - Seismic
0.9D - 1.0Ev + 1.0Eh Normal	0.9D - 1.0Ev + 1.0Eh Normal - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 45°	0.9D - 1.0Ev + 1.0Eh 45° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 90°	0.9D - 1.0Ev + 1.0Eh 90° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 135°	0.9D - 1.0Ev + 1.0Eh 135° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 180°	0.9D - 1.0Ev + 1.0Eh 180° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 225°	0.9D - 1.0Ev + 1.0Eh 225° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 270°	0.9D - 1.0Ev + 1.0Eh 270° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 315°	0.9D - 1.0Ev + 1.0Eh 315° - Seismic (Reduced DL)
1.0D + 1.0W Service Normal	1.0D + 1.0W Service Normal - 60 mph Wind with No Ice
1.0D + 1.0W Service 45°	1.0D + 1.0W Service 45° - 60 mph Wind with No Ice
1.0D + 1.0W Service 90°	1.0D + 1.0W Service 90° - 60 mph Wind with No Ice
1.0D + 1.0W Service 135°	1.0D + 1.0W Service 135° - 60 mph Wind with No Ice
1.0D + 1.0W Service 180°	1.0D + 1.0W Service 180° - 60 mph Wind with No Ice
1.0D + 1.0W Service 225°	1.0D + 1.0W Service 225° - 60 mph Wind with No Ice
1.0D + 1.0W Service 270°	1.0D + 1.0W Service 270° - 60 mph Wind with No Ice
1.0D + 1.0W Service 315°	1.0D + 1.0W Service 315° - 60 mph Wind with No Ice

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

TOWER LOADING – DISCRETE APPURTENANCE

Discrete Appurtenance Properties for LC: 1.2D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
130.0	dbSpectra DS4C06F36D-N	2	70	5.5	18.3	3.0	3.0	1.00	1.00	0.0	0.00	35.75	334	168
108.3	Generic 12' Horn	4	2500	156.8	12.0	144.0	0.0	1.00	1.00	0.0	0.00	33.93	18092	12000
105.0	Ericsson Radio 4460 B25+B66	3	109	2.6	1.6	15.7	12.1	1.00	0.50	1.3	143.43	33.75	110	392
105.0	Ericsson Radio 4480 B71+B85A	3	84	2.9	1.8	15.7	7.5	1.00	0.50	1.5	184.18	33.77	123	302
105.0	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	1.00	0.63	-0.1	30.69	33.62	307	374
105.0	RFS APXVAALL24 43-U-NA20	3	123	20.2	8.0	24.0	8.5	1.00	0.63	1.1	1,206.63	33.73	1097	442
100.0	20' Platform w/ Handrails	1	9000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	33.16	2255	10800
90.2	Scala PR-900	1	38	10.1	5.7	36.0	0.0	1.00	1.00	0.0	0.00	32.20	276	46
87.0	Radio Waves HPD3-5W	1	76	10.1	3.2	38.4	28.1	1.00	1.00	0.0	0.00	31.87	275	91
82.8	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	31.42	1202	6000
81.0	Samsung RF4461d-13A	3	79	1.9	1.3	15.0	10.2	0.80	0.50	0.0	0.00	31.23	60	285
81.0	Samsung B2/B66A RRH ORAN (RF 4	3	75	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	31.23	60	269
81.0	Raycap RRFDC-3315-PF-48	2	27	2.5	1.6	15.7	10.3	0.80	0.67	0.0	0.00	31.23	71	65
81.0	Samsung MT6413-77A	3	57	3.8	2.4	15.8	5.5	0.80	0.61	0.0	0.00	31.23	148	206
81.0	Amphenol Antel LPA-80080-4CF-E	3	12	5.4	3.9	5.5	13.2	0.80	0.62	0.0	0.00	31.23	213	43
81.0	Commscope NHH-65B-R2B	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.00	31.23	710	315
78.7	Generic Diplexer / Coupler	3	5	0.6	1.0	6.0	3.0	0.80	0.50	0.0	0.00	30.97	19	18
78.0	Generic Flat Light Sector Fram	3	800	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	30.89	709	2880
51.0	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.36	349	600
Totals		49	29,414	1040.4									26,410	35,296

Discrete Appurtenance Properties for LC: 0.9D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
130.0	dbSpectra DS4C06F36D-N	2	70	5.5	18.3	3.0	3.0	1.00	1.00	0.0	0.00	35.75	334	126
108.3	Generic 12' Horn	4	2500	156.8	12.0	144.0	0.0	1.00	1.00	0.0	0.00	33.93	18092	9000
105.0	Ericsson Radio 4460 B25+B66	3	109	2.6	1.6	15.7	12.1	1.00	0.50	1.3	143.43	33.75	110	294
105.0	Ericsson Radio 4480 B71+B85A	3	84	2.9	1.8	15.7	7.5	1.00	0.50	1.5	184.18	33.77	123	227
105.0	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	1.00	0.63	-0.1	30.69	33.62	307	281
105.0	RFS APXVAALL24 43-U-NA20	3	123	20.2	8.0	24.0	8.5	1.00	0.63	1.1	1,206.63	33.73	1097	332
100.0	20' Platform w/ Handrails	1	9000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	33.16	2255	8100
90.2	Scala PR-900	1	38	10.1	5.7	36.0	0.0	1.00	1.00	0.0	0.00	32.20	276	34
87.0	Radio Waves HPD3-5W	1	76	10.1	3.2	38.4	28.1	1.00	1.00	0.0	0.00	31.87	275	68
82.8	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	31.42	1202	4500
81.0	Samsung RF4461d-13A	3	79	1.9	1.3	15.0	10.2	0.80	0.50	0.0	0.00	31.23	60	214
81.0	Samsung B2/B66A RRH ORAN (RF 4	3	75	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	31.23	60	202
81.0	Raycap RRFDC-3315-PF-48	2	27	2.5	1.6	15.7	10.3	0.80	0.67	0.0	0.00	31.23	71	48
81.0	Samsung MT6413-77A	3	57	3.8	2.4	15.8	5.5	0.80	0.61	0.0	0.00	31.23	148	155
81.0	Amphenol Antel LPA-80080-4CF-E	3	12	5.4	3.9	5.5	13.2	0.80	0.62	0.0	0.00	31.23	213	32
81.0	Commscope NHH-65B-R2B	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.00	31.23	710	236
78.7	Generic Diplexer / Coupler	3	5	0.6	1.0	6.0	3.0	0.80	0.50	0.0	0.00	30.97	19	14
78.0	Generic Flat Light Sector Fram	3	800	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	30.89	709	2160
51.0	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.36	349	450
Totals		49	29,414	1040.4									26,410	26,472

Discrete Appurtenance Properties for LC: 1.2D + 1.0Di + 1.0Wi

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
130.0	dbSpectra DS4C06F36D-N	2	158	9.7	18.3	3.0	3.0	1.00	1.00	0.0	0.00	5.72	94	344
108.3	Generic 12' Horn	4	3612	161.7	12.0	144.0	0.0	1.00	1.00	0.0	0.00	5.43	2985	16449
105.0	Ericsson Radio 4460 B25+B66	3	165	3.2	1.6	15.7	12.1	1.00	0.50	1.3	28.97	5.40	22	562
105.0	Ericsson Radio 4480 B71+B85A	3	132	3.6	1.8	15.7	7.5	1.00	0.50	1.5	36.84	5.40	25	447
105.0	Ericsson Air6449 B41	3	191	6.7	2.8	20.6	8.6	1.00	0.63	-0.1	5.79	5.38	58	636
105.0	RFS APXVAALL24 43-U-NA20	3	372	22.6	8.0	24.0	8.5	1.00	0.63	1.1	215.65	5.40	196	1188
100.0	20' Platform w/ Handrails	1	13004	115.6	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.31	521	14804
90.2	Scala PR-900	1	239	52.9	5.7	36.0	0.0	1.00	1.00	0.0	0.00	5.15	231	246
87.0	Radio Waves HPD3-5W	1	199	11.3	3.2	38.4	28.1	1.00	1.00	0.0	0.00	5.10	49	214
82.8	Access Platform	1	7179	64.6	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.03	276	8179
81.0	Samsung RF4461d-13A	3	119	2.4	1.3	15.0	10.2	0.80	0.50	0.0	0.00	5.00	12	406
81.0	Samsung B2/B66A RRH ORAN (RF 4	3	115	2.4	1.3	15.0	10.0	0.80	0.50	0.0	0.00	5.00	12	389
81.0	Raycap RRFDC-3315-PF-48	2	77	3.2	1.6	15.7	10.3	0.80	0.67	0.0	0.00	5.00	14	164
81.0	Samsung MT6413-77A	3	110	4.6	2.4	15.8	5.5	0.80	0.61	0.0	0.00	5.00	29	366
81.0	Amphenol Antel LPA-80080-4CF-E	3	84	6.6	3.9	5.5	13.2	0.80	0.62	0.0	0.00	5.00	41	260
81.0	Commscope NHH-65B-R2B	6	153	9.8	6.0	11.9	7.1	0.80	0.69	0.0	0.00	5.00	138	969
78.7	Generic Diplexer / Coupler	3	15	0.9	1.0	6.0	3.0	0.80	0.50	0.0	0.00	4.96	5	49
78.0	Generic Flat Light Sector Fram	3	1497	27.3	0.0	0.0	0.0	0.75	0.67	0.0	0.00	4.94	173	4972
51.0	Rest Platform	1	706	21.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	4.38	79	806
Totals		49	45,567	1238.4									4962	51,450

Discrete Appurtenance Properties for LC: 1.0D + 1.0W Service

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
130.0	dbSpectra DS4C06F36D-N	2	70	5.5	18.3	3.0	3.0	1.00	1.00	0.0	0.00	8.24	77	140
108.3	Generic 12' Horn	4	2500	156.8	12.0	144.0	0.0	1.00	1.00	0.0	0.00	7.82	4168	10000
105.0	Ericsson Radio 4460 B25+B66	3	109	2.6	1.6	15.7	12.1	1.00	0.50	1.3	33.05	7.78	25	327
105.0	Ericsson Radio 4480 B71+B85A	3	84	2.9	1.8	15.7	7.5	1.00	0.50	1.5	42.44	7.78	28	252
105.0	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	1.00	0.63	-0.1	7.07	7.75	71	312
105.0	RFS APXVAALL24 43-U-NA20	3	123	20.2	8.0	24.0	8.5	1.00	0.63	1.1	278.01	7.77	253	368
100.0	20' Platform w/ Handrails	1	9000	80.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.64	520	9000
90.2	Scala PR-900	1	38	10.1	5.7	36.0	0.0	1.00	1.00	0.0	0.00	7.42	64	38
87.0	Radio Waves HPD3-5W	1	76	10.1	3.2	38.4	28.1	1.00	1.00	0.0	0.00	7.34	63	76
82.8	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.24	277	5000
81.0	Samsung RF4461d-13A	3	79	1.9	1.3	15.0	10.2	0.80	0.50	0.0	0.00	7.19	14	237
81.0	Samsung B2/B66A RRH ORAN (RF 4	3	75	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	7.19	14	224
81.0	Raycap RRFDC-3315-PF-48	2	27	2.5	1.6	15.7	10.3	0.80	0.67	0.0	0.00	7.19	16	54
81.0	Samsung MT6413-77A	3	57	3.8	2.4	15.8	5.5	0.80	0.61	0.0	0.00	7.19	34	172
81.0	Amphenol Antel LPA-80080-4CF-E	3	12	5.4	3.9	5.5	13.2	0.80	0.62	0.0	0.00	7.19	49	36
81.0	Commscope NHH-65B-R2B	6	44	8.1	6.0	11.9	7.1	0.80	0.69	0.0	0.00	7.19	164	262
78.7	Generic Diplexer / Coupler	3	5	0.6	1.0	6.0	3.0	0.80	0.50	0.0	0.00	7.14	4	15
78.0	Generic Flat Light Sector Fram	3	800	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.12	163	2400
51.0	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.30	80	500
Totals		49	29,414	1040.4									6,085	29,414

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

TOWER LOADING – LINEAR APPURTENANCE

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In Wind	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient. Factor	K _a Override
10.0	100.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
10.0	100.0	Climbing Ladder	1	2.00	6.90	100	1	Individual	0.00	N	1.00	1.00	0.00
10.0	92.0	Wave Guide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
10.0	82.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
10.0	81.0	1 5/8" Coax	6	1.98	0.82	50	1	Block	0.00	N	1.00	1.00	0.00
10.0	80.0	1 5/8" Coax	6	1.98	0.82	50	1	Block	0.00	N	1.00	1.00	0.00
10.0	30.0	Coax Cage	4	12.00	25.00	100	1,3	Individual	0.00	N	1.00	1.00	0.00
0.0	124.0	7/8" Coax	4	1.09	0.33	50	2	Block	0.00	N	1.00	1.00	0.00
0.0	105.0	1.99" (50.7mm) Hybrid	3	1.99	1.90	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	87.0	0.38" (9.7mm) Cat 5e	2	0.38	0.09	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	81.0	1 1/4" (1.25"- 31.8mm) Fiber	2	1.25	1.05	100	1	Individual	0.00	N	1.00	1.00	0.00

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

SECTION FORCES

1.2D + 1.0W Normal
125 mph Wind with No Ice
Gust Response Factor (Gh): 0.85
Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1889	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1740	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2785	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2697	0	1888	713	2600
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	4345	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4854	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	8595	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	9197	0	3338	1483	4822
Totals														36,102	0			23,963

1.2D + 1.0W 45°
125 mph Wind with No Ice
Gust Response Factor (Gh): 0.85
Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1889	0	1920	241	2162
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1740	0	1712	283	1996
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2785	0	2066	658	2724
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2697	0	2119	713	2832
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	4345	0	2191	832	3023
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4854	0	2125	774	2899
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	8595	0	2924	2120	5044
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	9197	0	3619	1483	5102
Totals														36,102	0			25,781

1.2D + 1.0W 90°
125 mph Wind with No Ice
Gust Response Factor (Gh): 0.85
Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1889	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1740	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2785	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2697	0	1888	713	2600
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	4345	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4854	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	8595	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	9197	0	3338	1483	4822
Totals														36,102	0			23,963

1.2D + 1.0W 135°
125 mph Wind with No Ice
Gust Response Factor (Gh): 0.85
Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1889	0	1920	241	2162
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1740	0	1712	283	1996
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2785	0	2066	658	2724
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2697	0	2119	713	2832
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	4345	0	2191	832	3023
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4854	0	2125	774	2899
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	8595	0	2924	2120	5044
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	9197	0	3619	1483	5102
Totals														36,102	0			25,781

1.2D + 1.0W 180°
125 mph Wind with No Ice
Gust Response Factor (Gh): 0.85
Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1889	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1740	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2785	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2697	0	1888	713	2600
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	4345	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4854	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	8595	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	9197	0	3338	1483	4822
Totals														36,102	0			23,963

1.2D + 1.0W 225°
125 mph Wind with No Ice
Gust Response Factor (Gh): 0.85
Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1889	0	1920	241	2162
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1740	0	1712	283	1996

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

SECTION FORCES

1.2D + 1.0W 225°

Gust Response Factor (Gh): 0.85

125 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2785	0	2066	658	2724
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2697	0	2119	713	2832
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	4345	0	2191	832	3023
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4854	0	2125	774	2899
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	8595	0	2924	2120	5044
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	9197	0	3619	1483	5102
Totals														36,102	0			25,781

1.2D + 1.0W 270°

Gust Response Factor (Gh): 0.85

125 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1889	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1740	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2785	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2697	0	1888	713	2600
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	4345	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4854	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	8595	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	9197	0	3338	1483	4822
Totals														36,102	0			23,963

1.2D + 1.0W 315°

Gust Response Factor (Gh): 0.85

125 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1889	0	1920	241	2162
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1740	0	1712	283	1996
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2785	0	2066	658	2724
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2697	0	2119	713	2832
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	4345	0	2191	832	3023
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4854	0	2125	774	2899
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	8595	0	2924	2120	5044
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	9197	0	3619	1483	5102
Totals														36,102	0			25,781

0.9D + 1.0W Normal

Gust Response Factor (Gh): 0.85

125 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1416	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1305	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2089	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2023	0	1888	713	2600
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3259	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3640	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	6447	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	6898	0	3338	1483	4822
Totals														27,076	0			23,963

0.9D + 1.0W 45°

Gust Response Factor (Gh): 0.85

125 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1416	0	1920	241	2162
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1305	0	1712	283	1996
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2089	0	2066	658	2724
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2023	0	2119	713	2832
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3259	0	2191	832	3023
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	3640	0	2125	774	2899
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	6447	0	2924	2120	5044
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	6898	0	3619	1483	5102
Totals														27,076	0			25,781

0.9D + 1.0W 90°

Gust Response Factor (Gh): 0.85

125 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1416	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1305	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2089	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2023	0	1888	713	2600

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

SECTION FORCES

0.9D + 1.0W 90°				Gust Response Factor (Gh): 0.85														
125 mph Wind with No Ice (Reduced DL)				Wind Importance Factor (Iw): 1.00														
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3259	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3640	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	6447	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	6898	0	3338	1483	4822
Totals													27,076	0	23,963			

0.9D + 1.0W 135°			Gust Response Factor (Gh): 0.85															
125 mph Wind with No Ice (Reduced DL)			Wind Importance Factor (Iw): 1.00															
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1416	0	1920	241	2162
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1305	0	1712	283	1996
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2089	0	2066	658	2724
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2023	0	2119	713	2832
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3259	0	2191	832	3023
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	3640	0	2125	774	2899
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	6447	0	2924	2120	5044
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	6898	0	3619	1483	5102
Totals														27,076	0	25,781		

0.9D + 1.0W 180°			Gust Response Factor (Gh): 0.85															
125 mph Wind with No Ice (Reduced DL)			Wind Importance Factor (Iw): 1.00															
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1416	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1305	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2089	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2023	0	1888	713	2600
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3259	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3640	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	6447	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	6898	0	3338	1483	4822
Totals														27,076	0	23,963		

0.9D + 1.0W 225°						Gust Response Factor (Gh): 0.85													
125 mph Wind with No Ice (Reduced DL)						Wind Importance Factor (Iw): 1.00													
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1416	0	1920	241	2162	
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1305	0	1712	283	1996	
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2089	0	2066	658	2724	
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2023	0	2119	713	2832	
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3259	0	2191	832	3023	
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	3640	0	2125	774	2899	
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	6447	0	2924	2120	5044	
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	6898	0	3619	1483	5102	
Totals														27,076	0	25,781			

0.9D + 1.0W 270°						Gust Response Factor (Gh): 0.85												
125 mph Wind with No Ice (Reduced DL)						Wind Importance Factor (Iw): 1.00												
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1416	0	1627	241	1868
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1305	0	1502	283	1785
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2089	0	1829	658	2487
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2023	0	1888	713	2600
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3259	0	2004	832	2836
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	3640	0	1956	774	2730
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	6447	0	2714	2120	4834
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	6898	0	3338	1483	4822
Totals														27.076	0			23.963

0.9D + 1.0W 315°			Gust Response Factor (Gh): 0.85															
125 mph Wind with No Ice (Reduced DL)			Wind Importance Factor (Iw): 1.00															
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{Iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	32.75	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1416	0	1920	241	2162
7	87	31.88	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1305	0	1712	283	1996
6	78	30.86	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2089	0	2066	658	2724
5	68	29.65	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2023	0	2119	713	2832
4	56	28.14	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3259	0	2191	832	3023
3	44	26.19	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	3640	0	2125	774	2899

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

SECTION FORCES

0.9D + 1.0W 315°						Gust Response Factor (Gh): 0.85												
125 mph Wind with No Ice (Reduced DL)						Wind Importance Factor (Iw): 1.00												
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
2	28	23.49	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	6447	0	2924	2120	5044
1	9	23.49	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	6898	0	3619	1483	5102
Totals														27,076	0	25,781		

1.2D + 1.0Di + 1.0Wi Normal					Gust Response Factor (Gh): 0.85					Ice Importance Factor: 1.00								
50 mph Wind with 1" Radial Ice					Wind Importance Factor (Iw): 1.00					Ice Dead Load Factor: 1.00								
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.00	1.00	1.1	30.44	74.21	9.66	3668	1779	331	81	411
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.00	1.00	1.1	28.43	75.00	10.18	3469	1729	325	102	427
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.00	1.00	1.1	34.14	93.60	11.65	5406	2622	393	210	603
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.00	1.00	1.1	36.03	100.84	12.20	5337	2640	407	222	628
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.00	1.00	1.1	37.48	114.40	12.30	8133	3788	438	263	701
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.00	1.00	1.0	38.55	120.17	12.51	8715	3861	428	244	672
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.00	1.00	1.0	55.90	180.60	16.32	14584	5989	577	505	1082
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.00	1.00	0.9	64.59	208.31	15.26	14521	5324	666	355	1020
Totals														63,834	27,732	5,545		

1.2D + 1.0Di + 1.0Wi 45°						Gust Response Factor (Gh): 0.85						Ice Importance Factor: 1.00						
50 mph Wind with 1" Radial Ice						Wind Importance Factor (Iw): 1.00						Ice Dead Load Factor: 1.00						
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.20	1.20	1.1	36.53	89.06	9.66	3668	1779	397	81	477
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.20	1.20	1.1	34.12	90.00	10.18	3469	1729	390	102	492
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.19	1.19	1.1	40.76	111.75	11.65	5406	2622	469	210	680
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.18	1.18	1.1	42.62	119.29	12.20	5337	2640	481	222	703
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.14	1.14	1.1	42.64	130.14	12.30	8133	3788	498	263	761
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.13	1.13	1.0	43.44	135.40	12.51	8715	3861	482	244	726
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.11	1.11	1.0	61.96	200.18	16.32	14584	5989	640	505	1144
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.11	1.11	0.9	71.65	231.08	15.26	14521	5324	738	355	1093
Totals														63,834	27,732	6,076		

1.2D + 1.0Di + 1.0Wi 90°					Gust Response Factor (Gh): 0.85					Ice Importance Factor: 1.00								
50 mph Wind with 1" Radial Ice					Wind Importance Factor (Iw): 1.00					Ice Dead Load Factor: 1.00								
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.00	1.00	1.1	30.44	74.21	9.66	3668	1779	331	81	411
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.00	1.00	1.1	28.43	75.00	10.18	3469	1729	325	102	427
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.00	1.00	1.1	34.14	93.60	11.65	5406	2622	393	210	603
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.00	1.00	1.1	36.03	100.84	12.20	5337	2640	407	222	628
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.00	1.00	1.1	37.48	114.40	12.30	8133	3788	438	263	701
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.00	1.00	1.0	38.55	120.17	12.51	8715	3861	428	244	672
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.00	1.00	1.0	55.90	180.60	16.32	14584	5989	577	505	1082
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.00	1.00	0.9	64.59	208.31	15.26	14521	5324	666	355	1020
Totals														63,834	27,732	5,545		

1.2D + 1.0Di + 1.0Wi 135°					Gust Response Factor (Gh): 0.85					Ice Importance Factor: 1.00								
50 mph Wind with 1" Radial Ice					Wind Importance Factor (Iw): 1.00					Ice Dead Load Factor: 1.00								
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.20	1.20	1.1	36.53	89.06	9.66	3668	1779	397	81	477
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.20	1.20	1.1	34.12	90.00	10.18	3469	1729	390	102	492
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.19	1.19	1.1	40.76	111.75	11.65	5406	2622	469	210	680
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.18	1.18	1.1	42.62	119.29	12.20	5337	2640	481	222	703
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.14	1.14	1.1	42.64	130.14	12.30	8133	3788	498	263	761
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.13	1.13	1.0	43.44	135.40	12.51	8715	3861	482	244	726
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.11	1.11	1.0	61.96	200.18	16.32	14584	5989	640	505	1144
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.11	1.11	0.9	71.65	231.08	15.26	14521	5324	738	355	1093
Totals														63,834	27,732	6,076		

1.2D + 1.0Di + 1.0Wi 180°						Gust Response Factor (Gh):				0.85		Ice Importance Factor:				1.00		
50 mph Wind with 1" Radial Ice						Wind Importance Factor (Iw):				1.00		Ice Dead Load Factor:				1.00		
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.00	1.00	1.1	30.44	74.21	9.66	3668	1779	331	81	411
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.00	1.00	1.1	28.43	75.00	10.18	3469	1729	325	102	427
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.00	1.00	1.1	34.14	93.60	11.65	5406	2622	393	210	603
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.00	1.00	1.1	36.03	100.84	12.20	5337	2640	407	222	628
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.00	1.00	1.1	37.48	114.40	12.30	8133	3788	438	263	701
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.00	1.00	1.0	38.55	120.17	12.51	8715	3861	428	244	672
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.00	1.00	1.0	55.90	180.60	16.32	14584	5989	577	505	1082
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.00	1.00	0.9	64.59	208.31	15.26	14521	5324	666	355	1020

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 180°										Gust Response Factor (Gh):		0.85		Ice Importance Factor:		1.00		
50 mph Wind with 1" Radial Ice										Wind Importance Factor (Iw):		1.00		Ice Dead Load Factor:		1.00		
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
Totals														63,834	27,732	5,545		

1.2D + 1.0Di + 1.0Wi 225°						Gust Response Factor (Gh):				0.85		Ice Importance Factor:				1.00		
50 mph Wind with 1" Radial Ice						Wind Importance Factor (Iw):				1.00		Ice Dead Load Factor:				1.00		
Section #	Elev (ft)	Q _Z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.20	1.20	1.1	36.53	89.06	9.66	3668	1779	397	81	477
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.20	1.20	1.1	34.12	90.00	10.18	3469	1729	390	102	492
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.19	1.19	1.1	40.76	111.75	11.65	5406	2622	469	210	680
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.18	1.18	1.1	42.62	119.29	12.20	5337	2640	481	222	703
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.14	1.14	1.1	42.64	130.14	12.30	8133	3788	498	263	761
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.13	1.13	1.0	43.44	135.40	12.51	8715	3861	482	244	726
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.11	1.11	1.0	61.96	200.18	16.32	14584	5989	640	505	1144
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.11	1.11	0.9	71.65	231.08	15.26	14521	5324	738	355	1093
Totals														63,834	27,732	6,076		

1.2D + 1.0Di + 1.0Wi 270°						Gust Response Factor (Gh):				0.85		Ice Importance Factor:				1.00		
50 mph Wind with 1" Radial Ice						Wind Importance Factor (Iw):				1.00		Ice Dead Load Factor:				1.00		
Section #	Elev (ft)	Q _Z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.00	1.00	1.1	30.44	74.21	9.66	3668	1779	331	81	411
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.00	1.00	1.1	28.43	75.00	10.18	3469	1729	325	102	427
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.00	1.00	1.1	34.14	93.60	11.65	5406	2622	393	210	603
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.00	1.00	1.1	36.03	100.84	12.20	5337	2640	407	222	628
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.00	1.00	1.1	37.48	114.40	12.30	8133	3788	438	263	701
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.00	1.00	1.0	38.55	120.17	12.51	8715	3861	428	244	672
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.00	1.00	1.0	55.90	180.60	16.32	14584	5989	577	505	1082
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.00	1.00	0.9	64.59	208.31	15.26	14521	5324	666	355	1020
Totals														63,834	27,732	5,545		

1.2D + 1.0Di + 1.0Wi 315°						Gust Response Factor (Gh):				0.85		Ice Importance Factor:				1.00		
50 mph Wind with 1" Radial Ice						Wind Importance Factor (Iw):				1.00		Ice Dead Load Factor:				1.00		
Section #	Elev (ft)	Q _Z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{Iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	5.24	20.776	9.664	9.66	0.346	2.44	1.20	1.20	1.1	36.53	89.06	9.66	3668	1779	397	81	477
7	87	5.10	18.247	10.183	10.18	0.286	2.64	1.20	1.20	1.1	34.12	90.00	10.18	3469	1729	390	102	492
6	78	4.94	22.491	11.648	11.65	0.259	2.74	1.19	1.19	1.1	40.76	111.75	11.65	5406	2622	469	210	680
5	68	4.74	23.827	12.202	12.20	0.244	2.80	1.18	1.18	1.1	42.62	119.29	12.20	5337	2640	481	222	703
4	56	4.50	25.184	12.296	12.30	0.183	3.05	1.14	1.14	1.1	42.64	130.14	12.30	8133	3788	498	263	761
3	44	4.19	26.044	12.505	12.51	0.169	3.12	1.13	1.13	1.0	43.44	135.40	12.51	8715	3861	482	244	726
2	28	3.76	39.579	16.323	16.32	0.145	3.23	1.11	1.11	1.0	61.96	200.18	16.32	14584	5989	640	505	1144
1	9	3.76	49.329	15.263	15.26	0.146	3.22	1.11	1.11	0.9	71.65	231.08	15.26	14521	5324	738	355	1093
Totals														63,834	27,732	6,076		

1.0D + 1.0W Service Normal										Gust Response Factor (Gh):		0.85								
60 mph Wind with No Ice										Wind Importance Factor (Iw):		1.00								
Section #	Elev (ft)	Q _Z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{Iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)		
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1574	0	375	56	430		
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1450	0	346	65	411		
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2321	0	421	152	573		
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2248	0	435	164	599		
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3621	0	462	192	653		
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4045	0	451	178	629		
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	7163	0	625	489	1114		
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	7664	0	769	342	1111		
Totals														30,085	0	5,521				

1.0D + 1.0W Service 45°										Gust Response Factor (Gh):		0.85								
60 mph Wind with No Ice										Wind Importance Factor (Iw):		1.00								
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)		
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1574	0	442	56	498		
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1450	0	395	65	460		
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2321	0	476	152	628		
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2248	0	488	164	652		
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3621	0	505	192	697		
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4045	0	489	178	668		
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	7163	0	674	489	1162		
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	7664	0	834	342	1176		
Totals														30,085	0	5,940				

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

SECTION FORCES

1.0D + 1.0W Service 90°		Gust Response Factor (Gh): 0.85																
60 mph Wind with No Ice		Wind Importance Factor (Iw): 1.00																
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1574	0	375	56	430
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1450	0	346	65	411
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2321	0	421	152	573
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2248	0	435	164	599
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3621	0	462	192	653
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4045	0	451	178	629
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	7163	0	625	489	1114
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	7664	0	769	342	1111
Totals														30,085	0			5,521

1.0D + 1.0W Service 135°		Gust Response Factor (Gh): 0.85																
60 mph Wind with No Ice		Wind Importance Factor (Iw): 1.00																
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1574	0	442	56	498
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1450	0	395	65	460
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2321	0	476	152	628
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2248	0	488	164	652
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3621	0	505	192	697
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4045	0	489	178	668
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	7163	0	674	489	1162
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	7664	0	834	342	1176
Totals														30,085	0			5,940

1.0D + 1.0W Service 180°		Gust Response Factor (Gh): 0.85																
60 mph Wind with No Ice		Wind Importance Factor (Iw): 1.00																
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1574	0	375	56	430
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1450	0	346	65	411
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2321	0	421	152	573
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2248	0	435	164	599
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3621	0	462	192	653
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4045	0	451	178	629
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	7163	0	625	489	1114
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	7664	0	769	342	1111
Totals														30,085	0			5,521

1.0D + 1.0W Service 225°		Gust Response Factor (Gh): 0.85																
60 mph Wind with No Ice		Wind Importance Factor (Iw): 1.00																
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1574	0	442	56	498
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1450	0	395	65	460
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2321	0	476	152	628
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2248	0	488	164	652
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3621	0	505	192	697
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4045	0	489	178	668
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	7163	0	674	489	1162
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	7664	0	834	342	1176
Totals														30,085	0			5,940

1.0D + 1.0W Service 270°		Gust Response Factor (Gh): 0.85																
60 mph Wind with No Ice		Wind Importance Factor (Iw): 1.00																
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.00	1.00	0.0	20.78	58.44	0.00	1574	0	375	56	430
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.00	1.00	0.0	18.25	55.42	0.00	1450	0	346	65	411
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.00	1.00	0.0	22.49	69.72	0.00	2321	0	421	152	573
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.00	1.00	0.0	23.83	74.89	0.00	2248	0	435	164	599
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.00	1.00	0.0	25.18	83.79	0.00	3621	0	462	192	653
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.00	1.00	0.0	26.04	87.85	0.00	4045	0	451	178	629
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.00	1.00	0.0	39.58	135.91	0.00	7163	0	625	489	1114
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.00	1.00	0.0	49.33	167.19	0.00	7664	0	769	342	1111
Totals														30,085	0			5,521

1.0D + 1.0W Service 315°		Gust Response Factor (Gh): 0.85																
60 mph Wind with No Ice		Wind Importance Factor (Iw): 1.00																
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	96	7.55	20.776	0.000	0.00	0.240	2.81	1.18	1.18	0.0	24.52	68.98	0.00	1574	0	442	56	498
7	87	7.35	18.247	0.000	0.00	0.187	3.04	1.14	1.14	0.0	20.80	63.19	0.00	1450	0	395	65	460

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

SECTION FORCES

1.0D + 1.0W Service 315°
60 mph Wind with No Ice
Gust Response Factor (Gh): 0.85
Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	78	7.11	22.491	0.000	0.00	0.173	3.10	1.13	1.13	0.0	25.41	78.76	0.00	2321	0	476	152	628
5	68	6.83	23.827	0.000	0.00	0.163	3.14	1.12	1.12	0.0	26.75	84.07	0.00	2248	0	488	164	652
4	56	6.48	25.184	0.000	0.00	0.125	3.33	1.09	1.09	0.0	27.54	91.62	0.00	3621	0	505	192	697
3	44	6.03	26.044	0.000	0.00	0.115	3.37	1.09	1.09	0.0	28.30	95.44	0.00	4045	0	489	178	668
2	28	5.41	39.579	0.000	0.00	0.103	3.43	1.08	1.08	0.0	42.64	146.43	0.00	7163	0	674	489	1162
1	9	5.41	49.329	0.000	0.00	0.112	3.39	1.08	1.08	0.0	53.47	181.24	0.00	7664	0	834	342	1176
Totals														30,085	0			5,940

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

EQUIVALENT LATERAL FORCE METHOD

Spectral Response Acceleration for Short Period (S_s):	0.20
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	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:	59.50 k
Seismic Base Shear (E):	5.50 k

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
8	95.69	1,574	150,602	0.038	206	1,348
7	87.11	1,450	126,318	0.031	173	1,242
6	77.74	2,321	180,412	0.045	247	1,988
5	67.58	2,248	151,899	0.038	208	1,925
4	56.25	3,621	203,675	0.051	279	3,101
3	43.75	4,045	176,959	0.044	242	3,464
2	28.12	7,163	201,455	0.050	276	6,135
1	9.38	7,664	71,851	0.018	98	6,564
dbSpectra DS4C06F36D-N	100.00	140	14,000	0.004	19	120
Generic 12' Horn	100.00	10,000	1,000,000	0.249	1369	8,565
Ericsson Radio 4460 B25+B66	100.00	327	32,700	0.008	45	280
Ericsson Radio 4480 B71+B85A	100.00	252	25,200	0.006	34	216
Ericsson Air6449 B41	100.00	312	31,200	0.008	43	267
RFS APXVAALL24 43-U-NA20	100.00	368	36,840	0.009	50	316
20' Platform w/ Handrails	100.00	9,000	900,000	0.224	1232	7,708
Scala PR-900	90.20	38	3,428	0.001	5	33
Radio Waves HPD3-5W	87.00	76	6,612	0.002	9	65
Access Platform	82.80	5,000	414,000	0.103	567	4,282
Samsung RF4461d-13A	81.00	237	19,221	0.005	26	203
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	81.00	224	18,152	0.004	25	192
Raycap RRFDC-3315-PF-48	81.00	54	4,358	0.001	6	46
Samsung MT6413-77A	81.00	172	13,924	0.004	19	147
Amphenol Antel LPA-80080-4CF-EDIN-0	81.00	36	2,916	0.001	4	31
Commscope NHH-65B-R2B	81.00	262	21,238	0.005	29	225
Generic Diplexer / Coupler	78.70	15	1,180	0.000	2	13
Generic Flat Light Sector Frame	78.00	2,400	187,200	0.047	256	2,056
Rest Platform	51.00	500	25,500	0.006	35	428
Totals		59,499	4,020,841	1.000	5,503	50,959

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
8	95.69	1,574	150,602	0.038	206	1,957
7	87.11	1,450	126,318	0.031	173	1,803
6	77.74	2,321	180,412	0.045	247	2,886
5	67.58	2,248	151,899	0.038	208	2,795
4	56.25	3,621	203,675	0.051	279	4,503
3	43.75	4,045	176,959	0.044	242	5,030
2	28.12	7,163	201,455	0.050	276	8,907
1	9.38	7,664	71,851	0.018	98	9,530
dbSpectra DS4C06F36D-N	100.00	140	14,000	0.004	19	174

ASSET: 88016, OLD LYME
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Generic 12' Horn	100.00	10,000	1,000,000	0.249	1369	12,435
Ericsson Radio 4460 B25+B66	100.00	327	32,700	0.008	45	407
Ericsson Radio 4480 B71+B85A	100.00	252	25,200	0.006	34	313
Ericsson Air6449 B41	100.00	312	31,200	0.008	43	388
RFS APXVAALL24 43-U-NA20	100.00	368	36,840	0.009	50	458
20' Platform w/ Handrails	100.00	9,000	900,000	0.224	1232	11,192
Scala PR-900	90.20	38	3,428	0.001	5	47
Radio Waves HPD3-5W	87.00	76	6,612	0.002	9	95
Access Platform	82.80	5,000	414,000	0.103	567	6,218
Samsung RF4461d-13A	81.00	237	19,221	0.005	26	295
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	81.00	224	18,152	0.004	25	279
Raycap RRFDC-3315-PF-48	81.00	54	4,358	0.001	6	67
Samsung MT6413-77A	81.00	172	13,924	0.004	19	214
Amphenol Antel LPA-80080-4CF-EDIN-0	81.00	36	2,916	0.001	4	45
Commscope NHH-65B-R2B	81.00	262	21,238	0.005	29	326
Generic Diplexer / Coupler	78.70	15	1,180	0.000	2	19
Generic Flat Light Sector Frame	78.00	2,400	187,200	0.047	256	2,984
Rest Platform	51.00	500	25,500	0.006	35	622
Totals		59,499	4,020,841	1.000	5,503	73,988

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

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FORCE/STRESS SUMMARY

Section 1 – 0.0' to 18.75'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear					Controls
	X			Y	Z	ΦR _{nv} (kip)				Bear ΦR _n (kip)	# Bolt	# Hole	Use %		
L SAE - 8X8X0.625	-117.49	1.2D + 1.0W 45°	18.859	33	33	33	47.27	36.00	321.66	0.00	0.00	0	0	36	Member Z
H DAE - 2.5X2.5X0.25	-6.48	1.2D + 1.0W N	10.695	100	100	25	148.84	36.00	30.75	0.00	0.00	0	0	21	Member X
D DAS - 3X2.5X0.25	-13.50	1.2D + 1.0W N	22.375	33	66	13	138.20	36.00	39.41	0.00	0.00	0	0	34	Member Y
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear			Use %	Controls			
	Φ _t P _n (kip)							# Bolt	# Hole						
L SAE - 8X8X0.625	88.52	0.9D + 1.0W 45°	36.0	58	311.36	0.00	0.00			0	0	28	Member		
H DAE - 2.5X2.5X0.25	6.83	1.2D + 1.0W N	36.0	58	77.11	0.00	0.00	0.00		0	0	8	Member		
D DAS - 3X2.5X0.25	12.07	1.2D + 1.0W N	36.0	58	85.21	0.00	0.00	0.00		0	0	14	Member		
Max Splice Forces		Pu (kip)	Load Case		ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type							
Bot Tension		104.72	0.9D + 1.0W 135°		434.69	6	4	2" A36							
Bot Compression		135.25	1.2D + 1.0W 135°		359.74	1	0								

Section 2 – 18.8' to 37.50'

Shear															
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %				F' _y (ksi)	Φ _c P _n (kip)	ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
L SAE - 6X6X0.625	-97.34	1.2D + 1.0W 45°	18.859	33	33	33	63.29	36.00	223.72	0.00	0.00	0	0	43	Member Z
H DAE - 2.5X2.5X0.25	-6.52	1.2D + 1.0W N	9.265	100	100	25	135.12	36.00	37.31	0.00	0.00	0	0	17	Member X
D DAE - 2.5X2.5X0.25	-15.28	1.2D + 1.0W N	21.633	33	66	13	151.26	36.00	29.77	0.00	0.00	0	0	51	Member Y
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)		# Bolt	# Hole	Use %	Controls		
L SAE - 6X6X0.625	71.56	0.9D + 1.0W 45°	36.0	58	230.36	0.00	0.00			0	0	31	Member		
H DAE - 2.5X2.5X0.25	6.71	1.2D + 1.0W N	36.0	58	77.11	0.00	0.00	0.00		0	0	8	Member		
D DAE - 2.5X2.5X0.25	14.04	1.2D + 1.0W N	36.0	58	77.11	0.00	0.00	0.00		0	0	18	Member		
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

Section 3 – 37.5' to 50.00'

															Shear				
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	ΦRnv	Bear	#	#	Use %	Controls				
	X			Y	Z	(kip)				ΦRn (kip)	Bolt	Hole							
L SAE - 6X6X0.5625	-83.40	1.2D + 1.0W 135°	12.573	50	50	50	63.93	36.00	201.73	0.00	0.00	0	0	41	Member Z				
H DAE - 2.5X2.5X0.25	-6.08	1.2D + 1.0W N	8.312	100	100	25	125.97	36.00	42.93	0.00	0.00	0	0	14	Member X				
D DAL - 2.5X2X0.25	-11.66	1.2D + 1.0W N	15.589	50	100	13	178.70	36.00	19.09	0.00	0.00	0	0	61	Member Y				
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls							
L SAE - 6X6X0.5625	59.74	0.9D + 1.0W 45°	36.0	58	208.33	0.00	0.00		0	0	28	Member							
H DAE - 2.5X2.5X0.25	6.44	1.2D + 1.0W N	36.0	58	77.11	0.00	0.00	0.00	0	0	8	Member							
D DAL - 2.5X2X0.25	10.47	1.2D + 1.0W N	36.0	58	69.01	0.00	0.00	0.00	0	0	15	Member							
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type													

Section 4 – 50.0' to 62.50'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear					Controls
	X			Y	Z	ΦR _{nv} (kip)				Bear ΦR _n (kip)	# Bolt	# Hole	Use %		
L SAE - 6X6X0.4375	-67.01	1.2D + 1.0W 45°	12.573	50	50	50	63.39	36.00	159.14	0.00	0.00	0	0	42	Member Z
H DAE - 2.5X2.5X0.25	-6.02	0.9D + 1.0W N	7.359	100	100	25	114.83	36.00	50.15	0.00	0.00	0	0	12	Member X
D DAL - 2.5X2X0.25	-12.39	1.2D + 1.0W N	15.042	50	100	13	173.96	36.00	20.15	0.00	0.00	0	0	61	Member Y

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
	Φ _t P _n (kip)												

FORCE/STRESS SUMMARY												
L SAE - 6X6X0.4375	46.20	0.9D + 1.0W 45°	36.0	58	163.94	0.00	0.00		0	0	28	Member
H DAE - 2.5X2.5X0.25	7.01	1.2D + 1.0W N	36.0	58	77.11	0.00	0.00	0.00	0	0	9	Member
D DAL - 2.5X2X0.25	11.74	1.2D + 1.0W N	36.0	58	69.01	0.00	0.00	0.00	0	0	17	Member
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type						

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FORCE/STRESS SUMMARY

Section 5 – 62.5' to 72.66'

															Shear	
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	ΦRnv	Bear	#	#	Use %	Controls	
	X			Y	Z	ΦRnv				ΦRn	Bolt	Hole				
						(kip)				(kip)						
L SAE - 5X5X0.4375	-57.35	1.2D + 1.0W 135°	10.219	50	50	50	62.18	36.00	132.18	0.00	0.00	0	0	43	Member Z	
H SAU - 3X2.5X0.25	-2.66	0.9D + 1.0W 90°	13.169	100	100	100	230.27	36.00	7.07	0.00	0.00	0	0	37	Member Z	
D SAE - 3.5x3.5x0.25	-8.81	1.2D + 1.0W N	17.27	50	50	50	150.61	36.00	21.32	0.00	0.00	0	0	41	Member Z	
															Blk Shear	
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Φt Pn	#	#	Use %	Controls				
	Φt Pn							Bolt	Hole							
	(kip)															
L SAE - 5X5X0.4375	38.52	0.9D + 1.0W 45°	36.0	58	135.43	0.00	0.00		0	0	28	Member				
H SAU - 3X2.5X0.25	4.76	1.2D + 1.0W N	36.0	58	42.44	0.00	0.00	0.00	0	0	11	Member				
D SAE - 3.5x3.5x0.25	7.18	1.2D + 1.0W N	36.0	58	54.76	0.00	0.00	0.00	0	0	13	Member				
															Bolt Type	
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type										

Section 6 – 72.7' to 82.82'

															Shear				
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %				F' _y (ksi)	Φ _c P _n (kip)	ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls				
L SAE - 5X5X0.4375	-42.33	1.2D + 1.0W 45°	10.219	50	50	50	62.18	36.00	132.18	0.00	0.00	0	0	32	Member Z				
H DAL - 3X2.5X0.25	-1.94	0.9D + 1.0W N	11.619	100	100	50	180.72	36.00	23.05	0.00	0.00	0	0	8	Member Y				
D SAE - 3.5x3.5x0.25	-9.41	1.2D + 1.0W N	16.045	50	50	50	139.93	36.00	24.70	0.00	0.00	0	0	38	Member Z				
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls							
L SAE - 5X5X0.4375	26.47	0.9D + 1.0W 135°	36.0	58	135.43	0.00	0.00		0	0	19	Member							
H DAL - 3X2.5X0.25	3.55	1.2D + 1.0W N	36.0	58	85.21	0.00	0.00	0.00	0	0	4	Member							
D SAE - 3.5x3.5x0.25	7.84	0.9D + 1.0W N	36.0	58	54.76	0.00	0.00	0.00	0	0	14	Member							
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type													

Section 7 – 82.8' to 91.40'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
	X			Y	Z										
L SAE - 5X5X0.3125	-25.70	1.2D + 1.0W 45°	8.63	50	50	50	52.09	35.89	99.50	0.00	0.00	0	0	25	Member Z
H SAU - 3X2.5X0.25	-0.78	0.9D + 1.0W N	10.311	100	100	100	190.32	36.00	10.35	0.00	0.00	0	0	7	Member Z
D SAE - 3X3X0.25	-7.68	1.2D + 1.0W N	13.938	50	50	50	141.27	36.00	20.65	0.00	0.00	0	0	37	Member Z
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
L SAE - 5X5X0.3125	14.85	0.9D + 1.0W 45°	36.0	58	98.17	0.00	0.00		0	0	15	Member			
H SAU - 3X2.5X0.25	2.63	1.2D + 1.0W N	36.0	58	42.44	0.00	0.00	0.00	0	0	6	Member			
D SAE - 3X3X0.25	6.64	0.9D + 1.0W N	36.0	58	46.66	0.00	0.00	0.00	0	0	14	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

Section 8 – 91.4' to 99.98'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear					Controls
	X			Y	Z	ΦR _{nv} (kip)		Bear ΦR _n (kip)	# Bolt	# Hole	Use %				
L SAE - 5X5X0.3125	-12.41	1.2D + 1.0W 45°	8.63	50	50	50	52.09	35.89	99.50	0.00	0.00	0	0	12	Member Z
H CHN - C8 x 11.5	-0.33	1.2D + 1.0W 45°	9.002	100	100	100	172.85	36.00	32.38	0.00	0.00	0	0	1	Member Y
D SAE - 3X3X0.25	-8.53	1.2D + 1.0W N	12.934	50	50	50	131.09	36.00	23.98	0.00	0.00	0	0	0	Member Z
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls		
	Φ _t P _n (kip)														
L SAE - 5X5X0.3125	2.70	0.9D + 1.0W 45°	36.0	58	98.17	0.00	0.00			0	0	2	Member		
H CHN - C8 x 11.5	0.14	1.2D + 1.0W N	36.0	58	109.51	0.00	0.00	0.00		0	0	0	Member		

FORCE/STRESS SUMMARY											
D SAE - 3X3X0.25	7.10	0.9D + 1.0W N	36.0	58	46.66	0.00	0.00	0.00	0	0	15 Member
Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type					

ASSET: 88016, OLD LYME
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DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	50.00	0.0099	-0.0017	0.0196	0.0196
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	82.82	0.0252	-0.0020	0.0333	0.0333
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	91.40	0.0303	0.0005	0.0362	0.0362
1.0D + 1.0W Service 315° 60 mph Wind with No Ice	99.98	0.0359	-0.0010	0.0393	0.0393
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	50.00	0.0095	0.0013	0.0192	0.0192
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	82.82	0.0246	0.0018	0.0320	0.032
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	91.40	0.0293	0.0020	0.0384	0.0385
1.0D + 1.0W Service 270° 60 mph Wind with No Ice	99.98	0.0351	0.0007	0.0315	0.0315
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	50.00	0.01	-0.0013	0.0199	0.02
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	82.82	0.0257	0.0026	0.0344	0.0344
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	91.40	0.0308	0.0023	0.0381	0.0382
1.0D + 1.0W Service 225° 60 mph Wind with No Ice	99.98	0.0367	0.0018	0.0400	0.0401
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	50.00	0.0097	0.0012	0.0198	0.0198
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	82.82	0.0256	0.0020	0.0355	0.0355
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	91.40	0.0308	0.0012	0.0360	0.036
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	99.98	0.0366	0.0019	0.0491	0.0491
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	50.00	0.0099	0.0017	0.0202	0.0203
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	82.82	0.0264	0.0021	0.0360	0.036
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	91.40	0.0318	-0.0006	0.0397	0.0397
1.0D + 1.0W Service 135° 60 mph Wind with No Ice	99.98	0.0378	0.0010	0.0417	0.0417
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	50.00	0.0096	-0.0013	0.0197	0.0197
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	82.82	0.0254	-0.0019	0.0348	0.0348
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	91.40	0.0308	-0.0021	0.0412	0.0413
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	99.98	0.0365	-0.0008	0.0369	0.037
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	50.00	0.01	0.0013	0.0200	0.0201
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	82.82	0.0259	-0.0026	0.0348	0.0348
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	91.40	0.0314	-0.0024	0.0389	0.039
1.0D + 1.0W Service 45° 60 mph Wind with No Ice	99.98	0.037	-0.0019	0.0424	0.0424
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	50.00	0.0096	-0.0012	0.0193	0.0193
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	82.82	0.0249	-0.0021	0.0343	0.0343
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	91.40	0.0302	-0.0013	0.0340	0.034
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	99.98	0.0355	-0.0019	0.0493	0.0493
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	50.00	0.0023	0.0004	0.0044	0.0044
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	82.82	0.0052	0.0003	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	91.40	0.0059	0.0001	0.0047	0.0047
0.9D - 1.0Ev + 1.0Eh 315° Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	50.00	0.0023	0.0003	0.0043	0.0043
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	82.82	0.0052	0.0002	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	91.40	0.0059	0.0001	0.0046	0.0046
0.9D - 1.0Ev + 1.0Eh 270° Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	50.00	0.0023	-0.0004	0.0044	0.0044
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	82.82	0.0052	0.0003	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	91.40	0.0059	0.0000	0.0046	0.0046
0.9D - 1.0Ev + 1.0Eh 225° Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	50.00	0.0023	0.0003	0.0043	0.0043
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	82.82	0.0052	0.0002	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	91.40	0.0059	-0.0001	0.0046	0.0046
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	50.00	0.0023	0.0004	0.0042	0.0042
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	82.82	0.0052	0.0003	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	91.40	0.0059	-0.0001	0.0047	0.0047
0.9D - 1.0Ev + 1.0Eh 135° Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	50.00	0.0023	0.0003	0.0043	0.0043
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	82.82	0.0052	0.0002	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	91.40	0.0059	-0.0001	0.0047	0.0047
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	50.00	0.0023	0.0004	0.0044	0.0044
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	82.82	0.0052	0.0003	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	91.40	0.0059	0.0000	0.0047	0.0047

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D - 1.0Ev + 1.0Eh 45° Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	50.00	0.0023	0.0003	0.0043	0.0043
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	82.82	0.0052	0.0002	0.0055	0.0055
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	91.40	0.0059	0.0001	0.0047	0.0047
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	99.98	0.0066	0.0000	0.0048	0.0048
1.2D + 1.0Ev + 1.0Eh 315° Seismic	50.00	0.0023	0.0004	0.0044	0.0044
1.2D + 1.0Ev + 1.0Eh 315° Seismic	82.82	0.0052	0.0003	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh 315° Seismic	91.40	0.0059	0.0001	0.0047	0.0047
1.2D + 1.0Ev + 1.0Eh 315° Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 270° Seismic	50.00	0.0023	0.0003	0.0044	0.0044
1.2D + 1.0Ev + 1.0Eh 270° Seismic	82.82	0.0052	0.0002	0.0056	0.0056
1.2D + 1.0Ev + 1.0Eh 270° Seismic	91.40	0.0059	0.0001	0.0046	0.0046
1.2D + 1.0Ev + 1.0Eh 270° Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 225° Seismic	50.00	0.0023	-0.0004	0.0044	0.0044
1.2D + 1.0Ev + 1.0Eh 225° Seismic	82.82	0.0052	0.0003	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh 225° Seismic	91.40	0.0058	0.0000	0.0046	0.0046
1.2D + 1.0Ev + 1.0Eh 225° Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 180° Seismic	50.00	0.0023	0.0003	0.0044	0.0044
1.2D + 1.0Ev + 1.0Eh 180° Seismic	82.82	0.0052	0.0002	0.0056	0.0056
1.2D + 1.0Ev + 1.0Eh 180° Seismic	91.40	0.0059	-0.0001	0.0046	0.0046
1.2D + 1.0Ev + 1.0Eh 180° Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 135° Seismic	50.00	0.0023	0.0004	0.0042	0.0042
1.2D + 1.0Ev + 1.0Eh 135° Seismic	82.82	0.0052	0.0003	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh 135° Seismic	91.40	0.0059	-0.0001	0.0047	0.0047
1.2D + 1.0Ev + 1.0Eh 135° Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 90° Seismic	50.00	0.0023	0.0003	0.0044	0.0044
1.2D + 1.0Ev + 1.0Eh 90° Seismic	82.82	0.0052	0.0002	0.0056	0.0056
1.2D + 1.0Ev + 1.0Eh 90° Seismic	91.40	0.0059	-0.0001	0.0047	0.0047
1.2D + 1.0Ev + 1.0Eh 90° Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 45° Seismic	50.00	0.0023	0.0004	0.0044	0.0044
1.2D + 1.0Ev + 1.0Eh 45° Seismic	82.82	0.0052	0.0003	0.0058	0.0058
1.2D + 1.0Ev + 1.0Eh 45° Seismic	91.40	0.0059	0.0000	0.0047	0.0047
1.2D + 1.0Ev + 1.0Eh 45° Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh Normal Seismic	50.00	0.0023	0.0003	0.0044	0.0044
1.2D + 1.0Ev + 1.0Eh Normal Seismic	82.82	0.0052	0.0002	0.0056	0.0056
1.2D + 1.0Ev + 1.0Eh Normal Seismic	91.40	0.0059	0.0001	0.0047	0.0047
1.2D + 1.0Ev + 1.0Eh Normal Seismic	99.98	0.0066	0.0000	0.0049	0.0049
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 1" Radial Ice	50.00	0.011	-0.0016	0.0181	0.0181
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 1" Radial Ice	82.82	0.0229	-0.0021	0.0275	0.0275
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 1" Radial Ice	91.40	0.0256	-0.0003	0.0278	0.0278
1.2D + 1.0Di + 1.0Wi 315° 50 mph Wind with 1" Radial Ice	99.98	0.0311	-0.0018	0.0308	0.0309
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 1" Radial Ice	50.00	0.0101	-0.0011	0.0173	0.0173
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 1" Radial Ice	82.82	0.0218	-0.0013	0.0258	0.0259
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 1" Radial Ice	91.40	0.0254	0.0011	0.0295	0.0296
1.2D + 1.0Di + 1.0Wi 270° 50 mph Wind with 1" Radial Ice	99.98	0.0297	-0.0002	0.0230	0.023
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 1" Radial Ice	50.00	0.0111	-0.0012	0.0187	0.0187
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 1" Radial Ice	82.82	0.0239	0.0023	0.0293	0.0294
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 1" Radial Ice	91.40	0.028	0.0019	0.0312	0.0312
1.2D + 1.0Di + 1.0Wi 225° 50 mph Wind with 1" Radial Ice	99.98	0.0326	0.0017	0.0329	0.033
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 1" Radial Ice	50.00	0.0103	0.0012	0.0184	0.0184
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 1" Radial Ice	82.82	0.0236	0.0022	0.0317	0.0317
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 1" Radial Ice	91.40	0.0281	0.0015	0.0313	0.0313
1.2D + 1.0Di + 1.0Wi 180° 50 mph Wind with 1" Radial Ice	99.98	0.0331	0.0024	0.0409	0.041
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 1" Radial Ice	50.00	0.0094	0.0016	0.0185	0.0185
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 1" Radial Ice	82.82	0.025	0.0024	0.0331	0.0331
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 1" Radial Ice	91.40	0.029	0.0002	0.0357	0.0357
1.2D + 1.0Di + 1.0Wi 135° 50 mph Wind with 1" Radial Ice	99.98	0.0353	0.0018	0.0375	0.0376
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 1" Radial Ice	50.00	0.0102	0.0011	0.0184	0.0184
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 1" Radial Ice	82.82	0.0237	-0.0014	0.0320	0.032

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 1" Radial Ice	91.40	0.0269	-0.0013	0.0366	0.0366
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 1" Radial Ice	99.98	0.0337	0.0002	0.0344	0.0344
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 1" Radial Ice	50.00	0.0111	0.0012	0.0189	0.0189
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 1" Radial Ice	82.82	0.024	-0.0023	0.0302	0.0303
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 1" Radial Ice	91.40	0.0268	-0.0021	0.0339	0.034
1.2D + 1.0Di + 1.0Wi 45° 50 mph Wind with 1" Radial Ice	99.98	0.033	-0.0017	0.0367	0.0368
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 1" Radial Ice	50.00	0.0102	-0.0012	0.0175	0.0175
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 1" Radial Ice	82.82	0.0223	-0.0022	0.0287	0.0287
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 1" Radial Ice	91.40	0.0249	-0.0017	0.0276	0.0276
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 1" Radial Ice	99.98	0.0308	-0.0024	0.0403	0.0403
0.9D + 1.0W 315° 125 mph Wind with No Ice (Reduced DL)	50.00	0.043	-0.0072	0.0860	0.0862
0.9D + 1.0W 315° 125 mph Wind with No Ice (Reduced DL)	82.82	0.1114	-0.0086	0.1483	0.1486
0.9D + 1.0W 315° 125 mph Wind with No Ice (Reduced DL)	91.40	0.134	0.0024	0.1632	0.1632
0.9D + 1.0W 315° 125 mph Wind with No Ice (Reduced DL)	99.98	0.1592	-0.0043	0.1753	0.1753
0.9D + 1.0W 270° 125 mph Wind with No Ice (Reduced DL)	50.00	0.0415	0.0054	0.0831	0.0832
0.9D + 1.0W 270° 125 mph Wind with No Ice (Reduced DL)	82.82	0.1081	0.0078	0.1416	0.1418
0.9D + 1.0W 270° 125 mph Wind with No Ice (Reduced DL)	91.40	0.1298	0.0087	0.1719	0.1722
0.9D + 1.0W 270° 125 mph Wind with No Ice (Reduced DL)	99.98	0.1547	0.0033	0.1466	0.1466
0.9D + 1.0W 225° 125 mph Wind with No Ice (Reduced DL)	50.00	0.0434	-0.0057	0.0867	0.0868
0.9D + 1.0W 225° 125 mph Wind with No Ice (Reduced DL)	82.82	0.1117	0.0112	0.1499	0.1499
0.9D + 1.0W 225° 125 mph Wind with No Ice (Reduced DL)	91.40	0.1348	0.0101	0.1668	0.1671
0.9D + 1.0W 225° 125 mph Wind with No Ice (Reduced DL)	99.98	0.1597	0.0080	0.1770	0.1772
0.9D + 1.0W 180° 125 mph Wind with No Ice (Reduced DL)	50.00	0.0419	0.0049	0.0841	0.0841
0.9D + 1.0W 180° 125 mph Wind with No Ice (Reduced DL)	82.82	0.1097	0.0086	0.1497	0.1497
0.9D + 1.0W 180° 125 mph Wind with No Ice (Reduced DL)	91.40	0.1326	0.0061	0.1525	0.1526
0.9D + 1.0W 180° 125 mph Wind with No Ice (Reduced DL)	99.98	0.1571	0.0084	0.2119	0.2121
0.9D + 1.0W 135° 125 mph Wind with No Ice (Reduced DL)	50.00	0.0431	0.0072	0.0866	0.0868
0.9D + 1.0W 135° 125 mph Wind with No Ice (Reduced DL)	82.82	0.1124	0.0088	0.1510	0.1511
0.9D + 1.0W 135° 125 mph Wind with No Ice (Reduced DL)	91.40	0.1353	-0.0025	0.1658	0.1658
0.9D + 1.0W 135° 125 mph Wind with No Ice (Reduced DL)	99.98	0.1607	0.0045	0.1755	0.1755
0.9D + 1.0W 90° 125 mph Wind with No Ice (Reduced DL)	50.00	0.0415	-0.0053	0.0836	0.0837
0.9D + 1.0W 90° 125 mph Wind with No Ice (Reduced DL)	82.82	0.1088	-0.0077	0.1447	0.1448
0.9D + 1.0W 90° 125 mph Wind with No Ice (Reduced DL)	91.40	0.1312	-0.0085	0.1737	0.1739
0.9D + 1.0W 90° 125 mph Wind with No Ice (Reduced DL)	99.98	0.156	-0.0032	0.1500	0.15
0.9D + 1.0W 45° 125 mph Wind with No Ice (Reduced DL)	50.00	0.0434	0.0057	0.0867	0.0869
0.9D + 1.0W 45° 125 mph Wind with No Ice (Reduced DL)	82.82	0.1118	-0.0112	0.1503	0.1503
0.9D + 1.0W 45° 125 mph Wind with No Ice (Reduced DL)	91.40	0.1353	-0.0100	0.1673	0.1676
0.9D + 1.0W 45° 125 mph Wind with No Ice (Reduced DL)	99.98	0.1599	-0.0081	0.1793	0.1795
0.9D + 1.0W Normal 125 mph Wind with No Ice (Reduced DL)	50.00	0.0418	-0.0049	0.0837	0.0837
0.9D + 1.0W Normal 125 mph Wind with No Ice (Reduced DL)	82.82	0.1091	-0.0086	0.1495	0.1495
0.9D + 1.0W Normal 125 mph Wind with No Ice (Reduced DL)	91.40	0.132	-0.0062	0.1510	0.1511
0.9D + 1.0W Normal 125 mph Wind with No Ice (Reduced DL)	99.98	0.1561	-0.0084	0.2146	0.2148
1.2D + 1.0W 315° 125 mph Wind with No Ice	50.00	0.043	-0.0072	0.0860	0.0862
1.2D + 1.0W 315° 125 mph Wind with No Ice	82.82	0.1113	-0.0086	0.1480	0.1482
1.2D + 1.0W 315° 125 mph Wind with No Ice	91.40	0.1338	0.0024	0.1628	0.1628
1.2D + 1.0W 315° 125 mph Wind with No Ice	99.98	0.159	-0.0043	0.1750	0.1751
1.2D + 1.0W 270° 125 mph Wind with No Ice	50.00	0.0415	0.0054	0.0832	0.0833
1.2D + 1.0W 270° 125 mph Wind with No Ice	82.82	0.108	0.0077	0.1412	0.1413
1.2D + 1.0W 270° 125 mph Wind with No Ice	91.40	0.1296	0.0087	0.1716	0.1718
1.2D + 1.0W 270° 125 mph Wind with No Ice	99.98	0.1546	0.0033	0.1459	0.1459
1.2D + 1.0W 225° 125 mph Wind with No Ice	50.00	0.0434	-0.0057	0.0867	0.0869
1.2D + 1.0W 225° 125 mph Wind with No Ice	82.82	0.1118	0.0112	0.1499	0.1499
1.2D + 1.0W 225° 125 mph Wind with No Ice	91.40	0.1348	0.0101	0.1668	0.1671
1.2D + 1.0W 225° 125 mph Wind with No Ice	99.98	0.1598	0.0080	0.1768	0.1769
1.2D + 1.0W 180° 125 mph Wind with No Ice	50.00	0.0419	0.0049	0.0843	0.0843
1.2D + 1.0W 180° 125 mph Wind with No Ice	82.82	0.1098	0.0086	0.1501	0.1501
1.2D + 1.0W 180° 125 mph Wind with No Ice	91.40	0.1328	0.0061	0.1529	0.153
1.2D + 1.0W 180° 125 mph Wind with No Ice	99.98	0.1573	0.0084	0.2120	0.2122
1.2D + 1.0W 135° 125 mph Wind with No Ice	50.00	0.0431	0.0072	0.0867	0.087

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 135° 125 mph Wind with No Ice	82.82	0.1126	0.0088	0.1515	0.1516
1.2D + 1.0W 135° 125 mph Wind with No Ice	91.40	0.1356	-0.0025	0.1664	0.1665
1.2D + 1.0W 135° 125 mph Wind with No Ice	99.98	0.1611	0.0045	0.1760	0.176
1.2D + 1.0W 90° 125 mph Wind with No Ice	50.00	0.0416	-0.0053	0.0838	0.0839
1.2D + 1.0W 90° 125 mph Wind with No Ice	82.82	0.109	-0.0077	0.1453	0.1455
1.2D + 1.0W 90° 125 mph Wind with No Ice	91.40	0.1315	-0.0085	0.1742	0.1744
1.2D + 1.0W 90° 125 mph Wind with No Ice	99.98	0.1563	-0.0032	0.1509	0.151
1.2D + 1.0W 45° 125 mph Wind with No Ice	50.00	0.0434	0.0057	0.0868	0.087
1.2D + 1.0W 45° 125 mph Wind with No Ice	82.82	0.1119	-0.0112	0.1504	0.1505
1.2D + 1.0W 45° 125 mph Wind with No Ice	91.40	0.1355	-0.0100	0.1676	0.1679
1.2D + 1.0W 45° 125 mph Wind with No Ice	99.98	0.1601	-0.0081	0.1798	0.18
1.2D + 1.0W Normal 125 mph Wind with No Ice	50.00	0.0418	-0.0049	0.0838	0.0838
1.2D + 1.0W Normal 125 mph Wind with No Ice	82.82	0.1091	-0.0086	0.1496	0.1496
1.2D + 1.0W Normal 125 mph Wind with No Ice	91.40	0.132	-0.0062	0.1508	0.151
1.2D + 1.0W Normal 125 mph Wind with No Ice	99.98	0.156	-0.0084	0.2148	0.2149

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0W Normal	17.15	0.00	45	1	-7.46	97.81	-14.24
	17.15	0.00	135	1a	4.42	-61.54	-11.22
	17.15	0.00	225	1b	-4.64	-61.77	-10.99
	17.15	0.00	315	1c	7.69	96.90	-13.93
1.2D + 1.0W 45°	17.15	0.00	45	1	-15.00	134.05	-15.27
	17.15	0.00	135	1a	-6.46	18.22	-3.38
	17.15	0.00	225	1b	-12.25	-98.18	-12.05
	17.15	0.00	315	1c	-3.18	17.30	-6.19
1.2D + 1.0W 90°	17.15	0.00	45	1	-14.02	97.55	-7.65
	17.15	0.00	135	1a	-14.14	98.05	7.57
	17.15	0.00	225	1b	-11.13	-61.90	-4.52
	17.15	0.00	315	1c	-11.07	-62.30	4.60
1.2D + 1.0W 135°	17.15	0.00	45	1	-6.36	17.74	3.32
	17.15	0.00	135	1a	-15.09	134.54	15.21
	17.15	0.00	225	1b	-3.21	17.72	6.24
	17.15	0.00	315	1c	-12.22	-98.60	12.11
1.2D + 1.0W 180°	17.15	0.00	45	1	4.45	-61.96	11.21
	17.15	0.00	135	1a	-7.49	98.22	14.24
	17.15	0.00	225	1b	7.73	97.39	13.93
	17.15	0.00	315	1c	-4.68	-62.25	10.99
1.2D + 1.0W 225°	17.15	0.00	45	1	12.06	-98.22	12.25
	17.15	0.00	135	1a	3.38	18.46	6.47
	17.15	0.00	225	1b	15.26	133.79	14.98
	17.15	0.00	315	1c	6.20	17.36	3.18
1.2D + 1.0W 270°	17.15	0.00	45	1	11.07	-61.70	4.56
	17.15	0.00	135	1a	11.13	-61.37	-4.48
	17.15	0.00	225	1b	14.15	97.53	7.53
	17.15	0.00	315	1c	14.02	96.95	-7.60
1.2D + 1.0W 315°	17.15	0.00	45	1	3.34	18.11	-6.42
	17.15	0.00	135	1a	12.09	-97.86	-12.20
	17.15	0.00	225	1b	6.30	17.91	-3.23
	17.15	0.00	315	1c	15.16	133.24	-15.03
0.9D + 1.0W Normal	17.15	0.00	45	1	-7.08	93.29	-13.85
	17.15	0.00	135	1a	4.80	-66.10	-11.60
	17.15	0.00	225	1b	-5.03	-66.19	-11.36
	17.15	0.00	315	1c	7.31	92.54	-13.55
0.9D + 1.0W 45°	17.15	0.00	45	1	-14.62	129.53	-14.88
	17.15	0.00	135	1a	-6.07	13.64	-3.77
	17.15	0.00	225	1b	-12.63	-102.58	-12.42
	17.15	0.00	315	1c	-3.56	12.97	-5.81
0.9D + 1.0W 90°	17.15	0.00	45	1	-13.65	93.03	-7.26
	17.15	0.00	135	1a	-13.76	93.43	7.18
	17.15	0.00	225	1b	-11.51	-66.32	-4.90
	17.15	0.00	315	1c	-11.45	-66.60	4.98
0.9D + 1.0W 135°	17.15	0.00	45	1	-5.99	13.26	3.71
	17.15	0.00	135	1a	-14.71	129.90	14.82
	17.15	0.00	225	1b	-3.60	13.27	5.87
	17.15	0.00	315	1c	-12.60	-102.88	12.48
0.9D + 1.0W 180°	17.15	0.00	45	1	4.82	-66.41	11.60
	17.15	0.00	135	1a	-7.11	93.61	13.85
	17.15	0.00	225	1b	7.34	92.90	13.55
	17.15	0.00	315	1c	-5.05	-66.55	11.36
0.9D + 1.0W 225°	17.15	0.00	45	1	12.43	-102.65	12.64
	17.15	0.00	135	1a	3.76	13.88	6.09
	17.15	0.00	225	1b	14.87	129.29	14.60
	17.15	0.00	315	1c	5.82	13.03	3.56
0.9D + 1.0W 270°	17.15	0.00	45	1	11.45	-66.15	4.94
	17.15	0.00	135	1a	11.52	-65.93	-4.86
	17.15	0.00	225	1b	13.76	93.04	7.15

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
0.9D + 1.0W 315°	17.15	0.00	315	1c	13.64	92.59	-7.23
	17.15	0.00	45	1	3.72	13.63	-6.04
	17.15	0.00	135	1a	12.47	-102.40	-12.58
	17.15	0.00	225	1b	5.91	13.46	-3.61
	17.15	0.00	315	1c	14.78	128.86	-14.66
1.2D + 1.0Di + 1.0Wi Normal	17.15	0.00	45	1	-3.62	45.23	-5.15
	17.15	0.00	135	1a	-1.27	13.48	-0.18
	17.15	0.00	225	1b	1.21	12.55	-0.18
	17.15	0.00	315	1c	3.68	44.02	-4.99
	17.15	0.00	45	1	-5.25	52.91	-5.37
1.2D + 1.0Di + 1.0Wi 45°	17.15	0.00	135	1a	-3.54	29.67	1.42
	17.15	0.00	225	1b	-0.41	4.85	-0.43
	17.15	0.00	315	1c	1.40	27.85	-3.42
	17.15	0.00	45	1	-5.04	45.18	-3.72
	17.15	0.00	135	1a	-5.10	45.88	3.72
1.2D + 1.0Di + 1.0Wi 90°	17.15	0.00	225	1b	-0.15	12.52	1.17
	17.15	0.00	315	1c	-0.21	11.70	-1.17
	17.15	0.00	45	1	-3.48	28.97	-1.42
	17.15	0.00	135	1a	-5.31	53.61	5.37
	17.15	0.00	225	1b	1.46	28.67	3.42
1.2D + 1.0Di + 1.0Wi 135°	17.15	0.00	315	1c	-0.47	4.03	0.43
	17.15	0.00	45	1	-1.22	12.77	0.18
	17.15	0.00	135	1a	-3.67	45.94	5.15
	17.15	0.00	225	1b	3.74	44.83	4.99
	17.15	0.00	315	1c	1.15	11.74	0.19
1.2D + 1.0Di + 1.0Wi 180°	17.15	0.00	45	1	0.42	5.09	0.40
	17.15	0.00	135	1a	-1.41	29.75	3.55
	17.15	0.00	225	1b	5.36	52.53	5.24
	17.15	0.00	315	1c	3.43	27.91	-1.39
	17.15	0.00	45	1	0.21	12.82	-1.25
1.2D + 1.0Di + 1.0Wi 270°	17.15	0.00	135	1a	0.15	13.54	1.25
	17.15	0.00	225	1b	5.10	44.86	3.64
	17.15	0.00	315	1c	5.04	44.06	-3.64
	17.15	0.00	45	1	-1.35	29.04	-3.56
	17.15	0.00	135	1a	0.37	5.80	-0.40
1.2D + 1.0Di + 1.0Wi 315°	17.15	0.00	225	1b	3.49	28.71	1.39
	17.15	0.00	315	1c	5.30	51.73	-5.23
	17.15	0.00	45	1	-1.40	15.35	-1.76
	17.15	0.00	135	1a	-0.79	7.38	0.42
	17.15	0.00	225	1b	0.79	7.38	0.42
1.2D + 1.0Ev + 1.0Eh Normal	17.15	0.00	315	1c	1.40	15.35	-1.76
	17.15	0.00	45	1	-1.78	17.00	-1.78
	17.15	0.00	135	1a	-1.35	11.36	0.84
	17.15	0.00	225	1b	0.41	5.72	0.41
	17.15	0.00	315	1c	0.84	11.36	-1.35
1.2D + 1.0Ev + 1.0Eh 45°	17.15	0.00	45	1	-1.76	15.35	-1.40
	17.15	0.00	135	1a	-1.76	15.35	1.40
	17.15	0.00	225	1b	0.42	7.38	0.79
	17.15	0.00	315	1c	0.42	7.38	-0.79
	17.15	0.00	45	1	-1.35	11.36	-0.84
1.2D + 1.0Ev + 1.0Eh 90°	17.15	0.00	135	1a	-1.78	17.00	1.78
	17.15	0.00	225	1b	0.84	11.36	1.35
	17.15	0.00	315	1c	0.41	5.72	-0.41
	17.15	0.00	45	1	-0.79	7.38	-0.42
	17.15	0.00	135	1a	-1.40	15.35	1.76
1.2D + 1.0Ev + 1.0Eh 180°	17.15	0.00	225	1b	1.40	15.35	1.76
	17.15	0.00	315	1c	0.79	7.38	-0.42
	17.15	0.00	45	1	-0.41	5.72	-0.41
	17.15	0.00	135	1a	-0.84	11.36	1.35
	17.15	0.00	225	1b	-0.41	5.72	-0.41

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Ev + 1.0Eh 270°	17.15	0.00	225	1b	1.78	17.00	1.78
	17.15	0.00	315	1c	1.35	11.36	-0.84
	17.15	0.00	45	1	-0.42	7.38	-0.79
	17.15	0.00	135	1a	-0.42	7.38	0.79
	17.15	0.00	225	1b	1.76	15.35	1.40
	17.15	0.00	315	1c	1.76	15.35	-1.40
1.2D + 1.0Ev + 1.0Eh 315°	17.15	0.00	45	1	-0.84	11.36	-1.35
	17.15	0.00	135	1a	-0.41	5.72	0.41
	17.15	0.00	225	1b	1.35	11.36	0.84
	17.15	0.00	315	1c	1.78	17.00	-1.78
	17.15	0.00	45	1	-1.06	11.81	-1.42
	17.15	0.00	135	1a	-0.45	3.84	0.08
0.9D - 1.0Ev + 1.0Eh Normal	17.15	0.00	225	1b	0.45	3.84	0.08
	17.15	0.00	315	1c	1.06	11.81	-1.42
	17.15	0.00	45	1	-1.44	13.46	-1.44
	17.15	0.00	135	1a	-1.01	7.82	0.49
	17.15	0.00	225	1b	0.07	2.19	0.07
	17.15	0.00	315	1c	0.49	7.82	-1.01
0.9D - 1.0Ev + 1.0Eh 45°	17.15	0.00	45	1	-1.42	11.81	-1.06
	17.15	0.00	135	1a	-1.42	11.81	1.06
	17.15	0.00	225	1b	0.08	3.84	0.45
	17.15	0.00	315	1c	0.08	3.84	-0.45
	17.15	0.00	45	1	-1.01	7.82	-0.49
	17.15	0.00	135	1a	-1.44	13.46	1.44
0.9D - 1.0Ev + 1.0Eh 90°	17.15	0.00	225	1b	0.49	7.82	1.01
	17.15	0.00	315	1c	0.07	2.19	-0.07
	17.15	0.00	45	1	-0.45	3.84	-0.08
	17.15	0.00	135	1a	-1.06	11.81	1.42
	17.15	0.00	225	1b	1.06	11.81	1.42
	17.15	0.00	315	1c	0.45	3.84	-0.08
0.9D - 1.0Ev + 1.0Eh 135°	17.15	0.00	45	1	-0.07	2.19	-0.07
	17.15	0.00	135	1a	-0.49	7.82	1.01
	17.15	0.00	225	1b	1.44	13.46	1.44
	17.15	0.00	315	1c	1.01	7.82	-0.49
	17.15	0.00	45	1	-0.08	3.84	-0.45
	17.15	0.00	135	1a	-0.08	3.84	0.45
0.9D - 1.0Ev + 1.0Eh 180°	17.15	0.00	225	1b	1.42	11.81	1.06
	17.15	0.00	315	1c	1.42	11.81	-1.06
	17.15	0.00	45	1	-0.49	7.82	-1.01
	17.15	0.00	135	1a	-0.07	2.19	0.07
	17.15	0.00	225	1b	1.01	7.82	0.49
	17.15	0.00	315	1c	1.44	13.46	-1.44
0.9D - 1.0Ev + 1.0Eh 315°	17.15	0.00	45	1	-2.62	33.33	-4.22
	17.15	0.00	135	1a	0.09	-3.11	-1.65
	17.15	0.00	225	1b	-0.14	-3.48	-1.62
	17.15	0.00	315	1c	2.68	32.76	-4.12
	17.15	0.00	45	1	-4.37	41.68	-4.45
	17.15	0.00	135	1a	-2.41	15.26	0.15
1.0D + 1.0W Service Normal	17.15	0.00	225	1b	-1.89	-11.87	-1.86
	17.15	0.00	315	1c	0.17	14.43	-2.33
	17.15	0.00	45	1	-4.14	33.27	-2.69
	17.15	0.00	135	1a	-4.19	33.64	2.67
	17.15	0.00	225	1b	-1.63	-3.51	-0.14
	17.15	0.00	315	1c	-1.64	-3.89	0.16
1.0D + 1.0W Service 45°	17.15	0.00	45	1	-2.37	14.89	-0.16
	17.15	0.00	135	1a	-4.41	42.05	4.44
	17.15	0.00	225	1b	0.19	14.82	2.34
	17.15	0.00	315	1c	-1.90	-12.26	1.88
	17.15	0.00	45	1	0.12	-3.46	1.65
	17.15	0.00	135	1a			

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

DETAILED REACTIONS							
Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.0D + 1.0W Service 225°	17.15	0.00	135	1a	-2.65	33.67	4.21
	17.15	0.00	225	1b	2.71	33.16	4.12
	17.15	0.00	315	1c	-0.17	-3.88	1.62
	17.15	0.00	45	1	1.86	-11.82	1.89
	17.15	0.00	135	1a	-0.15	15.31	2.42
	17.15	0.00	225	1b	4.45	41.56	4.36
1.0D + 1.0W Service 270°	17.15	0.00	315	1c	2.33	14.45	-0.17
	17.15	0.00	45	1	1.64	-3.40	0.12
	17.15	0.00	135	1a	1.63	-3.07	-0.10
	17.15	0.00	225	1b	4.19	33.20	2.64
1.0D + 1.0W Service 315°	17.15	0.00	315	1c	4.14	32.77	-2.65
	17.15	0.00	45	1	-0.14	14.98	-2.41
	17.15	0.00	135	1a	1.85	-11.48	-1.87
	17.15	0.00	225	1b	2.38	14.86	0.16
	17.15	0.00	315	1c	4.40	41.14	-4.37

ASSET: 88016, OLD LYME
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
PROJECT: 14852508_C3_03

MAXIMUM REACTIONS SUMMARY

Individual		Global (DL+WL+IL)		Global (DL+WL)	
Max Uplift:	102.88 (kip)	Moment Ice:	850.19 (kip-ft)	Moment:	3997.62 (kip-ft)
Max Down:	134.54 (kip)	Total Down Ice:	115.28 (kip)	Total Down:	71.4 (kip)
Max Shear:	21.43 (kip)	Total Shear Ice:	11.03 (kip)	Total Shear:	52.16 (kip)
1.2D + 1.0W 135°					

Site Name: Old Lyme, CT
Site Number: 88016
Tower Type: SST
Design Loads (Factored) - Analysis per TIA-222-H Standards

Mat & Pier Foundation Analysis

Foundation Analysis Parameters		
Design / Analysis / Mapping:	Mapping	-
Compression/Leg:	134.5	k
Uplift/Leg:	102.9	k
Shear/Leg:	21.4	k
Global Moment:		k-ft
Global Axial:		k
Depth to Base of Foundation (l + t - h):	8.1667	ft
Diameter of Pier (d):	3	ft
Length of Pier (l):	5.6667	ft
Height of Pier above Ground (h):	0.5	ft
Pier Shape:	Square	
If Square: Pier Taper:	Pyramidal	
Pier Width at Base:	5.5	ft
Width of Pad (W):	15	ft
Length of Pad (L):	15	ft
Thickness of Pad (t):	3	ft
Tower Leg Center to Center:	24.25	ft
Number of Connection to Tower:	1	-
Tower Center from Mat Center:	28	ft
Depth Below Ground Surface to Water Table:	17.15	ft
Unit Weight of Soil Above Water Table:	120	pcf
Angle of Uplift:	15	°
Coefficient of Shear Friction:	0.4	-
Ultimate Compressive Bearing Pressure:	54,000	psf
Bearing Pressure Type:	Gross	-
Ultimate Passive Pressure on Pad Face:	800	psf
Ultimate Skin Friction:	250	psf
Soil Type:	Clay	-
Φ_{Soil} and Concrete Weight:	1.2	-
Φ_{Soil} :	0.75	-

Overturning Moment Usage		
Design OTM:	185.5	k-ft
OTM Resistance:	1739.2	k-ft
$M_u/\Phi_s M_n$:	10.7%	Pass

Soil Bearing Pressure Usage		
Applied Bearing Pressure:	1084.8	psf
Factored Nominal Bearing Pressure:	40500.0	psf
$P_u/\Phi_s P_n$:	2.7%	Pass
Load Direction Controlling Design Bearing Pressure:	Parallel to Pad Edge	

Sliding Factor of Safety		
Bearing Surface Adhesive Resistance:	56.3	k
Ultimate Passive Pressure Resistance:	36.0	k
Total Factored Sliding Resistance:	69.2	k
$V_u/\Phi_s V_n$:	30.9%	Pass

Uplift and Pullout Usage		
Applied Uplift Force:	102.9	k
Ultimate Skin Friction Resistance:	45.0	k
Factored Uplift Capacity per Leg ($\Phi_s T_n$):	233.8	k
$T_u/\Phi_s T_n$:	44%	Pass

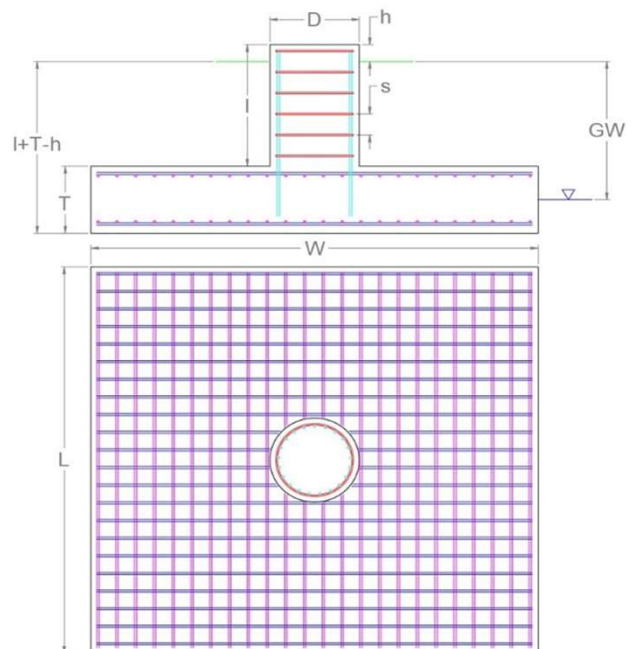


EXHIBIT C

Mount Analysis Report

Colliers Engineering & Design, Architecture,
Landscape Architecture, Surveying, CT P.C.
2000 Midlantic Drive Suite 100
Mt. Laurel, NJ 08054
856.797.0412
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New/Replacement Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10227147
Colliers Engineering & Design Project #: 21777467 (Rev. 1)

March 19, 2024

Site Information

Site ID: 5000247020-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

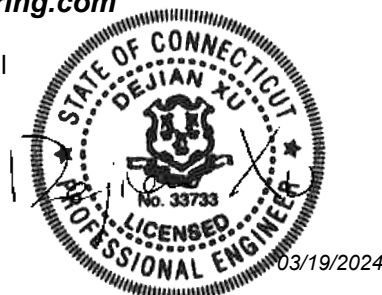
Sector Frame: 41.8% **Pass w/ Mount Replacement***
((3) Site Pro 1: VFA12-HD-S,
(3) Site Pro 1: BCAM-SDLL)

***Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

***Contractor PMI Requirements:

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Madison Shell



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. Colliers Engineering & Design 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 February 1, 2024
Tower Structural Analysis	American Tower Corporation, Site #: 88016, dated May 14, 2021
Mount Specification Sheets	Site Pro 1, Part #: VFA12-HD-S, BCAM-SDLL

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 130 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 : 0.201 g S_1 : 0.053 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, L_v : 250 lbs. Maintenance Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V20)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
80.00	80.00	6	Commscope	NHH-65B-R2B	Added
		3	Samsung	MT6413-77A	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4461d-13A	
		1	RFS	DB-B1-6C-12AB-0Z	
		3	Antel	LPA-80080/4CF	Retained

Any proposed antennas not currently installed should be mounted such that the centerline of the antennas does not exceed 6 inches vertically from the center of the antenna mounts.

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 Colliers Engineering & Design 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 Colliers Engineering & Design 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 in accordance with the NSTD-446 Standard, 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. Colliers Engineering & Design 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 Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Mount Pipe	41.8%	Pass
Tieback	12.3%	Pass
Standoff Vertical	4.0%	Pass
Dual Mount Pipe	9.9%	Pass
Standoff Diagonal	7.8%	Pass
Standoff Plate	37.8%	Pass
Standoff Horizontal	14.9%	Pass
Face Horizontal	26.5%	Pass
Mount Connection	9.9%	Pass

Structure Rating – (Controlling Utilization of all Components)	41.8%
---	--------------

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector A Bottom Standoff	78.3	N35	467	1100	0.217	0.434	971	1276	0.412	0.184
Sector A Top Standoff	81.7	N36	458	1483	0.219	0.159	946	1358	0.390	0.082

Notes:

- Axial loads act along the axis of the tower leg
- Lateral reactions act perpendicular to the tower leg
- Moment loads introduce bending moment to the tower leg
- Torsion loads introduce twisting moment to the tower leg
- Batch solutions by individual load cases are included at the end of this document

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	12.2	6.1	19.4	13.3
0.5	19.0	10.7	29.0	20.8
1	25.2	14.9	38.2	27.8

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 sector.
- Ka factors included in (EPA)a calculations

Requirements:

The proposed antenna mounts are **SUFFICIENT** for the final loading configuration (attachment 2) upon completion of the mount replacement (attachment 3) and requirements below.

Refer to document at the end of this form for special instructions. Contact EOR if special instructions are not available.

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. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Manufacturer Drawings
4. Analysis Calculations



MDG #: **5000247020**

Site Name: **LAYSVILLE NORTH CT**

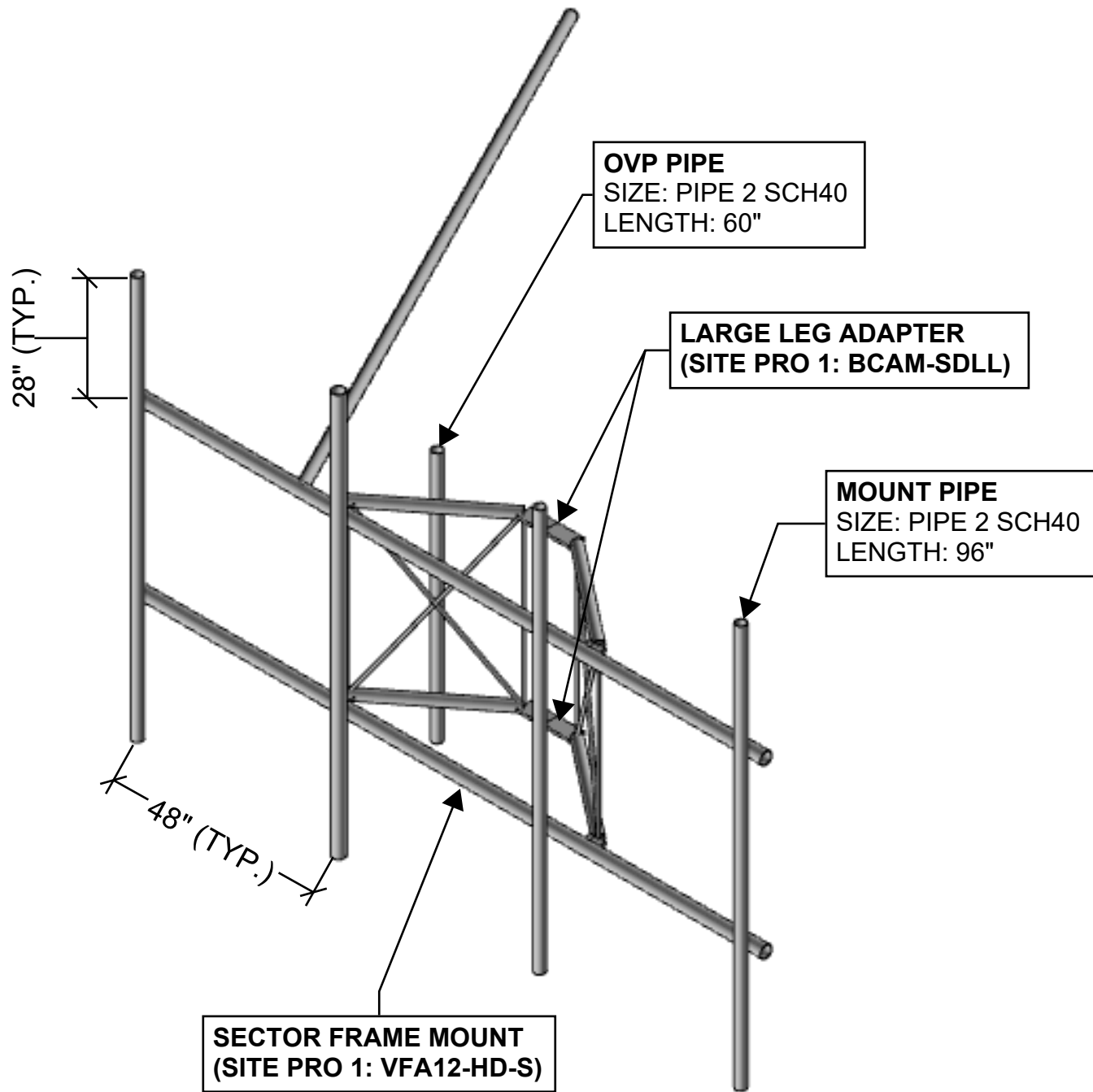
Fuze ID #: **16272182**

Colliers Engineering & Design Project #: **21777467 (Rev. 1)**

PMI INSTRUCTIONS:

1. Contractor shall remove existing mount and associated hardware. Contractor shall restore any degradation in galvanization on tower due to removed mount and protect with two (2) coats of cold galvanization (zinga or zinc kote).
2. Contractor shall install the proposed VFA12-HD-S mounts and BCAM-SDLL large leg adapters in accordance with manufacturer specifications and the Mount Replacement Sketch. Contact EOR if these documents are not available.
3. Contractor shall install (4) 96" long PIPE 2 SCH40 mount pipes per mount. Refer to placement diagrams and Mount Replacement Sketch. Contact EOR if these documents are not available.
4. Contractor shall install mount pipes with vertical offsets as shown in the Mount Replacement Sketch.
5. Attach tiebacks to adjacent tower legs. Proposed tieback shall extend no more than 12" beyond the plane of the tower face. Contractor shall trim as required and protect cut end with two (2) coats of cold galvanization (Zinga or Zinc Kote).
6. Contractor shall install OVP on a new 60" long PIPE 2 SCH 40 pipes connected to the welded tabs of the alpha sector standoff.

MOUNT REPLACEMENT SKETCH



MOUNT ISOMETRIC VIEW

N.T.S

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

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

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>

For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000247020

SMART Project #: 10227147

Fuze Project ID: 16272182

Purpose – to provide SMART Tool structural vendor 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 installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built mount drawings” showing contractor’s name, contact information, preparer’s signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped.
- Photos should be high resolution.
- 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. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

Photo Requirements:

- *Photos taken at ground level*
 - Photo of Gate Signs showing the tower owner, site name, and number.
 - Overall tower structure after installation.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- *Photos taken at Mount Elevation*
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation of mounts. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.
- Photos of each installed mount; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the installed mount elevation.

Antenna & Equipment Placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

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

Issue:

Refer to document at the end of this form for special instructions. Contact EOR if special instructions are not available.

Response:

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition

☐ Safety Climb Damaged

Comments:

New Mount Certification:

- ☐ 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.

Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos:

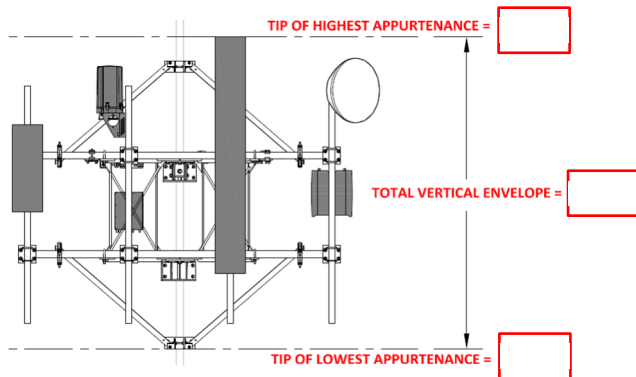


Illustration #1

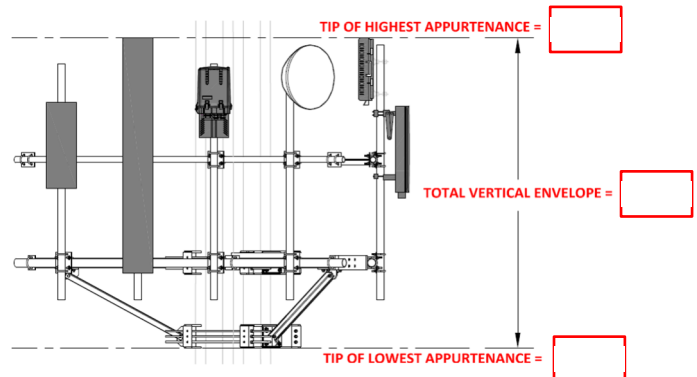


Illustration #2

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

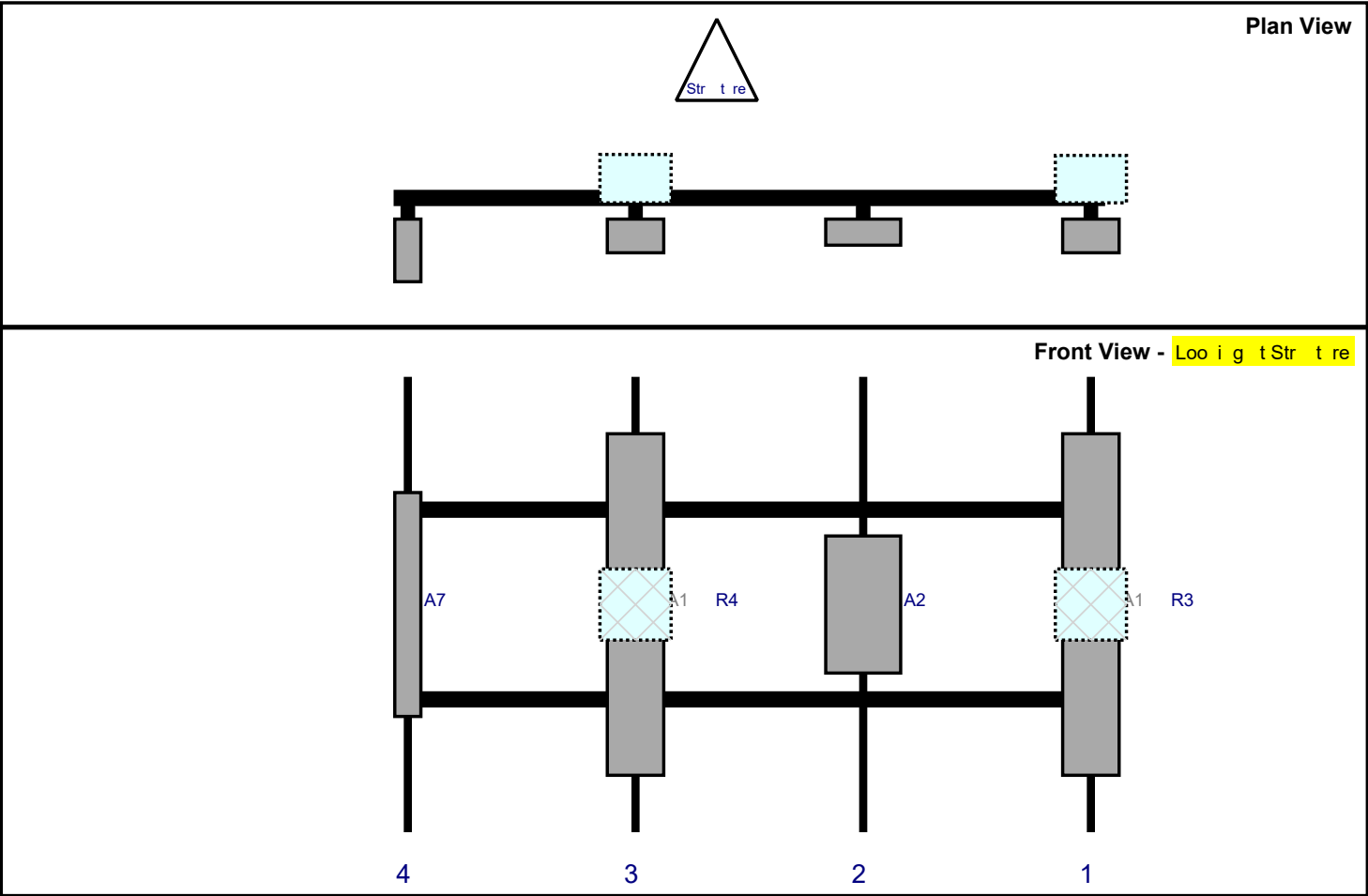
Se tor: A
Str t re Type: Mo opole
Mo t Elev: 80.00

10227147

3/18/2024



P ge: 1



Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A1	NHH-65B-R2B	72	11.9	147	1		Fro t	48	0	Added	
R3	RF4439d-25A	15	15	147	1		Behi d	48	0	Added	
A2	MT6413-77A	28.9	15.8	99	2		Fro t	48	0	Added	
A1	NHH-65B-R2B	72	11.9	51	3		Fro t	48	0	Added	
R4	RF4461d-13A	15	15	51	3		Behi d	48	0	Added	
A7	LPA-80080/4CF	47.2	5.5	3	4		Fro t	48	0	Ret i ed	
OVP2	DB-B1-6C-12AB-OZ	28.9	15.7			Me er				Added	
OVP	DB-B1-6C-12AB-OZ	28.9	15.7			Me er				Added	

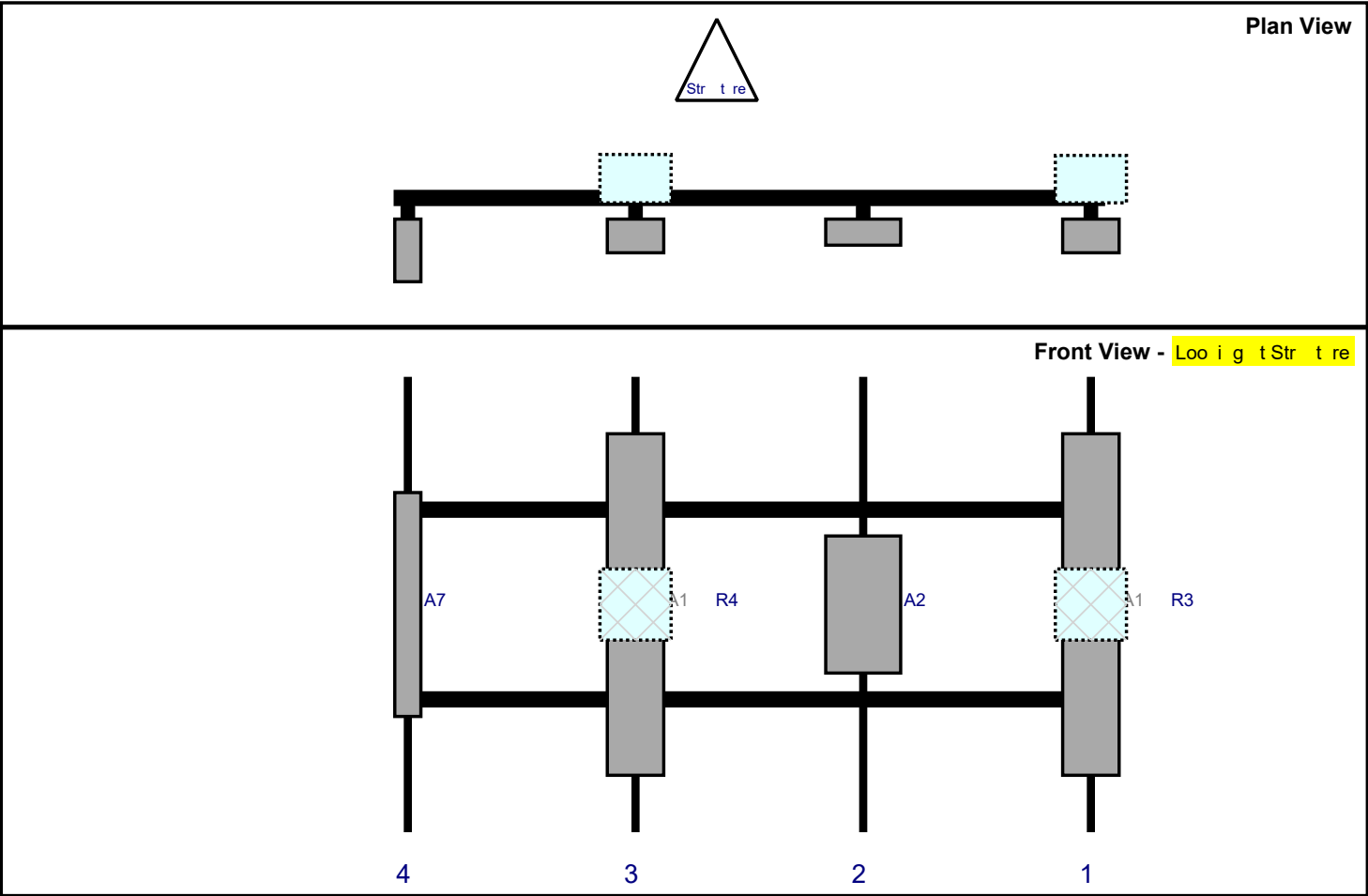
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Str t re Type: Mo opole
Mo t Elev: 80.00

10227147

3/18/2024



P ge: 2



Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A1	NHH-65B-R2B	72	11.9	147	1		Fro t	48	0	Added	
R3	RF4439d-25A	15	15	147	1		Behi d	48	0	Added	
A2	MT6413-77A	28.9	15.8	99	2		Fro t	48	0	Added	
A1	NHH-65B-R2B	72	11.9	51	3		Fro t	48	0	Added	
R4	RF4461d-13A	15	15	51	3		Behi d	48	0	Added	
A7	LPA-80080/4CF	47.2	5.5	3	4		Fro t	48	0	Ret i ed	

Se tor: C

3/18/2024

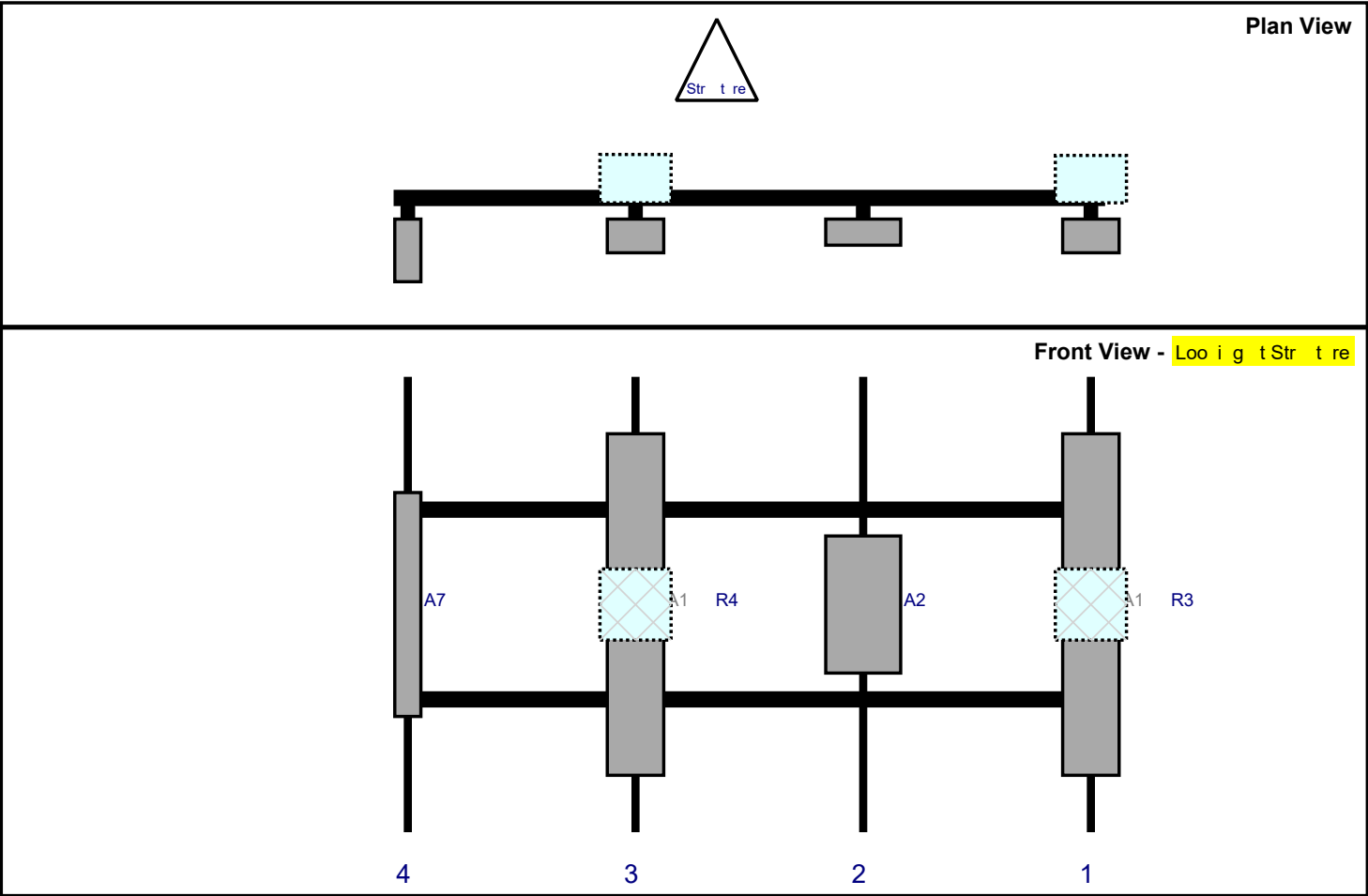
Str t re Type: Mo opole

10227147

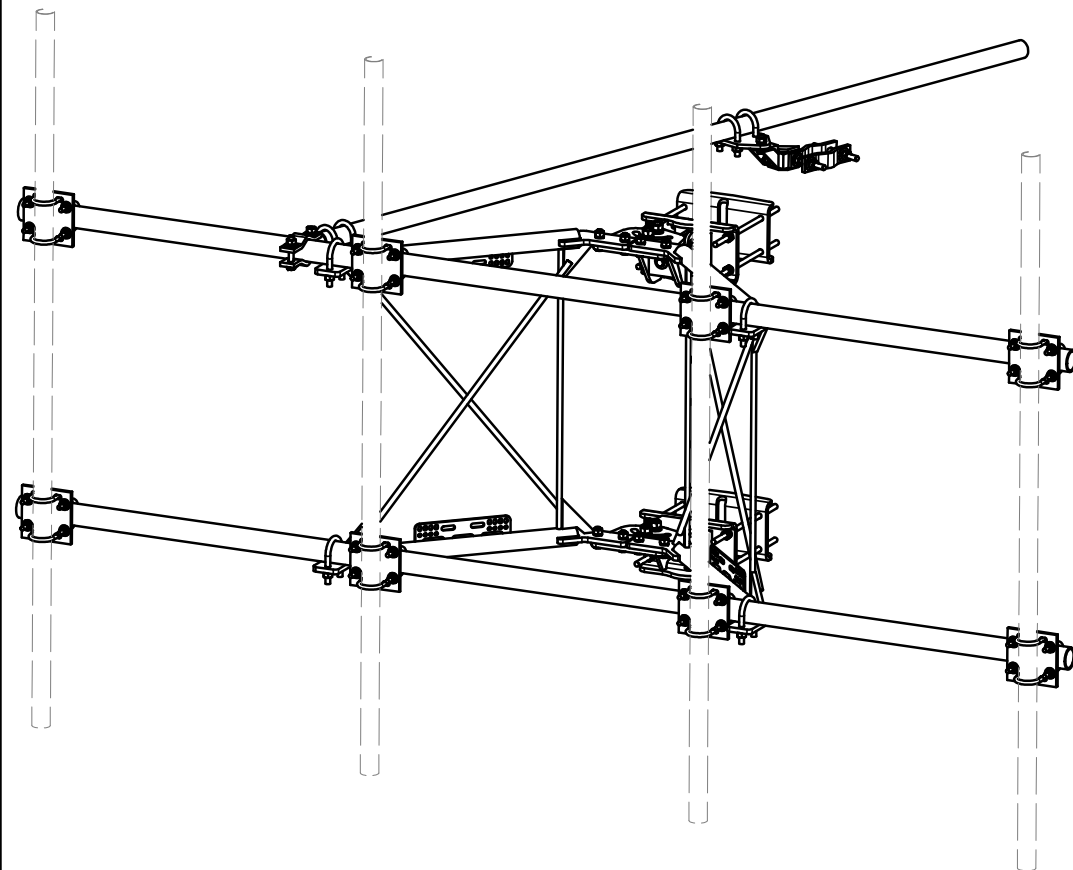


Mo t Elev: 80.00

P ge: 3



Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A1	NHH-65B-R2B	72	11.9	147	1		Fro t	48	0	Added	
R3	RF4439d-25A	15	15	147	1		Behi d	48	0	Added	
A2	MT6413-77A	28.9	15.8	99	2		Fro t	48	0	Added	
A1	NHH-65B-R2B	72	11.9	51	3		Fro t	48	0	Added	
R4	RF4461d-13A	15	15	51	3		Behi d	48	0	Added	
A7	LPA-80080/4CF	47.2	5.5	3	4		Fro t	48	0	Ret i ed	



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	2	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	11.74
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	2	X-TBCA	TIE BACK CLIP ANGLE		2.01	4.01
10	8	SCX2	CROSSOVER PLATE	7 in	4.80	38.37
11	2	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	7.19
12	4	DCP	1/2" THICK, 5-3/4" CMTER TO CENTER CLAMP HALF	8 1/8 in	2.36	9.45
13	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	153.87
14	1	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	40.75
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	2	G58R-12	5/8" x 12" THREADED ROD (HDG.)		1.05	2.09
21	2	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	1.39
22	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	4	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	4.00
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	4	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	1.78
27	8	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
28	2	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	0.54
29	15	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.06
30	50	G58LW	5/8" HDG LOCKWASHER		0.03	1.30
31	53	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	6.88
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. #	621.66

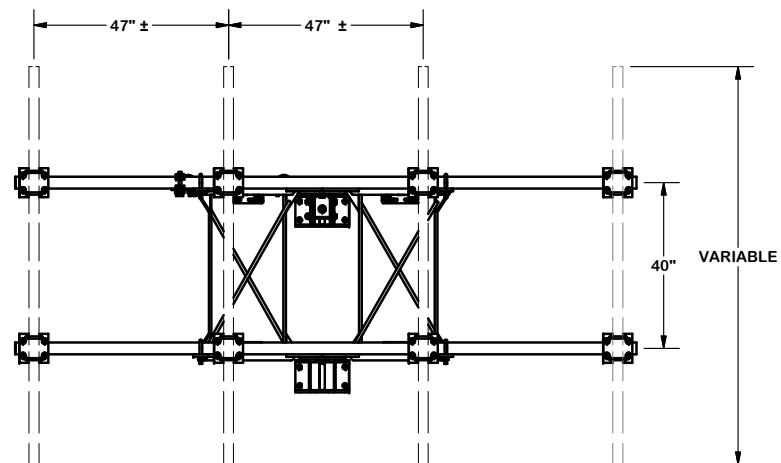
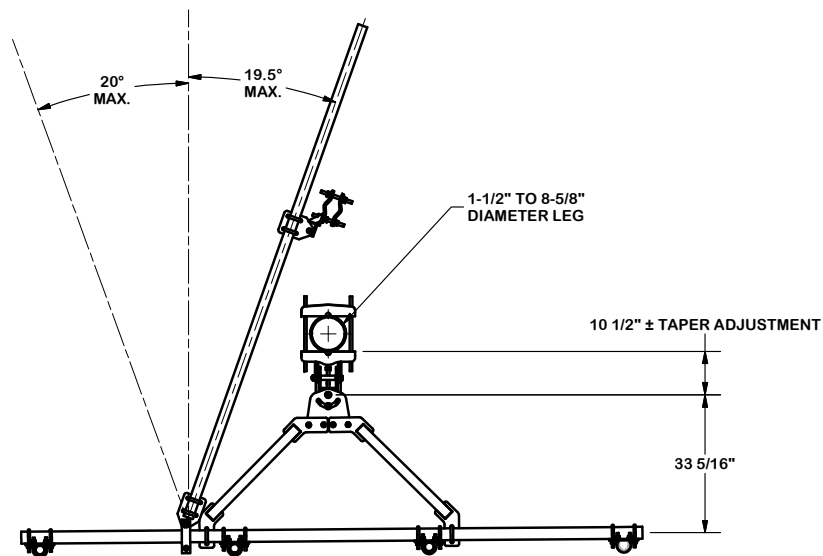
B	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
A	UPDATED ANGLE CALIBRATING PROCEDURE PAGE 2		CEK	12/12/2017
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

TOLERANCE NOTES

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

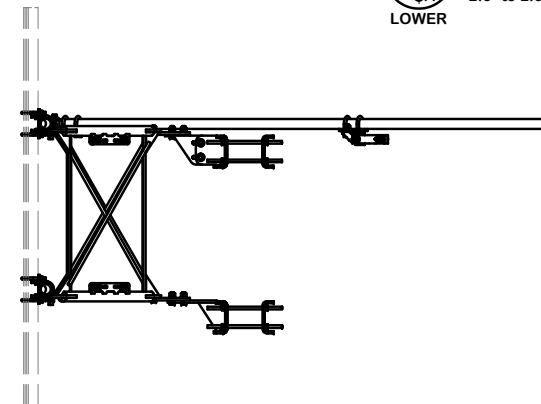
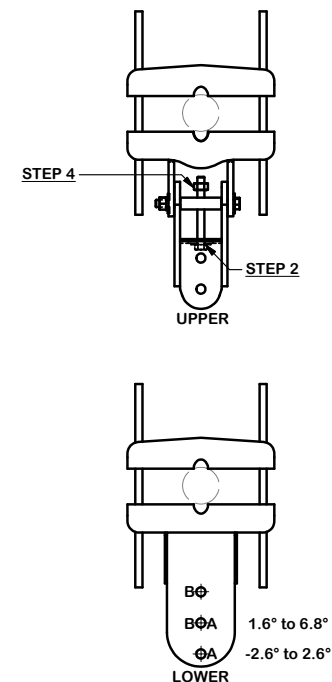
PROPRIETARY NOTE:
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION			Locations:	
12' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH ONE STIFF ARMS			New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX	
CPD NO.	DRAWN BY CEK	ENG. APPROVAL 7/3/2017	PART NO. VFA12-HD-S	
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER	CHECKED BY BMC	DATE 12/12/2017
			DWG. NO. VFA12-HD-S	PAGE 1 OF 4



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 (± 0.030 ")
 DRILLED AND GAS CUT HOLES (± 0.030 ") - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010 ") - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.030 ")
 ALL OTHER ASSEMBLY (± 0.060 ")

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

DESCRIPTION

12" 6" HEAVY DUTY
 V-FRAME ASSEMBLY
 WITH ONE STIFF ARMS

CPD NO.

DRAWN BY

ENG. APPROVAL

CLASS 81
 SUB 02

DRAWING USAGE
 CUSTOMER

CHECKED BY
 BMC 12/12/2017



Engineering
 Support Team:
 1-888-753-7446

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

PART NO.

VFA12-HD-S

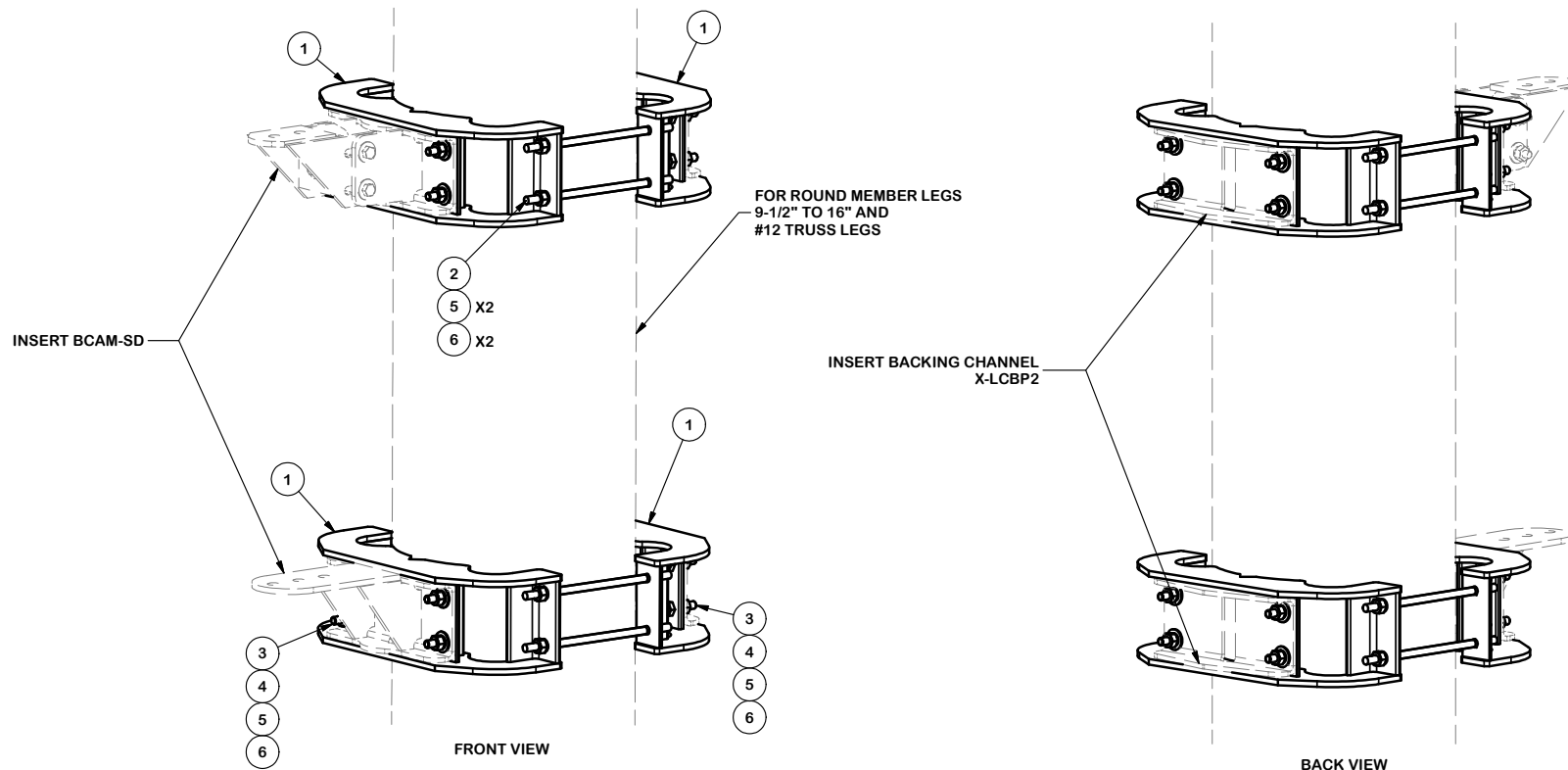
DWG. NO.

VFA12-HD-S

PAGE
 2 OF 4

B	UPDATED BCAM VERSION 1 TO BCAM VERSION 2	CEK	6/29/2018
A	UPDATED ANGLE CALIBRATING PROCEDURE PAGE 2	CEK	12/12/2017
REV	DESCRIPTION OF REVISIONS	CPD	BY DATE
REVISION HISTORY			

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	4	X-BCSDLL	LARGE LEG ADAPTER FOR B-CAM SD		24.08	96.32
2	8	G12R-12	1/2" x 12" THREADED ROD (HDG.)		0.67	5.35
2	8	G12R-8	1/2" x 8" THREADED ROD (HDG.)		0.45	3.57
3	16	G1202	1/2" x 2" HDG HEX BOLT GR5	2 in	0.18	2.81
4	16	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.55
5	32	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.44
6	32	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	2.29
					TOTAL WT. #	113.41



TOLERANCE NOTES

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

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

DESCRIPTION

LARGE LEG ADAPTER
 FOR BCAM-SD

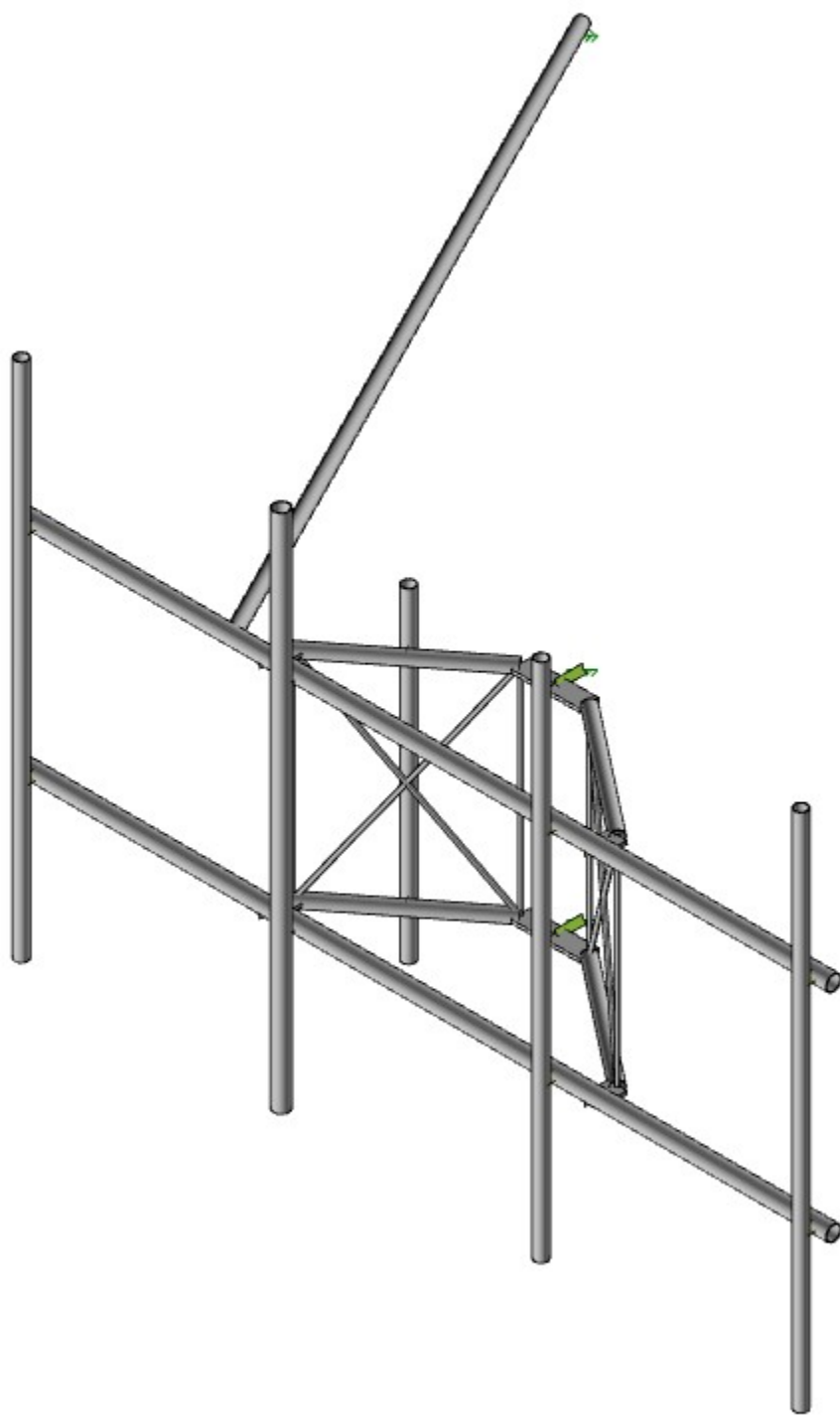
CPD NO.	DRAWN BY	ENG. APPROVAL
CLASS	CEK 10/31/2016	
SUB	DRAWING USAGE	CHECKED BY
81	CUSTOMER	BMC 4/25/2017



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

PART NO.	BCAM-SDLL	PAGE
DWG. NO.	BCAM-SDLL	1 OF 1



Envelope Only Solution

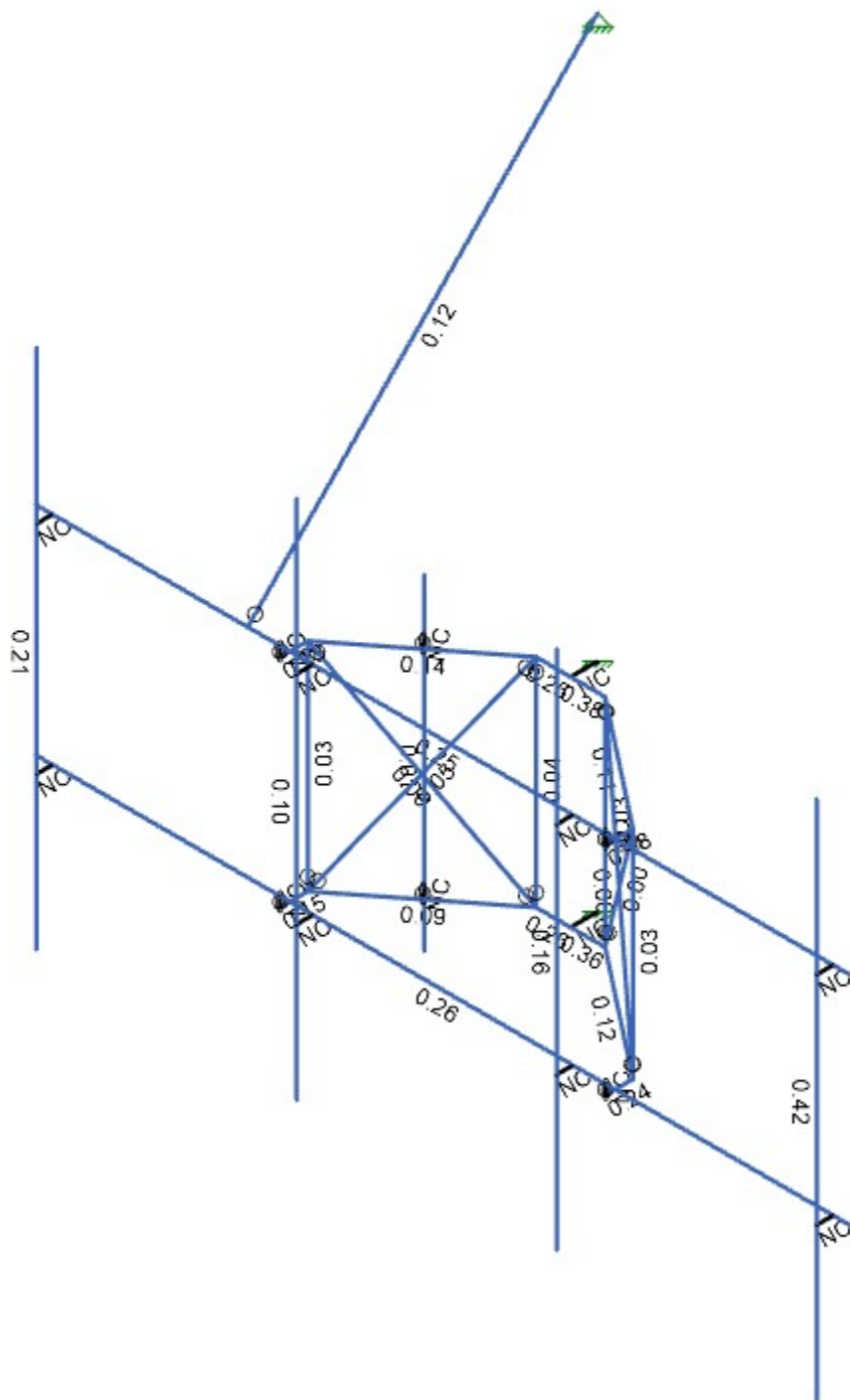
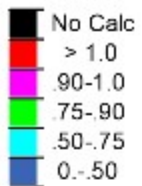
SK-1

Mar 18, 2024

5000247020-VZW_MT_LOT_A_H....



Code Check
(Env)

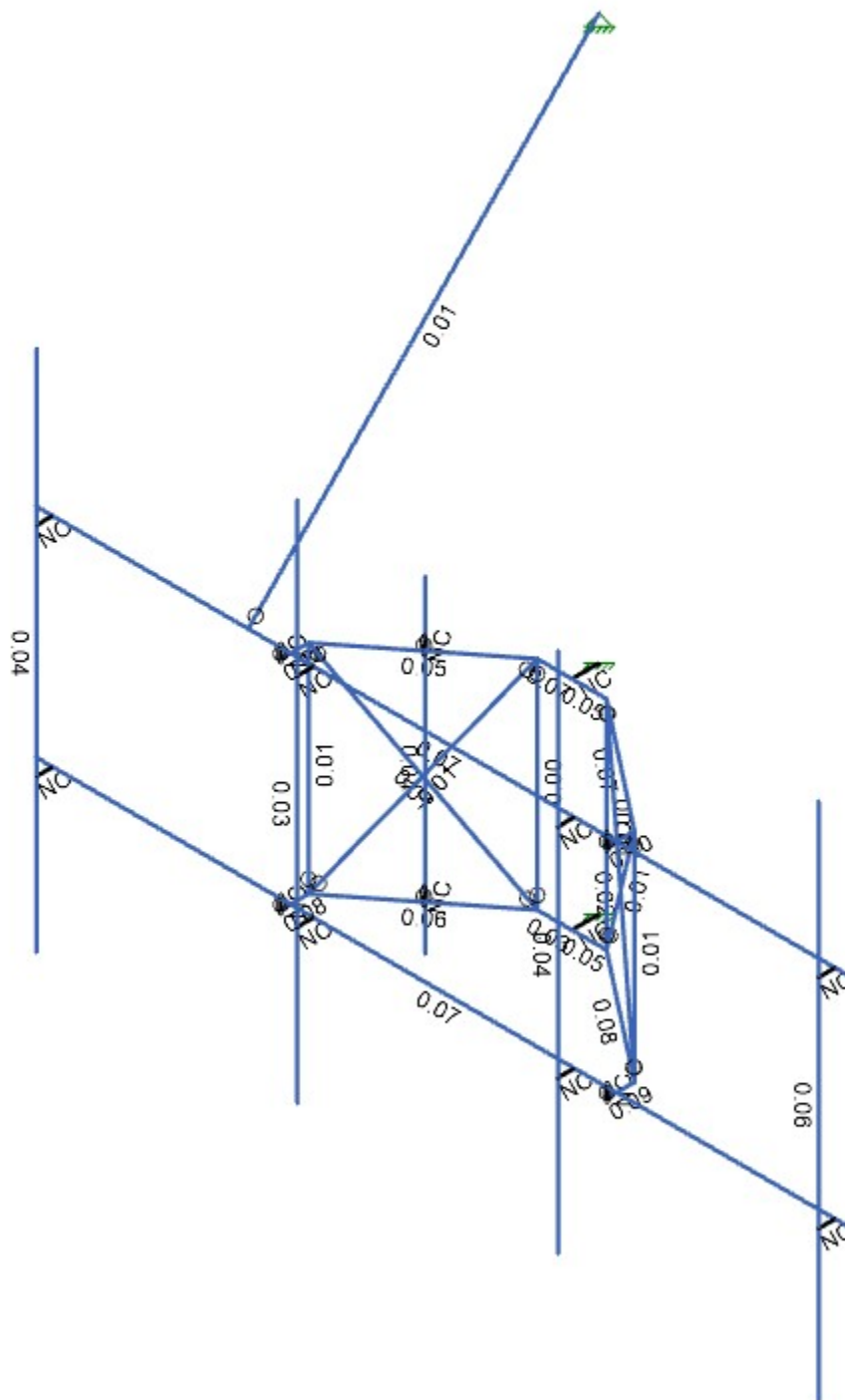
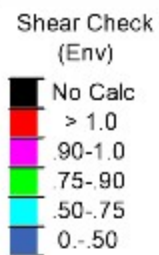


Member Code Checks Displayed (Enveloped)
Envelope Only Solution

SK-2

Mar 18, 2024

5000247020-VZW_MT_LOT_A_H....



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

		SK-3
		Mar 18, 2024
		5000247020-VZW MT LOT_A H....

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed
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	
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 Deg)	None				33	
32	Antenna Wm (150 Deg)	None				33	
33	Antenna Wm (180 Deg)	None				33	
34	Antenna Wm (210 Deg)	None				33	
35	Antenna Wm (240 Deg)	None				33	
36	Antenna Wm (270 Deg)	None				33	
37	Antenna Wm (300 Deg)	None				33	
38	Antenna Wm (330 Deg)	None				33	
39	Structure D	None		-1			
40	Structure Di	None					28
41	Structure Wo (0 Deg)	None					56
42	Structure Wo (30 Deg)	None					56
43	Structure Wo (60 Deg)	None					56
44	Structure Wo (90 Deg)	None					56
45	Structure Wo (120 Deg)	None					56
46	Structure Wo (150 Deg)	None					56
47	Structure Wo (180 Deg)	None					56
48	Structure Wo (210 Deg)	None					56
49	Structure Wo (240 Deg)	None					56
50	Structure Wo (270 Deg)	None					56
51	Structure Wo (300 Deg)	None					56
52	Structure Wo (330 Deg)	None					56
53	Structure Wi (0 Deg)	None					56
54	Structure Wi (30 Deg)	None					56
55	Structure Wi (60 Deg)	None					56

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed
56	Structure Wi (90 Deg)	None					56
57	Structure Wi (120 Deg)	None					56
58	Structure Wi (150 Deg)	None					56
59	Structure Wi (180 Deg)	None					56
60	Structure Wi (210 Deg)	None					56
61	Structure Wi (240 Deg)	None					56
62	Structure Wi (270 Deg)	None					56
63	Structure Wi (300 Deg)	None					56
64	Structure Wi (330 Deg)	None					56
65	Structure Wm (0 Deg)	None					56
66	Structure Wm (30 Deg)	None					56
67	Structure Wm (60 Deg)	None					56
68	Structure Wm (90 Deg)	None					56
69	Structure Wm (120 Deg)	None					56
70	Structure Wm (150 Deg)	None					56
71	Structure Wm (180 Deg)	None					56
72	Structure Wm (210 Deg)	None					56
73	Structure Wm (240 Deg)	None					56
74	Structure Wm (270 Deg)	None					56
75	Structure Wm (300 Deg)	None					56
76	Structure Wm (330 Deg)	None					56
77	Lm1	None				1	
78	Lm2	None				1	
79	Lv1	None				1	
80	Lv2	None				1	
81	Antenna Ev	None				33	
82	Antenna Eh (0 Deg)	None				22	
83	Antenna Eh (90 Deg)	None				22	
84	Structure Ev	ELY		-0.044			
85	Structure Eh (0 Deg)	ELZ			-0.109		
86	Structure Eh (90 Deg)	ELX	0.109				

Load Combinations

	Description	Solve	P-Delta	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	1.2D+1.0Wo (0 Deg)	Yes	Y	1	1.2	39	1.2	3	1	41	1								
2	1.2D+1.0Wo (30 Deg)	Yes	Y	1	1.2	39	1.2	4	1	42	1								
3	1.2D+1.0Wo (60 Deg)	Yes	Y	1	1.2	39	1.2	5	1	43	1								
4	1.2D+1.0Wo (90 Deg)	Yes	Y	1	1.2	39	1.2	6	1	44	1								
5	1.2D+1.0Wo (120 Deg)	Yes	Y	1	1.2	39	1.2	7	1	45	1								
6	1.2D+1.0Wo (150 Deg)	Yes	Y	1	1.2	39	1.2	8	1	46	1								
7	1.2D+1.0Wo (180 Deg)	Yes	Y	1	1.2	39	1.2	9	1	47	1								
8	1.2D+1.0Wo (210 Deg)	Yes	Y	1	1.2	39	1.2	10	1	48	1								
9	1.2D+1.0Wo (240 Deg)	Yes	Y	1	1.2	39	1.2	11	1	49	1								
10	1.2D+1.0Wo (270 Deg)	Yes	Y	1	1.2	39	1.2	12	1	50	1								
11	1.2D+1.0Wo (300 Deg)	Yes	Y	1	1.2	39	1.2	13	1	51	1								
12	1.2D+1.0Wo (330 Deg)	Yes	Y	1	1.2	39	1.2	14	1	52	1								
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1				
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1				
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1				
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1				
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1				
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1				
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1				
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1				
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1				

Load Combinations (Continued)

Description	Solve	P-Delta	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor
22 1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1				
23 1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1				
24 1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1				
25 1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1						
26 1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1						
27 1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1						
28 1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1						
29 1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1						
30 1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1						
31 1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1						
32 1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1						
33 1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1						
34 1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1						
35 1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1						
36 1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1						
37 1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1						
38 1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1						
39 1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1						
40 1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1						
41 1.2D + 1.5Lm2 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1						
42 1.2D + 1.5Lm2 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1						
43 1.2D + 1.5Lm2 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1						
44 1.2D + 1.5Lm2 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1						
45 1.2D + 1.5Lm2 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1						
46 1.2D + 1.5Lm2 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1						
47 1.2D + 1.5Lm2 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1						
48 1.2D + 1.5Lm2 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1						
49 1.2D + 1.5Lv1	Yes	Y	1	1.2	39	1.2	79	1.5										
50 1.2D + 1.5Lv2	Yes	Y	1	1.2	39	1.2	80	1.5										
51 1.4D	Yes	Y	1	1.4	39	1.4												
52 1.2D + 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX	
53 1.2D + 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5
54 1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866
55 1.2D + 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1
56 1.2D + 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866
57 1.2D + 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5
58 1.2D + 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX	
59 1.2D + 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5
60 1.2D + 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
61 1.2D + 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1
62 1.2D + 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
63 1.2D + 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5
64 0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX	
65 0.9D - 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5
66 0.9D - 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866
67 0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1
68 0.9D - 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866
69 0.9D - 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5
70 0.9D - 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX	
71 0.9D - 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5
72 0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
73 0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1
74 0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
75 0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5

Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	N1	3.416667	0.145833	8.083333	
2	N2	-9.083333	0.145833	8.083333	
3	N3	3.416667	3.479167	8.083333	
4	N4	-9.083333	3.479167	8.083333	
5	N5	-8.833333	0.145833	8.083333	
6	N6	-8.833333	3.479167	8.083333	
7	N7	-4.833333	0.145833	8.083333	
8	N8	-4.833333	3.479167	8.083333	
9	N9	-0.833333	0.145833	8.083333	
10	N10	-0.833333	3.479167	8.083333	
11	N11	3.166667	0.145833	8.083333	
12	N12	3.166667	3.479167	8.083333	
13	N13	-8.833333	0.145833	8.333333	
14	N14	-8.833333	3.479167	8.333333	
15	N15	-4.833333	0.145833	8.333333	
16	N16	-4.833333	3.479167	8.333333	
17	N17	-0.833333	0.145833	8.333333	
18	N18	-0.833333	3.479167	8.333333	
19	N19	3.166667	0.145833	8.333333	
20	N20	3.166667	3.479167	8.333333	
21	N21	-5.333333	0	8.083333	
22	N22	-5.333333	3.333333	8.083333	
23	N23	-0.333333	0	8.083333	
24	N24	-0.333333	3.333333	8.083333	
25	N25	-5.333333	0	7.661458	
26	N26	-5.333333	3.333333	7.661458	
27	N27	-0.333333	0	7.661458	
28	N28	-0.333333	3.333333	7.661458	
29	N29	-2.833333	0	6.119792	
30	N30	-2.833333	3.333333	6.119792	
31	N31	-3.364583	0	6.119792	
32	N32	-3.364583	3.333333	6.119792	
33	N33	-2.302083	0	6.119792	
34	N34	-2.302083	3.333333	6.119792	
35	N35	-2.833333	0	5.703125	
36	N36	-2.833333	3.333333	5.703125	
37	N39	-8.833333	5.8125	8.333333	
38	N40	-4.833333	5.8125	8.333333	
39	N41	-0.833333	5.8125	8.333333	
40	N42	3.166667	5.8125	8.333333	
41	N43	-8.833333	-2.1875	8.333333	
42	N44	-4.833333	-2.1875	8.333333	
43	N45	-0.833333	-2.1875	8.333333	
44	N46	3.166667	-2.1875	8.333333	
45	N58	-5.333333	3.333333	7.708333	
46	N76	-2.927083	0	6.119792	
47	N77	-3.229167	0	6.119792	
48	N78	-2.739583	0	6.119792	
49	N79	-2.4375	0	6.119792	
50	N80	-2.927083	3.333333	6.119792	
51	N81	-3.229167	3.333333	6.119792	
52	N82	-2.739583	3.333333	6.119792	
53	N83	-2.4375	3.333333	6.119792	
54	N58A	-2.833333	3.479167	8.083333	
55	N59	-5.333333	0.145833	8.083333	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	N60	-5.333333	3.479167	8.083333	
57	N61	-0.333333	0.145833	8.083333	
58	N62	-0.333333	3.479167	8.083333	
59	N59A	-5.833333	3.479167	8.083333	
60	N60A	0.166667	3.479167	8.083333	
61	N63	-11.318615	3.479167	-2.782156	
62	N64	-4.348958	3.333333	6.890625	
63	N65	-4.477403	3.333333	6.726598	
64	N64A	-4.477403	4.166667	6.726598	
65	N65A	-4.477403	-0.833333	6.726598	
66	N66	-4.348958	0	6.890625	
67	N67	-4.477403	0	6.726598	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	I _{yy} [in ⁴]	I _{zz} [in ⁴]	J [in ⁴]
1	Mount Pipe	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	0.627	0.627	1.25
2	Face Horizontal	PIPE 2.5	Beam	Pipe	Q235	Typical	1.61	1.45	1.45	2.89
3	Standoff Horizontal	PIPE 2.0	Beam	Pipe	Q235	Typical	1.02	0.627	0.627	1.25
4	Standoff Diagonal	SR 0.75	Beam	BAR	Q235	Typical	0.442	0.016	0.016	0.031
5	Tieback	PIPE 2.0	Beam	Pipe	Q235	Typical	1.02	0.627	0.627	1.25
6	Standoff Vertical	SR 0.625	Beam	BAR	Q235	Typical	0.307	0.007	0.007	0.015
7	Standoff Plate	PL5/8X3.5	Beam	BAR	Q235	Typical	2.188	0.071	2.233	0.253
8	tower pipe	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
9	Dual Mount Pipe	PIPE 2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e ⁶ °F ⁻¹]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	0.3	0.65	0.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	0.3	0.65	0.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	0.3	0.65	0.49	46	1.4	58	1.3
7	Q235	29000	11154	0.3	0.65	0.49	35	1.5	58	1.2

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
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	L2	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	L1	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 Horizontal	Beam	Pipe	Q235	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
16	M18	N25	N31		Standoff Horizontal	Beam	Pipe	Q235	Typical
17	M19	N27	N33		Standoff Horizontal	Beam	Pipe	Q235	Typical
18	M20	N28	N34		Standoff Horizontal	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 Diagonal	Beam	BAR	Q235	Typical
24	M26	N32	N25		Standoff Diagonal	Beam	BAR	Q235	Typical
25	M27	N33	N28		Standoff Diagonal	Beam	BAR	Q235	Typical
26	M28	N27	N34		Standoff Diagonal	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		Dual Mount Pipe	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

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lb y-y [ft]	Lcomp top [ft]	K y-y	K z-z	Channel Conn.	a [ft]	Function
1	M1	Face Horizontal	12.5		Lbyy			N/A	N/A	Lateral
2	M2	Face Horizontal	12.5		Lbyy			N/A	N/A	Lateral
3	M13	Standoff Plate	0.422					N/A	N/A	Lateral
4	M14	Standoff Plate	0.422					N/A	N/A	Lateral
5	M15	Standoff Plate	0.422					N/A	N/A	Lateral
6	M16	Standoff Plate	0.422					N/A	N/A	Lateral
7	M17	Standoff Horizontal	2.501		Lbyy	0.65	0.65	N/A	N/A	Lateral
8	M18	Standoff Horizontal	2.501		Lbyy	0.65	0.65	N/A	N/A	Lateral
9	M19	Standoff Horizontal	2.501		Lbyy	0.65	0.65	N/A	N/A	Lateral
10	M20	Standoff Horizontal	2.501		Lbyy	0.65	0.65	N/A	N/A	Lateral
11	M21	Standoff Plate	0.531	0.292				N/A	N/A	Lateral
12	M22	Standoff Plate	0.531	0.292				N/A	N/A	Lateral
13	M23	Standoff Plate	0.531	0.292				N/A	N/A	Lateral
14	M24	Standoff Plate	0.531	0.292				N/A	N/A	Lateral
15	M25	Standoff Diagonal	4.167		Lbyy	0.7	0.7	N/A	N/A	Lateral
16	M26	Standoff Diagonal	4.167		Lbyy	0.7	0.7	N/A	N/A	Lateral
17	M27	Standoff Diagonal	4.167		Lbyy	0.7	0.7	N/A	N/A	Lateral
18	M28	Standoff Diagonal	4.167		Lbyy	0.7	0.7	N/A	N/A	Lateral
19	MP4A	Mount Pipe	8		Lbyy			N/A	N/A	Lateral
20	MP3A	Dual Mount Pipe	8		Lbyy			N/A	N/A	Lateral
21	MP2A	Mount Pipe	8		Lbyy			N/A	N/A	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lb y-y [ft]	Lcomp top [ft]	K y-y	K z-z	Channel Conn.	a [ft]	Function
22	MP1A	Mount Pipe	8		Lbyy			N/A	N/A	Lateral
23	M44	Standoff Vertical	3.333		Lbyy	0.7	0.7	N/A	N/A	Lateral
24	M45	Standoff Vertical	3.333		Lbyy	0.7	0.7	N/A	N/A	Lateral
25	M46	Standoff Vertical	3.333		Lbyy	0.7	0.7	N/A	N/A	Lateral
26	M47	Standoff Vertical	3.333		Lbyy	0.7	0.7	N/A	N/A	Lateral
27	M43	Tieback	12.172		Lbyy			N/A	N/A	Lateral
28	OVP	Mount Pipe	5		Lbyy			N/A	N/A	Lateral

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-21.85	2
2	MP1A	My	-0.011	2
3	MP1A	Mz	0	2
4	MP1A	Y	-21.85	6
5	MP1A	My	-0.011	6
6	MP1A	Mz	0	6
7	MP3A	Y	-21.85	2
8	MP3A	My	-0.011	2
9	MP3A	Mz	0	2
10	MP3A	Y	-21.85	6
11	MP3A	My	-0.011	6
12	MP3A	Mz	0	6
13	MP2A	Y	-28.65	3
14	MP2A	My	-0.014	3
15	MP2A	Mz	0	3
16	MP2A	Y	-28.65	5
17	MP2A	My	-0.014	5
18	MP2A	Mz	0	5
19	MP1A	Y	-74.7	4
20	MP1A	My	0.037	4
21	MP1A	Mz	0	4
22	MP3A	Y	-79.1	4
23	MP3A	My	0.04	4
24	MP3A	Mz	0	4
25	OVP	Y	-32	1
26	OVP	My	0	1
27	OVP	Mz	0	1
28	MP4A	Y	-6	2
29	MP4A	My	-0.003	2
30	MP4A	Mz	0	2
31	MP4A	Y	-6	6
32	MP4A	My	-0.003	6
33	MP4A	Mz	0	6

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-61.582	2
2	MP1A	My	-0.031	2
3	MP1A	Mz	0	2
4	MP1A	Y	-61.582	6
5	MP1A	My	-0.031	6
6	MP1A	Mz	0	6
7	MP3A	Y	-61.582	2

Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	My	-0.031	2
9	MP3A	Mz	0	2
10	MP3A	Y	-61.582	6
11	MP3A	My	-0.031	6
12	MP3A	Mz	0	6
13	MP2A	Y	-28.012	3
14	MP2A	My	-0.014	3
15	MP2A	Mz	0	3
16	MP2A	Y	-28.012	5
17	MP2A	My	-0.014	5
18	MP2A	Mz	0	5
19	MP1A	Y	-42.217	4
20	MP1A	My	0.021	4
21	MP1A	Mz	0	4
22	MP3A	Y	-42.666	4
23	MP3A	My	0.021	4
24	MP3A	Mz	0	4
25	OVP	Y	-71.512	1
26	OVP	My	0	1
27	OVP	Mz	0	1
28	MP4A	Y	-37.916	2
29	MP4A	My	-0.019	2
30	MP4A	Mz	0	2
31	MP4A	Y	-37.916	6
32	MP4A	My	-0.019	6
33	MP4A	Mz	0	6

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2
2	MP1A	Z	-103.581	2
3	MP1A	Mx	0	2
4	MP1A	X	0	6
5	MP1A	Z	-103.581	6
6	MP1A	Mx	0	6
7	MP3A	X	0	2
8	MP3A	Z	-103.581	2
9	MP3A	Mx	0	2
10	MP3A	X	0	6
11	MP3A	Z	-103.581	6
12	MP3A	Mx	0	6
13	MP2A	X	0	3
14	MP2A	Z	-49.449	3
15	MP2A	Mx	0	3
16	MP2A	X	0	5
17	MP2A	Z	-49.449	5
18	MP2A	Mx	0	5
19	MP1A	X	0	4
20	MP1A	Z	-48.51	4
21	MP1A	Mx	0	4
22	MP3A	X	0	4
23	MP3A	Z	-58.525	4
24	MP3A	Mx	0	4
25	OVP	X	0	1
26	OVP	Z	-118.616	1

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	0	2
29	MP4A	Z	-40.843	2
30	MP4A	Mx	0	2
31	MP4A	X	0	6
32	MP4A	Z	-40.843	6
33	MP4A	Mx	0	6

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	44.399	2
2	MP1A	Z	-76.901	2
3	MP1A	Mx	-0.022	2
4	MP1A	X	44.399	6
5	MP1A	Z	-76.901	6
6	MP1A	Mx	-0.022	6
7	MP3A	X	44.399	2
8	MP3A	Z	-76.901	2
9	MP3A	Mx	-0.022	2
10	MP3A	X	44.399	6
11	MP3A	Z	-76.901	6
12	MP3A	Mx	-0.022	6
13	MP2A	X	20.715	3
14	MP2A	Z	-35.879	3
15	MP2A	Mx	-0.01	3
16	MP2A	X	20.715	5
17	MP2A	Z	-35.879	5
18	MP2A	Mx	-0.01	5
19	MP1A	X	22.26	4
20	MP1A	Z	-38.555	4
21	MP1A	Mx	0.011	4
22	MP3A	X	26.935	4
23	MP3A	Z	-46.653	4
24	MP3A	Mx	0.013	4
25	OVP	X	54.295	1
26	OVP	Z	-94.042	1
27	OVP	Mx	0	1
28	MP4A	X	25.876	2
29	MP4A	Z	-44.819	2
30	MP4A	Mx	-0.013	2
31	MP4A	X	25.876	6
32	MP4A	Z	-44.819	6
33	MP4A	Mx	-0.013	6

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	51.295	2
2	MP1A	Z	-29.615	2
3	MP1A	Mx	-0.026	2
4	MP1A	X	51.295	6
5	MP1A	Z	-29.615	6
6	MP1A	Mx	-0.026	6
7	MP3A	X	51.295	2

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	-29.615	2
9	MP3A	Mx	-0.026	2
10	MP3A	X	51.295	6
11	MP3A	Z	-29.615	6
12	MP3A	Mx	-0.026	6
13	MP2A	X	21.988	3
14	MP2A	Z	-12.695	3
15	MP2A	Mx	-0.011	3
16	MP2A	X	21.988	5
17	MP2A	Z	-12.695	5
18	MP2A	Mx	-0.011	5
19	MP1A	X	31.644	4
20	MP1A	Z	-18.27	4
21	MP1A	Mx	0.016	4
22	MP3A	X	38.589	4
23	MP3A	Z	-22.28	4
24	MP3A	Mx	0.019	4
25	OVP	X	76.677	1
26	OVP	Z	-44.27	1
27	OVP	Mx	0	1
28	MP4A	X	63.717	2
29	MP4A	Z	-36.787	2
30	MP4A	Mx	-0.032	2
31	MP4A	X	63.717	6
32	MP4A	Z	-36.787	6
33	MP4A	Mx	-0.032	6

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	44.446	2
2	MP1A	Z	0	2
3	MP1A	Mx	-0.022	2
4	MP1A	X	44.446	6
5	MP1A	Z	0	6
6	MP1A	Mx	-0.022	6
7	MP3A	X	44.446	2
8	MP3A	Z	0	2
9	MP3A	Mx	-0.022	2
10	MP3A	X	44.446	6
11	MP3A	Z	0	6
12	MP3A	Mx	-0.022	6
13	MP2A	X	17.37	3
14	MP2A	Z	0	3
15	MP2A	Mx	-0.009	3
16	MP2A	X	17.37	5
17	MP2A	Z	0	5
18	MP2A	Mx	-0.009	5
19	MP1A	X	32.549	4
20	MP1A	Z	0	4
21	MP1A	Mx	0.016	4
22	MP3A	X	39.904	4
23	MP3A	Z	0	4
24	MP3A	Mx	0.02	4
25	OVP	X	78.514	1
26	OVP	Z	0	1

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	84.484	2
29	MP4A	Z	0	2
30	MP4A	Mx	-0.042	2
31	MP4A	X	84.484	6
32	MP4A	Z	0	6
33	MP4A	Mx	-0.042	6

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	51.295	2
2	MP1A	Z	29.615	2
3	MP1A	Mx	-0.026	2
4	MP1A	X	51.295	6
5	MP1A	Z	29.615	6
6	MP1A	Mx	-0.026	6
7	MP3A	X	51.295	2
8	MP3A	Z	29.615	2
9	MP3A	Mx	-0.026	2
10	MP3A	X	51.295	6
11	MP3A	Z	29.615	6
12	MP3A	Mx	-0.026	6
13	MP2A	X	21.988	3
14	MP2A	Z	12.695	3
15	MP2A	Mx	-0.011	3
16	MP2A	X	21.988	5
17	MP2A	Z	12.695	5
18	MP2A	Mx	-0.011	5
19	MP1A	X	31.644	4
20	MP1A	Z	18.27	4
21	MP1A	Mx	0.016	4
22	MP3A	X	38.589	4
23	MP3A	Z	22.28	4
24	MP3A	Mx	0.019	4
25	OVP	X	76.677	1
26	OVP	Z	44.27	1
27	OVP	Mx	0	1
28	MP4A	X	63.717	2
29	MP4A	Z	36.787	2
30	MP4A	Mx	-0.032	2
31	MP4A	X	63.717	6
32	MP4A	Z	36.787	6
33	MP4A	Mx	-0.032	6

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	44.399	2
2	MP1A	Z	76.901	2
3	MP1A	Mx	-0.022	2
4	MP1A	X	44.399	6
5	MP1A	Z	76.901	6
6	MP1A	Mx	-0.022	6
7	MP3A	X	44.399	2

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	76.901	2
9	MP3A	Mx	-0.022	2
10	MP3A	X	44.399	6
11	MP3A	Z	76.901	6
12	MP3A	Mx	-0.022	6
13	MP2A	X	20.715	3
14	MP2A	Z	35.879	3
15	MP2A	Mx	-0.01	3
16	MP2A	X	20.715	5
17	MP2A	Z	35.879	5
18	MP2A	Mx	-0.01	5
19	MP1A	X	22.26	4
20	MP1A	Z	38.555	4
21	MP1A	Mx	0.011	4
22	MP3A	X	26.935	4
23	MP3A	Z	46.653	4
24	MP3A	Mx	0.013	4
25	OVP	X	54.295	1
26	OVP	Z	94.042	1
27	OVP	Mx	0	1
28	MP4A	X	25.876	2
29	MP4A	Z	44.819	2
30	MP4A	Mx	-0.013	2
31	MP4A	X	25.876	6
32	MP4A	Z	44.819	6
33	MP4A	Mx	-0.013	6

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2
2	MP1A	Z	103.581	2
3	MP1A	Mx	0	2
4	MP1A	X	0	6
5	MP1A	Z	103.581	6
6	MP1A	Mx	0	6
7	MP3A	X	0	2
8	MP3A	Z	103.581	2
9	MP3A	Mx	0	2
10	MP3A	X	0	6
11	MP3A	Z	103.581	6
12	MP3A	Mx	0	6
13	MP2A	X	0	3
14	MP2A	Z	49.449	3
15	MP2A	Mx	0	3
16	MP2A	X	0	5
17	MP2A	Z	49.449	5
18	MP2A	Mx	0	5
19	MP1A	X	0	4
20	MP1A	Z	48.51	4
21	MP1A	Mx	0	4
22	MP3A	X	0	4
23	MP3A	Z	58.525	4
24	MP3A	Mx	0	4
25	OVP	X	0	1
26	OVP	Z	118.616	1

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	0	2
29	MP4A	Z	40.843	2
30	MP4A	Mx	0	2
31	MP4A	X	0	6
32	MP4A	Z	40.843	6
33	MP4A	Mx	0	6

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-44.399	2
2	MP1A	Z	76.901	2
3	MP1A	Mx	0.022	2
4	MP1A	X	-44.399	6
5	MP1A	Z	76.901	6
6	MP1A	Mx	0.022	6
7	MP3A	X	-44.399	2
8	MP3A	Z	76.901	2
9	MP3A	Mx	0.022	2
10	MP3A	X	-44.399	6
11	MP3A	Z	76.901	6
12	MP3A	Mx	0.022	6
13	MP2A	X	-20.715	3
14	MP2A	Z	35.879	3
15	MP2A	Mx	0.01	3
16	MP2A	X	-20.715	5
17	MP2A	Z	35.879	5
18	MP2A	Mx	0.01	5
19	MP1A	X	-22.26	4
20	MP1A	Z	38.555	4
21	MP1A	Mx	-0.011	4
22	MP3A	X	-26.935	4
23	MP3A	Z	46.653	4
24	MP3A	Mx	-0.013	4
25	OVP	X	-54.295	1
26	OVP	Z	94.042	1
27	OVP	Mx	0	1
28	MP4A	X	-25.876	2
29	MP4A	Z	44.819	2
30	MP4A	Mx	0.013	2
31	MP4A	X	-25.876	6
32	MP4A	Z	44.819	6
33	MP4A	Mx	0.013	6

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-51.295	2
2	MP1A	Z	29.615	2
3	MP1A	Mx	0.026	2
4	MP1A	X	-51.295	6
5	MP1A	Z	29.615	6
6	MP1A	Mx	0.026	6
7	MP3A	X	-51.295	2

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	29.615	2
9	MP3A	Mx	0.026	2
10	MP3A	X	-51.295	6
11	MP3A	Z	29.615	6
12	MP3A	Mx	0.026	6
13	MP2A	X	-21.988	3
14	MP2A	Z	12.695	3
15	MP2A	Mx	0.011	3
16	MP2A	X	-21.988	5
17	MP2A	Z	12.695	5
18	MP2A	Mx	0.011	5
19	MP1A	X	-31.644	4
20	MP1A	Z	18.27	4
21	MP1A	Mx	-0.016	4
22	MP3A	X	-38.589	4
23	MP3A	Z	22.28	4
24	MP3A	Mx	-0.019	4
25	OVP	X	-76.677	1
26	OVP	Z	44.27	1
27	OVP	Mx	0	1
28	MP4A	X	-63.717	2
29	MP4A	Z	36.787	2
30	MP4A	Mx	0.032	2
31	MP4A	X	-63.717	6
32	MP4A	Z	36.787	6
33	MP4A	Mx	0.032	6

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-44.446	2
2	MP1A	Z	0	2
3	MP1A	Mx	0.022	2
4	MP1A	X	-44.446	6
5	MP1A	Z	0	6
6	MP1A	Mx	0.022	6
7	MP3A	X	-44.446	2
8	MP3A	Z	0	2
9	MP3A	Mx	0.022	2
10	MP3A	X	-44.446	6
11	MP3A	Z	0	6
12	MP3A	Mx	0.022	6
13	MP2A	X	-17.37	3
14	MP2A	Z	0	3
15	MP2A	Mx	0.009	3
16	MP2A	X	-17.37	5
17	MP2A	Z	0	5
18	MP2A	Mx	0.009	5
19	MP1A	X	-32.549	4
20	MP1A	Z	0	4
21	MP1A	Mx	-0.016	4
22	MP3A	X	-39.904	4
23	MP3A	Z	0	4
24	MP3A	Mx	-0.02	4
25	OVP	X	-78.514	1
26	OVP	Z	0	1

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	-84.484	2
29	MP4A	Z	0	2
30	MP4A	Mx	0.042	2
31	MP4A	X	-84.484	6
32	MP4A	Z	0	6
33	MP4A	Mx	0.042	6

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-51.295	2
2	MP1A	Z	-29.615	2
3	MP1A	Mx	0.026	2
4	MP1A	X	-51.295	6
5	MP1A	Z	-29.615	6
6	MP1A	Mx	0.026	6
7	MP3A	X	-51.295	2
8	MP3A	Z	-29.615	2
9	MP3A	Mx	0.026	2
10	MP3A	X	-51.295	6
11	MP3A	Z	-29.615	6
12	MP3A	Mx	0.026	6
13	MP2A	X	-21.988	3
14	MP2A	Z	-12.695	3
15	MP2A	Mx	0.011	3
16	MP2A	X	-21.988	5
17	MP2A	Z	-12.695	5
18	MP2A	Mx	0.011	5
19	MP1A	X	-31.644	4
20	MP1A	Z	-18.27	4
21	MP1A	Mx	-0.016	4
22	MP3A	X	-38.589	4
23	MP3A	Z	-22.28	4
24	MP3A	Mx	-0.019	4
25	OVP	X	-76.677	1
26	OVP	Z	-44.27	1
27	OVP	Mx	0	1
28	MP4A	X	-63.717	2
29	MP4A	Z	-36.787	2
30	MP4A	Mx	0.032	2
31	MP4A	X	-63.717	6
32	MP4A	Z	-36.787	6
33	MP4A	Mx	0.032	6

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-44.399	2
2	MP1A	Z	-76.901	2
3	MP1A	Mx	0.022	2
4	MP1A	X	-44.399	6
5	MP1A	Z	-76.901	6
6	MP1A	Mx	0.022	6
7	MP3A	X	-44.399	2

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	-76.901	2
9	MP3A	Mx	0.022	2
10	MP3A	X	-44.399	6
11	MP3A	Z	-76.901	6
12	MP3A	Mx	0.022	6
13	MP2A	X	-20.715	3
14	MP2A	Z	-35.879	3
15	MP2A	Mx	0.01	3
16	MP2A	X	-20.715	5
17	MP2A	Z	-35.879	5
18	MP2A	Mx	0.01	5
19	MP1A	X	-22.26	4
20	MP1A	Z	-38.555	4
21	MP1A	Mx	-0.011	4
22	MP3A	X	-26.935	4
23	MP3A	Z	-46.653	4
24	MP3A	Mx	-0.013	4
25	OVP	X	-54.295	1
26	OVP	Z	-94.042	1
27	OVP	Mx	0	1
28	MP4A	X	-25.876	2
29	MP4A	Z	-44.819	2
30	MP4A	Mx	0.013	2
31	MP4A	X	-25.876	6
32	MP4A	Z	-44.819	6
33	MP4A	Mx	0.013	6

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2
2	MP1A	Z	-27.243	2
3	MP1A	Mx	0	2
4	MP1A	X	0	6
5	MP1A	Z	-27.243	6
6	MP1A	Mx	0	6
7	MP3A	X	0	2
8	MP3A	Z	-27.243	2
9	MP3A	Mx	0	2
10	MP3A	X	0	6
11	MP3A	Z	-27.243	6
12	MP3A	Mx	0	6
13	MP2A	X	0	3
14	MP2A	Z	-10.774	3
15	MP2A	Mx	0	3
16	MP2A	X	0	5
17	MP2A	Z	-10.774	5
18	MP2A	Mx	0	5
19	MP1A	X	0	4
20	MP1A	Z	-11.101	4
21	MP1A	Mx	0	4
22	MP3A	X	0	4
23	MP3A	Z	-11.101	4
24	MP3A	Mx	0	4
25	OVP	X	0	1
26	OVP	Z	-21.422	1

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	0	2
29	MP4A	Z	-7.846	2
30	MP4A	Mx	0	2
31	MP4A	X	0	6
32	MP4A	Z	-7.846	6
33	MP4A	Mx	0	6

Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	12.566	2
2	MP1A	Z	-21.764	2
3	MP1A	Mx	-0.006	2
4	MP1A	X	12.566	6
5	MP1A	Z	-21.764	6
6	MP1A	Mx	-0.006	6
7	MP3A	X	12.566	2
8	MP3A	Z	-21.764	2
9	MP3A	Mx	-0.006	2
10	MP3A	X	12.566	6
11	MP3A	Z	-21.764	6
12	MP3A	Mx	-0.006	6
13	MP2A	X	4.606	3
14	MP2A	Z	-7.978	3
15	MP2A	Mx	-0.002	3
16	MP2A	X	4.606	5
17	MP2A	Z	-7.978	5
18	MP2A	Mx	-0.002	5
19	MP1A	X	5.126	4
20	MP1A	Z	-8.879	4
21	MP1A	Mx	0.003	4
22	MP3A	X	5.143	4
23	MP3A	Z	-8.908	4
24	MP3A	Mx	0.003	4
25	OVP	X	9.861	1
26	OVP	Z	-17.08	1
27	OVP	Mx	0	1
28	MP4A	X	4.823	2
29	MP4A	Z	-8.353	2
30	MP4A	Mx	-0.002	2
31	MP4A	X	4.823	6
32	MP4A	Z	-8.353	6
33	MP4A	Mx	-0.002	6

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	18.107	2
2	MP1A	Z	-10.454	2
3	MP1A	Mx	-0.009	2
4	MP1A	X	18.107	6
5	MP1A	Z	-10.454	6
6	MP1A	Mx	-0.009	6
7	MP3A	X	18.107	2

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	-10.454	2
9	MP3A	Mx	-0.009	2
10	MP3A	X	18.107	6
11	MP3A	Z	-10.454	6
12	MP3A	Mx	-0.009	6
13	MP2A	X	5.273	3
14	MP2A	Z	-3.044	3
15	MP2A	Mx	-0.003	3
16	MP2A	X	5.273	5
17	MP2A	Z	-3.044	5
18	MP2A	Mx	-0.003	5
19	MP1A	X	7.408	4
20	MP1A	Z	-4.277	4
21	MP1A	Mx	0.004	4
22	MP3A	X	7.496	4
23	MP3A	Z	-4.328	4
24	MP3A	Mx	0.004	4
25	OVP	X	14.136	1
26	OVP	Z	-8.161	1
27	OVP	Mx	0	1
28	MP4A	X	11.47	2
29	MP4A	Z	-6.622	2
30	MP4A	Mx	-0.006	2
31	MP4A	X	11.47	6
32	MP4A	Z	-6.622	6
33	MP4A	Mx	-0.006	6

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	18.797	2
2	MP1A	Z	0	2
3	MP1A	Mx	-0.009	2
4	MP1A	X	18.797	6
5	MP1A	Z	0	6
6	MP1A	Mx	-0.009	6
7	MP3A	X	18.797	2
8	MP3A	Z	0	2
9	MP3A	Mx	-0.009	2
10	MP3A	X	18.797	6
11	MP3A	Z	0	6
12	MP3A	Mx	-0.009	6
13	MP2A	X	4.527	3
14	MP2A	Z	0	3
15	MP2A	Mx	-0.002	3
16	MP2A	X	4.527	5
17	MP2A	Z	0	5
18	MP2A	Mx	-0.002	5
19	MP1A	X	7.705	4
20	MP1A	Z	0	4
21	MP1A	Mx	0.004	4
22	MP3A	X	7.841	4
23	MP3A	Z	0	4
24	MP3A	Mx	0.004	4
25	OVP	X	14.623	1
26	OVP	Z	0	1

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	15.043	2
29	MP4A	Z	0	2
30	MP4A	Mx	-0.008	2
31	MP4A	X	15.043	6
32	MP4A	Z	0	6
33	MP4A	Mx	-0.008	6

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	18.107	2
2	MP1A	Z	10.454	2
3	MP1A	Mx	-0.009	2
4	MP1A	X	18.107	6
5	MP1A	Z	10.454	6
6	MP1A	Mx	-0.009	6
7	MP3A	X	18.107	2
8	MP3A	Z	10.454	2
9	MP3A	Mx	-0.009	2
10	MP3A	X	18.107	6
11	MP3A	Z	10.454	6
12	MP3A	Mx	-0.009	6
13	MP2A	X	5.273	3
14	MP2A	Z	3.044	3
15	MP2A	Mx	-0.003	3
16	MP2A	X	5.273	5
17	MP2A	Z	3.044	5
18	MP2A	Mx	-0.003	5
19	MP1A	X	7.408	4
20	MP1A	Z	4.277	4
21	MP1A	Mx	0.004	4
22	MP3A	X	7.496	4
23	MP3A	Z	4.328	4
24	MP3A	Mx	0.004	4
25	OVP	X	14.136	1
26	OVP	Z	8.161	1
27	OVP	Mx	0	1
28	MP4A	X	11.47	2
29	MP4A	Z	6.622	2
30	MP4A	Mx	-0.006	2
31	MP4A	X	11.47	6
32	MP4A	Z	6.622	6
33	MP4A	Mx	-0.006	6

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	12.566	2
2	MP1A	Z	21.764	2
3	MP1A	Mx	-0.006	2
4	MP1A	X	12.566	6
5	MP1A	Z	21.764	6
6	MP1A	Mx	-0.006	6
7	MP3A	X	12.566	2

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	21.764	2
9	MP3A	Mx	-0.006	2
10	MP3A	X	12.566	6
11	MP3A	Z	21.764	6
12	MP3A	Mx	-0.006	6
13	MP2A	X	4.606	3
14	MP2A	Z	7.978	3
15	MP2A	Mx	-0.002	3
16	MP2A	X	4.606	5
17	MP2A	Z	7.978	5
18	MP2A	Mx	-0.002	5
19	MP1A	X	5.126	4
20	MP1A	Z	8.879	4
21	MP1A	Mx	0.003	4
22	MP3A	X	5.143	4
23	MP3A	Z	8.908	4
24	MP3A	Mx	0.003	4
25	OVP	X	9.861	1
26	OVP	Z	17.08	1
27	OVP	Mx	0	1
28	MP4A	X	4.823	2
29	MP4A	Z	8.353	2
30	MP4A	Mx	-0.002	2
31	MP4A	X	4.823	6
32	MP4A	Z	8.353	6
33	MP4A	Mx	-0.002	6

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2
2	MP1A	Z	27.243	2
3	MP1A	Mx	0	2
4	MP1A	X	0	6
5	MP1A	Z	27.243	6
6	MP1A	Mx	0	6
7	MP3A	X	0	2
8	MP3A	Z	27.243	2
9	MP3A	Mx	0	2
10	MP3A	X	0	6
11	MP3A	Z	27.243	6
12	MP3A	Mx	0	6
13	MP2A	X	0	3
14	MP2A	Z	10.774	3
15	MP2A	Mx	0	3
16	MP2A	X	0	5
17	MP2A	Z	10.774	5
18	MP2A	Mx	0	5
19	MP1A	X	0	4
20	MP1A	Z	11.101	4
21	MP1A	Mx	0	4
22	MP3A	X	0	4
23	MP3A	Z	11.101	4
24	MP3A	Mx	0	4
25	OVP	X	0	1
26	OVP	Z	21.422	1

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	0	2
29	MP4A	Z	7.846	2
30	MP4A	Mx	0	2
31	MP4A	X	0	6
32	MP4A	Z	7.846	6
33	MP4A	Mx	0	6

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-12.566	2
2	MP1A	Z	21.764	2
3	MP1A	Mx	0.006	2
4	MP1A	X	-12.566	6
5	MP1A	Z	21.764	6
6	MP1A	Mx	0.006	6
7	MP3A	X	-12.566	2
8	MP3A	Z	21.764	2
9	MP3A	Mx	0.006	2
10	MP3A	X	-12.566	6
11	MP3A	Z	21.764	6
12	MP3A	Mx	0.006	6
13	MP2A	X	-4.606	3
14	MP2A	Z	7.978	3
15	MP2A	Mx	0.002	3
16	MP2A	X	-4.606	5
17	MP2A	Z	7.978	5
18	MP2A	Mx	0.002	5
19	MP1A	X	-5.126	4
20	MP1A	Z	8.879	4
21	MP1A	Mx	-0.003	4
22	MP3A	X	-5.143	4
23	MP3A	Z	8.908	4
24	MP3A	Mx	-0.003	4
25	OVP	X	-9.861	1
26	OVP	Z	17.08	1
27	OVP	Mx	0	1
28	MP4A	X	-4.823	2
29	MP4A	Z	8.353	2
30	MP4A	Mx	0.002	2
31	MP4A	X	-4.823	6
32	MP4A	Z	8.353	6
33	MP4A	Mx	0.002	6

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-18.107	2
2	MP1A	Z	10.454	2
3	MP1A	Mx	0.009	2
4	MP1A	X	-18.107	6
5	MP1A	Z	10.454	6
6	MP1A	Mx	0.009	6
7	MP3A	X	-18.107	2

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	10.454	2
9	MP3A	Mx	0.009	2
10	MP3A	X	-18.107	6
11	MP3A	Z	10.454	6
12	MP3A	Mx	0.009	6
13	MP2A	X	-5.273	3
14	MP2A	Z	3.044	3
15	MP2A	Mx	0.003	3
16	MP2A	X	-5.273	5
17	MP2A	Z	3.044	5
18	MP2A	Mx	0.003	5
19	MP1A	X	-7.408	4
20	MP1A	Z	4.277	4
21	MP1A	Mx	-0.004	4
22	MP3A	X	-7.496	4
23	MP3A	Z	4.328	4
24	MP3A	Mx	-0.004	4
25	OVP	X	-14.136	1
26	OVP	Z	8.161	1
27	OVP	Mx	0	1
28	MP4A	X	-11.47	2
29	MP4A	Z	6.622	2
30	MP4A	Mx	0.006	2
31	MP4A	X	-11.47	6
32	MP4A	Z	6.622	6
33	MP4A	Mx	0.006	6

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-18.797	2
2	MP1A	Z	0	2
3	MP1A	Mx	0.009	2
4	MP1A	X	-18.797	6
5	MP1A	Z	0	6
6	MP1A	Mx	0.009	6
7	MP3A	X	-18.797	2
8	MP3A	Z	0	2
9	MP3A	Mx	0.009	2
10	MP3A	X	-18.797	6
11	MP3A	Z	0	6
12	MP3A	Mx	0.009	6
13	MP2A	X	-4.527	3
14	MP2A	Z	0	3
15	MP2A	Mx	0.002	3
16	MP2A	X	-4.527	5
17	MP2A	Z	0	5
18	MP2A	Mx	0.002	5
19	MP1A	X	-7.705	4
20	MP1A	Z	0	4
21	MP1A	Mx	-0.004	4
22	MP3A	X	-7.841	4
23	MP3A	Z	0	4
24	MP3A	Mx	-0.004	4
25	OVP	X	-14.623	1
26	OVP	Z	0	1

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	-15.043	2
29	MP4A	Z	0	2
30	MP4A	Mx	0.008	2
31	MP4A	X	-15.043	6
32	MP4A	Z	0	6
33	MP4A	Mx	0.008	6

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-18.107	2
2	MP1A	Z	-10.454	2
3	MP1A	Mx	0.009	2
4	MP1A	X	-18.107	6
5	MP1A	Z	-10.454	6
6	MP1A	Mx	0.009	6
7	MP3A	X	-18.107	2
8	MP3A	Z	-10.454	2
9	MP3A	Mx	0.009	2
10	MP3A	X	-18.107	6
11	MP3A	Z	-10.454	6
12	MP3A	Mx	0.009	6
13	MP2A	X	-5.273	3
14	MP2A	Z	-3.044	3
15	MP2A	Mx	0.003	3
16	MP2A	X	-5.273	5
17	MP2A	Z	-3.044	5
18	MP2A	Mx	0.003	5
19	MP1A	X	-7.408	4
20	MP1A	Z	-4.277	4
21	MP1A	Mx	-0.004	4
22	MP3A	X	-7.496	4
23	MP3A	Z	-4.328	4
24	MP3A	Mx	-0.004	4
25	OVP	X	-14.136	1
26	OVP	Z	-8.161	1
27	OVP	Mx	0	1
28	MP4A	X	-11.47	2
29	MP4A	Z	-6.622	2
30	MP4A	Mx	0.006	2
31	MP4A	X	-11.47	6
32	MP4A	Z	-6.622	6
33	MP4A	Mx	0.006	6

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-12.566	2
2	MP1A	Z	-21.764	2
3	MP1A	Mx	0.006	2
4	MP1A	X	-12.566	6
5	MP1A	Z	-21.764	6
6	MP1A	Mx	0.006	6
7	MP3A	X	-12.566	2

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	-21.764	2
9	MP3A	Mx	0.006	2
10	MP3A	X	-12.566	6
11	MP3A	Z	-21.764	6
12	MP3A	Mx	0.006	6
13	MP2A	X	-4.606	3
14	MP2A	Z	-7.978	3
15	MP2A	Mx	0.002	3
16	MP2A	X	-4.606	5
17	MP2A	Z	-7.978	5
18	MP2A	Mx	0.002	5
19	MP1A	X	-5.126	4
20	MP1A	Z	-8.879	4
21	MP1A	Mx	-0.003	4
22	MP3A	X	-5.143	4
23	MP3A	Z	-8.908	4
24	MP3A	Mx	-0.003	4
25	OVP	X	-9.861	1
26	OVP	Z	-17.08	1
27	OVP	Mx	0	1
28	MP4A	X	-4.823	2
29	MP4A	Z	-8.353	2
30	MP4A	Mx	0.002	2
31	MP4A	X	-4.823	6
32	MP4A	Z	-8.353	6
33	MP4A	Mx	0.002	6

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2
2	MP1A	Z	-5.966	2
3	MP1A	Mx	0	2
4	MP1A	X	0	6
5	MP1A	Z	-5.966	6
6	MP1A	Mx	0	6
7	MP3A	X	0	2
8	MP3A	Z	-5.966	2
9	MP3A	Mx	0	2
10	MP3A	X	0	6
11	MP3A	Z	-5.966	6
12	MP3A	Mx	0	6
13	MP2A	X	0	3
14	MP2A	Z	-2.848	3
15	MP2A	Mx	0	3
16	MP2A	X	0	5
17	MP2A	Z	-2.848	5
18	MP2A	Mx	0	5
19	MP1A	X	0	4
20	MP1A	Z	-2.794	4
21	MP1A	Mx	0	4
22	MP3A	X	0	4
23	MP3A	Z	-3.371	4
24	MP3A	Mx	0	4
25	OVP	X	0	1
26	OVP	Z	-6.832	1

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	0	2
29	MP4A	Z	-2.353	2
30	MP4A	Mx	0	2
31	MP4A	X	0	6
32	MP4A	Z	-2.353	6
33	MP4A	Mx	0	6

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.557	2
2	MP1A	Z	-4.429	2
3	MP1A	Mx	-0.001	2
4	MP1A	X	2.557	6
5	MP1A	Z	-4.429	6
6	MP1A	Mx	-0.001	6
7	MP3A	X	2.557	2
8	MP3A	Z	-4.429	2
9	MP3A	Mx	-0.001	2
10	MP3A	X	2.557	6
11	MP3A	Z	-4.429	6
12	MP3A	Mx	-0.001	6
13	MP2A	X	1.193	3
14	MP2A	Z	-2.067	3
15	MP2A	Mx	-0.000596	3
16	MP2A	X	1.193	5
17	MP2A	Z	-2.067	5
18	MP2A	Mx	-0.000596	5
19	MP1A	X	1.282	4
20	MP1A	Z	-2.221	4
21	MP1A	Mx	0.000641	4
22	MP3A	X	1.551	4
23	MP3A	Z	-2.687	4
24	MP3A	Mx	0.000775	4
25	OVP	X	3.127	1
26	OVP	Z	-5.417	1
27	OVP	Mx	0	1
28	MP4A	X	1.49	2
29	MP4A	Z	-2.582	2
30	MP4A	Mx	-0.000745	2
31	MP4A	X	1.49	6
32	MP4A	Z	-2.582	6
33	MP4A	Mx	-0.000745	6

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.955	2
2	MP1A	Z	-1.706	2
3	MP1A	Mx	-0.001	2
4	MP1A	X	2.955	6
5	MP1A	Z	-1.706	6
6	MP1A	Mx	-0.001	6
7	MP3A	X	2.955	2

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	-1.706	2
9	MP3A	Mx	-0.001	2
10	MP3A	X	2.955	6
11	MP3A	Z	-1.706	6
12	MP3A	Mx	-0.001	6
13	MP2A	X	1.267	3
14	MP2A	Z	-0.731	3
15	MP2A	Mx	-0.000634	3
16	MP2A	X	1.267	5
17	MP2A	Z	-0.731	5
18	MP2A	Mx	-0.000634	5
19	MP1A	X	1.823	4
20	MP1A	Z	-1.052	4
21	MP1A	Mx	0.000911	4
22	MP3A	X	2.223	4
23	MP3A	Z	-1.283	4
24	MP3A	Mx	0.001	4
25	OVP	X	4.417	1
26	OVP	Z	-2.55	1
27	OVP	Mx	0	1
28	MP4A	X	3.67	2
29	MP4A	Z	-2.119	2
30	MP4A	Mx	-0.002	2
31	MP4A	X	3.67	6
32	MP4A	Z	-2.119	6
33	MP4A	Mx	-0.002	6

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.56	2
2	MP1A	Z	0	2
3	MP1A	Mx	-0.001	2
4	MP1A	X	2.56	6
5	MP1A	Z	0	6
6	MP1A	Mx	-0.001	6
7	MP3A	X	2.56	2
8	MP3A	Z	0	2
9	MP3A	Mx	-0.001	2
10	MP3A	X	2.56	6
11	MP3A	Z	0	6
12	MP3A	Mx	-0.001	6
13	MP2A	X	1.001	3
14	MP2A	Z	0	3
15	MP2A	Mx	-0.0005	3
16	MP2A	X	1.001	5
17	MP2A	Z	0	5
18	MP2A	Mx	-0.0005	5
19	MP1A	X	1.875	4
20	MP1A	Z	0	4
21	MP1A	Mx	0.000938	4
22	MP3A	X	2.298	4
23	MP3A	Z	0	4
24	MP3A	Mx	0.001	4
25	OVP	X	4.522	1
26	OVP	Z	0	1

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	4.866	2
29	MP4A	Z	0	2
30	MP4A	Mx	-0.002	2
31	MP4A	X	4.866	6
32	MP4A	Z	0	6
33	MP4A	Mx	-0.002	6

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.955	2
2	MP1A	Z	1.706	2
3	MP1A	Mx	-0.001	2
4	MP1A	X	2.955	6
5	MP1A	Z	1.706	6
6	MP1A	Mx	-0.001	6
7	MP3A	X	2.955	2
8	MP3A	Z	1.706	2
9	MP3A	Mx	-0.001	2
10	MP3A	X	2.955	6
11	MP3A	Z	1.706	6
12	MP3A	Mx	-0.001	6
13	MP2A	X	1.267	3
14	MP2A	Z	0.731	3
15	MP2A	Mx	-0.000634	3
16	MP2A	X	1.267	5
17	MP2A	Z	0.731	5
18	MP2A	Mx	-0.000634	5
19	MP1A	X	1.823	4
20	MP1A	Z	1.052	4
21	MP1A	Mx	0.000911	4
22	MP3A	X	2.223	4
23	MP3A	Z	1.283	4
24	MP3A	Mx	0.001	4
25	OVP	X	4.417	1
26	OVP	Z	2.55	1
27	OVP	Mx	0	1
28	MP4A	X	3.67	2
29	MP4A	Z	2.119	2
30	MP4A	Mx	-0.002	2
31	MP4A	X	3.67	6
32	MP4A	Z	2.119	6
33	MP4A	Mx	-0.002	6

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.557	2
2	MP1A	Z	4.429	2
3	MP1A	Mx	-0.001	2
4	MP1A	X	2.557	6
5	MP1A	Z	4.429	6
6	MP1A	Mx	-0.001	6
7	MP3A	X	2.557	2

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	4.429	2
9	MP3A	Mx	-0.001	2
10	MP3A	X	2.557	6
11	MP3A	Z	4.429	6
12	MP3A	Mx	-0.001	6
13	MP2A	X	1.193	3
14	MP2A	Z	2.067	3
15	MP2A	Mx	-0.000596	3
16	MP2A	X	1.193	5
17	MP2A	Z	2.067	5
18	MP2A	Mx	-0.000596	5
19	MP1A	X	1.282	4
20	MP1A	Z	2.221	4
21	MP1A	Mx	0.000641	4
22	MP3A	X	1.551	4
23	MP3A	Z	2.687	4
24	MP3A	Mx	0.000775	4
25	OVP	X	3.127	1
26	OVP	Z	5.417	1
27	OVP	Mx	0	1
28	MP4A	X	1.49	2
29	MP4A	Z	2.582	2
30	MP4A	Mx	-0.000745	2
31	MP4A	X	1.49	6
32	MP4A	Z	2.582	6
33	MP4A	Mx	-0.000745	6

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2
2	MP1A	Z	5.966	2
3	MP1A	Mx	0	2
4	MP1A	X	0	6
5	MP1A	Z	5.966	6
6	MP1A	Mx	0	6
7	MP3A	X	0	2
8	MP3A	Z	5.966	2
9	MP3A	Mx	0	2
10	MP3A	X	0	6
11	MP3A	Z	5.966	6
12	MP3A	Mx	0	6
13	MP2A	X	0	3
14	MP2A	Z	2.848	3
15	MP2A	Mx	0	3
16	MP2A	X	0	5
17	MP2A	Z	2.848	5
18	MP2A	Mx	0	5
19	MP1A	X	0	4
20	MP1A	Z	2.794	4
21	MP1A	Mx	0	4
22	MP3A	X	0	4
23	MP3A	Z	3.371	4
24	MP3A	Mx	0	4
25	OVP	X	0	1
26	OVP	Z	6.832	1

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	0	2
29	MP4A	Z	2.353	2
30	MP4A	Mx	0	2
31	MP4A	X	0	6
32	MP4A	Z	2.353	6
33	MP4A	Mx	0	6

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-2.557	2
2	MP1A	Z	4.429	2
3	MP1A	Mx	0.001	2
4	MP1A	X	-2.557	6
5	MP1A	Z	4.429	6
6	MP1A	Mx	0.001	6
7	MP3A	X	-2.557	2
8	MP3A	Z	4.429	2
9	MP3A	Mx	0.001	2
10	MP3A	X	-2.557	6
11	MP3A	Z	4.429	6
12	MP3A	Mx	0.001	6
13	MP2A	X	-1.193	3
14	MP2A	Z	2.067	3
15	MP2A	Mx	0.000596	3
16	MP2A	X	-1.193	5
17	MP2A	Z	2.067	5
18	MP2A	Mx	0.000596	5
19	MP1A	X	-1.282	4
20	MP1A	Z	2.221	4
21	MP1A	Mx	-0.000641	4
22	MP3A	X	-1.551	4
23	MP3A	Z	2.687	4
24	MP3A	Mx	-0.000775	4
25	OVP	X	-3.127	1
26	OVP	Z	5.417	1
27	OVP	Mx	0	1
28	MP4A	X	-1.49	2
29	MP4A	Z	2.582	2
30	MP4A	Mx	0.000745	2
31	MP4A	X	-1.49	6
32	MP4A	Z	2.582	6
33	MP4A	Mx	0.000745	6

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-2.955	2
2	MP1A	Z	1.706	2
3	MP1A	Mx	0.001	2
4	MP1A	X	-2.955	6
5	MP1A	Z	1.706	6
6	MP1A	Mx	0.001	6
7	MP3A	X	-2.955	2

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	1.706	2
9	MP3A	Mx	0.001	2
10	MP3A	X	-2.955	6
11	MP3A	Z	1.706	6
12	MP3A	Mx	0.001	6
13	MP2A	X	-1.267	3
14	MP2A	Z	0.731	3
15	MP2A	Mx	0.000634	3
16	MP2A	X	-1.267	5
17	MP2A	Z	0.731	5
18	MP2A	Mx	0.000634	5
19	MP1A	X	-1.823	4
20	MP1A	Z	1.052	4
21	MP1A	Mx	-0.000911	4
22	MP3A	X	-2.223	4
23	MP3A	Z	1.283	4
24	MP3A	Mx	-0.001	4
25	OVP	X	-4.417	1
26	OVP	Z	2.55	1
27	OVP	Mx	0	1
28	MP4A	X	-3.67	2
29	MP4A	Z	2.119	2
30	MP4A	Mx	0.002	2
31	MP4A	X	-3.67	6
32	MP4A	Z	2.119	6
33	MP4A	Mx	0.002	6

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-2.56	2
2	MP1A	Z	0	2
3	MP1A	Mx	0.001	2
4	MP1A	X	-2.56	6
5	MP1A	Z	0	6
6	MP1A	Mx	0.001	6
7	MP3A	X	-2.56	2
8	MP3A	Z	0	2
9	MP3A	Mx	0.001	2
10	MP3A	X	-2.56	6
11	MP3A	Z	0	6
12	MP3A	Mx	0.001	6
13	MP2A	X	-1.001	3
14	MP2A	Z	0	3
15	MP2A	Mx	0.0005	3
16	MP2A	X	-1.001	5
17	MP2A	Z	0	5
18	MP2A	Mx	0.0005	5
19	MP1A	X	-1.875	4
20	MP1A	Z	0	4
21	MP1A	Mx	-0.000938	4
22	MP3A	X	-2.298	4
23	MP3A	Z	0	4
24	MP3A	Mx	-0.001	4
25	OVP	X	-4.522	1
26	OVP	Z	0	1

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	OVP	Mx	0	1
28	MP4A	X	-4.866	2
29	MP4A	Z	0	2
30	MP4A	Mx	0.002	2
31	MP4A	X	-4.866	6
32	MP4A	Z	0	6
33	MP4A	Mx	0.002	6

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-2.955	2
2	MP1A	Z	-1.706	2
3	MP1A	Mx	0.001	2
4	MP1A	X	-2.955	6
5	MP1A	Z	-1.706	6
6	MP1A	Mx	0.001	6
7	MP3A	X	-2.955	2
8	MP3A	Z	-1.706	2
9	MP3A	Mx	0.001	2
10	MP3A	X	-2.955	6
11	MP3A	Z	-1.706	6
12	MP3A	Mx	0.001	6
13	MP2A	X	-1.267	3
14	MP2A	Z	-0.731	3
15	MP2A	Mx	0.000634	3
16	MP2A	X	-1.267	5
17	MP2A	Z	-0.731	5
18	MP2A	Mx	0.000634	5
19	MP1A	X	-1.823	4
20	MP1A	Z	-1.052	4
21	MP1A	Mx	-0.000911	4
22	MP3A	X	-2.223	4
23	MP3A	Z	-1.283	4
24	MP3A	Mx	-0.001	4
25	OVP	X	-4.417	1
26	OVP	Z	-2.55	1
27	OVP	Mx	0	1
28	MP4A	X	-3.67	2
29	MP4A	Z	-2.119	2
30	MP4A	Mx	0.002	2
31	MP4A	X	-3.67	6
32	MP4A	Z	-2.119	6
33	MP4A	Mx	0.002	6

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-2.557	2
2	MP1A	Z	-4.429	2
3	MP1A	Mx	0.001	2
4	MP1A	X	-2.557	6
5	MP1A	Z	-4.429	6
6	MP1A	Mx	0.001	6
7	MP3A	X	-2.557	2

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP3A	Z	-4.429	2
9	MP3A	Mx	0.001	2
10	MP3A	X	-2.557	6
11	MP3A	Z	-4.429	6
12	MP3A	Mx	0.001	6
13	MP2A	X	-1.193	3
14	MP2A	Z	-2.067	3
15	MP2A	Mx	0.000596	3
16	MP2A	X	-1.193	5
17	MP2A	Z	-2.067	5
18	MP2A	Mx	0.000596	5
19	MP1A	X	-1.282	4
20	MP1A	Z	-2.221	4
21	MP1A	Mx	-0.000641	4
22	MP3A	X	-1.551	4
23	MP3A	Z	-2.687	4
24	MP3A	Mx	-0.000775	4
25	OVP	X	-3.127	1
26	OVP	Z	-5.417	1
27	OVP	Mx	0	1
28	MP4A	X	-1.49	2
29	MP4A	Z	-2.582	2
30	MP4A	Mx	0.000745	2
31	MP4A	X	-1.49	6
32	MP4A	Z	-2.582	6
33	MP4A	Mx	0.000745	6

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	L1	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	L2	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-0.951	2
2	MP1A	My	-0.000475	2
3	MP1A	Mz	0	2
4	MP1A	Y	-0.951	6

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP1A	My	-0.000475	6
6	MP1A	Mz	0	6
7	MP3A	Y	-0.951	2
8	MP3A	My	-0.000475	2
9	MP3A	Mz	0	2
10	MP3A	Y	-0.951	6
11	MP3A	My	-0.000475	6
12	MP3A	Mz	0	6
13	MP2A	Y	-1.247	3
14	MP2A	My	-0.000623	3
15	MP2A	Mz	0	3
16	MP2A	Y	-1.247	5
17	MP2A	My	-0.000623	5
18	MP2A	Mz	0	5
19	MP1A	Y	-3.251	4
20	MP1A	My	0.002	4
21	MP1A	Mz	0	4
22	MP3A	Y	-3.442	4
23	MP3A	My	0.002	4
24	MP3A	Mz	0	4
25	OVP	Y	-1.393	1
26	OVP	My	0	1
27	OVP	Mz	0	1
28	MP4A	Y	-0.261	2
29	MP4A	My	-0.000131	2
30	MP4A	Mz	0	2
31	MP4A	Y	-0.261	6
32	MP4A	My	-0.000131	6
33	MP4A	Mz	0	6

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Z	-2.377	2
2	MP1A	Mx	0	2
3	MP1A	Z	-2.377	6
4	MP1A	Mx	0	6
5	MP3A	Z	-2.377	2
6	MP3A	Mx	0	2
7	MP3A	Z	-2.377	6
8	MP3A	Mx	0	6
9	MP2A	Z	-3.117	3
10	MP2A	Mx	0	3
11	MP2A	Z	-3.117	5
12	MP2A	Mx	0	5
13	MP1A	Z	-8.127	4
14	MP1A	Mx	0	4
15	MP3A	Z	-8.606	4
16	MP3A	Mx	0	4
17	OVP	Z	-3.482	1
18	OVP	Mx	0	1
19	MP4A	Z	-0.653	2
20	MP4A	Mx	0	2
21	MP4A	Z	-0.653	6
22	MP4A	Mx	0	6

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.377	2
2	MP1A	Mx	-0.001	2
3	MP1A	X	2.377	6
4	MP1A	Mx	-0.001	6
5	MP3A	X	2.377	2
6	MP3A	Mx	-0.001	2
7	MP3A	X	2.377	6
8	MP3A	Mx	-0.001	6
9	MP2A	X	3.117	3
10	MP2A	Mx	-0.002	3
11	MP2A	X	3.117	5
12	MP2A	Mx	-0.002	5
13	MP1A	X	8.127	4
14	MP1A	Mx	0.004	4
15	MP3A	X	8.606	4
16	MP3A	Mx	0.004	4
17	OVP	X	3.482	1
18	OVP	Mx	0	1
19	MP4A	X	0.653	2
20	MP4A	Mx	-0.000326	2
21	MP4A	X	0.653	6
22	MP4A	Mx	-0.000326	6

Member Area Loads

No Data to Print...													
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Envelope Node Reactions

Node Label			X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N35	max	1352.735	34	971.479	22	1267.583	13	-0.133	69	0.434	8	0.233	35
2		min	-523.5	49	322.384	67	-92.254	7	-0.412	24	-0.358	2	-0.102	49
3	N36	max	509.809	49	945.675	16	500.142	2	-0.126	72	0.159	8	0.223	35
4		min	-1316.538	27	315.251	73	-1476.199	8	-0.39	14	-0.122	2	-0.098	49
5	N63	max	269.478	11	53.55	16	517.315	11	0	75	0	75	0	75
6		min	-282.872	5	18.09	73	-543.824	5	0	1	0	1	0	1
7	Totals:	max	973.848	9	1963.357	21	1450.924	1						
8		min	-973.848	3	658	67	-1450.921	7						

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

Member	Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M1	PIPE 2.5	0.265	8.724	36	0.071	3.776		44	14558.792	50715	3.596	3.596	1	H1-1b	
2	M2	PIPE 2.5	0.252	8.724	32	0.066	8.724		31	14558.792	50715	3.596	3.596	1	H1-1b	
3	M13	PL5/8X3.5	0.125	0.422	20	0.136	0.422	y	8	66184.77	68906.25	0.897	5.024	1.667	H1-1b	
4	M14	PL5/8X3.5	0.147	0	41	0.081	0.422	y	2	66184.77	68906.25	0.897	5.024	1.667	H1-1b	
5	M15	PL5/8X3.5	0.239	0	35	0.09	0.422	y	12	66184.77	68906.25	0.897	5.024	1.667	H1-1b	
6	M16	PL5/8X3.5	0.178	0	36	0.098	0.422	y	7	66184.77	68906.25	0.897	5.024	1.667	H1-1b	
7	M17	PIPE 2.0	0.139	0	8	0.054	0		14	31128.25	32130	1.872	1.872	1	H1-1b	
8	M18	PIPE 2.0	0.09	2.501	11	0.059	0		38	31128.25	32130	1.872	1.872	1	H1-1b	
9	M19	PIPE 2.0	0.124	2.501	8	0.08	0		35	31128.25	32130	1.872	1.872	1	H1-1b	
10	M20	PIPE 2.0	0.109	2.501	8	0.068	0		36	31128.25	32130	1.872	1.872	1	H1-1b	
11	M21	PL5/8X3.5	0.251	0.531	44	0.07	0.531	y	8	67591.76	68906.25	0.897	5.024	1.733	H1-1b	
12	M22	PL5/8X3.5	0.378	0.531	32	0.055	0.531	y	31	67591.76	68906.25	0.897	5.024	1.661	H1-1b	
13	M23	PL5/8X3.5	0.264	0.531	37	0.03	0.531	y	1	67591.76	68906.25	0.897	5.024	1.575	H1-1b	

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

	Member	Shape	Code	Check	Loc [ft]	LC	Shear	Check	Loc [ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
14	M24	PL5/8X3.5	0.361	0.531	25	0.052	0.133	y	25	67591.76	68906.25	0.897		5.024	2.005	H1-1b	
15	M25	SR 0.75	0	4.167	75	0.008	4.167		7	2863.936	13916.259	0.174		0.174	1	H1-1a	
16	M26	SR 0.75	0.053	0	42	0.013	4.167		2	2863.936	13916.259	0.174		0.174	1	H1-1b*	
17	M27	SR 0.75	0	4.167	75	0.007	4.167		26	2863.936	13916.259	0.174		0.174	1	H1-1a	
18	M28	SR 0.75	0.078	4.167	32	0.018	4.167		35	2863.936	13916.259	0.174		0.174	1	H1-1b*	
19	MP4A	PIPE 2.0	0.215	5.667	49	0.036	2.333	10	14916.096	32130	1.872			1.872	1	H1-1b	
20	MP3A	PIPE 2.5	0.099	2.333	34	0.03	4.083	11	30038.461	50715	3.596			3.596	1	H1-1b	
21	MP2A	PIPE 2.0	0.159	2.333	29	0.039	2.333	32	14916.096	32130	1.872			1.872	1	H1-1b	
22	MP1A	PIPE 2.0	0.418	2.333	29	0.064	2.333	29	14916.096	32130	1.872			1.872	1	H1-1b	
23	M44	SR 0.625	0.033	1.667	11	0.013	3.333	35	2158.269	9664.074	0.101			0.101	1	H1-1b	
24	M45	SR 0.625	0.037	1.667	8	0.003	3.333	9	2158.269	9664.074	0.101			0.101	1	H1-1b	
25	M46	SR 0.625	0.034	1.667	7	0.003	3.333	18	2158.269	9664.074	0.101			0.101	1	H1-1b	
26	M47	SR 0.625	0.033	1.667	7	0.014	3.333	35	2158.269	9664.074	0.101			0.101	1	H1-1b	
27	M43	PIPE 2.0	0.115	6.086	9	0.006	12.172	21	6639.747	32130	1.872			1.872	1	H1-1b	
28	OVP	PIPE 2.0	0.011	1.719	7	0.039	0.833	11	23808.54	32130	1.872			1.872	1	H1-1b	

Node Reactions

LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	N35	115.576	453.689	1094.336	-0.214	-0.19	0.006
2	N36	-103.5	442.874	371.308	-0.212	-0.114	0.005
3	N63	-12.074	25.349	-14.72	0	0	0
4	Totals:	0.002	921.913	1450.924			
5	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
6	N35	-155.672	445.871	951.731	-0.204	-0.358	-0.013
7	N36	-359.154	450.667	500.142	-0.218	-0.122	-0.015
8	N63	-166.75	25.375	-271.382	0	0	0
9	Totals:	-681.576	921.912	1180.491			
10	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
11	N35	-258.832	442.349	694.504	-0.191	-0.324	-0.018
12	N36	-476.551	454.178	240.045	-0.209	-0.073	-0.02
13	N63	-238.465	25.385	-372.318	0	0	0
14	Totals:	-973.848	921.912	562.231			
15	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
16	N35	-260.001	440.039	476.981	-0.181	-0.286	-0.024
17	N36	-436.83	456.479	-0.14	-0.2	-0.022	-0.025
18	N63	-276.825	25.395	-476.857	0	0	0
19	Totals:	-973.656	921.912	-0.015			
20	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
21	N35	-256.551	438.9	259.747	-0.172	-0.259	-0.029
22	N36	-379.831	457.61	-246.663	-0.19	0.02	-0.031
23	N63	-282.872	25.402	-543.824	0	0	0
24	Totals:	-919.254	921.913	-530.74			
25	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
26	N35	-155.705	443.239	15.571	-0.164	-0.06	-0.018
27	N36	-307.882	453.29	-772.061	-0.169	0.083	-0.019
28	N63	-186.471	25.383	-369.426	0	0	0
29	Totals:	-650.058	921.913	-1125.916			
30	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
31	N35	113.193	452.534	-92.254	-0.165	0.264	0.009
32	N36	-111.354	444.031	-1345.829	-0.146	0.15	0.009
33	N63	-1.842	25.348	-12.837	0	0	0
34	Totals:	-0.002	921.913	-1450.921			
35	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
36	N35	384.426	460.336	50.585	-0.175	0.434	0.028
37	N36	143.795	436.25	-1476.199	-0.14	0.159	0.028

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
38	8	N63	153.354	25.327	245.126	0	0	0
39	8	Totals:	681.575	921.913	-1180.487			
40	8	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
41	9	N35	487.567	463.896	307.886	-0.188	0.4	0.034
42	9	N36	260.778	432.695	-1217.037	-0.149	0.11	0.033
43	9	N63	225.503	25.321	346.924	0	0	0
44	9	Totals:	973.848	921.913	-562.227			
45	9	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
46	10	N35	488.735	466.21	525.378	-0.198	0.36	0.039
47	10	N36	221.298	430.386	-976.238	-0.158	0.057	0.039
48	10	N63	263.623	25.317	450.879	0	0	0
49	10	Totals:	973.655	921.913	0.019			
50	10	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
51	11	N35	485.364	467.346	742.569	-0.207	0.332	0.045
52	11	N36	164.411	429.252	-729.14	-0.168	0.014	0.045
53	11	N63	269.478	25.315	517.315	0	0	0
54	11	Totals:	919.253	921.913	530.744			
55	11	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
56	12	N35	384.555	463.022	986.552	-0.214	0.132	0.033
57	12	N36	92.662	433.567	-202.925	-0.189	-0.05	0.033
58	12	N63	172.84	25.324	342.292	0	0	0
59	12	Totals:	650.057	921.913	1125.919			
60	12	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
61	13	N35	142.465	967.679	1267.583	-0.411	0.003	-0.006
62	13	N36	-125.036	942.154	-839.994	-0.388	-0.002	-0.007
63	13	N63	-17.429	53.524	-31.7	0	0	0
64	13	Totals:	0	1963.357	395.889			
65	13	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
66	14	N35	64.548	965.434	1230.13	-0.409	-0.051	-0.012
67	14	N36	-192.839	944.383	-795.315	-0.39	-0.005	-0.013
68	14	N63	-62.131	53.54	-105.004	0	0	0
69	14	Totals:	-190.423	1963.357	329.81			
70	14	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
71	15	N35	28.548	964.38	1159.364	-0.405	-0.051	-0.014
72	15	N36	-228.809	945.43	-852.617	-0.388	0.009	-0.015
73	15	N63	-86.715	53.547	-141.069	0	0	0
74	15	Totals:	-286.975	1963.357	165.678			
75	15	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
76	16	N35	23.183	964.132	1093.568	-0.403	-0.036	-0.015
77	16	N36	-226.624	945.675	-930.279	-0.384	0.026	-0.016
78	16	N63	-93.511	53.55	-163.291	0	0	0
79	16	Totals:	-296.951	1963.357	-0.002			
80	16	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
81	17	N35	28.441	964.314	1028.376	-0.4	-0.015	-0.015
82	17	N36	-213.18	945.493	-1020.145	-0.381	0.042	-0.016
83	17	N63	-85.464	53.55	-164.229	0	0	0
84	17	Totals:	-270.203	1963.357	-155.999			
85	17	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
86	18	N35	63.837	965.542	961.929	-0.398	0.043	-0.012
87	18	N36	-188.741	944.275	-1164.36	-0.375	0.061	-0.013
88	18	N63	-55.836	53.539	-110.608	0	0	0
89	18	Totals:	-180.74	1963.357	-313.039			
90	18	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
91	19	N35	141.34	967.93	934.043	-0.399	0.13	-0.004
92	19	N36	-133.563	941.907	-1311.693	-0.369	0.079	-0.005

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
93	19	N63	-7.779	53.52	-18.233	0	0	0
94	19	Totals:	-0.001	1963.357	-395.883			
95	19	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
96	20	N35	219.257	970.173	971.515	-0.401	0.184	0.001
97	20	N36	-65.791	939.68	-1356.474	-0.367	0.082	0
98	20	N63	36.955	53.504	55.155	0	0	0
99	20	Totals:	190.422	1963.357	-329.805			
100	20	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
101	21	N35	255.258	971.229	1042.289	-0.405	0.184	0.003
102	21	N36	-29.857	938.63	-1299.253	-0.369	0.068	0.002
103	21	N63	61.574	53.497	91.292	0	0	0
104	21	Totals:	286.974	1963.357	-165.672			
105	21	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
106	22	N35	260.625	971.479	1108.082	-0.407	0.168	0.004
107	22	N36	-32.039	938.383	-1221.569	-0.372	0.051	0.003
108	22	N63	68.364	53.494	113.494	0	0	0
109	22	Totals:	296.95	1963.357	0.008			
110	22	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
111	23	N35	255.371	971.297	1173.268	-0.41	0.147	0.004
112	23	N36	-45.471	938.565	-1131.65	-0.376	0.035	0.004
113	23	N63	60.302	53.495	114.387	0	0	0
114	23	Totals:	270.202	1963.357	156.004			
115	23	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
116	24	N35	219.974	970.069	1239.698	-0.412	0.089	0.001
117	24	N36	-69.883	939.783	-987.359	-0.382	0.016	0
118	24	N63	30.649	53.505	60.705	0	0	0
119	24	Totals:	180.739	1963.357	313.045			
120	24	COG (ft):	X: -2.828	Y: 1.956	Z: 7.666			
121	25	N35	1331.243	827.751	973.32	-0.353	0.259	0.23
122	25	N36	-1295.13	818.812	-818.736	-0.339	0.022	0.221
123	25	N63	-36.115	25.349	-71.001	0	0	0
124	25	Totals:	-0.002	1671.913	83.583			
125	25	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
126	26	N35	1315.59	827.313	965.066	-0.352	0.249	0.229
127	26	N36	-1309.803	819.25	-811.23	-0.339	0.021	0.22
128	26	N63	-45.044	25.35	-85.83	0	0	0
129	26	Totals:	-39.257	1671.913	68.007			
130	26	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
131	27	N35	1309.633	827.109	950.256	-0.351	0.251	0.229
132	27	N36	-1316.538	819.454	-826.18	-0.339	0.024	0.22
133	27	N63	-49.194	25.35	-91.681	0	0	0
134	27	Totals:	-56.099	1671.913	32.395			
135	27	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
136	28	N35	1309.566	826.978	937.742	-0.351	0.253	0.229
137	28	N36	-1314.25	819.585	-840.041	-0.338	0.027	0.219
138	28	N63	-51.399	25.35	-97.692	0	0	0
139	28	Totals:	-56.084	1671.913	0.01			
140	28	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
141	29	N35	1309.75	826.914	925.243	-0.35	0.255	0.228
142	29	N36	-1310.955	819.649	-854.254	-0.338	0.029	0.219
143	29	N63	-51.749	25.35	-101.548	0	0	0
144	29	Totals:	-52.954	1671.913	-30.56			
145	29	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
146	30	N35	1315.551	827.152	911.223	-0.35	0.266	0.229
147	30	N36	-1306.803	819.411	-884.578	-0.336	0.033	0.22

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
148	30	N63	-46.19	25.35	-91.487	0	0	0
149	30	Totals:	-37.441	1671.913	-64.842			
150	30	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
151	31	N35	1331.058	827.667	905.074	-0.35	0.285	0.23
152	31	N36	-1295.517	818.897	-917.704	-0.335	0.037	0.221
153	31	N63	-35.543	25.349	-70.931	0	0	0
154	31	Totals:	-0.002	1671.913	-83.561			
155	31	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
156	32	N35	1346.711	828.104	913.328	-0.35	0.295	0.232
157	32	N36	-1280.846	818.46	-925.215	-0.335	0.037	0.223
158	32	N63	-26.612	25.349	-56.098	0	0	0
159	32	Totals:	39.253	1671.913	-67.985			
160	32	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
161	33	N35	1352.669	828.309	928.139	-0.351	0.293	0.232
162	33	N36	-1274.112	818.256	-910.268	-0.335	0.034	0.223
163	33	N63	-22.461	25.348	-50.244	0	0	0
164	33	Totals:	56.095	1671.913	-32.373			
165	33	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
166	34	N35	1352.735	828.44	940.652	-0.352	0.291	0.232
167	34	N36	-1276.399	818.124	-896.406	-0.336	0.031	0.223
168	34	N63	-20.257	25.348	-44.235	0	0	0
169	34	Totals:	56.08	1671.913	0.012			
170	34	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
171	35	N35	1352.552	828.504	953.152	-0.352	0.289	0.233
172	35	N36	-1279.694	818.06	-882.19	-0.336	0.029	0.223
173	35	N63	-19.907	25.348	-40.38	0	0	0
174	35	Totals:	52.95	1671.913	30.581			
175	35	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
176	36	N35	1346.751	828.266	967.171	-0.353	0.277	0.232
177	36	N36	-1283.846	818.298	-851.864	-0.338	0.025	0.223
178	36	N63	-25.468	25.349	-50.444	0	0	0
179	36	Totals:	37.438	1671.913	64.863			
180	36	COG (ft):	X: -0.033	Y: 1.134	Z: 7.862			
181	37	N35	-282.08	833.898	975.119	-0.356	0.053	-0.083
182	37	N36	295.316	812.663	-865.853	-0.332	0.035	-0.083
183	37	N63	-13.236	25.352	-25.691	0	0	0
184	37	Totals:	-0.001	1671.913	83.575			
185	37	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
186	38	N35	-297.682	833.449	966.916	-0.356	0.043	-0.084
187	38	N36	280.587	813.109	-858.406	-0.333	0.034	-0.084
188	38	N63	-22.16	25.355	-40.511	0	0	0
189	38	Totals:	-39.256	1671.913	67.999			
190	38	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
191	39	N35	-303.629	833.243	952.096	-0.355	0.045	-0.084
192	39	N36	273.838	813.314	-873.352	-0.332	0.037	-0.084
193	39	N63	-26.307	25.356	-46.356	0	0	0
194	39	Totals:	-56.098	1671.913	32.387			
195	39	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
196	40	N35	-303.699	833.107	939.562	-0.354	0.047	-0.084
197	40	N36	276.126	813.449	-887.198	-0.332	0.04	-0.085
198	40	N63	-28.51	25.357	-52.362	0	0	0
199	40	Totals:	-56.083	1671.913	0.002			
200	40	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
201	41	N35	-303.507	833.038	927.047	-0.354	0.049	-0.085
202	41	N36	279.409	813.517	-901.403	-0.331	0.042	-0.085

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
203	41	N63	-28.856	25.358	-56.211	0	0	0
204	41	Totals:	-52.953	1671.913	-30.567			
205	41	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
206	42	N35	-297.716	833.284	912.971	-0.353	0.06	-0.084
207	42	N36	283.572	813.273	-931.673	-0.33	0.046	-0.084
208	42	N63	-23.296	25.356	-46.147	0	0	0
209	42	Totals:	-37.44	1671.913	-64.85			
210	42	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
211	43	N35	-282.261	833.819	906.733	-0.353	0.079	-0.082
212	43	N36	294.915	812.743	-964.704	-0.329	0.05	-0.083
213	43	N63	-12.655	25.352	-25.598	0	0	0
214	43	Totals:	-0.001	1671.913	-83.569			
215	43	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
216	44	N35	-266.658	834.268	914.936	-0.354	0.088	-0.081
217	44	N36	309.642	812.296	-972.155	-0.328	0.05	-0.081
218	44	N63	-3.729	25.349	-10.774	0	0	0
219	44	Totals:	39.254	1671.913	-67.993			
220	44	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
221	45	N35	-260.712	834.474	929.757	-0.355	0.086	-0.081
222	45	N36	316.39	812.091	-957.213	-0.329	0.048	-0.081
223	45	N63	0.419	25.348	-4.925	0	0	0
224	45	Totals:	56.096	1671.913	-32.381			
225	45	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
226	46	N35	-260.642	834.61	942.29	-0.355	0.084	-0.081
227	46	N36	314.103	811.956	-943.364	-0.329	0.045	-0.081
228	46	N63	2.621	25.347	1.078	0	0	0
229	46	Totals:	56.081	1671.913	0.004			
230	46	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
231	47	N35	-260.834	834.679	954.805	-0.356	0.083	-0.08
232	47	N36	310.819	811.888	-929.158	-0.33	0.042	-0.081
233	47	N63	2.966	25.346	4.926	0	0	0
234	47	Totals:	52.952	1671.913	30.574			
235	47	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
236	48	N35	-266.624	834.433	968.881	-0.356	0.071	-0.081
237	48	N36	306.658	812.132	-898.885	-0.331	0.038	-0.081
238	48	N63	-2.595	25.348	-5.141	0	0	0
239	48	Totals:	37.439	1671.913	64.856			
240	48	COG (ft):	X: -3.622	Y: 1.134	Z: 7.862			
241	49	N35	-523.5	646.349	724.529	-0.271	-0.123	-0.102
242	49	N36	509.809	625.223	-751.657	-0.251	0.008	-0.098
243	49	N63	13.692	25.34	27.124	0	0	0
244	49	Totals:	0.001	1296.912	-0.004			
245	49	COG (ft):	X: -4.5	Y: 1.42	Z: 7.798			
246	50	N35	115.684	636.052	720.881	-0.266	0.057	0.005
247	50	N36	-105.74	635.511	-701.18	-0.262	0.026	0.004
248	50	N63	-9.944	25.35	-19.699	0	0	0
249	50	Totals:	-0.001	1296.913	0.003			
250	50	COG (ft):	X: -2.693	Y: 1.42	Z: 7.798			
251	51	N35	133.445	528.606	584.608	-0.221	0.043	0.009
252	51	N36	-125.868	517.386	-569.596	-0.209	0.02	0.008
253	51	N63	-7.578	29.573	-15.01	0	0	0
254	51	Totals:	0	1075.565	0.002			
255	51	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
256	52	N35	118.713	469.749	553.209	-0.198	0.024	0.008
257	52	N36	-110.255	459.331	-455.166	-0.188	0.01	0.007

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
258	52	N63	-8.458	26.268	-14.456	0	0	0
259	52	Totals:	0	955.347	83.586			
260	52	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
261	53	N35	101.495	469.159	547.695	-0.197	0.013	0.006
262	53	N36	-124.605	459.919	-442.568	-0.188	0.01	0.005
263	53	N63	-18.683	26.27	-32.742	0	0	0
264	53	Totals:	-41.794	955.347	72.385			
265	53	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
266	54	N35	88.844	468.682	534.565	-0.196	0.008	0.006
267	54	N36	-135.524	460.395	-446.945	-0.188	0.011	0.005
268	54	N63	-25.706	26.271	-45.827	0	0	0
269	54	Totals:	-72.386	955.347	41.793			
270	54	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
271	55	N35	84.147	468.445	517.333	-0.195	0.011	0.005
272	55	N36	-140.089	460.631	-467.125	-0.188	0.015	0.004
273	55	N63	-27.645	26.271	-50.208	0	0	0
274	55	Totals:	-83.587	955.347	0.001			
275	55	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
276	56	N35	88.667	468.513	500.619	-0.195	0.022	0.006
277	56	N36	-137.073	460.564	-497.702	-0.186	0.019	0.005
278	56	N63	-23.98	26.27	-44.708	0	0	0
279	56	Totals:	-72.386	955.347	-41.791			
280	56	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
281	57	N35	101.188	468.866	488.902	-0.194	0.037	0.007
282	57	N36	-127.287	460.212	-530.48	-0.185	0.023	0.006
283	57	N63	-15.695	26.269	-30.805	0	0	0
284	57	Totals:	-41.794	955.347	-72.383			
285	57	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
286	58	N35	118.359	469.41	485.319	-0.195	0.052	0.008
287	58	N36	-113.351	459.67	-556.682	-0.184	0.026	0.007
288	58	N63	-5.008	26.267	-12.219	0	0	0
289	58	Totals:	0	955.347	-83.583			
290	58	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
291	59	N35	135.577	470	490.833	-0.195	0.064	0.01
292	59	N36	-99.002	459.082	-569.284	-0.183	0.026	0.009
293	59	N63	5.217	26.266	6.069	0	0	0
294	59	Totals:	41.793	955.347	-72.382			
295	59	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
296	60	N35	148.229	470.476	503.964	-0.196	0.069	0.01
297	60	N36	-88.084	458.606	-564.911	-0.183	0.024	0.009
298	60	N63	12.241	26.265	19.157	0	0	0
299	60	Totals:	72.385	955.347	-41.79			
300	60	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
301	61	N35	152.925	470.713	521.196	-0.197	0.066	0.011
302	61	N36	-83.52	458.37	-544.732	-0.184	0.021	0.01
303	61	N63	14.181	26.265	23.539	0	0	0
304	61	Totals:	83.586	955.347	0.003			
305	61	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
306	62	N35	148.406	470.646	537.909	-0.198	0.055	0.01
307	62	N36	-86.536	458.436	-514.152	-0.185	0.016	0.009
308	62	N63	10.516	26.265	18.038	0	0	0
309	62	Totals:	72.386	955.347	41.795			
310	62	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
311	63	N35	135.884	470.293	549.626	-0.198	0.04	0.009
312	63	N36	-96.321	458.788	-481.37	-0.186	0.012	0.008

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
313	63	N63	2.23	26.266	4.131	0	0	0
314	63	Totals:	41.793	955.347	72.387			
315	63	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
316	64	N35	81.823	323.688	391.59	-0.137	0.013	0.005
317	64	N36	-75.458	316.22	-297.694	-0.13	0.005	0.004
318	64	N63	-6.365	18.092	-10.311	0	0	0
319	64	Totals:	0	658	83.586			
320	64	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
321	65	N35	64.605	323.097	386.078	-0.136	0.001	0.004
322	65	N36	-89.808	316.81	-285.098	-0.13	0.004	0.003
323	65	N63	-16.59	18.093	-28.595	0	0	0
324	65	Totals:	-41.793	658	72.385			
325	65	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
326	66	N35	51.956	322.619	372.948	-0.135	-0.004	0.003
327	66	N36	-100.731	317.287	-289.477	-0.13	0.006	0.002
328	66	N63	-23.612	18.094	-41.679	0	0	0
329	66	Totals:	-72.386	658	41.793			
330	66	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
331	67	N35	47.263	322.384	355.716	-0.134	-0.001	0.003
332	67	N36	-105.299	317.522	-309.657	-0.13	0.009	0.002
333	67	N63	-25.551	18.094	-46.059	0	0	0
334	67	Totals:	-83.587	658	0			
335	67	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
336	68	N35	51.786	322.453	339	-0.134	0.01	0.004
337	68	N36	-102.287	317.453	-340.233	-0.129	0.014	0.003
338	68	N63	-21.886	18.094	-40.559	0	0	0
339	68	Totals:	-72.386	658	-41.792			
340	68	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
341	69	N35	64.311	322.808	327.281	-0.133	0.025	0.005
342	69	N36	-92.504	317.099	-373.008	-0.127	0.018	0.004
343	69	N63	-13.601	18.093	-26.656	0	0	0
344	69	Totals:	-41.794	658	-72.384			
345	69	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
346	70	N35	81.484	323.355	323.696	-0.134	0.04	0.006
347	70	N36	-78.57	316.553	-399.208	-0.126	0.02	0.005
348	70	N63	-2.914	18.092	-8.071	0	0	0
349	70	Totals:	0	658	-83.583			
350	70	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
351	71	N35	98.702	323.946	329.209	-0.134	0.052	0.007
352	71	N36	-64.22	315.963	-411.807	-0.126	0.02	0.006
353	71	N63	7.311	18.09	10.216	0	0	0
354	71	Totals:	41.793	658	-72.382			
355	71	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
356	72	N35	111.351	324.423	342.339	-0.135	0.057	0.008
357	72	N36	-53.299	315.487	-407.432	-0.126	0.019	0.007
358	72	N63	14.334	18.09	23.302	0	0	0
359	72	Totals:	72.386	658	-41.79			
360	72	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
361	73	N35	116.044	324.659	359.571	-0.136	0.054	0.008
362	73	N36	-48.732	315.251	-387.253	-0.126	0.015	0.007
363	73	N63	16.273	18.09	27.684	0	0	0
364	73	Totals:	83.586	658	0.002			
365	73	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
366	74	N35	111.521	324.59	376.286	-0.137	0.043	0.008
367	74	N36	-51.743	315.32	-356.674	-0.127	0.011	0.007

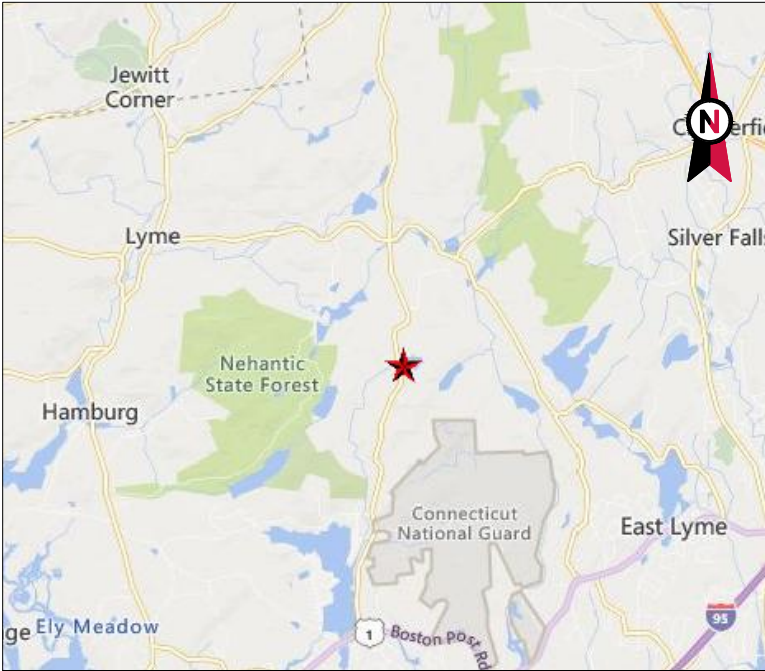
Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
368	74	N63	12.608	18.09	22.182	0	0	0
369	74	Totals:	72.386	658	41.794			
370	74	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			
371	75	N35	98.996	324.235	388.005	-0.137	0.028	0.006
372	75	N36	-61.525	315.674	-323.895	-0.129	0.007	0.006
373	75	N63	4.322	18.091	8.276	0	0	0
374	75	Totals:	41.793	658	72.386			
375	75	COG (ft):	X: -2.636	Y: 1.938	Z: 7.682			

No

EXHIBIT D

Construction Drawings



VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: OLD LYME
ATC SITE NUMBER: 88016
VERIZON SITE NAME: LAYSVILLE NORTH CT
VERIZON SITE NUMBER: 5000247020
VERIZON FUZE PID: 16272182
SITE ADDRESS: GRASSY HILL ROAD
OLD LYME, CT 06371



LOCATION MAP

BIRD WATCH SITE:
PLEASE CONTACT BIRD.WATCH@AMERICANTOWER.COM OR
AMERICAN TOWER NOC AT 877-518-6937 FOR ASSISTANCE

VERIZON AMENDMENT DRAWINGS

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. 2021 IBC NATIONAL ELECTRICAL CODE (NFPA 70, NEC 2020 W/ AMND) 2022 CONNECTICUT STATE BUILDING CODE, IMC PORTION (IMC 2021 W/ AMND) 2022 CONNECTICUT STATE BUILDING CODE, IPC PORTION (IPC 2021 W/ AMND) 2022 CONNECTICUT STATE BUILDING CODE, IECC PORTION (IECC 2021 W/ AMND) PART III OF THE 2022 CT STATE FIRE SAFETY CODE (IFC 2021 W/ AMND) 2022 CONNECTICUT STATE BUILDING CODE, IEBC PORTION (IEBC 2021 W/ AMND) 2022 CONNECTICUT STATE BUILDING CODE 2022 CONNECTICUT STATE BUILDING CODE, IRC PORTION (IRC 2021 W/ AMND) CONNECTICUT STATE FUEL GAS CODE (IFGC 2021 W/ AMND)	<u>SITE ADDRESS:</u> GRASSY HILL ROAD OLD LYME, CT 06371 COUNTY: NEW LONDON <u>REGISTERED COORDINATES:</u> LATITUDE: 41.39182499 41° 23' 30.57" N LONGITUDE: -72.28592777 72° 17' 9.34" W GROUND ELEVATION: 360' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: REMOVE (3) SECTOR FRAME(S), (6) ANTENNA(s), (6) DIPLEXER(s), AND (2) 1-5/8" HYBRIFLEX CABLE(s) INSTALL (3) SECTOR FRAME(S), (6) ANTENNA(s), (6) RRH(s), (2) OVP(s), AND (2) 1-1/4" FIBER CABLE(s) EXISTING (6) ANTENNA(s) AND (6) 1-5/8" COAX CABLE(s) TO REMAIN	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	PROJECT TEAM <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> A.T. ENGINEERING SERVICES LLC 1 FENTON MAIN, STE 300 CARY, NC 27511 <u>PROPERTY OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801	PROJECT NOTES 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 A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).	G-001	TITLE SHEET	0	6/10/2024	EDNA
			G-002	GENERAL NOTES	0	6/10/2024	EDNA
UTILITY COMPANIES POWER COMPANY: EVERSOURCE ENERGY/56002 PHONE: 888.783.6617 TELEPHONE COMPANY: UNKNOWN PHONE: N/A		PROJECT LOCATION DIRECTIONS I-91 SOUTH TO 9 SOUTH TO EXIT 7. FOLLOW ROUTE 82 11.8 MILES TO ROUTE 156. TURN RIGHT ON 156. FOLLOW 1.6 MILES TO BEAVERBROOK ROAD. TURN LEFT ON BEAVERBROOK AND FOLLOW IT 2.6 MILES TO GRASSY HILL ROAD. TURNRRIGHT AND FOLLOW GRASSY HILL 1.5 MILES TO STATION	C-101	DETAILED SITE PLAN	0	6/10/2024	EDNA
			C-201	TOWER ELEVATION	0	6/10/2024	EDNA
			C-401	ANTENNA INFORMATION & SCHEDULE	0	6/10/2024	EDNA
			C-501	CONSTRUCTION DETAILS	0	6/10/2024	EDNA
			E-501	GROUNDING DETAILS	0	6/10/2024	EDNA
			SUPPLEMENTAL SHEETS (3 PAGES)				
			CONTRACTOR PMI REQUIREMENTS				
			PMI ACCESSED AT: HTTPS://PMI.VZWSMART.COM				
			SMART TOOL VENDOR PROJECT NUMBER: 10227147				
			VZW LOCATION CODE (PSLC): 5000247020				
			***PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT				
			MOUNT MODIFICATION REQUIRED: YES VZW APPROVED SMART KIT VENDORS: REFER TO MOUNT MODIFICATION DRAWINGS PAGES FOR VZW SMART KIT APPROVED VENDORS				



AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
1 FENTON MAIN
SUITE 300
CARY, NC 27511
PHONE: (919) 468-0112
PEC.0001553

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	6/10/2024

ATC SITE NUMBER:
88016
ATC SITE NAME:
OLD LYME
VERIZON SITE NAME:
LAYSVILLE NORTH CT

SITE ADDRESS:
GRASSY HILL ROAD
OLD LYME, CT 06371





ATC JOB NO:	14852508_G0
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	5000247020

TITLE SHEET

SHEET NUMBER: G-001	REVISION: 0
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GENERAL CONSTRUCTION NOTES:

1.

OWNER FURNISHED MATERIALS, VERIZON "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 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 ANSI/EIA/TIA-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 REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13.

EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON 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 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 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 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 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 REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23.

CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24.

CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25.

ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON 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 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.

WHEN THE PROJECT SCOPE REQUIRES THE USE OF THE SAFETY CLIMB, THE GENERAL CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS FREE OF OBSTRUCTIONS, NOT RUBBING ON OR TRAPPED BY ANY INSTALLED CUSTOMER EQUIPMENT, IS VISUALLY TAUT, MEETS MANUFACTURER INSTALLATION SPECIFICATIONS, AND IS FIRMLY SECURED AT ALL CABLE GUIDE LOCATIONS UPON PROJECT COMPLETION.
29.

COMPLETION OF PROJECT SHALL NOT OBSTRUCT, TRAP, LOOSEN, OR OTHERWISE CAUSE FAILURE TO MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SAFETY CLIMB.
30.

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.
31.

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.
32.

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 REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
33.

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.
34.

VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON 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.
35.

VERIZON 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 OR THEIR ARCHITECT/ENGINEER.

- B.

ALL COAXIAL/HYBRID CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL/HYBRID CABLE (NOT WITHIN BENDS)

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1.

WORK INCLUDED:

A.

ANTENNA AND COAXIAL/HYBRID CABLES ARE FURNISHED BY VERIZON 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.

B.

INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND VERIZON SPECIFICATIONS.

C.

INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.

D.

INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.

E.

INSTALL COAXIAL/HYBRID 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/HYBRID CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
2.

ANTENNA AND COAXIAL/HYBRID CABLE GROUNDING:

A.

ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.

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.



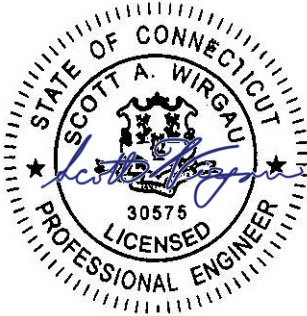
AMERICAN TOWER®
A.T. ENGINEERING SERVICES LLC
1 FENTON MAIN
SUITE 300
CARY, NC 27511
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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	6/10/2024

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

SEAL:



Digitally Signed: 2024-06-13



ATC JOB NO:	14852508_G0
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	5000247020

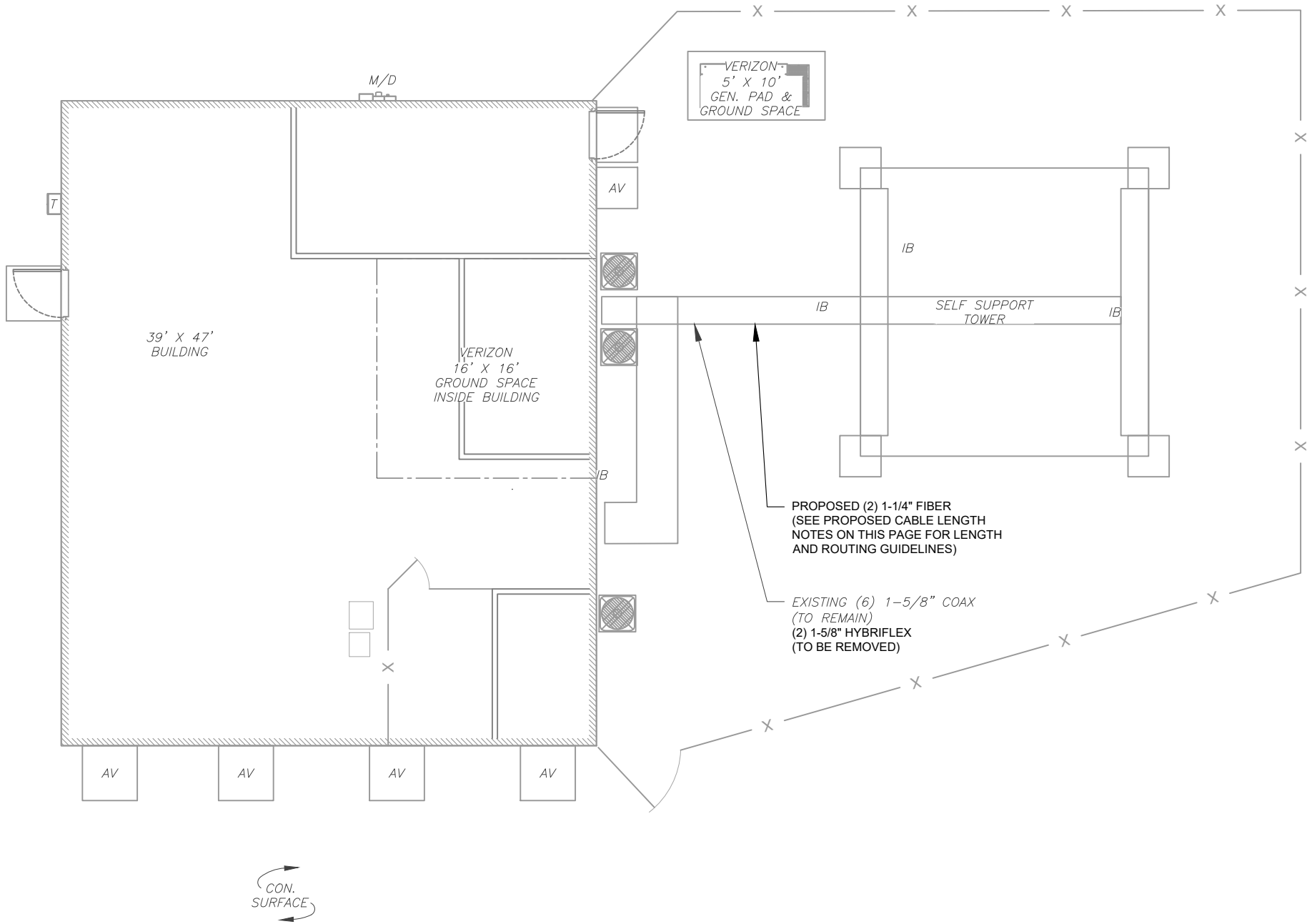
GENERAL NOTES

SHEET NUMBER:
G-002

REVISION:
0

SITE PLAN NOTES:

- 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.
- 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.
- NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.

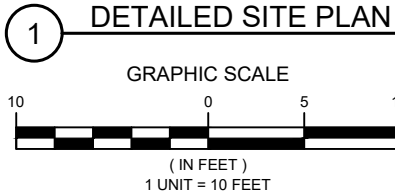


LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACLE
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
—	CHAINLINK FENCE

PROPOSED CABLE NOTES:

- ESTIMATED LENGTH OF PROPOSED CABLE IS **135'**. 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.
- 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).



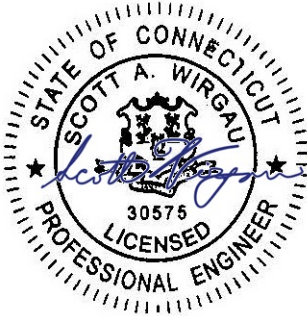
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REV.	DESCRIPTION	BY	DATE
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88016
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OLD LYME
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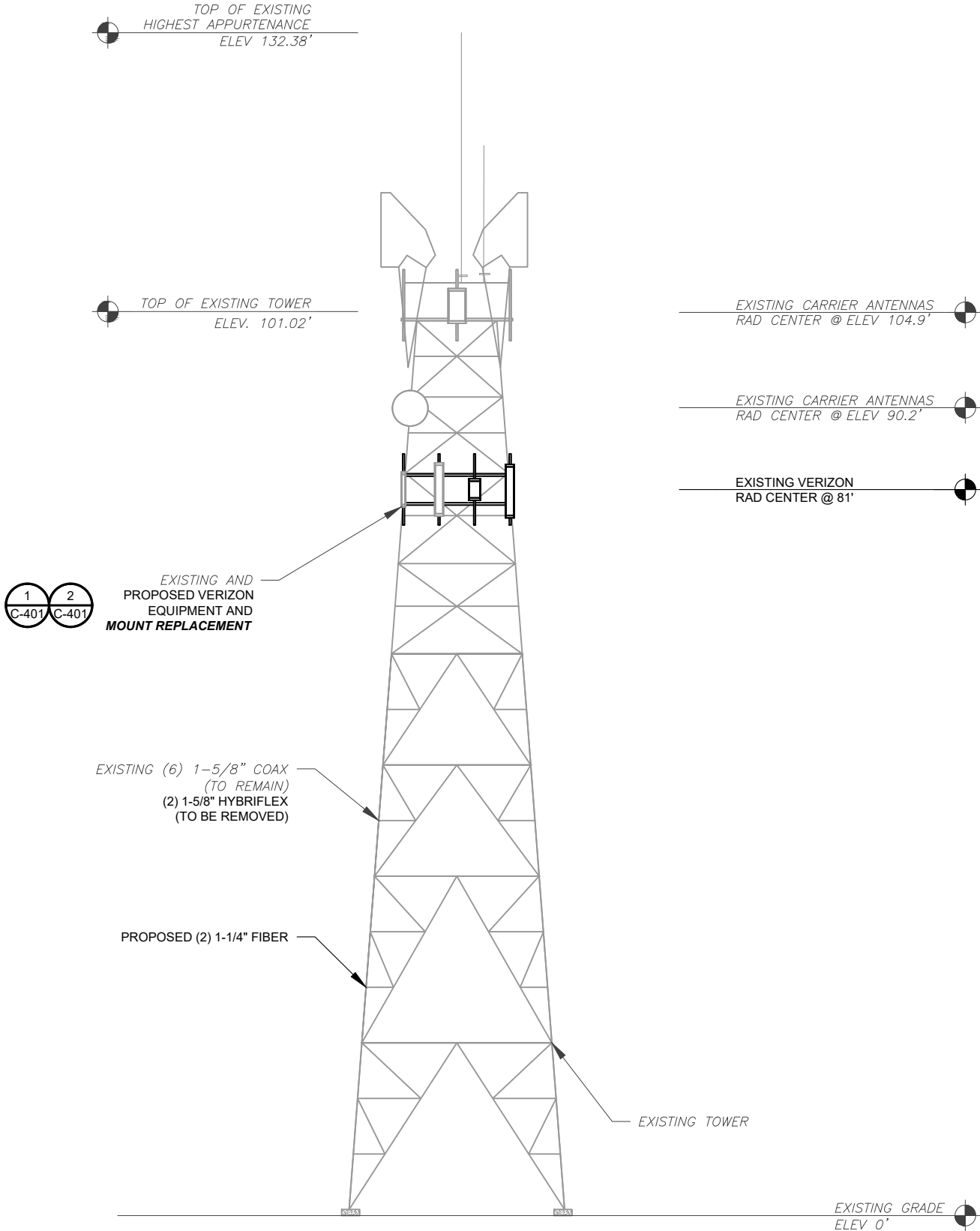
ATC JOB NO:	14852508_G0
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	5000247020

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

FAA REGISTERED HEIGHT: 140' AGL

PER MOUNT ANALYSIS COMPLETED BY COLLIERS,
DATED 03/19/24, THE PROPOSED MOUNT CAN
ADEQUATELY SUPPORT THE PROPOSED
LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

ALL ELEVATIONS REFLECT ABOVE GROUND LEVEL (A.G.L.)

- 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 ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.



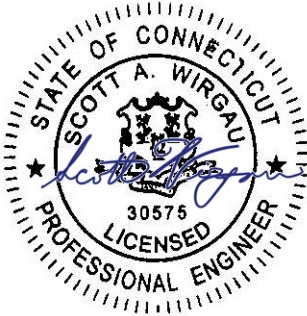
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A.T. ENGINEERING SERVICES LLC
1 FENTON MAIN
SUITE 300
CARY, NC 27511
PHONE: (919) 468-0112
PEC.0001553

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	6/10/2024

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

SEAL:



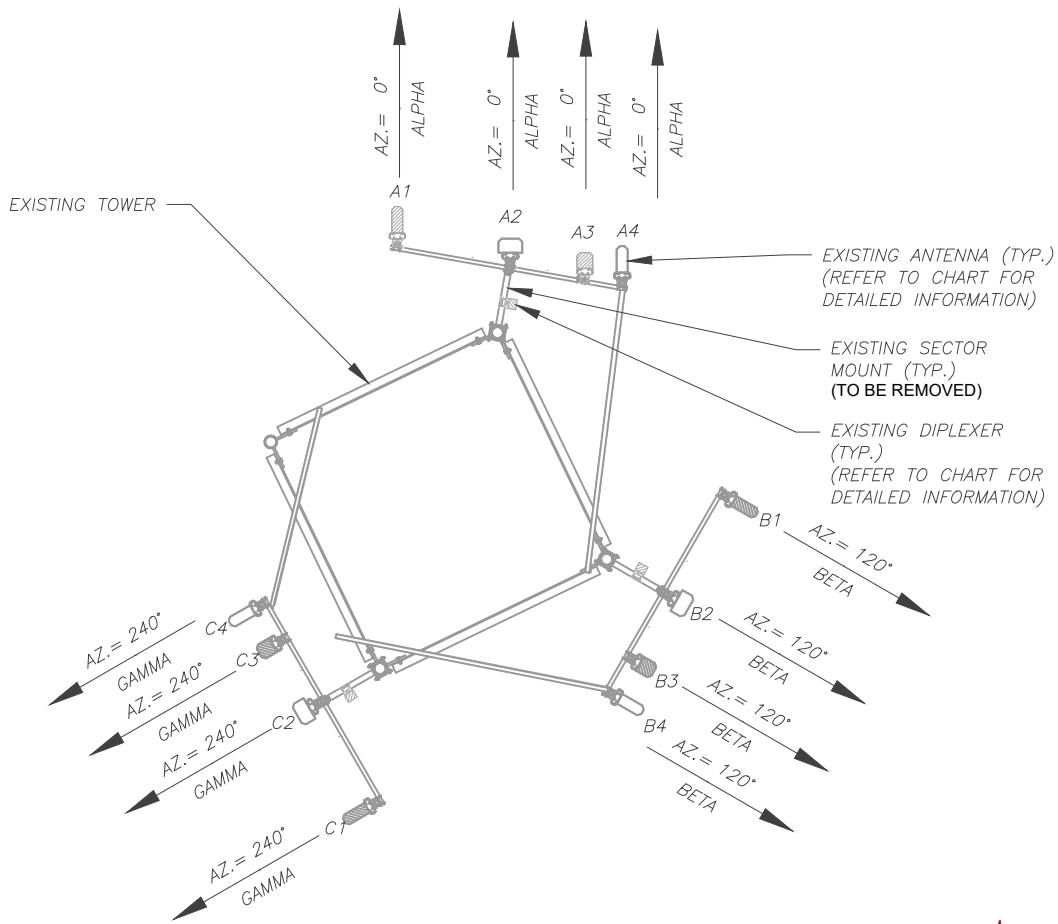
Digitally Signed: 2024-06-13



ATC JOB NO:	14852508_G0
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	5000247020

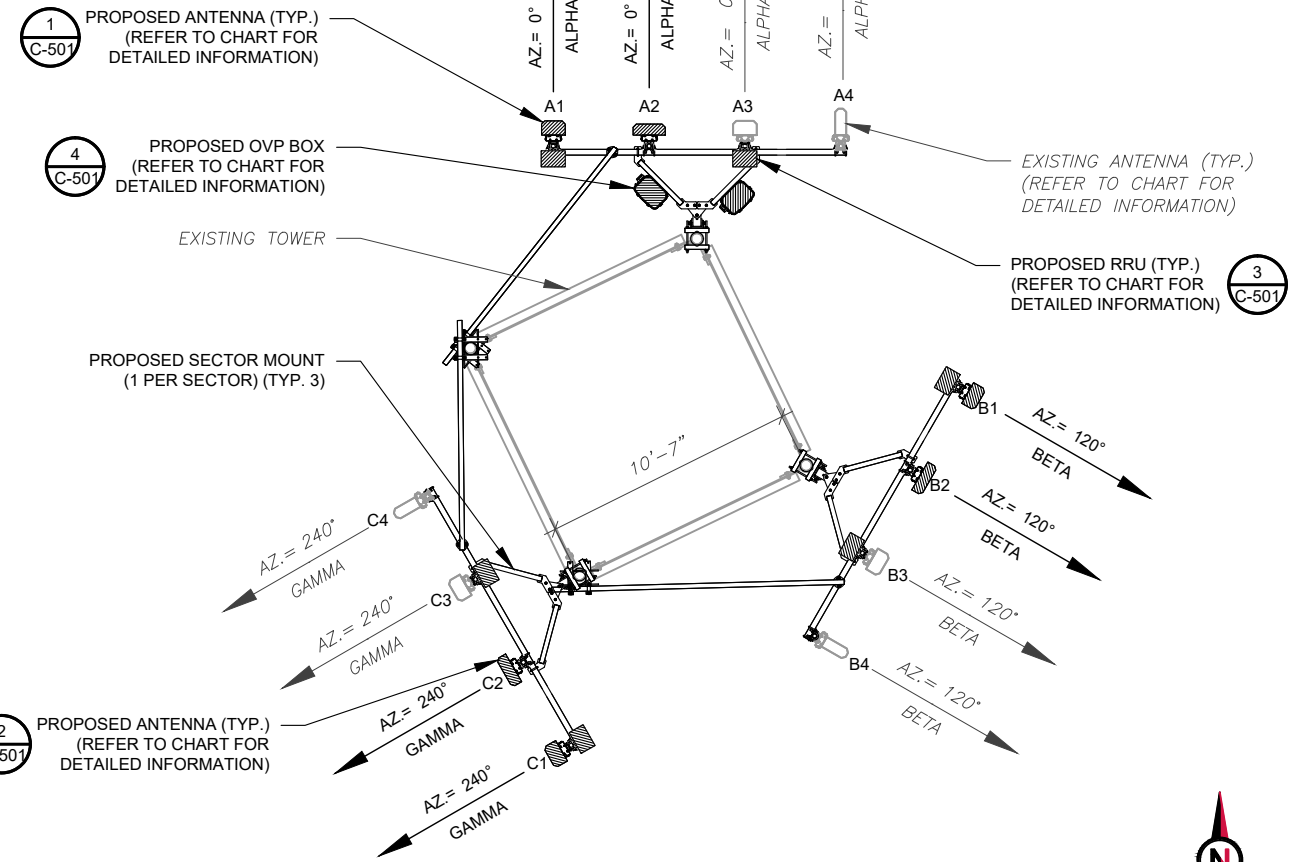
TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0



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

PER MOUNT ANALYSIS COMPLETED BY COLLIERS, DATED 03/19/24, THE PROPOSED MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



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

EXISTING ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	81'	0°	A1	LPA-80080-4CF-EDIN-0	-	RMV	-	-
			A2	NHH-65B-R2B	700/850/1900/AWS LTE/ 850 5G	REL	(2) FD9R6004/2C-3L	RMV
			A3	BXA-70063-6CF	700 LTE	RMV	-	-
			A4	LPA-80080-4CF-EDIN-0	-	REL	-	-
BETA	81'	120°	B1	LPA-80080-4CF-EDIN-0	-	RMV	-	-
			B2	NHH-65B-R2B	700/850/1900/AWS LTE/ 850 5G	REL	(2) FD9R6004/2C-3L	RMV
			B3	BXA-70063-6CF	700 LTE	RMV	-	-
			B4	LPA-80080-4CF-EDIN-0	-	REL	-	-
GAMMA	81'	240°	C1	LPA-80080-4CF-EDIN-0	-	RMV	-	-
			C2	NHH-65B-R2B	700/850/1900/AWS LTE/ 850 5G	REL	(2) FD9R6004/2C-3L	RMV
			C3	BXA-70063-6CF	700 LTE	RMV	-	-
			C4	LPA-80080-4CF-EDIN-0	-	REL	-	-

NOTES
1. GC TO VERIFY THE FINAL RFDS MATCHES THE FINAL CONSTRUCTION DRAWINGS. GC TO NOTIFY ATC PM OF ANY DISCREPANCY PRIOR TO INSTALLING THE EQUIPMENT.
2. GC TO CAP ALL UNUSED PORTS.
3. GC TO 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
CABLE LENGTHS FOR JUMPERS
JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	81'	0°	A1	NHH-65B-R2B	700/ 850/ 1900/ AWS LTE/ 850 5G	ADD	RF 4439D-25A	ADD
			A2	MT6413-77A	L-SUB6 5G	ADD	-	-
			A3	NHH-65B-R2B	700/850/1900/AWS LTE/ 850 5G	REL	RF4461D-13A	ADD
			A4	LPA-80080-4CF-EDIN-0	-	REL	-	-
BETA	81'	120°	B1	NHH-65B-R2B	700/ 850/ 1900/ AWS LTE/ 850 5G	ADD	RF 4439D-25A	ADD
			B2	MT6413-77A	L-SUB6 5G	ADD	-	-
			B3	NHH-65B-R2B	700/850/1900/AWS LTE/ 850 5G	REL	RF4461D-13A	ADD
			B4	LPA-80080-4CF-EDIN-0	-	REL	-	-
GAMMA	81'	240°	C1	NHH-65B-R2B	700/ 850/ 1900/ AWS LTE/ 850 5G	ADD	RF 4439D-25A	ADD
			C2	MT6413-77A	L-SUB6 5G	ADD	-	-
			C3	NHH-65B-R2B	700/850/1900/AWS LTE/ 850 5G	REL	RF4461D-13A	ADD
			C4	LPA-80080-4CF-EDIN-0	-	REL	-	-

EXISTING FIBER DISTRIBUTION / OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
-	RMN	(6) 1-5/8" COAX	RMN
-	RMV	(2) 1-5/8" HYBRIFLEX	RMV

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
-	RMN	(6) 1-5/8" COAX	RMN
(2) RRFDC-3315-PF-48	ADD	(2) 1-1/4" FIBER	ADD



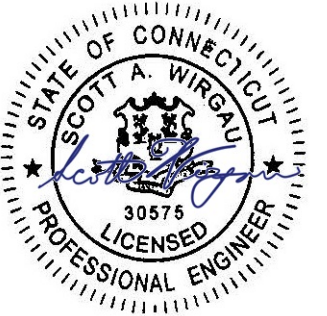
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0	FOR CONSTRUCTION	EDNA	6/10/2024

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88016
ATC SITE NAME:
OLD LYME
VERIZON SITE NAME:
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SITE ADDRESS:
GRASSY HILL ROAD
OLD LYME, CT 06371

SEAL:



Digitally Signed: 2024-06-13

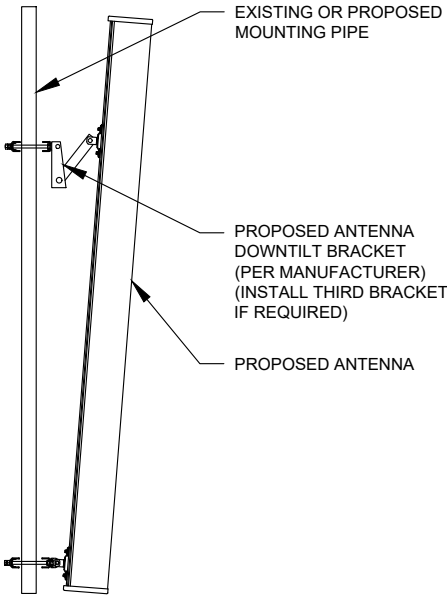


ATC JOB NO:	14852508_G0
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	5000247020

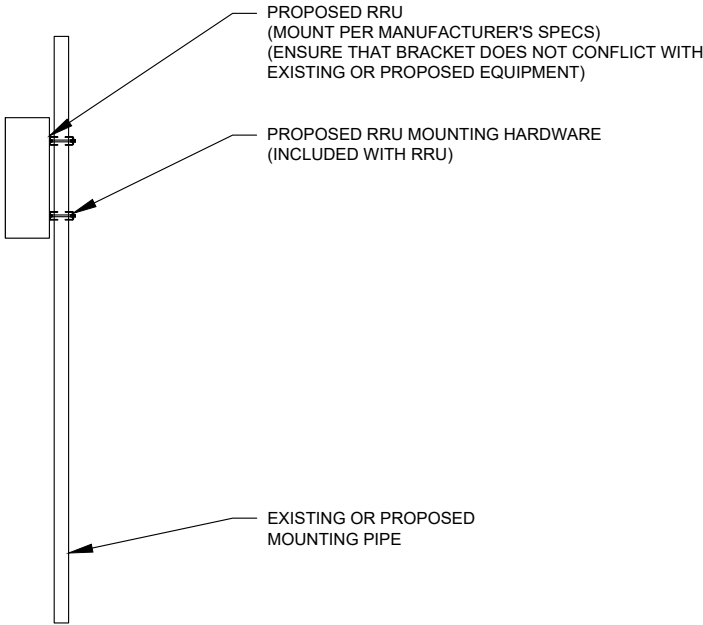
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER: C-401	REVISION: 0
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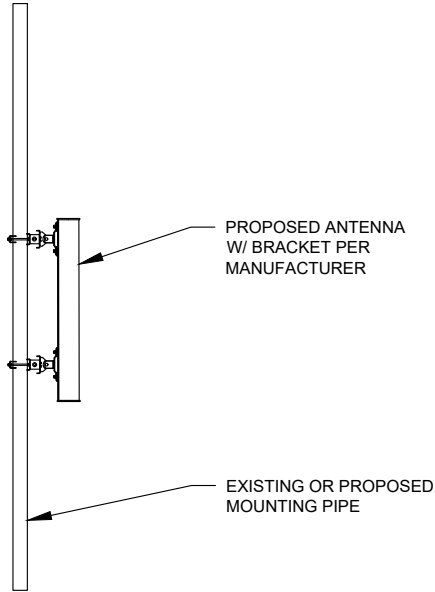
EXISTING/PROPOSED MOUNTS AND/OR MOUNT MODIFICATIONS NOT SHOWN FOR CLARITY. REFER TO ANTENNA PLANS, MOUNT ANALYSES AND/OR MOUNT MODIFICATION DOCUMENTS FOR ADDITIONAL DETAIL.



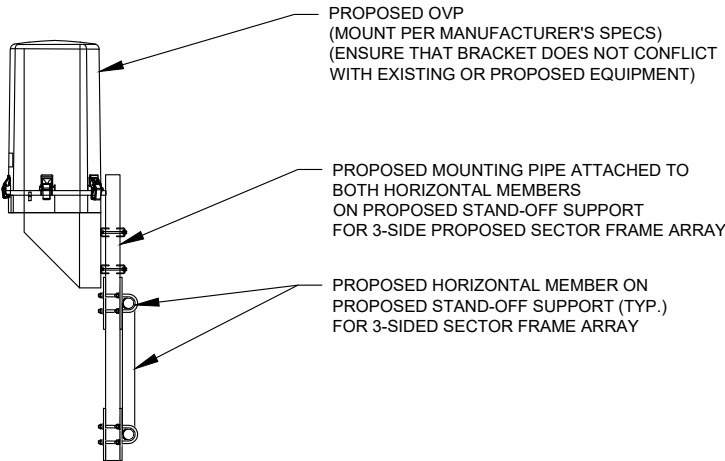
1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



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



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



4 PROPOSED OVP MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



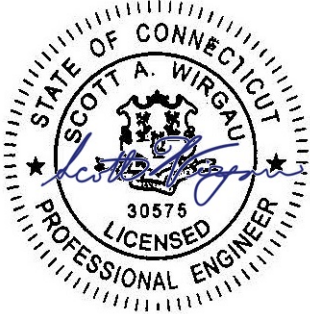
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OLD LYME, CT 06371

SEAL:



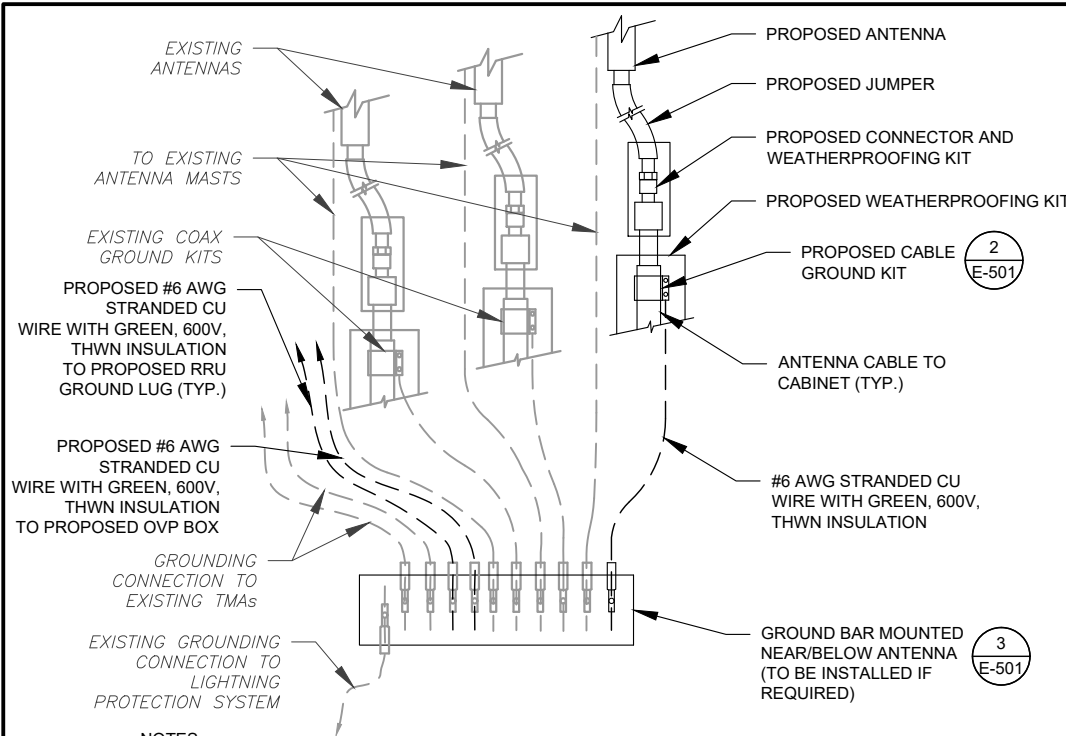
Digitally Signed: 2024-06-13



ATC JOB NO:	14852508_G0
CUSTOMER ID:	LAYSVILLE NORTH CT
CUSTOMER #:	5000247020

CONSTRUCTION
DETAILS

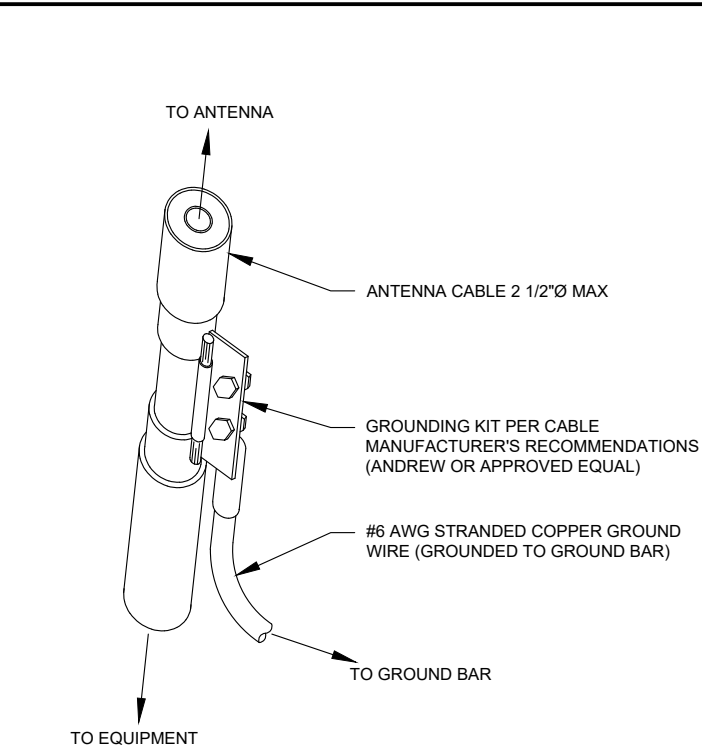
SHEET NUMBER:	REVISION:
C-501	0



NOTES:

- 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.
- SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

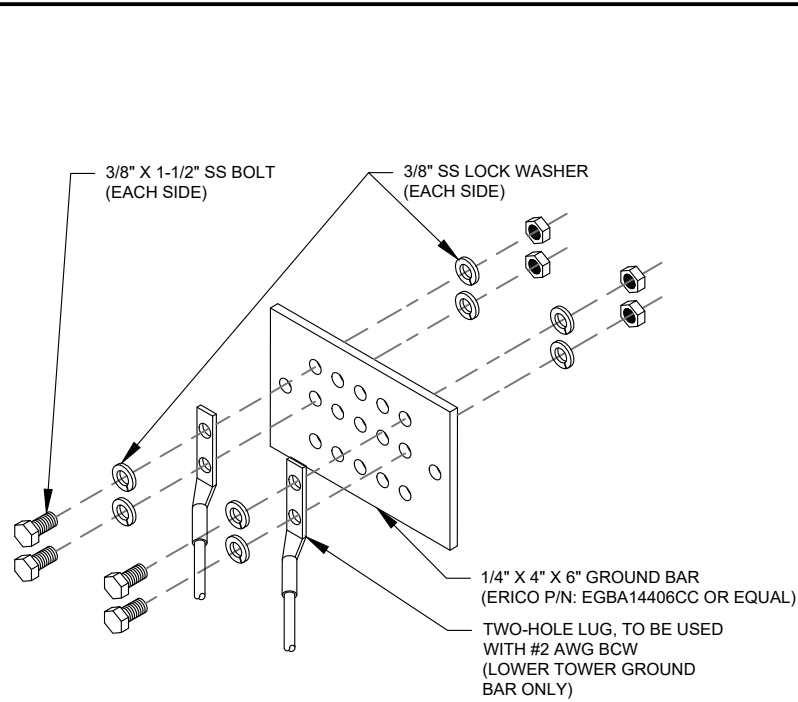
1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



GROUND KIT NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- 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:

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

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

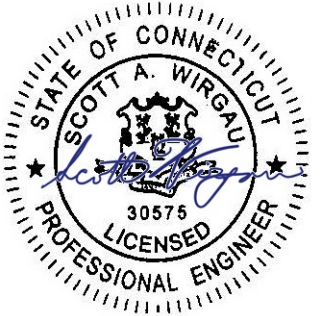
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ATC SITE NAME:
OLD LYME
VERIZON SITE NAME:
LAYSVILLE NORTH CT
SITE ADDRESS:
GRASSY HILL ROAD
OLD LYME, CT 06371

SEAL:



Digitally Signed: 2024-06-13

verizon
ATC JOB NO: 14852508_G0
CUSTOMER ID: LAYSVILLE NORTH CT
CUSTOMER #: 5000247020

GROUNDING DETAILS

SHEET NUMBER: E-501	REVISION: 0
-------------------------------	-----------------------



Colliers Engineering & Design, Architecture,
Landscape Architecture, Surveying, CT P.C.
2000 Midlantic Drive Suite 100
Mt. Laurel, NJ 08054
856.797.0412
peter.albano@collierseng.com

New/Replacement Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10227147
Colliers Engineering & Design Project #: 21777467 (Rev. 1)

March 19, 2024

Site Information
Site ID: 5000247020-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

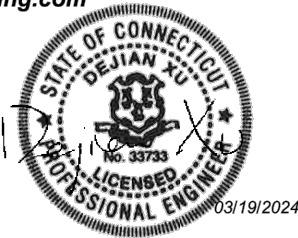
Analysis Results

Sector Frame: 41.8% Pass w/ Mount Replacement*
(3) Site Pro 1: VFA12-HD-S,
(3) Site Pro 1: BCAM-SDLL)

*Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.

***Contractor PMI Requirements:
Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Madison Shell



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

March 19, 2024
Site ID: 5000247020-VZW / LAYSVILLE NORTH CT
Page | 5

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	12.2	6.1	19.4	13.3
0.5	19.0	10.7	29.0	20.8
1	25.2	14.9	38.2	27.8

Notes:
- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 sector.
- Ka factors included in (EPA)a calculations

Requirements:

The proposed antenna mounts are SUFFICIENT for the final loading configuration (attachment 2) upon completion of the mount replacement (attachment 3) and requirements below.

Refer to document at the end of this form for special instructions. Contact EOR if special instructions are not available.

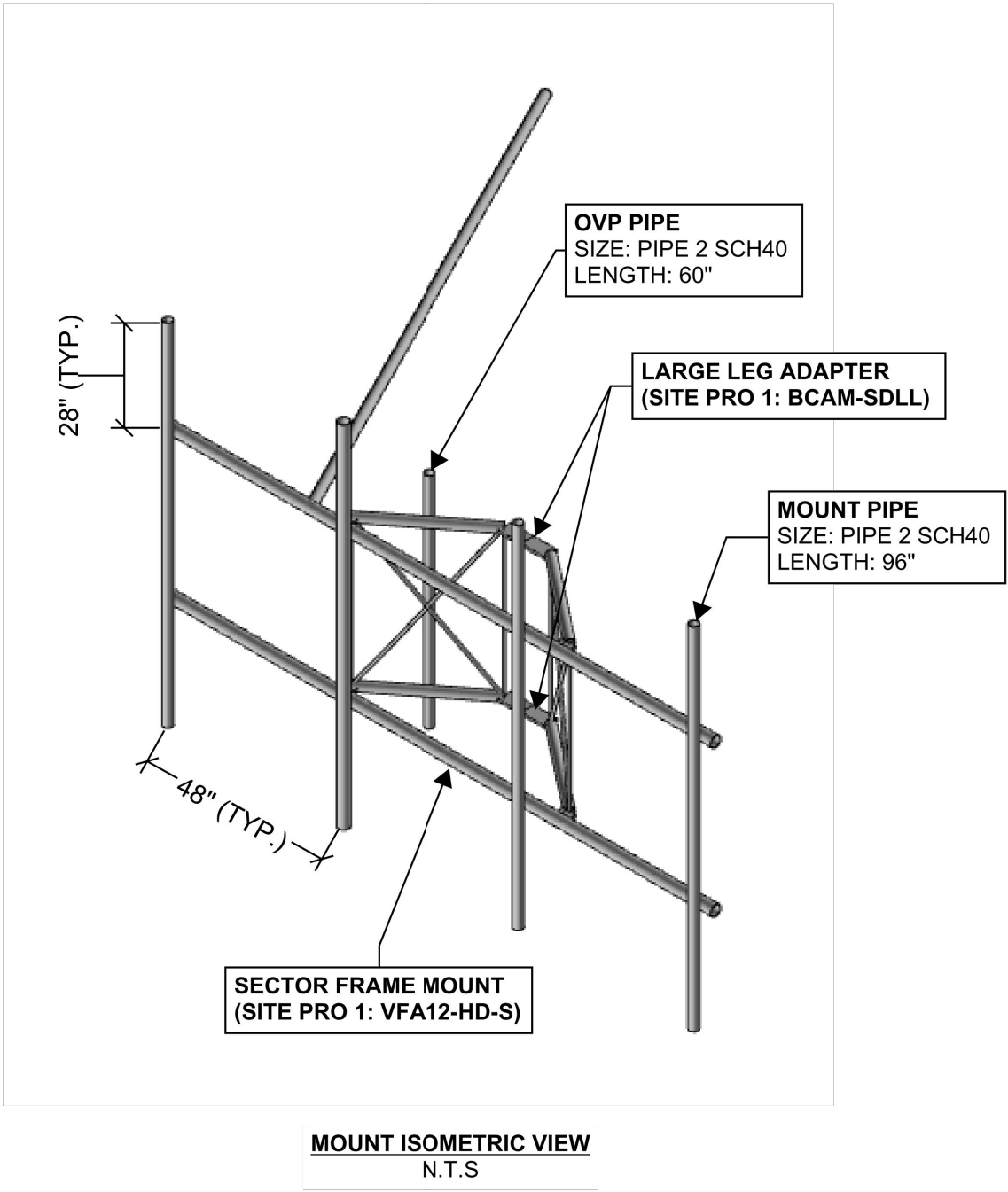
ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

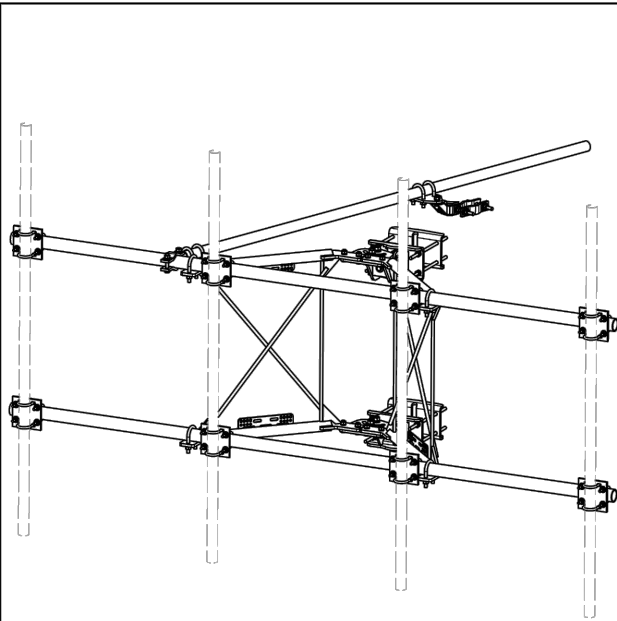
- Contractor Required Post Installation Inspection (PMI) Report Deliverables
- Antenna Placement Diagrams
- Mount Manufacturer Drawings
- Analysis Calculations

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.

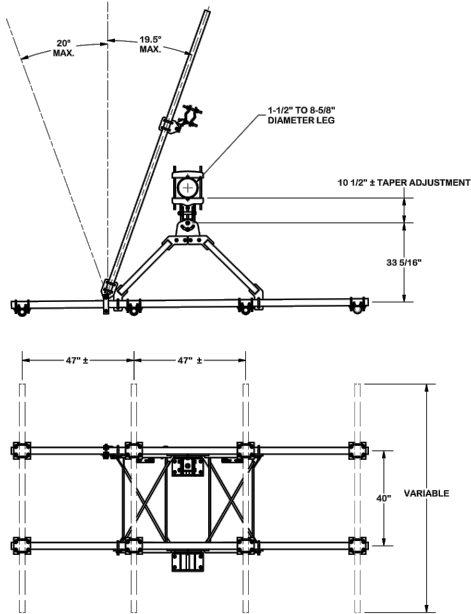
MOUNT REPLACEMENT SKETCH



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.

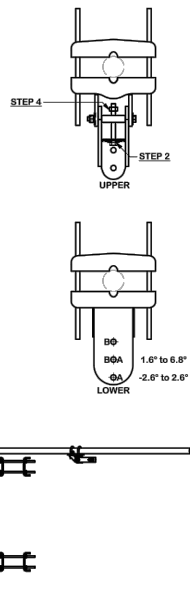


PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT. NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41 142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86 33.86
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24 36.24
4	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88 31.77
5	2	X-LOBP4	BENT BACKING PLATE	13 in	19.00 38.01
6	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.99 16.99
7	2	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87 11.74
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58 2.58
9	2	X-TBCA	TIE BACK CLIP ANGLE		2.01 4.01
10	8	SCX2	CROSSOVER PLATE	7 in	4.80 38.37
11	2	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.58 7.19
12	4	DCP	1/2" THICK, 5-3/4" CENTER TO CENTER CLAMP HALF	8 1/8 in	2.36 9.45
13	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	78.94 153.87
14	1	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75 40.75
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	2	G58R-12	5/8" X 12" THREADED ROD (HDG.)		1.05 2.09
21	2	G58R-8	5/8" X 8" THREADED ROD (HDG.)		0.70 1.39
22	4	X-UBS300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15 4.60
23	4	X-UBS258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00 4.00
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	4	G5804	5/8" X 4" HDG HEX BOLT GR5		0.44 1.76
27	8	A582114	5/8" X 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31 2.50
28	2	G5802	5/8" X 2" HDG HEX BOLT GR5		0.27 0.54
29	15	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07 1.06
30	50	G58LW	5/8" HDG LOCKWASHER		0.03 1.30
31	53	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13 6.89
32	32	X-UB1300	1/2" X 3" X 3" 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		0.01 0.69
36	64	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07 4.58
TOTAL WT. #					621.66



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 (<i>± 0.007</i>) DRILLED AND GAS CUT HOLES (<i>± 0.007</i>) - NO CONING OF HOLES LASER CUT EDGES AND HOLES (<i>± 0.0107</i>) - NO CONING OF HOLES BENDS ARE <i>± 1/2</i> DEGREE ALL OTHER MACHINING (<i>± 0.0007</i>) ALL OTHER ASSEMBLY (<i>± 0.0007</i>)	
B	UPDATED BCAM VERSION 1 TO BCAM VERSION 2			CEK	6/29/2018	
A	UPDATED ANGLE CALIBRATING PROCEDURE PAGE 2			CEK	12/12/2017	
REV	DESCRIPTION OF REVISIONS			CPD	BY DATE	
REVISION HISTORY						

DESCRIPTION			
12" 6" HEAVY DUTY V-FRAME ASSEMBLY WITH ONE STIFF ARMS			
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
81	CEK	7/3/2017	VFA12-HD-S
CLASS	SUB	DRAWING USAGE	DWG. NO.
81	02	CUSTOMER	VFA12-HD-S
CHECKED BY: BMC 12/12/2017			

B	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
A	UPDATED ANGLE CALIBRATING PROCEDURE PAGE 2		CEK	12/12/2017
REV	DESCRIPTION OF REVISIONS		CPD	BY DATE
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CLASS	SUB	DRAWING USAGE	DWG. NO.
81	02	CUSTOMER	VFA12-HD-S
CHECKED BY: BMC 12/12/2017			

		Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salters, OR Dallas, TX
Engineering Support Team: 1-888-753-7446		
A valmont  COMPANY		
PART NO.	VFA12-HD-S	PAGE 2 OF 4
DWG. NO.	VFA12-HD-S	

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT. NET WT.
1	4	X-BCSDLL	LARGE LEG ADAPTER FOR B-CAM SD		24.06 96.32
2	8	G12R-12	1/2" X 12" THREADED ROD (HDG.)		0.67 5.35
2	8	G12R-8	1/2" X 8" THREADED ROD (HDG.)		0.45 3.57
3	16	G1202	1/2" X 2" HDG HEX BOLT GR5	2 in	0.18 2.81
4	16	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03 0.55
5	32	G12LW	1/2" HDG LOCKWASHER		0.01 0.44
6	32	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07 2.29
TOTAL WT. #					113.41

FOR ROUND MEMBER LEGS
9-1/2" TO 16" AND
#12 TRUSS LEGS

INSERT BACKING CHANNEL
X-LCBP2

FRONT VIEW

BACK VIEW

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.007)
DRILLED AND GAS CUT HOLES (± 0.007) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.0107) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING (± 0.0007)
ALL OTHER ASSEMBLY (± 0.0007)

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

DESCRIPTION

LARGE LEG ADAPTER FOR BCAM-SD

CPD NO. 81

DRAWN BY CEK

DWG. NO. BCAM-SDLL

CLASS 81

SUB 02

DRAWING USAGE CUSTOMER

CHECKED BY BMC

DATE 4/25/2017

ENG. APPROVAL

PART NO. BCAM-SDLL

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.

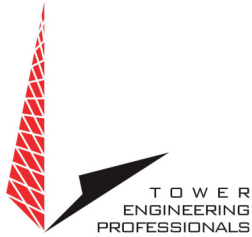


CENTERLINE

EXHIBIT E

Power Density/RF Emissions Report





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Non-Ionizing Electromagnetic Radiation (NIER) Study

Site Number:

88016

Site Name:

Old Lyme

Location:

Old Lyme, Connecticut

Tenants:

Verizon Wireless, Sprint,
& Valley Shore Emergency Communications

Prepared For:

American Tower, Inc.
Woburn, Massachusetts

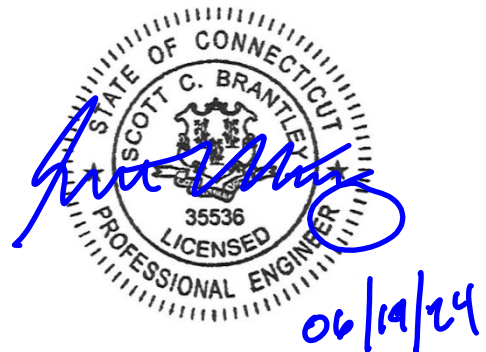
June 19th, 2024

25607 P-415413

Prepared By:

Adam Carlson MS, CBRE, CPI
Program Manager RF Design & Service
Tower Engineering Professionals

Approved By:





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Non-Ionizing Electromagnetic Radiation (NIER) Study

88016 Old Lyme
Old Lyme, Connecticut

INTRODUCTION

Tower Engineering Professionals RF Design & Services Division (TEP-RF) of Raleigh, North Carolina, has been retained by American Tower, Inc. (ATC), of Woburn, Massachusetts to evaluate the RF emissions compared to the Maximum Permissible Exposure (MPE) limit for facilities at this location. This evaluation uses compliance standards as outlined in Federal Communications Commission (FCC) document OET-65.

SITE AND FACILITY CONSIDERATIONS

Site 88016 Old Lyme is located on CR 289 Grassy Hill Rd. in Old Lyme, Connecticut at coordinates 41.391826, -72.285941. The support structure is a 302' self-support tower. An aerial view of the tower can be found in Appendix 1, Site Photos. The tenants are Verizon Wireless (VZW) Sprint (Sprint), & Valley Shore Emergency Communications (VSEC). A table listing all antennae and effective radiated power (ERP) levels that were used in this study may be found in Appendix 2, Antenna Inventory.

POWER DENSITY CALCULATIONS

Power densities were calculated based on FCC MPE limits for both General Population/Uncontrolled and Occupational/Controlled environments.

For the purpose of this study, a radius of 200' from the base of the tower with a height of 6' above ground level was used, beyond 200' the MPE levels become *di minimus*. This study utilized FCC recognized and accepted software programs using the maximum ERP levels for the antenna models provided by ATC. Diagrams depicting the predicted spatial average power density level at any specific location may be found in Appendix 3, MPE Limit Study. A discussion regarding the FCC limits may be found in Appendix 4, Information Pertaining to MPE Studies. Study methodology describing Non-ionizing Radiation Prediction Models used in this study may be found in Appendix 5, MPE Standards Methodology.



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All data used in this study was collected from one or more of the following sources:

- ATC furnished data and does not include other unidentified communication facilities.
- Load List at 88016 Old Lyme.RF NIER Study 5/17/24.
- FCC databases.
- Carrier standard configurations.
- Empirical data collected by TEP.

SITE MITIGATION & CONTROL

In order to comply with FCC, tenant, & ATC requirements, TEP recommends the placement of signage at the base of the tower and all compound access points to alert workers of potential exposure to RF fields while working on or near the antennae.

TEP recommends that all personnel working on this tower be trained in RF safety procedures and carry a personal RF monitor at all times.

COMPLIANCE DETERMINATION

This installation **IS** in compliance with current FCC MPE limits as described in FCC OET-65.

APPENDIX 1 Site Photos



Aerial View of Site

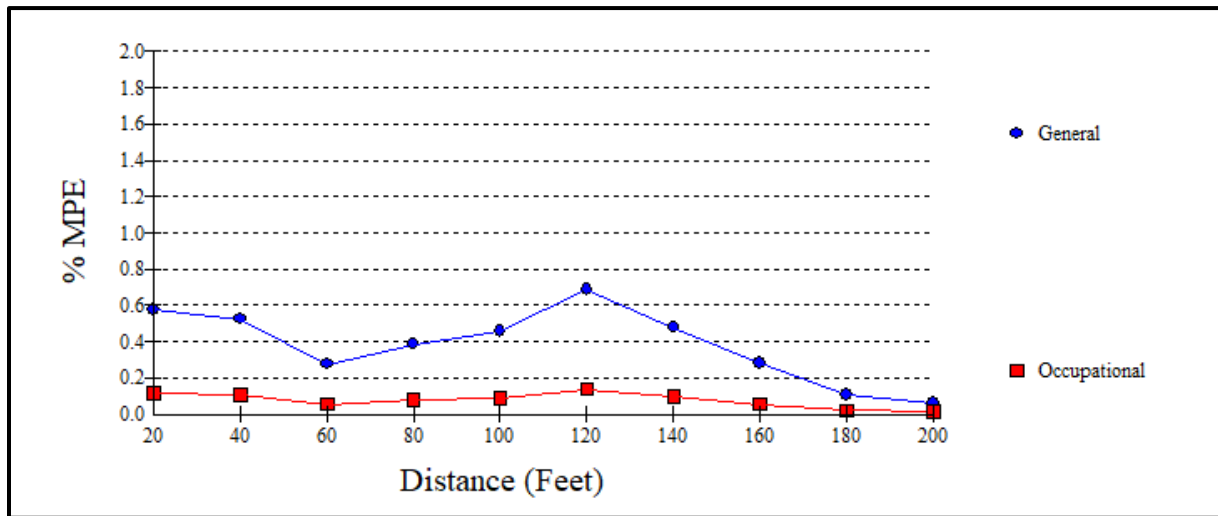


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Appendix 2 Antenna Inventory

88016 Old Lyme							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azimuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
1	VSEC	dbSpectra	DS4C06F36D-N	400	000	1922.96	130.0
2	VSEC	dbSpectra	DS4C06F36D-N	400	000	1922.96	130.0
3	Sprint	RFS	APXVAALL24	600/1900/2100	000	10543.00	105.0
4	Sprint	RFS	APXVAALL24	600/1900/2100	180	10543.00	105.0
5	Sprint	RFS	APXVAALL24	600/1900/2100	270	10543.00	105.0
6	Sprint	Ericsson	Air 6449	2500-2699	000	18970.00	105.0
7	Sprint	Ericsson	Air 6449	2500-2699	180	18970.00	105.0
8	Sprint	Ericsson	Air 6449	2500-2699	270	18970.00	105.0
9	VSEC	Scala	PR-900	unknown	226	2426.00	90.2
10	VSEC	Radio Wave	HPD3-5W	4900-5880	120	5807.00	87.0
11	VZW	Samsung	MT6407-77A	3700-3900	000	18286.00	81.0
12	VZW	Samsung	MT6407-77A	3700-3900	120	18286.00	81.0
13	VZW	Samsung	MT6407-77A	3700-3900	240	18286.00	81.0
14	VZW	Commscope	NHH-65B-R2B	700	000	5650.00	81.0
15	VZW	Commscope	NHH-65B-R2B	700	120	5650.00	81.0
16	VZW	Commscope	NHH-65B-R2B	700	240	5650.00	81.0
17	VZW	Commscope	NHH-65B-R2B	700	000	5650.00	81.0
18	VZW	Commscope	NHH-65B-R2B	700	120	5650.00	81.0
19	VZW	Commscope	NHH-65B-R2B	700	240	5650.00	81.0

Appendix 3.1 MPE Limit Study



Maximum Power Density (120'):	0.0042 mW/cm ²
General Population MPE (@120'):	0.6886%
Occupational MPE (@40'):	0.1377%

Appendix 3.2 MPE Limit Study





Appendix 4 Information Pertaining to MPE Studies

In 1985, the FCC first adopted guidelines to be used for evaluating human exposure to RF emissions. The FCC revised and updated these guidelines on August 1, 1996, as a result of a rule-making proceeding initiated in 1993. The new guidelines incorporate limits for Maximum Permissible Exposure (MPE) in terms of electric and magnetic field strength and power density for transmitters operating at frequencies between 300 kHz and 100 GHz.

The FCC's MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), and, over a wide range of frequencies, the exposure limits were developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC's limits, and the NCRP and ANSI/IEEE limits on which they are based, are derived from exposure criteria quantified in terms of specific absorption rate (SAR). The basis for these limits is a whole-body averaged SAR threshold level of 4 watts per kilogram (4 W/kg), as averaged over the entire mass of the body, above which expert organizations have determined that potentially hazardous exposures may occur. The MPE limits are derived by incorporating safety factors that lead, in some cases, to limits that are more conservative than the limits originally adopted by the FCC in 1985. Where more conservative limits exist, they do not arise from a fundamental change in the RF safety criteria for whole-body averaged SAR, but from a precautionary desire to protect subgroups of the general population who, potentially, may be more at risk.

The FCC exposure limits are also based on data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits occur in the frequency range of 30-300 MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies, whole-body absorption is less efficient, and consequently, the MPE limits are less restrictive.



MPE limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm^2), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). The far-field of a transmitting antenna is where the electric field vector (E), the magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area. Additional details can be found in FCC OET 65.



Appendix 5 MPE Standards Methodology

This study predicts RF field strength and power density levels that emanate from communications system antennae. It considers all transmitter power levels (less filter and line losses) delivered to each active transmitting antenna at the communications site. Calculations are performed to determine power density and MPE levels for each antenna as well as composite levels from all antennas. The calculated levels are based on where a human (Observer) would be standing at various locations at the site. The point of interest where the MPE level is predicted is based on the height of the Observer.

Compliance with the FCC limits on RF emissions are determined by spatially averaging a person's exposure over the projected area of an adult human body, that is approximately six-feet or two-meters, as defined in the ANSI/IEEE C95.1 standard. The MPE limits are specified as time-averaged exposure limits. This means that exposure is averaged over an identifiable time interval. It is 30 minutes for the general population/uncontrolled RF environment and 6 minutes for the occupational/controlled RF environment. However, in the case of the general public, time averaging should not be applied because the general public is typically not aware of RF exposure, and they do not have control of their exposure time. Therefore, it should be assumed that any RF exposure to the general public will be continuous.

The FCC's limits for exposure at different frequencies are shown in the following Tables.

Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3 - 3.0	614	1.63	100*	6
3.0 - 30	1842/f	4.89/f	900/F ²	6
30 - 300	61.4	0.163	1.0	6
300 - 1500	--	--	f/300	6
1500 - 100,000	--	--	5	6

f = frequency

* = Plane-wave equivalent power density

Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3 - 1.34	614	1.63	100*	30
1.34 - 30	824/f	2.19/f	180/F ²	30
30 -300	27.5	0.073	0.2	30
300 -1500	--	--	f/1500	30
1500 -100,000	--	--	1.0	30

f = frequency

* = Plane-wave equivalent power density

General population/uncontrolled exposures apply in situations in which the general public may be exposed or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

It is important to understand that these limits apply cumulatively to all sources of RF emissions affecting a given area. For example, if several different communications system antennas occupy a shared facility such as a tower or rooftop, then the total exposure from all systems at the facility must be within compliance of the FCC guidelines.



The field strength emanating from an antenna can be estimated based on the characteristics of an antenna radiating in free space. There are basically two field areas associated with a radiating antenna. When close to the antenna, the region is known as the Near Field. Within this region, the characteristics of the RF fields are very complex, and the wave front is extremely curved. As you move further from the antenna, the wave front has less curvature and becomes planar. The wave front still has a curvature, but it appears to occupy a flat plane in space (plane-wave radiation). This region is known as the Far Field.

Two models are utilized to predict Near and Far field power densities. They are based on the formulae in FCC OET 65.

Cylindrical Model (Near Field Predictions)

Spatially averaged plane-wave equivalent power densities parallel to the antenna may be estimated by dividing the antenna input power by the surface area of an imaginary cylinder surrounding the length of the radiating antenna. While the actual power density will vary along the height of the antenna, the average value along its length will closely follow the relation given by the following equation:

$$S = P \div 2\pi RL$$

Where:

S = Power Density

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length



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For directional-type antennas, power densities can be estimated by dividing the input power by that portion of a cylindrical surface area corresponding to the angular beam width of the antenna. For example, for the case of a 120-degree azimuthal beam width, the surface area should correspond to 1/3 that of a full cylinder. This would increase the power density near the antenna by a factor of three over that for a purely omni-directional antenna. Mathematically, this can be represented by the following formula:

$$S = (180 / \theta_{BW}) P \div \pi RL$$

Where:

S = Power Density

θ_{BW} = Beam width of antenna in degrees (3 dB half-power point)

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

If the antenna is a 360-degree omni-directional antenna, this formula would be equivalent to the previous formula.



Spherical Model (Far Field Predictions)

Spatially averaged plane-wave power densities in the Far Field of an antenna may be estimated by considering the additional factors of antenna gain and reflective waves that would contribute to exposure.

The radiation pattern of an antenna has developed in the Far Field region and the power gain needs to be considered in exposure predictions. Also, if the vertical radiation pattern of the antenna is considered, the exposure predictions would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential four-fold increase in power density.

These additional factors are considered, and the Far Field prediction model is determined by the following equation:

$$S = EIRP \times Rc \div 4\pi R^2$$

Where:

S = Power Density

EIRP = Effective Radiated Power from antenna

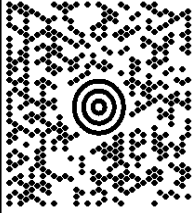
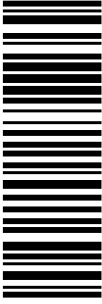
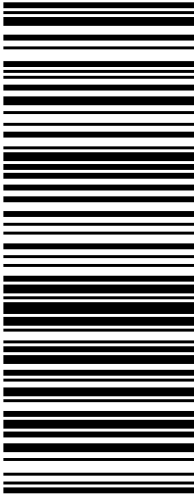
Rc = Reflection Coefficient (2.56)

R = Distance from the antenna

The EIRP includes the antenna gain. If the antenna pattern is considered, the antenna gain is relative based on the horizontal and vertical pattern gain values at that particular location in space, on a rooftop or on the ground. However, it is recommended that the antenna radiation pattern characteristics not be considered to provide a conservative "worst case" prediction. This is the equation is utilized for the Far Field exposure predictions herein.

EXHIBIT F

Mailing Receipts/Proof of Notice

C/O CULLEN MORGAN 9415497263 CENTERLINE COMMUNICATIONS LLC 12579 SAGEWOOD DRIVE VENICE FL 34293		1 LBS	1 OF 1
SHIP TO: AMERICAN TOWER CORPORATION 10 PRESIDENTIAL WAY WOBURN MA 01801-1053			
	MA 018 9-04 		
UPS GROUND			
TRACKING #: 1Z 9Y4 503 03 0251 1029			
			
BILLING: P/P			
Reference # 1: 14852508 LANDLORD CC			
CS 24.5.00. MACNV50 29.0A 07/202.4*			
 ™			

Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030302511029

Date: Thursday, July 18, 2024 at 5:48:18 PM Eastern Daylight Time

From: UPS <pkginfo@ups.com>

To: Cullen Morgan <CMORGAN@CLINELLC.COM>



Hello, your package has been delivered.

Delivery Date: Thursday, 07/18/2024

Delivery Time: 1:34 PM

Signed by: DONNA

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030302511029
Ship To:	AMERICAN TOWER CORPORATION 10 PRESIDENTIAL WAY WOBURN, MA 018011053 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.8 LBS
Reference Number:	14852508 LANDLORD CC

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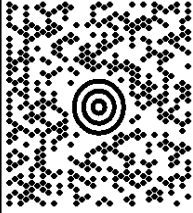
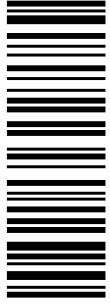
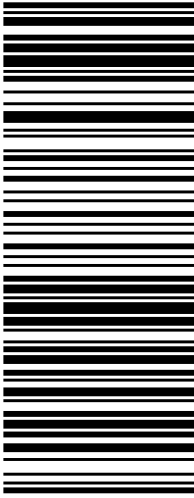
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C/O CULLEN MORGAN 941-549-7263 CENTERLINE COMMUNICATIONS LLC 12579 SAGEWOOD DRIVE VENICE FL 34293		1 LBS	1 OF 1
SHIP TO: FIRST SELECTMAN & BLDG OFFICIAL TOWN OF LYME 480 HAMBURG ROAD OLD LYME CT 06371-3110			
	CT 063 5-02 		
UPS GROUND TRACKING #: 1Z 9Y4 503 03 0471 8035			
			
BILLING: P/P			
Reference # 1: 14852508 TOWN CCs			
CS 24.5.00. MACNNV50 29.0A 07/202.4*			
			 TM

Proof of Delivery

Dear Customer,

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

Tracking Number

1Z9Y45030304718035

Weight

0.80 LBS

Service

UPS Ground

Shipped / Billed On

07/15/2024

Delivered On

07/18/2024 1:23 P.M.

Delivered To

OLD LYME, CT, US
Received By

CLERK

Left At

Office

Please print for your records as photo and details are only available for a limited time.

Sincerely,

UPS

Tracking results provided by UPS: 07/22/2024 11:53 A.M. EST