

January 11, 2019

Melanie A. Bachman, Esq.  
Executive Director/Staff Attorney  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: **Notice of Exempt Modification – Facility Modification  
442 North Street, Goshen, Connecticut**

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains twelve (12) antennas at the top of the existing 149-foot tower at 442 North Street in Goshen, Connecticut (the “Property”). The Property is owned by ARCA LLC. The tower is owned by Cellco and managed by American Tower Corporation (“ATC”). Cellco’s use of this tower was approved by the Council in 2007 (Docket No. 337). Cellco now intends to modify its facility by installing six (6) remote radio heads (“RRHs”) behind its antennas. Included in Attachment 1 are specifications for Cellco’s new RRHs.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Robert Valentine, First Selectman for the Town of Goshen; Goshen’s Land Use Official, Martin Connor; ARCA LLC, the owner of the Property; and ATC, the tower manager.

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 tower. Cellco’s RRHs will be installed behind its existing antennas.
2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

Melanie A. Bachman, Esq.

January 11, 2019

Page 2

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 additional RRHs will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A General Power Density table for Cellco's modified facility is included in Attachment 2.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The tower and its foundation can support Cellco's proposed modifications. (*See* Structural Analysis Report included in Attachment 3). The Structural Analysis Report assumes that the tower will be shared by T-Mobile. It is our understanding that T-Mobile will be submitting for regulatory approvals shortly.

A copy of the parcel map and owner information for the Property is included in Attachment 4. A Certificate of Mailing verifying that this filing was sent to municipal officials and the owner of the Property is included in Attachment 5.

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

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Robert Valentine, Goshen First Selectman  
Martin Connor, Goshen Land Use Official  
ARCA LLC  
ATC  
Tim Parks

# **ATTACHMENT 1**

# ALCATEL-LUCENT B25 RRH4X30

Alcatel-Lucent Band 25 Remote Radio Head 4x30W is the new addition of Remote Radio Head to the extended product line of Alcatel-Lucent's distributed Base Station solutions, aimed at facilitating smooth RF site acquisition and related civil engineering.

**Supporting 2Tx/4Tx MIMO and 4-way Rx diversity**, Alcatel-Lucent B25 RRH4x30 allows operators to have a compact radio solution to deploy LTE in the PCS band (1.9 GHz, 3GPP band 25), providing them with the means to achieve high capacity, high quality and high coverage with minimum site requirements.

The Alcatel-Lucent B25 RRH4x30 product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x60 W or 4x30 W RF output power. It supports also 4-way Rx diversity, LTE carriers from 3 MHz up to 20 MHz and up to 65 MHz instantaneous bandwidth.

The Alcatel-Lucent B25 RRH4x30 is a near zero-footprint solution and operates noise free, simplifying negotiations with site property owners and minimizing environmental impacts.

Its compactness and slim design makes the Alcatel-Lucent B25 RRH4x30 easy to install close to the antenna: operators can therefore locate this Remote Radio Head where RF design conditions are deemed ideal, minimizing trade-offs between available sites and RF optimum sites, together with reducing the RF feeder needs and installation costs.

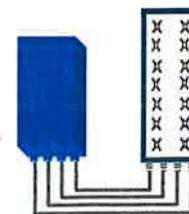


## FEATURES

- Supporting LTE in 1.9 GHz band (PCS, 3GPP band 2 & 25)
- LTE 2Tx or 4Tx MIMO (SW switchable)
- Output power: Up to 2x60W or 4x30W
- Ready for 3, 5, 10, 15 or 20MHz LTE carrier operation with 4Rx Diversity
- Ready to support up to 4 carriers anywhere in 65MHz instantaneous bandwidth
- Convection-cooled (fan-less)
- Supports AISG 2.0 devices (RET, TMA) through RS485 or RF ports

## BENEFITS

- Compact to reduce additional footprint when adding LTE in PCS band
- MIMO scheme operation selection (2Tx or 4Tx) by software only
- Full flexibility for multiple carriers operation over entire PCS spectrum
- Improves downlink spectral efficiency and cell edge throughput through MIMO4
- Increases LTE coverage thanks to 4-way Rx diversity capability and best in class Rx sensitivity
- Flexible mounting options (Pole or Wall)



4x30W with 4T4R  
or  
2x60W with 2T4R

Can be switched between  
modes via SW w/o site  
visit

## TECHNICAL SPECIFICATIONS

Features & performance	
Number of TX/RX paths	4 duplexed (either 4T4R or 2T4R by SW)
Frequency band	3GPP bands 2 & 25 (PCS-G) DL: 1930 - 1995 MHz UL: 1850 - 1915 MHz
Instantaneous bandwidth - #carriers	65MHz – Up to 4 LTE carriers (in 40MHz occupied bandwidth)
LTE carrier bandwidth	3, 5, 10, 15 or 20 MHz
RF output power	2x60W or 4x30W (by SW)
Noise figure (3GPP band 2)	2.0 dB typ. (<2.5 dB max)
RX Diversity scheme	2 or 4 way Rx diversity
Sizes (HxWxD)(w/ solar shield) in mm (in.)	538 x 304 x 182 (21.2" x 12.0" x 7.2")
Volume (w/ solar shield) in L	30
Weight (w/ solar shield) in kg (lb)	24 (53)
DC voltage range	-40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption
DC power consumption	580W typical @100% RF load
Environmental conditions	-40°C (-40°F) / +55°C (+131°F) IP65
Wind load (@150km/h or 93mph)	Frontal: <200N / Lateral : <150N
Antenna ports	4 ports 7/16 DIN female (50 ohms) VSWR < 1.5 (> 14dB)
CPRI ports	2 CPRI ports (HW ready for Rate7 / 9.8 Gbps)
AISG interfaces	1 AISG2.0 output (RS485), +24V/2A DC power Integrated Smart Bias Tees (x2)
Misc. Interfaces	1 external alarms connector (4 alarms) 4 RF Tx & 4 RF Rx monitor ports 1 DC connector (2 pins)
Installation conditions	Pole and wall mounting
Regulatory compliance	3GPP 36.141 / 3GPP 36.113 / GR-1089-CORE / GR-3108-CORE / UL 60950-1 / FCC Part 27

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B25 RRH4x30

ALCATEL-LUCENT DATA SHEET REV1.1 – JANUARY 2015

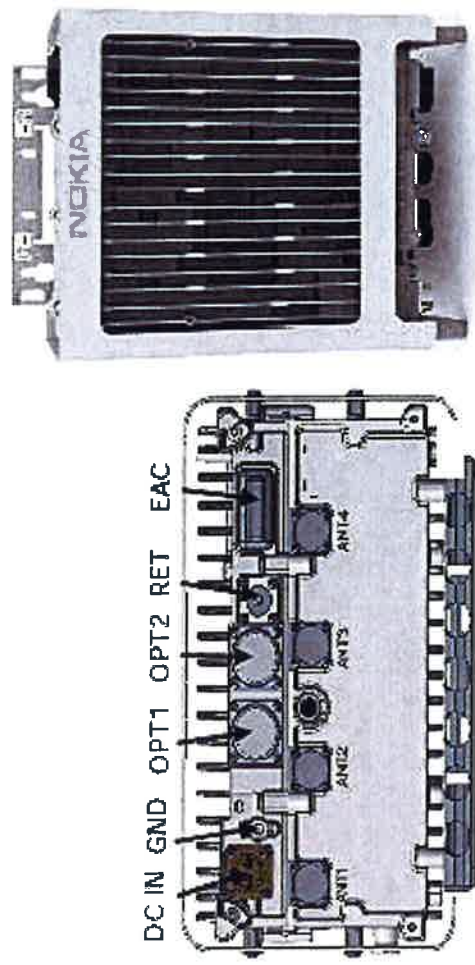


# AHCA AirScale RRH 4T4R B5 160W

Supported Frequency bands	3GPP band 5
Frequencies	DL 869-894MHz, UL 824-849MHz
Number of TX/RX paths/pipes	4TX/4RX
Instantaneous Bandwidth IBW	25MHz (Full Band)
Occupied Bandwidth OBW	25MHz (Full Band)
Output Power	4T4R @ 40W / 2T4R @ 60W
RF Sharing	LTE WCDMA, LTE + NB-IoT supported
256 QAM Back Off	No backoff at 40W and 0.8dB at 60W.
Supply Voltage / Voltage Range	DC-48V / -36V to -60V
Typical Power Consumption	365W [50% ETSI Busy Hour Load at 4 TX @ 40W]
	529W [100% RF Load at 4 TX @ 40W]
	574W [100% RF Load at 4 TX @ 40W with SBT and MISO CW]
Antenna Ports	4 Ports, 4.3-10+
Optical Ports	2x CPRI 9.8 Gbps
ALD Control Interfaces	MISO 3.0 from ANT1, 2, 3, 4 and RET [Power supply ANT1 and ANT3]
Other Interfaces	External Alarm MCR-26 Serial connector (4 inputs, 1 Output) DC Circular Power Connector

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Operational Temperature Range	-40°C to 55°C (with solar cover)
Dimensions (mm)	337 x 295 x 165 (radio only)
Height x width x depth	13.3" x 11.7" x 6.5"
	428 x 324 x 208 (with bracket and enclosure)
	16.9" x 12.8" x 8.2"
Volume (liters)	16.5
Weight (kg)	16.1 35.3 lb - w/o bracket
Ingress protection class	IP65
Installation options	Pole or Wall, Vertical or Horizontal Rack Mount
Surge protection	Class II 5kA

**NOKIA**

# **ATTACHMENT 2**

Site Name: Goshen Tower Height: 150'	General	Power	Density			
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.
*AT&T	2	500	137	880	0.0210	0.5867
*AT&T	1	500	137	1900	0.0105	1.0000
*AT&T	1	500	137	700	0.0105	0.4667
*AT&T	1	500	137	1900	0.0105	1.0000
*AT&T	1	500	137	2300	0.0105	1.0000
Verizon	1	1064	150	0.0170	1970	1.0000
Verizon	1	340	150	0.0054	869	0.5793
Verizon	3	448	150	0.0215	876	0.5840
Verizon	1	1560	150	0.0249	2145	1.0000
Verizon	1	887	150	0.0142	746	0.4973
						12.6%
* Source: Siting Council						



# **ATTACHMENT 3**



**AMERICAN TOWER®**  
CORPORATION

This report was prepared for American Tower Corporation by



**T O W E R  
ENGINEERING  
PROFESSIONALS**

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## Structural Analysis Report

**Structure** : 149 ft Monopole  
**ATC Site Name** : Goshen (Brass Mountain) CT, CT  
**ATC Site Number** : 413850  
**Engineering Number** : OAA742384\_C3\_01  
**Proposed Carrier** : Verizon  
**Carrier Site Name** : Goshen  
**Carrier Site Number** : N/A  
**Site Location** : 438 North Street  
Goshen, CT 06756-1206  
41.856300, -73.241600  
**County** : Litchfield  
**Date** : November 30, 2018  
**Max Usage** : 80%  
**Result** : Pass

Prepared By:  
Chris Tahara, E.I.  
TEP

Reviewed By:



11/30/2018

**COA: PEC.0001553**



## **Table of Contents**

Introduction .....	1
Supporting Documents .....	1
Analysis .....	1
Conclusion .....	1
Existing and Reserved Equipment .....	2
Equipment to be Removed .....	2
Proposed Equipment .....	2
Structure Usages .....	3
Foundations .....	3
Deflection, Twist, and Sway .....	3
Standard Conditions .....	4
Calculations .....	Attached



## **Introduction**

The purpose of this report is to summarize results of a structural analysis performed on the 149 ft monopole to reflect the change in loading by Verizon.

## **Supporting Documents**

<b>Tower Drawings</b>	EEL Project #15244, dated February 6, 2008
<b>Foundation Drawing</b>	EEL Project #15244, dated January 23, 2008
<b>Geotechnical Report</b>	JGI Project #J2075429, dated January 17, 2008

## **Analysis**

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

<b>Basic Wind Speed:</b>	90 mph (3-Second Gust $V_{ASD}$ ) / 115 mph (3-Second Gust $V_{ULT}$ )
<b>Basic Wind Speed w/ Ice:</b>	40 mph (3-Second Gust) w/ 1" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
<b>Structure Class:</b>	II
<b>Exposure Category:</b>	B
<b>Topographic Category:</b>	3
<b>Crest Height:</b>	236 ft
<b>Spectral Response:</b>	$S_s = 0.18$ , $S_1 = 0.06$
<b>Site Class:</b>	D - Stiff Soil

## **Conclusion**

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

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



### Existing and Reserved Equipment

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
149.0	149.0	3	Alcatel-Lucent B13 RRH4x30-4R	T-Arm w/ Working Platforms	(6) 1 5/8" Coax	Verizon
		3	Alcatel-Lucent B66A RRH 4x45			
		6	Antel LPA-80080-6CF-EDIN-2			
		6	Commscope JAHH-65B-R3B			
		1	VZW Unused Reserve: 15,011 sq in			
138.0	138.0	8	Ericsson Radio 4449 B12,B71	Platform w/ Handrails	(4) 1 1/4" Fiber (1) 1/2" Coax	T-Mobile
		1	RFS SC2-W100AB			
		4	Ericsson AIR 32 B2A/B66A			
		4	RFS APXVAARR24_43-U-NA20			

### Equipment to be Removed

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						

### Proposed Equipment

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
149.0	150.0	3	Nokia AirScale RRH 4T4R B5 160W AHCA	T-Arm w/ Working Platforms	(2) 1 5/8" Fiber	Verizon
		1	RFS DB-C1-12C-24AB-0Z			
	149.0	3	Alcatel-Lucent B25 RRH4x30			

<sup>1</sup>Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.

**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	42%	Pass
Shaft	68%	Pass
Base Plate	55%	Pass

**Foundations**

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	4,230.7	3,335.7	79%
Shear (Kips)	38.7	30.9	80%

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

**Deflection and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
149.0	Nokia AirScale RRH 4T4R B5 160W AHCA	Verizon	2.087	1.537
	Alcatel-Lucent B25 RRH4x30			
	RFS DB-C1-12C-24AB-0Z			

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





## **Standard Conditions**

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

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

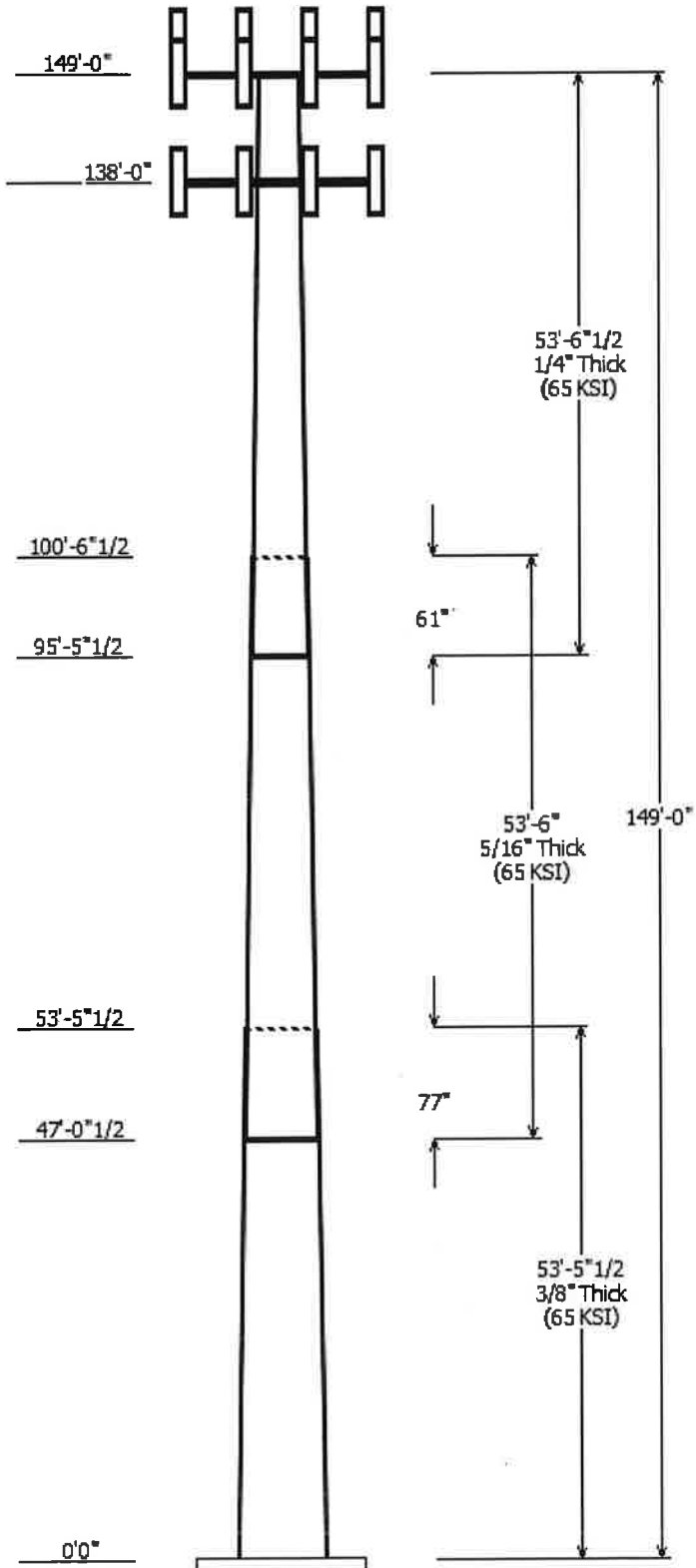
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

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

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

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## Job Information

Pole : 413850 Code: ANSI/TIA-222-G  
 Location : Goshen (Brass Mountain) CT, CT  
 Description : 149 ft EEI Monopole  
 Client : VERIZON WIRELESS Struct Class : II  
 Shape : 18 Sides Exposure : B  
 Height : 149.00 (ft) Topo : 3  
 Base Elev (ft): 0.00  
 Taper: 0.229027(in/ft)

## Sections Properties

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade
		Accross	Flats				
1	53.460	44.75	57.00	0.375		0.000	18 Sides 65
2	53.500	34.59	46.85	0.313	Slip Joint	77.000	18 Sides 65
3	53.540	24.00	36.26	0.250	Slip Joint	61.000	18 Sides 65

## Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
149.000	149.000	3	Alcatel-Lucent B25 RRH4x30
149.000	150.000	3	Nokia AirScale RRH 4T4R B5 160
149.000	149.000	1	VZW Unused Reserve: 15,011
149.000	149.000	6	Commscope JAHH-65B-R3B
149.000	150.000	1	RFS DB-C1-12C-24AB-0Z
149.000	149.000	3	Alcatel-Lucent B66A RRH 4x45
149.000	149.000	3	Alcatel-Lucent B13 RRH4x30-4R
149.000	149.000	3	Flat T-Arm w/ Working
149.000	149.000	6	Amphenol Antel LPA-80080-
138.000	138.000	4	RFS APXVAARR24_43-U-NA20
138.000	138.000	4	Ericsson AIR 32 B2A/B66A
138.000	138.000	1	RFS SC2-W100AB
138.000	138.000	8	Ericsson Radio 4449 B12,B71
138.000	138.000	1	Flat Platform w/ Handrails

## Linear Appurtenance

Elev From	Elev To	Description	Exposed To Wind
0.000	138.0	1 1/4" Fiber	No
0.000	138.0	1/2" Coax	No
0.000	149.0	1 5/8" Coax	No
0.000	149.0	1 5/8" Fiber	No

## Load Cases

1.2D + 1.6W	90 mph with No Ice
0.9D + 1.6W	90 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

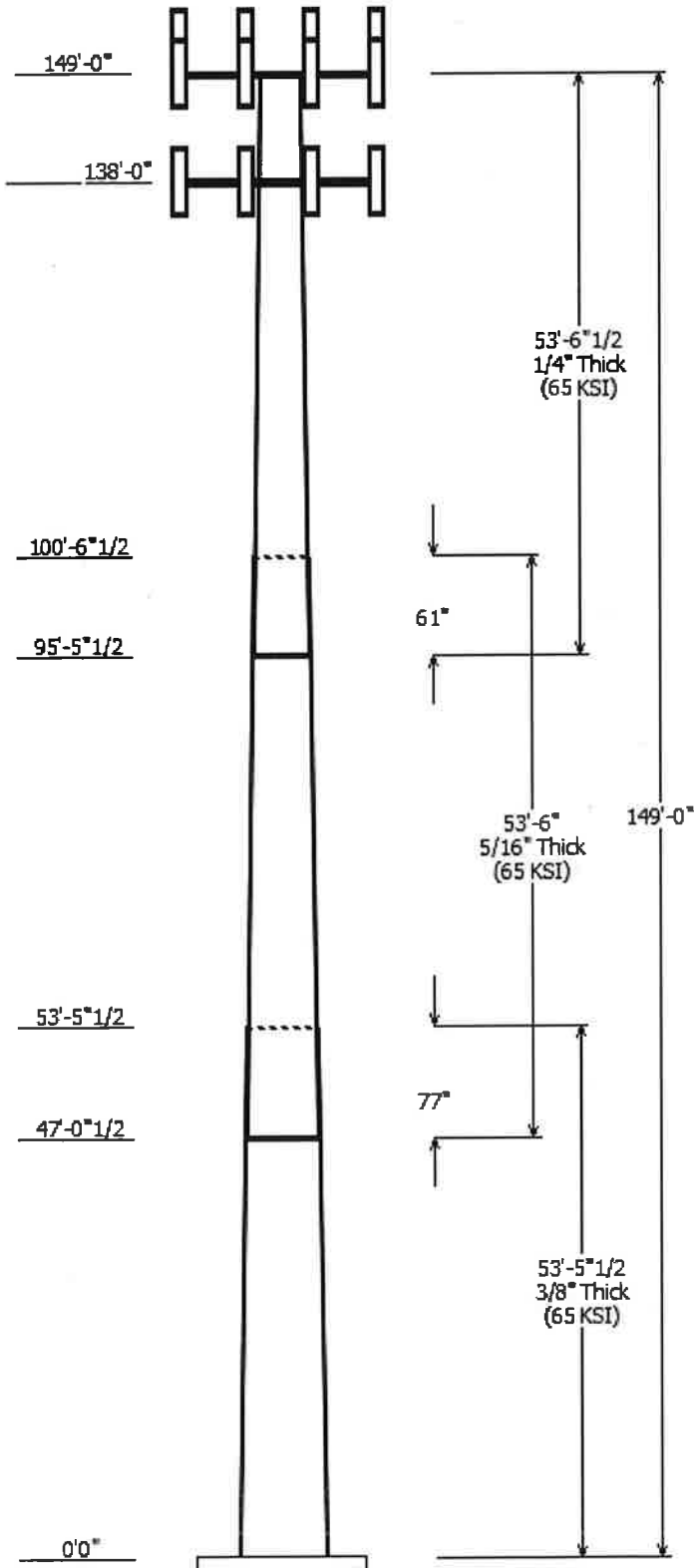
## Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	3335.70	30.90	37.71
0.9D + 1.6W	3306.72	30.89	28.27
1.2D + 1.0Di + 1.0Wi	572.10	5.88	70.53

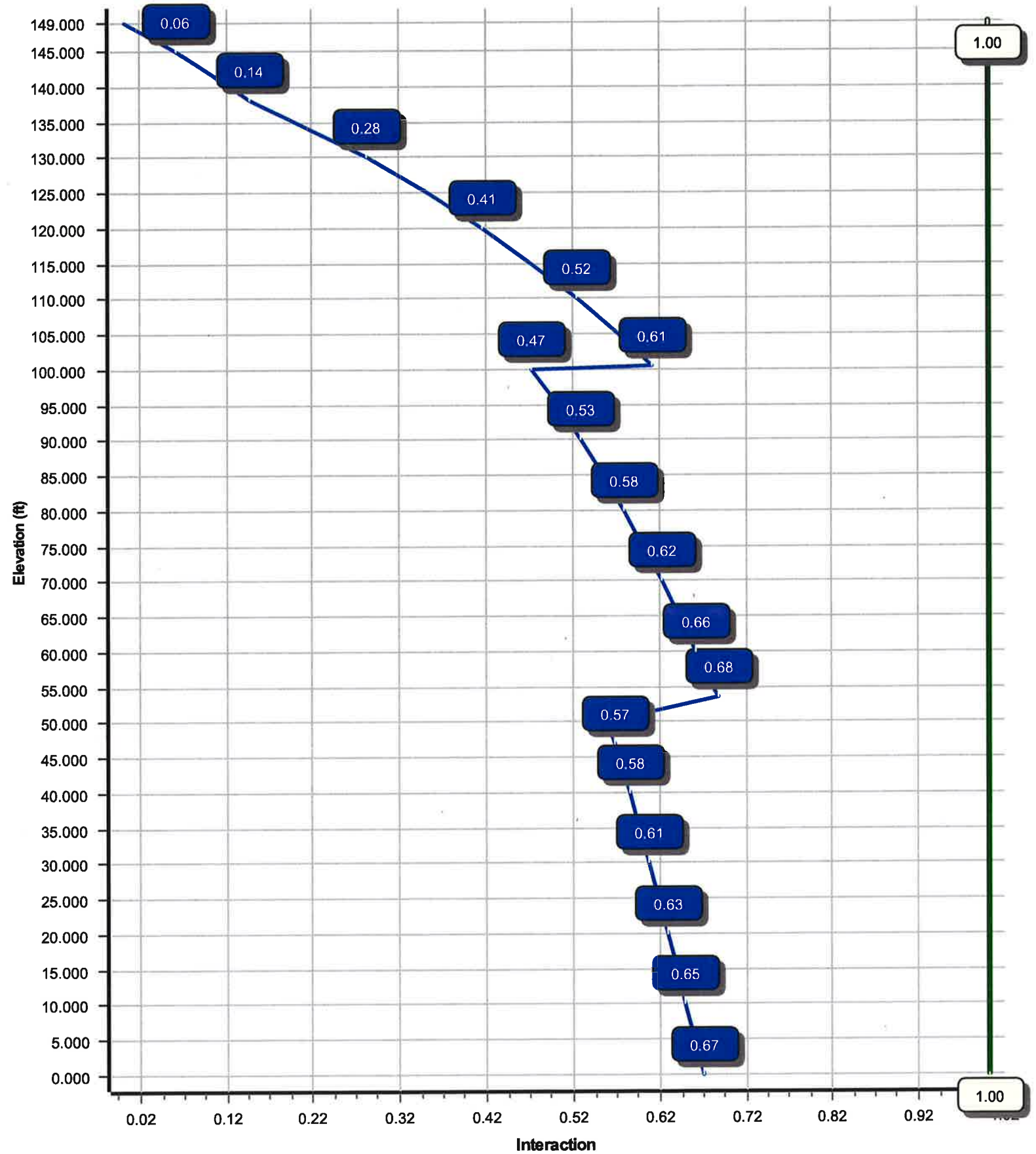
$(1.2 + 0.2S_{ds}) * DL + E$ ELFM	170.11	1.36	37.48
$(1.2 + 0.2S_{ds}) * DL + E$ EMAM	327.76	2.58	37.48
$(0.9 - 0.2S_{ds}) * DL + E$ ELFM	168.33	1.36	26.08
$(0.9 - 0.2S_{ds}) * DL + E$ EMAM	324.10	2.58	26.08
1.0D + 1.0W	922.26	8.58	31.46

### Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000



**Load Case : 1.2D + 1.6W**  
**Max Ratio 68.48% at 53.5 ft**



Site Number: 413850	Code: ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384_C3_01	11/30/2018 12:41:10 PM	
Customer: VERIZON WIRELESS		

### Analysis Parameters

Location :	LITCHFIELD County, CT	Height (ft) :	149
Code :	ANSI/TIA-222-G	Base Diameter (in) :	57.00
Shape :	18 Sides	Top Diameter (in) :	24.00
Pole Type :	Taper	Taper (in/ft) :	0.229
Pole Manufacturer :	EEL	Rotation (deg) :	0.00

### Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	90 mph
Exposure Category:	B	Design Wind Speed With Ice:	40 mph
Topographic Category:	3	Operational Wind Speed:	60 mph
Crest Height:	236 ft	Design Ice Thickness:	1.00 in

### Seismic Parameters

Analysis Method: Equivalent Modal Analysis & Equivalent Lateral Force Methods			
Site Class: D - Stiff Soil			
Period Based on Rayleigh Method (sec):		2.08	
$T_L$ (sec):	6	$p$ :	1.3
$S_s$ :	0.180	$S_1$ :	0.065
$F_a$ :	1.600	$F_v$ :	2.400
$S_{ds}$ :	0.192	$S_{d1}$ :	0.104
		$C_s$ :	0.033
		$C_s$ Max:	0.033
		$C_s$ Min:	0.030

### Load Cases

1.2D + 1.6W	90 mph with No Ice
0.9D + 1.6W	90 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

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Customer: VERIZON WIRELESS

**Shaft Section Properties**

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom						Top						Taper (in/ft)
							Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	
1-18	53.460	0.3750	65		0.00	10,935	57.00	0.00	67.40	27302.4	25.39	152.00	44.75	53.46	52.82	13145.4	19.63	119.35	0.229027
2-18	53.500	0.3125	65	Slip	77.00	7,297	46.85	47.04	46.16	12630.7	25.02	149.92	34.59	100.54	34.01	5050.3	18.11	110.71	0.229027
3-18	53.540	0.2500	65	Slip	61.00	4,320	36.26	95.46	28.57	4682.0	24.17	145.05	24.00	149.00	18.84	1343.0	15.52	96.00	0.229027
Shaft Weight						22,551													

**Discrete Appurtenance Properties**

Attach Elev (ft)	Description	Qty	Distance From Face (ft)	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor
149.00	Alcatel-Lucent B13 RRH4x30-4R	3	0.000	0.000	57.80	2.140	0.67
149.00	Alcatel-Lucent B25 RRH4x30	3	0.000	0.000	53.00	2.120	0.67
149.00	Alcatel-Lucent B66A RRH 4x45	3	0.000	0.000	67.00	2.580	0.67
149.00	Amphenol Antel LPA-80080-6CF-	6	0.000	0.000	21.00	8.630	0.65
149.00	Commscope JAHH-65B-R3B	6	0.000	0.000	60.60	9.110	0.69
149.00	Flat T-Arm w/ Working Platform	3	0.000	0.000	300.00	14.400	0.67
149.00	Nokia AirScale RRH 4T4R B5 160	3	0.000	1.000	35.30	1.290	0.50
149.00	RFS DB-C1-12C-24AB-0Z	1	0.000	1.000	32.00	4.060	0.67
149.00	VZW Unused Reserve: 15,011 sq	1	0.000	0.000	1339.10	104.33	1.00
138.00	Ericsson AIR 32 B2A/B66A	4	0.000	0.000	143.30	6.870	0.75
138.00	Ericsson Radio 4449 B12,B71	8	0.000	0.000	74.00	1.640	0.50
138.00	Flat Platform w/ Handrails	1	0.000	0.000	2000.00	42.400	1.00
138.00	RFS APXVAARR24_43-U-NA20	4	0.000	0.000	127.90	20.240	0.63
138.00	RFS SC2-W100AB	1	0.000	0.000	22.00	4.800	1.00
Totals	Num Loadings:14	47			7098.80		

**Linear Appurtenance Properties**

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Projected Flat Width (in)	Exposed To Wind	Carrier	
0.00	149.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon
0.00	149.00	2	1 5/8" Fiber	1.63	1.61	N	0.00	N	Verizon
0.00	138.00	4	1 1/4" Fiber	1.25	1.05	N	0.00	N	T-Mobile
0.00	138.00	1	1/2" Coax	0.63	0.15	N	0.00	N	T-Mobile



Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:10 PM

Customer: VERIZON WIRELESS

**Segment Properties** (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	F'y (ksi)	S (in <sup>3</sup> )	Z (in <sup>3</sup> )	Weight (lb)
0.00		0.3750	57.000	67.395	27,302.4	25.39	152.00	71.5	943.4	0.0	0.0
5.00		0.3750	55.855	66.033	25,679.2	24.85	148.95	72.2	905.5	0.0	1,135.1
10.00		0.3750	54.710	64.670	24,121.7	24.31	145.89	72.8	868.4	0.0	1,111.9
15.00		0.3750	53.565	63.307	22,628.5	23.78	142.84	73.4	832.1	0.0	1,088.7
20.00		0.3750	52.419	61.944	21,198.2	23.24	139.79	74.1	796.5	0.0	1,065.5
25.00		0.3750	51.274	60.581	19,829.5	22.70	136.73	74.7	761.7	0.0	1,042.3
30.00		0.3750	50.129	59.218	18,521.0	22.16	133.68	75.3	727.7	0.0	1,019.1
35.00		0.3750	48.984	57.855	17,271.4	21.62	130.62	76.0	694.5	0.0	995.9
40.00		0.3750	47.839	56.492	16,079.3	21.08	127.57	76.6	662.0	0.0	972.7
45.00		0.3750	46.694	55.129	14,943.3	20.55	124.52	77.2	630.3	0.0	949.6
47.04	Bot - Section 2	0.3750	46.226	54.572	14,495.0	20.33	123.27	77.5	617.6	0.0	381.4
50.00		0.3750	45.549	53.766	13,862.2	20.01	121.46	77.9	599.4	0.0	1,006.0
53.46	Top - Section 1	0.3125	45.381	44.701	11,471.5	24.20	145.22	72.9	497.9	0.0	1,158.4
55.00		0.3125	45.029	44.351	11,204.3	24.00	144.09	73.2	490.1	0.0	233.3
60.00		0.3125	43.883	43.215	10,365.3	23.35	140.43	73.9	465.2	0.0	744.9
65.00		0.3125	42.738	42.080	9,569.4	22.70	136.76	74.7	441.0	0.0	725.6
70.00		0.3125	41.593	40.944	8,815.2	22.06	133.10	75.5	417.4	0.0	706.3
75.00		0.3125	40.448	39.808	8,101.8	21.41	129.43	76.2	394.5	0.0	687.0
80.00		0.3125	39.303	38.672	7,427.9	20.77	125.77	77.0	372.2	0.0	667.6
85.00		0.3125	38.158	37.536	6,792.5	20.12	122.10	77.7	350.6	0.0	648.3
90.00		0.3125	37.013	36.401	6,194.3	19.47	118.44	78.5	329.6	0.0	629.0
95.00		0.3125	35.867	35.265	5,632.4	18.83	114.78	79.3	309.3	0.0	609.7
95.46	Bot - Section 3	0.3125	35.762	35.160	5,582.5	18.77	114.44	79.3	307.5	0.0	55.1
100.0		0.3125	34.722	34.129	5,105.5	18.18	111.11	80.0	289.6	0.0	970.3
100.5	Top - Section 2	0.2500	35.098	27.651	4,242.4	23.34	140.39	73.9	238.1	0.0	114.2
105.0		0.2500	34.077	26.841	3,880.4	22.62	136.31	74.8	224.3	0.0	413.2
110.0		0.2500	32.932	25.932	3,499.6	21.82	131.73	75.7	209.3	0.0	448.9
115.0		0.2500	31.787	25.024	3,144.4	21.01	127.15	76.7	194.8	0.0	433.5
120.0		0.2500	30.642	24.115	2,814.2	20.20	122.57	77.6	180.9	0.0	418.0
125.0		0.2500	29.497	23.206	2,507.9	19.39	117.99	78.6	167.5	0.0	402.6
130.0		0.2500	28.352	22.298	2,224.7	18.59	113.41	79.5	154.6	0.0	387.1
135.0		0.2500	27.206	21.389	1,963.7	17.78	108.83	80.5	142.2	0.0	371.6
138.0		0.2500	26.519	20.844	1,817.3	17.29	106.08	81.1	135.0	0.0	215.6
140.0		0.2500	26.061	20.480	1,723.9	16.97	104.24	81.4	130.3	0.0	140.6
145.0		0.2500	24.916	19.572	1,504.5	16.16	99.66	82.4	118.9	0.0	340.7
149.0		0.2500	24.000	18.845	1,343.0	15.52	96.00	82.6	110.2	0.0	261.4
											22,551.0

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:10 PM

Customer: VERIZON WIRELESS

**Load Case: 1.2D + 1.6W****90 mph with No Ice****23 Iterations****Gust Response Factor :1.10****Wind Importance Factor :1.00****Dead Load Factor :1.20****Wind Load Factor :1.60****Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		405.3	0.0					0.0	0.0	405.3	0.0	0.0	0.0
5.00		791.9	1,362.1					0.0	74.9	791.9	1,437.0	0.0	0.0
10.00		755.6	1,334.3					0.0	74.9	755.6	1,409.2	0.0	0.0
15.00		721.2	1,306.4					0.0	74.9	721.2	1,381.4	0.0	0.0
20.00		688.5	1,278.6					0.0	74.9	688.5	1,353.5	0.0	0.0
25.00		657.5	1,250.8					0.0	74.9	657.5	1,325.7	0.0	0.0
30.00		635.4	1,222.9					0.0	74.9	635.4	1,297.9	0.0	0.0
35.00		627.0	1,195.1					0.0	74.9	627.0	1,270.1	0.0	0.0
40.00		622.5	1,167.3					0.0	74.9	622.5	1,242.2	0.0	0.0
45.00		435.2	1,139.5					0.0	74.9	435.2	1,214.4	0.0	0.0
47.04	Bot - Section 2	308.0	457.7					0.0	30.6	308.0	488.3	0.0	0.0
50.00		394.0	1,207.2					0.0	44.3	394.0	1,251.5	0.0	0.0
53.46	Top - Section 1	304.7	1,390.1					0.0	51.9	304.7	1,441.9	0.0	0.0
55.00		392.2	280.0					0.0	23.1	392.2	303.1	0.0	0.0
60.00		591.7	893.9					0.0	74.9	591.7	968.8	0.0	0.0
65.00		578.7	870.7					0.0	74.9	578.7	945.7	0.0	0.0
70.00		565.0	847.5					0.0	74.9	565.0	922.5	0.0	0.0
75.00		550.8	824.3					0.0	74.9	550.8	899.3	0.0	0.0
80.00		536.1	801.2					0.0	74.9	536.1	876.1	0.0	0.0
85.00		521.0	778.0					0.0	74.9	521.0	852.9	0.0	0.0
90.00		505.7	754.8					0.0	74.9	505.7	829.7	0.0	0.0
95.00		271.5	731.6					0.0	74.9	271.5	806.5	0.0	0.0
95.46	Bot - Section 3	244.3	66.1					0.0	6.9	244.3	73.0	0.0	0.0
100.00		247.9	1,164.3					0.0	68.0	247.9	1,232.4	0.0	0.0
100.54	Top - Section 2	236.8	137.0					0.0	8.1	236.8	145.2	0.0	0.0
105.00		439.6	495.8					0.0	66.8	439.6	562.6	0.0	0.0
110.00		449.9	538.7					0.0	74.9	449.9	613.7	0.0	0.0
115.00		434.0	520.2					0.0	74.9	434.0	595.1	0.0	0.0
120.00		418.2	501.6					0.0	74.9	418.2	576.6	0.0	0.0
125.00		402.3	483.1					0.0	74.9	402.3	558.0	0.0	0.0
130.00		386.5	464.5					0.0	74.9	386.5	539.5	0.0	0.0
135.00		299.0	446.0					0.0	74.9	299.0	520.9	0.0	0.0
138.00	Appurtenance(s)	181.4	258.7	5,181.2	0.0	0.0	4,438.6	0.0	45.0	5,362.6	4,742.2	0.0	0.0
140.00		245.1	168.7					0.0	19.5	245.1	188.3	0.0	0.0
145.00		306.6	408.9					0.0	48.8	306.6	457.7	0.0	0.0
149.00	Appurtenance(s)	133.1	313.7	9,786.2	0.0	184.2	4,080.0	0.0	39.1	9,919.3	4,432.8	0.0	0.0
Totals:										31,251.6	37,755.6	0.00	0.00

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:11 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.6W

90 mph with No Ice

23 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

**Calculated Forces**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.71	-30.90	0.00	-3,335.70	0.00	3,335.70	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.668
5.00	-36.18	-30.22	0.00	-3,181.18	0.00	3,181.18	4,288.99	2,144.49	9,788.20	4,901.38	0.09	-0.17	0.658
10.00	-34.69	-29.56	0.00	-3,030.10	0.00	3,030.10	4,237.32	2,118.66	9,469.35	4,741.71	0.36	-0.34	0.647
15.00	-33.22	-28.93	0.00	-2,882.30	0.00	2,882.30	4,184.10	2,092.05	9,152.00	4,582.80	0.81	-0.52	0.637
20.00	-31.79	-28.33	0.00	-2,737.65	0.00	2,737.65	4,129.33	2,064.66	8,836.37	4,424.75	1.45	-0.69	0.627
25.00	-30.39	-27.75	0.00	-2,596.01	0.00	2,596.01	4,073.00	2,036.50	8,522.69	4,267.68	2.27	-0.87	0.616
30.00	-29.01	-27.18	0.00	-2,457.28	0.00	2,457.28	4,015.11	2,007.56	8,211.17	4,111.69	3.28	-1.05	0.605
35.00	-27.67	-26.62	0.00	-2,321.37	0.00	2,321.37	3,955.68	1,977.84	7,902.03	3,956.89	4.48	-1.24	0.594
40.00	-26.36	-26.05	0.00	-2,188.28	0.00	2,188.28	3,894.69	1,947.34	7,595.51	3,803.40	5.88	-1.42	0.582
45.00	-25.10	-25.65	0.00	-2,058.01	0.00	2,058.01	3,832.15	1,916.07	7,291.81	3,651.33	7.47	-1.61	0.570
47.04	-24.57	-25.36	0.00	-2,005.61	0.00	2,005.61	3,806.14	1,903.07	7,168.57	3,589.61	8.18	-1.69	0.565
50.00	-23.28	-24.98	0.00	-1,930.61	0.00	1,930.61	3,768.05	1,884.02	6,991.17	3,500.78	9.26	-1.80	0.558
53.46	-21.81	-24.67	0.00	-1,844.17	0.00	1,844.17	2,934.54	1,467.27	5,439.41	2,723.75	10.61	-1.94	0.685
55.00	-21.46	-24.32	0.00	-1,806.18	0.00	1,806.18	2,920.91	1,460.46	5,371.50	2,689.74	11.25	-2.00	0.679
60.00	-20.42	-23.77	0.00	-1,684.59	0.00	1,684.59	2,875.67	1,437.83	5,151.93	2,579.79	13.46	-2.22	0.660
65.00	-19.41	-23.23	0.00	-1,565.73	0.00	1,565.73	2,828.87	1,414.44	4,933.94	2,470.64	15.91	-2.44	0.641
70.00	-18.42	-22.70	0.00	-1,449.57	0.00	1,449.57	2,780.52	1,390.26	4,717.75	2,362.38	18.58	-2.67	0.620
75.00	-17.46	-22.17	0.00	-1,336.08	0.00	1,336.08	2,730.61	1,365.31	4,503.59	2,255.14	21.50	-2.89	0.599
80.00	-16.53	-21.66	0.00	-1,225.22	0.00	1,225.22	2,679.16	1,339.58	4,291.67	2,149.02	24.65	-3.12	0.577
85.00	-15.63	-21.15	0.00	-1,116.93	0.00	1,116.93	2,626.14	1,313.07	4,082.22	2,044.14	28.03	-3.34	0.553
90.00	-14.75	-20.65	0.00	-1,011.19	0.00	1,011.19	2,571.58	1,285.79	3,875.45	1,940.61	31.65	-3.56	0.527
95.00	-13.92	-20.36	0.00	-907.93	0.00	907.93	2,515.46	1,257.73	3,671.59	1,838.53	35.50	-3.78	0.500
95.46	-13.82	-20.14	0.00	-898.56	0.00	898.56	2,510.22	1,255.11	3,652.99	1,829.21	35.86	-3.81	0.497
100.00	-12.57	-19.83	0.00	-807.15	0.00	807.15	2,457.78	1,228.89	3,470.86	1,738.01	39.57	-4.00	0.470
100.54	-12.41	-19.61	0.00	-796.37	0.00	796.37	1,840.14	920.07	2,636.71	1,320.31	40.03	-4.03	0.610
105.00	-11.81	-19.17	0.00	-708.99	0.00	708.99	1,806.70	903.35	2,512.42	1,258.08	43.88	-4.22	0.571
110.00	-11.15	-18.72	0.00	-613.13	0.00	613.13	1,767.71	883.85	2,374.37	1,188.95	48.42	-4.46	0.522
115.00	-10.52	-18.28	0.00	-519.52	0.00	519.52	1,727.17	863.58	2,238.01	1,120.67	53.21	-4.69	0.470
120.00	-9.92	-17.85	0.00	-428.10	0.00	428.10	1,685.07	842.53	2,103.55	1,053.34	58.23	-4.90	0.413
125.00	-9.34	-17.44	0.00	-338.83	0.00	338.83	1,641.42	820.71	1,971.23	987.08	63.47	-5.10	0.349
130.00	-8.80	-17.02	0.00	-251.65	0.00	251.65	1,596.21	798.11	1,841.24	921.99	68.89	-5.26	0.279
135.00	-8.28	-16.69	0.00	-166.53	0.00	166.53	1,549.45	774.73	1,713.83	858.19	74.47	-5.40	0.200
138.00	-4.06	-10.91	0.00	-116.45	0.00	116.45	1,520.65	760.33	1,638.71	820.57	77.88	-5.46	0.145
140.00	-3.88	-10.65	0.00	-94.64	0.00	94.64	1,501.14	750.57	1,589.21	795.79	80.17	-5.49	0.122
145.00	-3.45	-10.30	0.00	-41.39	0.00	41.39	1,451.27	725.64	1,467.60	734.89	85.95	-5.55	0.059
149.00	0.00	-9.92	0.00	-0.18	0.00	0.18	1,400.09	700.04	1,362.73	682.38	90.60	-5.56	0.000

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:12 PM

Customer: VERIZON WIRELESS

**Load Case:** 0.9D + 1.6W

90 mph with No Ice (Reduced DL)

22 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		405.3	0.0					0.0	0.0	405.3	0.0	0.0	0.0
5.00		791.9	1,021.6					0.0	56.2	791.9	1,077.8	0.0	0.0
10.00		755.6	1,000.7					0.0	56.2	755.6	1,056.9	0.0	0.0
15.00		721.2	979.8					0.0	56.2	721.2	1,036.0	0.0	0.0
20.00		688.5	958.9					0.0	56.2	688.5	1,015.2	0.0	0.0
25.00		657.5	938.1					0.0	56.2	657.5	994.3	0.0	0.0
30.00		635.4	917.2					0.0	56.2	635.4	973.4	0.0	0.0
35.00		627.0	896.3					0.0	56.2	627.0	952.5	0.0	0.0
40.00		622.5	875.5					0.0	56.2	622.5	931.7	0.0	0.0
45.00		435.2	854.6					0.0	56.2	435.2	910.8	0.0	0.0
47.04	Bot - Section 2	308.0	343.2					0.0	23.0	308.0	366.2	0.0	0.0
50.00		394.0	905.4					0.0	33.2	394.0	938.6	0.0	0.0
53.46	Top - Section 1	304.7	1,042.5					0.0	38.9	304.7	1,081.4	0.0	0.0
55.00		392.2	210.0					0.0	17.3	392.2	227.3	0.0	0.0
60.00		591.7	670.4					0.0	56.2	591.7	726.6	0.0	0.0
65.00		578.7	653.0					0.0	56.2	578.7	709.2	0.0	0.0
70.00		565.0	635.6					0.0	56.2	565.0	691.9	0.0	0.0
75.00		550.8	618.3					0.0	56.2	550.8	674.5	0.0	0.0
80.00		536.1	600.9					0.0	56.2	536.1	657.1	0.0	0.0
85.00		521.0	583.5					0.0	56.2	521.0	639.7	0.0	0.0
90.00		505.7	566.1					0.0	56.2	505.7	622.3	0.0	0.0
95.00		271.5	548.7					0.0	56.2	271.5	604.9	0.0	0.0
95.46	Bot - Section 3	244.3	49.6					0.0	5.2	244.3	54.8	0.0	0.0
100.00		247.9	873.2					0.0	51.0	247.9	924.3	0.0	0.0
100.54	Top - Section 2	236.8	102.8					0.0	6.1	236.8	108.9	0.0	0.0
105.00		439.6	371.9					0.0	50.1	439.6	422.0	0.0	0.0
110.00		449.9	404.0					0.0	56.2	449.9	460.2	0.0	0.0
115.00		434.0	390.1					0.0	56.2	434.0	446.3	0.0	0.0
120.00		418.2	376.2					0.0	56.2	418.2	432.4	0.0	0.0
125.00		402.3	362.3					0.0	56.2	402.3	418.5	0.0	0.0
130.00		386.5	348.4					0.0	56.2	386.5	404.6	0.0	0.0
135.00		299.0	334.5					0.0	56.2	299.0	390.7	0.0	0.0
138.00	Appurtenance(s)	181.4	194.0	5,181.2	0.0	0.0	3,328.9	0.0	33.7	5,362.6	3,556.7	0.0	0.0
140.00		245.1	126.6					0.0	14.7	245.1	141.2	0.0	0.0
145.00		306.6	306.7					0.0	36.6	306.6	343.3	0.0	0.0
149.00	Appurtenance(s)	133.1	235.3	9,786.2	0.0	184.2	3,060.0	0.0	29.3	9,919.3	3,324.6	0.0	0.0
Totals:										31,251.6	28,316.7	0.00	0.00

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:13 PM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.6W

90 mph with No Ice (Reduced DL)

22 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-28.27	-30.89	0.00	-3,306.72	0.00	3,306.72	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.660
5.00	-27.10	-30.17	0.00	-3,152.28	0.00	3,152.28	4,288.99	2,144.49	9,788.20	4,901.38	0.09	-0.17	0.650
10.00	-25.96	-29.49	0.00	-3,001.41	0.00	3,001.41	4,237.32	2,118.66	9,469.35	4,741.71	0.36	-0.34	0.639
15.00	-24.84	-28.84	0.00	-2,853.95	0.00	2,853.95	4,184.10	2,092.05	9,152.00	4,582.80	0.81	-0.51	0.629
20.00	-23.75	-28.21	0.00	-2,709.76	0.00	2,709.76	4,129.33	2,064.66	8,836.37	4,424.75	1.44	-0.69	0.618
25.00	-22.68	-27.61	0.00	-2,568.70	0.00	2,568.70	4,073.00	2,036.50	8,522.69	4,267.68	2.25	-0.86	0.608
30.00	-21.63	-27.03	0.00	-2,430.64	0.00	2,430.64	4,015.11	2,007.56	8,211.17	4,111.69	3.25	-1.04	0.597
35.00	-20.61	-26.45	0.00	-2,295.49	0.00	2,295.49	3,955.68	1,977.84	7,902.03	3,956.89	4.44	-1.22	0.586
40.00	-19.61	-25.87	0.00	-2,163.25	0.00	2,163.25	3,894.69	1,947.34	7,595.51	3,803.40	5.82	-1.41	0.574
45.00	-18.65	-25.45	0.00	-2,033.90	0.00	2,033.90	3,832.15	1,916.07	7,291.81	3,651.33	7.40	-1.59	0.562
47.04	-18.25	-25.16	0.00	-1,981.90	0.00	1,981.90	3,806.14	1,903.07	7,168.57	3,589.61	8.09	-1.67	0.557
50.00	-17.27	-24.78	0.00	-1,907.49	0.00	1,907.49	3,768.05	1,884.02	6,991.17	3,500.78	9.17	-1.78	0.550
53.46	-16.16	-24.47	0.00	-1,821.76	0.00	1,821.76	2,934.54	1,467.27	5,439.41	2,723.75	10.51	-1.92	0.675
55.00	-15.89	-24.11	0.00	-1,784.08	0.00	1,784.08	2,920.91	1,460.46	5,371.50	2,689.74	11.14	-1.98	0.669
60.00	-15.09	-23.55	0.00	-1,663.55	0.00	1,663.55	2,875.67	1,437.83	5,151.93	2,579.79	13.32	-2.20	0.650
65.00	-14.32	-23.00	0.00	-1,545.81	0.00	1,545.81	2,828.87	1,414.44	4,933.94	2,470.64	15.74	-2.42	0.631
70.00	-13.56	-22.45	0.00	-1,430.83	0.00	1,430.83	2,780.52	1,390.26	4,717.75	2,362.38	18.39	-2.64	0.611
75.00	-12.83	-21.92	0.00	-1,318.57	0.00	1,318.57	2,730.61	1,365.31	4,503.59	2,255.14	21.27	-2.86	0.590
80.00	-12.12	-21.40	0.00	-1,208.97	0.00	1,208.97	2,679.16	1,339.58	4,291.67	2,149.02	24.38	-3.08	0.567
85.00	-11.43	-20.89	0.00	-1,101.98	0.00	1,101.98	2,626.14	1,313.07	4,082.22	2,044.14	27.73	-3.30	0.544
90.00	-10.76	-20.39	0.00	-997.55	0.00	997.55	2,571.58	1,285.79	3,875.45	1,940.61	31.30	-3.52	0.518
95.00	-10.14	-20.10	0.00	-895.62	0.00	895.62	2,515.46	1,257.73	3,671.59	1,838.53	35.11	-3.74	0.491
95.46	-10.06	-19.87	0.00	-886.37	0.00	886.37	2,510.22	1,255.11	3,652.99	1,829.21	35.47	-3.76	0.489
100.00	-9.12	-19.58	0.00	-796.17	0.00	796.17	2,457.78	1,228.89	3,470.86	1,738.01	39.14	-3.95	0.462
100.54	-8.99	-19.35	0.00	-785.53	0.00	785.53	1,840.14	920.07	2,636.71	1,320.31	39.59	-3.98	0.600
105.00	-8.53	-18.91	0.00	-699.29	0.00	699.29	1,806.70	903.35	2,512.42	1,258.08	43.39	-4.17	0.561
110.00	-8.03	-18.46	0.00	-604.73	0.00	604.73	1,767.71	883.85	2,374.37	1,188.95	47.88	-4.40	0.514
115.00	-7.55	-18.02	0.00	-512.41	0.00	512.41	1,727.17	863.58	2,238.01	1,120.67	52.61	-4.63	0.462
120.00	-7.09	-17.60	0.00	-422.29	0.00	422.29	1,685.07	842.53	2,103.55	1,053.34	57.57	-4.84	0.406
125.00	-6.65	-17.18	0.00	-334.30	0.00	334.30	1,641.42	820.71	1,971.23	987.08	62.74	-5.03	0.343
130.00	-6.24	-16.78	0.00	-248.40	0.00	248.40	1,596.21	798.11	1,841.24	921.99	68.10	-5.20	0.274
135.00	-5.85	-16.45	0.00	-164.52	0.00	164.52	1,549.45	774.73	1,713.83	858.19	73.62	-5.33	0.196
138.00	-2.80	-10.78	0.00	-115.16	0.00	115.16	1,520.65	760.33	1,638.71	820.57	76.98	-5.39	0.142
140.00	-2.68	-10.53	0.00	-93.59	0.00	93.59	1,501.14	750.57	1,589.21	795.79	79.25	-5.42	0.120
145.00	-2.36	-10.19	0.00	-40.95	0.00	40.95	1,451.27	725.64	1,467.60	734.89	84.95	-5.48	0.058
149.00	0.00	-9.92	0.00	-0.18	0.00	0.18	1,400.09	700.04	1,362.73	682.38	89.55	-5.50	0.000

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:13 PM

Customer: VERIZON WIRELESS

**Load Case:** 1.2D + 1.0Di + 1.0Wi

40 mph with 1.00 in Radial Ice

21 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Wind Importance Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load Factor :1.00

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		98.9	0.0					0.0	0.0	98.9	0.0	0.0	0.0
5.00		194.0	2,094.5					0.0	74.9	194.0	2,169.5	0.0	0.0
10.00		186.4	2,131.1					0.0	74.9	186.4	2,206.0	0.0	0.0
15.00		178.6	2,122.1					0.0	74.9	178.6	2,197.1	0.0	0.0
20.00		171.1	2,098.6					0.0	74.9	171.1	2,173.5	0.0	0.0
25.00		163.9	2,067.7					0.0	74.9	163.9	2,142.6	0.0	0.0
30.00		158.9	2,032.3					0.0	74.9	158.9	2,107.3	0.0	0.0
35.00		157.2	1,994.1					0.0	74.9	157.2	2,069.1	0.0	0.0
40.00		156.5	1,953.9					0.0	74.9	156.5	2,028.8	0.0	0.0
45.00		109.6	1,912.2					0.0	74.9	109.6	1,987.1	0.0	0.0
47.04	Bot - Section 2	77.7	771.4					0.0	30.6	77.7	802.0	0.0	0.0
50.00		99.5	1,661.4					0.0	44.3	99.5	1,705.8	0.0	0.0
53.46	Top - Section 1	77.0	1,914.0					0.0	51.9	77.0	1,965.9	0.0	0.0
55.00		99.4	511.8					0.0	23.1	99.4	534.9	0.0	0.0
60.00		150.2	1,629.4					0.0	74.9	150.2	1,704.4	0.0	0.0
65.00		147.3	1,589.4					0.0	74.9	147.3	1,664.3	0.0	0.0
70.00		144.3	1,549.0					0.0	74.9	144.3	1,623.9	0.0	0.0
75.00		141.1	1,508.3					0.0	74.9	141.1	1,583.2	0.0	0.0
80.00		137.8	1,467.3					0.0	74.9	137.8	1,542.3	0.0	0.0
85.00		134.4	1,426.2					0.0	74.9	134.4	1,501.1	0.0	0.0
90.00		130.9	1,385.0					0.0	74.9	130.9	1,459.9	0.0	0.0
95.00		70.4	1,343.6					0.0	74.9	70.4	1,418.6	0.0	0.0
95.46	Bot - Section 3	63.5	122.3					0.0	6.9	63.5	129.2	0.0	0.0
100.00		64.4	1,710.7					0.0	68.0	64.4	1,778.8	0.0	0.0
100.54	Top - Section 2	61.8	202.2					0.0	8.1	61.8	210.4	0.0	0.0
105.00		115.0	1,015.9					0.0	66.8	115.0	1,082.7	0.0	0.0
110.00		118.1	1,103.9					0.0	74.9	118.1	1,178.8	0.0	0.0
115.00		114.5	1,067.0					0.0	74.9	114.5	1,141.9	0.0	0.0
120.00		110.9	1,030.1					0.0	74.9	110.9	1,105.0	0.0	0.0
125.00		107.3	993.2					0.0	74.9	107.3	1,068.1	0.0	0.0
130.00		103.6	956.3					0.0	74.9	103.6	1,031.2	0.0	0.0
135.00		80.6	919.3					0.0	74.9	80.6	994.3	0.0	0.0
138.00	Appurtenance(s)	49.1	536.1	909.2	0.0	0.0	11,183.1	0.0	45.0	958.4	11,764.2	0.0	0.0
140.00		66.7	350.7					0.0	19.5	66.7	370.3	0.0	0.0
145.00		83.8	845.6					0.0	48.8	83.8	894.4	0.0	0.0
149.00	Appurtenance(s)	36.5	651.4	888.3	0.0	32.3	10,503.0	0.0	39.1	924.9	11,193.4	0.0	0.0
Totals:										5,958.47	70,529.8	0.00	0.00



Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:15 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi

40 mph with 1.00 in Radial Ice

21 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Wind Importance Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-70.53	-5.88	0.00	-572.10	0.00	572.10	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.129
5.00	-68.36	-5.72	0.00	-542.72	0.00	542.72	4,288.99	2,144.49	9,788.20	4,901.38	0.02	-0.03	0.127
10.00	-66.15	-5.56	0.00	-514.14	0.00	514.14	4,237.32	2,118.66	9,469.35	4,741.71	0.06	-0.06	0.124
15.00	-63.95	-5.41	0.00	-486.32	0.00	486.32	4,184.10	2,092.05	9,152.00	4,582.80	0.14	-0.09	0.121
20.00	-61.77	-5.27	0.00	-459.25	0.00	459.25	4,129.33	2,064.66	8,836.37	4,424.75	0.25	-0.12	0.119
25.00	-59.63	-5.13	0.00	-432.89	0.00	432.89	4,073.00	2,036.50	8,522.69	4,267.68	0.39	-0.15	0.116
30.00	-57.52	-5.00	0.00	-407.22	0.00	407.22	4,015.11	2,007.56	8,211.17	4,111.69	0.56	-0.18	0.113
35.00	-55.45	-4.86	0.00	-382.22	0.00	382.22	3,955.68	1,977.84	7,902.03	3,956.89	0.76	-0.21	0.111
40.00	-53.42	-4.73	0.00	-357.90	0.00	357.90	3,894.69	1,947.34	7,595.51	3,803.40	0.99	-0.24	0.108
45.00	-51.43	-4.63	0.00	-334.26	0.00	334.26	3,832.15	1,916.07	7,291.81	3,651.33	1.26	-0.27	0.105
47.04	-50.62	-4.56	0.00	-324.80	0.00	324.80	3,806.14	1,903.07	7,168.57	3,589.61	1.38	-0.28	0.104
50.00	-48.92	-4.47	0.00	-311.31	0.00	311.31	3,768.05	1,884.02	6,991.17	3,500.78	1.56	-0.30	0.102
53.46	-46.95	-4.40	0.00	-295.84	0.00	295.84	2,934.54	1,467.27	5,439.41	2,723.75	1.78	-0.32	0.125
55.00	-46.41	-4.31	0.00	-289.07	0.00	289.07	2,920.91	1,460.46	5,371.50	2,689.74	1.89	-0.33	0.123
60.00	-44.71	-4.18	0.00	-267.51	0.00	267.51	2,875.67	1,437.83	5,151.93	2,579.79	2.26	-0.37	0.119
65.00	-43.04	-4.05	0.00	-246.61	0.00	246.61	2,828.87	1,414.44	4,933.94	2,470.64	2.66	-0.40	0.115
70.00	-41.42	-3.92	0.00	-226.38	0.00	226.38	2,780.52	1,390.26	4,717.75	2,362.38	3.10	-0.44	0.111
75.00	-39.83	-3.79	0.00	-206.79	0.00	206.79	2,730.61	1,365.31	4,503.59	2,255.14	3.58	-0.47	0.106
80.00	-38.29	-3.66	0.00	-187.86	0.00	187.86	2,679.16	1,339.58	4,291.67	2,149.02	4.09	-0.51	0.102
85.00	-36.79	-3.53	0.00	-169.56	0.00	169.56	2,626.14	1,313.07	4,082.22	2,044.14	4.64	-0.54	0.097
90.00	-35.33	-3.41	0.00	-151.90	0.00	151.90	2,571.58	1,285.79	3,875.45	1,940.61	5.22	-0.57	0.092
95.00	-33.91	-3.33	0.00	-134.86	0.00	134.86	2,515.46	1,257.73	3,671.59	1,838.53	5.84	-0.61	0.087
95.46	-33.78	-3.28	0.00	-133.33	0.00	133.33	2,510.22	1,255.11	3,652.99	1,829.21	5.90	-0.61	0.086
100.00	-32.00	-3.20	0.00	-118.44	0.00	118.44	2,457.78	1,228.89	3,470.86	1,738.01	6.50	-0.64	0.081
100.54	-31.79	-3.15	0.00	-116.70	0.00	116.70	1,840.14	920.07	2,636.71	1,320.31	6.57	-0.64	0.106
105.00	-30.71	-3.04	0.00	-102.67	0.00	102.67	1,806.70	903.35	2,512.42	1,258.08	7.19	-0.67	0.099
110.00	-29.53	-2.92	0.00	-87.48	0.00	87.48	1,767.71	883.85	2,374.37	1,188.95	7.91	-0.71	0.090
115.00	-28.39	-2.81	0.00	-72.87	0.00	72.87	1,727.17	863.58	2,238.01	1,120.67	8.66	-0.74	0.081
120.00	-27.28	-2.70	0.00	-58.82	0.00	58.82	1,685.07	842.53	2,103.55	1,053.34	9.45	-0.77	0.072
125.00	-26.21	-2.59	0.00	-45.33	0.00	45.33	1,641.42	820.71	1,971.23	987.08	10.27	-0.79	0.062
130.00	-25.18	-2.48	0.00	-32.40	0.00	32.40	1,596.21	798.11	1,841.24	921.99	11.12	-0.82	0.051
135.00	-24.19	-2.39	0.00	-20.01	0.00	20.01	1,549.45	774.73	1,713.83	858.19	11.98	-0.83	0.039
138.00	-12.44	-1.26	0.00	-12.85	0.00	12.85	1,520.65	760.33	1,638.71	820.57	12.51	-0.84	0.024
140.00	-12.07	-1.19	0.00	-10.33	0.00	10.33	1,501.14	750.57	1,589.21	795.79	12.86	-0.84	0.021
145.00	-11.18	-1.09	0.00	-4.40	0.00	4.40	1,451.27	725.64	1,467.60	734.89	13.75	-0.85	0.014
149.00	0.00	-0.92	0.00	-0.03	0.00	0.03	1,400.09	700.04	1,362.73	682.38	14.46	-0.85	0.000

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:15 PM

Customer: VERIZON WIRELESS

**Load Case:** 1.0D + 1.0W

Serviceability 60 mph

21 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		112.6	0.0					0.0	0.0	112.6	0.0	0.0	0.0
5.00		220.0	1,135.1					0.0	62.5	220.0	1,197.5	0.0	0.0
10.00		209.9	1,111.9					0.0	62.5	209.9	1,174.3	0.0	0.0
15.00		200.3	1,088.7					0.0	62.5	200.3	1,151.1	0.0	0.0
20.00		191.3	1,065.5					0.0	62.5	191.3	1,127.9	0.0	0.0
25.00		182.7	1,042.3					0.0	62.5	182.7	1,104.8	0.0	0.0
30.00		176.5	1,019.1					0.0	62.5	176.5	1,081.6	0.0	0.0
35.00		174.2	995.9					0.0	62.5	174.2	1,058.4	0.0	0.0
40.00		172.9	972.7					0.0	62.5	172.9	1,035.2	0.0	0.0
45.00		120.9	949.6					0.0	62.5	120.9	1,012.0	0.0	0.0
47.04	Bot - Section 2	85.6	381.4					0.0	25.5	85.6	406.9	0.0	0.0
50.00		109.4	1,006.0					0.0	36.9	109.4	1,042.9	0.0	0.0
53.46	Top - Section 1	84.6	1,158.4					0.0	43.2	84.6	1,201.6	0.0	0.0
55.00		109.0	233.3					0.0	19.2	109.0	252.6	0.0	0.0
60.00		164.4	744.9					0.0	62.5	164.4	807.4	0.0	0.0
65.00		160.8	725.6					0.0	62.5	160.8	788.0	0.0	0.0
70.00		157.0	706.3					0.0	62.5	157.0	768.7	0.0	0.0
75.00		153.0	687.0					0.0	62.5	153.0	749.4	0.0	0.0
80.00		148.9	667.6					0.0	62.5	148.9	730.1	0.0	0.0
85.00		144.7	648.3					0.0	62.5	144.7	710.8	0.0	0.0
90.00		140.5	629.0					0.0	62.5	140.5	691.4	0.0	0.0
95.00		75.4	609.7					0.0	62.5	75.4	672.1	0.0	0.0
95.46	Bot - Section 3	67.9	55.1					0.0	5.7	67.9	60.9	0.0	0.0
100.00		68.9	970.3					0.0	56.7	68.9	1,027.0	0.0	0.0
100.54	Top - Section 2	65.8	114.2					0.0	6.8	65.8	121.0	0.0	0.0
105.00		122.1	413.2					0.0	55.7	122.1	468.8	0.0	0.0
110.00		125.0	448.9					0.0	62.5	125.0	511.4	0.0	0.0
115.00		120.6	433.5					0.0	62.5	120.6	495.9	0.0	0.0
120.00		116.2	418.0					0.0	62.5	116.2	480.5	0.0	0.0
125.00		111.8	402.6					0.0	62.5	111.8	465.0	0.0	0.0
130.00		107.4	387.1					0.0	62.5	107.4	449.6	0.0	0.0
135.00		83.1	371.6					0.0	62.5	83.1	434.1	0.0	0.0
138.00	Appurtenance(s)	50.4	215.6	1,439.2	0.0	0.0	3,698.8	0.0	37.5	1,489.6	3,951.8	0.0	0.0
140.00		68.1	140.6					0.0	16.3	68.1	156.9	0.0	0.0
145.00		85.2	340.7					0.0	40.7	85.2	381.4	0.0	0.0
149.00	Appurtenance(s)	37.0	261.4	2,718.4	0.0	51.2	3,400.0	0.0	32.6	2,755.4	3,694.0	0.0	0.0
Totals:										8,681.01	31,463.0	0.00	0.00

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:16 PM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W

Serviceability 60 mph

21 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-31.46	-8.58	0.00	-922.26	0.00	922.26	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.189
5.00	-30.26	-8.38	0.00	-879.36	0.00	879.36	4,288.99	2,144.49	9,788.20	4,901.38	0.03	-0.05	0.186
10.00	-29.07	-8.20	0.00	-837.44	0.00	837.44	4,237.32	2,118.66	9,469.35	4,741.71	0.10	-0.09	0.183
15.00	-27.92	-8.02	0.00	-796.45	0.00	796.45	4,184.10	2,092.05	9,152.00	4,582.80	0.22	-0.14	0.180
20.00	-26.78	-7.85	0.00	-756.36	0.00	756.36	4,129.33	2,064.66	8,836.37	4,424.75	0.40	-0.19	0.177
25.00	-25.67	-7.68	0.00	-717.12	0.00	717.12	4,073.00	2,036.50	8,522.69	4,267.68	0.63	-0.24	0.174
30.00	-24.58	-7.52	0.00	-678.71	0.00	678.71	4,015.11	2,007.56	8,211.17	4,111.69	0.91	-0.29	0.171
35.00	-23.52	-7.36	0.00	-641.09	0.00	641.09	3,955.68	1,977.84	7,902.03	3,956.89	1.24	-0.34	0.168
40.00	-22.48	-7.20	0.00	-604.28	0.00	604.28	3,894.69	1,947.34	7,595.51	3,803.40	1.62	-0.39	0.165
45.00	-21.46	-7.09	0.00	-568.26	0.00	568.26	3,832.15	1,916.07	7,291.81	3,651.33	2.06	-0.44	0.161
47.04	-21.05	-7.01	0.00	-553.77	0.00	553.77	3,806.14	1,903.07	7,168.57	3,589.61	2.26	-0.47	0.160
50.00	-20.01	-6.90	0.00	-533.04	0.00	533.04	3,768.05	1,884.02	6,991.17	3,500.78	2.56	-0.50	0.158
53.46	-18.80	-6.82	0.00	-509.15	0.00	509.15	2,934.54	1,467.27	5,439.41	2,723.75	2.93	-0.54	0.193
55.00	-18.55	-6.72	0.00	-498.65	0.00	498.65	2,920.91	1,460.46	5,371.50	2,689.74	3.11	-0.55	0.192
60.00	-17.74	-6.57	0.00	-465.06	0.00	465.06	2,875.67	1,437.83	5,151.93	2,579.79	3.72	-0.61	0.186
65.00	-16.94	-6.41	0.00	-432.23	0.00	432.23	2,828.87	1,414.44	4,933.94	2,470.64	4.40	-0.67	0.181
70.00	-16.17	-6.27	0.00	-400.16	0.00	400.16	2,780.52	1,390.26	4,717.75	2,362.38	5.14	-0.74	0.175
75.00	-15.42	-6.12	0.00	-368.83	0.00	368.83	2,730.61	1,365.31	4,503.59	2,255.14	5.94	-0.80	0.169
80.00	-14.68	-5.98	0.00	-338.23	0.00	338.23	2,679.16	1,339.58	4,291.67	2,149.02	6.81	-0.86	0.163
85.00	-13.97	-5.83	0.00	-308.36	0.00	308.36	2,626.14	1,313.07	4,082.22	2,044.14	7.74	-0.92	0.156
90.00	-13.27	-5.70	0.00	-279.18	0.00	279.18	2,571.58	1,285.79	3,875.45	1,940.61	8.74	-0.98	0.149
95.00	-12.60	-5.62	0.00	-250.70	0.00	250.70	2,515.46	1,257.73	3,671.59	1,838.53	9.81	-1.04	0.141
95.46	-12.54	-5.55	0.00	-248.11	0.00	248.11	2,510.22	1,255.11	3,652.99	1,829.21	9.91	-1.05	0.141
100.00	-11.51	-5.47	0.00	-222.89	0.00	222.89	2,457.78	1,228.89	3,470.86	1,738.01	10.93	-1.11	0.133
100.54	-11.38	-5.41	0.00	-219.92	0.00	219.92	1,840.14	920.07	2,636.71	1,320.31	11.06	-1.11	0.173
105.00	-10.91	-5.29	0.00	-195.81	0.00	195.81	1,806.70	903.35	2,512.42	1,258.08	12.12	-1.16	0.162
110.00	-10.40	-5.17	0.00	-169.35	0.00	169.35	1,767.71	883.85	2,374.37	1,188.95	13.38	-1.23	0.148
115.00	-9.90	-5.05	0.00	-143.52	0.00	143.52	1,727.17	863.58	2,238.01	1,120.67	14.70	-1.29	0.134
120.00	-9.42	-4.93	0.00	-118.29	0.00	118.29	1,685.07	842.53	2,103.55	1,053.34	16.09	-1.35	0.118
125.00	-8.95	-4.81	0.00	-93.64	0.00	93.64	1,641.42	820.71	1,971.23	987.08	17.54	-1.41	0.100
130.00	-8.50	-4.70	0.00	-69.58	0.00	69.58	1,596.21	798.11	1,841.24	921.99	19.04	-1.45	0.081
135.00	-8.07	-4.61	0.00	-46.07	0.00	46.07	1,549.45	774.73	1,713.83	858.19	20.58	-1.49	0.059
138.00	-4.15	-3.02	0.00	-32.24	0.00	32.24	1,520.65	760.33	1,638.71	820.57	21.53	-1.51	0.042
140.00	-4.00	-2.95	0.00	-26.20	0.00	26.20	1,501.14	750.57	1,589.21	795.79	22.16	-1.52	0.036
145.00	-3.62	-2.85	0.00	-11.46	0.00	11.46	1,451.27	725.64	1,467.60	734.89	23.76	-1.53	0.018
149.00	0.00	-2.76	0.00	-0.05	0.00	0.05	1,400.09	700.04	1,362.73	682.38	25.04	-1.54	0.000

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period ( $S_s$ ):	0.18
Spectral Response Acceleration at 1.0 Second Period ( $S_1$ ):	0.06
Long-Period Transition Period ( $T_L$ ):	6
Importance Factor ( $I_E$ ):	1.00
Site Coefficient $F_a$ :	1.60
Site Coefficient $F_v$ :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.19
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.10
Seismic Response Coefficient ( $C_s$ ):	0.03
Upper Limit $C_s$	0.03
Lower Limit $C_s$	0.03
Period based on Rayleigh Method (sec):	2.08
Redundancy Factor ( $\rho$ ):	1.30
Seismic Force Distribution Exponent ( $k$ ):	1.79
Total Unfactored Dead Load:	31.46 k
Seismic Base Shear (E):	1.36 k

Load Case (1.2 + 0.2S<sub>ds</sub>) \* DL + E ELFM

## Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	$W_z$ (lb-ft)	$C_{vx}$	Horizontal Force (lb)	Vertical Force (lb)
35	147.00	294	2,252	0.022	30	364
34	142.50	381	2,763	0.027	37	472
33	139.00	157	1,087	0.011	15	194
32	136.50	253	1,697	0.017	23	313
31	132.50	434	2,760	0.027	37	538
30	127.50	450	2,668	0.026	36	557
29	122.50	465	2,569	0.025	35	576
28	117.50	480	2,463	0.024	33	595
27	112.50	496	2,352	0.023	32	614
26	107.50	511	2,236	0.022	30	633
25	102.77	469	1,891	0.019	25	581
24	100.27	121	467	0.005	6	150
23	97.73	1,027	3,785	0.037	51	1,272
22	95.23	61	214	0.002	3	75
21	92.50	672	2,244	0.022	30	832
20	87.50	691	2,090	0.021	28	856
19	82.50	711	1,934	0.019	26	880
18	77.50	730	1,776	0.018	24	904
17	72.50	749	1,617	0.016	22	928
16	67.50	769	1,460	0.014	20	952
15	62.50	788	1,303	0.013	18	976
14	57.50	807	1,150	0.011	15	1,000
13	54.23	253	324	0.003	4	313

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

12	51.73	1,202	1,416	0.014	19	1,488
11	48.52	1,043	1,096	0.011	15	1,292
10	46.02	407	389	0.004	5	504
9	42.50	1,012	839	0.008	11	1,253
8	37.50	1,035	685	0.007	9	1,282
7	32.50	1,058	542	0.005	7	1,311
6	27.50	1,082	411	0.004	6	1,339
5	22.50	1,105	293	0.003	4	1,368
4	17.50	1,128	191	0.002	3	1,397
3	12.50	1,151	106	0.001	1	1,426
2	7.50	1,174	43	0.000	1	1,454
1	2.50	1,198	6	0.000	0	1,483
Nokia AirScale RRH 4	149.00	106	831	0.008	11	131
Alcatel-Lucent B25 R	149.00	159	1,248	0.012	17	197
Alcatel-Lucent B13 R	149.00	173	1,361	0.013	18	215
Alcatel-Lucent B66A	149.00	201	1,577	0.016	21	249
RFS DB-C1-12C-24AB-0	149.00	32	251	0.002	3	40
Amphenol Antel LPA-8	149.00	126	989	0.010	13	156
Commscope JAHH-65B-R	149.00	364	2,853	0.028	38	450
Flat T-Arm w/ Workin	149.00	900	7,063	0.070	95	1,115
VZW Unused Reserve:	149.00	1,339	10,509	0.104	141	1,658
Ericsson Radio 4449	138.00	592	4,049	0.040	54	733
RFS SC2-W100AB	138.00	22	150	0.001	2	27
Ericsson AIR 32 B2A/	138.00	573	3,921	0.039	53	710
RFS APXVAARR24_43-U-	138.00	512	3,499	0.035	47	634
Flat Platform w/ Han	138.00	2,000	13,680	0.135	184	2,477
		31,463	101,101	1.000	1,361	38,964

Load Case (0.9 - 0.2Sds) \* DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
35	147.00	294	2,252	0.022	30	253
34	142.50	381	2,763	0.027	37	329
33	139.00	157	1,087	0.011	15	135
32	136.50	253	1,697	0.017	23	218
31	132.50	434	2,760	0.027	37	374
30	127.50	450	2,668	0.026	36	387
29	122.50	465	2,569	0.025	35	401
28	117.50	480	2,463	0.024	33	414
27	112.50	496	2,352	0.023	32	427
26	107.50	511	2,236	0.022	30	441
25	102.77	469	1,891	0.019	25	404
24	100.27	121	467	0.005	6	104
23	97.73	1,027	3,785	0.037	51	885
22	95.23	61	214	0.002	3	52
21	92.50	672	2,244	0.022	30	579
20	87.50	691	2,090	0.021	28	596
19	82.50	711	1,934	0.019	26	612
18	77.50	730	1,776	0.018	24	629
17	72.50	749	1,617	0.016	22	646
16	67.50	769	1,460	0.014	20	662
15	62.50	788	1,303	0.013	18	679
14	57.50	807	1,150	0.011	15	696
13	54.23	253	324	0.003	4	218
12	51.73	1,202	1,416	0.014	19	1,035
11	48.52	1,043	1,096	0.011	15	899
10	46.02	407	389	0.004	5	351
9	42.50	1,012	839	0.008	11	872
8	37.50	1,035	685	0.007	9	892

7	32.50	1,058	542	0.005	7	912
6	27.50	1,082	411	0.004	6	932
5	22.50	1,105	293	0.003	4	952
4	17.50	1,128	191	0.002	3	972
3	12.50	1,151	106	0.001	1	992
2	7.50	1,174	43	0.000	1	1,012
1	2.50	1,198	6	0.000	0	1,032
Nokia AirScale RRH 4	149.00	106	831	0.008	11	91
Alcatel-Lucent B25 R	149.00	159	1,248	0.012	17	137
Alcatel-Lucent B13 R	149.00	173	1,361	0.013	18	149
Alcatel-Lucent B66A	149.00	201	1,577	0.016	21	173
RFS DB-C1-12C-24AB-0	149.00	32	251	0.002	3	28
Amphenol Antel LPA-8	149.00	126	989	0.010	13	109
Commscope JAHH-65B-R	149.00	364	2,853	0.028	38	313
Flat T-Arm w/ Workin	149.00	900	7,063	0.070	95	775
VZW Unused Reserve:	149.00	1,339	10,509	0.104	141	1,154
Ericsson Radio 4449	138.00	592	4,049	0.040	54	510
RFS SC2-W100AB	138.00	22	150	0.001	2	19
Ericsson AIR 32 B2A/	138.00	573	3,921	0.039	53	494
RFS APXVAARR24_43-U-	138.00	512	3,499	0.035	47	441
Flat Platform w/ Han	138.00	2,000	13,680	0.135	184	1,723
		31,463	101,101	1.000	1,361	27,109

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

Load Case (1.2 + 0.2Sds) \* DL + E ELFM Seismic Equivalent Lateral Forces MethodCalculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.48	-1.36	0.00	-170.11	0.00	170.11	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.042
5.00	-36.03	-1.37	0.00	-163.30	0.00	163.30	4,288.99	2,144.49	9,788.20	4,901.38	0.00	-0.01	0.042
10.00	-34.60	-1.37	0.00	-156.46	0.00	156.46	4,237.32	2,118.66	9,469.35	4,741.71	0.02	-0.02	0.041
15.00	-33.20	-1.37	0.00	-149.61	0.00	149.61	4,184.10	2,092.05	9,152.00	4,582.80	0.04	-0.03	0.041
20.00	-31.83	-1.37	0.00	-142.74	0.00	142.74	4,129.33	2,064.66	8,836.37	4,424.75	0.07	-0.04	0.040
25.00	-30.50	-1.37	0.00	-135.88	0.00	135.88	4,073.00	2,036.50	8,522.69	4,267.68	0.12	-0.05	0.039
30.00	-29.18	-1.37	0.00	-129.01	0.00	129.01	4,015.11	2,007.56	8,211.17	4,111.69	0.17	-0.05	0.039
35.00	-27.90	-1.36	0.00	-122.17	0.00	122.17	3,955.68	1,977.84	7,902.03	3,956.89	0.23	-0.06	0.038
40.00	-26.65	-1.35	0.00	-115.36	0.00	115.36	3,894.69	1,947.34	7,595.51	3,803.40	0.30	-0.07	0.037
45.00	-26.14	-1.35	0.00	-108.59	0.00	108.59	3,832.15	1,916.07	7,291.81	3,651.33	0.39	-0.08	0.037
47.04	-24.85	-1.34	0.00	-105.82	0.00	105.82	3,806.14	1,903.07	7,168.57	3,589.61	0.42	-0.09	0.036
50.00	-23.36	-1.32	0.00	-101.87	0.00	101.87	3,768.05	1,884.02	6,991.17	3,500.78	0.48	-0.09	0.035
53.46	-23.05	-1.32	0.00	-97.31	0.00	97.31	2,934.54	1,467.27	5,439.41	2,723.75	0.55	-0.10	0.044
55.00	-22.05	-1.30	0.00	-95.28	0.00	95.28	2,920.91	1,460.46	5,371.50	2,689.74	0.58	-0.10	0.043
60.00	-21.08	-1.29	0.00	-88.77	0.00	88.77	2,875.67	1,437.83	5,151.93	2,579.79	0.70	-0.12	0.042
65.00	-20.12	-1.27	0.00	-82.34	0.00	82.34	2,828.87	1,414.44	4,933.94	2,470.64	0.83	-0.13	0.040
70.00	-19.20	-1.25	0.00	-76.00	0.00	76.00	2,780.52	1,390.26	4,717.75	2,362.38	0.97	-0.14	0.039
75.00	-18.29	-1.23	0.00	-69.75	0.00	69.75	2,730.61	1,365.31	4,503.59	2,255.14	1.12	-0.15	0.038
80.00	-17.41	-1.20	0.00	-63.62	0.00	63.62	2,679.16	1,339.58	4,291.67	2,149.02	1.29	-0.16	0.036
85.00	-16.55	-1.17	0.00	-57.62	0.00	57.62	2,626.14	1,313.07	4,082.22	2,044.14	1.46	-0.17	0.034
90.00	-15.72	-1.14	0.00	-51.74	0.00	51.74	2,571.58	1,285.79	3,875.45	1,940.61	1.65	-0.19	0.033
95.00	-15.65	-1.14	0.00	-46.02	0.00	46.02	2,515.46	1,257.73	3,671.59	1,838.53	1.85	-0.20	0.031
95.46	-14.37	-1.09	0.00	-45.50	0.00	45.50	2,510.22	1,255.11	3,652.99	1,829.21	1.87	-0.20	0.031
100.00	-14.22	-1.08	0.00	-40.55	0.00	40.55	2,457.78	1,228.89	3,470.86	1,738.01	2.07	-0.21	0.029
100.54	-13.64	-1.06	0.00	-39.96	0.00	39.96	1,840.14	920.07	2,636.71	1,320.31	2.09	-0.21	0.038
105.00	-13.01	-1.03	0.00	-35.25	0.00	35.25	1,806.70	903.35	2,512.42	1,258.08	2.29	-0.22	0.035
110.00	-12.40	-1.00	0.00	-30.11	0.00	30.11	1,767.71	883.85	2,374.37	1,188.95	2.53	-0.23	0.032
115.00	-11.80	-0.96	0.00	-25.13	0.00	25.13	1,727.17	863.58	2,238.01	1,120.67	2.77	-0.24	0.029
120.00	-11.23	-0.93	0.00	-20.32	0.00	20.32	1,685.07	842.53	2,103.55	1,053.34	3.03	-0.25	0.026
125.00	-10.67	-0.89	0.00	-15.68	0.00	15.68	1,641.42	820.71	1,971.23	987.08	3.30	-0.26	0.022
130.00	-10.13	-0.85	0.00	-11.23	0.00	11.23	1,596.21	798.11	1,841.24	921.99	3.58	-0.27	0.019
135.00	-9.82	-0.83	0.00	-6.96	0.00	6.96	1,549.45	774.73	1,713.83	858.19	3.87	-0.28	0.014
138.00	-5.04	-0.45	0.00	-4.48	0.00	4.48	1,520.65	760.33	1,638.71	820.57	4.04	-0.28	0.009
140.00	-4.57	-0.41	0.00	-3.58	0.00	3.58	1,501.14	750.57	1,589.21	795.79	4.16	-0.28	0.008
145.00	-4.21	-0.38	0.00	-1.52	0.00	1.52	1,451.27	725.64	1,467.60	734.89	4.45	-0.28	0.005
149.00	0.00	-0.36	0.00	0.00	0.00	0.00	1,400.09	700.04	1,362.73	682.38	4.69	-0.28	0.000

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

Load Case (0.9 - 0.2Sds) \* DL + E ELFM

## Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-26.08	-1.36	0.00	-168.33	0.00	168.33	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.039
5.00	-25.06	-1.36	0.00	-161.52	0.00	161.52	4,288.99	2,144.49	9,788.20	4,901.38	0.00	-0.01	0.039
10.00	-24.07	-1.37	0.00	-154.69	0.00	154.69	4,237.32	2,118.66	9,469.35	4,741.71	0.02	-0.02	0.038
15.00	-23.10	-1.37	0.00	-147.86	0.00	147.86	4,184.10	2,092.05	9,152.00	4,582.80	0.04	-0.03	0.038
20.00	-22.15	-1.37	0.00	-141.02	0.00	141.02	4,129.33	2,064.66	8,836.37	4,424.75	0.07	-0.04	0.037
25.00	-21.22	-1.36	0.00	-134.19	0.00	134.19	4,073.00	2,036.50	8,522.69	4,267.68	0.12	-0.04	0.037
30.00	-20.30	-1.36	0.00	-127.37	0.00	127.37	4,015.11	2,007.56	8,211.17	4,111.69	0.17	-0.05	0.036
35.00	-19.41	-1.35	0.00	-120.57	0.00	120.57	3,955.68	1,977.84	7,902.03	3,956.89	0.23	-0.06	0.035
40.00	-18.54	-1.34	0.00	-113.81	0.00	113.81	3,894.69	1,947.34	7,595.51	3,803.40	0.30	-0.07	0.035
45.00	-18.19	-1.34	0.00	-107.10	0.00	107.10	3,832.15	1,916.07	7,291.81	3,651.33	0.38	-0.08	0.034
47.04	-17.29	-1.33	0.00	-104.36	0.00	104.36	3,806.14	1,903.07	7,168.57	3,589.61	0.42	-0.09	0.034
50.00	-16.26	-1.31	0.00	-100.44	0.00	100.44	3,768.05	1,884.02	6,991.17	3,500.78	0.47	-0.09	0.033
53.46	-16.04	-1.30	0.00	-95.92	0.00	95.92	2,934.54	1,467.27	5,439.41	2,723.75	0.54	-0.10	0.041
55.00	-15.34	-1.29	0.00	-93.92	0.00	93.92	2,920.91	1,460.46	5,371.50	2,689.74	0.58	-0.10	0.040
60.00	-14.66	-1.27	0.00	-87.48	0.00	87.48	2,875.67	1,437.83	5,151.93	2,579.79	0.69	-0.11	0.039
65.00	-14.00	-1.25	0.00	-81.12	0.00	81.12	2,828.87	1,414.44	4,933.94	2,470.64	0.82	-0.13	0.038
70.00	-13.35	-1.23	0.00	-74.84	0.00	74.84	2,780.52	1,390.26	4,717.75	2,362.38	0.96	-0.14	0.036
75.00	-12.72	-1.21	0.00	-68.68	0.00	68.68	2,730.61	1,365.31	4,503.59	2,255.14	1.11	-0.15	0.035
80.00	-12.11	-1.19	0.00	-62.62	0.00	62.62	2,679.16	1,339.58	4,291.67	2,149.02	1.27	-0.16	0.034
85.00	-11.52	-1.16	0.00	-56.70	0.00	56.70	2,626.14	1,313.07	4,082.22	2,044.14	1.44	-0.17	0.032
90.00	-10.94	-1.13	0.00	-50.91	0.00	50.91	2,571.58	1,285.79	3,875.45	1,940.61	1.63	-0.18	0.030
95.00	-10.88	-1.13	0.00	-45.27	0.00	45.27	2,515.46	1,257.73	3,671.59	1,838.53	1.83	-0.19	0.029
95.46	-10.00	-1.07	0.00	-44.75	0.00	44.75	2,510.22	1,255.11	3,652.99	1,829.21	1.85	-0.20	0.028
100.00	-9.90	-1.07	0.00	-39.88	0.00	39.88	2,457.78	1,228.89	3,470.86	1,738.01	2.04	-0.21	0.027
100.54	-9.49	-1.04	0.00	-39.30	0.00	39.30	1,840.14	920.07	2,636.71	1,320.31	2.06	-0.21	0.035
105.00	-9.05	-1.01	0.00	-34.65	0.00	34.65	1,806.70	903.35	2,512.42	1,258.08	2.26	-0.22	0.033
110.00	-8.62	-0.98	0.00	-29.60	0.00	29.60	1,767.71	883.85	2,374.37	1,188.95	2.49	-0.23	0.030
115.00	-8.21	-0.95	0.00	-24.70	0.00	24.70	1,727.17	863.58	2,238.01	1,120.67	2.74	-0.24	0.027
120.00	-7.81	-0.91	0.00	-19.96	0.00	19.96	1,685.07	842.53	2,103.55	1,053.34	2.99	-0.25	0.024
125.00	-7.42	-0.88	0.00	-15.41	0.00	15.41	1,641.42	820.71	1,971.23	987.08	3.26	-0.26	0.020
130.00	-7.05	-0.84	0.00	-11.03	0.00	11.03	1,596.21	798.11	1,841.24	921.99	3.53	-0.27	0.016
135.00	-6.83	-0.81	0.00	-6.84	0.00	6.84	1,549.45	774.73	1,713.83	858.19	3.81	-0.27	0.012
138.00	-3.51	-0.44	0.00	-4.40	0.00	4.40	1,520.65	760.33	1,638.71	820.57	3.98	-0.27	0.008
140.00	-3.18	-0.40	0.00	-3.52	0.00	3.52	1,501.14	750.57	1,589.21	795.79	4.10	-0.27	0.007
145.00	-2.93	-0.37	0.00	-1.49	0.00	1.49	1,451.27	725.64	1,467.60	734.89	4.39	-0.28	0.004
149.00	0.00	-0.36	0.00	0.00	0.00	0.00	1,400.09	700.04	1,362.73	682.38	4.62	-0.28	0.000



### Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period ( $S_s$ ):	0.18
Spectral Response Acceleration at 1.0 Second Period ( $S_1$ ):	0.06
Importance Factor ( $I_E$ ):	1.00
Site Coefficient $F_a$ :	1.60
Site Coefficient $F_v$ :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.19
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.10
Period Based on Rayleigh Method (sec):	2.08
Redundancy Factor (p):	1.30

### Load Case (1.2 + 0.2 $S_{ds}$ ) \* DL + E EMAM      Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	S <sub>az</sub>	Horizontal Force (lb)	Vertical Force (lb)
35	147.00	294	1.840	1.725	1.047	0.336	86	364
34	142.50	381	1.729	1.234	0.859	0.269	89	472
33	139.00	157	1.645	0.924	0.733	0.222	30	194
32	136.50	253	1.586	0.736	0.651	0.191	42	313
31	132.50	434	1.495	0.488	0.536	0.145	55	538
30	127.50	450	1.384	0.254	0.415	0.096	37	557
29	122.50	465	1.278	0.091	0.317	0.055	22	576
28	117.50	480	1.175	-0.017	0.237	0.022	9	595
27	112.50	496	1.077	-0.082	0.173	-0.004	-2	614
26	107.50	511	0.984	-0.114	0.123	-0.021	-9	633
25	102.77	469	0.899	-0.122	0.087	-0.030	-12	581
24	100.27	121	0.856	-0.120	0.071	-0.032	-3	150
23	97.73	1,027	0.813	-0.114	0.058	-0.032	-29	1,272
22	95.23	61	0.772	-0.106	0.046	-0.031	-2	75
21	92.50	672	0.728	-0.095	0.036	-0.027	-16	832
20	87.50	691	0.652	-0.071	0.021	-0.018	-11	856
19	82.50	711	0.579	-0.045	0.012	-0.004	-3	880
18	77.50	730	0.511	-0.020	0.008	0.010	6	904
17	72.50	749	0.447	0.002	0.006	0.023	15	928
16	67.50	769	0.388	0.022	0.007	0.034	23	952
15	62.50	788	0.333	0.037	0.010	0.041	28	976
14	57.50	807	0.281	0.049	0.014	0.046	32	1,000
13	54.23	253	0.250	0.055	0.017	0.048	10	313
12	51.73	1,202	0.228	0.059	0.020	0.048	50	1,488
11	48.52	1,043	0.200	0.063	0.023	0.049	44	1,292
10	46.02	407	0.180	0.065	0.026	0.049	17	504
9	42.50	1,012	0.154	0.068	0.030	0.048	42	1,253
8	37.50	1,035	0.120	0.070	0.034	0.047	42	1,282
7	32.50	1,058	0.090	0.071	0.038	0.046	42	1,311
6	27.50	1,082	0.064	0.072	0.041	0.044	42	1,339
5	22.50	1,105	0.043	0.071	0.042	0.043	41	1,368
4	17.50	1,128	0.026	0.067	0.040	0.040	39	1,397
3	12.50	1,151	0.013	0.059	0.034	0.036	36	1,426
2	7.50	1,174	0.005	0.044	0.025	0.028	28	1,454

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

1	2.50	1,198	0.001	0.018	0.010	0.013	13	1,483
Nokia AirScale RRH 4	149.00	106	1.890	1.980	1.140	0.368	34	131
Alcatel-Lucent B25 R	149.00	159	1.890	1.980	1.140	0.368	51	197
Alcatel-Lucent B13 R	149.00	173	1.890	1.980	1.140	0.368	55	215
Alcatel-Lucent B66A	149.00	201	1.890	1.980	1.140	0.368	64	249
RFS DB-C1-12C-24AB-0	149.00	32	1.890	1.980	1.140	0.368	10	40
Amphenol Antel LPA-8	149.00	126	1.890	1.980	1.140	0.368	40	156
Commscope JAHH-65B-	149.00	364	1.890	1.980	1.140	0.368	116	450
Flat T-Arm w/ Workin	149.00	900	1.890	1.980	1.140	0.368	287	1,115
VZW Unused Reserve:	149.00	1,339	1.890	1.980	1.140	0.368	427	1,658
Ericsson Radio 4449	138.00	592	1.621	0.846	0.699	0.209	107	733
RFS SC2-W100AB	138.00	22	1.621	0.846	0.699	0.209	4	27
Ericsson AIR 32 B2A/	138.00	573	1.621	0.846	0.699	0.209	104	710
RFS APXVAARR24_43-U-	138.00	512	1.621	0.846	0.699	0.209	93	634
Flat Platform w/ Han	138.00	2,000	1.621	0.846	0.699	0.209	363	2,477
		31,463	47.943	27.486	19.604	6.192	2,592	38,964

Load Case (0.9 - 0.2Sds) \* DL + E EMAM

Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
35	147.00	294	1.840	1.725	1.047	0.336	86	253
34	142.50	381	1.729	1.234	0.859	0.269	89	329
33	139.00	157	1.645	0.924	0.733	0.222	30	135
32	136.50	253	1.586	0.736	0.651	0.191	42	218
31	132.50	434	1.495	0.488	0.536	0.145	55	374
30	127.50	450	1.384	0.254	0.415	0.096	37	387
29	122.50	465	1.278	0.091	0.317	0.055	22	401
28	117.50	480	1.175	-0.017	0.237	0.022	9	414
27	112.50	496	1.077	-0.082	0.173	-0.004	-2	427
26	107.50	511	0.984	-0.114	0.123	-0.021	-9	441
25	102.77	469	0.899	-0.122	0.087	-0.030	-12	404
24	100.27	121	0.856	-0.120	0.071	-0.032	-3	104
23	97.73	1,027	0.813	-0.114	0.058	-0.032	-29	885
22	95.23	61	0.772	-0.106	0.046	-0.031	-2	52
21	92.50	672	0.728	-0.095	0.036	-0.027	-16	579
20	87.50	691	0.652	-0.071	0.021	-0.018	-11	596
19	82.50	711	0.579	-0.045	0.012	-0.004	-3	612
18	77.50	730	0.511	-0.020	0.008	0.010	6	629
17	72.50	749	0.447	0.002	0.006	0.023	15	646
16	67.50	769	0.388	0.022	0.007	0.034	23	662
15	62.50	788	0.333	0.037	0.010	0.041	28	679
14	57.50	807	0.281	0.049	0.014	0.046	32	696
13	54.23	253	0.250	0.055	0.017	0.048	10	218
12	51.73	1,202	0.228	0.059	0.020	0.048	50	1,035
11	48.52	1,043	0.200	0.063	0.023	0.049	44	899
10	46.02	407	0.180	0.065	0.026	0.049	17	351
9	42.50	1,012	0.154	0.068	0.030	0.048	42	872
8	37.50	1,035	0.120	0.070	0.034	0.047	42	892
7	32.50	1,058	0.090	0.071	0.038	0.046	42	912
6	27.50	1,082	0.064	0.072	0.041	0.044	42	932
5	22.50	1,105	0.043	0.071	0.042	0.043	41	952
4	17.50	1,128	0.026	0.067	0.040	0.040	39	972
3	12.50	1,151	0.013	0.059	0.034	0.036	36	992
2	7.50	1,174	0.005	0.044	0.025	0.028	28	1,012
1	2.50	1,198	0.001	0.018	0.010	0.013	13	1,032
Nokia AirScale RRH 4	149.00	106	1.890	1.980	1.140	0.368	34	91
Alcatel-Lucent B25 R	149.00	159	1.890	1.980	1.140	0.368	51	137
Alcatel-Lucent B13 R	149.00	173	1.890	1.980	1.140	0.368	55	149

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

Alcatel-Lucent B66A	149.00	201	1.890	1.980	1.140	0.368	64	173
RFS DB-C1-12C-24AB-0	149.00	32	1.890	1.980	1.140	0.368	10	28
Amphenol Antel LPA-8	149.00	126	1.890	1.980	1.140	0.368	40	109
Commscope JAHH-65B-	149.00	364	1.890	1.980	1.140	0.368	116	313
Flat T-Arm w/ Workin	149.00	900	1.890	1.980	1.140	0.368	287	775
VZW Unused Reserve:	149.00	1,339	1.890	1.980	1.140	0.368	427	1,154
Ericsson Radio 4449	138.00	592	1.621	0.846	0.699	0.209	107	510
RFS SC2-W100AB	138.00	22	1.621	0.846	0.699	0.209	4	19
Ericsson AIR 32 B2A/	138.00	573	1.621	0.846	0.699	0.209	104	494
RFS APXVAARR24_43-U-	138.00	512	1.621	0.846	0.699	0.209	93	441
Flat Platform w/ Han	138.00	2,000	1.621	0.846	0.699	0.209	363	1,723
		31,463	47.943	27.486	19.604	6.192	2,592	27,109

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

Load Case (1.2 + 0.2Sds) \* DL + E EMAM Seismic Equivalent Modal Analysis MethodCalculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.48	-2.58	0.00	-327.76	0.00	327.76	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.073
5.00	-36.03	-2.57	0.00	-314.84	0.00	314.84	4,288.99	2,144.49	9,788.20	4,901.38	0.01	-0.02	0.073
10.00	-34.60	-2.54	0.00	-302.01	0.00	302.01	4,237.32	2,118.66	9,469.35	4,741.71	0.04	-0.03	0.072
15.00	-33.20	-2.51	0.00	-289.31	0.00	289.31	4,184.10	2,092.05	9,152.00	4,582.80	0.08	-0.05	0.071
20.00	-31.83	-2.48	0.00	-276.76	0.00	276.76	4,129.33	2,064.66	8,836.37	4,424.75	0.14	-0.07	0.070
25.00	-30.49	-2.44	0.00	-264.37	0.00	264.37	4,073.00	2,036.50	8,522.69	4,267.68	0.23	-0.09	0.069
30.00	-29.18	-2.41	0.00	-252.15	0.00	252.15	4,015.11	2,007.56	8,211.17	4,111.69	0.33	-0.11	0.069
35.00	-27.90	-2.37	0.00	-240.10	0.00	240.10	3,955.68	1,977.84	7,902.03	3,956.89	0.45	-0.12	0.068
40.00	-26.64	-2.34	0.00	-228.23	0.00	228.23	3,894.69	1,947.34	7,595.51	3,803.40	0.59	-0.14	0.067
45.00	-26.14	-2.33	0.00	-216.54	0.00	216.54	3,832.15	1,916.07	7,291.81	3,651.33	0.75	-0.16	0.066
47.04	-24.85	-2.28	0.00	-211.79	0.00	211.79	3,806.14	1,903.07	7,168.57	3,589.61	0.82	-0.17	0.066
50.00	-23.36	-2.23	0.00	-205.04	0.00	205.04	3,768.05	1,884.02	6,991.17	3,500.78	0.93	-0.18	0.065
53.46	-23.05	-2.23	0.00	-197.31	0.00	197.31	2,934.54	1,467.27	5,439.41	2,723.75	1.07	-0.20	0.080
55.00	-22.05	-2.20	0.00	-193.88	0.00	193.88	2,920.91	1,460.46	5,371.50	2,689.74	1.14	-0.20	0.080
60.00	-21.07	-2.17	0.00	-182.90	0.00	182.90	2,875.67	1,437.83	5,151.93	2,579.79	1.36	-0.23	0.078
65.00	-20.12	-2.16	0.00	-172.03	0.00	172.03	2,828.87	1,414.44	4,933.94	2,470.64	1.62	-0.25	0.077
70.00	-19.19	-2.14	0.00	-161.26	0.00	161.26	2,780.52	1,390.26	4,717.75	2,362.38	1.89	-0.28	0.075
75.00	-18.28	-2.14	0.00	-150.54	0.00	150.54	2,730.61	1,365.31	4,503.59	2,255.14	2.20	-0.30	0.073
80.00	-17.40	-2.15	0.00	-139.83	0.00	139.83	2,679.16	1,339.58	4,291.67	2,149.02	2.53	-0.33	0.072
85.00	-16.54	-2.16	0.00	-129.09	0.00	129.09	2,626.14	1,313.07	4,082.22	2,044.14	2.89	-0.35	0.069
90.00	-15.71	-2.18	0.00	-118.30	0.00	118.30	2,571.58	1,285.79	3,875.45	1,940.61	3.27	-0.38	0.067
95.00	-15.64	-2.18	0.00	-107.41	0.00	107.41	2,515.46	1,257.73	3,671.59	1,838.53	3.69	-0.41	0.065
95.46	-14.36	-2.21	0.00	-106.40	0.00	106.40	2,510.22	1,255.11	3,652.99	1,829.21	3.72	-0.41	0.064
100.00	-14.21	-2.21	0.00	-96.39	0.00	96.39	2,457.78	1,228.89	3,470.86	1,738.01	4.12	-0.43	0.061
100.54	-13.63	-2.22	0.00	-95.19	0.00	95.19	1,840.14	920.07	2,636.71	1,320.31	4.17	-0.43	0.080
105.00	-13.00	-2.23	0.00	-85.29	0.00	85.29	1,806.70	903.35	2,512.42	1,258.08	4.59	-0.46	0.075
110.00	-12.38	-2.23	0.00	-74.13	0.00	74.13	1,767.71	883.85	2,374.37	1,188.95	5.09	-0.49	0.069
115.00	-11.79	-2.23	0.00	-62.95	0.00	62.95	1,727.17	863.58	2,238.01	1,120.67	5.61	-0.51	0.063
120.00	-11.21	-2.20	0.00	-51.82	0.00	51.82	1,685.07	842.53	2,103.55	1,053.34	6.16	-0.54	0.056
125.00	-10.65	-2.16	0.00	-40.80	0.00	40.80	1,641.42	820.71	1,971.23	987.08	6.74	-0.56	0.048
130.00	-10.11	-2.11	0.00	-29.98	0.00	29.98	1,596.21	798.11	1,841.24	921.99	7.35	-0.58	0.039
135.00	-9.80	-2.06	0.00	-19.44	0.00	19.44	1,549.45	774.73	1,713.83	858.19	7.97	-0.60	0.029
138.00	-5.03	-1.31	0.00	-13.25	0.00	13.25	1,520.65	760.33	1,638.71	820.57	8.35	-0.61	0.019
140.00	-4.56	-1.22	0.00	-10.62	0.00	10.62	1,501.14	750.57	1,589.21	795.79	8.60	-0.61	0.016
145.00	-4.20	-1.13	0.00	-4.52	0.00	4.52	1,451.27	725.64	1,467.60	734.89	9.24	-0.62	0.009
149.00	0.00	-1.09	0.00	0.00	0.00	0.00	1,400.09	700.04	1,362.73	682.38	9.76	-0.62	0.000

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number: OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

Load Case (0.9 - 0.2Sds) \* DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

## Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-26.08	-2.58	0.00	-324.10	0.00	324.10	4,339.10	2,169.55	10,108.3	5,061.68	0.00	0.00	0.070
5.00	-25.06	-2.56	0.00	-311.19	0.00	311.19	4,288.99	2,144.49	9,788.20	4,901.38	0.01	-0.02	0.069
10.00	-24.07	-2.53	0.00	-298.38	0.00	298.38	4,237.32	2,118.66	9,469.35	4,741.71	0.04	-0.03	0.069
15.00	-23.10	-2.50	0.00	-285.72	0.00	285.72	4,184.10	2,092.05	9,152.00	4,582.80	0.08	-0.05	0.068
20.00	-22.15	-2.46	0.00	-273.22	0.00	273.22	4,129.33	2,064.66	8,836.37	4,424.75	0.14	-0.07	0.067
25.00	-21.21	-2.43	0.00	-260.90	0.00	260.90	4,073.00	2,036.50	8,522.69	4,267.68	0.22	-0.09	0.066
30.00	-20.30	-2.39	0.00	-248.76	0.00	248.76	4,015.11	2,007.56	8,211.17	4,111.69	0.32	-0.10	0.066
35.00	-19.41	-2.35	0.00	-236.81	0.00	236.81	3,955.68	1,977.84	7,902.03	3,956.89	0.44	-0.12	0.065
40.00	-18.54	-2.32	0.00	-225.04	0.00	225.04	3,894.69	1,947.34	7,595.51	3,803.40	0.58	-0.14	0.064
45.00	-18.18	-2.30	0.00	-213.46	0.00	213.46	3,832.15	1,916.07	7,291.81	3,651.33	0.74	-0.16	0.063
47.04	-17.29	-2.26	0.00	-208.75	0.00	208.75	3,806.14	1,903.07	7,168.57	3,589.61	0.81	-0.17	0.063
50.00	-16.25	-2.21	0.00	-202.08	0.00	202.08	3,768.05	1,884.02	6,991.17	3,500.78	0.92	-0.18	0.062
53.46	-16.03	-2.20	0.00	-194.43	0.00	194.43	2,934.54	1,467.27	5,439.41	2,723.75	1.06	-0.20	0.077
55.00	-15.34	-2.17	0.00	-191.04	0.00	191.04	2,920.91	1,460.46	5,371.50	2,689.74	1.12	-0.20	0.076
60.00	-14.66	-2.15	0.00	-180.19	0.00	180.19	2,875.67	1,437.83	5,151.93	2,579.79	1.35	-0.23	0.075
65.00	-13.99	-2.13	0.00	-169.47	0.00	169.47	2,828.87	1,414.44	4,933.94	2,470.64	1.60	-0.25	0.074
70.00	-13.35	-2.11	0.00	-158.84	0.00	158.84	2,780.52	1,390.26	4,717.75	2,362.38	1.87	-0.27	0.072
75.00	-12.72	-2.11	0.00	-148.27	0.00	148.27	2,730.61	1,365.31	4,503.59	2,255.14	2.17	-0.30	0.070
80.00	-12.10	-2.11	0.00	-137.72	0.00	137.72	2,679.16	1,339.58	4,291.67	2,149.02	2.50	-0.32	0.069
85.00	-11.51	-2.13	0.00	-127.15	0.00	127.15	2,626.14	1,313.07	4,082.22	2,044.14	2.85	-0.35	0.067
90.00	-10.93	-2.14	0.00	-116.51	0.00	116.51	2,571.58	1,285.79	3,875.45	1,940.61	3.23	-0.37	0.064
95.00	-10.87	-2.15	0.00	-105.79	0.00	105.79	2,515.46	1,257.73	3,671.59	1,838.53	3.64	-0.40	0.062
95.46	-9.99	-2.17	0.00	-104.81	0.00	104.81	2,510.22	1,255.11	3,652.99	1,829.21	3.67	-0.40	0.061
100.00	-9.88	-2.18	0.00	-94.94	0.00	94.94	2,457.78	1,228.89	3,470.86	1,738.01	4.07	-0.43	0.059
100.54	-9.48	-2.19	0.00	-93.76	0.00	93.76	1,840.14	920.07	2,636.71	1,320.31	4.12	-0.43	0.076
105.00	-9.04	-2.20	0.00	-84.01	0.00	84.01	1,806.70	903.35	2,512.42	1,258.08	4.53	-0.45	0.072
110.00	-8.61	-2.20	0.00	-73.02	0.00	73.02	1,767.71	883.85	2,374.37	1,188.95	5.02	-0.48	0.066
115.00	-8.19	-2.19	0.00	-62.01	0.00	62.01	1,727.17	863.58	2,238.01	1,120.67	5.53	-0.51	0.060
120.00	-7.79	-2.17	0.00	-51.05	0.00	51.05	1,685.07	842.53	2,103.55	1,053.34	6.08	-0.53	0.053
125.00	-7.40	-2.13	0.00	-40.21	0.00	40.21	1,641.42	820.71	1,971.23	987.08	6.65	-0.56	0.045
130.00	-7.03	-2.07	0.00	-29.55	0.00	29.55	1,596.21	798.11	1,841.24	921.99	7.24	-0.58	0.036
135.00	-6.81	-2.03	0.00	-19.18	0.00	19.18	1,549.45	774.73	1,713.83	858.19	7.86	-0.59	0.027
138.00	-3.50	-1.30	0.00	-13.08	0.00	13.08	1,520.65	760.33	1,638.71	820.57	8.23	-0.60	0.018
140.00	-3.17	-1.20	0.00	-10.49	0.00	10.49	1,501.14	750.57	1,589.21	795.79	8.48	-0.60	0.015
145.00	-2.92	-1.12	0.00	-4.46	0.00	4.46	1,451.27	725.64	1,467.60	734.89	9.12	-0.61	0.008
149.00	0.00	-1.09	0.00	0.00	0.00	0.00	1,400.09	700.04	1,362.73	682.38	9.63	-0.61	0.000

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

## Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	30.90	0.00	37.71	0.00	0.00	3335.70	53.46	0.68
0.9D + 1.6W	30.89	0.00	28.27	0.00	0.00	3306.72	53.46	0.67
1.2D + 1.0Di + 1.0Wi	5.88	0.00	70.53	0.00	0.00	572.10	0.00	0.13
(1.2 + 0.2Sds) * DL + E ELFM	1.36	0.00	37.48	0.00	0.00	170.11	53.46	0.04
(1.2 + 0.2Sds) * DL + E EMAM	2.58	0.00	37.48	0.00	0.00	327.76	53.46	0.08
(0.9 - 0.2Sds) * DL + E ELFM	1.36	0.00	26.08	0.00	0.00	168.33	53.46	0.04
(0.9 - 0.2Sds) * DL + E EMAM	2.58	0.00	26.08	0.00	0.00	324.10	53.46	0.08
1.0D + 1.0W	8.58	0.00	31.46	0.00	0.00	922.26	53.46	0.19

Site Number: 413850

Code: ANSI/TIA-222-G

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Site Name: Goshen (Brass Mountain) CT, CT Engineering Number:OAA742384\_C3\_01

11/30/2018 12:41:17 PM

Customer: VERIZON WIRELESS

## Base Summary

### Reactions

Original Design			Analysis			Moment Design %
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	
4,230.70	28.90	38.70	3,335.70	70.53	30.90	78.85

### Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
50.0	3.000	71.000	Round	0	0.00	7.538	422.30	763.22	0.55

### Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
65.00	24	2.25" A615-	2.25	75.00	100.00	Radial	0.00	0.0	105.58	260.00	0.42	99.70	260.00	0.39

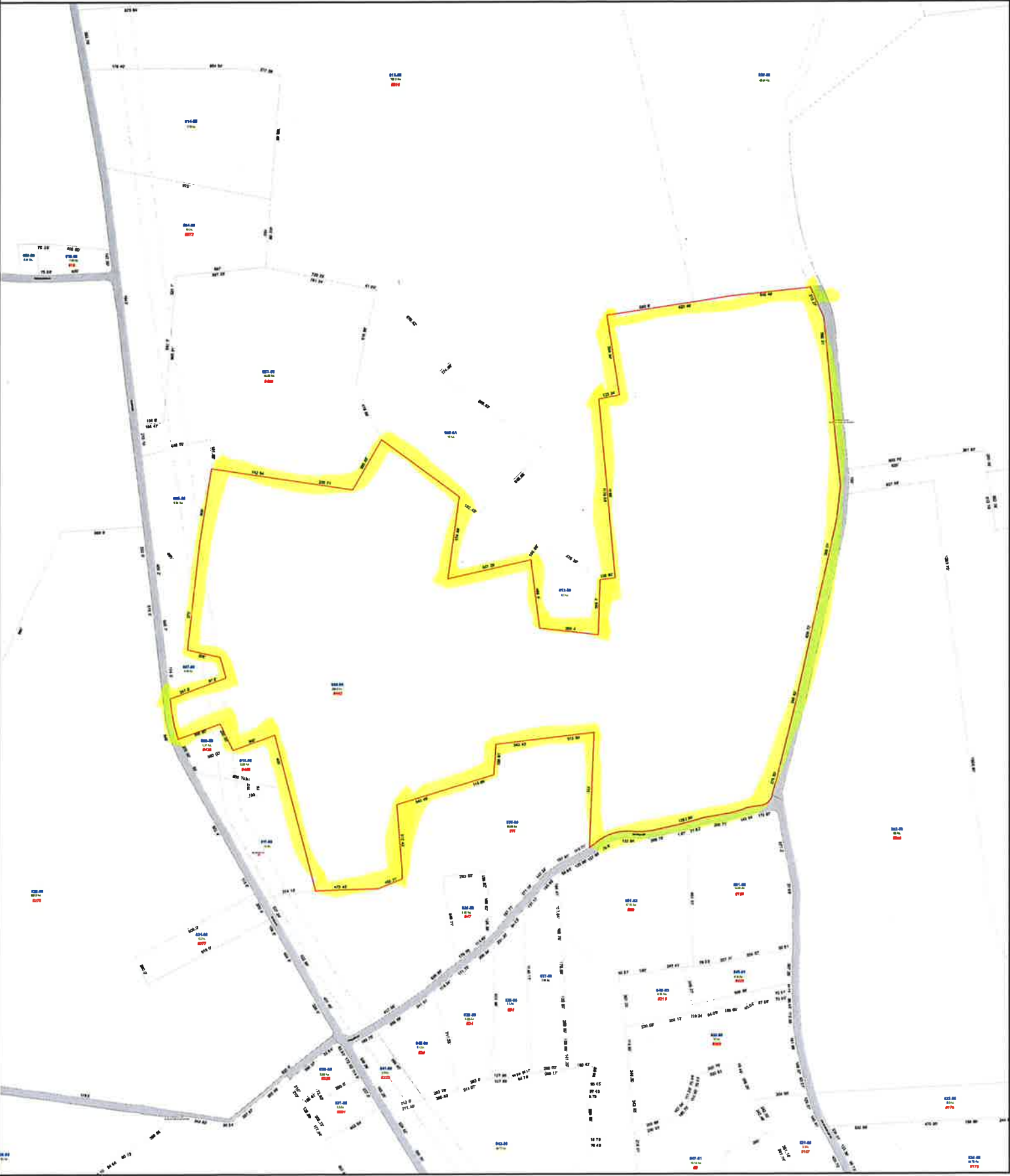
# **ATTACHMENT 4**



# Town of Goshen, Connecticut - Assessment Parcel Map

Parcel: 06-012-008-00

Location: 442 NORTH STREET



Approximate Scale: 1 inch = 850 feet



Map Produced: September 2017

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Goshen and its mapping contractors assume no legal responsibility for the information contained herein.



# Town of Goshen, CT

## Property Listing Report

Map Block Lot

06-012-008-00

Account

00084400

### Property Information

Property Location	442 NORTH STREET
Owner	ARCA LLC
Co-Owner	
Mailing Address	25 LARCHMONT CIRCLE STRATFORD CT 06614-1336
Land Use	435 Cell Site Vac Lnd
Land Class	I
Zoning Code	RA5
Town Clerk Map #	TC#258
Subdiv. Lot #	
Neighborhood	
Acreage	233.2
Utilities	
Lot Setting/Desc	
Survey Map	
Additional Info	

### Photo



### Sketch

### Primary Construction Details

Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Floors	
Total Rooms	

Bedrooms	
Full Bathrooms	
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	

Exterior Walls	
Interior Walls	
Heating Type	
Heating Fuel	
AC Type	
Gross Bldg Area	
Total Living Area	



# Town of Goshen, CT

Property Listing Report

Map Block Lot

06-012-008-00

Account

00084400

## Valuation Summary (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings		
Extras	0	
Outbuildings	125000	87500
Land	807630	187800
Total	932630	275300

## Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		0

## Outbuilding and Extra Items

Type	Description
Cell Tower	1.00 Units

## Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
ARCA LLC	114/ 441	3/3/1997	310000
KULESZA MARY	110/ 88		0

# **ATTACHMENT 5**



Certificate of Mailing — Firm

Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103		TOTAL NO. of Pieces Listed by Sender  3	TOTAL NO. of Pieces Received at Post Office™  3	Affix Stamp Here Postmark with Date of Receipt.			
Postmaster, per (name of receiving employee)							
USPS® Tracking Number Firm-specific Identifier		Address (Name, Street, City, State, and ZIP Code™)		Postage	Fee	Special Handling	Parcel Airlift
1.		Robert Valentine, First Selectman Town of Goshen 42A North Street Goshen, CT 06756					
2.		Martin Connor, Land Use Official Town of Goshen 42A North Street Goshen, CT 06756					
3.		Arca LLC 25 Larchmont Circle Stratford, CT 06614-1336					
4.							
5.							
6.							

Goshen