Robinson+Cole

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March 6, 2017

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**
401 Wakelee Avenue, Ansonia, Connecticut

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) antennas at the 177-foot level of the existing 196-foot tower at 401 Wakelee Avenue in Ansonia, Connecticut (the "Property"). The tower is owned by American Tower Corporation ("ATC"). The Council approved Cellco's shared use of the existing tower in 2001. Cellco now intends to modify its facility by replacing six (6) existing antennas with three (3) model SBNHH-1D65B, 1900 MHz antennas and three (3) model SBNHH-1D65B, 700/2100 MHz antennas, all at the same level on the tower. Cellco also intends to install nine (9) remote radio heads ("RRHs") behind its antennas and two (2) HYBRIFLEX™ fiber optic antenna cables. Included in Attachment 1 are specifications for Cellco's replacement antennas, RRHs and HYBRIFLEX™ cables.

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 David Cassetti, Ansonia's Mayor, Ronda Porrini, Ansonia's Land Use Administrator and ATC, the tower owner. The City of Ansonia is the owner of the Property.

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. Cellco's new antennas and RRHs will be installed on its existing platform at the 177-foot level on the tower.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, 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 (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).

A copy of the Ansonia's parcel map and property owner information is included in Attachment 4.

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:
David Cassetti, Ansonia's Mayor
Ronda Porrini, Ansonia's Land Use Administrator
ATC
Tim Parks

ATTACHMENT 1

Product Specifications

COMMSCOPE®

SBNHH-1D65B

Multiband Antenna, 698–896 and 2x 1695–2360 MHz, 65° horizontal beamwidth, internal RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	14.9	14.7	17.7	18.2	18.6	18.6
Beamwidth, Horizontal, degrees	68	66	69	66	63	58
Beamwidth, Vertical, degrees	12.1	10.7	5.6	5.2	5.0	4.5
Beam Tilt, degrees	0–14	0–14	0–7	0–7	0–7	0–7
USLS (First Lobe), dB	14	13	15	15	15	13
Front-to-Back Ratio at 180°, dB	27	29	28	28	28	27
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	30	30	30	30	30	30
VSWR | Return Loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350	350	350	300
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	14.5	14.3	17.4	17.9	18.2	18.3
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.8	±0.4	±0.3	±0.5	±0.3
Gain by Beam Tilt, average, dBi	0 ° | 14.6	0 ° | 14.5	0 ° | 17.4	0 ° | 17.8	0 ° | 18.1	0 ° | 18.2
	7 ° | 14.6	7 ° | 14.4	3 ° | 17.5	3 ° | 17.9	3 ° | 18.3	3 ° | 18.4
	14 ° | 14.2	14 ° | 13.6	7 ° | 17.4	7 ° | 17.9	7 ° | 18.2	7 ° | 18.4
Beamwidth, Horizontal Tolerance, degrees	±2.2	±3.4	±2	±4.6	±5.7	±4.3
Beamwidth, Vertical Tolerance, degrees	±0.8	±1	±0.3	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	16	14	16	16	16	15
Front-to-Back Total Power at 180° ± 30°, dB	25	26	27	26	26	26
CPR at Boresight, dB	22	23	21	20	20	22
CPR at Sector, dB	13	11	16	12	11	4

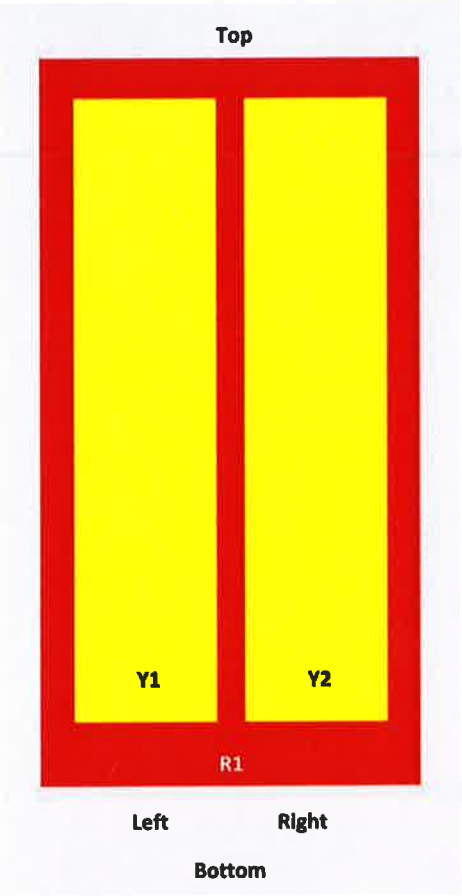
* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, download the whitepaper Time to Raise the Bar on BSAs.

Array Layout

Product Specifications

SBNHH-1D65B

SBNHH 65



Array	Freq (MHz)	Conns	RET (MRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxxx.1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxxxx.2
Y2	1695-2360	5-6		

View from the front of the antenna

(Sizes of colored boxes are not true depictions of array sizes)

General Specifications

Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz
Antenna Type	Sector
Band	Multiband
Performance Note	Outdoor usage

Mechanical Specifications

RF Connector Quantity, total	6
RF Connector Quantity, low band	2
RF Connector Quantity, high band	4
RF Connector Interface	7-16 DIN Female

Product Specifications

SBNHH-1D65B

Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radiator Material	Aluminum | Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	618.0 N @ 150 km/h 138.9 lbf @ 150 km/h
Wind Loading, lateral	197.0 N @ 150 km/h 44.3 lbf @ 150 km/h
Wind Loading, rear	728.0 N @ 150 km/h 163.7 lbf @ 150 km/h
Wind Speed, maximum	241 km/h | 150 mph

Dimensions

Length	1851.0 mm | 72.9 in
Width	301.0 mm | 11.9 in
Depth	180.0 mm | 7.1 in
Net Weight, without mounting kit	18.4 kg | 40.6 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal RET	High band (1) | Low band (1)
Power Consumption, idle state, maximum	2.0 W
Power Consumption, normal conditions, maximum	13.0 W
Protocol	3GPP/AISG 2.0 (Multi-RET)
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male

Packed Dimensions

Length	2025.0 mm | 79.7 in
Width	390.0 mm | 15.4 in
Depth	296.0 mm | 11.7 in
Shipping Weight	31.0 kg | 68.3 lb

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Product Specifications

SBNHH-1D65B

Included Products

BSAMNT-1 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

ALCATEL-LUCENT B13 RRH4X30-4R

Alcatel-Lucent B13 Remote Radio Head 4x30-4R is the newest 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 B13 RRH4x30-4R allows operators to have a compact radio solution to deploy LTE in the 700U band (700 MHz, 3GPP band 13), providing them with the means to achieve high capacity, high quality and high coverage with minimum site requirements.

The Alcatel-Lucent B13 RRH4x30-4R 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 and up to 10MHz instantaneous bandwidth.

The Alcatel-Lucent B13 RRH4x30-4R is a near zero-footprint solution and operates noise free, simplifying negotiations with site property owners and minimizing environmental impacts.

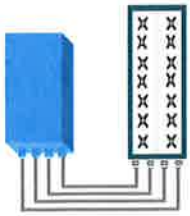
Its compactness and slim design makes the Alcatel-Lucent B13 RRH4x30-4R easy to install close to the antenna: operators can therefore locate this Remote Radio Head where RF design conditions are deemed ideal, minimizing trade-offs between available sites and RF optimum sites, together with reducing the RF feeder needs and installation costs.

FEATURES

- Supporting LTE in 700 MHz band (700U, 3GPP band 13)
- LTE 2Tx or 4Tx MIMO (SW switchable)
- Output power: Up to 2x60W or 4x30W
- 10MHz LTE carrier with 4Rx Diversity
- Convection-cooled (fan-less)
- Supports AISG 2.0 ALD devices (RET, TMA) through RS485 or RF ports

BENEFITS

- Compact to reduce additional footprint when adding LTE in 700U band
- MIMO scheme operation selection (2Tx or 4Tx) by software only
- Improves downlink spectral efficiency through MIMO4
- Increases LTE coverage thanks to 4Rx 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

Alcatel·Lucent

Features & performance	
Number of TX/RX paths	4 duplexed (either 4T4R or 2T4R by SW)
Frequency band	U700 (C) (3GPP bands 13): DL: 746 - 756 MHz / UL: 777 - 787 MHz
Instantaneous bandwidth - #carriers	10MHz – 1 LTE carrier (in 10MHz occupied bandwidth)
LTE carrier bandwidth	10 MHz
RF output power	2x60W or 4x30W (by SW)
Noise figure – RX Diversity scheme	2 dB typ. (<2.5 dB max) – 2 or 4 way Rx diversity
Sizes (HxWxD) in mm (in.) **Volume in L** **Weight in kg (lb) (w/o mounting HW)**	550 x 305 x 230 (21.6" x 12.0" x 9") (with solar shield) 38 (with solar shield) 26 (57.2) (with solar shield)
DC voltage range **DC power consumption**	-40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption 550W typical @100% RF load (in 2Tx or 4TX mode)
Environmental conditions **Wind load (@150km/h or 93mph)**	-40°C (-40°F) /+55°C (+131°F) IP65 Frontal:<200N / Lateral :<150N
Antenna ports	4 ports 7/16 DIN female (50 ohms) VSWR < 1.5
CPRI ports	2 CPRI ports (HW ready for Rate7, 9.8 Gbps) SFP single mode dual fiber
AISG interfaces	1 AISG2.0 output (RS485) Integrated Smart Bias Tees (x2)
Misc. Interfaces	4 external alarms (1 connector) – 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

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.

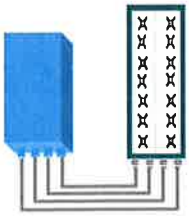
Its compactness and slim design makes the Alcatel-Lucent B25 RRH4x30 easy to install close to the antenna: operators can therefore locate this Remote Radio Head where RF design conditions are deemed ideal, minimizing trade-offs between available sites and RF optimum sites, together with reducing the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

Alcatel·Lucent

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) RX Diversity scheme	2.0 dB typ. (<2.5 dB max) 2 or 4 way Rx diversity
Sizes (HxWxD)(w/ solar shield) in mm (in.) Volume (w/ solar shield) in L Weight (w/ solar shield) in kg (lb)	538 x 304 x 182 (21.2" x 12.0" x 7.2") 30 24 (53)
DC voltage range DC power consumption	-40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption 580W typical @100% RF load
Environmental conditions Wind load (@150km/h or 93mph)	-40°C (-40°F) /+55°C (+131°F) IP65 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

ALCATEL-LUCENT B66A RRH4X45

The Alcatel-Lucent B66a Remote Radio Head 4x45 is the newest 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. Its operational range covers beyond that of B4 (AWS) and B10 (AWS+).

Supporting 2Tx/4Tx MIMO and 2-way/4-way Rx diversity, the Alcatel-Lucent B66a RRH4x45 allows operators to have a compact radio solution to deploy LTE in the 2100 band (3GPP band 4, 10, and 66), providing them with the means to achieve high capacity, high quality, high reliability, large instantaneous bandwidth, and high coverage with minimum site requirements.

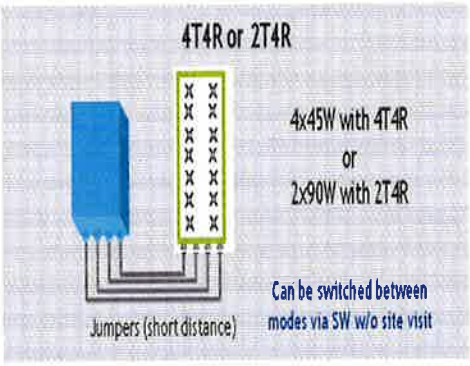
The Alcatel-Lucent B66a RRH4x45 product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x90W or 4x45W RF output power. It also supports 4-way Rx diversity at the 70 MHz instantaneous bandwidth.

The Alcatel-Lucent B66a RRH4x45 is a compact (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 B66a RRH4x45 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 2110 - 2180 MHz band/DL, 1710-1780MHz/UL (3GPP band 4, 10, and 66a)
- LTE 2Tx or 4Tx MIMO (SW selectable)
- Configuration: 2T2R/2T4R/4T4R
- Output power: Up to 2x90W or 4x45W (SW configurable)
- 70MHz LTE carrier with 4Rx Diversity
- Convection-cooled (fan-less)
- Supports AISG 2.0 ALD devices (RET, TMA) through RS485 or RF ports



BENEFITS

- Compact to reduce additional footprint when adding LTE in AWS 1-3 band
- Selection of MIMO configuration (2Tx or 4Tx) by software only
- Improves downlink spectral efficiency through 4Tx MIMO
- Increases LTE coverage thanks to 4Rx diversity capability and best in class Rx sensitivity
- Flexible mounting options: Pole or Wall

TECHNICAL SPECIFICATIONS

Features & Performance	
Number of TX/RX paths	4 duplexed (either 4T4R or 2T4R selectable by SW)
Frequency band	AWS 1-3, B4/B66a DL: 2110-2180 MHz / UL: 1710-1780 MHz
Instantaneous bandwidth - #carriers	70 MHz – 4 LTE MIMO carriers (in 70 MHz occupied bandwidth)
LTE carrier bandwidth	5, 10, 15, 20 MHz
RF output power	2x90W or 4x45W (selectable by SW)
Noise figure – RX Diversity scheme **Receiver Sensivity (FRC A1-3)**	2 dB typical (<2.5 dB max) – 2 or 4 way Rx diversity -104.5 dBm maximum
Sizes (HxWxD) in mm (in.) **Volume in Liters** **Weight in kg (lb) (w/o mounting HW)**	655x299x182 (25.8x11.8x7.2) (with solar shield) 640x290x160 (25.2x11.4x6.3) (without solar shield) 35.5 (with solar shield) 29.7 (without solar shield) 25.8kg (56.8lb) (with solar shield)
DC voltage range **DC power consumption**	Nominal: -48V, -40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption 750W typical @100% RF load (in 2Tx or 4Tx mode); Add 58W for 2A*29V for AISG
Environmental conditions **Wind load (@150km/h or 93mph)**	-40°C (-40°F) /+55°C (+131°F) UL50E Type 4 Enclosure 250N (56lb) Frontal/150N (34lb) Lateral
Antenna ports	4 ports 4.3-10 female (50 ohms) VSWR < 1.5
CPRI ports	2 CPRI ports (HW ready for Rate 7, 9.8 Gbps) SFP: SMDF (HW supports also SMSF and MMDF)
AISG interfaces	1 AISG 2.0 output (RS485) Integrated Smart Bias Tees (x2)
Misc. Interfaces	4 external alarms (1 connector) 1 DC connector (2 pins)
Installation conditions	Pole and wall mounting
Regulatory compliance	3GPP 36.141 / 3GPP 36.113 / GR-487 / GR-1089-CORE / GR-3108-CORE / UL 60950-1 / FCC Part 27 / FCC Part 15 / GR-3178-CORE

Product Data Sheet HB158-1-08U8-S8J18

HYBRIFLEX™ RRH Hybrid Feeder Cabling Solution, 1-5/8", Single-Mode Fiber

Product Description

RFS' HYBRIFLEX Remote Radio Head (RRH) hybrid feeder cabling solution combines optical fiber and DC power for RRHs in a single lightweight aluminum corrugated cable, making it the world's most innovative solution for RRH deployments.

It was developed to reduce installation complexity and costs at Cellular sites. HYBRIFLEX allows mobile operators deploying an RRH architecture to standardize the RRH installation process and eliminate the need for and cost of cable grounding. HYBRIFLEX combines optical fiber (multi-mode or single-mode) and power in a single corrugated cable. It eliminates the need for junction boxes and can connect multiple RRHs with a single feeder. Standard RFS CELLFLEX® accessories can be used with HYBRIFLEX cable. Both pre-connectorized and on-site options are available.

Figure 1: HYBRIFLEX Series

Features/Benefits

- Aluminum corrugated armor with outstanding bending characteristics – minimizes installation time and enables mechanical protection and shielding
- Same accessories as 1 5/8" coaxial cable
- Outer conductor grounding – Eliminates typical grounding requirements and saves on installation costs
- Lightweight solution and compact design – Decreases tower loading
- Robust cabling – Eliminates need for expensive cable trays and ducts
- Installation of tight bundled fiber optic cable pairs directly to the RRH – Reduces CAPEX and wind load by eliminating need for interconnection
- Optical fiber and power cables housed in single corrugated cable – Saves CAPEX by standardizing RRH cable installation and reducing installation requirements
- Outdoor polyethylene jacket – Ensures long-lasting cable protection

Technical Specifications

Outer Conductor Armor	Corrugated Aluminum	[mm (in)]	46.5 (1.83)
Jacket:	Polyethylene, PE	[mm (in)]	50.3 (1.98)
UV-Protection	Individual and External Jacket		Yes
Weight, Approximate		[kg/m (lb/ft)]	1.9 (1.30)
Minimum Bending Radius, Single Bending		[mm (in)]	200 (8)
Minimum Bending Radius, Repeated Bending		[mm (in)]	500 (20)
Recommended/Maximum Clamp Spacing		[m (ft)]	1.0 / 1.2 (3.25 / 4.0)
DC-Resistance Outer Conductor Armor		[Ω/km (Ω/1000ft)]	068 (0.205)
DC-Resistance Power Cable, 8.4mm² (8AWG)		[Ω/km (Ω/1000ft)]	2.1 (0.307)
Version			Single-mode OM3
Quantity, Fiber Count			16 (8 pairs)
Core/Clad		[µm]	50/125
Primary Coating (Acrylate)		[µm]	245
Buffer Diameter, Nominal		[µm]	900
Secondary Protection, Jacket, Nominal		[mm (in)]	2.0 (0.08)
Minimum Bending Radius		[mm (in)]	104 (4.1)
Insertion Loss @ wavelength 850nm		dB/km	3.0
Insertion Loss @ wavelength 1310nm		dB/km	1.0
Standards (Meets or exceeds)			UL94-V0, UL1666 RoHS Compliant
Size (Power)		[mm² (AWG)]	8.4 (8)
Quantity, Wire Count (Power)			16 (8 pairs)
Size (Alarm)		[mm² (AWG)]	0.8 (18)
Quantity, Wire Count (Alarm)			4 (2 pairs)
Type			UV protected
Strands			19
Primary Jacket Diameter, Nominal		[mm (in)]	6.8 (0.27)
Standards (Meets or exceeds)			NFPA 130, ICEA S-95-658 UL Type XHHW-2, UL 44 UL-LS Limited Smoke, UL VW-1 IEEE-383 (1974), IEEE1202/FT4 RoHS Compliant
Installation Temperature		[°C (°F)]	-40 to +65 (-40 to149)
Operation Temperature		[°C (°F)]	-40 to +65 (-40 to149)

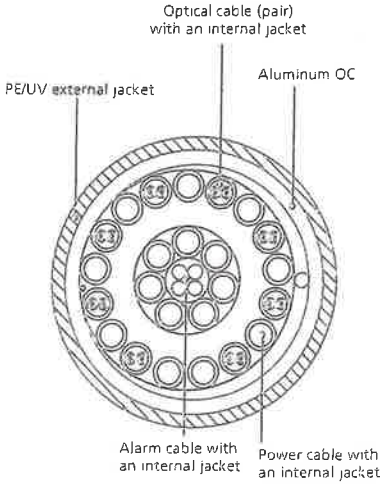


Figure 2: Construction Detail

* This data is provisional and subject to change

ATTACHMENT 2

	General	Power	Density					
Site Name: Ansonia								
CARRIER	**208**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*AT&T	2	414	167	850	0.0115	0.5667	0.20%	
*AT&T	2	656	167	1900	0.0182	1.0000	0.18%	
*AT&T	2	527	167	850	0.0146	0.5667	0.26%	
*AT&T	2	2105	167	2300	0.0584	1.0000	0.58%	
*AT&T	2	730	167	700	0.0203	0.4667	0.43%	
*AT&T	2	1456	167	1900	0.0404	1.0000	0.40%	
*Pocket (now MetroPCS)	3	631	157	2130	0.0299	1.0000	0.30%	
*Clearwire	2	153	194	2496	0.0031	1.0000	0.03%	
*Clearwire	1	211	194	11 GHz	0.0021	1.0000	0.02%	
*Sprint	4	693	185	1900	0.0311	1.0000	0.31%	
*Sprint	1	390	185	850	0.0044	0.5667	0.08%	
*Sprint	2	693	185	2500	0.0156	1.0000	0.16%	
*Sprint	12	100	194	851	0.0122	0.5673	0.22%	
*Sprint	3	562	194	2657	0.0172	1.0000	0.17%	
*T-Mobile	2	2334	148	2100	0.0833	1.0000	0.83%	
*T-Mobile	1	865	148	700	0.0154	0.4667	0.33%	
*T-Mobile	2	1167	148	1900	0.0416	1.0000	0.42%	
*T-Mobile	2	1167	148	2100	0.0416	1.0000	0.42%	
Verizon	**1**	**2413**	**177**	**0.0277**	**1970**	**1.0000**	**2.77%**	
Verizon	**9**	**208**	**177**	**0.0215**	**869**	**0.5793**	**3.71%**	
Verizon	**1**	**2199**	**177**	**0.0252**	**2145**	**1.0000**	**2.52%**	
Verizon	**1**	**947**	**177**	**0.0109**	**746**	**0.4973**	**2.19%**	
								16.53%
* Source: Siting Council								

ATTACHMENT 3

AMERICAN TOWER®
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Structural Analysis Report

Structure	:	**196 ft Self Supported Tower**
ATC Site Name	:	**Ansonia Wakelee, CT**
ATC Site Number	:	**302470**
Engineering Number	:	**OAA650282_C3_07**
Proposed Carrier	:	**Verizon**
Carrier Site Name	:	**Ansonia CT**
Carrier Site Number	:	**N/A**
Site Location	:	**401 Wakelee Ave** **Ansonia, CT 06401-1226** **41.356069,-73.092000**
County	:	**New Haven**
Date	:	**December 2, 2016**
Max Usage	:	**84%**
Result	:	**Pass**

Prepared By:
Theodore A. Deters, E.I.
Structural Engineer I

Ted Deters

Reviewed By:

STATE OF CONNECTICUT
SCOTT A. WIRGAU
30575
LICENSED
PROFESSIONAL ENGINEER

Dec 2 2016 2:29 PM cosign

COA: PEC.0001553

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 196 ft self supported tower to reflect the change in loading by Verizon.

Supporting Documents

Tower Drawings	Rohn Drawing #A991899, dated July 7, 1999
Foundation Drawing	Rohn Drawing #A992523-1, dated September 22, 1999
Geotechnical Report	Tectonic Engineering Consultants W.O. #1170.C754, dated May 20, 1999

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:	97 mph (3-Second Gust, V_{asd}) / 125 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Spectral Response:	Ss = 0.19, S_1 = 0.06
Site Class:	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. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
194.0	194.0	3	Argus LLPX310R	Sector Frames	(10) 1 1/4" Coax (6) 1 5/8" Coax (6) 5/16" Coax (2) 2" Conduit (2) 1/2" Coax	Clearwire
		2	DragonWave A-ANT-18G-2-C			
		3	NextNet BTS-2500			
		2	DragonWave Horizon Compact			
		2	EMS RR90-11-00DBL			Sprint Nextel
		6	Decibel DB844H90E-XY			
		3	KMW AM-X-WM-17-65-00T			
		3	KMW TTA (HB-X-WM-17-65-00T)			
191.0	191.0	3	RRU	Leg	-	
		3	Alcatel-Lucent 1900MHz 4x45 RRH			
		3	Alcatel-Lucent 800MHz RRH			
185.0	187.0	2	Powerwave P40-16-XLPP-RRR	Sector Frames	(6) 7/8" Coax (4) 1 1/4" Hybriflex	
		1	RFS APXVSPP18-C-A20			
		6	Andrew DB980H90E-M			
184.0	184.0	1	18" x 12" Junction Box	Leg	-	Clearwire
177.0	177.0	1	Powerwave P65-16-XL-2	Sector Frames	(12) 1 5/8" Coax	Verizon
		1	Antel BXA-70063-6BF-EDIN-X			
		1	Swedcom SLCP 2x6014			
		3	Antel BXA-80080/4CF			
167.0	167.0	3	Ericsson RRUS-32	Sector Frames	(2) 0.39" Fiber Trunk (4) 0.78" 8 AWG 6 (12) 1 1/4" Coax (1) 3" Conduit	AT&T Mobility
		3	Powerwave 7770.00			
		3	KMW AM-X-CD-16-65-00T-RET			
		1	CCI OPA-65R-LCUU-H8			
		2	CCI OPA-65R-LCUU-H6			
		6	Powerwave TT19-08BP111-001			
		6	Ericsson RRUS 11 (Band 12) (55 lb)			
		2	Raycap DC6-48-60-18-8F			
157.0	157.0	3	Kathrein 742 213	Leg	(6) 1 5/8" Coax	Metro PCS
148.0	148.0	3	Andrew LNX-6515DS-VTM	Sector Frames	(12) 1 5/8" Coax (1) 1 1/4" Hybriflex	T-Mobile
		3	Ericsson RRUS 11 B12			
		3	Ericsson KRY 112 144/1			
		3	Ericsson AIR 21, 1.3M, B4A B2P			
		3	Ericsson AIR 21, 1.3 M, B2A B4P			
125.0	125.0	2	Motorola PTP54600	Leg	(2) 1/4" Coax	City Of Ansonia, CT
102.0	102.0	2	GPS	Standoffs	(1) 1/2" Coax	Sprint Nextel
78.0	84.0	1	12' Dipole	Standoffs	(1) 1/2" Coax	Ansonia Fire Department
76.0	76.0	1	PCTEL GPS-TMG-HR-26N	Standoffs	(1) 1/2" Coax	Sprint Nextel

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
177.0	177.0	3	Antel BXA-171063-8CF-EDIN-X	-	-	Verizon
		3	Rymsa MGD3-800TX			
		12	RFS FD9R6004/2C-3L			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
177.0	177.0	6	Andrew SBNHH-1D65B	Sector Frames	(2) 1 5/8" Hybriflex	Verizon
		2	RFS DB-T1-6Z-8AB-0Z			
		3	Alcatel-Lucent B66 RRH4x45			
		3	Alcatel-Lucent PCS B25 RRH2x60/4x30			
		3	Alcatel-Lucent B13 RRH4x30-4R 700U			

[1]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 stacked on top of existing Verizon coax.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	84%	Pass
Diagonals	83%	Pass
Horizontals	13%	Pass
Anchor Bolts	64%	Pass
Leg Bolts	68%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Uplift (Kips)	301.1	406.5	326.5	80%
Axial (Kips)	343.0	463.1	374.8	81%
Shear (Kips)	36.3	49.0	38.6	79%

*** The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1**

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, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
194.0	DragonWave A-ANT-18G-2-C	Clearwire	0.450	0.012	0.256
177.0	Alcatel-Lucent B13 RRH4x30-4R 700U	Verizon	0.378	0.011	0.250
	Alcatel-Lucent PCS B25 RRH2x60/4x30				
	Alcatel-Lucent B66 RRH4x45				
	RFS DB-T1-6Z-8AB-0Z				
	Andrew SBNHH-1D65B				

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

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Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

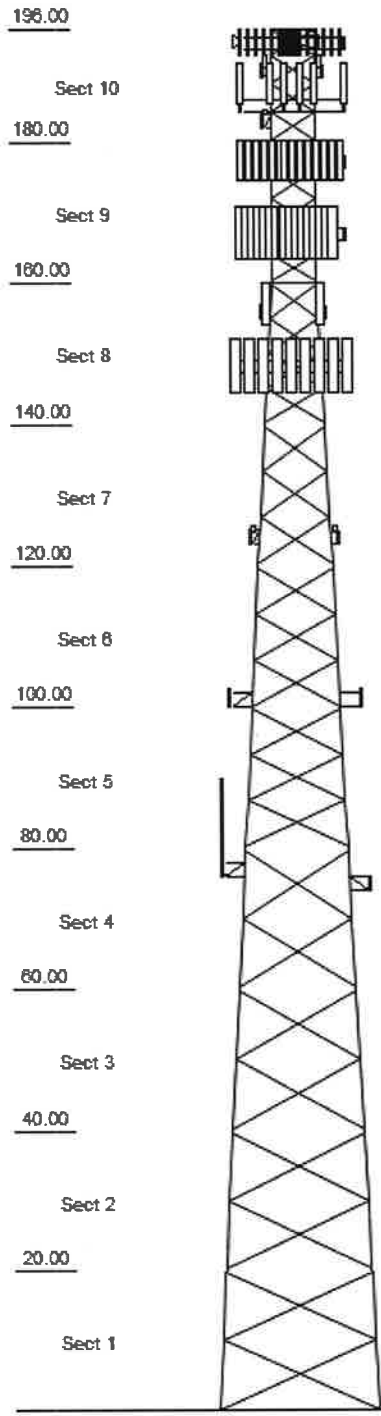
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

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. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

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 we supply.



Loads: 97 mph no ice
50 mph w/ 3/4" radial ice
Site Class: D Ss: 0.19 S1: 0.06
60 mph Serviceability

Job Information

Tower :	302470	Location : Ansonia Wakelee, CT	
Code :	ANSI/TIA-222-G	Shape : Triangle	Base Width : 23.00 ft
Client :	Verizon Wireless		Top Width : 6.65 ft

Sections Properties

Section	Leg Members		Diagonal Members	Horizontal Members
1	PX 50 ksi	8" DIA PIPE	SAE 50 ksi 4X4X0.25	
2	PSP 50 ksi	ROHN 8 EHS	SAE 50 ksi 4X4X0.25	
3	PSP 50 ksi	ROHN 8 EHS	SAE 50 ksi 3.5X3.5X0.25	
4	PX 50 ksi	6" DIA PIPE	SAE 50 ksi 3.5X3.5X0.25	
5	PSP 50 ksi	ROHN 6 EHS	SAE 50 ksi 3X3X0.25	
6 - 7	PX 50 ksi	5" DIA PIPE	SAE 36 ksi 2.5X2.5X0.25	
8	PX 50 ksi	4" DIA PIPE	SAE 36 ksi 2X2X0.25	SAE 36 ksi 2X2X0.125
9	PX 50 ksi	3" DIA PIPE	SAE 36 ksi 2X2X0.1875	
10	PST 50 ksi	2-1/2" DIA PIPE	SAE 36 ksi 1.75X1.75X0.1875	SAE 36 ksi 2X2X0.125

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
194.00	Panel	2	EMS RR90-11-00DBL
194.00	Panel	6	Decibel DB844H90E-XY
194.00	Panel	3	KMW AM-X-WM-17-65-00T
194.00	Panel	3	Argus LLPX310R
194.00	Dish	2	DragonWave A-ANT-18G-2-C
194.00	Panel	3	NextNet BTS-2500
194.00	Panel	2	DragonWave Horizon Compact
194.00	Panel	3	KMW TTA (HB-X-WM-17-65-00T)
194.00	Mounting Frame	3	Round Sector Frames
191.00	Panel	3	RRU
191.00	Panel	3	Alcatel-Lucent 1900 MHz 4x45 R
191.00	Panel	3	Alcatel-Lucent 800 MHz RRH
185.00	Mounting Frame	3	Round Sector Frames
185.00	Panel	2	Powerwave Allgon P40-16-XLPP-R
185.00	Panel	1	RFS APXVSPP18-C-A20
185.00	Panel	6	Andrew DB980H90E-M
184.00	Panel	1	18" x 12" Junction Box
177.00	Mounting Frame	3	Flat Light Sector Frames
177.00	Panel	6	Andrew SBNHH-1D65B
177.00	Panel	1	Powerwave Allgon P65-16-XL-2
177.00	Panel	1	Amphenol Antel BXA-70063-6BF-E
177.00	Panel	1	Swedcom SLCP 2x6014
177.00	Panel	3	Antel BXA-80080/4CF
177.00	Panel	2	RFS DB-T1-6Z-8AB-0Z
177.00	Panel	3	Alcatel-Lucent B66 RRH4x45
177.00	Panel	3	Alcatel-Lucent PCS B25 RRH2x60
177.00	Panel	3	Alcatel-Lucent B13 RRH4x30-4R
167.00	Panel	3	Ericsson RRUS-32
167.00	Panel	3	Powerwave Allgon 7770.00
167.00	Panel	3	KMW AM-X-CD-16-65-00T-RET
167.00	Panel	1	CCI OPA-65R-LCUU-H8
167.00	Panel	2	CCI OPA-65R-LCUU-H6
167.00	Panel	6	Powerwave TT19-08BP111-001
167.00	Panel	6	Ericsson RRUS 11 (Band 12) (55
167.00	Panel	2	Raycap DC6-48-60-18-8F
167.00	Mounting Frame	3	Round Sector Frames
157.00	Panel	3	Kathrein 742 213
148.00	Panel	3	Andrew LNX-6515DS-VTM
148.00	Panel	3	Ericsson RRUS 11 B12
148.00	Panel	3	Ericsson KRY 112 144/1
148.00	Panel	3	Ericsson AIR 21, 1.3M, B4A B2P
148.00	Panel	3	Ericsson AIR 21, 1.3 M, B2A B4
148.00	Mounting Frame	3	Round Sector Frame
125.00	Panel	2	Motorola PTP54600
102.00	Straight Arm	2	Standoffs
102.00	Whip	2	GPS
78.00	Whip	1	12' Dipole
78.00	Straight Arm	1	Standoffs
76.00	Straight Arm	1	Standoffs

Job Information

Tower :	302470	Location : Ansonia Wakelee, CT	
Code :	ANSI/TIA-222-G	Shape : Triangle	Base Width : 23.00 ft
Client :	Verizon Wireless		Top Width : 6.65 ft

76.00 Panel 1 PCTEL GPS-TMG-HR-26N

Linear Appurtenance

Elev (ft) From	To	Qty	Description
8.00	194.00	1	Wave Guide
8.00	194.00	6	5/16" Coax
8.00	194.00	2	2" Conduit
8.00	194.00	2	1/2" Coax
8.00	194.00	6	1 5/8" Coax
8.00	194.00	10	1 1/4" Coax
8.00	185.00	6	7/8" Coax
8.00	185.00	4	1 1/4" Hybriflex Cab
8.00	183.00	1	Wave Guide
8.00	177.00	2	1 5/8" Hybriflex
8.00	177.00	12	1 5/8" Coax
8.00	167.00	1	Wave Guide
8.00	167.00	1	3" Conduit
8.00	167.00	12	1 1/4" Coax
8.00	167.00	4	0.78" 8 AWG 6
8.00	167.00	2	0.39" Fiber Trunk
8.00	157.00	1	Waveguide
8.00	157.00	6	1 5/8" Coax
8.00	148.00	1	Wave Guide
8.00	148.00	12	1 5/8" Coax
8.00	148.00	1	1 1/4" Hybriflex
8.00	125.00	2	1/4" Coax
8.00	102.00	1	1/2" Coax
8.00	78.00	1	1/2" Coax
8.00	76.00	1	1/2" Coax

Global Base Foundation Design Loads

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	7,059.38	61.05	63.45
DL + WL + IL	2,241.60	176.83	20.36

Individual Base Foundation Design Loads

Vertical (kip)	Uplift (kip)	Horizontal (kip)
374.76	326.47	38.64

Site Number:	**302470**	**Code:**	**ANSI/TIA-222-G**	
Site Name:	**Ansonia Wakelee, CT**	**Engineering Number:**	**OAA650282_C3_07**	12/2/2016 10:47:55 AM
Customer:	**Verizon Wireless**			

Analysis Parameters

Location:	**New Haven County, CT**	**Height (ft):**	**196**
Code:	**ANSI/TIA-222-G**	**Base Elevation (ft):**	**0.00**
Shape:	**Triangle**	**Bottom Face Width (ft):**	**23.00**
Tower Manufacturer:	**Rohn**	**Top Face Width (ft):**	**6.65**
Tower Type:	**Self Support**	**Anchor Bolt Detail Type**	**c**

Ice & Wind Parameters

Structure Class:	**II**	**Design Windspeed Without Ice:**	**97 mph**
Exposure Category:	**B**	**Design Windspeed With Ice:**	**50 mph**
Topographic Category:	**1**	**Operational Windspeed:**	**60 mph**
Crest Height:	**0.0 ft**	**Design Ice Thickness:**	**0.75 in**

Seismic Parameters

Analysis Method:	**Equivalent Modal Analysis & Equivalent Lateral Force Methods**				
Site Class:	**D - Stiff Soil**				
Period Based on Rayleigh Method (sec):	**1.01**				
T_L(sec):	**6**	**p:**	**1.3**	**C_s:**	**0.034**
S_S:	**0.195**	**S_1:**	**0.064**	**C_s, Max:**	**0.034**
F_a:	**1.600**	**F_V:**	**2.400**	**C_s, Min:**	**0.030**
S_{ds}:	**0.208**	**S_{d1}:**	**0.102**		

Load Cases

1.2D + 1.6W Normal	**97 mph Normal to Face with No Ice**
1.2D + 1.6W 60 deg	**97 mph 60 degree with No Ice**
1.2D + 1.6W 90 deg	**97 mph 90 degree with No Ice**
1.2D + 1.6W 120 deg	**97 mph 120 degree with No Ice**
1.2D + 1.6W 180 deg	**97 mph 180 degree with No Ice**
1.2D + 1.6W 210 deg	**97 mph 210 degree with No Ice**
1.2D + 1.6W 240 deg	**97 mph 240 degree with No Ice**
1.2D + 1.6W 300 deg	**97 mph 300 degree with No Ice**
1.2D + 1.6W 330 deg	**97 mph 330 degree with No Ice**
0.9D + 1.6W Normal	**97 mph Normal to Face with No Ice (Reduced DL)**
0.9D + 1.6W 60 deg	**97 mph 60 deg with No Ice (Reduced DL)**
0.9D + 1.6W 90 deg	**97 mph 90 deg with No Ice (Reduced DL)**
0.9D + 1.6W 120 deg	**97 mph 120 deg with No Ice (Reduced DL)**
0.9D + 1.6W 180 deg	**97 mph 180 deg with No Ice (Reduced DL)**
0.9D + 1.6W 210 deg	**97 mph 210 deg with No Ice (Reduced DL)**
0.9D + 1.6W 240 deg	**97 mph 240 deg with No Ice (Reduced DL)**
0.9D + 1.6W 300 deg	**97 mph 300 deg with No Ice (Reduced DL)**
0.9D + 1.6W 330 deg	**97 mph 330 deg with No Ice (Reduced DL)**
1.2D + 1.0Di + 1.0Wi Normal	**50 mph Normal with 0.75 in Radial Ice**
1.2D + 1.0Di + 1.0Wi 60 deg	**50 mph 60 deg with 0.75 in Radial Ice**
1.2D + 1.0Di + 1.0Wi 90 deg	**50 mph 90 deg with 0.75 in Radial Ice**

Analysis Parameters

1.2D + 1.0Di + 1.0Wi 120 deg	50 mph 120 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	50 mph 180 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 210 deg	50 mph 210 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 240 deg	50 mph 240 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 300 deg	50 mph 300 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 330 deg	50 mph 330 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 60 deg	Seismic 60 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg
(1.2 + 0.2Sds) * DL + E 120 deg	Seismic 120 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 210 deg	Seismic 210 deg
(1.2 + 0.2Sds) * DL + E 240 deg	Seismic 240 deg
(1.2 + 0.2Sds) * DL + E 300 deg	Seismic 300 deg
(1.2 + 0.2Sds) * DL + E 330 deg	Seismic 330 deg
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 60 deg	Seismic (Reduced DL) 60 deg
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 deg
(0.9 - 0.2Sds) * DL + E 120 deg	Seismic (Reduced DL) 120 deg
(0.9 - 0.2Sds) * DL + E 180 deg	Seismic (Reduced DL) 180 deg
(0.9 - 0.2Sds) * DL + E 210 deg	Seismic (Reduced DL) 210 deg
(0.9 - 0.2Sds) * DL + E 240 deg	Seismic (Reduced DL) 240 deg
(0.9 - 0.2Sds) * DL + E 300 deg	Seismic (Reduced DL) 300 deg
(0.9 - 0.2Sds) * DL + E 330 deg	Seismic (Reduced DL) 330 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 120 deg	Serviceability - 60 mph Wind 120 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 210 deg	Serviceability - 60 mph Wind 210 deg
1.0D + 1.0W Service 240 deg	Serviceability - 60 mph Wind 240 deg
1.0D + 1.0W Service 300 deg	Serviceability - 60 mph Wind 300 deg
1.0D + 1.0W Service 330 deg	Serviceability - 60 mph Wind 330 deg

Site Number: 302470
Site Name: Ansonia Wakelee, CT
Customer: Verizon Wireless

Code: ANSI/TIA-222-G
Engineering Number: OAA650282_C3_07

12/2/2016 10:47:55 AM

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.6W

Elevation (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)
194.0	DragonWave	2	11	0.4	0.4	9.3	9.3	0.80	0.50	0.0	0.0	24.45	11	31
194.0	KMW TTA (HB-X-WM-	3	16	0.6	1.3	7.3	3.7	0.80	0.50	0.0	0.0	24.45	26	69
194.0	NextNet BTS-2500	3	35	1.8	1.6	11.3	5.1	0.80	0.50	0.0	0.0	24.45	73	151
194.0	KMW AM-X-WM-17-	3	14	3.4	4.0	7.3	2.6	0.80	0.64	0.0	0.0	24.45	172	61
194.0	Decibel DB844H90E-	6	14	3.6	4.0	8.0	6.5	0.80	0.74	0.0	0.0	24.45	426	121
194.0	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	24.45	216	124
194.0	DragonWave A-ANT-	2	27	4.7	2.2	0.0	0.0	0.80	1.00	0.0	0.0	24.45	250	78
194.0	EMS RR90-11-00DBL	2	18	5.1	4.0	12.0	7.0	0.80	0.68	0.0	0.0	24.45	183	52
194.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	24.45	722	1296
191.0	Alcatel-Lucent 800	3	53	2.1	1.6	13.0	10.8	1.00	0.50	0.0	0.0	24.34	106	229
191.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	1.00	0.50	0.0	0.0	24.34	115	259
191.0	RRU	3	55	4.6	1.8	25.0	7.4	1.00	0.50	0.0	0.0	24.34	226	238
185.0	Andrew DB980H90E-	6	9	3.9	5.0	6.3	3.0	0.80	0.67	2.0	825.4	24.20	413	73
185.0	RFS APXVSPP18-C-	1	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	291.3	24.20	146	82
185.0	Powerwave Allgon	2	64	9.1	4.5	20.0	6.5	0.80	0.61	2.0	582.6	24.20	291	184
185.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	24.12	797	1296
184.0	18" x 12" Junction	1	15	1.8	1.0	12.0	8.0	0.80	1.00	0.0	0.0	24.08	47	22
177.0	Alcatel-Lucent B13	3	57	2.2	1.8	12.0	9.0	0.80	0.67	0.0	0.0	23.82	113	247
177.0	Alcatel-Lucent PCS	3	55	2.2	1.8	12.0	9.4	0.80	0.67	0.0	0.0	23.82	115	238
177.0	Alcatel-Lucent B66	3	67	2.6	2.2	12.0	7.3	0.80	0.67	0.0	0.0	23.82	134	289
177.0	RFS DB-T1-6Z-8AB-	2	44	4.8	2.0	24.0	10.0	0.80	0.50	0.0	0.0	23.82	124	127
177.0	Antel BXA-80080/4CF	3	14	4.8	4.0	11.2	5.9	0.80	0.67	0.0	0.0	23.82	250	62
177.0	Swedcom SLCP	1	20	6.5	4.4	14.0	11.0	0.80	0.73	0.0	0.0	23.82	123	29
177.0	Amphenol Antel BXA-	1	19	7.3	5.7	11.2	5.3	0.80	0.66	0.0	0.0	23.82	124	28
177.0	Powerwave Allgon	1	33	8.1	6.0	12.0	5.0	0.80	0.65	0.0	0.0	23.82	137	48
177.0	Andrew SBNHH-	6	51	8.2	6.1	11.9	7.1	1.00	0.69	0.0	0.0	23.82	1096	438
177.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	23.82	874	1728
167.0	Powerwave TT19-	6	16	0.6	0.8	6.7	5.4	0.80	0.50	0.0	0.0	23.43	49	138
167.0	Raycap DC6-48-60-	2	32	1.3	2.0	9.7	9.7	0.80	0.67	0.0	0.0	23.43	44	92
167.0	Ericsson RRUS 11	6	55	2.5	1.5	17.0	7.2	0.80	0.50	0.0	0.0	23.43	193	475
167.0	Ericsson RRUS-32	3	77	3.3	2.5	13.3	9.5	0.80	0.50	0.0	0.0	23.43	127	333
167.0	Powerwave Allgon	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	23.43	274	151
167.0	KMW AM-X-CD-16-	3	49	8.0	6.0	11.8	5.9	0.80	0.67	0.0	0.0	23.43	411	210
167.0	CCI OPA-65R-LCUU-	2	73	9.7	6.0	14.8	7.4	0.80	0.66	0.0	0.0	23.43	325	210
167.0	CCI OPA-65R-LCUU-	1	88	13.0	7.7	14.8	7.4	0.80	0.67	0.0	0.0	23.43	222	127
167.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	23.43	692	1296
157.0	Kathrein 742 213	3	22	5.1	6.4	6.1	2.7	1.00	0.67	0.0	0.0	23.02	323	95
148.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	22.63	15	48
148.0	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	22.63	103	219
148.0	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	22.63	317	359
148.0	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	22.63	315	352
148.0	Andrew LNX-	3	51	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	22.63	591	222
148.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	22.63	668	1296
125.0	Motorola PTP54600	2	12	1.8	1.2	14.5	3.8	1.00	0.58	0.0	0.0	21.57	60	35
102.0	GPS	2	10	1.0	1.0	9.0	6.0	0.90	1.00	0.0	0.0	20.35	50	29
102.0	Standoffs	2	75	2.5	0.0	0.0	0.0	1.00	0.90	0.0	0.0	20.35	125	216
78.00	Standoffs	1	75	2.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.85	64	108
78.00	12' Dipole	1	40	4.5	12.0	3.0	3.0	0.90	1.00	6.0	637.6	19.25	106	58
76.00	PCTEL GPS-TMG-HR-	1	1	0.1	0.4	3.2	3.2	0.90	1.00	0.0	0.0	18.71	2	1
76.00	Standoffs	1	75	2.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.71	64	108
	Totals	135	9565	713.2										

Site Number: 302470 | Code: ANSI/TIA-222-G |

Site Name: Ansonia Wakelee, CT | Engineering Number: OAA650282_C3_07 | 12/2/2016 10:47:55 AM

Customer: Verizon Wireless

Tower Loading

Discrete Appurtenance Properties 0.9D + 1.6W

Elevation (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)
194.0	DragonWave	2	11	0.4	0.4	9.3	9.3	0.80	0.50	0.0	0.0	24.45	11	17
194.0	KMW TTA (HB-X-WM-	3	16	0.6	1.3	7.3	3.7	0.80	0.50	0.0	0.0	24.45	26	39
194.0	NextNet BTS-2500	3	35	1.8	1.6	11.3	5.1	0.80	0.50	0.0	0.0	24.45	73	85
194.0	KMW AM-X-WM-17-	3	14	3.4	4.0	7.3	2.6	0.80	0.64	0.0	0.0	24.45	172	35
194.0	Decibel DB844H90E-	6	14	3.6	4.0	8.0	6.5	0.80	0.74	0.0	0.0	24.45	426	68
194.0	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	24.45	216	69
194.0	DragonWave A-ANT-	2	27	4.7	2.2	0.0	0.0	0.80	1.00	0.0	0.0	24.45	250	44
194.0	EMS RR90-11-00DBL	2	18	5.1	4.0	12.0	7.0	0.80	0.68	0.0	0.0	24.45	183	29
194.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	24.45	722	729
191.0	Alcatel-Lucent 800	3	53	2.1	1.6	13.0	10.8	1.00	0.50	0.0	0.0	24.34	106	129
191.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	1.00	0.50	0.0	0.0	24.34	115	146
191.0	RRU	3	55	4.6	1.8	25.0	7.4	1.00	0.50	0.0	0.0	24.34	226	134
185.0	Andrew DB980H90E-	6	9	3.9	5.0	6.3	3.0	0.80	0.67	2.0	825.4	24.20	413	41
185.0	RFS APXVSPP18-C-	1	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	291.3	24.20	146	46
185.0	Powerwave Allgon	2	64	9.1	4.5	20.0	6.5	0.80	0.61	2.0	582.6	24.20	291	104
185.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	24.12	797	729
184.0	18" x 12" Junction	1	15	1.8	1.0	12.0	8.0	0.80	1.00	0.0	0.0	24.08	47	12
177.0	Alcatel-Lucent B13	3	57	2.2	1.8	12.0	9.0	0.80	0.67	0.0	0.0	23.82	113	139
177.0	Alcatel-Lucent PCS	3	55	2.2	1.8	12.0	9.4	0.80	0.67	0.0	0.0	23.82	115	134
177.0	Alcatel-Lucent B66	3	67	2.6	2.2	12.0	7.3	0.80	0.67	0.0	0.0	23.82	134	163
177.0	RFS DB-T1-6Z-8AB-	2	44	4.8	2.0	24.0	10.0	0.80	0.50	0.0	0.0	23.82	124	71
177.0	Antel BXA-80080/4CF	3	14	4.8	4.0	11.2	5.9	0.80	0.67	0.0	0.0	23.82	250	35
177.0	Swedcom SLCP	1	20	6.5	4.4	14.0	11.0	0.80	0.73	0.0	0.0	23.82	123	16
177.0	Amphenol Antel BXA-	1	19	7.3	5.7	11.2	5.3	0.80	0.66	0.0	0.0	23.82	124	16
177.0	Powerwave Allgon	1	33	8.1	6.0	12.0	5.0	0.80	0.65	0.0	0.0	23.82	137	27
177.0	Andrew SBNHH-	6	51	8.2	6.1	11.9	7.1	1.00	0.69	0.0	0.0	23.82	1096	246
177.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	23.82	874	972
167.0	Powerwave TT19-	6	16	0.6	0.8	6.7	5.4	0.80	0.50	0.0	0.0	23.43	49	78
167.0	Raycap DC6-48-60-	2	32	1.3	2.0	9.7	9.7	0.80	0.67	0.0	0.0	23.43	44	52
167.0	Ericsson RRUS 11	6	55	2.5	1.5	17.0	7.2	0.80	0.50	0.0	0.0	23.43	193	267
167.0	Ericsson RRUS-32	3	77	3.3	2.5	13.3	9.5	0.80	0.50	0.0	0.0	23.43	127	187
167.0	Powerwave Allgon	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	23.43	274	85
167.0	KMW AM-X-CD-16-	3	49	8.0	6.0	11.8	5.9	0.80	0.67	0.0	0.0	23.43	411	118
167.0	CCI OPA-65R-LCUU-	2	73	9.7	6.0	14.8	7.4	0.80	0.66	0.0	0.0	23.43	325	118
167.0	CCI OPA-65R-LCUU-	1	88	13.0	7.7	14.8	7.4	0.80	0.67	0.0	0.0	23.43	222	71
167.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	23.43	692	729
157.0	Kathrein 742 213	3	22	5.1	6.4	6.1	2.7	1.00	0.67	0.0	0.0	23.02	323	53
148.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	22.63	15	27
148.0	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	22.63	103	123
148.0	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	22.63	317	202
148.0	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	22.63	315	198
148.0	Andrew LNX-	3	51	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	22.63	591	125
148.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	22.63	668	729
125.0	Motorola PTP54600	2	12	1.8	1.2	14.5	3.8	1.00	0.58	0.0	0.0	21.57	60	20
102.0	GPS	2	10	1.0	1.0	9.0	6.0	0.90	1.00	0.0	0.0	20.35	50	16
102.0	Standoffs	2	75	2.5	0.0	0.0	0.0	1.00	0.90	0.0	0.0	20.35	125	122
78.00	Standoffs	1	75	2.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.85	64	61
78.00	12' Dipole	1	40	4.5	12.0	3.0	3.0	0.90	1.00	6.0	637.6	19.25	106	32
76.00	PCTEL GPS-TMG-HR-	1	1	0.1	0.4	3.2	3.2	0.90	1.00	0.0	0.0	18.71	2	0
76.00	Standoffs	1	75	2.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.71	64	61
	Totals	135	9565	713.2										

Site Number: 302470 | Code: ANSI/TIA-222-G |

Site Name: Ansonia Wakelee, CT | Engineering Number: OAA650282_C3_07 | 12/2/2016 10:47:55 AM

Customer: Verizon Wireless

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
194.0	DragonWave	2	14	0.6	0.4	9.3	9.3	0.80	0.50	0.0	0.0	6.50	3	40
194.0	KMW TTA (HB-X-WM-	3	22	0.9	1.3	7.3	3.7	0.80	0.50	0.0	0.0	6.50	6	89
194.0	NextNet BTS-2500	3	47	2.5	1.6	11.3	5.1	0.80	0.50	0.0	0.0	6.50	16	196
194.0	KMW AM-X-WM-17-	3	97	4.3	4.0	7.3	2.6	0.80	0.64	0.0	0.0	6.50	36	359
194.0	Decibel DB844H90E-	6	128	4.5	4.0	8.0	6.5	0.80	0.74	0.0	0.0	6.50	89	941
194.0	Argus LLPX310R	3	39	5.8	3.5	11.8	4.5	0.80	0.63	0.0	0.0	6.50	49	160
194.0	DragonWave A-ANT-	2	127	6.4	2.2	0.0	0.0	0.80	1.00	0.0	0.0	6.50	56	318
194.0	EMS RR90-11-00DBL	2	162	6.1	4.0	12.0	7.0	0.80	0.68	0.0	0.0	6.50	37	398
194.0	Round Sector	3	677	31.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.50	261	2653
191.0	Alcatel-Lucent 800	3	143	2.8	1.6	13.0	10.8	1.00	0.50	0.0	0.0	6.47	23	552
191.0	Alcatel-Lucent 1900	3	158	3.0	2.1	11.1	10.7	1.00	0.50	0.0	0.0	6.47	25	611
191.0	RRU	3	182	5.4	1.8	25.0	7.4	1.00	0.50	0.0	0.0	6.47	45	696
185.0	Andrew DB980H90E-	6	105	5.0	5.0	6.3	3.0	0.80	0.67	2.0	174.8	6.43	87	771
185.0	RFS APXVSPP18-C-	1	262	9.3	6.0	11.8	7.0	0.80	0.69	2.0	56.4	6.43	28	328
185.0	Powerwave Allgon	2	279	10.3	4.5	20.0	6.5	0.80	0.61	2.0	110.4	6.43	55	701
185.0	Round Sector	3	621	24.7	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.41	227	2453
184.0	18" x 12" Junction	1	69	1.7	1.0	12.0	8.0	0.80	1.00	0.0	0.0	6.40	7	86
177.0	Alcatel-Lucent B13	3	141	2.8	1.8	12.0	9.0	0.80	0.67	0.0	0.0	6.33	24	547
177.0	Alcatel-Lucent PCS	3	127	3.2	1.8	12.0	9.4	0.80	0.67	0.0	0.0	6.33	28	497
177.0	Alcatel-Lucent B66	3	154	3.3	2.2	12.0	7.3	0.80	0.67	0.0	0.0	6.33	28	602
177.0	RFS DB-T1-6Z-8AB-	2	190	5.7	2.0	24.0	10.0	0.80	0.50	0.0	0.0	6.33	24	477
177.0	Antel BXA-80080/4CF	3	144	5.8	4.0	11.2	5.9	0.80	0.67	0.0	0.0	6.33	50	530
177.0	Swedcom SLCP	1	223	7.6	4.4	14.0	11.0	0.80	0.73	0.0	0.0	6.33	24	272
177.0	Amphenol Antel BXA-	1	192	8.5	5.7	11.2	5.3	0.80	0.66	0.0	0.0	6.33	24	235
177.0	Powerwave Allgon	1	218	9.4	6.0	12.0	5.0	0.80	0.65	0.0	0.0	6.33	26	269
177.0	Andrew SBNHH-	6	257	9.5	6.1	11.9	7.1	1.00	0.69	0.0	0.0	6.33	211	1925
177.0	Flat Light Sector	3	705	33.2	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.33	269	2827
167.0	Powerwave TT19-	6	44	0.9	0.8	6.7	5.4	0.80	0.50	0.0	0.0	6.22	11	341
167.0	Raycap DC6-48-60-	2	114	2.5	2.0	9.7	9.7	0.80	0.67	0.0	0.0	6.22	14	288
167.0	Ericsson RRUS 11	6	137	3.2	1.5	17.0	7.2	0.80	0.50	0.0	0.0	6.22	40	1063
167.0	Ericsson RRUS-32	3	176	4.6	2.5	13.3	9.5	0.80	0.50	0.0	0.0	6.22	29	688
167.0	Powerwave Allgon	3	172	6.6	4.6	11.0	5.0	0.80	0.65	0.0	0.0	6.22	54	645
167.0	KMW AM-X-CD-16-	3	240	9.3	6.0	11.8	5.9	0.80	0.67	0.0	0.0	6.22	79	900
167.0	CCI OPA-65R-LCUU-	2	308	11.0	6.0	14.8	7.4	0.80	0.66	0.0	0.0	6.22	62	775
167.0	CCI OPA-65R-LCUU-	1	383	14.6	7.7	14.8	7.4	0.80	0.67	0.0	0.0	6.22	41	481
167.0	Round Sector	3	618	24.6	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.22	196	2441
157.0	Kathrein 742 213	3	135	6.4	6.4	6.1	2.7	1.00	0.67	0.0	0.0	6.12	67	502
148.0	Ericsson KRY 112	3	27	0.6	0.6	6.1	2.7	0.80	0.50	0.0	0.0	6.01	4	107
148.0	Ericsson RRUS 11	3	137	3.5	1.6	17.0	7.2	0.80	0.50	0.0	0.0	6.01	21	530
148.0	Ericsson AIR 21, 1.3	3	252	7.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	6.01	62	967
148.0	Ericsson AIR 21,	3	250	7.2	4.7	12.1	7.9	0.80	0.70	0.0	0.0	6.01	62	960
148.0	Andrew LNX-	3	315	13.1	8.0	11.9	7.1	0.80	0.70	0.0	0.0	6.01	112	1170
148.0	Round Sector Frame	3	669	31.0	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.01	239	2623
125.0	Motorola PTP54600	2	16	2.4	1.2	14.5	3.8	1.00	0.58	0.0	0.0	5.73	13	45
102.0	GPS	2	15	3.3	1.0	9.0	6.0	0.90	1.00	0.0	0.0	5.41	28	42
102.0	Standoffs	2	100	2.8	0.0	0.0	0.0	1.00	0.90	0.0	0.0	5.41	23	277
78.00	Standoffs	1	99	2.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.01	12	137
78.00	12' Dipole	1	53	6.0	12.0	3.0	3.0	0.90	1.00	6.0	140.1	5.11	23	73
76.00	PCTEL GPS-TMG-HR-	1	10	0.3	0.4	3.2	3.2	0.90	1.00	0.0	0.0	4.97	1	12
76.00	Standoffs	1	99	2.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.97	12	137
	Totals	135	27034	1033.0										

Site Number: 302470 | Code: ANSI/TIA-222-G |

Site Name: Ansonia Wakelee, CT | Engineering Number: OAA650282_C3_07 | 12/2/2016 10:47:55 AM

Customer: Verizon Wireless

Tower Loading

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (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)
194.0	DragonWave	2	11	0.4	0.4	9.3	9.3	0.80	0.50	0.0	0.0	9.36	3	21
194.0	KMW TTA (HB-X-WM-	3	16	0.6	1.3	7.3	3.7	0.80	0.50	0.0	0.0	9.36	6	48
194.0	NextNet BTS-2500	3	35	1.8	1.6	11.3	5.1	0.80	0.50	0.0	0.0	9.36	17	105
194.0	KMW AM-X-WM-17-	3	14	3.4	4.0	7.3	2.6	0.80	0.64	0.0	0.0	9.36	41	43
194.0	Decibel DB844H90E-	6	14	3.6	4.0	8.0	6.5	0.80	0.74	0.0	0.0	9.36	102	84
194.0	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	9.36	52	86
194.0	DragonWave A-ANT-	2	27	4.7	2.2	0.0	0.0	0.80	1.00	0.0	0.0	9.36	60	54
194.0	EMS RR90-11-00DBL	2	18	5.1	4.0	12.0	7.0	0.80	0.68	0.0	0.0	9.36	44	36
194.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.36	173	900
191.0	Alcatel-Lucent 800	3	53	2.1	1.6	13.0	10.8	1.00	0.50	0.0	0.0	9.31	25	159
191.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	1.00	0.50	0.0	0.0	9.31	28	180
191.0	RRU	3	55	4.6	1.8	25.0	7.4	1.00	0.50	0.0	0.0	9.31	54	165
185.0	Andrew DB980H90E-	6	9	3.9	5.0	6.3	3.0	0.80	0.67	2.0	197.4	9.26	99	51
185.0	RFS APXVSPP18-C-	1	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	69.7	9.26	35	57
185.0	Powerwave Allgon	2	64	9.1	4.5	20.0	6.5	0.80	0.61	2.0	139.3	9.26	70	128
185.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	9.23	191	900
184.0	18" x 12" Junction	1	15	1.8	1.0	12.0	8.0	0.80	1.00	0.0	0.0	9.21	11	15
177.0	Alcatel-Lucent B13	3	57	2.2	1.8	12.0	9.0	0.80	0.67	0.0	0.0	9.11	27	172
177.0	Alcatel-Lucent PCS	3	55	2.2	1.8	12.0	9.4	0.80	0.67	0.0	0.0	9.11	27	165
177.0	Alcatel-Lucent B66	3	67	2.6	2.2	12.0	7.3	0.80	0.67	0.0	0.0	9.11	32	201
177.0	RFS DB-T1-6Z-8AB-	2	44	4.8	2.0	24.0	10.0	0.80	0.50	0.0	0.0	9.11	30	88
177.0	Antel BXA-80080/4CF	3	14	4.8	4.0	11.2	5.9	0.80	0.67	0.0	0.0	9.11	60	43
177.0	Swedcom SLCP	1	20	6.5	4.4	14.0	11.0	0.80	0.73	0.0	0.0	9.11	29	20
177.0	Amphenol Antel BXA-	1	19	7.3	5.7	11.2	5.3	0.80	0.66	0.0	0.0	9.11	30	19
177.0	Powerwave Allgon	1	33	8.1	6.0	12.0	5.0	0.80	0.65	0.0	0.0	9.11	33	33
177.0	Andrew SBNHH-	6	51	8.2	6.1	11.9	7.1	1.00	0.69	0.0	0.0	9.11	262	304
177.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.11	209	1200
167.0	Powerwave TT19-	6	16	0.6	0.8	6.7	5.4	0.80	0.50	0.0	0.0	8.96	12	96
167.0	Raycap DC6-48-60-	2	32	1.3	2.0	9.7	9.7	0.80	0.67	0.0	0.0	8.96	10	64
167.0	Ericsson RRUS 11	6	55	2.5	1.5	17.0	7.2	0.80	0.50	0.0	0.0	8.96	46	330
167.0	Ericsson RRUS-32	3	77	3.3	2.5	13.3	9.5	0.80	0.50	0.0	0.0	8.96	30	231
167.0	Powerwave Allgon	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	8.96	65	105
167.0	KMW AM-X-CD-16-	3	49	8.0	6.0	11.8	5.9	0.80	0.67	0.0	0.0	8.96	98	146
167.0	CCI OPA-65R-LCUU-	2	73	9.7	6.0	14.8	7.4	0.80	0.66	0.0	0.0	8.96	78	146
167.0	CCI OPA-65R-LCUU-	1	88	13.0	7.7	14.8	7.4	0.80	0.67	0.0	0.0	8.96	53	88
167.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	8.96	165	900
157.0	Kathrein 742 213	3	22	5.1	6.4	6.1	2.7	1.00	0.67	0.0	0.0	8.81	77	66
148.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	8.66	4	33
148.0	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	8.66	25	152
148.0	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	8.66	76	249
148.0	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	8.66	75	245
148.0	Andrew LNX-	3	51	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	8.66	141	154
148.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	8.66	160	900
125.0	Motorola PTP54600	2	12	1.8	1.2	14.5	3.8	1.00	0.58	0.0	0.0	8.25	14	24
102.0	GPS	2	10	1.0	1.0	9.0	6.0	0.90	1.00	0.0	0.0	7.79	12	20
102.0	Standoffs	2	75	2.5	0.0	0.0	0.0	1.00	0.90	0.0	0.0	7.79	30	150
78.00	Standoffs	1	75	2.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.21	15	75
78.00	12' Dipole	1	40	4.5	12.0	3.0	3.0	0.90	1.00	6.0	152.5	7.37	25	40
76.00	PCTEL GPS-TMG-HR-	1	1	0.1	0.4	3.2	3.2	0.90	1.00	0.0	0.0	7.16	0	1
76.00	Standoffs	1	75	2.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.16	15	75
	Totals	135	9565	713.2										

Site Number: 302470
Site Name: Ansonia Wakelee, CT
Customer: Verizon Wireless

Code: ANSI/TIA-222-G
Engineering Number: OAA650282_C3_07

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Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
8.00	194.0	1 1/4" Coax	10	1.55	0.63	90	3	Block	0.00	N	0.00	1.00	0.00
8.00	194.0	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	N	0.00	1.00	0.00
8.00	194.0	1/2" Coax	2	0.63	0.15	0	2	Individual	0.00	N	1.00	1.00	0.00
8.00	194.0	2" Conduit	2	2.38	3.65	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
8.00	194.0	5/16" Coax	6	0.32	0.04	0	2	Individual	0.00	N	0.00	1.00	0.01
8.00	194.0	Wave Guide	1	1.00	5.00	0	3	Individual	0.00	N	0.00	1.00	0.00
8.00	185.0	1 1/4" Hybriflex	4	1.54	1.00	0	Lin App	Individual	0.00	N	0.00	1.00	0.00
8.00	185.0	7/8" Coax	6	1.09	0.33	50	3	Block	0.00	N	0.00	1.00	0.00
8.00	183.0	Wave Guide	1	1.00	5.00	0	2	Individual	0.00	N	0.00	1.00	0.00
8.00	177.0	1 5/8" Coax	12	1.98	0.82	50	Lin App	Block	0.00	N	0.00	1.00	0.00
8.00	177.0	1 5/8" Hybriflex	2	1.98	1.30	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
8.00	167.0	0.39" Fiber Trunk	2	0.39	0.06	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
8.00	167.0	0.78" 8 AWG 6	4	0.78	0.59	0	Lin App	Individual	0.00	N	0.00	1.00	0.01
8.00	167.0	1 1/4" Coax	12	1.55	0.63	0	1	Individual	0.00	N	1.00	1.00	0.00
8.00	167.0	3" Conduit	1	3.50	7.58	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
8.00	167.0	Wave Guide	1	1.00	5.00	0	1	Individual	0.00	N	0.00	1.00	0.00
8.00	157.0	1 5/8" Coax	6	1.98	0.82	0	1	Individual	0.00	N	0.00	1.00	0.00
8.00	157.0	Waveguide	1	1.50	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
8.00	148.0	1 1/4" Hybriflex	1	1.54	1.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
8.00	148.0	1 5/8" Coax	12	1.98	0.82	67	3	Block	0.00	N	0.00	1.00	0.00
8.00	148.0	Wave Guide	1	1.50	5.00	0	3	Individual	0.00	N	0.00	1.00	0.00
8.00	125.0	1/4" Coax	2	0.34	0.06	0	1	Individual	0.00	N	0.00	1.00	0.00
8.00	102.0	1/2" Coax	1	0.63	0.15	0	3	Individual	0.00	N	0.00	1.00	0.00
8.00	78.00	1/2" Coax	1	0.63	0.15	0	1	Individual	0.00	N	0.00	1.00	0.00
8.00	76.00	1/2" Coax	1	0.63	0.15	0	2	Individual	0.00	N	0.00	1.00	0.00

Equivalent Lateral Force Method

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

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
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}):	0.21
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):	1.01
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.25
Total Unfactored Dead Load:	50.88 k
Seismic Base Shear (E):	2.24 k

LoadCase (1.2 + 0.2Sds) * DL + E

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	188.00	1,087	771,766	0.046	102	1,350
9	170.00	2,255	1,411,45	0.084	187	2,800
8	150.00	3,353	1,793,83	0.106	238	4,163
7	130.00	4,058	1,814,07	0.107	241	5,038
6	110.00	4,189	1,518,91	0.090	202	5,201
5	90.00	4,668	1,316,13	0.078	175	5,796
4	70.00	4,962	1,020,81	0.060	135	6,160
3	50.00	5,358	723,005	0.043	96	6,653
2	30.00	5,699	405,295	0.024	54	7,076
1	10.00	5,683	101,945	0.006	14	7,056
DragonWave Horizon Compact	194.00	21	15,657	0.001	2	26
KMW TTA (HB-X-WM-17-65-00T)	194.00	48	35,228	0.002	5	59
NextNet BTS-2500	194.00	105	77,547	0.005	10	130
KMW AM-X-WM-17-65-00T	194.00	43	31,462	0.002	4	53
Decibel DB844H90E-XY	194.00	84	62,037	0.004	8	104
Argus LLPX310R	194.00	86	63,367	0.004	8	107
DragonWave A-ANT-18G-2-C	194.00	54	40,029	0.002	5	67
EMS RR90-11-00DBL	194.00	36	26,587	0.002	4	45
Round Sector Frames	194.00	900	664,686	0.039	88	1,117
Alcatel-Lucent 800 MHz RRH	191.00	159	115,156	0.007	15	197
Alcatel-Lucent 1900 MHz 4x45 RRH	191.00	180	130,365	0.008	17	223
RRU	191.00	165	119,501	0.007	16	205
Andrew DB980H90E-M	185.00	51	35,488	0.002	5	63

Equivalent Lateral Force Method

RFS APXVSPP18-C-A20	185.00	57	39,663	0.002	5	71
Powerwave Allgon P40-16-XLPP-RRR	185.00	128	89,067	0.005	12	159
Round Sector Frames	185.00	900	626,255	0.037	83	1,117
18" x 12" Junction Box	184.00	15	10,367	0.001	1	19
Alcatel-Lucent B13 RRH4x30-4R 700U	177.00	172	112,968	0.007	15	213
Alcatel-Lucent PCS B25 RRH2x60/4x30	177.00	165	108,623	0.006	14	205
Alcatel-Lucent B66 RRH4x45	177.00	201	132,323	0.008	18	250
RFS DB-T1-6Z-8AB-0Z	177.00	88	57,932	0.003	8	109
Antel BXA-80080/4CF	177.00	43	28,242	0.002	4	53
Swedcom SLCP 2x6014	177.00	20	13,166	0.001	2	25
Amphenol Antel BXA-70063-6BF-EDIN-X	177.00	19	12,640	0.001	2	24
Powerwave Allgon P65-16-XL-2	177.00	33	21,725	0.001	3	41
Andrew SBNHH-1D65B	177.00	304	200,262	0.012	27	378
Flat Light Sector Frames	177.00	1,200	789,987	0.047	105	1,490
Powerwave TT19-08BP111-001	167.00	96	58,755	0.003	8	119
Raycap DC6-48-60-18-8F	167.00	64	38,925	0.002	5	79
Ericsson RRUS 11 (Band 12) (55 lb)	167.00	330	201,970	0.012	27	410
Ericsson RRUS-32	167.00	231	141,379	0.008	19	287
Powerwave Allgon 7770.00	167.00	105	64,263	0.004	9	130
KMW AM-X-CD-16-65-00T-RET	167.00	146	89,050	0.005	12	181
CCI OPA-65R-LCUU-H6	167.00	146	89,356	0.005	12	181
CCI OPA-65R-LCUU-H8	167.00	88	53,859	0.003	7	109
Round Sector Frames	167.00	900	550,826	0.033	73	1,117
Kathrein 742 213	157.00	66	37,385	0.002	5	82
Ericsson KRY 112 144/1	148.00	33	17,359	0.001	2	41
Ericsson RRUS 11 B12	148.00	152	80,008	0.005	11	189
Ericsson AIR 21, 1.3 M, B2A B4P	148.00	249	130,980	0.008	17	309
Ericsson AIR 21, 1.3M, B4A B2P	148.00	244	128,613	0.008	17	304
Andrew LNX-6515DS-VTM	148.00	154	80,955	0.005	11	191
Round Sector Frame	148.00	900	473,422	0.028	63	1,117
Motorola PTP54600	125.00	24	10,300	0.001	1	30
GPS	102.00	20	6,597	0.000	1	25
Standoffs	102.00	150	49,478	0.003	7	186
Standoffs	78.00	75	17,673	0.001	2	93
12' Dipole	78.00	40	9,426	0.001	1	50
PCTEL GPS-TMG-HR-26N	76.00	1	137	0.000	0	1
Standoffs	76.00	75	17,107	0.001	2	93
		50,877	16,885,382	1.000	2,241	63,169

LoadCase (0.9 - 0.2Sds) * DL + E — **Seismic (Reduced DL)**

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	188.00	1,087	771,766	0.046	102	933
9	170.00	2,255	1,411,45	0.084	187	1,936
8	150.00	3,353	1,793,83	0.106	238	2,878
7	130.00	4,058	1,814,07	0.107	241	3,483
6	110.00	4,189	1,518,91	0.090	202	3,596
5	90.00	4,668	1,316,13	0.078	175	4,007
4	70.00	4,962	1,020,81	0.060	135	4,259
3	50.00	5,358	723,005	0.043	96	4,600
2	30.00	5,699	405,295	0.024	54	4,892
1	10.00	5,683	101,945	0.006	14	4,879
DragonWave Horizon Compact	194.00	21	15,657	0.001	2	18

Equivalent Lateral Force Method

KMW TTA (HB-X-WM-17-65-00T)	194.00	48	35,228	0.002	5	41
NextNet BTS-2500	194.00	105	77,547	0.005	10	90
KMW AM-X-WM-17-65-00T	194.00	43	31,462	0.002	4	37
Decibel DB844H90E-XY	194.00	84	62,037	0.004	8	72
Argus LLPX310R	194.00	86	63,367	0.004	8	74
DragonWave A-ANT-18G-2-C	194.00	54	40,029	0.002	5	47
EMS RR90-11-00DBL	194.00	36	26,587	0.002	4	31
Round Sector Frames	194.00	900	664,686	0.039	88	773
Alcatel-Lucent 800 MHz RRH	191.00	159	115,156	0.007	15	136
Alcatel-Lucent 1900 MHz 4x45 RRH	191.00	180	130,365	0.008	17	155
RRU	191.00	165	119,501	0.007	16	142
Andrew DB980H90E-M	185.00	51	35,488	0.002	5	44
RFS APXVSPP18-C-A20	185.00	57	39,663	0.002	5	49
Powerwave Allgon P40-16-XLPP-RRR	185.00	128	89,067	0.005	12	110
Round Sector Frames	185.00	900	626,255	0.037	83	773
18" x 12" Junction Box	184.00	15	10,367	0.001	1	13
Alcatel-Lucent B13 RRH4x30-4R 700U	177.00	172	112,968	0.007	15	147
Alcatel-Lucent PCS B25 RRH2x60/4x30	177.00	165	108,623	0.006	14	142
Alcatel-Lucent B66 RRH4x45	177.00	201	132,323	0.008	18	173
RFS DB-T1-6Z-8AB-0Z	177.00	88	57,932	0.003	8	76
Antel BXA-80080/4CF	177.00	43	28,242	0.002	4	37
Swedcom SLCP 2x6014	177.00	20	13,166	0.001	2	17
Amphenol Antel BXA-70063-6BF-EDIN-X	177.00	19	12,640	0.001	2	16
Powerwave Allgon P65-16-XL-2	177.00	33	21,725	0.001	3	28
Andrew SBNHH-1D65B	177.00	304	200,262	0.012	27	261
Flat Light Sector Frames	177.00	1,200	789,987	0.047	105	1,030
Powerwave TT19-08BP111-001	167.00	96	58,755	0.003	8	82
Raycap DC6-48-60-18-8F	167.00	64	38,925	0.002	5	55
Ericsson RRUS 11 (Band 12) (55 lb)	167.00	330	201,970	0.012	27	283
Ericsson RRUS-32	167.00	231	141,379	0.008	19	198
Powerwave Allgon 7770.00	167.00	105	64,263	0.004	9	90
KMW AM-X-CD-16-65-00T-RET	167.00	146	89,050	0.005	12	125
CCI OPA-65R-LCUU-H6	167.00	146	89,356	0.005	12	125
CCI OPA-65R-LCUU-H8	167.00	88	53,859	0.003	7	76
Round Sector Frames	167.00	900	550,826	0.033	73	773
Kathrein 742 213	157.00	66	37,385	0.002	5	57
Ericsson KRY 112 144/1	148.00	33	17,359	0.001	2	28
Ericsson RRUS 11 B12	148.00	152	80,008	0.005	11	131
Ericsson AIR 21, 1.3 M, B2A B4P	148.00	249	130,980	0.008	17	214
Ericsson AIR 21, 1.3M, B4A B2P	148.00	244	128,613	0.008	17	210
Andrew LNX-6515DS-VTM	148.00	154	80,955	0.005	11	132
Round Sector Frame	148.00	900	473,422	0.028	63	773
Motorola PTP54600	125.00	24	10,300	0.001	1	21
GPS	102.00	20	6,597	0.000	1	17
Standoffs	102.00	150	49,478	0.003	7	129
Standoffs	78.00	75	17,673	0.001	2	64
12' Dipole	78.00	40	9,426	0.001	1	34
PCTEL GPS-TMG-HR-26N	76.00	1	137	0.000	0	1
Standoffs	76.00	75	17,107	0.001	2	64
		50,877	16,885,382	1.000	2,241	43,673

Site Number: 302470 | Code: ANSI/TIA-222-G |

Site Name: Ansonia Wakelee, CT | Engineering Number: OAA650282_C3_07 | 12/2/2016 10:47:56 AM

Customer: Verizon Wireless

Equivalent Modal Analysis Method

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

Spectral Response Acceleration for Short Period (S_s):	0.19
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):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.21
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	1.01
Redundancy Factor (p):	1.30

LoadCase (1.2 + 0.2Sds) * DL + E

Seismic

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
10	188.00	1,087	1.739	1.275	0.876	0.333	157	1,350
9	170.00	2,255	1.422	0.326	0.455	0.166	163	2,800
8	150.00	3,353	1.107	-0.066	0.191	0.063	91	4,163
7	130.00	4,058	0.831	-0.117	0.063	0.031	54	5,038
6	110.00	4,189	0.595	-0.051	0.014	0.038	68	5,201
5	90.00	4,668	0.399	0.019	0.007	0.048	97	5,796
4	70.00	4,962	0.241	0.057	0.018	0.047	101	6,160
3	50.00	5,358	0.123	0.070	0.034	0.039	92	6,653
2	30.00	5,699	0.044	0.071	0.042	0.032	79	7,076
1	10.00	5,683	0.005	0.044	0.025	0.018	45	7,056
DragonWave Horizon Compact	194.00	21	1.852	1.784	1.069	0.405	4	26
KMW TTA (HB-X-WM-17-65-00T)	194.00	48	1.852	1.784	1.069	0.405	8	59
NextNet BTS-2500	194.00	105	1.852	1.784	1.069	0.405	18	130
KMW AM-X-WM-17-65-00T	194.00	43	1.852	1.784	1.069	0.405	7	53
Decibel DB844H90E-XY	194.00	84	1.852	1.784	1.069	0.405	15	104
Argus LLPX310R	194.00	86	1.852	1.784	1.069	0.405	15	107
DragonWave A-ANT-18G-2-C	194.00	54	1.852	1.784	1.069	0.405	10	67
EMS RR90-11-00DBL	194.00	36	1.852	1.784	1.069	0.405	6	45
Round Sector Frames	194.00	900	1.852	1.784	1.069	0.405	158	1,117
Alcatel-Lucent 800 MHz RRH	191.00	159	1.795	1.515	0.968	0.368	25	197
Alcatel-Lucent 1900 MHz 4x45	191.00	180	1.795	1.515	0.968	0.368	29	223
RRU	191.00	165	1.795	1.515	0.968	0.368	26	205
Andrew DB980H90E-M	185.00	51	1.684	1.062	0.790	0.300	7	63
RFS APXVSPP18-C-A20	185.00	57	1.684	1.062	0.790	0.300	7	71
Powerwave Allgon P40-16-XLPP-	185.00	128	1.684	1.062	0.790	0.300	17	159
Round Sector Frames	185.00	900	1.684	1.062	0.790	0.300	117	1,117
18" x 12" Junction Box	184.00	15	1.666	0.996	0.763	0.290	2	19
Alcatel-Lucent B13 RRH4x30-4R	177.00	172	1.541	0.608	0.593	0.223	17	213
Alcatel-Lucent PCS B25	177.00	165	1.541	0.608	0.593	0.223	16	205
Alcatel-Lucent B66 RRH4x45	177.00	201	1.541	0.608	0.593	0.223	19	250
RFS DB-T1-6Z-8AB-0Z	177.00	88	1.541	0.608	0.593	0.223	8	109
Antel BXA-80080/4CF	177.00	43	1.541	0.608	0.593	0.223	4	53
Swedcom SLCP 2x6014	177.00	20	1.541	0.608	0.593	0.223	2	25
Amphenol Antel BXA-70063-6BF-	177.00	19	1.541	0.608	0.593	0.223	2	24
Powerwave Allgon P65-16-XL-2	177.00	33	1.541	0.608	0.593	0.223	3	41
Andrew SBNHH-1D65B	177.00	304	1.541	0.608	0.593	0.223	29	378
Flat Light Sector Frames	177.00	1,200	1.541	0.608	0.593	0.223	116	1,490
Powerwave TT19-08BP111-001	167.00	96	1.372	0.233	0.404	0.146	6	119

Equivalent Modal Analysis Method

Raycap DC6-48-60-18-8F	167.00	64	1.372	0.233	0.404	0.146	4	79
Ericsson RRUS 11 (Band 12) (55	167.00	330	1.372	0.233	0.404	0.146	21	410
Ericsson RRUS-32	167.00	231	1.372	0.233	0.404	0.146	15	287
Powerwave Allgon 7770.00	167.00	105	1.372	0.233	0.404	0.146	7	130
KMW AM-X-CD-16-65-00T-RET	167.00	146	1.372	0.233	0.404	0.146	9	181
CCI OPA-65R-LCUU-H6	167.00	146	1.372	0.233	0.404	0.146	9	181
CCI OPA-65R-LCUU-H8	167.00	88	1.372	0.233	0.404	0.146	6	109
Round Sector Frames	167.00	900	1.372	0.233	0.404	0.146	57	1,117
Kathrein 742 213	157.00	66	1.213	0.017	0.264	0.090	3	82
Ericsson KRY 112 144/1	148.00	33	1.078	-0.082	0.173	0.057	1	41
Ericsson RRUS 11 B12	148.00	152	1.078	-0.082	0.173	0.057	4	189
Ericsson AIR 21, 1.3 M, B2A B4P	148.00	249	1.078	-0.082	0.173	0.057	6	309
Ericsson AIR 21, 1.3M, B4A B2P	148.00	244	1.078	-0.082	0.173	0.057	6	304
Andrew LNX-6515DS-VTM	148.00	154	1.078	-0.082	0.173	0.057	4	191
Round Sector Frame	148.00	900	1.078	-0.082	0.173	0.057	22	1,117
Motorola PTP54600	125.00	24	0.769	-0.105	0.045	0.030	0	30
GPS	102.00	20	0.512	-0.020	0.008	0.043	0	25
Standoffs	102.00	150	0.512	-0.020	0.008	0.043	3	186
Standoffs	78.00	75	0.299	0.045	0.012	0.049	2	93
12' Dipole	78.00	40	0.299	0.045	0.012	0.049	1	50
PCTEL GPS-TMG-HR-26N	76.00	1	0.284	0.049	0.014	0.048	0	1
Standoffs	76.00	75	0.284	0.049	0.014	0.048	2	93
		50,877	75.356	35.217	29.152	11.330	1,820	63,169

LoadCase (0.9 - 0.2Sds) * DL + E **Seismic (Reduced DL)**

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
10	188.00	1,087	1.739	1.275	0.876	0.333	157	933
9	170.00	2,255	1.422	0.326	0.455	0.166	163	1,936
8	150.00	3,353	1.107	-0.066	0.191	0.063	91	2,878
7	130.00	4,058	0.831	-0.117	0.063	0.031	54	3,483
6	110.00	4,189	0.595	-0.051	0.014	0.038	68	3,596
5	90.00	4,668	0.399	0.019	0.007	0.048	97	4,007
4	70.00	4,962	0.241	0.057	0.018	0.047	101	4,259
3	50.00	5,358	0.123	0.070	0.034	0.039	92	4,600
2	30.00	5,699	0.044	0.071	0.042	0.032	79	4,892
1	10.00	5,683	0.005	0.044	0.025	0.018	45	4,879
DragonWave Horizon Compact	194.00	21	1.852	1.784	1.069	0.405	4	18
KMW TTA (HB-X-WM-17-65-00T)	194.00	48	1.852	1.784	1.069	0.405	8	41
NextNet BTS-2500	194.00	105	1.852	1.784	1.069	0.405	18	90
KMW AM-X-WM-17-65-00T	194.00	43	1.852	1.784	1.069	0.405	7	37
Decibel DB844H90E-XY	194.00	84	1.852	1.784	1.069	0.405	15	72
Argus LLPX310R	194.00	86	1.852	1.784	1.069	0.405	15	74
DragonWave A-ANT-18G-2-C	194.00	54	1.852	1.784	1.069	0.405	10	47
EMS RR90-11-00DBL	194.00	36	1.852	1.784	1.069	0.405	6	31
Round Sector Frames	194.00	900	1.852	1.784	1.069	0.405	158	773
Alcatel-Lucent 800 MHz RRH	191.00	159	1.795	1.515	0.968	0.368	25	136
Alcatel-Lucent 1900 MHz 4x45	191.00	180	1.795	1.515	0.968	0.368	29	155
RRU	191.00	165	1.795	1.515	0.968	0.368	26	142
Andrew DB980H90E-M	185.00	51	1.684	1.062	0.790	0.300	7	44
RFS APXVSPP18-C-A20	185.00	57	1.684	1.062	0.790	0.300	7	49
Powerwave Allgon P40-16-XLPP-	185.00	128	1.684	1.062	0.790	0.300	17	110
Round Sector Frames	185.00	900	1.684	1.062	0.790	0.300	117	773
18" x 12" Junction Box	184.00	15	1.666	0.996	0.763	0.290	2	13
Alcatel-Lucent B13 RRH4x30-4R	177.00	172	1.541	0.608	0.593	0.223	17	147
Alcatel-Lucent PCS B25	177.00	165	1.541	0.608	0.593	0.223	16	142
Alcatel-Lucent B66 RRH4x45	177.00	201	1.541	0.608	0.593	0.223	19	173
RFS DB-T1-6Z-8AB-0Z	177.00	88	1.541	0.608	0.593	0.223	8	76
Antel BXA-80080/4CF	177.00	43	1.541	0.608	0.593	0.223	4	37
Swedcom SLCP 2x6014	177.00	20	1.541	0.608	0.593	0.223	2	17
Amphenol Antel BXA-70063-6BF-	177.00	19	1.541	0.608	0.593	0.223	2	16
Powerwave Allgon P65-16-XL-2	177.00	33	1.541	0.608	0.593	0.223	3	28

Equivalent Modal Analysis Method

Andrew SBNHH-1D65B	177.00	304	1.541	0.608	0.593	0.223	29	261
Flat Light Sector Frames	177.00	1,200	1.541	0.608	0.593	0.223	116	1,030
Powerwave TT19-08BP111-001	167.00	96	1.372	0.233	0.404	0.146	6	82
Raycap DC6-48-60-18-8F	167.00	64	1.372	0.233	0.404	0.146	4	55
Ericsson RRUS 11 (Band 12) (55	167.00	330	1.372	0.233	0.404	0.146	21	283
Ericsson RRUS-32	167.00	231	1.372	0.233	0.404	0.146	15	198
Powerwave Allgon 7770.00	167.00	105	1.372	0.233	0.404	0.146	7	90
KMW AM-X-CD-16-65-00T-RET	167.00	146	1.372	0.233	0.404	0.146	9	125
CCI OPA-65R-LCUU-H6	167.00	146	1.372	0.233	0.404	0.146	9	125
CCI OPA-65R-LCUU-H8	167.00	88	1.372	0.233	0.404	0.146	6	76
Round Sector Frames	167.00	900	1.372	0.233	0.404	0.146	57	773
Kathrein 742 213	157.00	66	1.213	0.017	0.264	0.090	3	57
Ericsson KRY 112 144/1	148.00	33	1.078	-0.082	0.173	0.057	1	28
Ericsson RRUS 11 B12	148.00	152	1.078	-0.082	0.173	0.057	4	131
Ericsson AIR 21, 1.3 M, B2A B4P	148.00	249	1.078	-0.082	0.173	0.057	6	214
Ericsson AIR 21, 1.3M, B4A B2P	148.00	244	1.078	-0.082	0.173	0.057	6	210
Andrew LNX-6515DS-VTM	148.00	154	1.078	-0.082	0.173	0.057	4	132
Round Sector Frame	148.00	900	1.078	-0.082	0.173	0.057	22	773
Motorola PTP54600	125.00	24	0.769	-0.105	0.045	0.030	0	21
GPS	102.00	20	0.512	-0.020	0.008	0.043	0	17
Standoffs	102.00	150	0.512	-0.020	0.008	0.043	3	129
Standoffs	78.00	75	0.299	0.045	0.012	0.049	2	64
12' Dipole	78.00	40	0.299	0.045	0.012	0.049	1	34
PCTEL GPS-TMG-HR-26N	76.00	1	0.284	0.049	0.014	0.048	0	1
Standoffs	76.00	75	0.284	0.049	0.014	0.048	2	64
		50,877	75.356	35.217	29.152	11.330	1,820	43,673

Site Number: 302470 | Code: ANSI/TIA-222-G |

Site Name: Ansonia Wakelee, CT | Engineering Number: OAA650282_C3_07 | 12/2/2016 10:47:56 AM

Customer: Verizon Wireless

Force/Stress Summary

Section: 1 15N25 Bot Elev (ft): 0.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 8" DIA PIPE	-366.26	1.2D + 1.6W	9.77	100	100	100	40.7	50.0	510.32	0	0	0.00	0.00	71	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	-11.93	1.2D + 1.6W 90	23.62	48	48	48	171.1	43.5	14.96	1	1	17.89	23.40	79	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 8" DIA PIPE	323.61	1.2D + 1.6W 60	50	65	576.00	0	0	0.00	0.00	56	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	11.74	1.2D + 1.6W 90	50	65	62.93	1	1	17.89	14.14	83	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	297.96	0.9D + 1.6W 180	0.00	0	0	
Top Compression	341.51	1.2D + 1.6W	0.00	0		
Bot Tension	328.29	0.9D + 1.6W 180	605.70	64	10	1" A354-BC
Bot Compression	375.90	1.2D + 1.6W	0.00	0		

Section: 2 14N46 Bot Elev (ft): 20.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	-330.48	1.2D + 1.6W	9.77	100	100	100	40.1	50.0	388.80	0	0	0.00	0.00	84	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	-11.50	1.2D + 1.6W 90	22.69	48	48	48	164.4	43.5	16.22	1	1	17.89	23.40	70	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	298.10	0.9D + 1.6W 60	50	65	437.40	0	0	0.00	0.00	68	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 4X4X0.25	11.33	1.2D + 1.6W 90	50	65	62.93	1	1	17.89	14.14	80	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	265.25	0.9D + 1.6W 180	0.00	0	0	
Top Compression	303.38	1.2D + 1.6W	0.00	0		
Bot Tension	297.96	0.9D + 1.6W 180	436.16	68	8	1 A325
Bot Compression	341.51	1.2D + 1.6W	0.00	0		

Force/Stress Summary

Section: 3 13N88 Bot Elev (ft): 40.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	-292.82	1.2D + 1.6W	9.77	100	100	100	40.1	50.0	388.78	0	0	0.00	0.00	75	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	-10.38	0.9D + 1.6W 90	20.87	48	48	48	174.8	50.0	12.50	1	1	17.89	23.40	83	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PSP - ROHN 8 EHS	265.49	0.9D + 1.6W 60	50	65	437.40	0	0	0.00	0.00	60	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	10.23	1.2D + 1.6W 90	50	65	53.79	1	1	17.89	14.14	72	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	233.01	0.9D + 1.6W 180	0.00	0	0	
Top Compression	265.81	1.2D + 1.6W	0.00	0		
Bot Tension	265.25	0.9D + 1.6W 180	436.16	61	8	1 A325
Bot Compression	303.38	1.2D + 1.6W	0.00	0		

Section: 4 12N50 Bot Elev (ft): 60.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	-254.78	1.2D + 1.6W	9.77	100	100	100	53.4	50.0	306.88	0	0	0.00	0.00	83	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	-10.05	1.2D + 1.6W 90	19.04	48	48	48	159.4	50.0	15.02	1	1	17.89	23.40	66	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 6" DIA PIPE	233.11	0.9D + 1.6W 60	50	65	378.00	0	0	0.00	0.00	61	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25	10.00	1.2D + 1.6W 90	50	65	53.79	1	1	17.89	14.14	70	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	198.29	0.9D + 1.6W 180	0.00	0	0	
Top Compression	225.89	1.2D + 1.6W	0.00	0		
Bot Tension	233.01	0.9D + 1.6W 180	436.16	53	8	1 A325
Bot Compression	265.81	1.2D + 1.6W	0.00	0		

Force/Stress Summary

Section: 5 11N223 Bot Elev (ft): 80.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PSP - ROHN 6 EHS	-217.52	1.2D + 1.6W	6.51	100	100	100	35.1	50.0	275.92	0	0	0.00	0.00	78	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	-9.06	1.2D + 1.6W 90	15.90	48	48	48	154.7	50.0	13.59	1	1	17.89	23.40	66	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PSP - ROHN 6 EHS	198.36	0.9D + 1.6W 60	50	65	301.95	0	0	0.00	0.00	65	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.25	8.92	1.2D + 1.6W 210	50	65	44.65	1	1	17.89	14.14	63	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	161.39	0.9D + 1.6W 180	0.00	0	0	
Top Compression	184.02	1.2D + 1.6W	0.00	0		
Bot Tension	198.29	0.9D + 1.6W 180	327.12	61	6	1 A325
Bot Compression	225.89	1.2D + 1.6W	0.00	0		

Section: 6 10N152 Bot Elev (ft): 100.0 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	-176.33	1.2D + 1.6W	6.51	100	100	100	42.5	50.0	240.98	0	0	0.00	0.00	73	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	-7.59	1.2D + 1.6W 90	14.13	48	48	48	165.8	36.0	9.77	1	1	12.43	17.40	77	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	159.49	1.2D + 1.6W 60	50	65	274.95	0	0	0.00	0.00	58	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	7.65	1.2D + 1.6W 90	36	58	32.71	1	1	12.43	10.44	73	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	125.70	0.9D + 1.6W 180	0.00	0	0	
Top Compression	143.92	1.2D + 1.6W	0.00	0		
Bot Tension	161.39	0.9D + 1.6W 180	327.12	49	6	1 A325
Bot Compression	184.02	1.2D + 1.6W	0.00	0		

Site Number: 302470 | Code: ANSI/TIA-222-G |

Site Name: Ansonia Wakelee, CT | Engineering Number: OAA650282_C3_07 | 12/2/2016 10:47:56 AM

Customer: Verizon Wireless

Force/Stress Summary

Section: 7 9N216 Bot Elev (ft): 120.0 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	-135.71	1.2D + 1.6W	6.51	100	100	100	42.5	50.0	240.99	0	0	0.00	0.00	56	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	-7.50	1.2D + 1.6W 90	11.25	48	48	48	132.0	36.0	15.41	1	1	12.43	17.40	60	Bolt Shear

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 5" DIA PIPE	124.02	1.2D + 1.6W 60	50	65	274.95	0	0	0.00	0.00	45	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2.5X2.5X0.25	7.33	1.2D + 1.6W 90	36	58	32.71	1	1	12.43	10.44	70	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	86.44	0.9D + 1.6W 180	0.00	0	0	
Top Compression	100.53	1.2D + 1.6W	0.00	0		
Bot Tension	125.70	0.9D + 1.6W 180	218.08	58	4	1 A325
Bot Compression	143.92	1.2D + 1.6W	0.00	0		

Section: 8 A780252 Bot Elev (ft): 140.0 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 4" DIA PIPE	-94.33	1.2D + 1.6W	4.88	100	100	100	39.6	50.0	176.95	0	0	0.00	0.00	53	Member X
HORIZ SAE - 2X2X0.125	-0.33	1.2D + 1.6W 60	6.760	100	100	100	203.8	36.0	2.61	1	1	12.43	8.70	12	Member Z
DIAG SAE - 2X2X0.25	-5.98	1.2D + 1.6W 90	9.848	48	48	48	145.1	36.0	10.09	1	1	12.43	17.40	59	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 4" DIA PIPE	85.38	1.2D + 1.6W 180	50	65	198.45	0	0	0.00	0.00	43	Member
HORIZ SAE - 2X2X0.125	0.23	1.2D + 1.6W	36	58	12.60	1	1	12.43	5.22	4	Bolt Bear
DIAG SAE - 2X2X0.25	5.99	1.2D + 1.6W 90	36	58	24.55	1	1	12.43	10.44	57	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	47.43	0.9D + 1.6W 180	0.00	0	0	
Top Compression	56.60	1.2D + 1.6W	0.00	0		
Bot Tension	86.44	0.9D + 1.6W 180	218.08	40	4	1 A325
Bot Compression	100.53	1.2D + 1.6W	0.00	0		

Site Number: 302470 | Code: ANSI/TIA-222-G |

Site Name: Ansonia Wakelee, CT | Engineering Number: OAA650282_C3_07 | 12/2/2016 10:47:56 AM

Customer: Verizon Wireless

Force/Stress Summary

Section: 9 A780178 Bot Elev (ft): 160.0 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 3" DIA PIPE	-55.94	1.2D + 1.6W	0.25	100	100	100	2.6	50.0	135.83	0	0	0.00	0.00	41	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2X2X0.1875	-6.18	1.2D + 1.6W 90	7.798	48	48	48	115.5	36.0	11.48	2	1	24.86	26.10	53	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PX - 3" DIA PIPE	46.29	1.2D + 1.6W 180	50	65	135.90	0	0	0.00	0.00	34	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 2X2X0.1875	6.09	1.2D + 1.6W 90	36	58	18.74	2	1	24.86	20.88	32	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	8.40	0.9D + 1.6W 180	0.00	0	0	
Top Compression	11.69	1.2D + 1.6W	0.00	0		
Bot Tension	47.43	0.9D + 1.6W 180	166.24	29	4	7/8 A325
Bot Compression	56.60	1.2D + 1.6W	0.00	0		

Section: 10 A780178 Bot Elev (ft): 180.0 Height (ft): 16.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-11.56	1.2D + 1.6W	0.25	100	100	100	3.2	50.0	76.62	0	0	0.00	0.00	15	Member X
HORIZ SAE - 2X2X0.125	-0.35	1.2D + 1.6W	6.647	100	100	100	200.4	36.0	2.70	1	1	12.43	8.70	13	Member Z
DIAG SAE - 1.75X1.75X0.18	-2.51	1.2D + 1.6W	7.758	48	48	48	130.3	36.0	8.23	1	1	12.43	13.05	30	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	8.49	0.9D + 1.6W 180	50	65	76.68	0	0	0.00	0.00	11	Member
HORIZ SAE - 2X2X0.125	0.34	1.2D + 1.6W 60	36	58	12.60	1	1	12.43	5.22	6	Bolt Bear
DIAG SAE - 1.75X1.75X0.18	2.50	1.2D + 1.6W 330	36	58	15.67	1	1	12.43	7.83	31	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0	0	
Top Compression	0.34	(1.2 + 0.2Sds) *	0.00	0		
Bot Tension	8.40	0.9D + 1.6W 180	120.40	7	4	3/4 A325
Bot Compression	11.69	1.2D + 1.6W	0.00	0		

Force/Stress Summary

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
97 mph Normal to Face with No Ice	79.75	0.303	0.0159	0.4849	0.4849
97 mph Normal to Face with No Ice	100.25	0.484	0.0206	0.6211	0.6211
97 mph Normal to Face with No Ice	126.75	0.791	0.0245	0.7402	0.7406
97 mph Normal to Face with No Ice	150.00	1.127	0.0276	0.9157	0.9157
97 mph Normal to Face with No Ice	154.88	1.205	0.0276	0.9227	0.9231
97 mph Normal to Face with No Ice	168.05	1.434	0.0299	1.0345	1.0349
97 mph Normal to Face with No Ice	175.85	1.576	0.0296	1.0449	1.0453
97 mph Normal to Face with No Ice	184.19	1.731	0.0288	1.1100	1.1103
97 mph Normal to Face with No Ice	192.06	1.877	0.0286	1.0701	1.0705
97 mph 60 degree with No Ice	79.75	0.293	0.0248	0.4662	0.4662
97 mph 60 degree with No Ice	100.25	0.468	0.0316	0.6009	0.6010
97 mph 60 degree with No Ice	126.75	0.767	0.0395	0.7182	0.7186
97 mph 60 degree with No Ice	150.00	1.093	0.0480	0.8882	0.8885
97 mph 60 degree with No Ice	154.88	1.169	0.0490	0.8952	0.8954
97 mph 60 degree with No Ice	168.05	1.390	0.0605	1.0045	1.0050
97 mph 60 degree with No Ice	175.85	1.528	0.0665	1.0101	1.0123
97 mph 60 degree with No Ice	184.19	1.678	0.0777	0.9876	0.9906
97 mph 60 degree with No Ice	192.06	1.819	0.0785	1.0314	1.0337
97 mph 90 degree with No Ice	79.75	0.295	-0.0291	0.4637	0.4639
97 mph 90 degree with No Ice	100.25	0.472	-0.0351	0.5990	0.5992
97 mph 90 degree with No Ice	126.75	0.772	-0.0401	0.7232	0.7243
97 mph 90 degree with No Ice	150.00	1.100	-0.0443	0.8913	0.8916
97 mph 90 degree with No Ice	154.88	1.177	-0.0442	0.9050	0.9061
97 mph 90 degree with No Ice	168.05	1.400	-0.0485	1.0103	1.0106
97 mph 90 degree with No Ice	175.85	1.538	-0.0491	1.0207	1.0219
97 mph 90 degree with No Ice	184.19	1.689	-0.0502	0.9641	0.9654
97 mph 90 degree with No Ice	192.06	1.831	-0.0504	1.0391	1.0403
97 mph 120 degree with No Ice	79.75	0.302	-0.0298	0.4814	0.4814
97 mph 120 degree with No Ice	100.25	0.483	-0.0370	0.6208	0.6208
97 mph 120 degree with No Ice	126.75	0.791	-0.0456	0.7396	0.7399
97 mph 120 degree with No Ice	150.00	1.126	-0.0546	0.9143	0.9143
97 mph 120 degree with No Ice	154.88	1.204	-0.0563	0.9218	0.9219
97 mph 120 degree with No Ice	168.05	1.432	-0.0682	1.0321	1.0344
97 mph 120 degree with No Ice	175.85	1.574	-0.0754	1.0393	1.0419
97 mph 120 degree with No Ice	184.19	1.728	-0.0882	1.0165	1.0179
97 mph 120 degree with No Ice	192.06	1.874	-0.0892	1.0605	1.0642
97 mph 180 degree with No Ice	79.75	0.293	0.0157	0.4696	0.4696
97 mph 180 degree with No Ice	100.25	0.469	0.0203	0.6012	0.6012
97 mph 180 degree with No Ice	126.75	0.768	0.0238	0.7190	0.7194
97 mph 180 degree with No Ice	150.00	1.094	0.0270	0.8896	0.8896
97 mph 180 degree with No Ice	154.88	1.170	0.0264	0.8966	0.8969
97 mph 180 degree with No Ice	168.05	1.391	0.0291	1.0074	1.0074
97 mph 180 degree with No Ice	175.85	1.530	0.0283	1.0158	1.0162
97 mph 180 degree with No Ice	184.19	1.680	0.0272	1.0811	1.0814
97 mph 180 degree with No Ice	192.06	1.822	0.0272	1.0408	1.0412
97 mph 210 degree with No Ice	79.75	0.295	0.0186	0.4672	0.4674
97 mph 210 degree with No Ice	100.25	0.472	0.0235	0.5994	0.5996
97 mph 210 degree with No Ice	126.75	0.773	0.0302	0.7251	0.7254
97 mph 210 degree with No Ice	150.00	1.102	0.0374	0.8925	0.8930
97 mph 210 degree with No Ice	154.88	1.178	0.0392	0.9083	0.9085
97 mph 210 degree with No Ice	168.05	1.401	0.0494	1.0130	1.0142
97 mph 210 degree with No Ice	175.85	1.540	0.0562	1.0264	1.0264

Force/Stress Summary

97 mph 210 degree with No Ice	184.19	1.692	0.0683	1.0628	1.0628
97 mph 210 degree with No Ice	192.06	1.834	0.0692	1.0487	1.0488
97 mph 240 degree with No Ice	79.75	0.302	0.0298	0.4814	0.4814
97 mph 240 degree with No Ice	100.25	0.483	0.0370	0.6208	0.6208
97 mph 240 degree with No Ice	126.75	0.791	0.0456	0.7396	0.7399
97 mph 240 degree with No Ice	150.00	1.126	0.0546	0.9143	0.9144
97 mph 240 degree with No Ice	154.88	1.204	0.0563	0.9218	0.9219
97 mph 240 degree with No Ice	168.05	1.432	0.0682	1.0321	1.0344
97 mph 240 degree with No Ice	175.85	1.574	0.0754	1.0393	1.0419
97 mph 240 degree with No Ice	184.19	1.728	0.0882	1.0165	1.0179
97 mph 240 degree with No Ice	192.06	1.874	0.0892	1.0605	1.0642
97 mph 300 degree with No Ice	79.75	0.293	0.0212	0.4662	0.4662
97 mph 300 degree with No Ice	100.25	0.468	0.0245	0.6009	0.6010
97 mph 300 degree with No Ice	126.75	0.767	0.0249	0.7182	0.7186
97 mph 300 degree with No Ice	150.00	1.093	0.0236	0.8882	0.8885
97 mph 300 degree with No Ice	154.88	1.169	0.0217	0.8952	0.8954
97 mph 300 degree with No Ice	168.05	1.390	0.0176	1.0045	1.0050
97 mph 300 degree with No Ice	175.85	1.528	0.0116	1.0101	1.0123
97 mph 300 degree with No Ice	184.19	1.678	0.0012	0.9876	0.9906
97 mph 300 degree with No Ice	192.06	1.819	0.0004	1.0314	1.0337
97 mph 330 degree with No Ice	79.75	0.295	0.0107	0.4675	0.4675
97 mph 330 degree with No Ice	100.25	0.472	0.0119	0.5995	0.5996
97 mph 330 degree with No Ice	126.75	0.773	0.0104	0.7239	0.7251
97 mph 330 degree with No Ice	150.00	1.101	0.0077	0.8932	0.8932
97 mph 330 degree with No Ice	154.88	1.178	0.0059	0.9062	0.9076
97 mph 330 degree with No Ice	168.05	1.401	0.0001	1.0129	1.0135
97 mph 330 degree with No Ice	175.85	1.540	-0.0061	1.0263	1.0286
97 mph 330 degree with No Ice	184.19	1.692	-0.0171	1.0627	1.0657
97 mph 330 degree with No Ice	192.06	1.834	-0.0179	1.0486	1.0516
97 mph Normal to Face with No Ice (Reduced DL)	79.75	0.302	0.0159	0.4843	0.4843
97 mph Normal to Face with No Ice (Reduced DL)	100.25	0.483	0.0205	0.6198	0.6198
97 mph Normal to Face with No Ice (Reduced DL)	126.75	0.790	0.0245	0.7385	0.7389
97 mph Normal to Face with No Ice (Reduced DL)	150.00	1.125	0.0275	0.9133	0.9133
97 mph Normal to Face with No Ice (Reduced DL)	154.88	1.203	0.0275	0.9203	0.9207
97 mph Normal to Face with No Ice (Reduced DL)	168.05	1.431	0.0298	1.0318	1.0320
97 mph Normal to Face with No Ice (Reduced DL)	175.85	1.572	0.0295	1.0420	1.0424
97 mph Normal to Face with No Ice (Reduced DL)	184.19	1.727	0.0287	1.1071	1.1075
97 mph Normal to Face with No Ice (Reduced DL)	192.06	1.872	0.0285	1.0671	1.0675
97 mph 60 deg with No Ice (Reduced DL)	79.75	0.292	0.0247	0.4650	0.4651
97 mph 60 deg with No Ice (Reduced DL)	100.25	0.468	0.0315	0.5996	0.5997
97 mph 60 deg with No Ice (Reduced DL)	126.75	0.765	0.0394	0.7164	0.7169
97 mph 60 deg with No Ice (Reduced DL)	150.00	1.090	0.0478	0.8860	0.8862
97 mph 60 deg with No Ice (Reduced DL)	154.88	1.166	0.0489	0.8929	0.8932
97 mph 60 deg with No Ice (Reduced DL)	168.05	1.387	0.0603	1.0017	1.0022
97 mph 60 deg with No Ice (Reduced DL)	175.85	1.524	0.0663	1.0075	1.0096
97 mph 60 deg with No Ice (Reduced DL)	184.19	1.674	0.0775	0.9849	0.9879
97 mph 60 deg with No Ice (Reduced DL)	192.06	1.815	0.0783	1.0286	1.0309
97 mph 90 deg with No Ice (Reduced DL)	79.75	0.294	-0.0291	0.4629	0.4631
97 mph 90 deg with No Ice (Reduced DL)	100.25	0.471	-0.0350	0.5977	0.5980
97 mph 90 deg with No Ice (Reduced DL)	126.75	0.771	-0.0400	0.7215	0.7226
97 mph 90 deg with No Ice (Reduced DL)	150.00	1.098	-0.0442	0.8890	0.8893
97 mph 90 deg with No Ice (Reduced DL)	154.88	1.174	-0.0441	0.9027	0.9037
97 mph 90 deg with No Ice (Reduced DL)	168.05	1.397	-0.0484	1.0074	1.0079
97 mph 90 deg with No Ice (Reduced DL)	175.85	1.535	-0.0490	1.0180	1.0191
97 mph 90 deg with No Ice (Reduced DL)	184.19	1.685	-0.0501	0.9613	0.9626
97 mph 90 deg with No Ice (Reduced DL)	192.06	1.827	-0.0502	1.0362	1.0374
97 mph 120 deg with No Ice (Reduced DL)	79.75	0.302	-0.0298	0.4807	0.4807
97 mph 120 deg with No Ice (Reduced DL)	100.25	0.482	-0.0369	0.6195	0.6195
97 mph 120 deg with No Ice (Reduced DL)	126.75	0.789	-0.0455	0.7379	0.7381

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97 mph 120 deg with No Ice (Reduced DL)	150.00	1.124	-0.0544	0.9119	0.9120
97 mph 120 deg with No Ice (Reduced DL)	154.88	1.202	-0.0561	0.9193	0.9195
97 mph 120 deg with No Ice (Reduced DL)	168.05	1.429	-0.0681	1.0293	1.0315
97 mph 120 deg with No Ice (Reduced DL)	175.85	1.570	-0.0752	1.0364	1.0390
97 mph 120 deg with No Ice (Reduced DL)	184.19	1.724	-0.0879	1.0136	1.0150
97 mph 120 deg with No Ice (Reduced DL)	192.06	1.869	-0.0889	1.0576	1.0613
97 mph 180 deg with No Ice (Reduced DL)	79.75	0.292	0.0157	0.4685	0.4685
97 mph 180 deg with No Ice (Reduced DL)	100.25	0.468	0.0202	0.5999	0.5999
97 mph 180 deg with No Ice (Reduced DL)	126.75	0.766	0.0237	0.7173	0.7177
97 mph 180 deg with No Ice (Reduced DL)	150.00	1.091	0.0269	0.8874	0.8874
97 mph 180 deg with No Ice (Reduced DL)	154.88	1.168	0.0263	0.8943	0.8947
97 mph 180 deg with No Ice (Reduced DL)	168.05	1.388	0.0290	1.0045	1.0045
97 mph 180 deg with No Ice (Reduced DL)	175.85	1.526	0.0282	1.0131	1.0135
97 mph 180 deg with No Ice (Reduced DL)	184.19	1.676	0.0271	1.0783	1.0787
97 mph 180 deg with No Ice (Reduced DL)	192.06	1.818	0.0271	1.0381	1.0384
97 mph 210 deg with No Ice (Reduced DL)	79.75	0.294	0.0186	0.4666	0.4667
97 mph 210 deg with No Ice (Reduced DL)	100.25	0.471	0.0234	0.5982	0.5983
97 mph 210 deg with No Ice (Reduced DL)	126.75	0.771	0.0301	0.7234	0.7237
97 mph 210 deg with No Ice (Reduced DL)	150.00	1.099	0.0373	0.8902	0.8906
97 mph 210 deg with No Ice (Reduced DL)	154.88	1.176	0.0391	0.9060	0.9062
97 mph 210 deg with No Ice (Reduced DL)	168.05	1.398	0.0492	1.0101	1.0113
97 mph 210 deg with No Ice (Reduced DL)	175.85	1.537	0.0561	1.0237	1.0237
97 mph 210 deg with No Ice (Reduced DL)	184.19	1.688	0.0681	1.0600	1.0600
97 mph 210 deg with No Ice (Reduced DL)	192.06	1.830	0.0690	1.0459	1.0459
97 mph 240 deg with No Ice (Reduced DL)	79.75	0.302	0.0298	0.4807	0.4807
97 mph 240 deg with No Ice (Reduced DL)	100.25	0.483	0.0369	0.6195	0.6195
97 mph 240 deg with No Ice (Reduced DL)	126.75	0.789	0.0455	0.7379	0.7381
97 mph 240 deg with No Ice (Reduced DL)	150.00	1.124	0.0544	0.9119	0.9120
97 mph 240 deg with No Ice (Reduced DL)	154.88	1.202	0.0561	0.9193	0.9195
97 mph 240 deg with No Ice (Reduced DL)	168.05	1.429	0.0681	1.0293	1.0315
97 mph 240 deg with No Ice (Reduced DL)	175.85	1.570	0.0752	1.0364	1.0390
97 mph 240 deg with No Ice (Reduced DL)	184.19	1.724	0.0879	1.0136	1.0150
97 mph 240 deg with No Ice (Reduced DL)	192.06	1.869	0.0889	1.0576	1.0613
97 mph 300 deg with No Ice (Reduced DL)	79.75	0.292	0.0212	0.4650	0.4651
97 mph 300 deg with No Ice (Reduced DL)	100.25	0.468	0.0245	0.5996	0.5997
97 mph 300 deg with No Ice (Reduced DL)	126.75	0.765	0.0248	0.7164	0.7169
97 mph 300 deg with No Ice (Reduced DL)	150.00	1.090	0.0235	0.8860	0.8862
97 mph 300 deg with No Ice (Reduced DL)	154.88	1.166	0.0217	0.8929	0.8932
97 mph 300 deg with No Ice (Reduced DL)	168.05	1.387	0.0176	1.0017	1.0022
97 mph 300 deg with No Ice (Reduced DL)	175.85	1.524	0.0116	1.0075	1.0096
97 mph 300 deg with No Ice (Reduced DL)	184.19	1.674	0.0012	0.9849	0.9879
97 mph 300 deg with No Ice (Reduced DL)	192.06	1.815	0.0005	1.0286	1.0309
97 mph 330 deg with No Ice (Reduced DL)	79.75	0.294	0.0107	0.4666	0.4667
97 mph 330 deg with No Ice (Reduced DL)	100.25	0.471	0.0119	0.5982	0.5984
97 mph 330 deg with No Ice (Reduced DL)	126.75	0.771	0.0104	0.7222	0.7234
97 mph 330 deg with No Ice (Reduced DL)	150.00	1.099	0.0076	0.8908	0.8909
97 mph 330 deg with No Ice (Reduced DL)	154.88	1.176	0.0058	0.9038	0.9053
97 mph 330 deg with No Ice (Reduced DL)	168.05	1.398	0.0001	1.0100	1.0107
97 mph 330 deg with No Ice (Reduced DL)	175.85	1.537	-0.0061	1.0235	1.0258
97 mph 330 deg with No Ice (Reduced DL)	184.19	1.688	-0.0170	1.0599	1.0629
97 mph 330 deg with No Ice (Reduced DL)	192.06	1.830	-0.0178	1.0457	1.0488
50 mph Normal with 0.75 in Radial Ice	79.75	0.096	0.0056	0.1503	0.1503
50 mph Normal with 0.75 in Radial Ice	100.25	0.153	0.0071	0.1940	0.1940
50 mph Normal with 0.75 in Radial Ice	126.75	0.248	0.0082	0.2271	0.2272
50 mph Normal with 0.75 in Radial Ice	150.00	0.351	0.0091	0.2784	0.2784
50 mph Normal with 0.75 in Radial Ice	154.88	0.374	0.0091	0.2803	0.2804
50 mph Normal with 0.75 in Radial Ice	168.05	0.443	0.0098	0.3125	0.3127
50 mph Normal with 0.75 in Radial Ice	175.85	0.486	0.0097	0.3150	0.3152
50 mph Normal with 0.75 in Radial Ice	184.19	0.533	0.0094	0.3279	0.3281

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50 mph Normal with 0.75 in Radial Ice	192.06	0.577	0.0093	0.3214	0.3215
50 mph 60 deg with 0.75 in Radial Ice	79.75	0.096	-0.0075	0.1540	0.1540
50 mph 60 deg with 0.75 in Radial Ice	100.25	0.152	-0.0090	0.1929	0.1929
50 mph 60 deg with 0.75 in Radial Ice	126.75	0.246	0.0100	0.2251	0.2253
50 mph 60 deg with 0.75 in Radial Ice	150.00	0.347	0.0113	0.2745	0.2745
50 mph 60 deg with 0.75 in Radial Ice	154.88	0.371	0.0113	0.2763	0.2765
50 mph 60 deg with 0.75 in Radial Ice	168.05	0.439	0.0126	0.3101	0.3101
50 mph 60 deg with 0.75 in Radial Ice	175.85	0.481	0.0129	0.3094	0.3097
50 mph 60 deg with 0.75 in Radial Ice	184.19	0.527	0.0135	0.3052	0.3055
50 mph 60 deg with 0.75 in Radial Ice	192.06	0.571	0.0136	0.3157	0.3159
50 mph 90 deg with 0.75 in Radial Ice	79.75	0.096	-0.0089	0.1520	0.1521
50 mph 90 deg with 0.75 in Radial Ice	100.25	0.152	-0.0107	0.1908	0.1909
50 mph 90 deg with 0.75 in Radial Ice	126.75	0.246	-0.0122	0.2255	0.2259
50 mph 90 deg with 0.75 in Radial Ice	150.00	0.348	-0.0134	0.2752	0.2753
50 mph 90 deg with 0.75 in Radial Ice	154.88	0.371	-0.0133	0.2787	0.2790
50 mph 90 deg with 0.75 in Radial Ice	168.05	0.440	-0.0144	0.3104	0.3105
50 mph 90 deg with 0.75 in Radial Ice	175.85	0.482	-0.0145	0.3121	0.3124
50 mph 90 deg with 0.75 in Radial Ice	184.19	0.528	-0.0147	0.3007	0.3011
50 mph 90 deg with 0.75 in Radial Ice	192.06	0.572	-0.0146	0.3172	0.3175
50 mph 120 deg with 0.75 in Radial Ice	79.75	0.096	-0.0080	0.1496	0.1496
50 mph 120 deg with 0.75 in Radial Ice	100.25	0.153	-0.0097	0.1940	0.1940
50 mph 120 deg with 0.75 in Radial Ice	126.75	0.248	-0.0112	0.2269	0.2271
50 mph 120 deg with 0.75 in Radial Ice	150.00	0.351	-0.0125	0.2782	0.2782
50 mph 120 deg with 0.75 in Radial Ice	154.88	0.374	-0.0125	0.2800	0.2801
50 mph 120 deg with 0.75 in Radial Ice	168.05	0.443	-0.0140	0.3122	0.3125
50 mph 120 deg with 0.75 in Radial Ice	175.85	0.486	-0.0144	0.3140	0.3143
50 mph 120 deg with 0.75 in Radial Ice	184.19	0.532	-0.0153	0.3090	0.3092
50 mph 120 deg with 0.75 in Radial Ice	192.06	0.576	-0.0153	0.3195	0.3199
50 mph 180 deg with 0.75 in Radial Ice	79.75	0.096	0.0056	0.1547	0.1547
50 mph 180 deg with 0.75 in Radial Ice	100.25	0.152	0.0070	0.1928	0.1928
50 mph 180 deg with 0.75 in Radial Ice	126.75	0.246	0.0080	0.2252	0.2253
50 mph 180 deg with 0.75 in Radial Ice	150.00	0.347	0.0090	0.2746	0.2746
50 mph 180 deg with 0.75 in Radial Ice	154.88	0.371	0.0089	0.2765	0.2766
50 mph 180 deg with 0.75 in Radial Ice	168.05	0.439	0.0096	0.3104	0.3104
50 mph 180 deg with 0.75 in Radial Ice	175.85	0.481	0.0094	0.3103	0.3105
50 mph 180 deg with 0.75 in Radial Ice	184.19	0.527	0.0091	0.3238	0.3240
50 mph 180 deg with 0.75 in Radial Ice	192.06	0.571	0.0090	0.3174	0.3175
50 mph 210 deg with 0.75 in Radial Ice	79.75	0.096	0.0047	0.1528	0.1529
50 mph 210 deg with 0.75 in Radial Ice	100.25	0.152	0.0057	0.1908	0.1909
50 mph 210 deg with 0.75 in Radial Ice	126.75	0.247	0.0066	0.2258	0.2260
50 mph 210 deg with 0.75 in Radial Ice	150.00	0.348	0.0074	0.2754	0.2755
50 mph 210 deg with 0.75 in Radial Ice	154.88	0.372	0.0075	0.2791	0.2793
50 mph 210 deg with 0.75 in Radial Ice	168.05	0.440	0.0085	0.3109	0.3110
50 mph 210 deg with 0.75 in Radial Ice	175.85	0.482	0.0089	0.3132	0.3133
50 mph 210 deg with 0.75 in Radial Ice	184.19	0.529	0.0096	0.3203	0.3204
50 mph 210 deg with 0.75 in Radial Ice	192.06	0.572	0.0096	0.3190	0.3192
50 mph 240 deg with 0.75 in Radial Ice	79.75	0.096	0.0080	0.1496	0.1496
50 mph 240 deg with 0.75 in Radial Ice	100.25	0.153	0.0097	0.1940	0.1940
50 mph 240 deg with 0.75 in Radial Ice	126.75	0.248	0.0112	0.2269	0.2271
50 mph 240 deg with 0.75 in Radial Ice	150.00	0.351	0.0125	0.2782	0.2782
50 mph 240 deg with 0.75 in Radial Ice	154.88	0.374	0.0125	0.2800	0.2801
50 mph 240 deg with 0.75 in Radial Ice	168.05	0.443	0.0140	0.3122	0.3125
50 mph 240 deg with 0.75 in Radial Ice	175.85	0.486	0.0144	0.3140	0.3143
50 mph 240 deg with 0.75 in Radial Ice	184.19	0.532	0.0153	0.3090	0.3092
50 mph 240 deg with 0.75 in Radial Ice	192.06	0.576	0.0153	0.3195	0.3199
50 mph 300 deg with 0.75 in Radial Ice	79.75	0.096	0.0075	0.1540	0.1540
50 mph 300 deg with 0.75 in Radial Ice	100.25	0.152	0.0090	0.1929	0.1929
50 mph 300 deg with 0.75 in Radial Ice	126.75	0.246	0.0100	0.2251	0.2253
50 mph 300 deg with 0.75 in Radial Ice	150.00	0.347	0.0107	0.2745	0.2745

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50 mph 300 deg with 0.75 in Radial Ice	154.88	0.371	0.0106	0.2763	0.2765
50 mph 300 deg with 0.75 in Radial Ice	168.05	0.439	0.0111	0.3101	0.3101
50 mph 300 deg with 0.75 in Radial Ice	175.85	0.481	0.0107	0.3094	0.3097
50 mph 300 deg with 0.75 in Radial Ice	184.19	0.527	0.0102	0.3052	0.3055
50 mph 300 deg with 0.75 in Radial Ice	192.06	0.571	0.0101	0.3157	0.3159
50 mph 330 deg with 0.75 in Radial Ice	79.75	0.096	0.0042	0.1529	0.1529
50 mph 330 deg with 0.75 in Radial Ice	100.25	0.152	0.0051	0.1910	0.1910
50 mph 330 deg with 0.75 in Radial Ice	126.75	0.247	0.0055	0.2258	0.2260
50 mph 330 deg with 0.75 in Radial Ice	150.00	0.348	0.0059	0.2755	0.2756
50 mph 330 deg with 0.75 in Radial Ice	154.88	0.372	0.0057	0.2791	0.2793
50 mph 330 deg with 0.75 in Radial Ice	168.05	0.440	0.0058	0.3109	0.3110
50 mph 330 deg with 0.75 in Radial Ice	175.85	0.483	0.0055	0.3133	0.3136
50 mph 330 deg with 0.75 in Radial Ice	184.19	0.529	0.0049	0.3205	0.3208
50 mph 330 deg with 0.75 in Radial Ice	192.06	0.572	0.0048	0.3191	0.3194
Seismic Normal M1	79.75	0.014	0.0009	0.0222	0.0223
Seismic Normal M1	100.25	0.022	0.0011	0.0296	0.0296
Seismic Normal M1	126.75	0.037	0.0012	0.0369	0.0369
Seismic Normal M1	150.00	0.054	0.0013	0.0470	0.0470
Seismic Normal M1	154.88	0.058	0.0012	0.0475	0.0475
Seismic Normal M1	168.05	0.070	0.0013	0.0539	0.0539
Seismic Normal M1	175.85	0.077	0.0013	0.0542	0.0542
Seismic Normal M1	184.19	0.085	0.0012	0.0540	0.0540
Seismic Normal M1	192.06	0.093	0.0011	0.0548	0.0548
Seismic Normal M2	79.75	0.011	0.0006	0.0191	0.0191
Seismic Normal M2	100.25	0.019	0.0008	0.0258	0.0258
Seismic Normal M2	126.75	0.033	0.0009	0.0348	0.0348
Seismic Normal M2	150.00	0.049	0.0009	0.0467	0.0467
Seismic Normal M2	154.88	0.053	0.0009	0.0478	0.0478
Seismic Normal M2	168.05	0.065	0.0010	0.0566	0.0567
Seismic Normal M2	175.85	0.073	0.0010	0.0573	0.0573
Seismic Normal M2	184.19	0.082	0.0009	0.0576	0.0576
Seismic Normal M2	192.06	0.090	0.0009	0.0589	0.0589
Seismic 60 deg M1	79.75	0.013	0.0009	0.0232	0.0232
Seismic 60 deg M1	100.25	0.022	0.0011	0.0298	0.0298
Seismic 60 deg M1	126.75	0.037	0.0012	0.0369	0.0370
Seismic 60 deg M1	150.00	0.054	0.0013	0.0463	0.0463
Seismic 60 deg M1	154.88	0.058	0.0012	0.0471	0.0471
Seismic 60 deg M1	168.05	0.070	-0.0013	0.0539	0.0539
Seismic 60 deg M1	175.85	0.077	-0.0012	0.0538	0.0538
Seismic 60 deg M1	184.19	0.085	-0.0012	0.0537	0.0538
Seismic 60 deg M1	192.06	0.093	-0.0011	0.0549	0.0549
Seismic 60 deg M2	79.75	0.011	0.0006	0.0198	0.0198
Seismic 60 deg M2	100.25	0.019	0.0008	0.0261	0.0261
Seismic 60 deg M2	126.75	0.033	0.0009	0.0349	0.0349
Seismic 60 deg M2	150.00	0.049	-0.0009	0.0461	0.0461
Seismic 60 deg M2	154.88	0.053	-0.0009	0.0473	0.0473
Seismic 60 deg M2	168.05	0.065	-0.0010	0.0566	0.0566
Seismic 60 deg M2	175.85	0.073	-0.0009	0.0569	0.0570
Seismic 60 deg M2	184.19	0.082	-0.0009	0.0573	0.0573
Seismic 60 deg M2	192.06	0.090	-0.0009	0.0589	0.0589
Seismic 90 deg M1	79.75	0.013	-0.0010	0.0229	0.0229
Seismic 90 deg M1	100.25	0.022	-0.0013	0.0295	0.0295
Seismic 90 deg M1	126.75	0.037	-0.0014	0.0369	0.0370
Seismic 90 deg M1	150.00	0.054	-0.0015	0.0468	0.0468
Seismic 90 deg M1	154.88	0.058	-0.0014	0.0476	0.0476
Seismic 90 deg M1	168.05	0.070	-0.0015	0.0540	0.0540
Seismic 90 deg M1	175.85	0.077	-0.0014	0.0543	0.0543
Seismic 90 deg M1	184.19	0.085	-0.0014	0.0541	0.0541
Seismic 90 deg M1	192.06	0.093	-0.0013	0.0549	0.0549

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Seismic 90 deg M2	79.75	0.011	-0.0007	0.0196	0.0196
Seismic 90 deg M2	100.25	0.019	-0.0009	0.0258	0.0258
Seismic 90 deg M2	126.75	0.033	-0.0010	0.0349	0.0349
Seismic 90 deg M2	150.00	0.049	-0.0010	0.0465	0.0465
Seismic 90 deg M2	154.88	0.053	-0.0010	0.0479	0.0480
Seismic 90 deg M2	168.05	0.065	-0.0011	0.0566	0.0566
Seismic 90 deg M2	175.85	0.073	-0.0011	0.0576	0.0576
Seismic 90 deg M2	184.19	0.082	-0.0010	0.0578	0.0578
Seismic 90 deg M2	192.06	0.090	-0.0010	0.0589	0.0589
Seismic 120 deg M1	79.75	0.014	-0.0009	0.0222	0.0223
Seismic 120 deg M1	100.25	0.022	-0.0011	0.0296	0.0296
Seismic 120 deg M1	126.75	0.037	0.0012	0.0369	0.0369
Seismic 120 deg M1	150.00	0.054	-0.0013	0.0470	0.0470
Seismic 120 deg M1	154.88	0.058	-0.0012	0.0475	0.0475
Seismic 120 deg M1	168.05	0.070	-0.0013	0.0539	0.0539
Seismic 120 deg M1	175.85	0.077	-0.0012	0.0542	0.0542
Seismic 120 deg M1	184.19	0.085	-0.0012	0.0540	0.0540
Seismic 120 deg M1	192.06	0.093	-0.0011	0.0548	0.0548
Seismic 120 deg M2	79.75	0.011	-0.0006	0.0191	0.0191
Seismic 120 deg M2	100.25	0.019	-0.0008	0.0258	0.0258
Seismic 120 deg M2	126.75	0.033	-0.0009	0.0348	0.0348
Seismic 120 deg M2	150.00	0.049	-0.0009	0.0467	0.0467
Seismic 120 deg M2	154.88	0.053	-0.0009	0.0478	0.0478
Seismic 120 deg M2	168.05	0.065	-0.0010	0.0566	0.0567
Seismic 120 deg M2	175.85	0.073	-0.0009	0.0573	0.0573
Seismic 120 deg M2	184.19	0.082	-0.0009	0.0576	0.0576
Seismic 120 deg M2	192.06	0.090	-0.0009	0.0589	0.0589
Seismic 180 deg M1	79.75	0.013	0.0009	0.0232	0.0232
Seismic 180 deg M1	100.25	0.022	0.0011	0.0298	0.0298
Seismic 180 deg M1	126.75	0.037	0.0012	0.0369	0.0370
Seismic 180 deg M1	150.00	0.054	0.0013	0.0463	0.0463
Seismic 180 deg M1	154.88	0.058	0.0012	0.0471	0.0471
Seismic 180 deg M1	168.05	0.070	0.0013	0.0539	0.0539
Seismic 180 deg M1	175.85	0.077	0.0012	0.0538	0.0538
Seismic 180 deg M1	184.19	0.085	0.0012	0.0537	0.0538
Seismic 180 deg M1	192.06	0.093	0.0011	0.0549	0.0549
Seismic 180 deg M2	79.75	0.011	0.0006	0.0198	0.0198
Seismic 180 deg M2	100.25	0.019	0.0008	0.0261	0.0261
Seismic 180 deg M2	126.75	0.033	0.0009	0.0349	0.0349
Seismic 180 deg M2	150.00	0.049	0.0009	0.0461	0.0461
Seismic 180 deg M2	154.88	0.053	0.0009	0.0473	0.0473
Seismic 180 deg M2	168.05	0.065	0.0010	0.0566	0.0566
Seismic 180 deg M2	175.85	0.073	0.0010	0.0569	0.0569
Seismic 180 deg M2	184.19	0.082	0.0009	0.0573	0.0573
Seismic 180 deg M2	192.06	0.090	0.0009	0.0589	0.0589
Seismic 210 deg M1	79.75	0.013	0.0005	0.0229	0.0229
Seismic 210 deg M1	100.25	0.022	0.0006	0.0295	0.0295
Seismic 210 deg M1	126.75	0.037	0.0007	0.0369	0.0370
Seismic 210 deg M1	150.00	0.054	0.0007	0.0468	0.0468
Seismic 210 deg M1	154.88	0.058	0.0007	0.0476	0.0476
Seismic 210 deg M1	168.05	0.070	0.0008	0.0540	0.0540
Seismic 210 deg M1	175.85	0.077	0.0007	0.0543	0.0543
Seismic 210 deg M1	184.19	0.085	0.0007	0.0541	0.0541
Seismic 210 deg M1	192.06	0.093	0.0007	0.0549	0.0549
Seismic 210 deg M2	79.75	0.011	0.0004	0.0196	0.0196
Seismic 210 deg M2	100.25	0.019	0.0005	0.0258	0.0258
Seismic 210 deg M2	126.75	0.033	0.0005	0.0349	0.0349
Seismic 210 deg M2	150.00	0.049	0.0005	0.0465	0.0465
Seismic 210 deg M2	154.88	0.053	0.0005	0.0479	0.0480

Force/Stress Summary

Seismic 210 deg M2	168.05	0.065	0.0006	0.0566	0.0566
Seismic 210 deg M2	175.85	0.073	0.0006	0.0576	0.0576
Seismic 210 deg M2	184.19	0.082	0.0006	0.0578	0.0578
Seismic 210 deg M2	192.06	0.090	0.0005	0.0589	0.0589
Seismic 240 deg M1	79.75	0.014	0.0009	0.0222	0.0223
Seismic 240 deg M1	100.25	0.022	0.0011	0.0296	0.0296
Seismic 240 deg M1	126.75	0.037	0.0012	0.0369	0.0369
Seismic 240 deg M1	150.00	0.054	0.0013	0.0470	0.0470
Seismic 240 deg M1	154.88	0.058	0.0012	0.0475	0.0475
Seismic 240 deg M1	168.05	0.070	0.0013	0.0539	0.0539
Seismic 240 deg M1	175.85	0.077	0.0012	0.0542	0.0542
Seismic 240 deg M1	184.19	0.085	0.0012	0.0540	0.0540
Seismic 240 deg M1	192.06	0.093	0.0011	0.0548	0.0548
Seismic 240 deg M2	79.75	0.011	0.0006	0.0191	0.0191
Seismic 240 deg M2	100.25	0.019	0.0008	0.0258	0.0258
Seismic 240 deg M2	126.75	0.033	0.0009	0.0348	0.0348
Seismic 240 deg M2	150.00	0.049	0.0009	0.0467	0.0467
Seismic 240 deg M2	154.88	0.053	0.0009	0.0478	0.0478
Seismic 240 deg M2	168.05	0.065	0.0010	0.0566	0.0567
Seismic 240 deg M2	175.85	0.073	0.0009	0.0573	0.0573
Seismic 240 deg M2	184.19	0.082	0.0009	0.0576	0.0576
Seismic 240 deg M2	192.06	0.090	0.0009	0.0589	0.0589
Seismic 300 deg M1	79.75	0.013	0.0009	0.0232	0.0232
Seismic 300 deg M1	100.25	0.022	0.0011	0.0298	0.0298
Seismic 300 deg M1	126.75	0.037	0.0012	0.0369	0.0370
Seismic 300 deg M1	150.00	0.054	0.0013	0.0463	0.0463
Seismic 300 deg M1	154.88	0.058	0.0012	0.0471	0.0471
Seismic 300 deg M1	168.05	0.070	0.0013	0.0539	0.0539
Seismic 300 deg M1	175.85	0.077	0.0012	0.0538	0.0538
Seismic 300 deg M1	184.19	0.085	0.0012	0.0537	0.0538
Seismic 300 deg M1	192.06	0.093	0.0011	0.0549	0.0549
Seismic 300 deg M2	79.75	0.011	0.0006	0.0198	0.0198
Seismic 300 deg M2	100.25	0.019	0.0008	0.0261	0.0261
Seismic 300 deg M2	126.75	0.033	0.0009	0.0349	0.0349
Seismic 300 deg M2	150.00	0.049	0.0009	0.0461	0.0461
Seismic 300 deg M2	154.88	0.053	0.0009	0.0473	0.0473
Seismic 300 deg M2	168.05	0.065	0.0010	0.0566	0.0566
Seismic 300 deg M2	175.85	0.073	0.0009	0.0569	0.0570
Seismic 300 deg M2	184.19	0.082	0.0009	0.0573	0.0573
Seismic 300 deg M2	192.06	0.090	0.0009	0.0589	0.0589
Seismic 330 deg M1	79.75	0.013	0.0005	0.0229	0.0229
Seismic 330 deg M1	100.25	0.022	0.0006	0.0295	0.0295
Seismic 330 deg M1	126.75	0.037	0.0007	0.0369	0.0370
Seismic 330 deg M1	150.00	0.054	0.0007	0.0468	0.0468
Seismic 330 deg M1	154.88	0.058	0.0007	0.0476	0.0476
Seismic 330 deg M1	168.05	0.070	0.0008	0.0540	0.0540
Seismic 330 deg M1	175.85	0.077	0.0007	0.0543	0.0543
Seismic 330 deg M1	184.19	0.085	0.0007	0.0541	0.0541
Seismic 330 deg M1	192.06	0.093	0.0007	0.0549	0.0549
Seismic 330 deg M2	79.75	0.011	0.0004	0.0196	0.0196
Seismic 330 deg M2	100.25	0.019	0.0005	0.0258	0.0258
Seismic 330 deg M2	126.75	0.033	0.0005	0.0349	0.0349
Seismic 330 deg M2	150.00	0.049	0.0005	0.0465	0.0465
Seismic 330 deg M2	154.88	0.053	0.0005	0.0479	0.0480
Seismic 330 deg M2	168.05	0.065	0.0006	0.0566	0.0566
Seismic 330 deg M2	175.85	0.073	0.0006	0.0576	0.0576
Seismic 330 deg M2	184.19	0.082	0.0006	0.0578	0.0578
Seismic 330 deg M2	192.06	0.090	0.0005	0.0589	0.0589
Seismic (Reduced DL) Normal M1	79.75	0.013	0.0009	0.0220	0.0220

Force/Stress Summary

Seismic (Reduced DL) Normal M1	100.25	0.022	0.0011	0.0295	0.0295
Seismic (Reduced DL) Normal M1	126.75	0.037	0.0012	0.0367	0.0368
Seismic (Reduced DL) Normal M1	150.00	0.054	0.0013	0.0468	0.0468
Seismic (Reduced DL) Normal M1	154.88	0.058	0.0012	0.0473	0.0473
Seismic (Reduced DL) Normal M1	168.05	0.070	0.0013	0.0536	0.0537
Seismic (Reduced DL) Normal M1	175.85	0.077	0.0012	0.0539	0.0540
Seismic (Reduced DL) Normal M1	184.19	0.085	0.0012	0.0538	0.0538
Seismic (Reduced DL) Normal M1	192.06	0.092	0.0011	0.0546	0.0547
Seismic (Reduced DL) Normal M2	79.75	0.011	0.0006	0.0189	0.0189
Seismic (Reduced DL) Normal M2	100.25	0.019	0.0008	0.0258	0.0258
Seismic (Reduced DL) Normal M2	126.75	0.033	0.0009	0.0347	0.0347
Seismic (Reduced DL) Normal M2	150.00	0.049	0.0009	0.0465	0.0465
Seismic (Reduced DL) Normal M2	154.88	0.053	0.0009	0.0476	0.0476
Seismic (Reduced DL) Normal M2	168.05	0.065	0.0010	0.0564	0.0564
Seismic (Reduced DL) Normal M2	175.85	0.073	0.0010	0.0571	0.0571
Seismic (Reduced DL) Normal M2	184.19	0.081	0.0009	0.0574	0.0574
Seismic (Reduced DL) Normal M2	192.06	0.089	0.0009	0.0587	0.0587
Seismic (Reduced DL) 60 deg M1	79.75	0.013	0.0009	0.0229	0.0229
Seismic (Reduced DL) 60 deg M1	100.25	0.022	0.0011	0.0297	0.0297
Seismic (Reduced DL) 60 deg M1	126.75	0.037	0.0012	0.0368	0.0368
Seismic (Reduced DL) 60 deg M1	150.00	0.054	0.0013	0.0463	0.0463
Seismic (Reduced DL) 60 deg M1	154.88	0.058	0.0012	0.0470	0.0470
Seismic (Reduced DL) 60 deg M1	168.05	0.070	-0.0013	0.0536	0.0536
Seismic (Reduced DL) 60 deg M1	175.85	0.077	-0.0012	0.0537	0.0537
Seismic (Reduced DL) 60 deg M1	184.19	0.085	-0.0012	0.0536	0.0536
Seismic (Reduced DL) 60 deg M1	192.06	0.092	-0.0011	0.0547	0.0547
Seismic (Reduced DL) 60 deg M2	79.75	0.011	-0.0006	0.0194	0.0194
Seismic (Reduced DL) 60 deg M2	100.25	0.019	0.0008	0.0260	0.0260
Seismic (Reduced DL) 60 deg M2	126.75	0.033	0.0009	0.0348	0.0348
Seismic (Reduced DL) 60 deg M2	150.00	0.049	-0.0009	0.0460	0.0460
Seismic (Reduced DL) 60 deg M2	154.88	0.053	-0.0009	0.0472	0.0473
Seismic (Reduced DL) 60 deg M2	168.05	0.065	-0.0010	0.0562	0.0562
Seismic (Reduced DL) 60 deg M2	175.85	0.073	-0.0009	0.0568	0.0568
Seismic (Reduced DL) 60 deg M2	184.19	0.081	-0.0009	0.0572	0.0572
Seismic (Reduced DL) 60 deg M2	192.06	0.089	-0.0009	0.0587	0.0587
Seismic (Reduced DL) 90 deg M1	79.75	0.013	-0.0010	0.0226	0.0226
Seismic (Reduced DL) 90 deg M1	100.25	0.022	-0.0012	0.0294	0.0294
Seismic (Reduced DL) 90 deg M1	126.75	0.037	-0.0014	0.0368	0.0369
Seismic (Reduced DL) 90 deg M1	150.00	0.054	-0.0015	0.0466	0.0466
Seismic (Reduced DL) 90 deg M1	154.88	0.058	-0.0014	0.0475	0.0475
Seismic (Reduced DL) 90 deg M1	168.05	0.070	-0.0015	0.0536	0.0536
Seismic (Reduced DL) 90 deg M1	175.85	0.077	-0.0014	0.0541	0.0542
Seismic (Reduced DL) 90 deg M1	184.19	0.085	-0.0014	0.0539	0.0539
Seismic (Reduced DL) 90 deg M1	192.06	0.092	-0.0013	0.0547	0.0547
Seismic (Reduced DL) 90 deg M2	79.75	0.011	-0.0007	0.0193	0.0193
Seismic (Reduced DL) 90 deg M2	100.25	0.019	-0.0009	0.0257	0.0257
Seismic (Reduced DL) 90 deg M2	126.75	0.033	-0.0010	0.0348	0.0348
Seismic (Reduced DL) 90 deg M2	150.00	0.049	-0.0010	0.0463	0.0463
Seismic (Reduced DL) 90 deg M2	154.88	0.053	-0.0010	0.0478	0.0478
Seismic (Reduced DL) 90 deg M2	168.05	0.065	-0.0011	0.0563	0.0563
Seismic (Reduced DL) 90 deg M2	175.85	0.073	-0.0011	0.0574	0.0574
Seismic (Reduced DL) 90 deg M2	184.19	0.081	-0.0010	0.0576	0.0576
Seismic (Reduced DL) 90 deg M2	192.06	0.089	-0.0010	0.0587	0.0587
Seismic (Reduced DL) 120 deg M1	79.75	0.013	-0.0009	0.0220	0.0220
Seismic (Reduced DL) 120 deg M1	100.25	0.022	-0.0011	0.0295	0.0295
Seismic (Reduced DL) 120 deg M1	126.75	0.037	0.0012	0.0367	0.0368
Seismic (Reduced DL) 120 deg M1	150.00	0.054	-0.0013	0.0468	0.0468
Seismic (Reduced DL) 120 deg M1	154.88	0.058	-0.0012	0.0473	0.0473
Seismic (Reduced DL) 120 deg M1	168.05	0.070	-0.0013	0.0536	0.0537

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Seismic (Reduced DL) 120 deg M1	175.85	0.077	-0.0012	0.0539	0.0540
Seismic (Reduced DL) 120 deg M1	184.19	0.085	-0.0012	0.0538	0.0538
Seismic (Reduced DL) 120 deg M1	192.06	0.092	-0.0011	0.0546	0.0547
Seismic (Reduced DL) 120 deg M2	79.75	0.011	-0.0006	0.0189	0.0189
Seismic (Reduced DL) 120 deg M2	100.25	0.019	-0.0008	0.0258	0.0258
Seismic (Reduced DL) 120 deg M2	126.75	0.033	-0.0009	0.0347	0.0347
Seismic (Reduced DL) 120 deg M2	150.00	0.049	-0.0009	0.0465	0.0465
Seismic (Reduced DL) 120 deg M2	154.88	0.053	-0.0009	0.0476	0.0476
Seismic (Reduced DL) 120 deg M2	168.05	0.065	-0.0010	0.0564	0.0564
Seismic (Reduced DL) 120 deg M2	175.85	0.073	-0.0009	0.0571	0.0571
Seismic (Reduced DL) 120 deg M2	184.19	0.081	-0.0009	0.0574	0.0574
Seismic (Reduced DL) 120 deg M2	192.06	0.089	-0.0009	0.0587	0.0587
Seismic (Reduced DL) 180 deg M1	79.75	0.013	0.0008	0.0229	0.0229
Seismic (Reduced DL) 180 deg M1	100.25	0.022	0.0011	0.0297	0.0297
Seismic (Reduced DL) 180 deg M1	126.75	0.037	0.0012	0.0368	0.0368
Seismic (Reduced DL) 180 deg M1	150.00	0.054	0.0013	0.0463	0.0463
Seismic (Reduced DL) 180 deg M1	154.88	0.058	0.0012	0.0470	0.0470
Seismic (Reduced DL) 180 deg M1	168.05	0.070	0.0013	0.0536	0.0536
Seismic (Reduced DL) 180 deg M1	175.85	0.077	0.0012	0.0537	0.0537
Seismic (Reduced DL) 180 deg M1	184.19	0.085	0.0012	0.0536	0.0536
Seismic (Reduced DL) 180 deg M1	192.06	0.092	0.0011	0.0547	0.0547
Seismic (Reduced DL) 180 deg M2	79.75	0.011	0.0006	0.0194	0.0194
Seismic (Reduced DL) 180 deg M2	100.25	0.019	0.0008	0.0260	0.0260
Seismic (Reduced DL) 180 deg M2	126.75	0.033	0.0009	0.0348	0.0348
Seismic (Reduced DL) 180 deg M2	150.00	0.049	0.0009	0.0460	0.0460
Seismic (Reduced DL) 180 deg M2	154.88	0.053	0.0009	0.0472	0.0473
Seismic (Reduced DL) 180 deg M2	168.05	0.065	0.0010	0.0562	0.0562
Seismic (Reduced DL) 180 deg M2	175.85	0.073	0.0010	0.0568	0.0568
Seismic (Reduced DL) 180 deg M2	184.19	0.081	0.0009	0.0572	0.0572
Seismic (Reduced DL) 180 deg M2	192.06	0.089	0.0009	0.0587	0.0587
Seismic (Reduced DL) 210 deg M1	79.75	0.013	0.0005	0.0226	0.0226
Seismic (Reduced DL) 210 deg M1	100.25	0.022	0.0006	0.0294	0.0294
Seismic (Reduced DL) 210 deg M1	126.75	0.037	0.0007	0.0368	0.0369
Seismic (Reduced DL) 210 deg M1	150.00	0.054	0.0007	0.0466	0.0466
Seismic (Reduced DL) 210 deg M1	154.88	0.058	0.0007	0.0475	0.0475
Seismic (Reduced DL) 210 deg M1	168.05	0.070	0.0008	0.0536	0.0536
Seismic (Reduced DL) 210 deg M1	175.85	0.077	0.0007	0.0541	0.0542
Seismic (Reduced DL) 210 deg M1	184.19	0.085	0.0007	0.0539	0.0539
Seismic (Reduced DL) 210 deg M1	192.06	0.092	0.0007	0.0547	0.0547
Seismic (Reduced DL) 210 deg M2	79.75	0.011	0.0004	0.0193	0.0193
Seismic (Reduced DL) 210 deg M2	100.25	0.019	0.0005	0.0257	0.0257
Seismic (Reduced DL) 210 deg M2	126.75	0.033	0.0005	0.0348	0.0348
Seismic (Reduced DL) 210 deg M2	150.00	0.049	0.0005	0.0463	0.0463
Seismic (Reduced DL) 210 deg M2	154.88	0.053	0.0005	0.0478	0.0478
Seismic (Reduced DL) 210 deg M2	168.05	0.065	0.0006	0.0563	0.0563
Seismic (Reduced DL) 210 deg M2	175.85	0.073	0.0006	0.0574	0.0574
Seismic (Reduced DL) 210 deg M2	184.19	0.081	0.0006	0.0576	0.0576
Seismic (Reduced DL) 210 deg M2	192.06	0.089	0.0005	0.0587	0.0587
Seismic (Reduced DL) 240 deg M1	79.75	0.013	0.0009	0.0220	0.0220
Seismic (Reduced DL) 240 deg M1	100.25	0.022	0.0011	0.0295	0.0295
Seismic (Reduced DL) 240 deg M1	126.75	0.037	0.0012	0.0367	0.0368
Seismic (Reduced DL) 240 deg M1	150.00	0.054	0.0013	0.0468	0.0468
Seismic (Reduced DL) 240 deg M1	154.88	0.058	0.0012	0.0473	0.0473
Seismic (Reduced DL) 240 deg M1	168.05	0.070	0.0013	0.0536	0.0537
Seismic (Reduced DL) 240 deg M1	175.85	0.077	0.0012	0.0539	0.0540
Seismic (Reduced DL) 240 deg M1	184.19	0.085	0.0012	0.0538	0.0538
Seismic (Reduced DL) 240 deg M1	192.06	0.092	0.0011	0.0546	0.0547
Seismic (Reduced DL) 240 deg M2	79.75	0.011	0.0006	0.0189	0.0189
Seismic (Reduced DL) 240 deg M2	100.25	0.019	0.0008	0.0258	0.0258

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Seismic (Reduced DL) 240 deg M2	126.75	0.033	0.0009	0.0347	0.0347
Seismic (Reduced DL) 240 deg M2	150.00	0.049	0.0009	0.0465	0.0465
Seismic (Reduced DL) 240 deg M2	154.88	0.053	0.0009	0.0476	0.0476
Seismic (Reduced DL) 240 deg M2	168.05	0.065	0.0010	0.0564	0.0564
Seismic (Reduced DL) 240 deg M2	175.85	0.073	0.0009	0.0571	0.0571
Seismic (Reduced DL) 240 deg M2	184.19	0.081	0.0009	0.0574	0.0574
Seismic (Reduced DL) 240 deg M2	192.06	0.089	0.0009	0.0587	0.0587
Seismic (Reduced DL) 300 deg M1	79.75	0.013	0.0009	0.0229	0.0229
Seismic (Reduced DL) 300 deg M1	100.25	0.022	0.0011	0.0297	0.0297
Seismic (Reduced DL) 300 deg M1	126.75	0.037	0.0012	0.0368	0.0368
Seismic (Reduced DL) 300 deg M1	150.00	0.054	0.0013	0.0463	0.0463
Seismic (Reduced DL) 300 deg M1	154.88	0.058	0.0012	0.0470	0.0470
Seismic (Reduced DL) 300 deg M1	168.05	0.070	0.0013	0.0536	0.0536
Seismic (Reduced DL) 300 deg M1	175.85	0.077	0.0012	0.0537	0.0537
Seismic (Reduced DL) 300 deg M1	184.19	0.085	0.0012	0.0536	0.0536
Seismic (Reduced DL) 300 deg M1	192.06	0.092	0.0011	0.0547	0.0547
Seismic (Reduced DL) 300 deg M2	79.75	0.011	0.0006	0.0194	0.0194
Seismic (Reduced DL) 300 deg M2	100.25	0.019	0.0008	0.0260	0.0260
Seismic (Reduced DL) 300 deg M2	126.75	0.033	0.0009	0.0348	0.0348
Seismic (Reduced DL) 300 deg M2	150.00	0.049	0.0009	0.0460	0.0460
Seismic (Reduced DL) 300 deg M2	154.88	0.053	0.0009	0.0472	0.0473
Seismic (Reduced DL) 300 deg M2	168.05	0.065	0.0010	0.0562	0.0562
Seismic (Reduced DL) 300 deg M2	175.85	0.073	0.0009	0.0568	0.0568
Seismic (Reduced DL) 300 deg M2	184.19	0.081	0.0009	0.0572	0.0572
Seismic (Reduced DL) 300 deg M2	192.06	0.089	0.0009	0.0587	0.0587
Seismic (Reduced DL) 330 deg M1	79.75	0.013	0.0005	0.0226	0.0226
Seismic (Reduced DL) 330 deg M1	100.25	0.022	0.0006	0.0294	0.0294
Seismic (Reduced DL) 330 deg M1	126.75	0.037	0.0007	0.0368	0.0369
Seismic (Reduced DL) 330 deg M1	150.00	0.054	0.0007	0.0466	0.0466
Seismic (Reduced DL) 330 deg M1	154.88	0.058	0.0007	0.0475	0.0475
Seismic (Reduced DL) 330 deg M1	168.05	0.070	0.0008	0.0536	0.0536
Seismic (Reduced DL) 330 deg M1	175.85	0.077	0.0007	0.0541	0.0542
Seismic (Reduced DL) 330 deg M1	184.19	0.085	0.0007	0.0539	0.0539
Seismic (Reduced DL) 330 deg M1	192.06	0.092	0.0007	0.0547	0.0547
Seismic (Reduced DL) 330 deg M2	79.75	0.011	0.0004	0.0193	0.0193
Seismic (Reduced DL) 330 deg M2	100.25	0.019	0.0005	0.0257	0.0257
Seismic (Reduced DL) 330 deg M2	126.75	0.033	0.0005	0.0348	0.0348
Seismic (Reduced DL) 330 deg M2	150.00	0.049	0.0005	0.0463	0.0463
Seismic (Reduced DL) 330 deg M2	154.88	0.053	0.0005	0.0478	0.0478
Seismic (Reduced DL) 330 deg M2	168.05	0.065	0.0006	0.0563	0.0563
Seismic (Reduced DL) 330 deg M2	175.85	0.073	0.0006	0.0574	0.0574
Seismic (Reduced DL) 330 deg M2	184.19	0.081	0.0006	0.0576	0.0576
Seismic (Reduced DL) 330 deg M2	192.06	0.089	0.0005	0.0587	0.0587
Serviceability - 60 mph Wind Normal	79.75	0.073	0.0038	0.1153	0.1153
Serviceability - 60 mph Wind Normal	100.25	0.116	0.0049	0.1486	0.1486
Serviceability - 60 mph Wind Normal	126.75	0.190	0.0057	0.1771	0.1772
Serviceability - 60 mph Wind Normal	150.00	0.270	0.0063	0.2190	0.2190
Serviceability - 60 mph Wind Normal	154.88	0.289	0.0063	0.2207	0.2207
Serviceability - 60 mph Wind Normal	168.05	0.343	0.0067	0.2473	0.2474
Serviceability - 60 mph Wind Normal	175.85	0.377	0.0065	0.2497	0.2498
Serviceability - 60 mph Wind Normal	184.19	0.414	0.0062	0.2652	0.2653
Serviceability - 60 mph Wind Normal	192.06	0.449	0.0061	0.2556	0.2557
Serviceability - 60 mph Wind 60 deg	79.75	0.070	-0.0057	0.1127	0.1127
Serviceability - 60 mph Wind 60 deg	100.25	0.112	-0.0068	0.1446	0.1446
Serviceability - 60 mph Wind 60 deg	126.75	0.184	-0.0076	0.1723	0.1725
Serviceability - 60 mph Wind 60 deg	150.00	0.262	0.0084	0.2129	0.2129
Serviceability - 60 mph Wind 60 deg	154.88	0.280	0.0084	0.2144	0.2146
Serviceability - 60 mph Wind 60 deg	168.05	0.333	0.0094	0.2411	0.2411
Serviceability - 60 mph Wind 60 deg	175.85	0.366	0.0096	0.2418	0.2420

Force/Stress Summary

Serviceability - 60 mph Wind 60 deg	184.19	0.402	0.0101	0.2365	0.2367
Serviceability - 60 mph Wind 60 deg	192.06	0.436	0.0101	0.2469	0.2471
Serviceability - 60 mph Wind 90 deg	79.75	0.071	-0.0069	0.1120	0.1121
Serviceability - 60 mph Wind 90 deg	100.25	0.113	-0.0083	0.1439	0.1440
Serviceability - 60 mph Wind 90 deg	126.75	0.185	-0.0094	0.1736	0.1739
Serviceability - 60 mph Wind 90 deg	150.00	0.264	-0.0103	0.2139	0.2139
Serviceability - 60 mph Wind 90 deg	154.88	0.282	-0.0102	0.2171	0.2173
Serviceability - 60 mph Wind 90 deg	168.05	0.336	-0.0111	0.2425	0.2426
Serviceability - 60 mph Wind 90 deg	175.85	0.369	-0.0111	0.2446	0.2448
Serviceability - 60 mph Wind 90 deg	184.19	0.405	-0.0113	0.2310	0.2313
Serviceability - 60 mph Wind 90 deg	192.06	0.439	-0.0112	0.2490	0.2492
Serviceability - 60 mph Wind 120 deg	79.75	0.073	-0.0063	0.1148	0.1148
Serviceability - 60 mph Wind 120 deg	100.25	0.116	-0.0076	0.1490	0.1490
Serviceability - 60 mph Wind 120 deg	126.75	0.190	-0.0088	0.1774	0.1776
Serviceability - 60 mph Wind 120 deg	150.00	0.270	-0.0098	0.2194	0.2194
Serviceability - 60 mph Wind 120 deg	154.88	0.289	-0.0098	0.2210	0.2211
Serviceability - 60 mph Wind 120 deg	168.05	0.344	-0.0110	0.2476	0.2479
Serviceability - 60 mph Wind 120 deg	175.85	0.378	-0.0114	0.2493	0.2495
Serviceability - 60 mph Wind 120 deg	184.19	0.415	-0.0122	0.2437	0.2438
Serviceability - 60 mph Wind 120 deg	192.06	0.450	-0.0122	0.2542	0.2545
Serviceability - 60 mph Wind 180 deg	79.75	0.070	0.0037	0.1132	0.1132
Serviceability - 60 mph Wind 180 deg	100.25	0.112	0.0047	0.1443	0.1443
Serviceability - 60 mph Wind 180 deg	126.75	0.184	0.0055	0.1721	0.1722
Serviceability - 60 mph Wind 180 deg	150.00	0.262	0.0061	0.2125	0.2125
Serviceability - 60 mph Wind 180 deg	154.88	0.280	0.0060	0.2142	0.2142
Serviceability - 60 mph Wind 180 deg	168.05	0.333	0.0065	0.2409	0.2409
Serviceability - 60 mph Wind 180 deg	175.85	0.366	0.0063	0.2423	0.2424
Serviceability - 60 mph Wind 180 deg	184.19	0.402	0.0059	0.2580	0.2581
Serviceability - 60 mph Wind 180 deg	192.06	0.436	0.0058	0.2484	0.2484
Serviceability - 60 mph Wind 210 deg	79.75	0.071	0.0036	0.1128	0.1128
Serviceability - 60 mph Wind 210 deg	100.25	0.113	0.0044	0.1439	0.1439
Serviceability - 60 mph Wind 210 deg	126.75	0.185	0.0051	0.1738	0.1739
Serviceability - 60 mph Wind 210 deg	150.00	0.264	0.0057	0.2140	0.2140
Serviceability - 60 mph Wind 210 deg	154.88	0.282	0.0058	0.2174	0.2175
Serviceability - 60 mph Wind 210 deg	168.05	0.336	0.0066	0.2429	0.2430
Serviceability - 60 mph Wind 210 deg	175.85	0.369	0.0069	0.2457	0.2458
Serviceability - 60 mph Wind 210 deg	184.19	0.405	0.0076	0.2543	0.2544
Serviceability - 60 mph Wind 210 deg	192.06	0.440	0.0075	0.2510	0.2510
Serviceability - 60 mph Wind 240 deg	79.75	0.073	0.0063	0.1148	0.1148
Serviceability - 60 mph Wind 240 deg	100.25	0.116	0.0076	0.1490	0.1490
Serviceability - 60 mph Wind 240 deg	126.75	0.190	0.0088	0.1774	0.1776
Serviceability - 60 mph Wind 240 deg	150.00	0.270	0.0098	0.2194	0.2194
Serviceability - 60 mph Wind 240 deg	154.88	0.289	0.0098	0.2210	0.2211
Serviceability - 60 mph Wind 240 deg	168.05	0.344	0.0110	0.2476	0.2479
Serviceability - 60 mph Wind 240 deg	175.85	0.378	0.0114	0.2493	0.2495
Serviceability - 60 mph Wind 240 deg	184.19	0.415	0.0122	0.2437	0.2438
Serviceability - 60 mph Wind 240 deg	192.06	0.450	0.0122	0.2542	0.2545
Serviceability - 60 mph Wind 300 deg	79.75	0.070	0.0057	0.1127	0.1127
Serviceability - 60 mph Wind 300 deg	100.25	0.112	0.0068	0.1446	0.1446
Serviceability - 60 mph Wind 300 deg	126.75	0.184	0.0076	0.1723	0.1725
Serviceability - 60 mph Wind 300 deg	150.00	0.262	0.0081	0.2129	0.2129
Serviceability - 60 mph Wind 300 deg	154.88	0.280	0.0080	0.2144	0.2146
Serviceability - 60 mph Wind 300 deg	168.05	0.333	0.0083	0.2411	0.2411
Serviceability - 60 mph Wind 300 deg	175.85	0.366	0.0080	0.2418	0.2420
Serviceability - 60 mph Wind 300 deg	184.19	0.402	0.0075	0.2365	0.2367
Serviceability - 60 mph Wind 300 deg	192.06	0.436	0.0075	0.2469	0.2471
Serviceability - 60 mph Wind 330 deg	79.75	0.071	0.0033	0.1129	0.1130
Serviceability - 60 mph Wind 330 deg	100.25	0.113	0.0039	0.1441	0.1441
Serviceability - 60 mph Wind 330 deg	126.75	0.186	0.0042	0.1739	0.1741

Force/Stress Summary

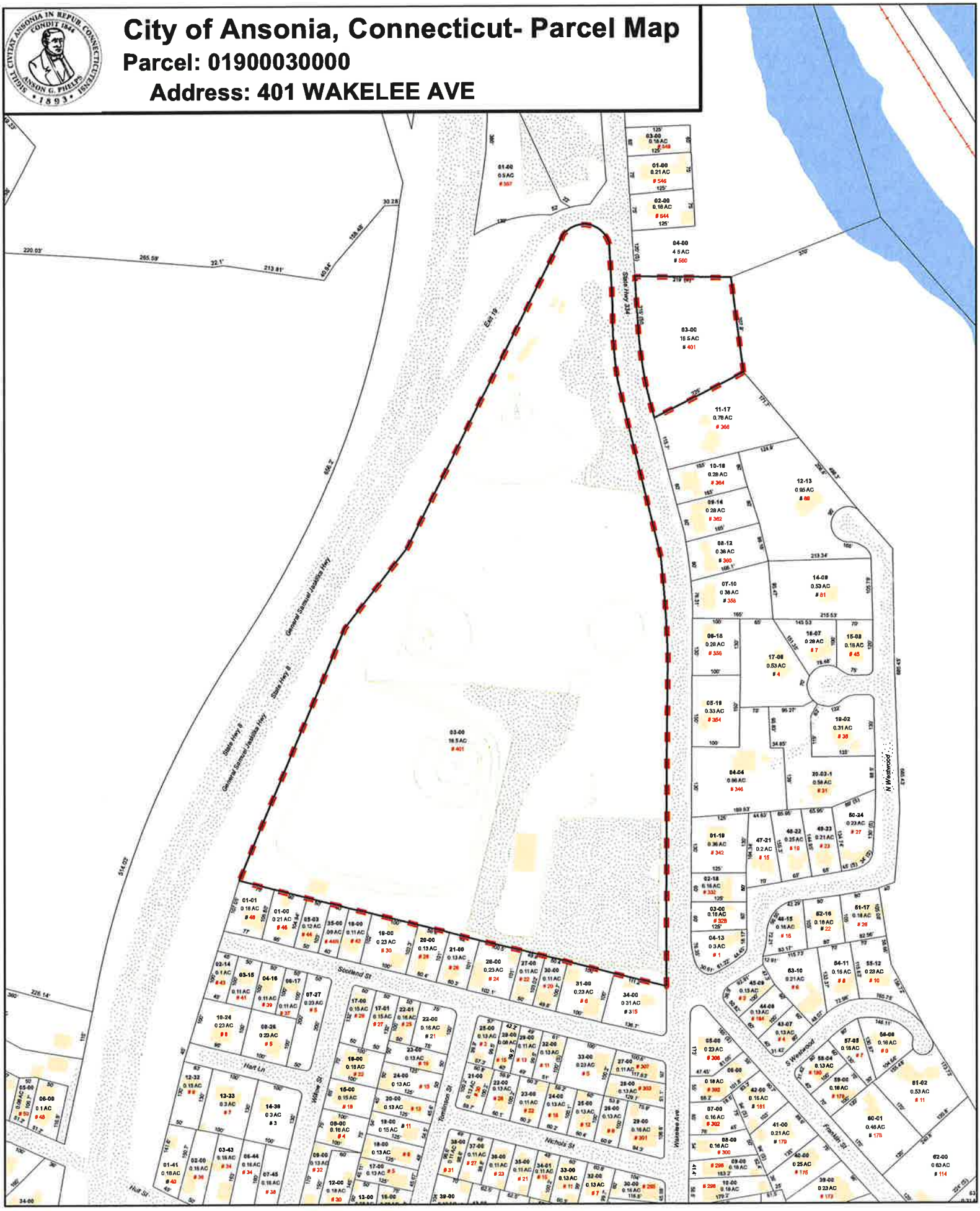
Serviceability - 60 mph Wind 330 deg	150.00	0.264	0.0044	0.2142	0.2143
Serviceability - 60 mph Wind 330 deg	154.88	0.283	0.0043	0.2175	0.2177
Serviceability - 60 mph Wind 330 deg	168.05	0.336	0.0043	0.2431	0.2431
Serviceability - 60 mph Wind 330 deg	175.85	0.370	0.0040	0.2459	0.2462
Serviceability - 60 mph Wind 330 deg	184.19	0.406	0.0035	0.2546	0.2548
Serviceability - 60 mph Wind 330 deg	192.06	0.440	0.0034	0.2513	0.2515

ATTACHMENT 4

City of Ansonia, Connecticut- Parcel Map

Parcel: 01900030000

Address: 401 WAKELEE AVE



Approximate Scale: 1 inch = 250 feet

0 140 280 420 560 Feet

Map Produced: August 2016

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

City of Ansonia, CT

Property Listing Report

Map Block Lot	01900030000	Account	65440

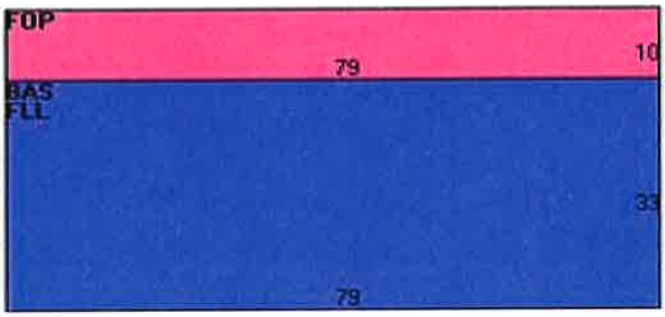
Property Information

Property Location	401 WAKELEE AVE
Owner	CITY OF ANSONIA
Co-Owner	HILLSIDE HOME & NOLAN FIE
Mailing Address	401 WAKELEE AVE ANSONIA CT 06401
Land Use	901 MUNICIPAL MDL-94
Land Class	E
Zoning Code	A
Census Tract	
Sub Lot	

Neighborhood	
Acreage	16.5
Utilities	All Public
Lot Setting/Desc	Bus. District Level
Survey Map	
Additional Info	

Photo

Sketch



Primary Construction Details

Year Built	2001
Stories	1
Building Style	Health Club
Building Use	Comm/Ind
Building Condition	Average +20
Floors	Ceram Clay Til
Total Rooms	

Bedrooms	
Full Bathrooms	0
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	Gable
Roof Cover	Asphalt Shingl

Exterior Walls	Brick/Masonry
Interior Walls	Minim/Masonry
Heating Type	Forced Air-Duc
Heating Fuel	Gas
AC Type	None
Gross Bldg Area	6004
Total Living Area	4693

Report Created On 3/1/2017

City of Ansonia, CT

Property Listing Report | **Map Block Lot** 01900030000 | **Account** 65440

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	536300	375400
Extras	58700	41100
Outbuildings	162300	113800
Land	967500	677300
Total	1724800	1207600

Outbuilding and Extra Items

Type	Description
Lights (12)	1.00 UNITS
Shed Good	480.00 S.F.
Shed Good	576.00 S.F.
Patio	192.00 S.F.
Shed	200.00 S.F.
Shed	200.00 S.F.
Shed	384.00 S.F.
Paving, Asph	75000.00 S.F.
Fence 3 Ft	770.00 L.F.
Fence 7 Ft.	1310.00 L.F.

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Porch, Open	790	0
First Floor	2607	2607
Finished Lower Level	2607	2086
Total Area	6004	4693

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
CITY OF ANSONIA	5/ 525	1/1/1900	0

Report Created On 3/1/2017