

KENNETH C. BALDWIN

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Hartford, CT 06103-3597
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Direct (860) 275-8345

Also admitted in Massachusetts
and New York

December 4, 2020

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modifications
1192 Wolcott Road and Andrews Road, Wolcott, Connecticut**

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains wireless telecommunications facilities at existing tower sites at 1192 Wolcott Road and off Andrews Road in Wolcott, Connecticut. The Council approved Cellco’s shared use of the 1192 Wolcott Road tower on March 28, 1996. The Council approved Cellco’s shared use of the Andrews Road tower on December 24, 2019 (PE1133-VER-20191104). The Andrews Road facility has not yet been activated.

Cellco recently learned that the backhaul service provider will not be able to install the fiber service to the Andrews Road facility until late 2021. To avoid any further delay in the activation of the Andrews Road facility, Cellco intends to provide temporary backhaul service through the use of a “microwave hop” from the Andrews Road facility to the tower at 1192 Wolcott Road. To do so, Cellco will install a microwave dish antenna on its existing antenna platforms at the 135-foot level on the Wolcott Road tower and a second microwave dish antenna at the 67-foot level on the Andrews Road tower. Included in Attachment 1 are plans and specifications for the Model VHLPX2-18 (Wolcott Road tower) and VHPLX3-18 (Andrews Road tower) microwave dish antennas that Cellco intends to install at each tower location. Once permanent backhaul service is established to the Andrews Road tower site, Cellco will notify the Council and remove the dish antennas from both towers.

Melanie A. Bachman
December 4, 2020
Page 2

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 Thomas G. Dunn, Mayor of the Town of Wolcott; David Kalinowski, Wolcott's Zoning Inspector; SNET, the owner of the Andrews Road property; Everest Infrastructure Partners, LLC, the owner of the Andrews Road owner; and American Tower Corporation, the owner of the Wolcott Road tower and property.

The planned modifications to the facilities 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 either of the existing towers. Cellco will install a microwave dish antenna on each of the existing antenna towers below the top of each 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 microwave dish antennas will not increase radio frequency (RF) emissions at either facility to levels that are at or above the Federal Communications Commission (FCC) safety standard. Radio Frequency Emissions Analysis Reports for both the Wolcott Road and Andrews Road facilities are 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 Wolcott Road and Andrews Road towers and foundations can support Cellco's proposed modifications. Structural Analysis Reports for the Wolcott Road and Andrews Road towers are included in Attachment 3. An Antenna Mount Analysis Report for the Wolcott Road tower and a Mount Assessment Letter for the Andrews Road tower are also provided and are included in Attachment 4.

A Certificate of Mailing verifying that this filing was sent to municipal officials and the owners of the Properties is included in Attachment 5.

Melanie A. Bachman
December 4, 2020
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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,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Enclosures

Copy to:

Thomas G. Dunn, Wolcott Mayor
David Kalinowski, Wolcott Zoning Inspector
SNET
Everest Infrastructure Partners, LLC
American Tower Corporation
Aleksy Tyurin

ATTACHMENT 1



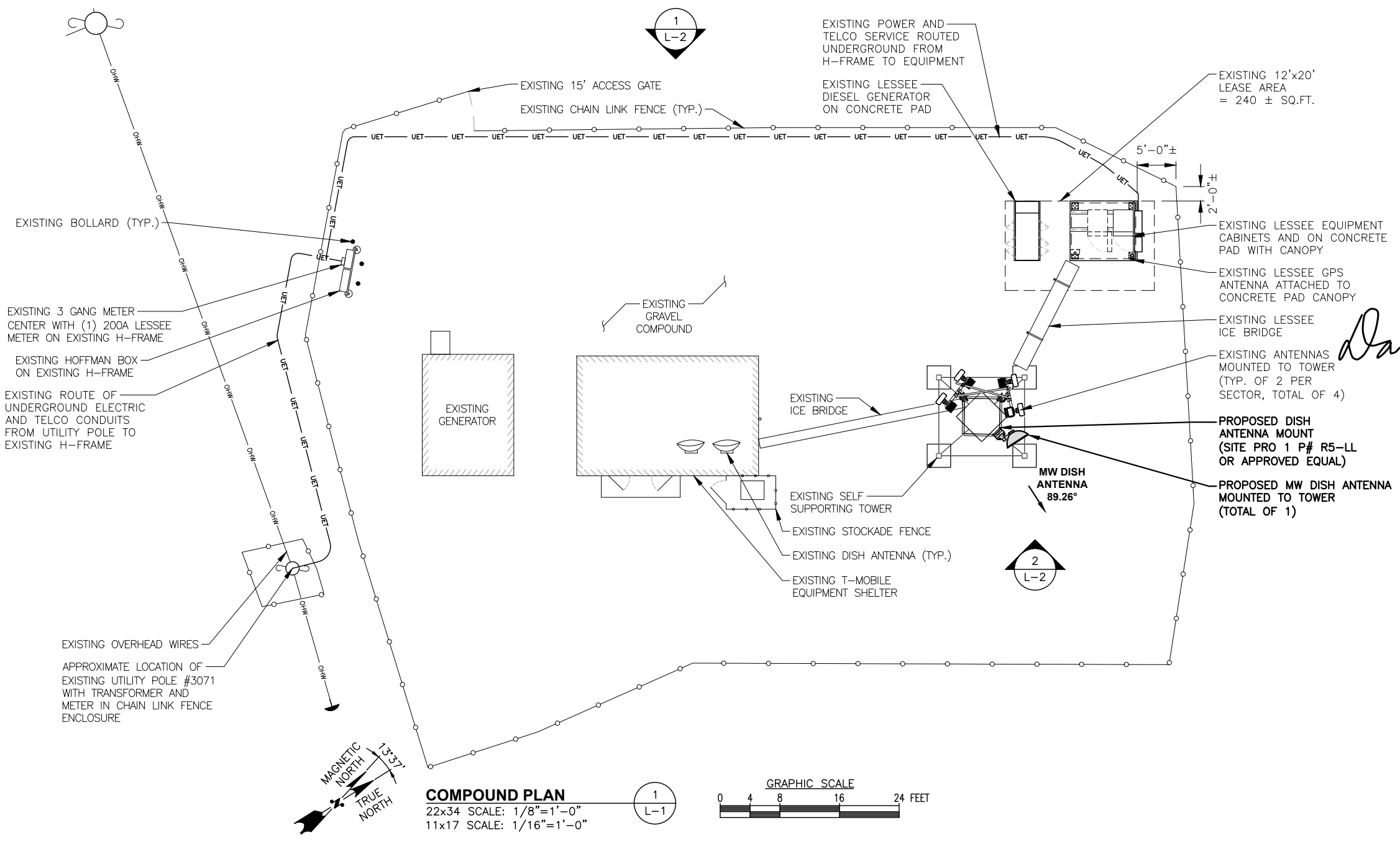
VICINITY MAP
SCALE: N.T.S.

LEASE EXHIBIT:
THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

APPROXIMATE COORDINATES: LATITUDE: 41° 37' 3.7" LONGITUDE: 73° 0' 16.1"

MOUNT STRUCTURAL NOTE:
AN ANALYSIS OF THE CAPACITY OF THE PROPOSED MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY HUDSON DESIGN GROUP, LLC. REFER TO STRUCTURAL MOUNT ANALYSIS DATED NOVEMBER 21, 2019 (REV.1). AND MOUNT ASSESSMENT LETTER DATED NOVEMBER 11, 2020

TOWER STRUCTURAL NOTE:
AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY ARMOR TOWER, INC. REFER TO LATEST STRUCTURAL ANALYSIS REPORT.



COMPOUND PLAN
22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"
GRAPHIC SCALE: 0 4 8 16 24 FEET

LEASE EXHIBIT

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.



45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586



Daniel P. Hamon

CHECKED BY: JX

APPROVED BY: DPH

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
6	11/09/20	ADDED MW DISH	SF
5	04/15/19	REVISED PER COMMENTS	KAM
4	03/19/19	REVISED PER COMMENTS	KAM
3	01/17/19	REVISED PER COMMENTS	KAM
2	11/30/17	REVISED PER COMMENTS	JS
1	10/12/17	REVISED PER COMMENTS	JS
0	10/09/17	ISSUED FOR REVIEW	JS

SITE NAME:
WOLCOTT NW CT

SITE ADDRESS:
ANDREWS ROAD
WOLCOTT, CT 06716

SHEET TITLE
COMPOUND PLAN

SHEET NUMBER
L-1

MOUNT STRUCTURAL NOTE:
 AN ANALYSIS OF THE CAPACITY OF THE PROPOSED MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY HUDSON DESIGN GROUP, LLC. REFER TO STRUCTURAL MOUNT ANALYSIS DATED NOVEMBER 21, 2019 (REV.1). AND MOUNT ASSESSMENT LETTER DATED NOVEMBER 11, 2020

NOTE:
 1. VERIFY AZIMUTHS W/ RF ENGINEER.

LEASE EXHIBIT
 THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

LEASE EXHIBIT

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.



45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586



Daniel P. Hamon

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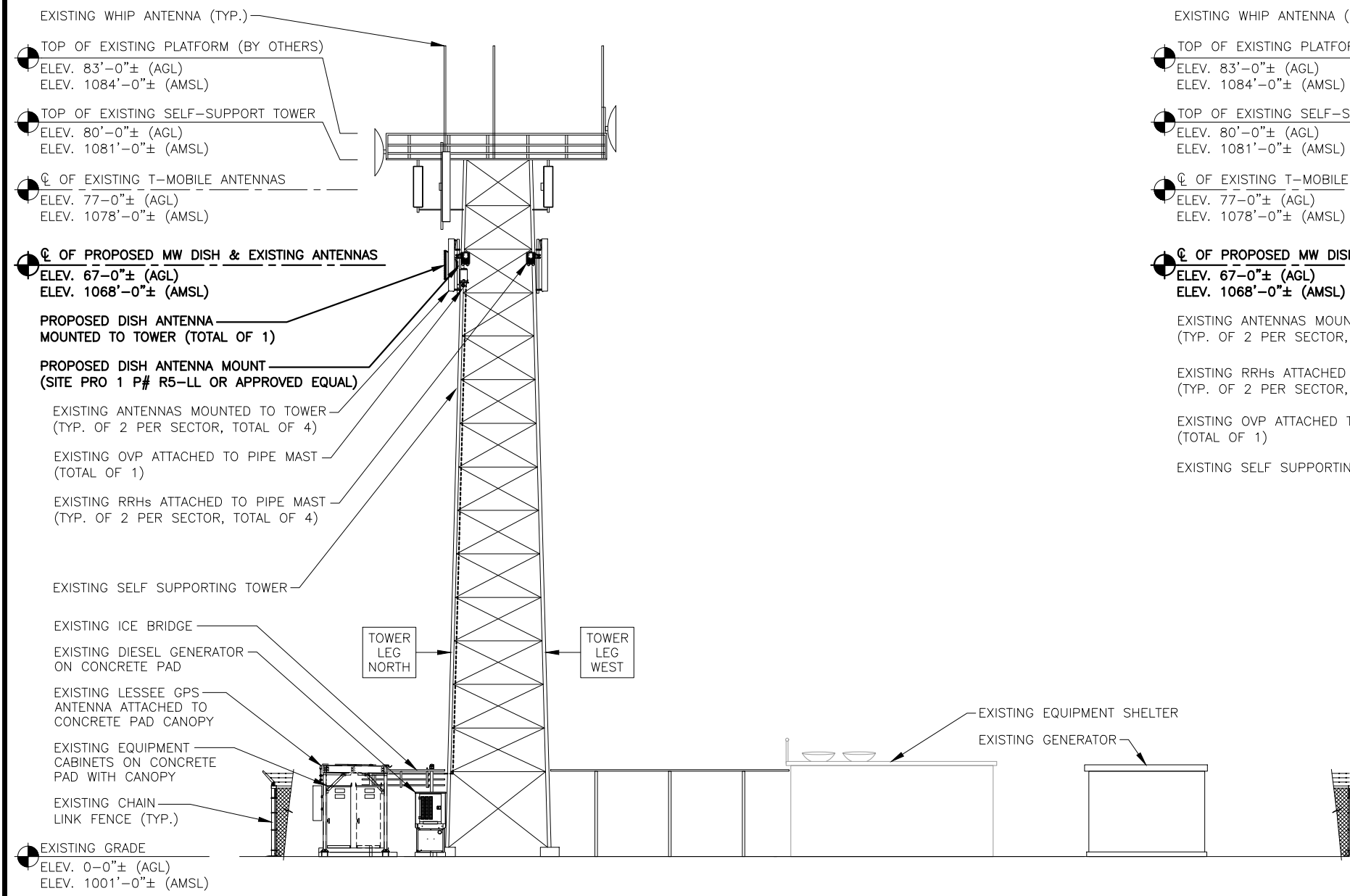
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2	11/30/17	REVISED PER COMMENTS	JS
1	10/12/17	REVISED PER COMMENTS	JS
0	10/09/17	ISSUED FOR REVIEW	JS

SITE NAME:
WOLCOTT NW CT

SITE ADDRESS:
 ANDREWS ROAD
 WOLCOTT, CT 06716

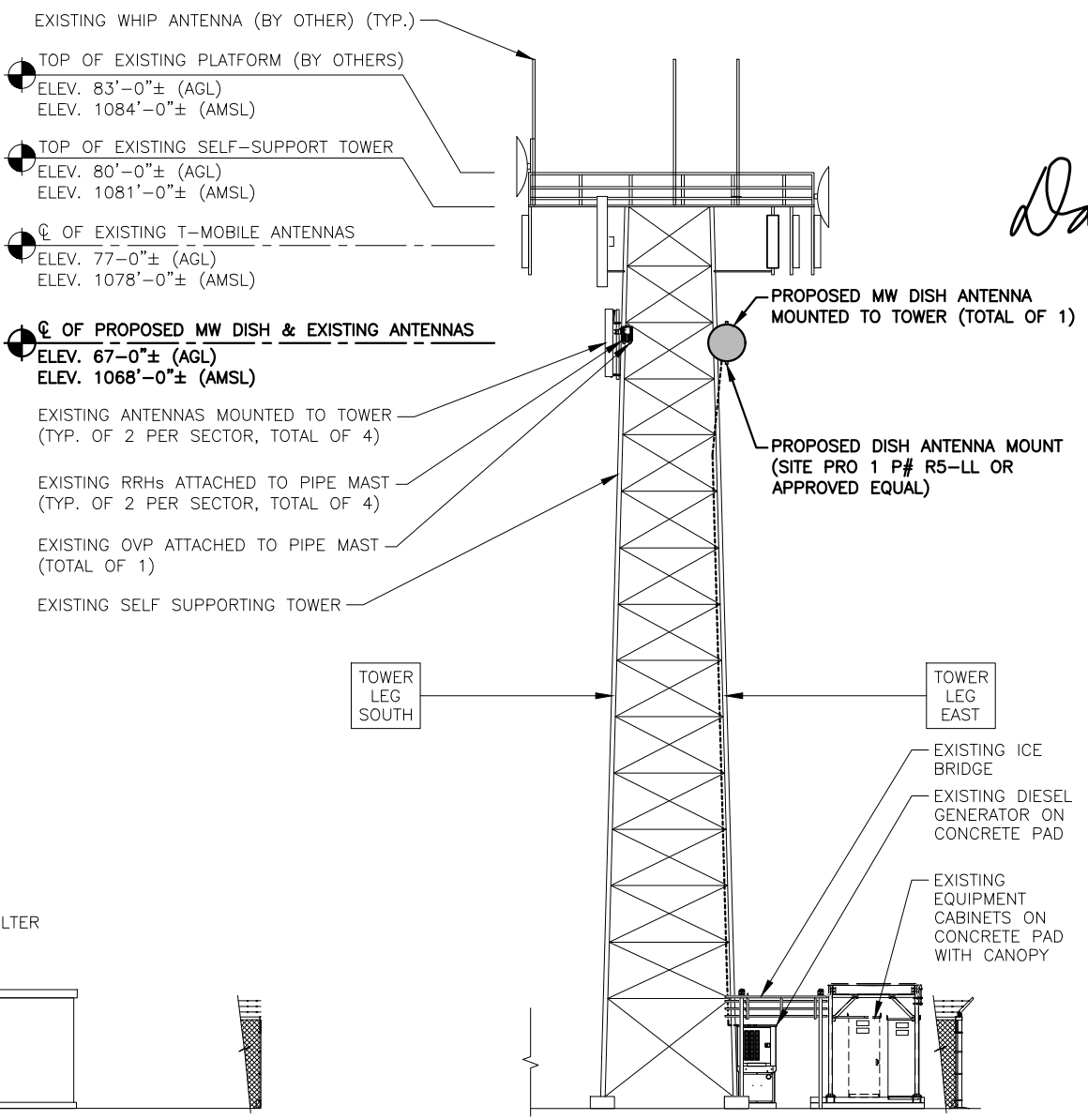
SHEET TITLE
ELEVATIONS

SHEET NUMBER
L-2



WEST ELEVATION
 22x34 SCALE: 1/8"=1'-0"
 11x17 SCALE: 1/16"=1'-0"

GRAPHIC SCALE
 0 4 8 16 24 FEET



EAST ELEVATION
 22x34 SCALE: 1/8"=1'-0"
 11x17 SCALE: 1/16"=1'-0"

GRAPHIC SCALE
 0 4 8 16 24 FEET



VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: WOLCOTT RD CT
 ATC SITE NUMBER: 274848
 VERIZON SITE NAME: WOLCOTT CT
 VERIZON SITE NUMBER: 617478
 SITE ADDRESS: 1192 WOLCOTT ROAD
 WOLCOTT, CT 06716



LOCATION MAP

**VERIZON
 MICROWAVE DISH ADDITION DRAWINGS**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 1192 WOLCOTT ROAD WOLCOTT, CT 06716 COUNTY: NEW HAVEN <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.61803611 LONGITUDE: -72.97124444 GROUND ELEVATION: 1050' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: INSTALL (1) MICROWAVE DISH, (1) 0.41" LMR-400 COAX CABLE(s), AND (1) MOUNTING PIPE EXISTING (12) ANTENNA(s), (3) RRH(s), (6) DIPLEXER(s), (1) OVP(s), (12) 1-5/8" COAX CABLE(s), AND (1) 1-5/8" HYBRID CABLE(s) TO REMAIN	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u> <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> ATC TOWER SERVICES, LLC 3500 REGENCY PKWY STE 100 CARY, NC 27518 <u>PROPERTY OWNER:</u> GRAZIANO BROTHERS LLC 9 KNIGHT STREET WATERTOWN, CT 06795	<u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.					
<u>UTILITY COMPANIES</u> POWER COMPANY: EVERSOURCE PHONE: (877) 659-6326 TELEPHONE COMPANY: FRONTIER COMMUNICATIONS PHONE: (803) 766-843		<u>PROJECT LOCATION DIRECTIONS</u> ROUTE 322 TO WOLCOTT ROAD NEAR BEACH ROAD					

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: PEC.0001553

THE USE AND PUBLICATION OF THESE DRAWINGS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OR THE SPECIFIED CARRIER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EB	11/13/20

ATC SITE NUMBER:
274848
 ATC SITE NAME:
WOLCOTT RD CT
 VERIZON SITE NAME:
WOLCOTT CT
 SITE ADDRESS:
 1192 WOLCOTT ROAD
 WOLCOTT, CT 06716



DATE DRAWN:	11/13/20
ATC JOB NO:	OAA761901
CUSTOMER ID:	WOLCOTT CT
CUSTOMER #:	617478

TITLE SHEET

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

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

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

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
 - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
 - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

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



AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: PEC.0001553

THE USE AND PUBLICATION OF THESE DRAWINGS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OR THE SPECIFIED CARRIER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION.

REV.	DESCRIPTION	BY	DATE
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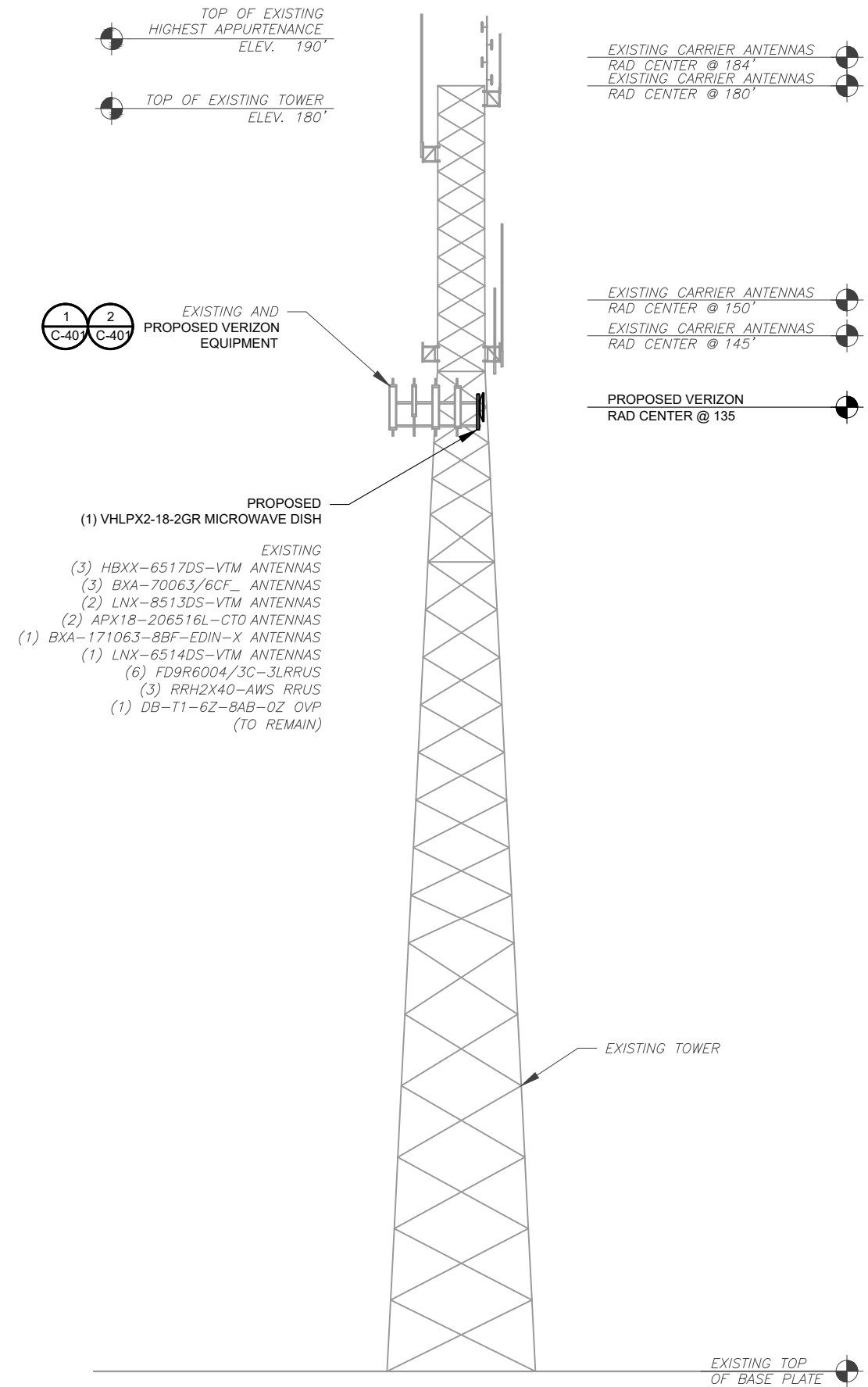
ATC SITE NUMBER:
274848
 ATC SITE NAME:
WOLCOTT RD CT
 VERIZON SITE NAME:
WOLCOTT CT
 SITE ADDRESS:
 1192 WOLCOTT ROAD
 WOLCOTT, CT 06716



DATE DRAWN:	11/13/20
ATC JOB NO:	OAA761901
CUSTOMER ID:	WOLCOTT CT
CUSTOMER #:	617478

GENERAL NOTES

SHEET NUMBER: G-002	REVISION: 0
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1 TOWER ELEVATION
SCALE: N.T.S.

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

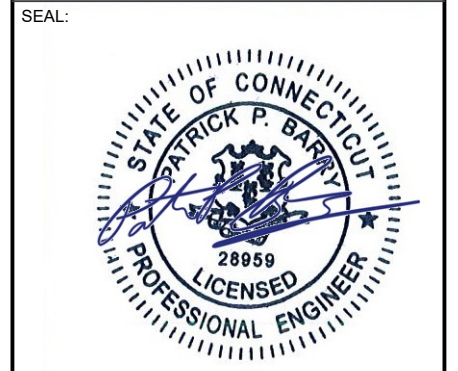


AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: PEC.0001553

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EB	11/13/20

ATC SITE NUMBER:
274848
 ATC SITE NAME:
WOLCOTT RD CT
 VERIZON SITE NAME:
WOLCOTT CT
 SITE ADDRESS:
 1192 WOLCOTT ROAD
 WOLCOTT, CT 06716

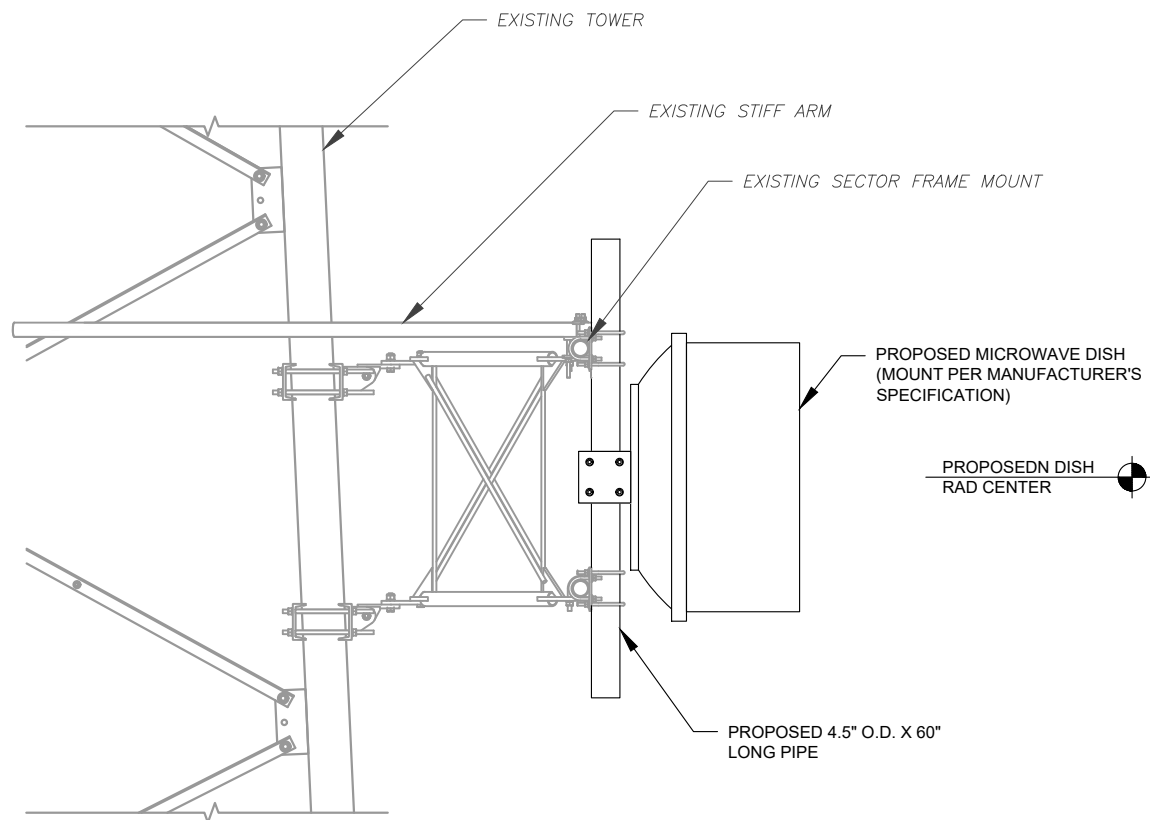


DATE DRAWN:	11/13/20
ATC JOB NO:	OAA761901
CUSTOMER ID:	WOLCOTT CT
CUSTOMER #:	617478

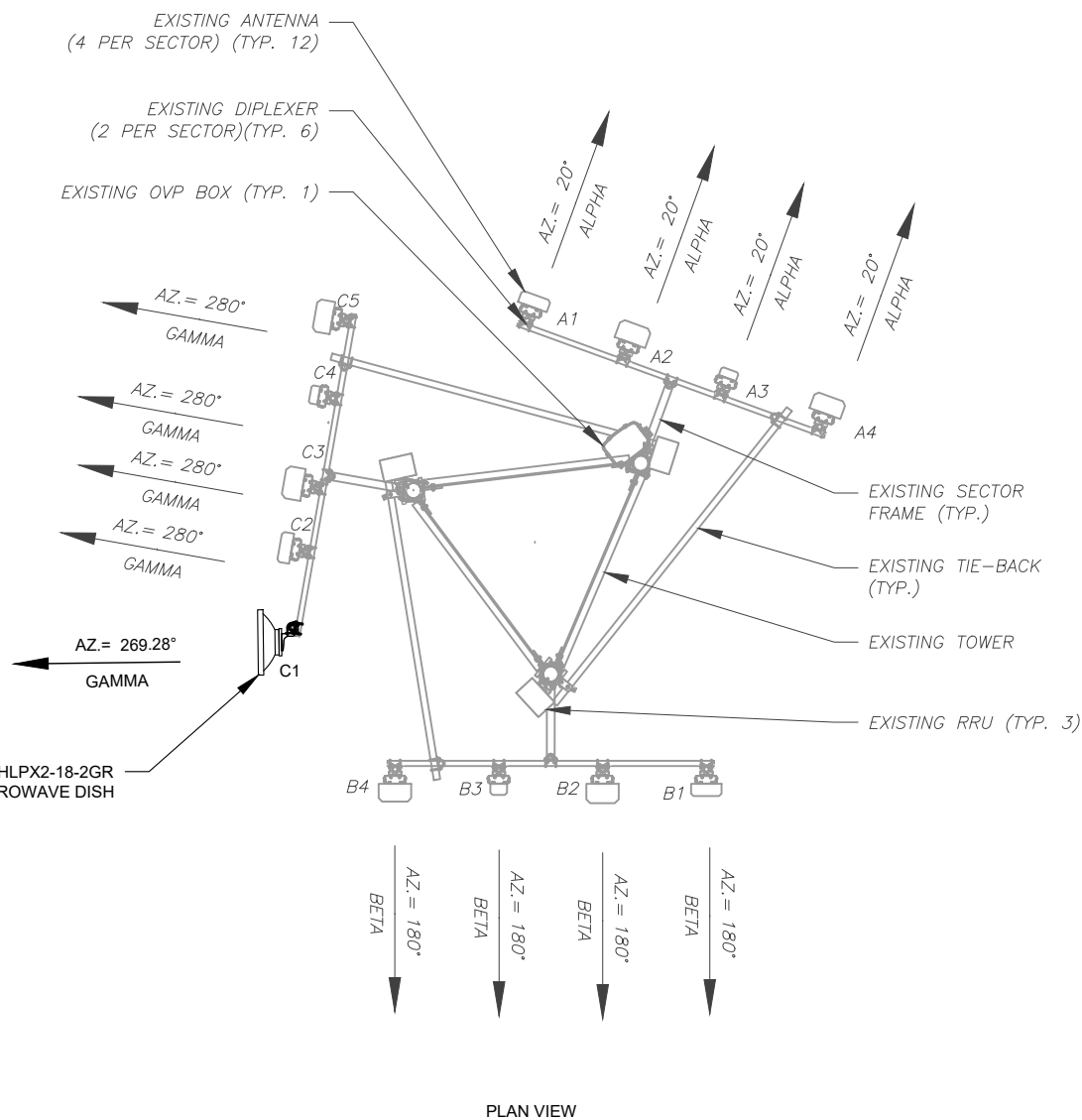
TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

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1 PROPOSED MICROWAVE MOUNTING DETAIL (ELEVATION)
SCALE: N.T.S.



2 PROPOSED MICROWAVE DISH MOUNTING DETAIL
SCALE: NOT TO SCALE

PROPOSED ANTENNA AND RF EQUIPMENT SCHEDULE										
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY			PROPOSED CABLING SUMMARY	
SECTOR	RAD	AZ	POS	MODEL NUMBER	STATUS	POS	MODEL NUMBER	STATUS	COAX/ELLIPTICAL	STATUS
GAMMA	135'	269.28°	C1	VHLPX2-18-2GR	ADD	-	-	-	0.41" LMR-400	ADD
NOTES										
1. CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS.										
2. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (I.E. CLEARANCES, MOUNT PIPE OR SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.										
3. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.										
4. CONFIRM SPACING OF PROPOSED EQUIPMENT DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.										
5. CABLE LENGTHS SHOWN ESTIMATE MAXIMUM TYPICAL RUN AND INCORPORATE A 15% SAFETY FACTOR.										

3 ANTENNA AND RF EQUIPMENT SCHEDULES

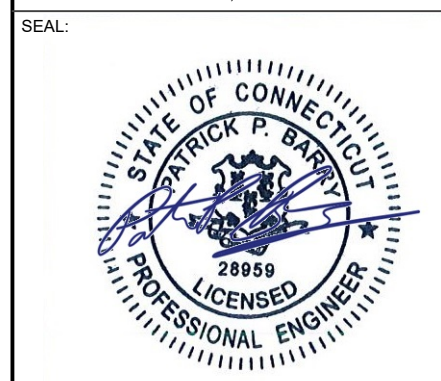
STATUS ABBREVIATIONS	
RMV: TO BE REMOVED	DSC: TO BE DISCONNECTED
RMN: TO REMAIN	AND TO REMAIN
REL: TO BE RELOCATED	

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0	FOR CONSTRUCTION	EB	11/13/20

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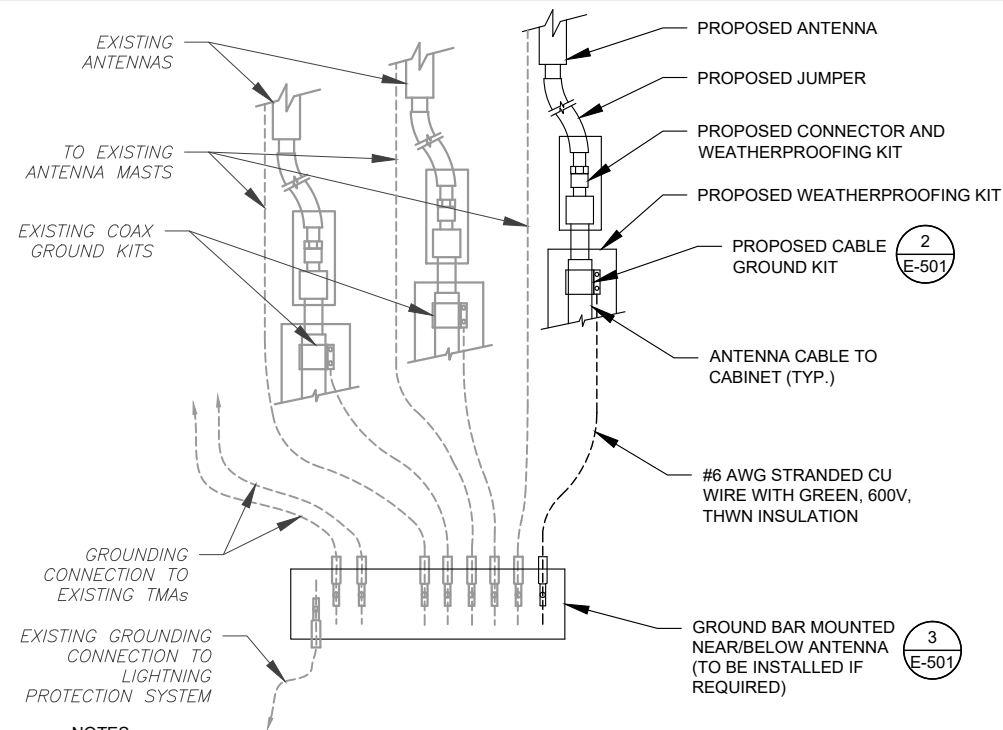


DATE DRAWN:	11/13/20
ATC JOB NO:	OAA761901
CUSTOMER ID:	WOLCOTT CT
CUSTOMER #:	617478

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0

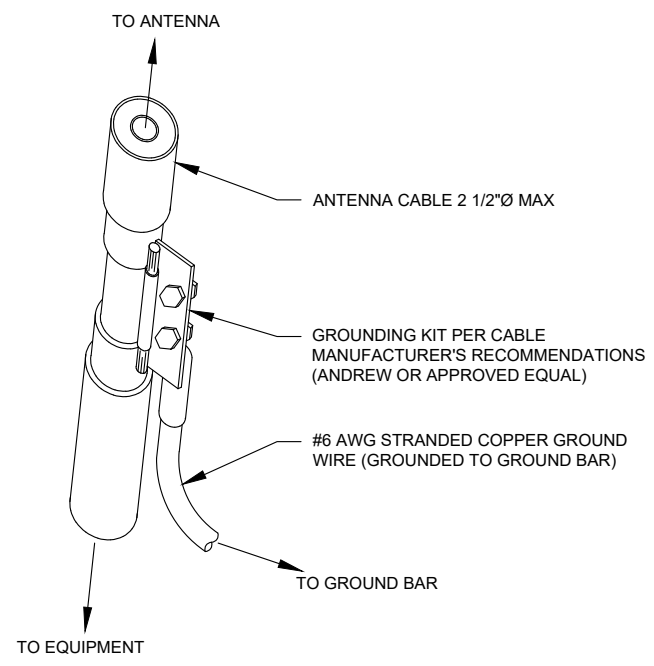
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NOTES:

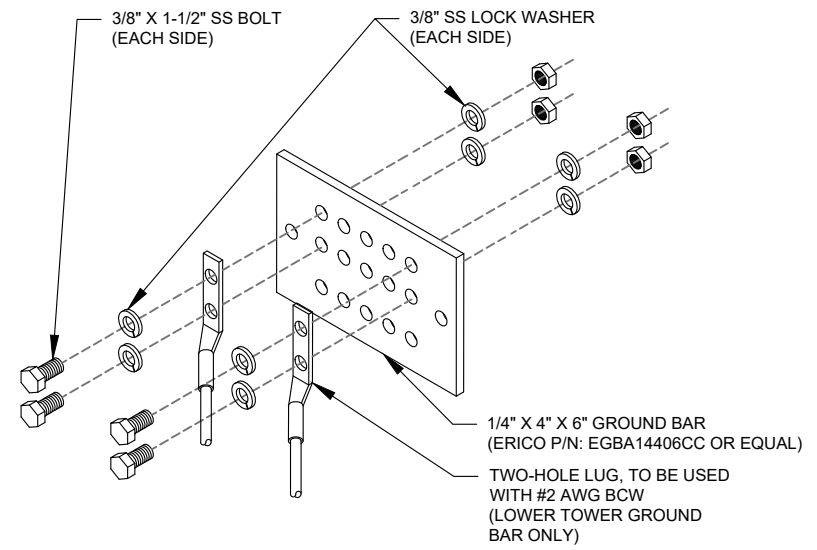
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING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

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



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

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



GROUND BAR NOTES:

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

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



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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EB	11/13/20

ATC SITE NUMBER:

274848

ATC SITE NAME:

WOLCOTT RD CT

VERIZON SITE NAME:

WOLCOTT CT

SITE ADDRESS:

1192 WOLCOTT ROAD
 WOLCOTT, CT 06716

SEAL:



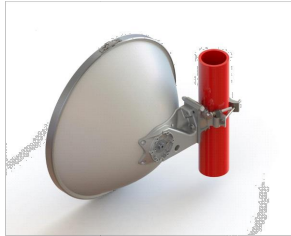
DATE DRAWN:	11/13/20
ATC JOB NO:	OAA761901
CUSTOMER ID:	WOLCOTT CT
CUSTOMER #:	617478

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

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VHLP2-18/C



0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 17.700–19.700 GHz

Product Classification

Brand ValuLine®
Product Type Microwave antenna

General Specifications

Antenna Type VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized
Diameter, nominal 0.6 m | 2 ft
Polarization Single

Electrical Specifications

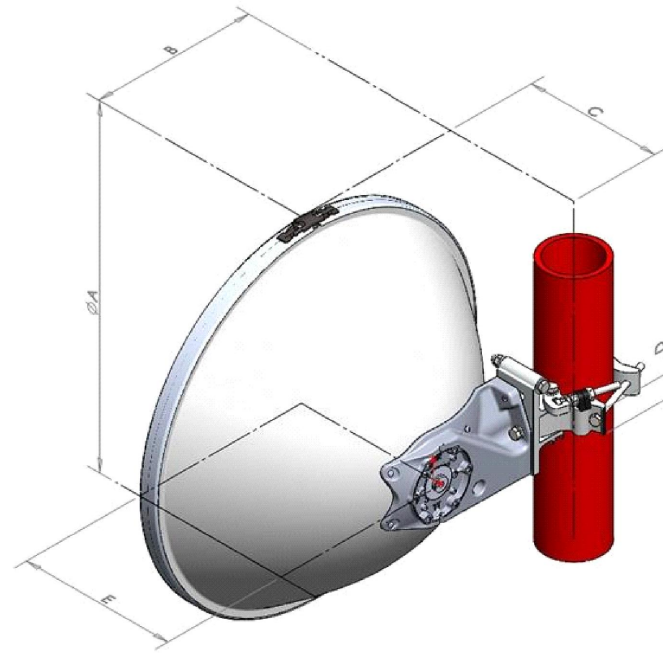
Beamwidth, Horizontal 2.1 °
Beamwidth, Vertical 2.1 °
Boresite Cross Polarization Discrimination (XPD) 30 dB
Electrical Compliance Brazil Anatel Class 2 | Canada SRSP 317.8 Part A | ETSI 302 217 Class 3 | US FCC Part 101A
Front-to-Back Ratio 67 dB
Gain, Low Band 38.6 dBi
Gain, Mid Band 39.0 dBi
Gain, Top Band 39.4 dBi
Operating Frequency Band 17.700 – 19.700 GHz
Radiation Pattern Envelope Reference (RPE) 7204C
Return Loss 17.7 dB
VSWR 1.30

Mechanical Specifications

Fine Azimuth Adjustment ±15°
Fine Elevation Adjustment ±15°
Mounting Pipe Diameter 50 mm–120 mm | 2.0 in–4.7 in
Net Weight 8 kg | 17 lb
Side Struts, Included 0
Side Struts, Optional 0

VHLP2-18/C

Antenna Dimensions And Mounting Information



Dimension in Inches (mm)					
Antenna size, ft (m)	A	B	C	D	E
2 (0.6)	26 (660)	11.9 (307)	9.9 (252)	1.8 (45)	11.4 (289)

Regulatory Compliance/Certifications

Agency ISO 9001:2015
Classification Designed, manufactured and/or distributed under this quality management system



* Footnotes

Axial Force (FA) Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may

VHLPX2-18-2WH/C



0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, dual-polarized, 17.700–19.700 GHz, PBR220 flange, white antenna, composite broadband gray radome without flash, compact pack— one-piece reflector

Product Classification

Product Type	Microwave antenna
Product Brand	ValuLine®

General Specifications

Antenna Color	White
Antenna Input	PBR220
Antenna Type	VHLPX - ValuLine® High Performance Low Profile Antenna, dual-polarized
Flash Included	No
Radome Color	Gray
Reflector Construction	One-piece reflector

Dimensions

Diameter, nominal	0.6 m 2 ft
--------------------------	--------------

Electrical Specifications

Operating Frequency Band	17.700 – 19.700 GHz
---------------------------------	---------------------

Material Specifications

Radome Material	Composite Broadband
------------------------	---------------------

Packaging and Weights

Height, packed	354 mm 13.937 in
Width, packed	695 mm 27.362 in
Length, packed	730 mm 28.74 in
Packaging Type	Compact pack

VHLPX2-18-2WH/C

Volume 0.2 m³ | 7.063 ft³

Weight, gross 10.8 kg | 23.81 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



* Footnotes

Operating Frequency Band Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.

Packaging Type Andrew standard packing is suitable for export. Antennas are shipped as standard in totally recyclable cardboard or wire-bound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.

VHLPX3-18-2WH/A



0.9m | 3 ft ValuLine® High Performance Low Profile Antenna, dual-polarized, 17.700–19.700 GHz, PBR220 flange, white antenna, composite broadband grey radome without flash, standard pack— one-piece reflector

Product Classification

Product Type	Microwave antenna
Product Brand	ValuLine®

General Specifications

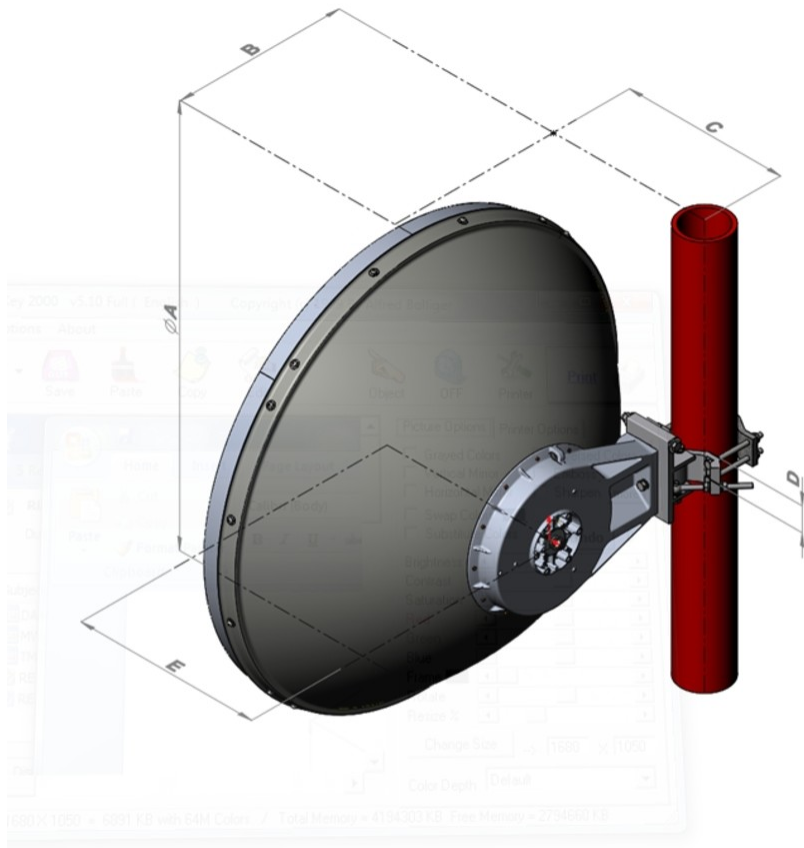
Antenna Type	VHLPX - ValuLine® High Performance Low Profile Antenna, dual-polarized
Polarization	Dual
Antenna Input	PBR220
Antenna Color	White
Reflector Construction	One-piece reflector
Radome Color	Gray
Radome Material	Composite Broadband
Flash Included	No
Side Struts, Included	0
Side Struts, Optional	1 inboard

Dimensions

Diameter, nominal	0.9 m 3 ft
--------------------------	--------------

VHLPX3-18-2WH/A

Antenna Dimensions and Mounting Information



Dimension in Inches (mm)					
Antenna size, ft (m)	A	B	C	D	E
3 (1.0)	39.3 (999)	16 (407)	15.2 (387)	2.4 (60)	17.2 (437)

Electrical Specifications

Operating Frequency Band	17.700 – 19.700 GHz
Gain, Low Band	43.1 dBi
Gain, Mid Band	43.5 dBi
Gain, Top Band	43.7 dBi
Boresite Cross Polarization Discrimination (XPD)	30 dB
Front-to-Back Ratio	71 dB
Beamwidth, Horizontal	1.1 °
Beamwidth, Vertical	1.1 °
Return Loss	17.7 dB

VHLPX3-18-2WH/A

VSWR	1.3
Radiation Pattern Envelope Reference (RPE)	7171A
Electrical Compliance	Brazil Anatel Class 2 Canada SRSP 317.8 Part A ETSI 302 217 Class 3 US FCC Part 101A

Mechanical Specifications

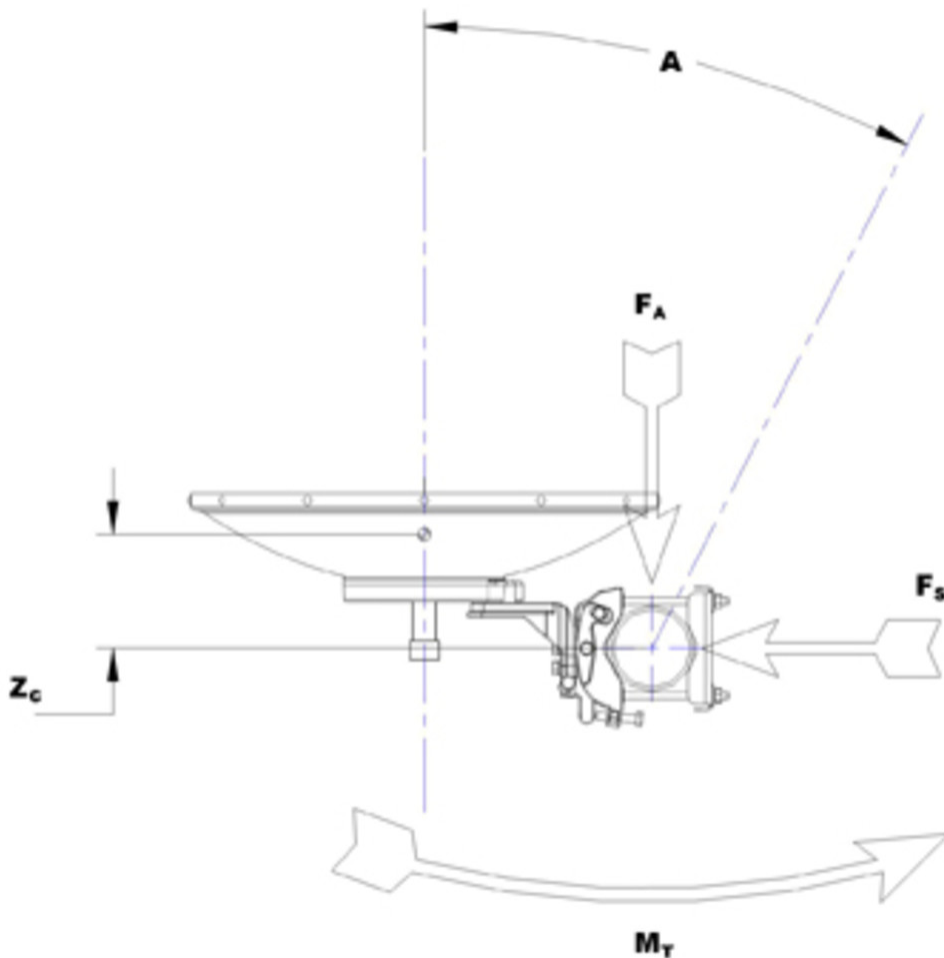
Compatible Mounting Pipe Diameter	90 mm–120 mm 3.5 in–4.7 in
Fine Azimuth Adjustment Range	±15°
Fine Elevation Adjustment Range	±15°
Wind Speed, operational	180 km/h 111.847 mph
Wind Speed, survival	250 km/h 155.343 mph

Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	2903 N 652.621 lbf
Angle α for MT Max	0°
Side Force (FS)	1439 N 323.5 lbf
Twisting Moment (MT)	1179 N-m 10,435.029 in lb
Zcg without Ice	135 mm 5.315 in
Zcg with 1/2 in (12 mm) Radial Ice	84 mm 3.307 in
Weight with 1/2 in (12 mm) Radial Ice	46 kg 101.413 lb

VHLPX3-18-2WH/A

Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

Height, packed	1110 mm 43.701 in
Width, packed	400 mm 15.748 in
Length, packed	1200 mm 47.244 in
Packaging Type	Standard pack
Volume	0.5 m ³ 17.657 ft ³
Weight, gross	29 kg 63.934 lb
Weight, net	17 kg 37.479 lb

Regulatory Compliance/Certifications

VHLPX3-18-2WH/A

Agency

CHINA-ROHS
ISO 9001:2015
REACH-SVHC
ROHS

Classification

Below maximum concentration value
Designed, manufactured and/or distributed under this quality management system
Compliant as per SVHC revision on www.commscope.com/ProductCompliance
Compliant



* Footnotes

Axial Force (FA)

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

Boresite Cross Polarization Discrimination (XPD)

The difference between the peak of the co-polarized main beam and the maximum cross-polarized signal over an angle twice the 3 dB beamwidth of the co-polarized main beam.

Front-to-Back Ratio

Denotes highest radiation relative to the main beam, at $180^\circ \pm 40^\circ$, across the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.

Gain, Mid Band

For a given frequency band, gain is primarily a function of antenna size. The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.

Operating Frequency Band

Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.

Packaging Type

Andrew standard packing is suitable for export. Antennas are shipped as standard in totally recyclable cardboard or wire-bound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.

Radiation Pattern Envelope Reference (RPE)

Radiation patterns define an antenna's ability to discriminate against unwanted signals. Under still dry conditions, production antennas will not have any peak exceeding the current RPE by more than 3dB, maintaining an angular accuracy of $\pm 1^\circ$ throughout

Return Loss

The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.

Side Force (FS)

Maximum side force exerted on the mounting pipe as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

VHLPX3-18-2WH/A

Twisting Moment (MT)

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

VSWR

Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.

Wind Speed, operational

For VHLP(X), SHP(X), HX and USX antennas, the wind speed where the maximum antenna deflection is 0.3 x the 3 dB beam width of the antenna. For other antennas, it is defined as a deflection is equal to or less than 0.1 degrees.

Wind Speed, survival

The maximum wind speed the antenna, including mounts and radomes, where applicable, will withstand without permanent deformation. Realignment may be required. This wind speed is applicable to antenna with the specified amount of radial ice.

ATTACHMENT 2

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL
TO NON-IONIZING EMISSIONS

Verizon Existing Facility

Site ID: 470041

Wolcott NW CT
107/109 Andrews Road
Wolcott, Connecticut 06716

December 2, 2020

EBI Project Number: 6220006072

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	33.44%

December 2, 2020

Emissions Analysis for Site: 470041 - Wolcott NW CT

EBI Consulting was directed to analyze the proposed Verizon facility located at **107/109 Andrews Road** in **Wolcott, Connecticut** for the purpose of determining whether the emissions from the Proposed Verizon Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed Verizon Wireless antenna facility located at 107/109 Andrews Road in Wolcott, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since Verizon is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 4 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 2) 4 LTE channels (850 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 4) 4 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 5) 1 microwave backhaul channel (10.815 GHz) was considered for the proposed facility. This channel has a transmit power of 0.447 Watts.
- 6) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation

- are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 7) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
 - 8) The antennas used in this modeling are the Commscope NNHH-65B-R4 for the 700 MHz / 850 MHz / 1900 MHz channel(s), the Commscope NNHH-65B-R4 for the 700 MHz / 850 MHz / 2100 MHz channel(s) in Sector A, the Commscope NNHH-65B-R4 for the 700 MHz / 850 MHz / 1900 MHz channel(s), the Commscope NNHH-65B-R4 for the 700 MHz / 850 MHz / 2100 MHz channel(s) in Sector B, the Commscope NNHH-65B-R4 for the 700 MHz / 850 MHz / 1900 MHz channel(s), the Commscope NNHH-65B-R4 for the 700 MHz / 850 MHz / 2100 MHz channel(s) in Sector C. Modeling also included calculations for the proposed 10.815 GHz microwave backhaul antennas. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
 - 9) The antenna mounting height centerline of the proposed antennas (both microwave and panel antennas) is 67 feet above ground level (AGL).
 - 10) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
 - 11) All calculations were done with respect to uncontrolled / general population threshold limits.

Verizon Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Commscope NNHH-65B-R4	Make / Model:	Commscope NNHH-65B-R4	Make / Model:	Commscope NNHH-65B-R4
Frequency Bands:	700 MHz / 850 MHz / 1900 MHz	Frequency Bands:	700 MHz / 850 MHz / 1900 MHz	Frequency Bands:	700 MHz / 850 MHz / 1900 MHz
Gain:	12.45 dBd / 12.85 dBd / 15.15 dBd	Gain:	12.45 dBd / 12.85 dBd / 15.15 dBd	Gain:	12.45 dBd / 12.85 dBd / 15.15 dBd
Height (AGL):	67 feet	Height (AGL):	67 feet	Height (AGL):	67 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts
ERP (W):	8,185.81	ERP (W):	8,185.81	ERP (W):	8,185.81
Antenna A1 MPE %:	8.78%	Antenna B1 MPE %:	8.78%	Antenna C1 MPE %:	8.78%
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Commscope NNHH-65B-R4	Make / Model:	Commscope NNHH-65B-R4	Make / Model:	Commscope NNHH-65B-R4
Frequency Bands:	700 MHz / 850 MHz / 2100 MHz	Frequency Bands:	700 MHz / 850 MHz / 2100 MHz	Frequency Bands:	700 MHz / 850 MHz / 2100 MHz
Gain:	12.45 dBd / 12.85 dBd / 15.35 dBd	Gain:	12.45 dBd / 12.85 dBd / 15.35 dBd	Gain:	12.45 dBd / 12.85 dBd / 15.35 dBd
Height (AGL):	67 feet	Height (AGL):	67 feet	Height (AGL):	67 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts
ERP (W):	8,432.64	ERP (W):	8,432.64	ERP (W):	8,432.64
Antenna A2 MPE %:	8.98%	Antenna B2 MPE %:	8.98%	Antenna C2 MPE %:	8.98%

Microwave Backhaul Data									
Sector	Antenna Make	Antenna Model	Frequency (MHz)	Transmitter Power (W)	Channel Count	Antenna Centerline (feet) AGL	Gain (dBd)	Total ERP (W)	MPE %
A	ValuLine	VHLPX3-18-2WH/A	10815	0.447	1	67.0	38.95	3510.00	2.81%

Site Composite MPE %	
Carrier	MPE %
Verizon (Max at Sector A):	20.58%
Personal Vision	0%
SNET TMRS	2.91%
T-Mobile	9.96%
Site Total MPE % :	33.44%

Verizon MPE % Per Sector	
Verizon Sector A Total:	20.58%
Verizon Sector B Total:	17.77%
Verizon Sector C Total:	17.77%
Site Total MPE % :	33.44%

Verizon Maximum MPE Power Values (Sector A)							
Verizon Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Verizon 700 MHz LTE	2	703.17	67.0	11.26	700 MHz LTE	467	2.41%
Verizon 850 MHz LTE	2	771.01	67.0	12.35	850 MHz LTE	567	2.18%
Verizon 1900 MHz LTE	4	1309.36	67.0	41.95	1900 MHz LTE	1000	4.19%
Verizon 700 MHz LTE	2	703.17	67.0	11.26	700 MHz LTE	467	2.41%
Verizon 850 MHz LTE	2	771.01	67.0	12.35	850 MHz LTE	567	2.18%
Verizon 2100 MHz LTE	4	1371.07	67.0	43.92	2100 MHz LTE	1000	4.39%
Verizon 10.815 GHz Microwave	1	3510.00	67.0	28.11	10.815 GHz	1000	2.81%
						Total:	20.58%

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the Verizon facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Verizon Sector	Power Density Value (%)
Sector A:	20.58%
Sector B:	17.77%
Sector C:	17.77%
Verizon Maximum MPE % (Sector A):	20.58%
Site Total:	33.44%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **33.44%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL
TO NON-IONIZING EMISSIONS

Verizon Existing Facility

Site ID: 617478

Wolcott N CT
1192 Wolcott Road
Wolcott, Connecticut 06716

December 3, 2020

EBI Project Number: 6220006204

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	11.36%

December 3, 2020

Emissions Analysis for Site: 617478 - Wolcott N CT

EBI Consulting was directed to analyze the proposed Verizon facility located at **1192 Wolcott Road** in **Wolcott, Connecticut** for the purpose of determining whether the emissions from the Proposed Verizon Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed Verizon Wireless antenna facility located at 1192 Wolcott Road in Wolcott, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since Verizon is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 1 microwave backhaul channel (11.345 GHz) was considered for the proposed facility. This channel has a transmit power of 0.447 Watts.
- 2) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 3) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 4) Modeling included calculations for the proposed 11.345 GHz microwave backhaul antenna. This is based on feedback from the carrier with regard to anticipated antenna selection. All

Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 5) The antenna mounting height centerline of the proposed microwave antenna is 135 feet above ground level (AGL).
- 6) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 7) All calculations were done with respect to uncontrolled / general population threshold limits.

Verizon Site Inventory and Power Data

Microwave Backhaul Data									
Sector	Antenna Make	Antenna Model	Frequency (MHz)	Transmitter Power (W)	Channel Count	Antenna Centerline (feet) AGL	Gain (dBd)	Total ERP (W)	MPE %
A	ValuLine	VHLP2-18/C	11345	0.447	1	135.0	36.45	1973.82	0.39%

Site Composite MPE %	
Carrier	MPE %
Verizon Microwave Antenna	0.39%
2-way radio	0.4%
T-Mobile	8.07%
Verizon Existing Panel Antennas	2.5%
Site Total MPE % :	11.36%

Verizon Maximum MPE Power Values (Sector A)							
Verizon Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Verizon 11.345 GHz Microwave	1	1973.82	135.0	3.89	11.345 GHz	1000	0.39%
						Total:	0.39%

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the Verizon facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Verizon Sector	Power Density Value (%)
Verizon Microwave Antenna	0.39%
Site Total:	11.36%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **11.36%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

ATTACHMENT 3



November 19, 2020

Thomas Rigg Jr.
Everest Infrastructure Partners
Two Allegheny Center, Nova Place Tower 2, Suite 703
Pittsburgh, PA 15212

RE: Everest Site# 701770 – Wolcott (Verizon Wireless)
Andrews Road, Wolcott, CT

Tom:

Verizon Wireless is proposing to install a 3' dish to provide connectivity prior to future fiber installation.

We analyzed the existing 80' 4-leg self-supporting tower in October 2019. The results showed that the tower was loaded at 65% for the existing and proposed loading. The loading included proposed loading at 67' for Verizon Wireless.

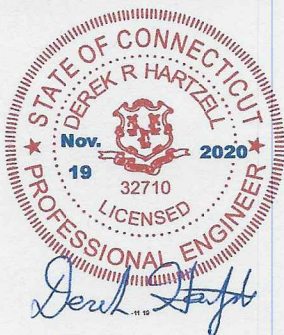
Per the November 6, 2020 VZW Collo App, VZW proposes to install a temporary VHLPX3-18-2WH dish at 67' elevation (+-4') and 89.26° azimuth, with LMR-400 transmission line. The dish should be installed on a 4" Sch 40 pipe mount. The dish may share a position on one of the previously-specified SitePro1 R5-216 leg mounts (provided there is room), or may be installed on a new 4" Sch 40 pipe mount, such as a SitePro1 R5-LL.

We have determined that the tower has sufficient capacity to support the proposed dish and equipment, in addition to the equipment specified in our October 2019 analysis.

We appreciate the opportunity to provide our professional services to Everest Infrastructure Partners and Verizon Wireless, and if you have any questions concerning this analysis, please contact us.

Sincerely,

ARMOR TOWER, INC.



Derek Hartzell
Structural Design Engineer V, PE

9 North Main Street, 2nd Floor, Cortland, NY 13045
(607)591-5381 Fax: (866)870-0840 www.ArmorTower.com



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 180 ft Self Supported Tower
ATC Site Name : WOLCOTT RD CT, CT
ATC Asset Number : 274848
Engineering Number : OAA761901_C3_01
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : WOLCOTT CT
Carrier Site Number : 617478
Site Location : 1192 Wolcott Road
Wolcott, CT 06716-1548
41.618000,-72.971200
County : New Haven
Date : November 13, 2020
Max Usage : 90%
Result : Pass



Prepared By:
Lucas Tait
Structural Engineer I

Reviewed By:

COA: PEC.0001553



Table of Contents

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 180 ft self supported tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	Rohn Eng. File #23963DB, dated November 21, 1988
Foundation Drawing	Rohn Eng. File #23963DB, dated December 5, 1988
Geotechnical Report	Heynen Report #HE-88-718, dated November 22, 1988

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:	117 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	$S_s = 0.19, S_1 = 0.05$
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

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
185.0	1	Andrew DB222-B	Side Arm	(2) 7/8" Coax	AMERICAN MEDICAL RESPONSE
184.0	1	RFS Celwave PD201-7			
182.0	1	RFS PD458-2	Side Arm	(1) 7/8" Coax	CAMPION AMBULANCE SERVICE
180.0	1	Generic 20' Omni	Side Arm	(1) 1 1/4" Coax	UNKNOWN
150.0	1	Generic 20' Omni	Side Arm	(1) 7/8" Coax	
145.0	1	Generic 12' Omni	Side Arm	(1) 1/2" Coax	
135.0	2	Commscope LNX-8513DS-VTM (39.2 lb)	Sector Frame	(1) 1 5/8" (1.63"-41.3mm) Fiber (12) 1 5/8" Coax	VERIZON WIRELESS
	1	Commscope LNX-6514DS-VTM			
	3	Antel BXA-70063/6CF_			
	1	RFS DB-T1-6Z-8AB-0Z			
	2	RFS APX18-206516L-CTO			
	1	Amphenol Antel BXA-171063-8BF-EDIN-X (9.2 lbs)			
	3	Commscope HBXX-6517DS-VTM			
	6	RFS FD9R6004/3C-3L			
	3	Alcatel-Lucent RRH2x40-AWS			

Equipment to be Removed

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
No loading was considered as removed as part of this analysis.					

Proposed Equipment

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
135.0	1	Andrew Microwaves VHLPX2-18-2GR	Sector Frame	(1) 0.41" (10.3mm) LMR-400	VERIZON WIRELESS

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

Install proposed coax alongside existing VERIZON WIRELESS coax.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	90%	Pass
Diagonals	84%	Pass
Horizontals	20%	Pass
Anchor Bolts	52%	Pass
Leg Bolts	50%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Uplift (Kips)	109.8	148.2	108.4	73%
Axial (Kips)	122.5	165.4	130.0	79%
Total Shear (Kips)	20.7	27.9	23.4	84%

* The design reactions are factored by 1.35 per ANSI/TIA-222-H, Sec. 15.6.2

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) (°)
135.0	Andrew Microwaves VHLPX2-18-2GR	VERIZON WIRELESS	0.209	0.158	0.242

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



Standard Conditions

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

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

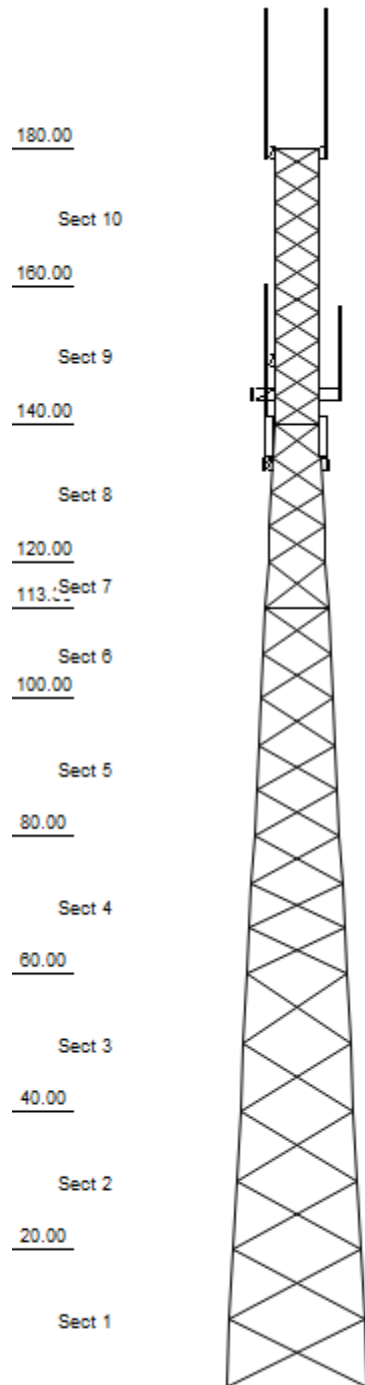
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

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

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

Quadrant 1



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Loads: 117 mph no ice
 50 mph w/ 1" radial ice
 Site Class: D Ss: 0.19 S1: 0.05
 60 mph Serviceability

Job Information			
Client : VERIZON WIRELESS			
Tower : 274848	Location : WOLCOTT RD CT,	Base Width : 20.78 ft	
Code : ANSI/TIA-222-H	Topo Method: Method 1	Top Width : 6.56 ft	
Risk Cat : II	Topo: 1	Tower Ht : 180.00 ft	
	Exposure : B	Shape : Triangle	

Sections Properties				
Section	Leg Members		Diagonal Members	Horizontal Members
1	PST 50 ksi	5" DIA PIPE	SAE 50 ksi 3.5X3.5X0.25	
2 - 3	PX 50 ksi	4" DIA PIPE	SAE 36 ksi 3X3X0.1875	
4 - 5	PX 50 ksi	3" DIA PIPE	SAE 36 ksi 2.5X2.5X0.1875	
6	PX 50 ksi	2-1/2" DIA PIPE	SAE 36 ksi 2X2X0.1875	SAE 36 ksi 2X2X0.125
7	PX 50 ksi	2-1/2" DIA PIPE	SAE 36 ksi 2X2X0.1875	
8	PST 50 ksi	2-1/2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.125	SAE 36 ksi 2X2X0.125
9	PST 50 ksi	2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.125	
10	PST 50 ksi	2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.125	SAE 36 ksi 2X2X0.125

Discrete Appurtenance			
Elev (ft)	Type	Qty	Description
180.00	Whip	1	RFS PD458-2
180.00	Whip	1	RFS Celwave PD201-7
180.00	Whip	1	Andrew DB222-B
180.00	Whip	1	Generic 20' Omni
177.00	Straight Arm	3	Round Side Arm
150.00	Whip	1	Generic 20' Omni
145.00	Straight Arm	3	Round Side Arm
145.00	Whip	1	Generic 12' Omni
135.00	Panel	3	Commscope HBXX-6517DS-VTM
135.00	Panel	1	Commscope LNX-6514DS-VTM
135.00	Panel	2	Commscope LNX-8513DS-VTM
135.00	Panel	3	Antel BXA-70063/6CF
135.00		1	RFS DB-T1-6Z-8AB-0Z
135.00	Dish	1	Andrew Microwaves VHLPX2-18-2G
135.00	Panel	2	RFS APX18-206516L-CT0
135.00	Panel	1	Amphenol Antel BXA-171063-8BF-
135.00		3	Alcatel-Lucent RRH2x40-AWS
135.00		6	RFS FD9R6004/3C-3L
131.00	Mounting Frame	3	Round Sector Frame

Linear Appurtenance				
Elev (ft)		Qty	Description	
From	To			
0.00	185.00	1	7/8" Coax	
0.00	184.00	1	7/8" Coax	
0.00	182.00	1	7/8" Coax	
0.00	180.00	1	Waveguide	
0.00	180.00	1	1 1/4" Coax	
0.00	150.00	1	7/8" Coax	
0.00	145.00	1	1/2" Coax	
0.00	135.00	1	Waveguide	
0.00	135.00	12	1 5/8" Coax	
0.00	135.00	1	1 5/8" (1.63"-41.3mm	
0.00	135.00	1	0.41" (10.3mm) LMR-4	

Global Base Foundation Design Loads			
Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	2,210.51	21.44	23.40
DL + WL + IL	682.47	46.36	7.02

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Job Information		
Client : VERIZON WIRELESS		
Tower : 274848	Location : WOLCOTT RD CT,	Base Width : 20.78 ft
Code : ANSI/TIA-222-H	Topo Method: Method 1	Top Width : 6.56 ft
Risk Cat : II	Topo: 1	Tower Ht : 180.00 ft
	Exposure : B	Shape : Triangle

Individual Base Foundation Design Loads		
Vertical (kip)	Uplift (kip)	Horizontal (kip)
129.97	108.38	14.26

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

11/13/2020 11:11:19 AM

Customer: VERIZON WIRELESS

Analysis Parameters

Location:	New Haven County, CT	Height (ft):	180
Code:	ANSI/TIA-222-H	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	20.78
Tower Manufacturer:	Rohn	Top Face Width (ft):	6.56
Tower Type:	Self Support	Anchor Bolt Detail Type	c
Kd:	0.85		
Ke:	0.96		

Ice & Wind Parameters

Exposure Category:	B	Design Windspeed Without Ice:	117 mph
Risk Category:	II	Design Windspeed With Ice:	50 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	1040.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	0.77		
T_L (sec):	6	p:	1.3
S_S :	0.191	S_1 :	0.054
F_a :	1.600	F_v :	2.400
S_{ds} :	0.204	S_{d1} :	0.086
		C_S :	0.037
		C_S, Max :	0.037
		C_S, Min :	0.030

Load Cases

1.2D + 1.0W Normal	117 mph Normal with No Ice
1.2D + 1.0W 60 deg	117 mph 60 degree with No Ice
1.2D + 1.0W 90 deg	117 mph 90 degree with No Ice
0.9D + 1.0W Normal	117 mph Normal with No Ice (Reduced DL)
0.9D + 1.0W 60 deg	117 mph 60 deg with No Ice (Reduced DL)
0.9D + 1.0W 90 deg	117 mph 90 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	50 mph 60 deg with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic Normal
1.2D + 1.0Ev + 1.0Eh 60 deg	Seismic 60 deg
1.2D + 1.0Ev + 1.0Eh 90 deg	Seismic 90 deg
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL) Normal
0.9D - 1.0Ev + 1.0Eh 60 deg	Seismic (Reduced DL) 60 deg
0.9D - 1.0Ev + 1.0Eh 90 deg	Seismic (Reduced DL) 90 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
180.0	Andrew DB222-B	1	16	2.3	10.6	3.0	3.0	1.00	1.00	4.0	258.1	33.74	65	19
180.0	RFS Celwave PD201-	1	4	1.1	8.3	1.3	1.3	1.00	1.00	4.0	122.8	33.74	31	5
180.0	RFS PD458-2	1	22	2.7	13.3	2.0	2.0	1.00	1.00	2.0	152.1	33.64	76	26
180.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	10.0	1736.8	34.06	174	66
177.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	33.37	296	540
150.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.0	31.83	162	66
145.0	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	6.0	585.5	31.89	98	48
145.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	31.52	280	540
135.0	RFS FD9R6004/3C-3L	6	3	0.3	0.5	6.5	1.5	0.80	0.67	2.0	53.2	31.02	27	19
135.0	Alcatel-Lucent	3	44	2.2	2.0	10.6	6.7	0.80	0.67	2.0	182.7	31.02	91	158
135.0	Amphenol Antel BXA-	1	9	2.9	4.0	6.1	4.1	0.80	1.00	1.0	61.5	30.95	61	11
135.0	RFS APX18-206516L-	2	19	3.5	4.4	6.7	3.2	0.80	0.79	4.0	471.2	31.15	118	45
135.0	Andrew Microwaves	1	31	4.7	2.2	26.1	13.2	1.00	1.00	0.0	0.0	30.89	123	37
135.0	RFS DB-T1-6Z-8AB-	1	44	4.8	2.0	24.0	10.0	0.80	1.00	2.0	202.5	31.02	101	53
135.0	Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	1.0	310.7	30.95	311	61
135.0	Commscope LNX-	2	39	8.2	6.1	11.9	7.1	0.80	0.77	1.0	264.9	30.95	265	94
135.0	Commscope LNX-	1	39	8.2	6.1	11.9	7.1	0.80	0.82	4.0	567.8	31.15	142	47
135.0	Commscope HBXX-	3	43	8.5	6.2	12.0	6.5	0.80	0.80	4.0	1733.9	31.15	433	155
131.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	30.62	565	1080
Totals		38	2558	196.6									3419	3070

Discrete Appurtenance Properties 0.9D + 1.0W

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)
180.0	Andrew DB222-B	1	16	2.3	10.6	3.0	3.0	1.00	1.00	4.0	258.1	33.74	65	14
180.0	RFS Celwave PD201-	1	4	1.1	8.3	1.3	1.3	1.00	1.00	4.0	122.8	33.74	31	4
180.0	RFS PD458-2	1	22	2.7	13.3	2.0	2.0	1.00	1.00	2.0	152.1	33.64	76	20
180.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	10.0	1736.8	34.06	174	50
177.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	33.37	296	405
150.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.0	31.83	162	50
145.0	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	6.0	585.5	31.89	98	36
145.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	31.52	280	405
135.0	RFS FD9R6004/3C-3L	6	3	0.3	0.5	6.5	1.5	0.80	0.67	2.0	53.2	31.02	27	14
135.0	Alcatel-Lucent	3	44	2.2	2.0	10.6	6.7	0.80	0.67	2.0	182.7	31.02	91	119
135.0	Amphenol Antel BXA-	1	9	2.9	4.0	6.1	4.1	0.80	1.00	1.0	61.5	30.95	61	8
135.0	RFS APX18-206516L-	2	19	3.5	4.4	6.7	3.2	0.80	0.79	4.0	471.2	31.15	118	34
135.0	Andrew Microwaves	1	31	4.7	2.2	26.1	13.2	1.00	1.00	0.0	0.0	30.89	123	28
135.0	RFS DB-T1-6Z-8AB-	1	44	4.8	2.0	24.0	10.0	0.80	1.00	2.0	202.5	31.02	101	40
135.0	Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	1.0	310.7	30.95	311	46
135.0	Commscope LNX-	2	39	8.2	6.1	11.9	7.1	0.80	0.77	1.0	264.9	30.95	265	71
135.0	Commscope LNX-	1	39	8.2	6.1	11.9	7.1	0.80	0.82	4.0	567.8	31.15	142	35
135.0	Commscope HBXX-	3	43	8.5	6.2	12.0	6.5	0.80	0.80	4.0	1733.9	31.15	433	116
131.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	30.62	565	810
Totals		38	2558	196.6									3419	2303

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)
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Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Tower Loading

180.0	Andrew DB222-B	1	63	6.3	10.6	3.0	3.0	1.00	1.00	4.0	132.9	6.16	33	66
180.0	RFS Celwave PD201-	1	26	3.1	8.3	1.3	1.3	1.00	1.00	4.0	64.0	6.16	16	27
180.0	RFS PD458-2	1	70	5.9	13.3	2.0	2.0	1.00	1.00	2.0	61.1	6.14	31	75
180.0	Generic 20' Omni	1	157	10.8	20.0	3.0	3.0	1.00	1.00	10.0	570.4	6.22	57	168
177.0	Round Side Arm	3	199	7.0	0.0	0.0	0.0	1.00	0.67	0.0	0.0	6.09	73	688
150.0	Generic 20' Omni	1	155	10.7	20.0	3.0	3.0	1.00	1.00	0.0	0.0	5.81	53	166
145.0	Generic 12' Omni	1	101	6.5	12.0	3.0	3.0	1.00	1.00	6.0	192.2	5.82	32	109
145.0	Round Side Arm	3	199	7.0	0.0	0.0	0.0	1.00	0.67	0.0	0.0	5.76	69	687
135.0	RFS FD9R6004/3C-3L	6	8	0.6	0.5	6.5	1.5	0.80	0.67	2.0	17.6	5.66	9	50
135.0	Alcatel-Lucent	3	84	2.8	2.0	10.6	6.7	0.80	0.67	2.0	44.0	5.66	22	278
135.0	Amphenol Antel BXA-	1	52	4.0	4.0	6.1	4.1	0.80	1.00	1.0	15.4	5.65	15	54
135.0	RFS APX18-206516L-	2	64	4.7	4.4	6.7	3.2	0.80	0.79	4.0	115.1	5.69	29	135
135.0	Andrew Microwaves	1	95	5.5	2.2	26.1	13.2	1.00	1.00	0.0	0.0	5.64	26	102
135.0	RFS DB-T1-6Z-8AB-	1	127	5.7	2.0	24.0	10.0	0.80	1.00	2.0	44.2	5.66	22	136
135.0	Antel BXA-	3	110	9.4	5.9	11.2	4.5	0.80	0.65	1.0	70.3	5.65	70	341
135.0	Commscope LNX-	2	155	10.0	6.1	11.9	7.1	0.80	0.77	1.0	59.4	5.65	59	325
135.0	Commscope LNX-	1	155	10.0	6.1	11.9	7.1	0.80	0.82	4.0	127.2	5.69	32	162
135.0	Commscope HBXX-	3	159	10.4	6.2	12.0	6.5	0.80	0.80	4.0	387.7	5.69	97	502
131.0	Round Sector Frame	3	542	25.3	0.0	0.0	0.0	0.75	0.67	0.0	0.0	5.59	181	1807
Totals		38	5365	287.5									928	5877

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)
180.0	Andrew DB222-B	1	16	2.3	10.6	3.0	3.0	1.00	1.00	4.0	67.9	8.87	17	16
180.0	RFS Celwave PD201-	1	4	1.1	8.3	1.3	1.3	1.00	1.00	4.0	32.3	8.87	8	4
180.0	RFS PD458-2	1	22	2.7	13.3	2.0	2.0	1.00	1.00	2.0	40.0	8.85	20	22
180.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	10.0	456.8	8.96	46	55
177.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	8.78	78	450
150.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.0	8.37	43	55
145.0	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	6.0	154.0	8.39	26	40
145.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	8.29	74	450
135.0	RFS FD9R6004/3C-3L	6	3	0.3	0.5	6.5	1.5	0.80	0.67	2.0	14.0	8.16	7	16
135.0	Alcatel-Lucent	3	44	2.2	2.0	10.6	6.7	0.80	0.67	2.0	48.1	8.16	24	132
135.0	Amphenol Antel BXA-	1	9	2.9	4.0	6.1	4.1	0.80	1.00	1.0	16.2	8.14	16	9
135.0	RFS APX18-206516L-	2	19	3.5	4.4	6.7	3.2	0.80	0.79	4.0	123.9	8.19	31	37
135.0	Andrew Microwaves	1	31	4.7	2.2	26.1	13.2	1.00	1.00	0.0	0.0	8.12	32	31
135.0	RFS DB-T1-6Z-8AB-	1	44	4.8	2.0	24.0	10.0	0.80	1.00	2.0	53.2	8.16	27	44
135.0	Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	1.0	81.7	8.14	82	51
135.0	Commscope LNX-	2	39	8.2	6.1	11.9	7.1	0.80	0.77	1.0	69.7	8.14	70	78
135.0	Commscope LNX-	1	39	8.2	6.1	11.9	7.1	0.80	0.82	4.0	149.3	8.19	37	39
135.0	Commscope HBXX-	3	43	8.5	6.2	12.0	6.5	0.80	0.80	4.0	456.0	8.19	114	129
131.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	8.05	149	900
Totals		38	2558	196.6									899	2558

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	185.0	7/8" Coax	1	1.09	0.33	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	184.0	7/8" Coax	1	1.09	0.33	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	182.0	7/8" Coax	1	1.09	0.33	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	180.0	1 1/4" Coax	1	1.55	0.63	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	180.0	Waveguide	1	2.00	6.00	100	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	150.0	7/8" Coax	1	1.09	0.33	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	145.0	1/2" Coax	1	0.63	0.15	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	135.0	0.41" (10.3mm)	1	0.41	0.07	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	135.0	1 5/8" (1.63")	1	1.63	1.61	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	135.0	1 5/8" Coax	12	1.98	0.82	67	1	Block	0.00	N	1.00	1.00	0.00
0.00	135.0	Waveguide	1	2.00	6.00	100	Lin App	Individual	0.00	N	1.00	1.00	0.00

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Equivalent Lateral Force Method

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.05
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_p):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s :	0.04
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.77
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.13
Total Unfactored Dead Load:	17.87 k
Seismic Base Shear (E):	0.87 k

LoadCase 1.2D + 1.0Ev + 1.0Eh

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	170.00	688	233,828	0.089	77	854
9	150.00	661	194,969	0.074	64	820
8	130.00	1,076	269,746	0.102	89	1,335
7	116.67	488	108,239	0.041	36	606
6	106.67	1,047	209,708	0.080	69	1,299
5	90.00	1,873	309,324	0.117	102	2,324
4	70.00	1,973	245,007	0.093	81	2,448
3	50.00	2,245	190,299	0.072	63	2,786
2	30.00	2,321	110,178	0.042	36	2,880
1	10.00	2,934	40,023	0.015	13	3,640
Andrew DB222-B	180.00	16	5,803	0.002	2	20
RFS Celwave PD201-7	180.00	4	1,451	0.001	0	5
RFS PD458-2	180.00	22	7,979	0.003	3	27
Generic 20' Omni	180.00	55	19,947	0.008	7	68
Round Side Arm	177.00	450	160,120	0.061	53	558
Generic 20' Omni	150.00	55	16,219	0.006	5	68
Generic 12' Omni	145.00	40	11,350	0.004	4	50
Round Side Arm	145.00	450	127,690	0.048	42	558
RFS FD9R6004/3C-3L	135.00	16	4,082	0.002	1	19
Alcatel-Lucent RRH2x40-AWS	135.00	132	34,538	0.013	11	164
Amphenol Antel BXA-171063-8BF-EDIN-	135.00	9	2,407	0.001	1	11
RFS APX18-206516L-CT0	135.00	37	9,786	0.004	3	46
Andrew Microwaves VHLPX2-18-2GR	135.00	31	8,111	0.003	3	38
RFS DB-T1-6Z-8AB-0Z	135.00	44	11,513	0.004	4	55
Antel BXA-70063/6CF_	135.00	51	13,344	0.005	4	63

Site Number: 274848

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Equivalent Lateral Force Method

Commscope LNX-8513DS-VTM (39.2 lb)	135.00	78	20,513	0.008	7	97
Commscope LNX-6514DS-VTM	135.00	39	10,152	0.004	3	48
Commscope HBXX-6517DS-VTM	135.00	129	33,753	0.013	11	160
Round Sector Frame	131.00	900	227,584	0.086	75	1,117
		17,865	2,637,663	1.000	869	22,166

LoadCase 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	170.00	688	233,828	0.089	77	591
9	150.00	661	194,969	0.074	64	568
8	130.00	1,076	269,746	0.102	89	925
7	116.67	488	108,239	0.041	36	419
6	106.67	1,047	209,708	0.080	69	900
5	90.00	1,873	309,324	0.117	102	1,609
4	70.00	1,973	245,007	0.093	81	1,695
3	50.00	2,245	190,299	0.072	63	1,929
2	30.00	2,321	110,178	0.042	36	1,994
1	10.00	2,934	40,023	0.015	13	2,521
Andrew DB222-B	180.00	16	5,803	0.002	2	14
RFS Celwave PD201-7	180.00	4	1,451	0.001	0	3
RFS PD458-2	180.00	22	7,979	0.003	3	19
Generic 20' Omni	180.00	55	19,947	0.008	7	47
Round Side Arm	177.00	450	160,120	0.061	53	387
Generic 20' Omni	150.00	55	16,219	0.006	5	47
Generic 12' Omni	145.00	40	11,350	0.004	4	34
Round Side Arm	145.00	450	127,690	0.048	42	387
RFS FD9R6004/3C-3L	135.00	16	4,082	0.002	1	13
Alcatel-Lucent RRH2x40-AWS	135.00	132	34,538	0.013	11	113
Amphenol Antel BXA-171063-8BF-EDIN-	135.00	9	2,407	0.001	1	8
RFS APX18-206516L-CT0	135.00	37	9,786	0.004	3	32
Andrew Microwaves VHLPX2-18-2GR	135.00	31	8,111	0.003	3	27
RFS DB-T1-6Z-8AB-0Z	135.00	44	11,513	0.004	4	38
Antel BXA-70063/6CF_	135.00	51	13,344	0.005	4	44
Commscope LNX-8513DS-VTM (39.2 lb)	135.00	78	20,513	0.008	7	67
Commscope LNX-6514DS-VTM	135.00	39	10,152	0.004	3	33
Commscope HBXX-6517DS-VTM	135.00	129	33,753	0.013	11	111
Round Sector Frame	131.00	900	227,584	0.086	75	773
		17,865	2,637,663	1.000	869	15,351

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

11/13/2020 11:11:19 AM

Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 1		14N-2		Bot Elev (ft): 0.00				Height (ft): 20.000							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member															
LEG	PST - 5" DIA PIPE	-126.00	1.2D + 1.0W Normal	10.02	100	100	100	63.9	50.0	143.51	0	0	0.00	0.00	87 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	-4.38	1.2D + 1.0W 90 deg	22.61	50	50	50	197.2	50.0	12.44	1	1	13.81	19.50	35 Member Z
Max Tension Member															
LEG	PST - 5" DIA PIPE	105.47	0.9D + 1.0W 60 deg	50	65	193.50	0	0	0.00	0.00	0	0	0.00	0.00	54 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0	0	0.00	0.00	0
DIAG	SAE - 3.5X3.5X0.25	4.20	1.2D + 1.0W 90 deg	50	65	55.51	1	1	13.81	11.70	1	1	17.82	17.82	35 Bolt Bear
Max Splice Forces															
		Pu (kip)	Load Case		phiRnt (kip)	Use %	Num Bolts	Bolt Type							
	Top Tension	95.79	0.9D + 1.0W 60 deg		0.00	0	0								
	Top Compression	114.94	1.2D + 1.0W Normal		0.00	0									
	Bot Tension	109.20	0.9D + 1.0W 60 deg		227.15	23	4	1" A354-BC							
	Bot Compression	130.17	1.2D + 1.0W Normal		264.10	52									

Section: 2		13N-3		Bot Elev (ft): 20.00				Height (ft): 20.000							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member															
LEG	PX - 4" DIA PIPE	-110.88	1.2D + 1.0W Normal	10.02	100	100	100	81.2	50.0	122.52	0	0	0.00	0.00	90 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 - 3X3X0.1875	-4.38	1.2D + 1.0W 90 deg	20.83	50	50	50	209.8	36.0	7.09	1	1	13.81	13.05	61 Member Z
Max Tension Member															
LEG	PX - 4" DIA PIPE	91.42	1.2D + 1.0W 60 deg	50	65	198.45	0	0	0.00	0.00	0	0	0.00	0.00	46 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0	0	0.00	0.00	0
DIAG	SAE - 3X3X0.1875	4.25	1.2D + 1.0W 90 deg	36	58	31.36	1	1	13.81	7.83	1	1	9.89	9.89	54 Bolt Bear
Max Splice Forces															
		Pu (kip)	Load Case		phiRnt (kip)	Use %	Num Bolts	Bolt Type							
	Top Tension	82.31	0.9D + 1.0W 60 deg		0.00	0	0								
	Top Compression	98.85	1.2D + 1.0W Normal		0.00	0									
	Bot Tension	95.79	0.9D + 1.0W 60 deg		218.07	44	4	1 A325							
	Bot Compression	0.00			0.00	0									

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 3		12N		Bot Elev (ft): 40.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 4" DIA PIPE	-94.67	1.2D + 1.0W Normal	10.02	100	100	100	81.2	50.0	122.52	0	0	0.00	0.00	77 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 - 3X3X0.1875	-4.11	1.2D + 1.0W 90 deg	19.12	50	50	50	192.5	36.0	8.42	1	1	13.81	13.05	48 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)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 4" DIA PIPE	78.15	1.2D + 1.0W 60 deg	50	65	198.45	0	0	0.00	0.00			39 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00		0
DIAG	SAE - 3X3X0.1875	4.04	1.2D + 1.0W 90 deg	36	58	31.36	1	1	13.81	7.83	9.89		51 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		68.52	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		82.37	1.2D + 1.0W Normal	0.00	0		
Bot Tension		82.31	0.9D + 1.0W 60 deg	166.22	50	4	0.875" A325
Bot Compression		0.00		0.00	0		

Section: 4		11N11		Bot Elev (ft): 60.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 3" DIA PIPE	-79.67	1.2D + 1.0W Normal	6.68	100	100	100	70.3	50.0	94.68	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 - 2.5X2.5X0.1875	-3.30	1.2D + 1.0W 90 deg	15.91	50	50	50	192.9	36.0	6.94	1	1	8.84	10.44	47 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)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 3" DIA PIPE	66.79	0.9D + 1.0W 60 deg	50	65	135.90	0	0	0.00	0.00			49 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00		0
DIAG	SAE - 2.5X2.5X0.1875	3.26	1.2D + 1.0W 90 deg	36	58	25.99	1	1	8.84	6.20	8.77		52 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		55.19	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		66.39	1.2D + 1.0W Normal	0.00	0		
Bot Tension		68.52	0.9D + 1.0W 60 deg	166.22	41	4	0.875" A325
Bot Compression		0.00		0.00	0		

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 5		10N-5		Bot Elev (ft): 80.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 3" DIA PIPE	-63.64	1.2D + 1.0W Normal	6.68	100	100	100	70.3	50.0	94.69	0	0	0.00	0.00	67 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 - 2.5X2.5X0.1875	-3.08	1.2D + 1.0W 90 deg	14.05	50	50	50	170.4	36.0	8.90	1	1	8.84	10.44	34 Bolt Shear

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 3" DIA PIPE	53.10	0.9D + 1.0W 60 deg	50	65	135.90	0	0	0.00	0.00			39 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00		0
DIAG	SAE - 2.5X2.5X0.1875	3.02	1.2D + 1.0W 90 deg	36	58	25.99	1	1	8.84	6.20	8.77		48 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		40.98	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		50.00	1.2D + 1.0W Normal	0.00	0		
Bot Tension		55.19	0.9D + 1.0W 60 deg	166.22	33	4	0.875" A325
Bot Compression		0.00		0.00	0		

Section: 6		9N240		Bot Elev (ft): 100.0				Height (ft): 13.333							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 2-1/2" DIA PIPE	-47.40	1.2D + 1.0W Normal	6.68	100	100	100	86.7	50.0	58.41	0	0	0.00	0.00	81 Member X
HORIZ	SAE - 2X2X0.125	-0.35	1.2D + 1.0W Normal	9.329	100	100	100	281.3	36.0	1.74	1	1	8.84	6.96	20 Member Z
DIAG	SAE - 2X2X0.1875	-2.69	1.2D + 1.0W 90 deg	12.32	50	50	50	187.6	36.0	5.81	1	1	8.84	10.44	46 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 2-1/2" DIA PIPE	38.93	0.9D + 1.0W 60 deg	50	65	101.25	0	0	0.00	0.00			38 Member
HORIZ	SAE - 2X2X0.125	0.42	1.2D + 1.0W 60 deg	36	58	13.37	1	1	8.84	4.13	4.49		10 Bolt Bear
DIAG	SAE - 2X2X0.1875	2.68	1.2D + 1.0W 90 deg	36	58	19.89	1	1	8.84	6.20	6.73		43 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		31.41	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		39.18	1.2D + 1.0W Normal	0.00	0		
Bot Tension		40.98	0.9D + 1.0W 60 deg	120.41	34	4	0.75" A325
Bot Compression		0.00		0.00	0		

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 7		9N240		Bot Elev (ft): 113.3				Height (ft): 6.667							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 2-1/2" DIA PIPE	-36.22	1.2D + 1.0W Normal	6.68	100	100	100	86.7	50.0	58.42	0	0	0.00	0.00	62 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	-2.62	1.2D + 1.0W 90 deg	11.19	50	50	50	170.5	36.0	7.04	1	1	8.84	10.44	37 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 2-1/2" DIA PIPE	28.50	1.2D + 1.0W 60 deg	50	65	101.25	0	0	0.00	0.00			28 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00		0
DIAG	SAE - 2X2X0.1875	2.53	1.2D + 1.0W 90 deg	36	58	19.89	1	1	8.84	6.20	6.73		40 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		26.39	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		33.60	1.2D + 1.0W Normal	0.00	0		
Bot Tension		31.41	0.9D + 1.0W 60 deg	0.00	0		
Bot Compression		0.00		0.00	0		

Section: 8		8N-95-8		Bot Elev (ft): 120.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PST - 2-1/2" DIA PIP	-31.58	1.2D + 1.0W Normal	5.01	100	100	100	63.5	50.0	57.12	0	0	0.00	0.00	55 Member X
HORIZ	SAE - 2X2X0.125	-0.15	1.2D + 1.0W Normal	6.663	100	100	100	200.9	36.0	3.40	1	1	8.84	6.96	4 Member Z
DIAG	SAE - 1.5X1.5X0.125	-2.21	1.2D + 1.0W 90 deg	9.788	50	50	50	198.4	36.0	2.62	1	1	8.84	6.96	84 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PST - 2-1/2" DIA PIP	24.80	0.9D + 1.0W 60 deg	50	65	76.68	0	0	0.00	0.00			32 Member
HORIZ	SAE - 2X2X0.125	0.16	1.2D + 1.0W 60 deg	36	58	13.37	1	1	8.84	4.13	4.49		3 Bolt Bear
DIAG	SAE - 1.5X1.5X0.125	2.26	1.2D + 1.0W 90 deg	36	58	9.45	1	1	8.84	4.13	3.13		72 Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		13.54	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		17.35	1.2D + 1.0W Normal	0.00	0		
Bot Tension		26.39	0.9D + 1.0W 60 deg	81.36	32	4	5/8 A325
Bot Compression		0.00		0.00	0		

Site Number: 274848

Code: ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 9		7N433		Bot Elev (ft): 140.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PST - 2" DIA PIPE	-15.82	1.2D + 1.0W Normal	4.00	100	100	100	61.0	50.0	36.68	0	0	0.00	0.00	43 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 - 1.5X1.5X0.125	-1.46	1.2D + 1.0W 90 deg	7.762	50	50	50	157.3	36.0	4.16	1	1	8.84	6.96	35 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PST - 2" DIA PIPE	12.10	1.2D + 1.0W 60 deg	50	65	48.15	0	0	0.00	0.00			25 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00		0
DIAG	SAE - 1.5X1.5X0.125	1.43	1.2D + 1.0W 90 deg	36	58	9.45	1	1	8.84	4.13	3.13		45 Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		4.20	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		6.10	1.2D + 1.0W Normal	0.00	0		
Bot Tension		13.54	0.9D + 1.0W 60 deg	81.36	17	4	5/8 A325
Bot Compression		0.00		0.00	0		

Section: 10		7N433		Bot Elev (ft): 160.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PST - 2" DIA PIPE	-5.29	1.2D + 1.0W Normal	4.00	100	100	100	61.0	50.0	36.68	0	0	0.00	0.00	14 Member X
HORIZ	SAE - 2X2X0.125	-0.24	1.2D + 1.0W 60 deg	6.559	100	100	100	197.8	36.0	3.51	1	1	8.84	6.96	6 Member Z
DIAG	SAE - 1.5X1.5X0.125	-0.78	1.2D + 1.0W 90 deg	7.682	50	50	50	155.7	36.0	4.25	1	1	8.84	6.96	18 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PST - 2" DIA PIPE	3.44	1.2D + 1.0W 60 deg	50	65	48.15	0	0	0.00	0.00			7 Member
HORIZ	SAE - 2X2X0.125	0.32	1.2D + 1.0W Normal	36	58	13.37	1	1	8.84	4.13	4.49		7 Bolt Bear
DIAG	SAE - 1.5X1.5X0.125	0.78	1.2D + 1.0W 90 deg	36	58	9.45	1	1	8.84	4.13	3.13		24 Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		0.00		0.00	0	0	
Top Compression		0.28	1.2D + 1.0Di + 1.0Wi	0.00	0		
Bot Tension		4.20	0.9D + 1.0W 60 deg	81.36	5	4	5/8 A325
Bot Compression		0.00		0.00	0		

Site Number: 274848

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

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Customer: VERIZON WIRELESS

Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.0W Normal	12.00	00.00	0	1	0.00	129.97	-14.26	
	12.00	00.00	120	1a	4.88	-54.27	-4.57	
	12.00	00.00	240	1b	-4.88	-54.27	-4.57	
1.2D + 1.0W 60 deg	12.00	00.00	0	1	-1.43	64.35	-6.81	
	12.00	00.00	120	1a	-6.60	63.79	2.16	
	12.00	00.00	240	1b	-10.70	-106.70	-6.17	
1.2D + 1.0W 90 deg	12.00	00.00	0	1	-1.67	7.15	-0.39	
	12.00	00.00	120	1a	-10.58	107.40	5.12	
	12.00	00.00	240	1b	-9.82	-93.11	-4.73	
0.9D + 1.0W Normal	12.00	00.00	0	1	0.00	128.07	-14.15	
	12.00	00.00	120	1a	4.98	-56.00	-4.63	
	12.00	00.00	240	1b	-4.98	-56.00	-4.63	
0.9D + 1.0W 60 deg	12.00	00.00	0	1	-1.43	62.51	-6.69	
	12.00	00.00	120	1a	-6.50	61.95	2.11	
	12.00	00.00	240	1b	-10.80	-108.38	-6.23	
0.9D + 1.0W 90 deg	12.00	00.00	0	1	-1.67	5.36	-0.28	
	12.00	00.00	120	1a	-10.48	105.52	5.07	
	12.00	00.00	240	1b	-9.92	-94.80	-4.79	
1.2D + 1.0Di + 1.0Wi Normal	12.00	00.00	0	1	0.00	53.38	-4.32	
	12.00	00.00	120	1a	1.48	-3.51	-1.35	
	12.00	00.00	240	1b	-1.48	-3.51	-1.35	
1.2D + 1.0Di + 1.0Wi 60 deg	12.00	00.00	0	1	-0.41	33.76	-2.14	
	12.00	00.00	120	1a	-2.06	33.60	0.71	
	12.00	00.00	240	1b	-3.36	-20.99	-1.94	
1.2D + 1.0Di + 1.0Wi 90 deg	12.00	00.00	0	1	-0.48	15.45	-0.13	
	12.00	00.00	120	1a	-3.28	47.26	1.61	
	12.00	00.00	240	1b	-3.04	-16.35	-1.48	
1.2D + 1.0Ev + 1.0Eh Normal M1	12.00	00.00	0	1	0.00	12.48	-0.99	
	12.00	00.00	120	1a	-0.20	4.24	0.08	
	12.00	00.00	240	1b	0.20	4.24	0.08	
1.2D + 1.0Ev + 1.0Eh 60 deg M1	12.00	00.00	0	1	-0.03	9.68	-0.73	
	12.00	00.00	120	1a	-0.65	9.68	0.33	
	12.00	00.00	240	1b	-0.03	1.60	-0.02	
1.2D + 1.0Ev + 1.0Eh 90 deg M1	12.00	00.00	0	1	-0.04	6.98	-0.47	
	12.00	00.00	120	1a	-0.81	11.74	0.44	
	12.00	00.00	240	1b	0.01	2.22	0.03	
0.9D - 1.0Ev + 1.0Eh Normal M1	12.00	00.00	0	1	0.00	10.33	-0.85	
	12.00	00.00	120	1a	-0.08	2.09	0.00	
	12.00	00.00	240	1b	0.08	2.09	0.00	
0.9D - 1.0Ev + 1.0Eh 60 deg M1	12.00	00.00	0	1	-0.03	7.53	-0.58	
	12.00	00.00	120	1a	-0.52	7.53	0.26	
	12.00	00.00	240	1b	-0.16	-0.54	-0.09	
0.9D - 1.0Ev + 1.0Eh 90 deg M1	12.00	00.00	0	1	-0.04	4.84	-0.33	
	12.00	00.00	120	1a	-0.68	9.59	0.37	

Site Number: 274848

Code:

ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

11/13/2020 11:11:20 AM

Customer: VERIZON WIRELESS

	12.00	00.00	240	1b	-0.12	0.08	-0.04
1.0D + 1.0W Service Normal	12.00	00.00	0	1	0.00	38.03	-4.01
	12.00	00.00	120	1a	1.04	-10.08	-1.07
	12.00	00.00	240	1b	-1.04	-10.08	-1.07
1.0D + 1.0W Service 60 deg	12.00	00.00	0	1	-0.38	20.89	-2.06
	12.00	00.00	120	1a	-1.97	20.75	0.70
	12.00	00.00	240	1b	-2.58	-23.78	-1.49
1.0D + 1.0W Service 90 deg	12.00	00.00	0	1	-0.44	5.96	-0.38
	12.00	00.00	120	1a	-3.01	32.14	1.48
	12.00	00.00	240	1b	-2.35	-20.23	-1.10

Max Uplift:	108.38 (kip)	Moment Ice:	682.47 (kip-ft)	Moment:	2,210.51 (kip-ft)	1.2D + 1.0W Normal
Max Down:	129.97 (kip)	Total Down Ice:	46.36 (kip)	Total Down:	21.44 (kip)	
Max Shear:	14.26 (kip)	Total Shear Ice:	7.02 (kip)	Total Shear:	23.40 (kip)	

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
117 mph Normal with No Ice	130.00	0.739	0.6956	0.6744	0.9688
117 mph Normal with No Ice	135.00	0.800	0.7567	0.9421	1.2083
117 mph Normal with No Ice	144.00	0.915	0.7597	0.8277	1.1201
117 mph Normal with No Ice	152.00	1.025	0.7430	0.8073	1.0972
117 mph Normal with No Ice	176.00	1.373	0.7143	0.7460	1.0302
117 mph Normal with No Ice	180.00	1.432	0.7130	1.2309	1.4225
117 mph 60 degree with No Ice	130.00	0.684	0.9783	0.6588	1.1794
117 mph 60 degree with No Ice	135.00	0.740	1.0639	0.6129	1.2278
117 mph 60 degree with No Ice	144.00	0.846	1.1014	0.6704	1.2893
117 mph 60 degree with No Ice	152.00	0.945	1.1205	0.7288	1.3367
117 mph 60 degree with No Ice	176.00	1.261	1.2050	0.8204	1.4534
117 mph 60 degree with No Ice	180.00	1.314	1.2176	0.6866	1.3979
117 mph 90 degree with No Ice	130.00	0.694	-0.8742	0.6754	1.0815
117 mph 90 degree with No Ice	135.00	0.750	-0.9470	0.4611	1.0356
117 mph 90 degree with No Ice	144.00	0.856	-0.9512	0.6427	1.1480
117 mph 90 degree with No Ice	152.00	0.957	-0.9353	0.7321	1.1857
117 mph 90 degree with No Ice	176.00	1.275	-0.9079	0.8729	1.2595
117 mph 90 degree with No Ice	180.00	1.328	-0.9068	0.3850	0.9794
117 mph Normal with No Ice (Reduced DL)	130.00	0.738	0.6956	0.6733	0.9681
117 mph Normal with No Ice (Reduced DL)	135.00	0.799	0.7567	0.9408	1.2073
117 mph Normal with No Ice (Reduced DL)	144.00	0.914	0.7597	0.8263	1.1191
117 mph Normal with No Ice (Reduced DL)	152.00	1.023	0.7430	0.8059	1.0961
117 mph Normal with No Ice (Reduced DL)	176.00	1.371	0.7143	0.7445	1.0291
117 mph Normal with No Ice (Reduced DL)	180.00	1.430	0.7130	1.2294	1.4212
117 mph 60 deg with No Ice (Reduced DL)	130.00	0.684	0.9778	0.6578	1.1785
117 mph 60 deg with No Ice (Reduced DL)	135.00	0.739	1.0634	0.6117	1.2268
117 mph 60 deg with No Ice (Reduced DL)	144.00	0.844	1.1008	0.6692	1.2882
117 mph 60 deg with No Ice (Reduced DL)	152.00	0.944	1.1199	0.7275	1.3355
117 mph 60 deg with No Ice (Reduced DL)	176.00	1.259	1.2042	0.8190	1.4519
117 mph 60 deg with No Ice (Reduced DL)	180.00	1.312	1.2167	0.6854	1.3965
117 mph 90 deg with No Ice (Reduced DL)	130.00	0.693	-0.8741	0.6744	1.0808
117 mph 90 deg with No Ice (Reduced DL)	135.00	0.749	-0.9469	0.4598	1.0350
117 mph 90 deg with No Ice (Reduced DL)	144.00	0.855	-0.9511	0.6415	1.1472
117 mph 90 deg with No Ice (Reduced DL)	152.00	0.955	-0.9352	0.7308	1.1848
117 mph 90 deg with No Ice (Reduced DL)	176.00	1.273	-0.9078	0.8715	1.2584
117 mph 90 deg with No Ice (Reduced DL)	180.00	1.326	-0.9067	0.3835	0.9788
50 mph Normal with 1.00 in Radial Ice	130.00	0.231	0.0981	0.2098	0.2316
50 mph Normal with 1.00 in Radial Ice	135.00	0.251	0.1074	0.2757	0.2959
50 mph Normal with 1.00 in Radial Ice	144.00	0.287	0.0964	0.2631	0.2789
50 mph Normal with 1.00 in Radial Ice	152.00	0.322	0.0801	0.2581	0.2695
50 mph Normal with 1.00 in Radial Ice	176.00	0.434	0.0532	0.2348	0.2395
50 mph Normal with 1.00 in Radial Ice	180.00	0.453	0.0521	0.4125	0.4158
50 mph 60 deg with 1.00 in Radial Ice	130.00	0.222	0.1137	0.2119	0.2405
50 mph 60 deg with 1.00 in Radial Ice	135.00	0.241	0.1241	0.1999	0.2353
50 mph 60 deg with 1.00 in Radial Ice	144.00	0.275	0.1133	0.2221	0.2493
50 mph 60 deg with 1.00 in Radial Ice	152.00	0.308	0.0967	0.2418	0.2601
50 mph 60 deg with 1.00 in Radial Ice	176.00	0.414	0.0756	0.2749	0.2833
50 mph 60 deg with 1.00 in Radial Ice	180.00	0.431	0.0760	0.2263	0.2387
50 mph 90 deg with 1.00 in Radial Ice	130.00	0.223	-0.1284	0.2178	0.2465
50 mph 90 deg with 1.00 in Radial Ice	135.00	0.242	-0.1394	0.1718	0.2159
50 mph 90 deg with 1.00 in Radial Ice	144.00	0.276	-0.1252	0.2121	0.2454
50 mph 90 deg with 1.00 in Radial Ice	152.00	0.310	-0.1043	0.2415	0.2620
50 mph 90 deg with 1.00 in Radial Ice	176.00	0.415	-0.0699	0.2914	0.2996
50 mph 90 deg with 1.00 in Radial Ice	180.00	0.432	-0.0686	0.1140	0.1283
Seismic Normal M1	130.00	0.036	0.0012	0.0359	0.0359

Site Number: 274848

Code:

ANSI/TIA-222-H

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Site Name: WOLCOTT RD CT, CT

Engineering Number: OAA761901_C3_01

11/13/2020 11:11:20 AM

Customer: VERIZON WIRELESS

Seismic Normal M1	135.00	0.039	0.0013	0.0372	0.0373
Seismic Normal M1	144.00	0.045	0.0011	0.0400	0.0400
Seismic Normal M1	152.00	0.051	0.0009	0.0422	0.0422
Seismic Normal M1	176.00	0.069	0.0005	0.0438	0.0438
Seismic Normal M1	180.00	0.072	0.0004	0.0438	0.0438
Seismic 60 deg M1	130.00	0.035	0.0012	0.0342	0.0342
Seismic 60 deg M1	135.00	0.038	0.0012	0.0363	0.0363
Seismic 60 deg M1	144.00	0.044	0.0011	0.0387	0.0387
Seismic 60 deg M1	152.00	0.050	0.0008	0.0408	0.0408
Seismic 60 deg M1	176.00	0.067	0.0004	0.0425	0.0425
Seismic 60 deg M1	180.00	0.070	0.0003	0.0426	0.0426
Seismic 90 deg M1	130.00	0.036	-0.0014	0.0357	0.0357
Seismic 90 deg M1	135.00	0.039	-0.0015	0.0373	0.0373
Seismic 90 deg M1	144.00	0.045	-0.0013	0.0400	0.0400
Seismic 90 deg M1	152.00	0.051	-0.0010	0.0422	0.0422
Seismic 90 deg M1	176.00	0.069	-0.0005	0.0438	0.0438
Seismic 90 deg M1	180.00	0.072	-0.0005	0.0439	0.0439
Seismic (Reduced DL) Normal M1	130.00	0.036	0.0012	0.0356	0.0356
Seismic (Reduced DL) Normal M1	135.00	0.039	0.0013	0.0370	0.0370
Seismic (Reduced DL) Normal M1	144.00	0.045	0.0011	0.0399	0.0399
Seismic (Reduced DL) Normal M1	152.00	0.051	0.0009	0.0421	0.0421
Seismic (Reduced DL) Normal M1	176.00	0.069	0.0005	0.0437	0.0437
Seismic (Reduced DL) Normal M1	180.00	0.072	0.0004	0.0437	0.0437
Seismic (Reduced DL) 60 deg M1	130.00	0.035	0.0012	0.0340	0.0340
Seismic (Reduced DL) 60 deg M1	135.00	0.038	0.0012	0.0359	0.0359
Seismic (Reduced DL) 60 deg M1	144.00	0.044	0.0011	0.0386	0.0386
Seismic (Reduced DL) 60 deg M1	152.00	0.049	0.0008	0.0407	0.0407
Seismic (Reduced DL) 60 deg M1	176.00	0.067	0.0004	0.0424	0.0424
Seismic (Reduced DL) 60 deg M1	180.00	0.070	0.0003	0.0425	0.0425
Seismic (Reduced DL) 90 deg M1	130.00	0.036	-0.0014	0.0354	0.0354
Seismic (Reduced DL) 90 deg M1	135.00	0.039	-0.0015	0.0369	0.0370
Seismic (Reduced DL) 90 deg M1	144.00	0.045	-0.0013	0.0398	0.0398
Seismic (Reduced DL) 90 deg M1	152.00	0.051	-0.0010	0.0420	0.0421
Seismic (Reduced DL) 90 deg M1	176.00	0.069	-0.0005	0.0437	0.0437
Seismic (Reduced DL) 90 deg M1	180.00	0.072	-0.0005	0.0438	0.0438
Serviceability - 60 mph Wind Normal	130.00	0.193	0.1162	0.1718	0.2074
Serviceability - 60 mph Wind Normal	135.00	0.209	0.1271	0.2418	0.2732
Serviceability - 60 mph Wind Normal	144.00	0.239	0.1142	0.2153	0.2430
Serviceability - 60 mph Wind Normal	152.00	0.267	0.0949	0.2098	0.2300
Serviceability - 60 mph Wind Normal	176.00	0.357	0.0631	0.1934	0.2026
Serviceability - 60 mph Wind Normal	180.00	0.373	0.0619	0.3211	0.3270
Serviceability - 60 mph Wind 60 deg	130.00	0.178	0.1282	0.1707	0.2134
Serviceability - 60 mph Wind 60 deg	135.00	0.193	0.1399	0.1548	0.2086
Serviceability - 60 mph Wind 60 deg	144.00	0.220	0.1265	0.1737	0.2149
Serviceability - 60 mph Wind 60 deg	152.00	0.246	0.1065	0.1890	0.2169
Serviceability - 60 mph Wind 60 deg	176.00	0.328	0.0772	0.2132	0.2253
Serviceability - 60 mph Wind 60 deg	180.00	0.342	0.0767	0.1756	0.1916
Serviceability - 60 mph Wind 90 deg	130.00	0.181	-0.1452	0.1772	0.2238
Serviceability - 60 mph Wind 90 deg	135.00	0.195	-0.1578	0.1210	0.1946
Serviceability - 60 mph Wind 90 deg	144.00	0.223	-0.1414	0.1665	0.2182
Serviceability - 60 mph Wind 90 deg	152.00	0.249	-0.1178	0.1903	0.2232
Serviceability - 60 mph Wind 90 deg	176.00	0.332	-0.0788	0.2270	0.2403
Serviceability - 60 mph Wind 90 deg	180.00	0.346	-0.0773	0.0987	0.1222

Maximum Reactions Summary

Anchor Group	Vertical (kip)				Horizontal (kip)		Moment (kip-ft)	
	DL+WL	DL+WL+IL	UpLift	Shear	DL+WL	DL+WL+IL	DL+WL	DL+WL+IL
Base	21.44	46.36	129.97	14.26	23.40	7.02	2210.51	682.47

ATTACHMENT 4



November 11, 2020



20 Alexander Drive
Wallingford, CT 06492

RE: Site Name: Wolcott NW CT
Site Address: Andrews Road
Wolcott, CT 06716

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by Verizon to perform a structural assessment on the proposed antenna mount to determine its capability of supporting the following additional Verizon equipment:

- **(1) VHLPX3-18-2WH/A Microwave Antenna**

Based on our evaluation, we have determined that the proposed SitePro1, P/N R5-LL, mount **IS CAPABLE** of supporting the proposed installation. HDG reviewed loading information to determine this assessment.

Reference Documents:

- Previous HDG Mount Structural Analysis Report dated November 21, 2019.
- Engineering Letter, P/N R5, prepared by SitePro1 dated February 28, 2018.

This analysis was conducted in accordance with EIA/TIA-222-G, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures and the International Building Code 2015.

This determination was based on the following limitations and assumptions:

1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities. Contractor to perform pre-inspection prior to construction.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. All the components supporting the Verizon antennas mounts are assumed to be designed to all applicable codes and designed for identical to or larger than the currently proposed loads.
5. The existing mounts have been adequately secured to the structure per the mount manufacturer's specifications.
6. All components pertaining to Verizon's mounts must be tightened and re-plumbed prior to installation of new appurtenances.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,
Hudson Design Group LLC

Michael Cabral
Vice President



Daniel P. Hamm, PE
Principal

Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
(856) 797-0412
gdulnik@maserconsulting.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10022681
Maser Consulting Connecticut Project #: 20777521A

November 30, 2020

Site Information

Site ID: 467187-VZW / WOLCOTT N
Site Name: WOLCOTT N
Carrier Name: Verizon Wireless
Address: 1192 Wolcott Rd
Wolcott, Connecticut 06716
New Haven County
Latitude: 41.61803611°
Longitude: -72.97124444°

Structure Information

Tower Type: 180-Ft Self Support
Mount Type: 13.00-Ft T-Frame Mount

FUZE ID # 2580172

Analysis Results

T-Frame Mount: **95.1% Pass**

*****Contractor PMI Requirements:**

Included at the end of this MA report

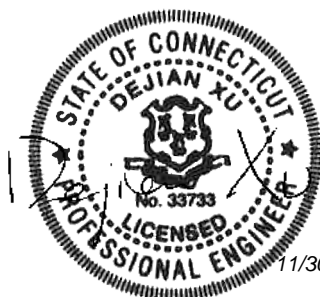
Available & Submitted via portal at <https://pmi.vzwsmart.com>

Contractor - Please Review Specific Site PMI Requirements Upon Award

Requirements also Noted on Mount Modification Drawings

Requirements may also be Noted on A & E drawings

Report Prepared By: Nathan LaPorte



11/30/2020

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

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

Sources of Information:

Document Type	Remarks
Mount Mapping Report	RKS Design & Engineering, LLC Site ID: ATAC: 274848, Dated 11/28/2020
Construction Drawings	A.T. Engineering Service, PLLC Job #: OAA761901, dated 11/13/2020

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 117 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.963
Seismic Parameters:	S_s : 0.191 S_1 : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
133.00	135.00	3	Amphenol Antel	BXA-70063-6CF-EDIN-6	Retained
		3	Generic	71"x 7"x 2.5" Panel	
		3	Generic	72"x 11"x 6" Panel	
		3	Generic	48"x 8"x 4" Panel	
		3	Alcatel-Lucent	RRH2x40-AWS*	
		6	Andrew	Diplexer	
		1	Raycap	OVP Box*	
		1	ValuLine	VHLP2-18/C	Added

* Equipment is flush mounted directly to the Self Support tower. They are not mounted on the T-Frame mounts and are not included in this mount analysis.

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
<i>Antenna Pipe</i>	<i>51.3%</i>	<i>Pass</i>
<i>Tie-Back</i>	<i>15.2%</i>	<i>Pass</i>
<i>Mast Pipe</i>	<i>22.6%</i>	<i>Pass</i>
<i>Standoff Bracing</i>	<i>7.0%</i>	<i>Pass</i>
<i>Standoff Horizontal</i>	<i>54.4%</i>	<i>Pass</i>
<i>Dish Pipe</i>	<i>1.6%</i>	<i>Pass</i>
<i>Face Horizontal</i>	<i>95.1%</i>	<i>Pass</i>
<i>Mount Connection</i>	<i>19.4%</i>	<i>Pass</i>
Structure Rating – (Controlling Utilization of all Components)		95.1%

Recommendation:


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

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

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter

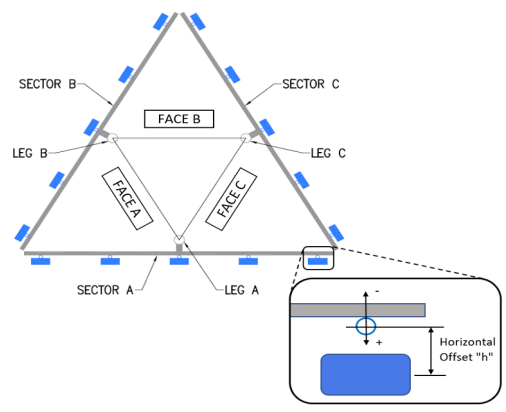


	Antenna Mount Mapping Form (PATENT PENDING)			FCC #
				UNKNOWN
Tower Owner:	ATC	Mapping Date:	11-28-2020	
Site Name:	ATC: WOLCOTT RD CT	Tower Type:	Self Support	
Site Number or ID:	ATC: 274848	Tower Height (Ft.):	UNKNOWN	
Mapping Contractor:	RKS Design & Engineering LLC.	Mount Elevation (Ft.):	132	

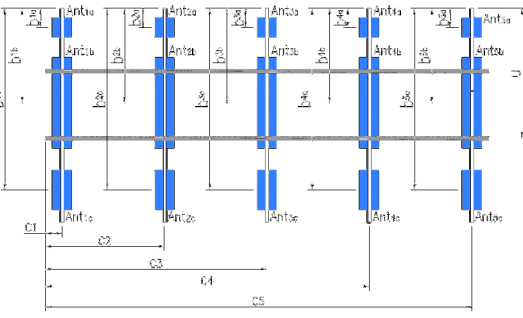
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Please insert the sketches of the antenna mount from the "Sketches" tab with dimensions and members here.

Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	12.00	C1	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	12.00
A2	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	78.00	C2	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	78.00
A3	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	120.00	C3	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	120.00
A4	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	144.00	C4	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	144.00
A5				C5			
A6				C6			
B1	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	12.00	D1			
B2	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	78.00	D2			
B3	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	120.00	D3			
B4	PIPE 2.375"Ø X 0.15" X 84" Long	67.00	144.00	D4			
B5				D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details.:							15.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.):							
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.):							
Please enter additional information or comments below.							
Tower Face Width at Mount Elev. (ft.):		4.5		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):		2	



Ants. Items	Enter antenna model. If not labeled, enter "Unknown".					Mounting Locations [Units are inches and degrees]			Photos of antennas	
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b _{1a} , b _{2a} , b _{3a} , b _{1b} ,..." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant _{1a}										
Ant _{1b}	UNKNOWN:ANTENNA	7.00	2.50	71.00		132.375	47.50	7.75	30.00	18
Ant _{1c}										
Ant _{2a}										
Ant _{2b}	BXA-70063/6CFEDING	11.00	5.00	71.00		132.708	43.50	10.50	30.00	18
Ant _{2c}										
Ant _{3a}										
Ant _{3b}	UNKNOWN:ANTENNA	8.00	4.00	48.00		133.833	30.00	8.75	30.00	18
Ant _{3c}										
Ant _{4a}										
Ant _{4b}	UNKNOWN:ANTENNA	11.00	6.00	72.00		132.667	44.00	10.50	30.00	18
Ant _{4c}										
Ant _{5a}										
Ant _{5b}										
Ant _{5c}										
Ant on Standoff										
Ant on Standoff	UNKNOWN	6.00	2.00	4.00			37.00	1.50		40, 42, 43
Ant on Tower	9442 RRH2X40-AWS	10.50	6.50	24.50			44.00	4.25		41
Ant on Tower										



Antenna Layout (Looking Out From Tower)

Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector			Sector B																				
Sector A:	30.00	Deg	Leg A:	30.00	Deg	Ant _{1a}																				
Sector B:	150.00	Deg	Leg B:	150.00	Deg	Ant _{1b}	UNKNOWN:ANTENNA	7.00	2.50	71.00		132.375	47.50	7.75	150.00	21										
Sector C:	250.00	Deg	Leg C:	270.00	Deg	Ant _{1c}																				
Sector D:		Deg	Leg D:		Deg	Ant _{2a}																				
Climbing Facility Information						Ant _{2b}	BXA-70063/6CFEDING	11.00	5.00	71.00		132.708	43.50	10.50	150.00	21										
Location:	30.00	Deg	Sector B			Ant _{2c}																				
Climbing Facility	Corrosion Type:	Good condition.				Ant _{3a}																				
	Access:	Climbing path was unobstructed.				Ant _{3b}	UNKNOWN:ANTENNA	8.00	4.00	48.00		133.833	30.00	8.75	150.00	21										
	Condition:	Good condition.				Ant _{3c}																				
						Ant _{4a}																				
						Ant _{4b}	UNKNOWN:ANTENNA	11.00	6.00	72.00		132.667	44.00	10.50	150.00	21										
						Ant _{4c}																				
						Ant _{5a}																				
						Ant _{5b}																				
						Ant _{5c}																				
						Ant on Standoff																				
						Ant on Standoff	UNKNOWN					6.00	2.00	4.00				37.00	1.50		85					
						Ant on Tower	9442 RRH2X40-AWS					10.50	6.50	24.50				44.00	4.25		86					
						Ant on Tower	UNKNOWN: COVP					15.00	10.00	25.00				43.25	6.00		87					
						Sector C																				
						Ant _{1a}																				
						Ant _{1b}	UNKNOWN:ANTENNA	7.00	2.50	71.00		132.375	47.50	7.75	250.00	24										
						Ant _{1c}																				
						Ant _{2a}																				
						Ant _{2b}	BXA-70063/6CFEDING	11.00	5.00	71.00		132.708	43.50	10.50	250.00	24										
						Ant _{2c}																				
						Ant _{3a}																				
						Ant _{3b}	UNKNOWN:ANTENNA	8.00	4.00	48.00		133.833	30.00	8.75	250.00	24										
						Ant _{3c}																				
						Ant _{4a}																				
						Ant _{4b}	UNKNOWN:ANTENNA	11.00	6.00	72.00		132.667	44.00	10.50	250.00	24										
						Ant _{4c}																				
						Ant _{5a}																				
						Ant _{5b}																				
						Ant _{5c}																				
						Ant on Standoff																				
						Ant on Standoff	UNKNOWN					6.00	2.00	4.00		37.00	1.50		89							
						Ant on Tower	9442 RRH2X40-AWS					10.50	6.50	24.50		44.00	4.25		89							
						Ant on Tower																				
						Sector D																				
						Ant _{1a}																				
						Ant _{1b}																				
						Ant _{1c}																				
						Ant _{2a}																				
						Ant _{2b}																				
						Ant _{2c}																				
						Ant _{3a}																				
						Ant _{3b}																				
						Ant _{3c}																				
						Ant _{4a}																				
						Ant _{4b}																				
						Ant _{4c}																				
						Ant _{5a}																				
						Ant _{5b}																				
						Ant _{5c}																				
						Ant on Standoff																				
						Ant on Standoff																				
						Ant on Tower																				
						Ant on Tower																				

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1	TOTAL COAX : (13)FH 1-5/8 , (1) 1.55"Ø	
2		
3		
4		
5		
6		
7		
8		

Mapping Notes

1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions

1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.



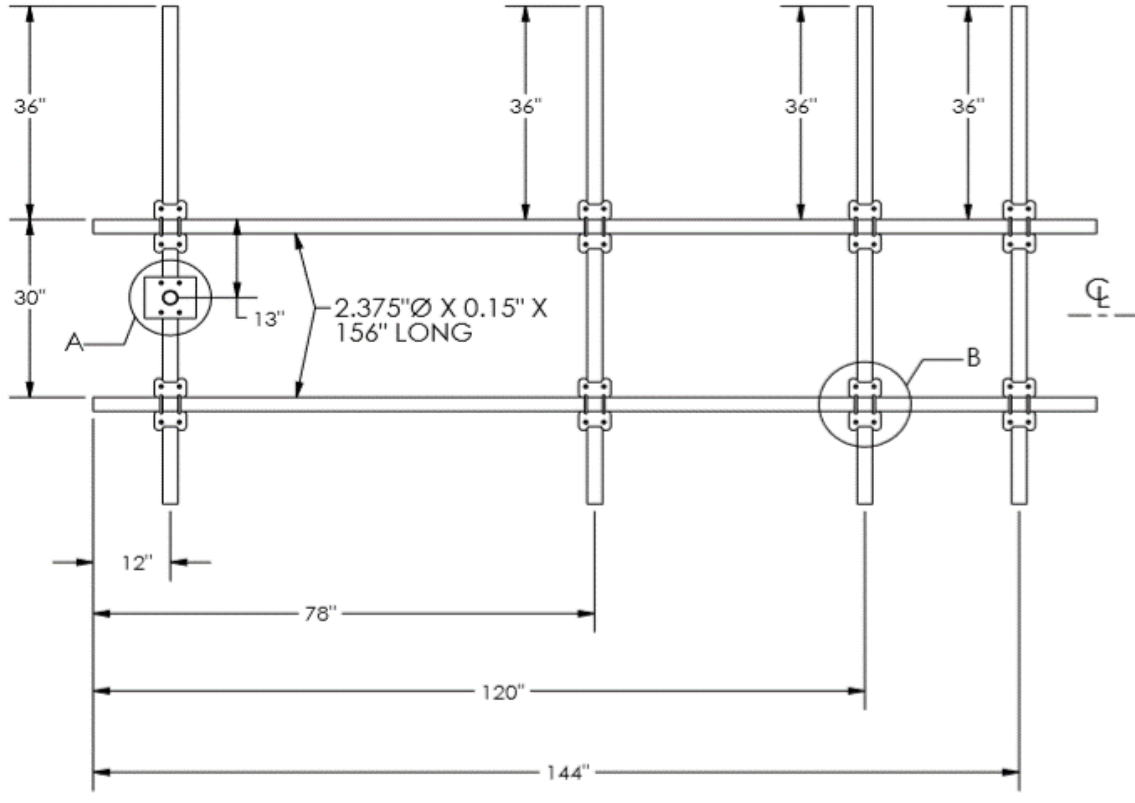
Antenna Mount Mapping Form (PATENT PENDING)

FCC #
UNKNOWN

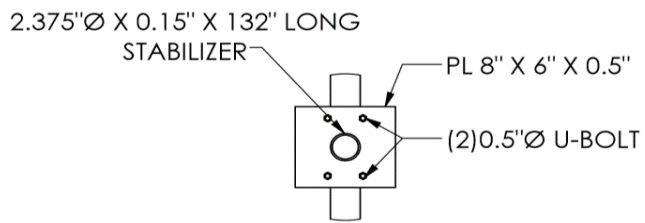
Tower Owner:	ATC	Mapping Date:	11-28-2020
Site Name:	ATC: WOLCOTT RD CT	Tower Type:	Self Support
Site Number or ID:	ATC: 274848	Tower Height (Ft.):	UNKNOWN
Mapping Contractor:	RKS Design & Engineering LLC.	Mount Elevation (Ft.):	132

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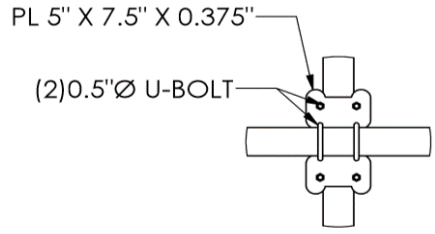
Please Insert Sketches of the Antenna Mount



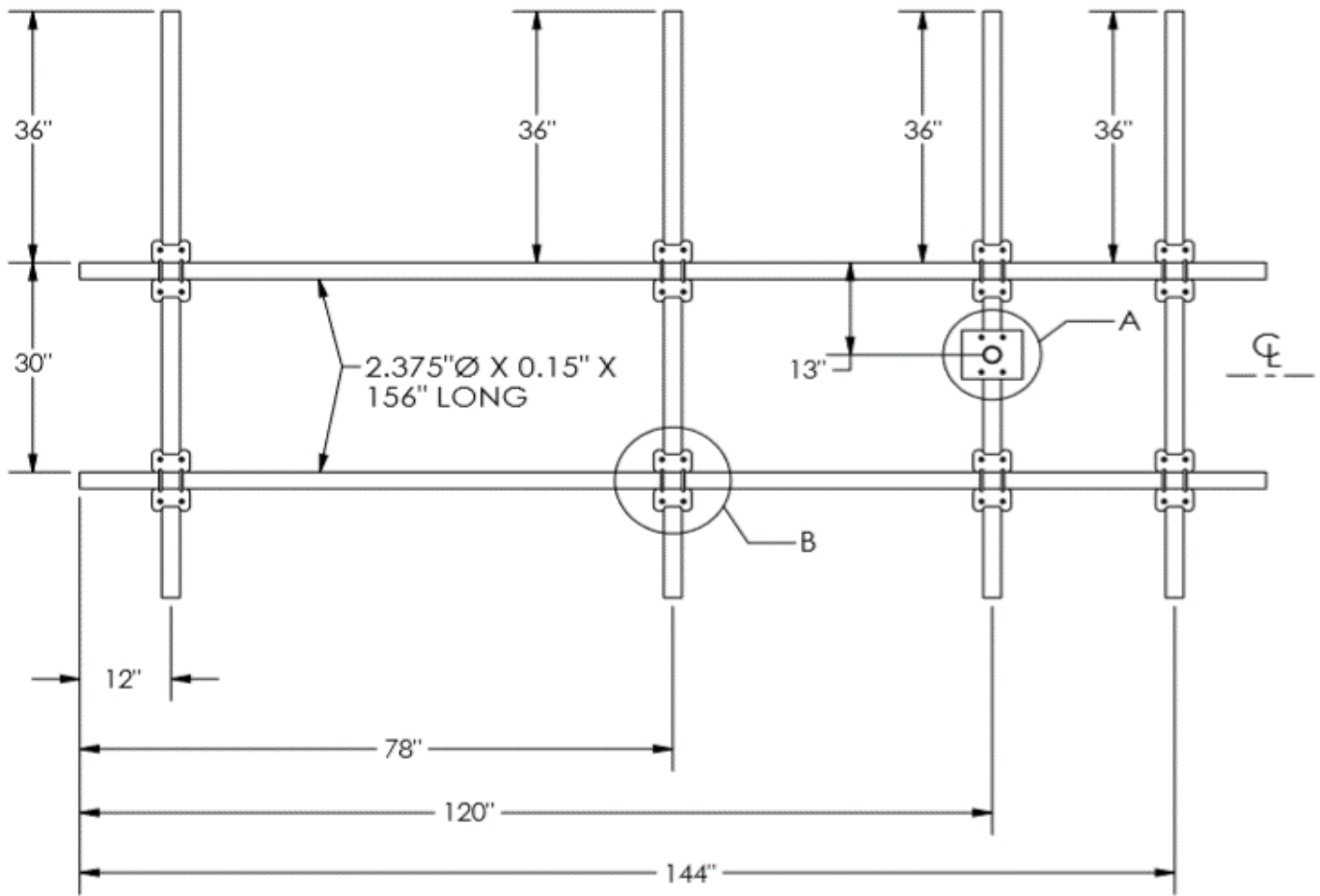
SECTOR: A & C



DETAIL A

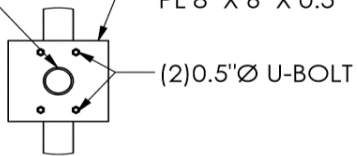


DETAIL B



SECTOR: B

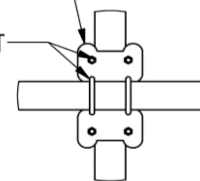
2.375"Ø X 0.15" X 132" LONG
STABILIZER



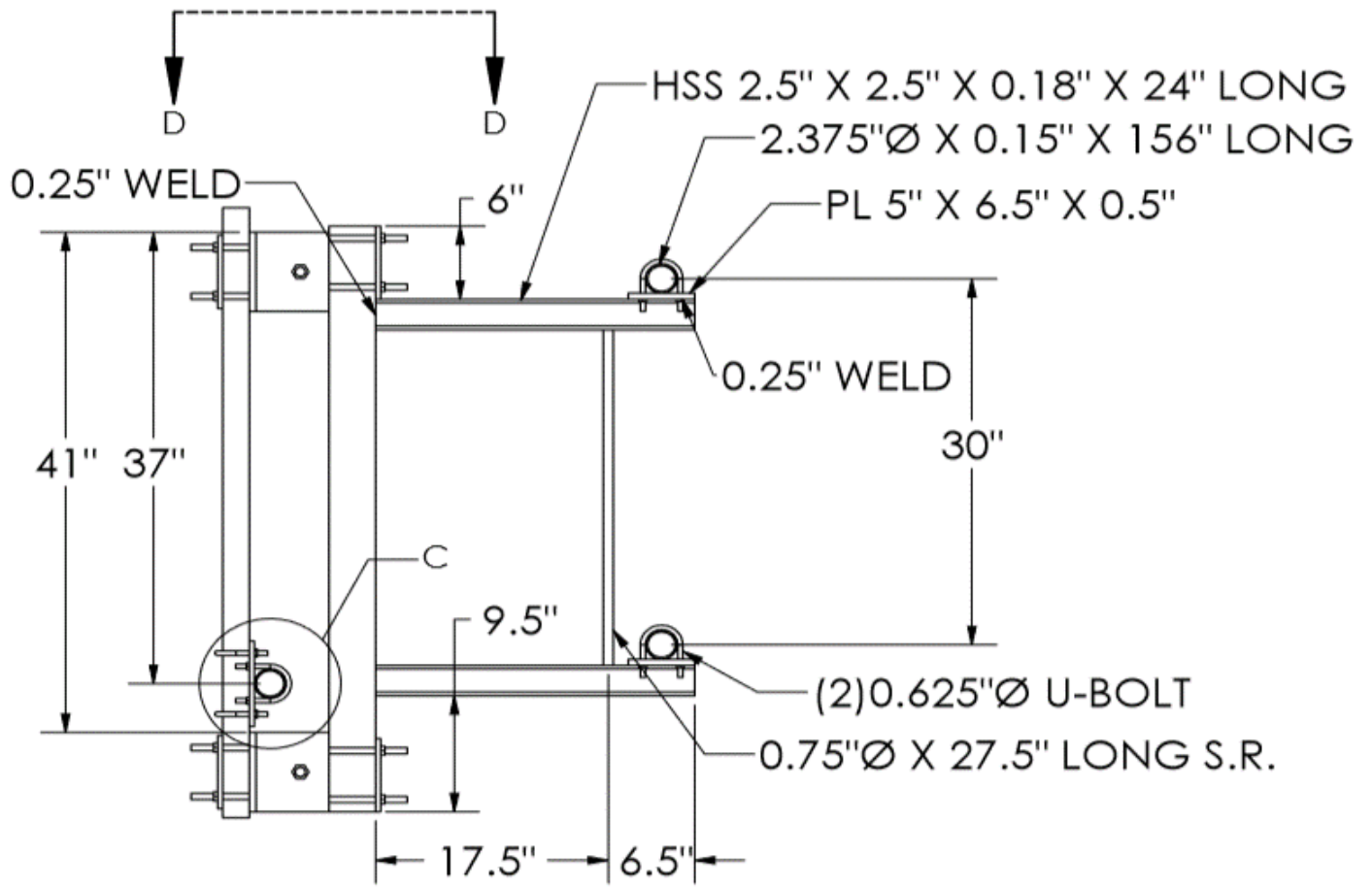
DETAIL A

PL 5" X 7.5" X 0.375"

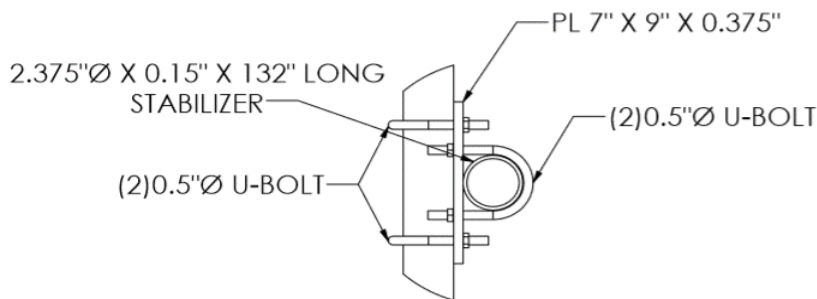
(2)0.5"Ø U-BOLT



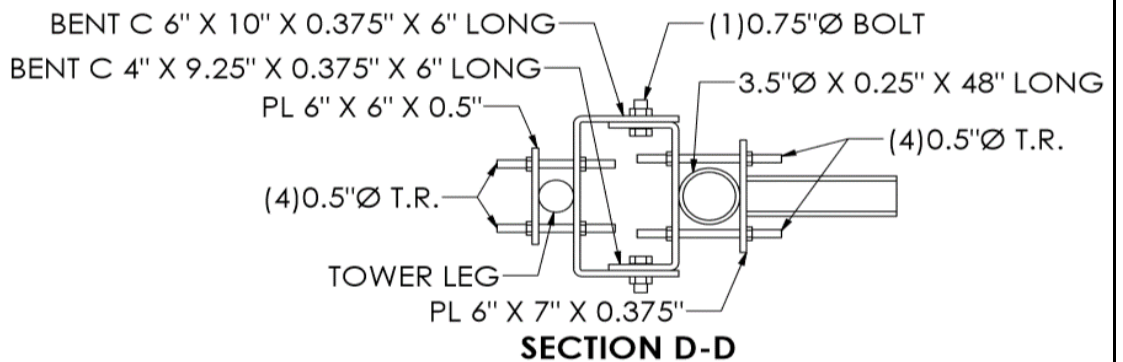
DETAIL B

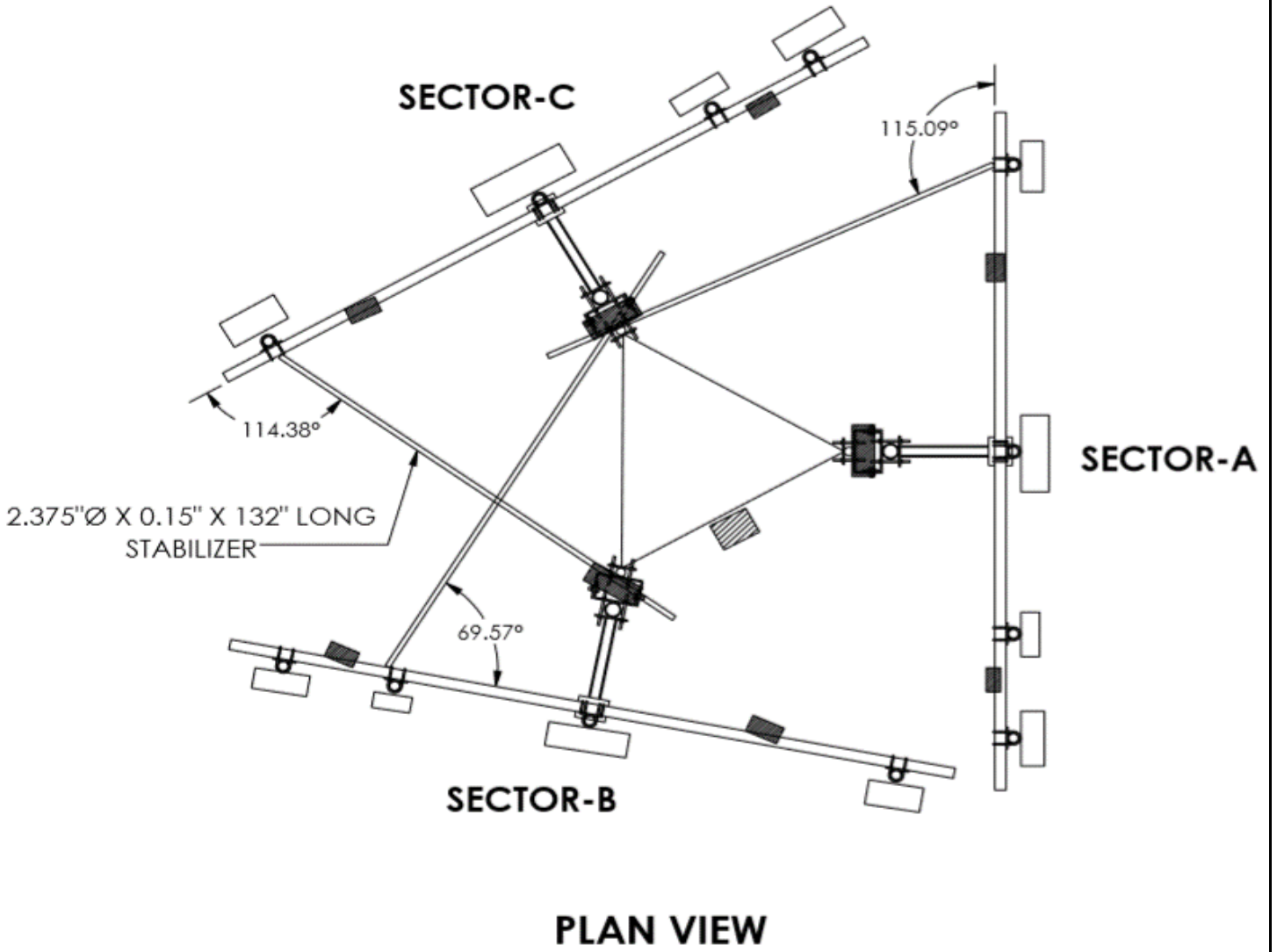


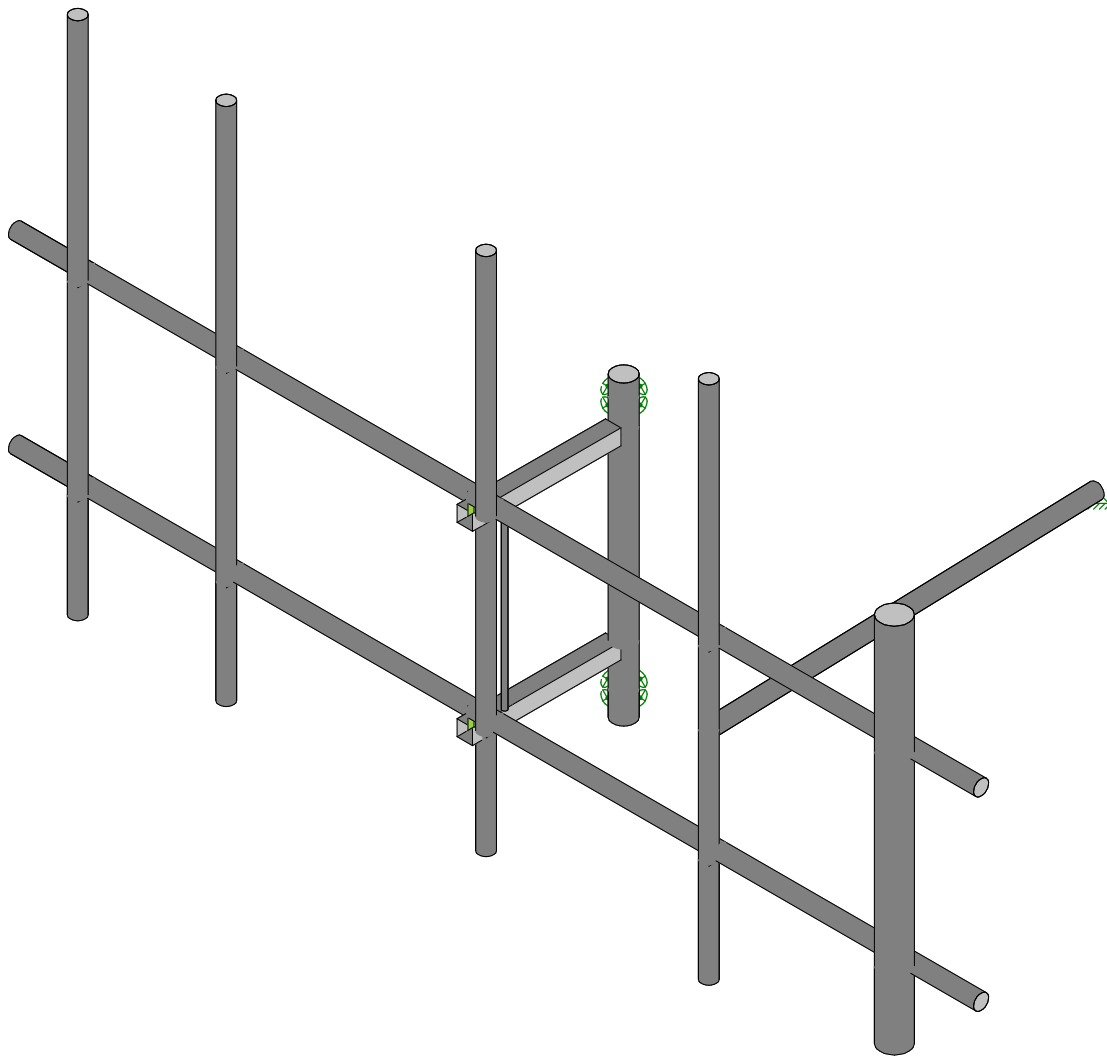
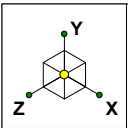
STANDOFF VIEW



**DETAIL C
STABILIZER CONNECTION DETAIL**

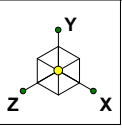




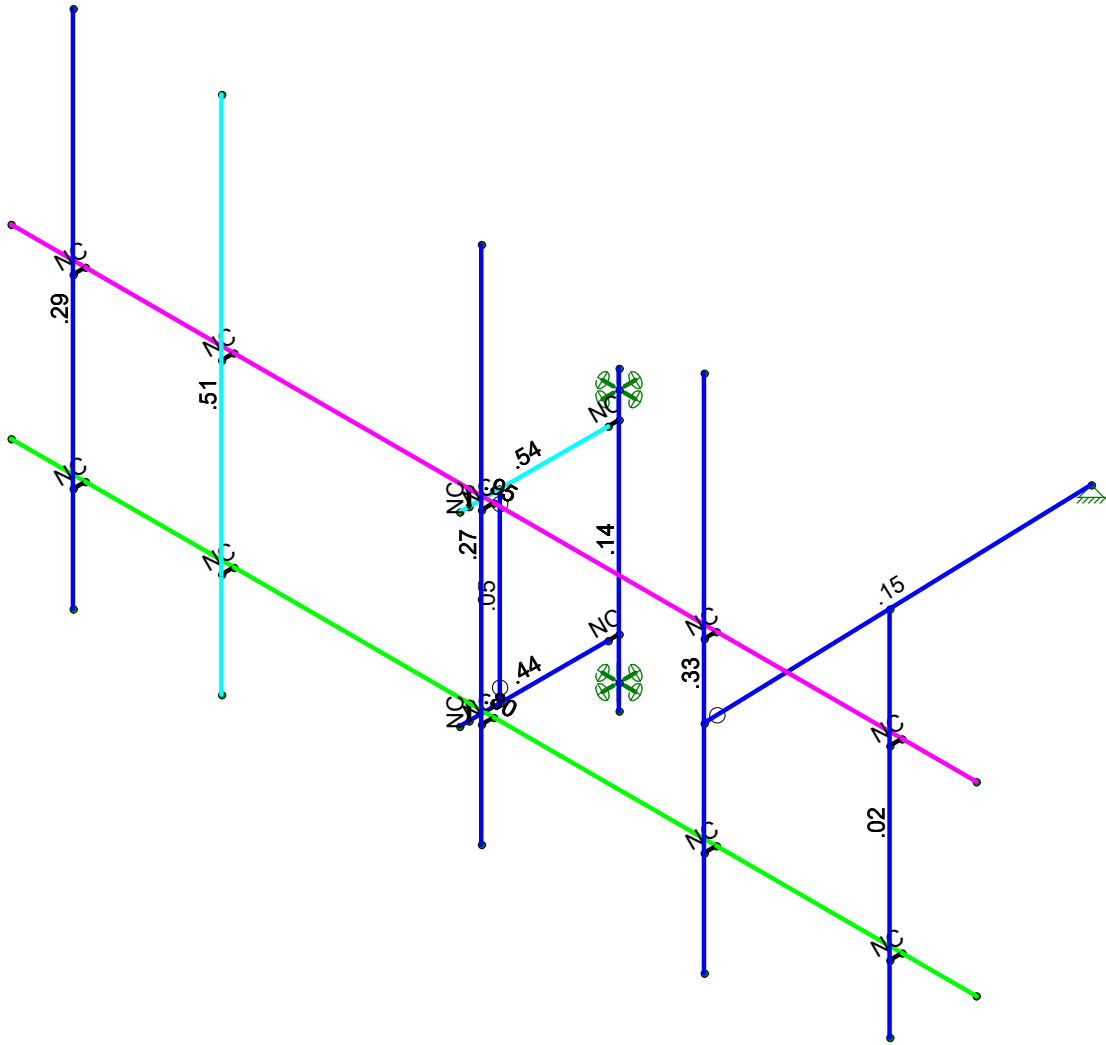


Envelope Only Solution

Maser Consulting	Mount Analysis	SK - 1
NL		Nov 30, 2020 at 5:24 PM
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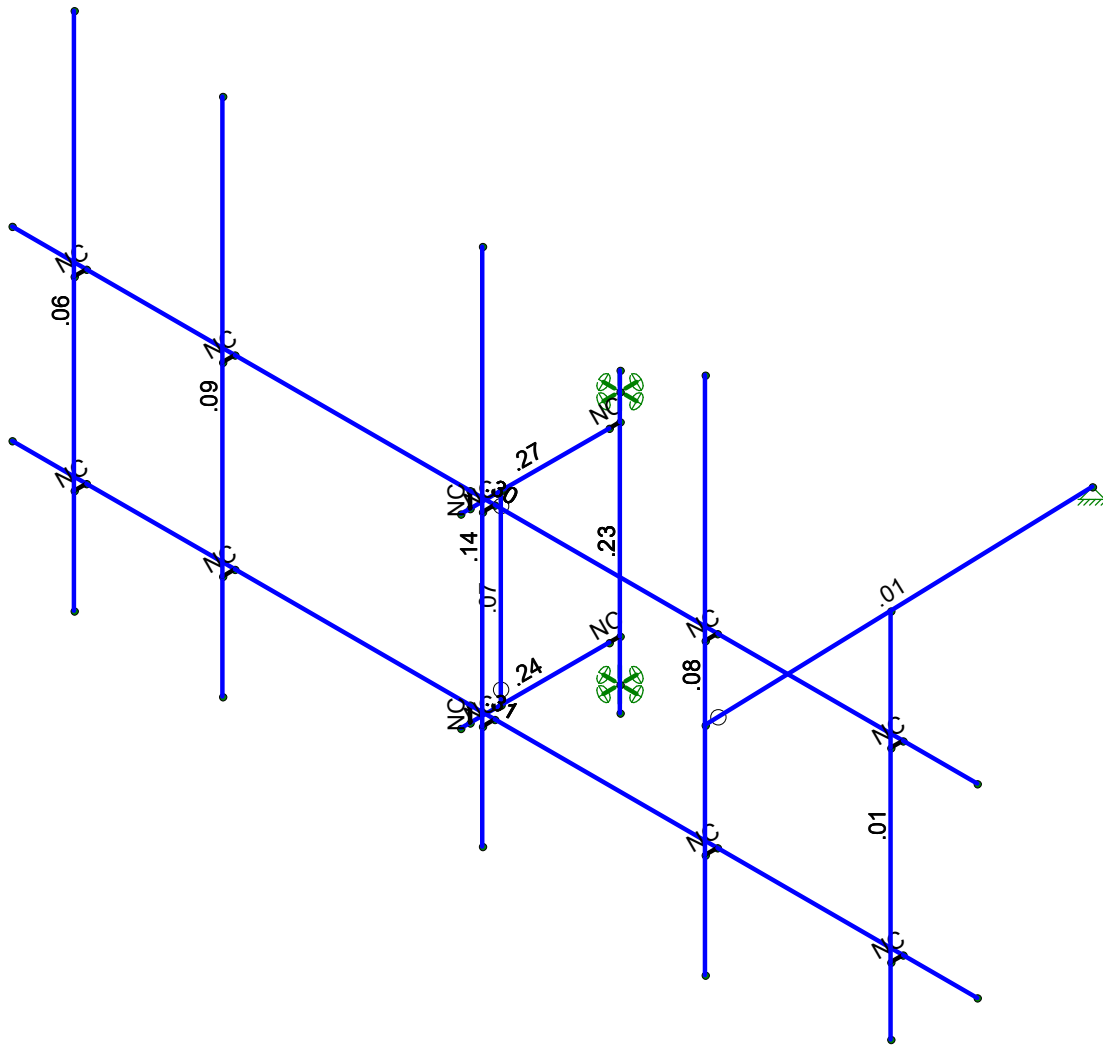
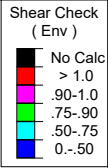
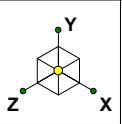


Code Check (Env)	
Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0-.50



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	Mount Analysis	SK - 2
NL		Nov 30, 2020 at 5:24 PM
20777521A		467187-VZW_MT_LOT_C_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	Mount Analysis	SK - 3
NL		Nov 30, 2020 at 5:24 PM
20777521A		467187-VZW_MT_LOT_C_H.r3d



Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface(...
57 Structure Wi (120 D...	None						24
58 Structure Wi (150 D...	None						24
59 Structure Wi (180 D...	None						24
60 Structure Wi (210 D...	None						24
61 Structure Wi (240 D...	None						24
62 Structure Wi (270 D...	None						24
63 Structure Wi (300 D...	None						24
64 Structure Wi (330 D...	None						24
65 Structure Wm (0 De...	None						24
66 Structure Wm (30 D...	None						24
67 Structure Wm (60 D...	None						24
68 Structure Wm (90 D...	None						24
69 Structure Wm (120 ...	None						24
70 Structure Wm (150 ...	None						24
71 Structure Wm (180 ...	None						24
72 Structure Wm (210 ...	None						24
73 Structure Wm (240 ...	None						24
74 Structure Wm (270 ...	None						24
75 Structure Wm (300 ...	None						24
76 Structure Wm (330 ...	None						24
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	

Load Combinations

Description	Solve P...	S...	BLCFac...	BLCFac...	BLC Fac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...
1 1.2D+1.0Wo (0 De...	Yes	Y	1	1.2	39	1.2	3	1	41	1	
2 1.2D+1.0Wo (30 D...	Yes	Y	1	1.2	39	1.2	4	1	42	1	
3 1.2D+1.0Wo (60 D...	Yes	Y	1	1.2	39	1.2	5	1	43	1	
4 1.2D+1.0Wo (90 D...	Yes	Y	1	1.2	39	1.2	6	1	44	1	
5 1.2D+1.0Wo (120 ...	Yes	Y	1	1.2	39	1.2	7	1	45	1	
6 1.2D+1.0Wo (150 ...	Yes	Y	1	1.2	39	1.2	8	1	46	1	
7 1.2D+1.0Wo (180 ...	Yes	Y	1	1.2	39	1.2	9	1	47	1	
8 1.2D+1.0Wo (210 ...	Yes	Y	1	1.2	39	1.2	10	1	48	1	
9 1.2D+1.0Wo (240 ...	Yes	Y	1	1.2	39	1.2	11	1	49	1	
10 1.2D+1.0Wo (270 ...	Yes	Y	1	1.2	39	1.2	12	1	50	1	
11 1.2D+1.0Wo (300 ...	Yes	Y	1	1.2	39	1.2	13	1	51	1	
12 1.2D+1.0Wo (330 ...	Yes	Y	1	1.2	39	1.2	14	1	52	1	
13 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	15 1 53 1
14 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	16 1 54 1
15 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	17 1 55 1
16 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	18 1 56 1
17 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	19 1 57 1
18 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	20 1 58 1
19 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	21 1 59 1
20 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	22 1 60 1
21 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	23 1 61 1
22 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	24 1 62 1
23 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	25 1 63 1
24 1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	26 1 64 1
25 1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65 1
26 1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66 1
27 1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67 1
28 1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68 1



Load Combinations (Continued)

	Description	Solve P...	S...	BLCFac..	BLCFac..	BLC Fac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
29	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1			
30	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1			
31	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1			
32	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1			
33	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1			
34	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1			
35	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1			
36	1.2D + 1.5Lm1 + 1..	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1			
37	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1			
38	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1			
39	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1			
40	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1			
41	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1			
42	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1			
43	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1			
44	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1			
45	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1			
46	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1			
47	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1			
48	1.2D + 1.5Lm2 + 1..	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1			
49	1.2D + 1.5Lv1	Yes	Y	1	1.2	39	1.2	79	1.5							
50	1.2D + 1.5Lv2	Yes	Y	1	1.2	39	1.2	80	1.5							
51	1.4D	Yes	Y	1	1.4	39	1.4									
52	Seismic Mass		Y	1	1	39	1									
53	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX		SY	1	SZ	-1			
54	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866			
55	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5			
56	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	1	SY	1	SZ				
57	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	.866	SY	1	SZ	.5			
58	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	.5	SY	1	SZ	.866			
59	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX		SY	1	SZ	1			
60	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866			
61	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5			
62	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	-1	SY	1	SZ				
63	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5			
64	1.2D + 1.0Ev + 1.0...		Y	1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866			

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	6.5	0	0	0	
2	N2	-6.5	0	0	0	
3	N3	6.5	2.5	0	0	
4	N4	-6.5	2.5	0	0	
5	N5	-5.5	2.5	0	0	
6	N6	-5.5	2.5	0.166667	0	
7	N7	-5.5	5.598958	0.166667	0	
8	N8	-5.5	-1.401042	0.166667	0	
9	N9	-5.5	0	0	0	
10	N10	-5.5	0	0.166667	0	
11	N11	0	2.5	0	0	
12	N12	0	2.5	0.166667	0	
13	N13	0	5.598958	0.166667	0	
14	N14	0	-1.401042	0.166667	0	
15	N15	0	0	0	0	
16	N16	0	0	0.166667	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
17	N17	-3.5	2.5	0	0	
18	N18	-3.5	2.5	0.166667	0	
19	N19	-3.5	5.598958	0.166667	0	
20	N20	-3.5	-1.401042	0.166667	0	
21	N21	-3.5	0	0	0	
22	N22	-3.5	0	0.166667	0	
23	N23	5.5	2.5	0	0	
24	N24	5.5	2.5	0.166667	0	
25	N25	5.5	4.098958	0.166667	0	
26	N26	5.5	-0.901042	0.166667	0	
27	N27	5.5	0	0	0	
28	N28	5.5	0	0.166667	0	
29	N30	-0.333333	2.5	0	0	
30	N31	-0.333333	2.291667	0	0	
31	N32	-0.333333	2.291667	.125	0	
32	N33	-0.333333	2.291667	-1.875	0	
33	N34	-0.333333	0	0	0	
34	N35	-0.333333	-0.208333	0	0	
35	N36	-0.333333	-0.208333	.125	0	
36	N37	-0.333333	-0.208333	-1.875	0	
37	N38	-0.333333	2.291667	-0.416667	0	
38	N39	-0.333333	-0.208333	-0.416667	0	
39	N40	-0.333333	2.291667	-2.020833	0	
40	N41	-0.333333	-0.208333	-2.020833	0	
41	N42	-0.333333	2.895833	-2.020833	0	
42	N43	-0.333333	-1.104167	-2.020833	0	
43	N44	-0.333333	2.645833	-2.020833	0	
44	N45	-0.333333	-0.770833	-2.020833	0	
45	N48	2.828128	1.515667	-5.223202	0	
46	N48A	3	1.515667	0.166667	0	
47	N47	3	2.5	0	0	
48	N48B	3	2.5	0.166667	0	
49	N49	3	5.598958	0.166667	0	
50	N50	3	-1.401042	0.166667	0	
51	N51	3	0	0	0	
52	N52	3	0	0.166667	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Dish Pipe	PIPE 4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
3	Face Horizontal	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
4	Standoff Horizon...	HSS2.5X2.5X3	Beam	SquareTube	A500 Gr. B 42	Typical	1.54	1.35	1.35	2.25
5	Standoff Bracing	SR 0.75	Column	BAR	A36 Gr.36	Typical	.442	.016	.016	.031
6	Tie-Back	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
7	Mast Pipe	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

Hot Rolled Steel Properties

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



Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft...	Yield[ksi]	Rv	Fu[ksi]	Rt
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N1			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
2	M2	N4	N3			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
3	M3	N6	N5			RIGID	None	None	RIGID	Typical
4	MP5A	N7	N8			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
5	M5	N10	N9			RIGID	None	None	RIGID	Typical
6	M6	N12	N11			RIGID	None	None	RIGID	Typical
7	MP3A	N13	N14			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
8	M8	N16	N15			RIGID	None	None	RIGID	Typical
9	M9	N18	N17			RIGID	None	None	RIGID	Typical
10	MP4A	N19	N20			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
11	M11	N22	N21			RIGID	None	None	RIGID	Typical
12	M12	N24	N23			RIGID	None	None	RIGID	Typical
13	MP1A	N25	N26			Dish Pipe	Column	Pipe	A53 Gr. B	Typical
14	M14	N28	N27			RIGID	None	None	RIGID	Typical
15	M15	N32	N33			Standoff Horiz...	Beam	SquareTube	A500 Gr. ...	Typical
16	M16	N30	N31			RIGID	None	None	RIGID	Typical
17	M17	N36	N37			Standoff Horiz...	Beam	SquareTube	A500 Gr. ...	Typical
18	M18	N34	N35			RIGID	None	None	RIGID	Typical
19	M19	N38	N39			Standoff Braci...	Column	BAR	A36 Gr.36	Typical
20	M20	N33	N40			RIGID	None	None	RIGID	Typical
21	M21	N37	N41			RIGID	None	None	RIGID	Typical
22	M22	N42	N43			Mast Pipe	Column	Pipe	A53 Gr. B	Typical
23	M23	N48A	N48			Tie-Back	Beam	Pipe	A53 Gr. B	Typical
24	M24	N48B	N47			RIGID	None	None	RIGID	Typical
25	MP2A	N49	N50			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
26	M26	N52	N51			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M3						Yes	** NA **			None
4	MP5A						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	MP3A						Yes	** NA **			None
8	M8						Yes	** NA **			None
9	M9						Yes	** NA **			None
10	MP4A						Yes	** NA **			None
11	M11						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	MP1A						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	M15						Yes				None
16	M16						Yes	** NA **			None
17	M17						Yes				None
18	M18						Yes	** NA **			None
19	M19	BenPIN	BenPIN				Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M21						Yes	** NA **			None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic..
22	M22						Yes	** NA **			None
23	M23	OOOOXO					Yes	Default			None
24	M24						Yes	** NA **			None
25	MP2A						Yes	** NA **			None
26	M26						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	Y	-8.5	1.5
2	MP3A	My	-.004	1.5
3	MP3A	Mz	0	1.5
4	MP3A	Y	-8.5	6
5	MP3A	My	-.004	6
6	MP3A	Mz	0	6
7	MP2A	Y	-30	1.5
8	MP2A	My	-.015	1.5
9	MP2A	Mz	0	1.5
10	MP2A	Y	-30	6
11	MP2A	My	-.015	6
12	MP2A	Mz	0	6
13	MP4A	Y	-20	1.5
14	MP4A	My	-.01	1.5
15	MP4A	Mz	0	1.5
16	MP4A	Y	-20	4.5
17	MP4A	My	-.01	4.5
18	MP4A	Mz	0	4.5
19	MP5A	Y	-30	1.5
20	MP5A	My	-.015	1.5
21	MP5A	Mz	0	1.5
22	MP5A	Y	-30	6
23	MP5A	My	-.015	6
24	MP5A	Mz	0	6
25	M2	Y	-5	2.5
26	M2	My	0	2.5
27	M2	Mz	0	2.5
28	MP1A	Y	-17	3
29	MP1A	My	-.008	3
30	MP1A	Mz	.001	3
31	M2	Y	-5	11.5
32	M2	My	0	11.5
33	M2	Mz	0	11.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	Y	-51.617	1.5
2	MP3A	My	-.026	1.5
3	MP3A	Mz	0	1.5
4	MP3A	Y	-51.617	6
5	MP3A	My	-.026	6
6	MP3A	Mz	0	6
7	MP2A	Y	-31.354	1.5
8	MP2A	My	-.016	1.5
9	MP2A	Mz	0	1.5
10	MP2A	Y	-31.354	6
11	MP2A	My	-.016	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
12	MP2A	Mz	0	6
13	MP4A	Y	-26.836	1.5
14	MP4A	My	-.013	1.5
15	MP4A	Mz	0	1.5
16	MP4A	Y	-26.836	4.5
17	MP4A	My	-.013	4.5
18	MP4A	Mz	0	4.5
19	MP5A	Y	-54.239	1.5
20	MP5A	My	-.027	1.5
21	MP5A	Mz	0	1.5
22	MP5A	Y	-54.239	6
23	MP5A	My	-.027	6
24	MP5A	Mz	0	6
25	M2	Y	-5.11	2.5
26	M2	My	0	2.5
27	M2	Mz	0	2.5
28	MP1A	Y	94.473	3
29	MP1A	My	.047	3
30	MP1A	Mz	-.008	3
31	M2	Y	-5.11	11.5
32	M2	My	0	11.5
33	M2	Mz	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.5
2	MP3A	Z	-117.593	1.5
3	MP3A	Mx	0	1.5
4	MP3A	X	0	6
5	MP3A	Z	-117.593	6
6	MP3A	Mx	0	6
7	MP2A	X	0	1.5
8	MP2A	Z	-80.622	1.5
9	MP2A	Mx	0	1.5
10	MP2A	X	0	6
11	MP2A	Z	-80.622	6
12	MP2A	Mx	0	6
13	MP4A	X	0	1.5
14	MP4A	Z	-56.078	1.5
15	MP4A	Mx	0	1.5
16	MP4A	X	0	4.5
17	MP4A	Z	-56.078	4.5
18	MP4A	Mx	0	4.5
19	MP5A	X	0	1.5
20	MP5A	Z	-117.903	1.5
21	MP5A	Mx	0	1.5
22	MP5A	X	0	6
23	MP5A	Z	-117.903	6
24	MP5A	Mx	0	6
25	M2	X	0	2.5
26	M2	Z	-2.196	2.5
27	M2	Mx	0	2.5
28	MP1A	X	0	3
29	MP1A	Z	-121.017	3
30	MP1A	Mx	-.011	3
31	M2	X	0	11.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
32	M2	Z	-2.196	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	52.171	1.5
2	MP3A	Z	-90.363	1.5
3	MP3A	Mx	-.026	1.5
4	MP3A	X	52.171	6
5	MP3A	Z	-90.363	6
6	MP3A	Mx	-.026	6
7	MP2A	X	35.02	1.5
8	MP2A	Z	-60.657	1.5
9	MP2A	Mx	-.018	1.5
10	MP2A	X	35.02	6
11	MP2A	Z	-60.657	6
12	MP2A	Mx	-.018	6
13	MP4A	X	25.085	1.5
14	MP4A	Z	-43.449	1.5
15	MP4A	Mx	-.013	1.5
16	MP4A	X	25.085	4.5
17	MP4A	Z	-43.449	4.5
18	MP4A	Mx	-.013	4.5
19	MP5A	X	53.34	1.5
20	MP5A	Z	-92.388	1.5
21	MP5A	Mx	-.027	1.5
22	MP5A	X	53.34	6
23	MP5A	Z	-92.388	6
24	MP5A	Mx	-.027	6
25	M2	X	1.891	2.5
26	M2	Z	-3.276	2.5
27	M2	Mx	0	2.5
28	MP1A	X	47.723	3
29	MP1A	Z	-82.658	3
30	MP1A	Mx	-.031	3
31	M2	X	1.891	11.5
32	M2	Z	-3.276	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	67.413	1.5
2	MP3A	Z	-38.921	1.5
3	MP3A	Mx	-.034	1.5
4	MP3A	X	67.413	6
5	MP3A	Z	-38.921	6
6	MP3A	Mx	-.034	6
7	MP2A	X	42.329	1.5
8	MP2A	Z	-24.439	1.5
9	MP2A	Mx	-.021	1.5
10	MP2A	X	42.329	6
11	MP2A	Z	-24.439	6
12	MP2A	Mx	-.021	6
13	MP4A	X	33.217	1.5
14	MP4A	Z	-19.178	1.5
15	MP4A	Mx	-.017	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
16	MP4A	X	33.217	4.5
17	MP4A	Z	-19.178	4.5
18	MP4A	Mx	-.017	4.5
19	MP5A	X	72.948	1.5
20	MP5A	Z	-42.117	1.5
21	MP5A	Mx	-.036	1.5
22	MP5A	X	72.948	6
23	MP5A	Z	-42.117	6
24	MP5A	Mx	-.036	6
25	M2	X	4.962	2.5
26	M2	Z	-2.865	2.5
27	M2	Mx	0	2.5
28	MP1A	X	55.493	3
29	MP1A	Z	-32.039	3
30	MP1A	Mx	-.03	3
31	M2	X	4.962	11.5
32	M2	Z	-2.865	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	64.592	1.5
2	MP3A	Z	0	1.5
3	MP3A	Mx	-.032	1.5
4	MP3A	X	64.592	6
5	MP3A	Z	0	6
6	MP3A	Mx	-.032	6
7	MP2A	X	38.296	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	-.019	1.5
10	MP2A	X	38.296	6
11	MP2A	Z	0	6
12	MP2A	Mx	-.019	6
13	MP4A	X	32.449	1.5
14	MP4A	Z	0	1.5
15	MP4A	Mx	-.016	1.5
16	MP4A	X	32.449	4.5
17	MP4A	Z	0	4.5
18	MP4A	Mx	-.016	4.5
19	MP5A	X	73.01	1.5
20	MP5A	Z	0	1.5
21	MP5A	Mx	-.037	1.5
22	MP5A	X	73.01	6
23	MP5A	Z	0	6
24	MP5A	Mx	-.037	6
25	M2	X	6.089	2.5
26	M2	Z	0	2.5
27	M2	Mx	0	2.5
28	MP1A	X	58.281	3
29	MP1A	Z	0	3
30	MP1A	Mx	-.029	3
31	M2	X	6.089	11.5
32	M2	Z	0	11.5
33	M2	Mx	0	11.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	67.413	1.5
2	MP3A	Z	38.921	1.5
3	MP3A	Mx	-.034	1.5
4	MP3A	X	67.413	6
5	MP3A	Z	38.921	6
6	MP3A	Mx	-.034	6
7	MP2A	X	42.329	1.5
8	MP2A	Z	24.439	1.5
9	MP2A	Mx	-.021	1.5
10	MP2A	X	42.329	6
11	MP2A	Z	24.439	6
12	MP2A	Mx	-.021	6
13	MP4A	X	33.217	1.5
14	MP4A	Z	19.178	1.5
15	MP4A	Mx	-.017	1.5
16	MP4A	X	33.217	4.5
17	MP4A	Z	19.178	4.5
18	MP4A	Mx	-.017	4.5
19	MP5A	X	72.948	1.5
20	MP5A	Z	42.117	1.5
21	MP5A	Mx	-.036	1.5
22	MP5A	X	72.948	6
23	MP5A	Z	42.117	6
24	MP5A	Mx	-.036	6
25	M2	X	3.899	2.5
26	M2	Z	2.251	2.5
27	M2	Mx	0	2.5
28	MP1A	X	72.618	3
29	MP1A	Z	41.926	3
30	MP1A	Mx	-.032	3
31	M2	X	3.899	11.5
32	M2	Z	2.251	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	52.171	1.5
2	MP3A	Z	90.363	1.5
3	MP3A	Mx	-.026	1.5
4	MP3A	X	52.171	6
5	MP3A	Z	90.363	6
6	MP3A	Mx	-.026	6
7	MP2A	X	35.02	1.5
8	MP2A	Z	60.657	1.5
9	MP2A	Mx	-.018	1.5
10	MP2A	X	35.02	6
11	MP2A	Z	60.657	6
12	MP2A	Mx	-.018	6
13	MP4A	X	25.085	1.5
14	MP4A	Z	43.449	1.5
15	MP4A	Mx	-.013	1.5
16	MP4A	X	25.085	4.5
17	MP4A	Z	43.449	4.5
18	MP4A	Mx	-.013	4.5
19	MP5A	X	53.34	1.5
20	MP5A	Z	92.388	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
21	MP5A	Mx	-.027	1.5
22	MP5A	X	53.34	6
23	MP5A	Z	92.388	6
24	MP5A	Mx	-.027	6
25	M2	X	1.278	2.5
26	M2	Z	2.213	2.5
27	M2	Mx	0	2.5
28	MP1A	X	57.61	3
29	MP1A	Z	99.783	3
30	MP1A	Mx	-.02	3
31	M2	X	1.278	11.5
32	M2	Z	2.213	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	1.5
2	MP3A	Z	117.593	1.5
3	MP3A	Mx	0	1.5
4	MP3A	X	0	6
5	MP3A	Z	117.593	6
6	MP3A	Mx	0	6
7	MP2A	X	0	1.5
8	MP2A	Z	80.622	1.5
9	MP2A	Mx	0	1.5
10	MP2A	X	0	6
11	MP2A	Z	80.622	6
12	MP2A	Mx	0	6
13	MP4A	X	0	1.5
14	MP4A	Z	56.078	1.5
15	MP4A	Mx	0	1.5
16	MP4A	X	0	4.5
17	MP4A	Z	56.078	4.5
18	MP4A	Mx	0	4.5
19	MP5A	X	0	1.5
20	MP5A	Z	117.903	1.5
21	MP5A	Mx	0	1.5
22	MP5A	X	0	6
23	MP5A	Z	117.903	6
24	MP5A	Mx	0	6
25	M2	X	0	2.5
26	M2	Z	2.196	2.5
27	M2	Mx	0	2.5
28	MP1A	X	0	3
29	MP1A	Z	121.017	3
30	MP1A	Mx	.011	3
31	M2	X	0	11.5
32	M2	Z	2.196	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-52.171	1.5
2	MP3A	Z	90.363	1.5
3	MP3A	Mx	.026	1.5
4	MP3A	X	-52.171	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
25	M2	X	-4.962	2.5
26	M2	Z	2.865	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-55.493	3
29	MP1A	Z	32.039	3
30	MP1A	Mx	.03	3
31	M2	X	-4.962	11.5
32	M2	Z	2.865	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-64.592	1.5
2	MP3A	Z	0	1.5
3	MP3A	Mx	.032	1.5
4	MP3A	X	-64.592	6
5	MP3A	Z	0	6
6	MP3A	Mx	.032	6
7	MP2A	X	-38.296	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	.019	1.5
10	MP2A	X	-38.296	6
11	MP2A	Z	0	6
12	MP2A	Mx	.019	6
13	MP4A	X	-32.449	1.5
14	MP4A	Z	0	1.5
15	MP4A	Mx	.016	1.5
16	MP4A	X	-32.449	4.5
17	MP4A	Z	0	4.5
18	MP4A	Mx	.016	4.5
19	MP5A	X	-73.01	1.5
20	MP5A	Z	0	1.5
21	MP5A	Mx	.037	1.5
22	MP5A	X	-73.01	6
23	MP5A	Z	0	6
24	MP5A	Mx	.037	6
25	M2	X	-6.089	2.5
26	M2	Z	0	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-58.281	3
29	MP1A	Z	0	3
30	MP1A	Mx	.029	3
31	M2	X	-6.089	11.5
32	M2	Z	0	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-67.413	1.5
2	MP3A	Z	-38.921	1.5
3	MP3A	Mx	.034	1.5
4	MP3A	X	-67.413	6
5	MP3A	Z	-38.921	6
6	MP3A	Mx	.034	6
7	MP2A	X	-42.329	1.5
8	MP2A	Z	-24.439	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
9	MP2A	Mx	.021	1.5
10	MP2A	X	-42.329	6
11	MP2A	Z	-24.439	6
12	MP2A	Mx	.021	6
13	MP4A	X	-33.217	1.5
14	MP4A	Z	-19.178	1.5
15	MP4A	Mx	.017	1.5
16	MP4A	X	-33.217	4.5
17	MP4A	Z	-19.178	4.5
18	MP4A	Mx	.017	4.5
19	MP5A	X	-72.948	1.5
20	MP5A	Z	-42.117	1.5
21	MP5A	Mx	.036	1.5
22	MP5A	X	-72.948	6
23	MP5A	Z	-42.117	6
24	MP5A	Mx	.036	6
25	M2	X	-3.899	2.5
26	M2	Z	-2.251	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-72.618	3
29	MP1A	Z	-41.926	3
30	MP1A	Mx	.032	3
31	M2	X	-3.899	11.5
32	M2	Z	-2.251	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-52.171	1.5
2	MP3A	Z	-90.363	1.5
3	MP3A	Mx	.026	1.5
4	MP3A	X	-52.171	6
5	MP3A	Z	-90.363	6
6	MP3A	Mx	.026	6
7	MP2A	X	-35.02	1.5
8	MP2A	Z	-60.657	1.5
9	MP2A	Mx	.018	1.5
10	MP2A	X	-35.02	6
11	MP2A	Z	-60.657	6
12	MP2A	Mx	.018	6
13	MP4A	X	-25.085	1.5
14	MP4A	Z	-43.449	1.5
15	MP4A	Mx	.013	1.5
16	MP4A	X	-25.085	4.5
17	MP4A	Z	-43.449	4.5
18	MP4A	Mx	.013	4.5
19	MP5A	X	-53.34	1.5
20	MP5A	Z	-92.388	1.5
21	MP5A	Mx	.027	1.5
22	MP5A	X	-53.34	6
23	MP5A	Z	-92.388	6
24	MP5A	Mx	.027	6
25	M2	X	-1.278	2.5
26	M2	Z	-2.213	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-57.61	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP1A	Z	-99.783	3
30	MP1A	Mx	.02	3
31	M2	X	-1.278	11.5
32	M2	Z	-2.213	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.5
2	MP3A	Z	-23.772	1.5
3	MP3A	Mx	0	1.5
4	MP3A	X	0	6
5	MP3A	Z	-23.772	6
6	MP3A	Mx	0	6
7	MP2A	X	0	1.5
8	MP2A	Z	-16.981	1.5
9	MP2A	Mx	0	1.5
10	MP2A	X	0	6
11	MP2A	Z	-16.981	6
12	MP2A	Mx	0	6
13	MP4A	X	0	1.5
14	MP4A	Z	-11.871	1.5
15	MP4A	Mx	0	1.5
16	MP4A	X	0	4.5
17	MP4A	Z	-11.871	4.5
18	MP4A	Mx	0	4.5
19	MP5A	X	0	1.5
20	MP5A	Z	-23.838	1.5
21	MP5A	Mx	0	1.5
22	MP5A	X	0	6
23	MP5A	Z	-23.838	6
24	MP5A	Mx	0	6
25	M2	X	0	2.5
26	M2	Z	-.936	2.5
27	M2	Mx	0	2.5
28	MP1A	X	0	3
29	MP1A	Z	-29.887	3
30	MP1A	Mx	-.003	3
31	M2	X	0	11.5
32	M2	Z	-.936	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	10.655	1.5
2	MP3A	Z	-18.455	1.5
3	MP3A	Mx	-.005	1.5
4	MP3A	X	10.655	6
5	MP3A	Z	-18.455	6
6	MP3A	Mx	-.005	6
7	MP2A	X	7.523	1.5
8	MP2A	Z	-13.03	1.5
9	MP2A	Mx	-.004	1.5
10	MP2A	X	7.523	6
11	MP2A	Z	-13.03	6
12	MP2A	Mx	-.004	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP4A	X	5.382	1.5
14	MP4A	Z	-9.322	1.5
15	MP4A	Mx	-.003	1.5
16	MP4A	X	5.382	4.5
17	MP4A	Z	-9.322	4.5
18	MP4A	Mx	-.003	4.5
19	MP5A	X	10.882	1.5
20	MP5A	Z	-18.848	1.5
21	MP5A	Mx	-.005	1.5
22	MP5A	X	10.882	6
23	MP5A	Z	-18.848	6
24	MP5A	Mx	-.005	6
25	M2	X	.662	2.5
26	M2	Z	-1.146	2.5
27	M2	Mx	0	2.5
28	MP1A	X	11.501	3
29	MP1A	Z	-19.921	3
30	MP1A	Mx	-.007	3
31	M2	X	.662	11.5
32	M2	Z	-1.146	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	14.19	1.5
2	MP3A	Z	-8.193	1.5
3	MP3A	Mx	-.007	1.5
4	MP3A	X	14.19	6
5	MP3A	Z	-8.193	6
6	MP3A	Mx	-.007	6
7	MP2A	X	9.679	1.5
8	MP2A	Z	-5.588	1.5
9	MP2A	Mx	-.005	1.5
10	MP2A	X	9.679	6
11	MP2A	Z	-5.588	6
12	MP2A	Mx	-.005	6
13	MP4A	X	7.405	1.5
14	MP4A	Z	-4.275	1.5
15	MP4A	Mx	-.004	1.5
16	MP4A	X	7.405	4.5
17	MP4A	Z	-4.275	4.5
18	MP4A	Mx	-.004	4.5
19	MP5A	X	15.255	1.5
20	MP5A	Z	-8.807	1.5
21	MP5A	Mx	-.008	1.5
22	MP5A	X	15.255	6
23	MP5A	Z	-8.807	6
24	MP5A	Mx	-.008	6
25	M2	X	1.557	2.5
26	M2	Z	-.899	2.5
27	M2	Mx	0	2.5
28	MP1A	X	12.607	3
29	MP1A	Z	-7.279	3
30	MP1A	Mx	-.007	3
31	M2	X	1.557	11.5
32	M2	Z	-.899	11.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	13.923	1.5
2	MP3A	Z	0	1.5
3	MP3A	Mx	-.007	1.5
4	MP3A	X	13.923	6
5	MP3A	Z	0	6
6	MP3A	Mx	-.007	6
7	MP2A	X	9.241	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	-.005	1.5
10	MP2A	X	9.241	6
11	MP2A	Z	0	6
12	MP2A	Mx	-.005	6
13	MP4A	X	7.444	1.5
14	MP4A	Z	0	1.5
15	MP4A	Mx	-.004	1.5
16	MP4A	X	7.444	4.5
17	MP4A	Z	0	4.5
18	MP4A	Mx	-.004	4.5
19	MP5A	X	15.54	1.5
20	MP5A	Z	0	1.5
21	MP5A	Mx	-.008	1.5
22	MP5A	X	15.54	6
23	MP5A	Z	0	6
24	MP5A	Mx	-.008	6
25	M2	X	1.886	2.5
26	M2	Z	0	2.5
27	M2	Mx	0	2.5
28	MP1A	X	12.997	3
29	MP1A	Z	0	3
30	MP1A	Mx	-.006	3
31	M2	X	1.886	11.5
32	M2	Z	0	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	14.19	1.5
2	MP3A	Z	8.193	1.5
3	MP3A	Mx	-.007	1.5
4	MP3A	X	14.19	6
5	MP3A	Z	8.193	6
6	MP3A	Mx	-.007	6
7	MP2A	X	9.679	1.5
8	MP2A	Z	5.588	1.5
9	MP2A	Mx	-.005	1.5
10	MP2A	X	9.679	6
11	MP2A	Z	5.588	6
12	MP2A	Mx	-.005	6
13	MP4A	X	7.405	1.5
14	MP4A	Z	4.275	1.5
15	MP4A	Mx	-.004	1.5
16	MP4A	X	7.405	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
17	MP4A	Z	4.275	4.5
18	MP4A	Mx	-.004	4.5
19	MP5A	X	15.255	1.5
20	MP5A	Z	8.807	1.5
21	MP5A	Mx	-.008	1.5
22	MP5A	X	15.255	6
23	MP5A	Z	8.807	6
24	MP5A	Mx	-.008	6
25	M2	X	1.298	2.5
26	M2	Z	.749	2.5
27	M2	Mx	0	2.5
28	MP1A	X	17.218	3
29	MP1A	Z	9.941	3
30	MP1A	Mx	-.008	3
31	M2	X	1.298	11.5
32	M2	Z	.749	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	10.655	1.5
2	MP3A	Z	18.455	1.5
3	MP3A	Mx	-.005	1.5
4	MP3A	X	10.655	6
5	MP3A	Z	18.455	6
6	MP3A	Mx	-.005	6
7	MP2A	X	7.523	1.5
8	MP2A	Z	13.03	1.5
9	MP2A	Mx	-.004	1.5
10	MP2A	X	7.523	6
11	MP2A	Z	13.03	6
12	MP2A	Mx	-.004	6
13	MP4A	X	5.382	1.5
14	MP4A	Z	9.322	1.5
15	MP4A	Mx	-.003	1.5
16	MP4A	X	5.382	4.5
17	MP4A	Z	9.322	4.5
18	MP4A	Mx	-.003	4.5
19	MP5A	X	10.882	1.5
20	MP5A	Z	18.848	1.5
21	MP5A	Mx	-.005	1.5
22	MP5A	X	10.882	6
23	MP5A	Z	18.848	6
24	MP5A	Mx	-.005	6
25	M2	X	.512	2.5
26	M2	Z	.887	2.5
27	M2	Mx	0	2.5
28	MP1A	X	14.163	3
29	MP1A	Z	24.532	3
30	MP1A	Mx	-.005	3
31	M2	X	.512	11.5
32	M2	Z	.887	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
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Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.5
2	MP3A	Z	23.772	1.5
3	MP3A	Mx	0	1.5
4	MP3A	X	0	6
5	MP3A	Z	23.772	6
6	MP3A	Mx	0	6
7	MP2A	X	0	1.5
8	MP2A	Z	16.981	1.5
9	MP2A	Mx	0	1.5
10	MP2A	X	0	6
11	MP2A	Z	16.981	6
12	MP2A	Mx	0	6
13	MP4A	X	0	1.5
14	MP4A	Z	11.871	1.5
15	MP4A	Mx	0	1.5
16	MP4A	X	0	4.5
17	MP4A	Z	11.871	4.5
18	MP4A	Mx	0	4.5
19	MP5A	X	0	1.5
20	MP5A	Z	23.838	1.5
21	MP5A	Mx	0	1.5
22	MP5A	X	0	6
23	MP5A	Z	23.838	6
24	MP5A	Mx	0	6
25	M2	X	0	2.5
26	M2	Z	.936	2.5
27	M2	Mx	0	2.5
28	MP1A	X	0	3
29	MP1A	Z	29.887	3
30	MP1A	Mx	.003	3
31	M2	X	0	11.5
32	M2	Z	.936	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-10.655	1.5
2	MP3A	Z	18.455	1.5
3	MP3A	Mx	.005	1.5
4	MP3A	X	-10.655	6
5	MP3A	Z	18.455	6
6	MP3A	Mx	.005	6
7	MP2A	X	-7.523	1.5
8	MP2A	Z	13.03	1.5
9	MP2A	Mx	.004	1.5
10	MP2A	X	-7.523	6
11	MP2A	Z	13.03	6
12	MP2A	Mx	.004	6
13	MP4A	X	-5.382	1.5
14	MP4A	Z	9.322	1.5
15	MP4A	Mx	.003	1.5
16	MP4A	X	-5.382	4.5
17	MP4A	Z	9.322	4.5
18	MP4A	Mx	.003	4.5
19	MP5A	X	-10.882	1.5
20	MP5A	Z	18.848	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	MP5A	Mx	.005	1.5
22	MP5A	X	-10.882	6
23	MP5A	Z	18.848	6
24	MP5A	Mx	.005	6
25	M2	X	-.662	2.5
26	M2	Z	1.146	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-11.501	3
29	MP1A	Z	19.921	3
30	MP1A	Mx	.007	3
31	M2	X	-.662	11.5
32	M2	Z	1.146	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-14.19	1.5
2	MP3A	Z	8.193	1.5
3	MP3A	Mx	.007	1.5
4	MP3A	X	-14.19	6
5	MP3A	Z	8.193	6
6	MP3A	Mx	.007	6
7	MP2A	X	-9.679	1.5
8	MP2A	Z	5.588	1.5
9	MP2A	Mx	.005	1.5
10	MP2A	X	-9.679	6
11	MP2A	Z	5.588	6
12	MP2A	Mx	.005	6
13	MP4A	X	-7.405	1.5
14	MP4A	Z	4.275	1.5
15	MP4A	Mx	.004	1.5
16	MP4A	X	-7.405	4.5
17	MP4A	Z	4.275	4.5
18	MP4A	Mx	.004	4.5
19	MP5A	X	-15.255	1.5
20	MP5A	Z	8.807	1.5
21	MP5A	Mx	.008	1.5
22	MP5A	X	-15.255	6
23	MP5A	Z	8.807	6
24	MP5A	Mx	.008	6
25	M2	X	-1.557	2.5
26	M2	Z	.899	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-12.607	3
29	MP1A	Z	7.279	3
30	MP1A	Mx	.007	3
31	M2	X	-1.557	11.5
32	M2	Z	.899	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-13.923	1.5
2	MP3A	Z	0	1.5
3	MP3A	Mx	.007	1.5
4	MP3A	X	-13.923	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
25	M2	X	-1.298	2.5
26	M2	Z	-.749	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-17.218	3
29	MP1A	Z	-9.941	3
30	MP1A	Mx	.008	3
31	M2	X	-1.298	11.5
32	M2	Z	-.749	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-10.655	1.5
2	MP3A	Z	-18.455	1.5
3	MP3A	Mx	.005	1.5
4	MP3A	X	-10.655	6
5	MP3A	Z	-18.455	6
6	MP3A	Mx	.005	6
7	MP2A	X	-7.523	1.5
8	MP2A	Z	-13.03	1.5
9	MP2A	Mx	.004	1.5
10	MP2A	X	-7.523	6
11	MP2A	Z	-13.03	6
12	MP2A	Mx	.004	6
13	MP4A	X	-5.382	1.5
14	MP4A	Z	-9.322	1.5
15	MP4A	Mx	.003	1.5
16	MP4A	X	-5.382	4.5
17	MP4A	Z	-9.322	4.5
18	MP4A	Mx	.003	4.5
19	MP5A	X	-10.882	1.5
20	MP5A	Z	-18.848	1.5
21	MP5A	Mx	.005	1.5
22	MP5A	X	-10.882	6
23	MP5A	Z	-18.848	6
24	MP5A	Mx	.005	6
25	M2	X	-.512	2.5
26	M2	Z	-.887	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-14.163	3
29	MP1A	Z	-24.532	3
30	MP1A	Mx	.005	3
31	M2	X	-.512	11.5
32	M2	Z	-.887	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.5
2	MP3A	Z	-7.731	1.5
3	MP3A	Mx	0	1.5
4	MP3A	X	0	6
5	MP3A	Z	-7.731	6
6	MP3A	Mx	0	6
7	MP2A	X	0	1.5
8	MP2A	Z	-5.301	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
9	MP2A	Mx	0	1.5
10	MP2A	X	0	6
11	MP2A	Z	-5.301	6
12	MP2A	Mx	0	6
13	MP4A	X	0	1.5
14	MP4A	Z	-3.687	1.5
15	MP4A	Mx	0	1.5
16	MP4A	X	0	4.5
17	MP4A	Z	-3.687	4.5
18	MP4A	Mx	0	4.5
19	MP5A	X	0	1.5
20	MP5A	Z	-7.752	1.5
21	MP5A	Mx	0	1.5
22	MP5A	X	0	6
23	MP5A	Z	-7.752	6
24	MP5A	Mx	0	6
25	M2	X	0	2.5
26	M2	Z	-.144	2.5
27	M2	Mx	0	2.5
28	MP1A	X	0	3
29	MP1A	Z	-7.956	3
30	MP1A	Mx	-.000691	3
31	M2	X	0	11.5
32	M2	Z	-.144	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	3.43	1.5
2	MP3A	Z	-5.941	1.5
3	MP3A	Mx	-.002	1.5
4	MP3A	X	3.43	6
5	MP3A	Z	-5.941	6
6	MP3A	Mx	-.002	6
7	MP2A	X	2.302	1.5
8	MP2A	Z	-3.988	1.5
9	MP2A	Mx	-.001	1.5
10	MP2A	X	2.302	6
11	MP2A	Z	-3.988	6
12	MP2A	Mx	-.001	6
13	MP4A	X	1.649	1.5
14	MP4A	Z	-2.857	1.5
15	MP4A	Mx	-.000824	1.5
16	MP4A	X	1.649	4.5
17	MP4A	Z	-2.857	4.5
18	MP4A	Mx	-.000824	4.5
19	MP5A	X	3.507	1.5
20	MP5A	Z	-6.074	1.5
21	MP5A	Mx	-.002	1.5
22	MP5A	X	3.507	6
23	MP5A	Z	-6.074	6
24	MP5A	Mx	-.002	6
25	M2	X	.124	2.5
26	M2	Z	-.215	2.5
27	M2	Mx	0	2.5
28	MP1A	X	3.138	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP1A	Z	-5.434	3
30	MP1A	Mx	-.002	3
31	M2	X	.124	11.5
32	M2	Z	-.215	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	4.432	1.5
2	MP3A	Z	-2.559	1.5
3	MP3A	Mx	-.002	1.5
4	MP3A	X	4.432	6
5	MP3A	Z	-2.559	6
6	MP3A	Mx	-.002	6
7	MP2A	X	2.783	1.5
8	MP2A	Z	-1.607	1.5
9	MP2A	Mx	-.001	1.5
10	MP2A	X	2.783	6
11	MP2A	Z	-1.607	6
12	MP2A	Mx	-.001	6
13	MP4A	X	2.184	1.5
14	MP4A	Z	-1.261	1.5
15	MP4A	Mx	-.001	1.5
16	MP4A	X	2.184	4.5
17	MP4A	Z	-1.261	4.5
18	MP4A	Mx	-.001	4.5
19	MP5A	X	4.796	1.5
20	MP5A	Z	-2.769	1.5
21	MP5A	Mx	-.002	1.5
22	MP5A	X	4.796	6
23	MP5A	Z	-2.769	6
24	MP5A	Mx	-.002	6
25	M2	X	.326	2.5
26	M2	Z	-.188	2.5
27	M2	Mx	0	2.5
28	MP1A	X	3.648	3
29	MP1A	Z	-2.106	3
30	MP1A	Mx	-.002	3
31	M2	X	.326	11.5
32	M2	Z	-.188	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	4.247	1.5
2	MP3A	Z	0	1.5
3	MP3A	Mx	-.002	1.5
4	MP3A	X	4.247	6
5	MP3A	Z	0	6
6	MP3A	Mx	-.002	6
7	MP2A	X	2.518	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	-.001	1.5
10	MP2A	X	2.518	6
11	MP2A	Z	0	6
12	MP2A	Mx	-.001	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP4A	X	2.133	1.5
14	MP4A	Z	0	1.5
15	MP4A	Mx	-.001	1.5
16	MP4A	X	2.133	4.5
17	MP4A	Z	0	4.5
18	MP4A	Mx	-.001	4.5
19	MP5A	X	4.8	1.5
20	MP5A	Z	0	1.5
21	MP5A	Mx	-.002	1.5
22	MP5A	X	4.8	6
23	MP5A	Z	0	6
24	MP5A	Mx	-.002	6
25	M2	X	.4	2.5
26	M2	Z	0	2.5
27	M2	Mx	0	2.5
28	MP1A	X	3.832	3
29	MP1A	Z	0	3
30	MP1A	Mx	-.002	3
31	M2	X	.4	11.5
32	M2	Z	0	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	4.432	1.5
2	MP3A	Z	2.559	1.5
3	MP3A	Mx	-.002	1.5
4	MP3A	X	4.432	6
5	MP3A	Z	2.559	6
6	MP3A	Mx	-.002	6
7	MP2A	X	2.783	1.5
8	MP2A	Z	1.607	1.5
9	MP2A	Mx	-.001	1.5
10	MP2A	X	2.783	6
11	MP2A	Z	1.607	6
12	MP2A	Mx	-.001	6
13	MP4A	X	2.184	1.5
14	MP4A	Z	1.261	1.5
15	MP4A	Mx	-.001	1.5
16	MP4A	X	2.184	4.5
17	MP4A	Z	1.261	4.5
18	MP4A	Mx	-.001	4.5
19	MP5A	X	4.796	1.5
20	MP5A	Z	2.769	1.5
21	MP5A	Mx	-.002	1.5
22	MP5A	X	4.796	6
23	MP5A	Z	2.769	6
24	MP5A	Mx	-.002	6
25	M2	X	.256	2.5
26	M2	Z	.148	2.5
27	M2	Mx	0	2.5
28	MP1A	X	4.774	3
29	MP1A	Z	2.756	3
30	MP1A	Mx	-.002	3
31	M2	X	.256	11.5
32	M2	Z	.148	11.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	3.43	1.5
2	MP3A	Z	5.941	1.5
3	MP3A	Mx	-.002	1.5
4	MP3A	X	3.43	6
5	MP3A	Z	5.941	6
6	MP3A	Mx	-.002	6
7	MP2A	X	2.302	1.5
8	MP2A	Z	3.988	1.5
9	MP2A	Mx	-.001	1.5
10	MP2A	X	2.302	6
11	MP2A	Z	3.988	6
12	MP2A	Mx	-.001	6
13	MP4A	X	1.649	1.5
14	MP4A	Z	2.857	1.5
15	MP4A	Mx	-.000824	1.5
16	MP4A	X	1.649	4.5
17	MP4A	Z	2.857	4.5
18	MP4A	Mx	-.000824	4.5
19	MP5A	X	3.507	1.5
20	MP5A	Z	6.074	1.5
21	MP5A	Mx	-.002	1.5
22	MP5A	X	3.507	6
23	MP5A	Z	6.074	6
24	MP5A	Mx	-.002	6
25	M2	X	.084	2.5
26	M2	Z	.146	2.5
27	M2	Mx	0	2.5
28	MP1A	X	3.788	3
29	MP1A	Z	6.56	3
30	MP1A	Mx	-.001	3
31	M2	X	.084	11.5
32	M2	Z	.146	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.5
2	MP3A	Z	7.731	1.5
3	MP3A	Mx	0	1.5
4	MP3A	X	0	6
5	MP3A	Z	7.731	6
6	MP3A	Mx	0	6
7	MP2A	X	0	1.5
8	MP2A	Z	5.301	1.5
9	MP2A	Mx	0	1.5
10	MP2A	X	0	6
11	MP2A	Z	5.301	6
12	MP2A	Mx	0	6
13	MP4A	X	0	1.5
14	MP4A	Z	3.687	1.5
15	MP4A	Mx	0	1.5
16	MP4A	X	0	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
17	MP4A	Z	3.687	4.5
18	MP4A	Mx	0	4.5
19	MP5A	X	0	1.5
20	MP5A	Z	7.752	1.5
21	MP5A	Mx	0	1.5
22	MP5A	X	0	6
23	MP5A	Z	7.752	6
24	MP5A	Mx	0	6
25	M2	X	0	2.5
26	M2	Z	.144	2.5
27	M2	Mx	0	2.5
28	MP1A	X	0	3
29	MP1A	Z	7.956	3
30	MP1A	Mx	.000691	3
31	M2	X	0	11.5
32	M2	Z	.144	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-3.43	1.5
2	MP3A	Z	5.941	1.5
3	MP3A	Mx	.002	1.5
4	MP3A	X	-3.43	6
5	MP3A	Z	5.941	6
6	MP3A	Mx	.002	6
7	MP2A	X	-2.302	1.5
8	MP2A	Z	3.988	1.5
9	MP2A	Mx	.001	1.5
10	MP2A	X	-2.302	6
11	MP2A	Z	3.988	6
12	MP2A	Mx	.001	6
13	MP4A	X	-1.649	1.5
14	MP4A	Z	2.857	1.5
15	MP4A	Mx	.000824	1.5
16	MP4A	X	-1.649	4.5
17	MP4A	Z	2.857	4.5
18	MP4A	Mx	.000824	4.5
19	MP5A	X	-3.507	1.5
20	MP5A	Z	6.074	1.5
21	MP5A	Mx	.002	1.5
22	MP5A	X	-3.507	6
23	MP5A	Z	6.074	6
24	MP5A	Mx	.002	6
25	M2	X	-.124	2.5
26	M2	Z	.215	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-3.138	3
29	MP1A	Z	5.434	3
30	MP1A	Mx	.002	3
31	M2	X	-.124	11.5
32	M2	Z	.215	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
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Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-4.432	1.5
2	MP3A	Z	2.559	1.5
3	MP3A	Mx	.002	1.5
4	MP3A	X	-4.432	6
5	MP3A	Z	2.559	6
6	MP3A	Mx	.002	6
7	MP2A	X	-2.783	1.5
8	MP2A	Z	1.607	1.5
9	MP2A	Mx	.001	1.5
10	MP2A	X	-2.783	6
11	MP2A	Z	1.607	6
12	MP2A	Mx	.001	6
13	MP4A	X	-2.184	1.5
14	MP4A	Z	1.261	1.5
15	MP4A	Mx	.001	1.5
16	MP4A	X	-2.184	4.5
17	MP4A	Z	1.261	4.5
18	MP4A	Mx	.001	4.5
19	MP5A	X	-4.796	1.5
20	MP5A	Z	2.769	1.5
21	MP5A	Mx	.002	1.5
22	MP5A	X	-4.796	6
23	MP5A	Z	2.769	6
24	MP5A	Mx	.002	6
25	M2	X	-.326	2.5
26	M2	Z	.188	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-3.648	3
29	MP1A	Z	2.106	3
30	MP1A	Mx	.002	3
31	M2	X	-.326	11.5
32	M2	Z	.188	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-4.247	1.5
2	MP3A	Z	0	1.5
3	MP3A	Mx	.002	1.5
4	MP3A	X	-4.247	6
5	MP3A	Z	0	6
6	MP3A	Mx	.002	6
7	MP2A	X	-2.518	1.5
8	MP2A	Z	0	1.5
9	MP2A	Mx	.001	1.5
10	MP2A	X	-2.518	6
11	MP2A	Z	0	6
12	MP2A	Mx	.001	6
13	MP4A	X	-2.133	1.5
14	MP4A	Z	0	1.5
15	MP4A	Mx	.001	1.5
16	MP4A	X	-2.133	4.5
17	MP4A	Z	0	4.5
18	MP4A	Mx	.001	4.5
19	MP5A	X	-4.8	1.5
20	MP5A	Z	0	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	MP5A	Mx	.002	1.5
22	MP5A	X	-4.8	6
23	MP5A	Z	0	6
24	MP5A	Mx	.002	6
25	M2	X	-.4	2.5
26	M2	Z	0	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-3.832	3
29	MP1A	Z	0	3
30	MP1A	Mx	.002	3
31	M2	X	-.4	11.5
32	M2	Z	0	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-4.432	1.5
2	MP3A	Z	-2.559	1.5
3	MP3A	Mx	.002	1.5
4	MP3A	X	-4.432	6
5	MP3A	Z	-2.559	6
6	MP3A	Mx	.002	6
7	MP2A	X	-2.783	1.5
8	MP2A	Z	-1.607	1.5
9	MP2A	Mx	.001	1.5
10	MP2A	X	-2.783	6
11	MP2A	Z	-1.607	6
12	MP2A	Mx	.001	6
13	MP4A	X	-2.184	1.5
14	MP4A	Z	-1.261	1.5
15	MP4A	Mx	.001	1.5
16	MP4A	X	-2.184	4.5
17	MP4A	Z	-1.261	4.5
18	MP4A	Mx	.001	4.5
19	MP5A	X	-4.796	1.5
20	MP5A	Z	-2.769	1.5
21	MP5A	Mx	.002	1.5
22	MP5A	X	-4.796	6
23	MP5A	Z	-2.769	6
24	MP5A	Mx	.002	6
25	M2	X	-.256	2.5
26	M2	Z	-.148	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-4.774	3
29	MP1A	Z	-2.756	3
30	MP1A	Mx	.002	3
31	M2	X	-.256	11.5
32	M2	Z	-.148	11.5
33	M2	Mx	0	11.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-3.43	1.5
2	MP3A	Z	-5.941	1.5
3	MP3A	Mx	.002	1.5
4	MP3A	X	-3.43	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
5	MP3A	Z	-5.941	6
6	MP3A	Mx	.002	6
7	MP2A	X	-2.302	1.5
8	MP2A	Z	-3.988	1.5
9	MP2A	Mx	.001	1.5
10	MP2A	X	-2.302	6
11	MP2A	Z	-3.988	6
12	MP2A	Mx	.001	6
13	MP4A	X	-1.649	1.5
14	MP4A	Z	-2.857	1.5
15	MP4A	Mx	.000824	1.5
16	MP4A	X	-1.649	4.5
17	MP4A	Z	-2.857	4.5
18	MP4A	Mx	.000824	4.5
19	MP5A	X	-3.507	1.5
20	MP5A	Z	-6.074	1.5
21	MP5A	Mx	.002	1.5
22	MP5A	X	-3.507	6
23	MP5A	Z	-6.074	6
24	MP5A	Mx	.002	6
25	M2	X	-.084	2.5
26	M2	Z	-.146	2.5
27	M2	Mx	0	2.5
28	MP1A	X	-3.788	3
29	MP1A	Z	-6.56	3
30	MP1A	Mx	.001	3
31	M2	X	-.084	11.5
32	M2	Z	-.146	11.5
33	M2	Mx	0	11.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M26	Y	-500	%100

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M5	Y	-500	%100

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

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

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	Y	-4.96	-4.96	0	%100
2	M2	Y	-4.96	-4.96	0	%100
3	MP5A	Y	-4.96	-4.96	0	%100
4	MP3A	Y	-4.96	-4.96	0	%100
5	MP4A	Y	-4.96	-4.96	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
6	MP1A	Y	-7.949	-7.949	0	%100
7	M15	Y	-6.592	-6.592	0	%100
8	M17	Y	-6.592	-6.592	0	%100
9	M19	Y	-2.674	-2.674	0	%100
10	M22	Y	-6.542	-6.542	0	%100
11	M23	Y	-4.96	-4.96	0	%100
12	MP2A	Y	-4.96	-4.96	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	-7.379	-7.379	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-7.379	-7.379	0	%100
5	MP5A	X	0	0	0	%100
6	MP5A	Z	-6.422	-6.422	0	%100
7	MP3A	X	0	0	0	%100
8	MP3A	Z	-6.422	-6.422	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	-6.422	-6.422	0	%100
11	MP1A	X	0	0	0	%100
12	MP1A	Z	-9.989	-9.989	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	0	0	0	%100
15	M17	X	0	0	0	%100
16	M17	Z	0	0	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-2.33	-2.33	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	-7.88	-7.88	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	-0.007	-0.007	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	-6.422	-6.422	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	2.767	2.767	0	%100
2	M1	Z	-4.793	-4.793	0	%100
3	M2	X	2.767	2.767	0	%100
4	M2	Z	-4.793	-4.793	0	%100
5	MP5A	X	3.331	3.331	0	%100
6	MP5A	Z	-5.769	-5.769	0	%100
7	MP3A	X	3.331	3.331	0	%100
8	MP3A	Z	-5.769	-5.769	0	%100
9	MP4A	X	3.331	3.331	0	%100
10	MP4A	Z	-5.769	-5.769	0	%100
11	MP1A	X	4.997	4.997	0	%100
12	MP1A	Z	-8.654	-8.654	0	%100
13	M15	X	.769	.769	0	%100
14	M15	Z	-1.332	-1.332	0	%100
15	M17	X	.769	.769	0	%100
16	M17	Z	-1.332	-1.332	0	%100
17	M19	X	1.165	1.165	0	%100
18	M19	Z	-2.018	-2.018	0	%100
19	M22	X	4.03	4.03	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
20	M22	Z	-6.981	-6.981	0	%100
21	M23	X	1.026	1.026	0	%100
22	M23	Z	-1.777	-1.777	0	%100
23	MP2A	X	3.331	3.331	0	%100
24	MP2A	Z	-5.769	-5.769	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	1.598	1.598	0	%100
2	M1	Z	-922	-922	0	%100
3	M2	X	1.598	1.598	0	%100
4	M2	Z	-922	-922	0	%100
5	MP5A	X	6.183	6.183	0	%100
6	MP5A	Z	-3.57	-3.57	0	%100
7	MP3A	X	6.183	6.183	0	%100
8	MP3A	Z	-3.57	-3.57	0	%100
9	MP4A	X	6.183	6.183	0	%100
10	MP4A	Z	-3.57	-3.57	0	%100
11	MP1A	X	8.661	8.661	0	%100
12	MP1A	Z	-5.001	-5.001	0	%100
13	M15	X	3.996	3.996	0	%100
14	M15	Z	-2.307	-2.307	0	%100
15	M17	X	3.996	3.996	0	%100
16	M17	Z	-2.307	-2.307	0	%100
17	M19	X	2.018	2.018	0	%100
18	M19	Z	-1.165	-1.165	0	%100
19	M22	X	7.293	7.293	0	%100
20	M22	Z	-4.211	-4.211	0	%100
21	M23	X	4.966	4.966	0	%100
22	M23	Z	-2.867	-2.867	0	%100
23	MP2A	X	6.183	6.183	0	%100
24	MP2A	Z	-3.57	-3.57	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	MP5A	X	7.379	7.379	0	%100
6	MP5A	Z	0	0	0	%100
7	MP3A	X	7.379	7.379	0	%100
8	MP3A	Z	0	0	0	%100
9	MP4A	X	7.379	7.379	0	%100
10	MP4A	Z	0	0	0	%100
11	MP1A	X	10.005	10.005	0	%100
12	MP1A	Z	0	0	0	%100
13	M15	X	6.152	6.152	0	%100
14	M15	Z	0	0	0	%100
15	M17	X	6.152	6.152	0	%100
16	M17	Z	0	0	0	%100
17	M19	X	2.33	2.33	0	%100
18	M19	Z	0	0	0	%100
19	M22	X	8.601	8.601	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	7.371	7.371	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
22	M23	Z	0	0	0	%100
23	MP2A	X	7.379	7.379	0	%100
24	MP2A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	1.598	1.598	0	%100
2	M1	Z	.922	.922	0	%100
3	M2	X	1.598	1.598	0	%100
4	M2	Z	.922	.922	0	%100
5	MP5A	X	6.183	6.183	0	%100
6	MP5A	Z	3.57	3.57	0	%100
7	MP3A	X	6.183	6.183	0	%100
8	MP3A	Z	3.57	3.57	0	%100
9	MP4A	X	6.183	6.183	0	%100
10	MP4A	Z	3.57	3.57	0	%100
11	MP1A	X	8.661	8.661	0	%100
12	MP1A	Z	5.001	5.001	0	%100
13	M15	X	3.996	3.996	0	%100
14	M15	Z	2.307	2.307	0	%100
15	M17	X	3.996	3.996	0	%100
16	M17	Z	2.307	2.307	0	%100
17	M19	X	2.018	2.018	0	%100
18	M19	Z	1.165	1.165	0	%100
19	M22	X	7.293	7.293	0	%100
20	M22	Z	4.211	4.211	0	%100
21	M23	X	4.613	4.613	0	%100
22	M23	Z	2.663	2.663	0	%100
23	MP2A	X	6.183	6.183	0	%100
24	MP2A	Z	3.57	3.57	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	2.767	2.767	0	%100
2	M1	Z	4.793	4.793	0	%100
3	M2	X	2.767	2.767	0	%100
4	M2	Z	4.793	4.793	0	%100
5	MP5A	X	3.331	3.331	0	%100
6	MP5A	Z	5.769	5.769	0	%100
7	MP3A	X	3.331	3.331	0	%100
8	MP3A	Z	5.769	5.769	0	%100
9	MP4A	X	3.331	3.331	0	%100
10	MP4A	Z	5.769	5.769	0	%100
11	MP1A	X	4.997	4.997	0	%100
12	MP1A	Z	8.654	8.654	0	%100
13	M15	X	.769	.769	0	%100
14	M15	Z	1.332	1.332	0	%100
15	M17	X	.769	.769	0	%100
16	M17	Z	1.332	1.332	0	%100
17	M19	X	1.165	1.165	0	%100
18	M19	Z	2.018	2.018	0	%100
19	M22	X	4.03	4.03	0	%100
20	M22	Z	6.981	6.981	0	%100
21	M23	X	.822	.822	0	%100
22	M23	Z	1.424	1.424	0	%100
23	MP2A	X	3.331	3.331	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-1.598	-1.598	0	%100
2	M1	Z	.922	.922	0	%100
3	M2	X	-1.598	-1.598	0	%100
4	M2	Z	.922	.922	0	%100
5	MP5A	X	-6.183	-6.183	0	%100
6	MP5A	Z	3.57	3.57	0	%100
7	MP3A	X	-6.183	-6.183	0	%100
8	MP3A	Z	3.57	3.57	0	%100
9	MP4A	X	-6.183	-6.183	0	%100
10	MP4A	Z	3.57	3.57	0	%100
11	MP1A	X	-8.661	-8.661	0	%100
12	MP1A	Z	5.001	5.001	0	%100
13	M15	X	-3.996	-3.996	0	%100
14	M15	Z	2.307	2.307	0	%100
15	M17	X	-3.996	-3.996	0	%100
16	M17	Z	2.307	2.307	0	%100
17	M19	X	-2.018	-2.018	0	%100
18	M19	Z	1.165	1.165	0	%100
19	M22	X	-7.293	-7.293	0	%100
20	M22	Z	4.211	4.211	0	%100
21	M23	X	-4.966	-4.966	0	%100
22	M23	Z	2.867	2.867	0	%100
23	MP2A	X	-6.183	-6.183	0	%100
24	MP2A	Z	3.57	3.57	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	MP5A	X	-7.379	-7.379	0	%100
6	MP5A	Z	0	0	0	%100
7	MP3A	X	-7.379	-7.379	0	%100
8	MP3A	Z	0	0	0	%100
9	MP4A	X	-7.379	-7.379	0	%100
10	MP4A	Z	0	0	0	%100
11	MP1A	X	-10.005	-10.005	0	%100
12	MP1A	Z	0	0	0	%100
13	M15	X	-6.152	-6.152	0	%100
14	M15	Z	0	0	0	%100
15	M17	X	-6.152	-6.152	0	%100
16	M17	Z	0	0	0	%100
17	M19	X	-2.33	-2.33	0	%100
18	M19	Z	0	0	0	%100
19	M22	X	-8.601	-8.601	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	-7.371	-7.371	0	%100
22	M23	Z	0	0	0	%100
23	MP2A	X	-7.379	-7.379	0	%100
24	MP2A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-1.598	-1.598	0	%100
2	M1	Z	-.922	-.922	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
5	MP5A	X	0	0	0	%100
6	MP5A	Z	-2.479	-2.479	0	%100
7	MP3A	X	0	0	0	%100
8	MP3A	Z	-2.479	-2.479	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	-2.479	-2.479	0	%100
11	MP1A	X	0	0	0	%100
12	MP1A	Z	-3.164	-3.164	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	0	0	0	%100
15	M17	X	0	0	0	%100
16	M17	Z	0	0	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-1.442	-1.442	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	-2.645	-2.645	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	-.003	-.003	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	-2.479	-2.479	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.995	.995	0	%100
2	M1	Z	-1.724	-1.724	0	%100
3	M2	X	.995	.995	0	%100
4	M2	Z	-1.724	-1.724	0	%100
5	MP5A	X	1.261	1.261	0	%100
6	MP5A	Z	-2.185	-2.185	0	%100
7	MP3A	X	1.261	1.261	0	%100
8	MP3A	Z	-2.185	-2.185	0	%100
9	MP4A	X	1.261	1.261	0	%100
10	MP4A	Z	-2.185	-2.185	0	%100
11	MP1A	X	1.6	1.6	0	%100
12	MP1A	Z	-2.771	-2.771	0	%100
13	M15	X	.26	.26	0	%100
14	M15	Z	-.45	-.45	0	%100
15	M17	X	.26	.26	0	%100
16	M17	Z	-.45	-.45	0	%100
17	M19	X	.721	.721	0	%100
18	M19	Z	-1.249	-1.249	0	%100
19	M22	X	1.339	1.339	0	%100
20	M22	Z	-2.319	-2.319	0	%100
21	M23	X	.369	.369	0	%100
22	M23	Z	-.639	-.639	0	%100
23	MP2A	X	1.261	1.261	0	%100
24	MP2A	Z	-2.185	-2.185	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.575	.575	0	%100
2	M1	Z	-.332	-.332	0	%100
3	M2	X	.575	.575	0	%100
4	M2	Z	-.332	-.332	0	%100
5	MP5A	X	2.261	2.261	0	%100
6	MP5A	Z	-1.305	-1.305	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
7	MP3A	X	2.261	2.261	0	%100
8	MP3A	Z	-1.305	-1.305	0	%100
9	MP4A	X	2.261	2.261	0	%100
10	MP4A	Z	-1.305	-1.305	0	%100
11	MP1A	X	2.834	2.834	0	%100
12	MP1A	Z	-1.636	-1.636	0	%100
13	M15	X	1.349	1.349	0	%100
14	M15	Z	-.779	-.779	0	%100
15	M17	X	1.349	1.349	0	%100
16	M17	Z	-.779	-.779	0	%100
17	M19	X	1.249	1.249	0	%100
18	M19	Z	-.721	-.721	0	%100
19	M22	X	2.376	2.376	0	%100
20	M22	Z	-1.372	-1.372	0	%100
21	M23	X	1.786	1.786	0	%100
22	M23	Z	-1.031	-1.031	0	%100
23	MP2A	X	2.261	2.261	0	%100
24	MP2A	Z	-1.305	-1.305	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	MP5A	X	2.654	2.654	0	%100
6	MP5A	Z	0	0	0	%100
7	MP3A	X	2.654	2.654	0	%100
8	MP3A	Z	0	0	0	%100
9	MP4A	X	2.654	2.654	0	%100
10	MP4A	Z	0	0	0	%100
11	MP1A	X	3.308	3.308	0	%100
12	MP1A	Z	0	0	0	%100
13	M15	X	2.077	2.077	0	%100
14	M15	Z	0	0	0	%100
15	M17	X	2.077	2.077	0	%100
16	M17	Z	0	0	0	%100
17	M19	X	1.442	1.442	0	%100
18	M19	Z	0	0	0	%100
19	M22	X	2.777	2.777	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	2.651	2.651	0	%100
22	M23	Z	0	0	0	%100
23	MP2A	X	2.654	2.654	0	%100
24	MP2A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	.575	.575	0	%100
2	M1	Z	.332	.332	0	%100
3	M2	X	.575	.575	0	%100
4	M2	Z	.332	.332	0	%100
5	MP5A	X	2.261	2.261	0	%100
6	MP5A	Z	1.305	1.305	0	%100
7	MP3A	X	2.261	2.261	0	%100
8	MP3A	Z	1.305	1.305	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
15	M17	X	-1.349	-1.349	0	%100
16	M17	Z	-0.779	-0.779	0	%100
17	M19	X	-1.249	-1.249	0	%100
18	M19	Z	-0.721	-0.721	0	%100
19	M22	X	-2.376	-2.376	0	%100
20	M22	Z	-1.372	-1.372	0	%100
21	M23	X	-1.659	-1.659	0	%100
22	M23	Z	-0.958	-0.958	0	%100
23	MP2A	X	-2.261	-2.261	0	%100
24	MP2A	Z	-1.305	-1.305	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-0.995	-0.995	0	%100
2	M1	Z	-1.724	-1.724	0	%100
3	M2	X	-0.995	-0.995	0	%100
4	M2	Z	-1.724	-1.724	0	%100
5	MP5A	X	-1.261	-1.261	0	%100
6	MP5A	Z	-2.185	-2.185	0	%100
7	MP3A	X	-1.261	-1.261	0	%100
8	MP3A	Z	-2.185	-2.185	0	%100
9	MP4A	X	-1.261	-1.261	0	%100
10	MP4A	Z	-2.185	-2.185	0	%100
11	MP1A	X	-1.6	-1.6	0	%100
12	MP1A	Z	-2.771	-2.771	0	%100
13	M15	X	-0.26	-0.26	0	%100
14	M15	Z	-0.45	-0.45	0	%100
15	M17	X	-0.26	-0.26	0	%100
16	M17	Z	-0.45	-0.45	0	%100
17	M19	X	-0.721	-0.721	0	%100
18	M19	Z	-1.249	-1.249	0	%100
19	M22	X	-1.339	-1.339	0	%100
20	M22	Z	-2.319	-2.319	0	%100
21	M23	X	-0.296	-0.296	0	%100
22	M23	Z	-0.512	-0.512	0	%100
23	MP2A	X	-1.261	-1.261	0	%100
24	MP2A	Z	-2.185	-2.185	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	-0.485	-0.485	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-0.485	-0.485	0	%100
5	MP5A	X	0	0	0	%100
6	MP5A	Z	-0.422	-0.422	0	%100
7	MP3A	X	0	0	0	%100
8	MP3A	Z	-0.422	-0.422	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	-0.422	-0.422	0	%100
11	MP1A	X	0	0	0	%100
12	MP1A	Z	-0.657	-0.657	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	0	0	0	%100
15	M17	X	0	0	0	%100
16	M17	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
21	M23	X	.303	.303	0	%100
22	M23	Z	.175	.175	0	%100
23	MP2A	X	.407	.407	0	%100
24	MP2A	Z	.235	.235	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.182	.182	0	%100
2	M1	Z	.315	.315	0	%100
3	M2	X	.182	.182	0	%100
4	M2	Z	.315	.315	0	%100
5	MP5A	X	.219	.219	0	%100
6	MP5A	Z	.379	.379	0	%100
7	MP3A	X	.219	.219	0	%100
8	MP3A	Z	.379	.379	0	%100
9	MP4A	X	.219	.219	0	%100
10	MP4A	Z	.379	.379	0	%100
11	MP1A	X	.329	.329	0	%100
12	MP1A	Z	.569	.569	0	%100
13	M15	X	.051	.051	0	%100
14	M15	Z	.088	.088	0	%100
15	M17	X	.051	.051	0	%100
16	M17	Z	.088	.088	0	%100
17	M19	X	.077	.077	0	%100
18	M19	Z	.133	.133	0	%100
19	M22	X	.265	.265	0	%100
20	M22	Z	.459	.459	0	%100
21	M23	X	.054	.054	0	%100
22	M23	Z	.094	.094	0	%100
23	MP2A	X	.219	.219	0	%100
24	MP2A	Z	.379	.379	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	.485	.485	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.485	.485	0	%100
5	MP5A	X	0	0	0	%100
6	MP5A	Z	.422	.422	0	%100
7	MP3A	X	0	0	0	%100
8	MP3A	Z	.422	.422	0	%100
9	MP4A	X	0	0	0	%100
10	MP4A	Z	.422	.422	0	%100
11	MP1A	X	0	0	0	%100
12	MP1A	Z	.657	.657	0	%100
13	M15	X	0	0	0	%100
14	M15	Z	0	0	0	%100
15	M17	X	0	0	0	%100
16	M17	Z	0	0	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.153	.153	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	.518	.518	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	.000493	.000493	0	%100



Company : Maser Consulting
 Designer : NL
 Job Number : 20777521A
 Model Name : Mount Analysis

Nov 30, 2020
 5:24 PM
 Checked By: DX

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
23	MP2A	X	0	0	0	%100
24	MP2A	Z	.422	.422	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.182	-.182	0	%100
2	M1	Z	.315	.315	0	%100
3	M2	X	-.182	-.182	0	%100
4	M2	Z	.315	.315	0	%100
5	MP5A	X	-.219	-.219	0	%100
6	MP5A	Z	.379	.379	0	%100
7	MP3A	X	-.219	-.219	0	%100
8	MP3A	Z	.379	.379	0	%100
9	MP4A	X	-.219	-.219	0	%100
10	MP4A	Z	.379	.379	0	%100
11	MP1A	X	-.329	-.329	0	%100
12	MP1A	Z	.569	.569	0	%100
13	M15	X	-.051	-.051	0	%100
14	M15	Z	.088	.088	0	%100
15	M17	X	-.051	-.051	0	%100
16	M17	Z	.088	.088	0	%100
17	M19	X	-.077	-.077	0	%100
18	M19	Z	.133	.133	0	%100
19	M22	X	-.265	-.265	0	%100
20	M22	Z	.459	.459	0	%100
21	M23	X	-.067	-.067	0	%100
22	M23	Z	.117	.117	0	%100
23	MP2A	X	-.219	-.219	0	%100
24	MP2A	Z	.379	.379	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.105	-.105	0	%100
2	M1	Z	.061	.061	0	%100
3	M2	X	-.105	-.105	0	%100
4	M2	Z	.061	.061	0	%100
5	MP5A	X	-.407	-.407	0	%100
6	MP5A	Z	.235	.235	0	%100
7	MP3A	X	-.407	-.407	0	%100
8	MP3A	Z	.235	.235	0	%100
9	MP4A	X	-.407	-.407	0	%100
10	MP4A	Z	.235	.235	0	%100
11	MP1A	X	-.569	-.569	0	%100
12	MP1A	Z	.329	.329	0	%100
13	M15	X	-.263	-.263	0	%100
14	M15	Z	.152	.152	0	%100
15	M17	X	-.263	-.263	0	%100
16	M17	Z	.152	.152	0	%100
17	M19	X	-.133	-.133	0	%100
18	M19	Z	.077	.077	0	%100
19	M22	X	-.479	-.479	0	%100
20	M22	Z	.277	.277	0	%100
21	M23	X	-.326	-.326	0	%100
22	M23	Z	.188	.188	0	%100
23	MP2A	X	-.407	-.407	0	%100
24	MP2A	Z	.235	.235	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
3	M2	X	-182	-182	0 %100
4	M2	Z	-315	-315	0 %100
5	MP5A	X	-219	-219	0 %100
6	MP5A	Z	-379	-379	0 %100
7	MP3A	X	-219	-219	0 %100
8	MP3A	Z	-379	-379	0 %100
9	MP4A	X	-219	-219	0 %100
10	MP4A	Z	-379	-379	0 %100
11	MP1A	X	-329	-329	0 %100
12	MP1A	Z	-569	-569	0 %100
13	M15	X	-051	-051	0 %100
14	M15	Z	-088	-088	0 %100
15	M17	X	-051	-051	0 %100
16	M17	Z	-088	-088	0 %100
17	M19	X	-077	-077	0 %100
18	M19	Z	-133	-133	0 %100
19	M22	X	-265	-265	0 %100
20	M22	Z	-459	-459	0 %100
21	M23	X	-054	-054	0 %100
22	M23	Z	-094	-094	0 %100
23	MP2A	X	-219	-219	0 %100
24	MP2A	Z	-379	-379	0 %100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
No Data to Print ...						

Envelope Joint Reactions

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC		
1	N44	max	1089.129	46	715.658	41	759.04	12	.121	6	0	51	.118	11
2		min	-782.924	28	289.851	9	-1422.63	6	-.382	12	0	1	-.153	41
3	N45	max	754.831	35	688.112	45	796.09	36	.187	12	0	51	.147	41
4		min	-1061.963	41	259.345	3	-84.87	6	-.281	6	0	1	-.161	11
5	N48	max	15.821	6	63.739	36	617.009	5	0	51	0	51	0	51
6		min	-10.163	8	-34.69	44	-615.802	11	0	1	0	1	0	1
7	Totals:	max	848.399	10	1366.103	47	1328.607	1						
8		min	-848.4	4	616.081	5	-1328.61	7						

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

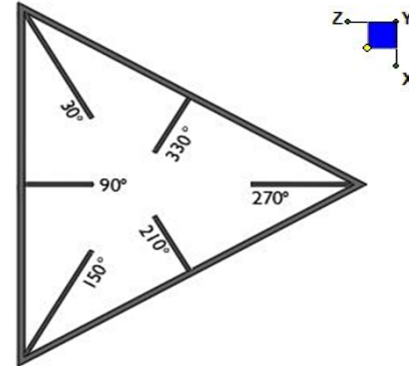
Member	Shape	Code Check	Loc[... LC	Shear Check	Loc[ft] Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn...	phi*Mn...Cb	Eqn	
1	M1	PIPE 2.0	.805	6.229 12	.313	6.229	31	5820.472	32130	1.872	1.872	1..H1-1b
2	M2	PIPE 2.0	.951	6.229 6	.301	6.229	30	5820.472	32130	1.872	1.872	1..H1-1b
3	MP5A	PIPE 2.0	.288	3.135 45	.059	5.542	37	17855.0...	32130	1.872	1.872	1..H1-1b
4	MP3A	PIPE 2.0	.265	3.135 30	.141	3.135	43	17855.0...	32130	1.872	1.872	1..H1-1b
5	MP4A	PIPE 2.0	.513	3.135 45	.088	5.542	37	17855.0...	32130	1.872	1.872	1..H1-1b
6	MP1A	PIPE 4.0	.016	1.615 32	.007	4.062	8	86073.9...	93240	10.631	10.631	2..H1-1b
7	M15	HSS2.5X2...	.544	2 44	.271	2	z 46	55909.5...	58212	4.158	4.158	2..H3-6
8	M17	HSS2.5X2...	.444	2 45	.243	.542	z 47	55909.5...	58212	4.158	4.158	2..H1-1b
9	M19	SR 0.75	.053	2.5 12	.070	0	47	3898.744	14313.8...	.179	.179	1..H1-1b*
10	M22	PIPE 3.0	.135	.583 43	.226	.625	46	59852.6...	65205	5.749	5.749	2..H1-1b
11	M23	PIPE 2.0	.152	0 26	.007	5.393	26	22671.8...	32130	1.872	1.872	1..H1-1b
12	MP2A	PIPE 2.0	.333	3.135 29	.081	3.135	29	17855.0...	32130	1.872	1.872	1..H1-1b



I. Mount-to-Tower Connection Check

RISA Model Data

Nodes (labeled per RISA)	Orientation (per graphic of typical platform)
N44	90
N45	90

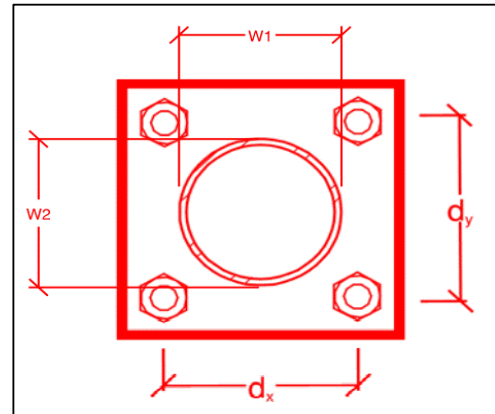


TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:
 Bolt Quantity per Reaction:
 d_x (in) (Delta X of typ. bolt config. sketch) :
 d_y (in) (Delta Y of typ. bolt config. sketch) :
 Bolt Type:
 Bolt Diameter (in):
 Required Tensile Strength (kips):
 Required Shear Strength (kips):
 Tensile Strength / bolt (kips):
 Shear Strength / bolt (kips):
 Tensile Capacity Overall:
 Shear Capacity Overall:

yes
4
3.5
3
A307
0.5
5.0
2.3
6.4
3.8
19.4%*
14.8%



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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

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

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


















Base Requirements:

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

Photo Requirements:

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

Schedule A – Photo & Document File Structure

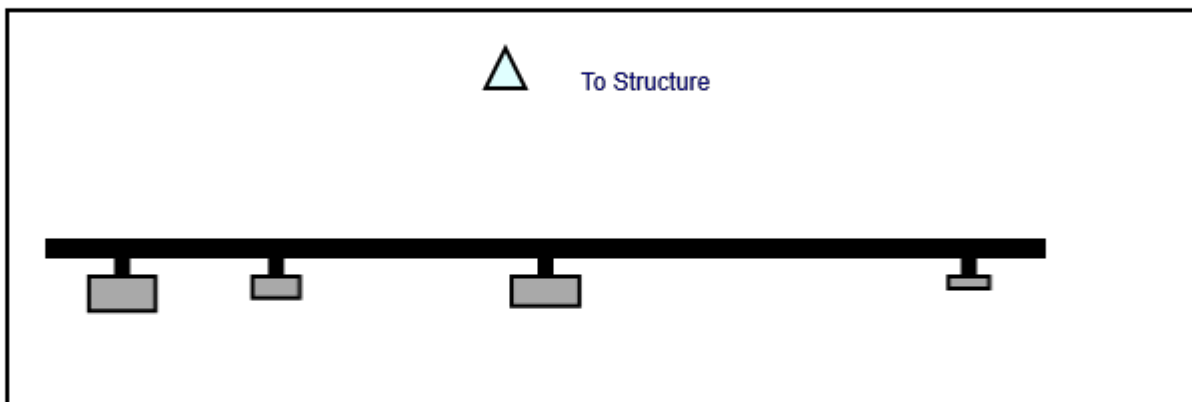
-  VzW Site Number / Name
 -  Base & “During Installation” Photos
 -  Pre-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Post-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Photos of climbing facility and safety climb – If Present
-  Certifications – Submission of this document including certifications
-  Specific Required Additional Photos

Sector: **A**
 Structure Type: Self Support
 Mount Elev: 135.00

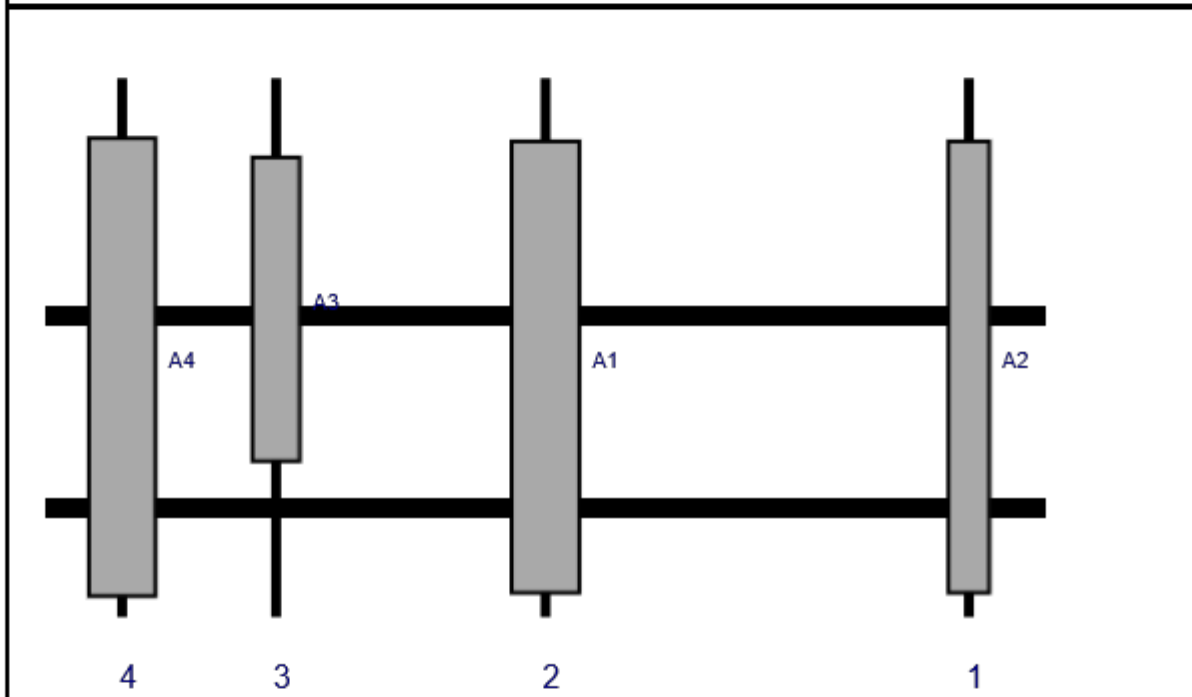
11/30/2020

Page: 1

Plan View



Front View
Looking at Structure



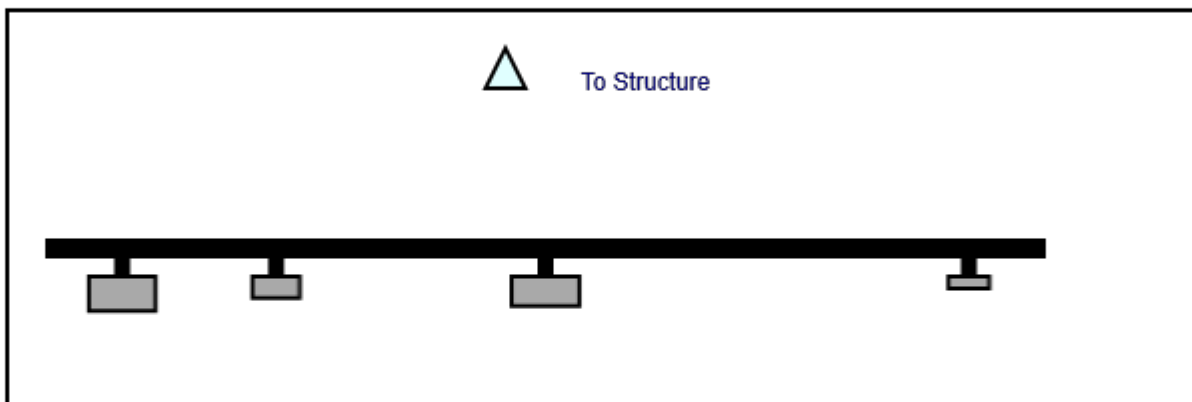
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	71x7x2.5 Panel	71	7	144	1	a	Front	45	0	Retained	11/28/2020
A1	BXA-70063-6CF-EDIN-6	71	11.2	78	2	a	Front	45	0	Retained	11/28/2020
A3	48x8x4 Panel	48	8	36	3	a	Front	36	0	Retained	11/28/2020
A4	72x11x6 Panel	72	11	12	4	a	Front	45	0	Retained	11/28/2020

Sector: **B**
 Structure Type: Self Support
 Mount Elev: 135.00

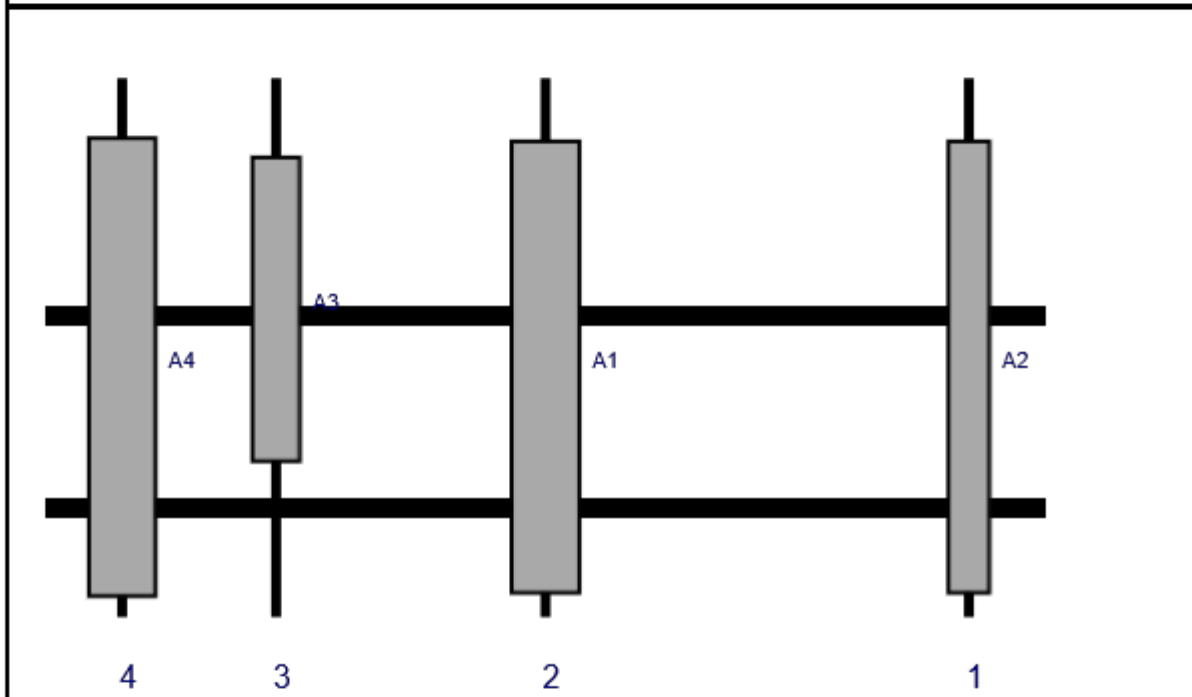
11/30/2020

Page: 2

Plan View

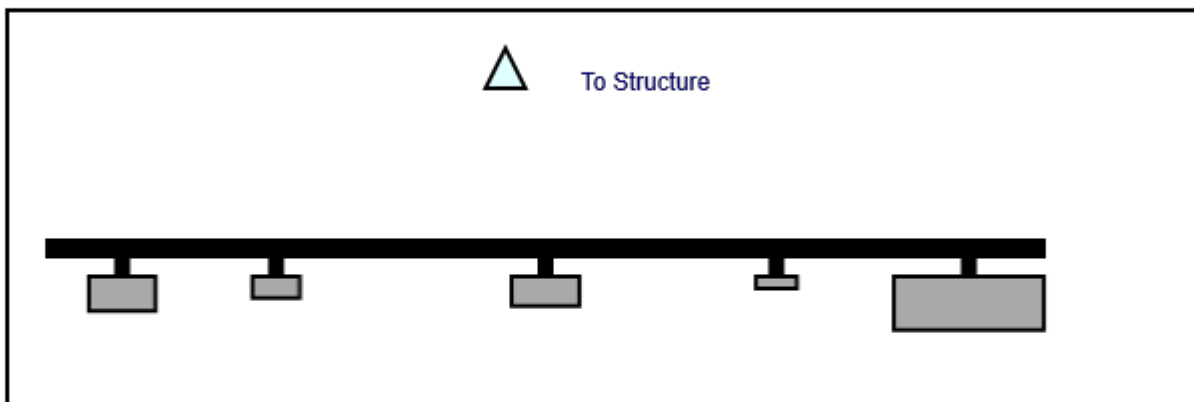


Front View
Looking at Structure

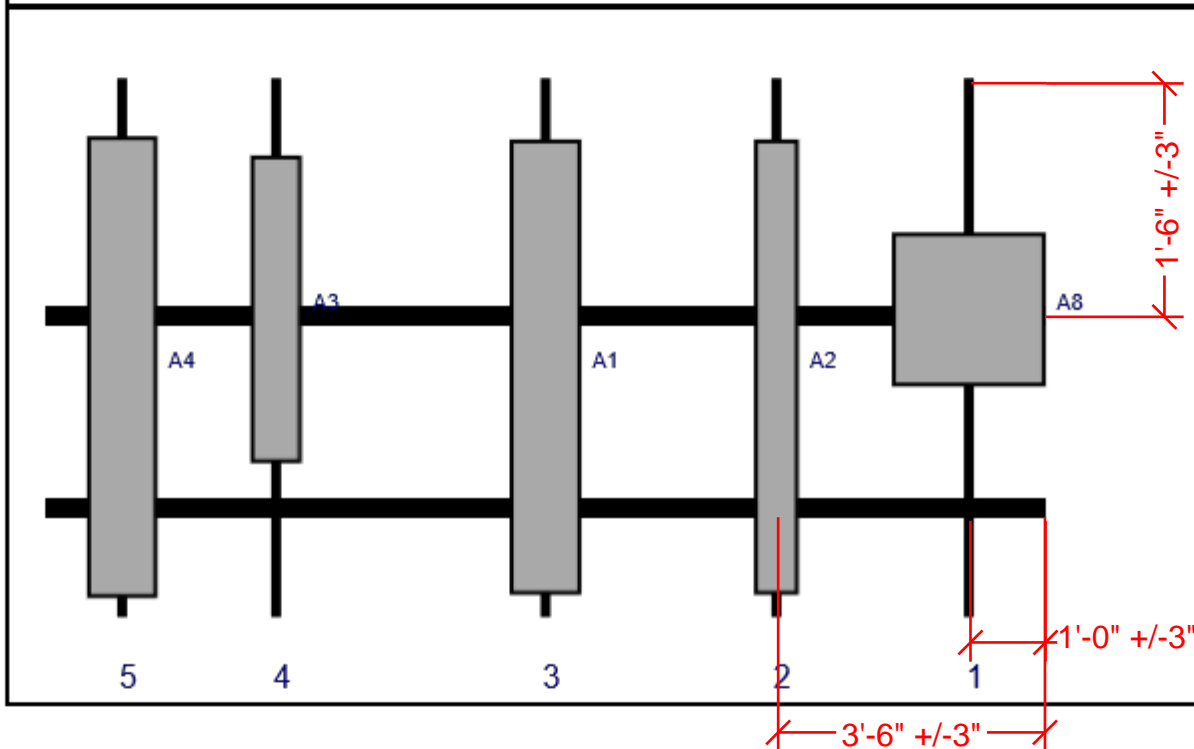


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	71x7x2.5 Panel	71	7	144	1	a	Front	45	0	Retained	11/28/2020
A1	BXA-70063-6CF-EDIN-6	71	11.2	78	2	a	Front	45	0	Retained	11/28/2020
A3	48x8x4 Panel	48	8	36	3	a	Front	36	0	Retained	11/28/2020
A4	72x11x6 Panel	72	11	12	4	a	Front	45	0	Retained	11/28/2020

Plan View



Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A8	VHLP2-18/C	24	24	144	1	a	Front	36	0	Added	
A2	71x7x2.5 Panel	71	7	114	2	a	Front	45	0	Retained	11/28/2020
A1	BXA-70063-6CF-EDIN-6	71	11.2	78	3	a	Front	45	0	Retained	11/28/2020
A3	48x8x4 Panel	48	8	36	4	a	Front	36	0	Retained	11/28/2020
A4	72x11x6 Panel	72	11	12	5	a	Front	45	0	Retained	11/28/2020

Maser Consulting Connecticut

Subject

TIA-222-H Usage

Site Information

Site ID: 467187-VZW / WOLCOTT N

Site Name: WOLCOTT N

Carrier Name: Verizon Wireless

Address: 1192 Wolcott Rd, Wolcott, Connecticut 06716
New Haven County

Latitude: 41.61803611°

Longitude: -72.97124444°

Structure Information

Tower Type: 180-Ft Self Support

Mount Type: 13.00-Ft T-Frame Mount

To Whom It May Concern,

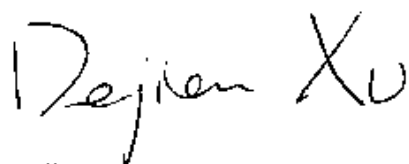
We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

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

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

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

Sincerely,



Dejian Xu, PE

Technical Specialist

ATTACHMENT 5



Certificate of Mailing — Firm

Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender 	TOTAL NO. of Pieces Received at Post Office™ 	Affix Stamp Here <i>Postmark with Date of Receipt.</i> ZIP 06103 041L12203937
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1.	Thomas G. Dunn, Mayor Town of Wolcott 10 Kenea Avenue Wolcott, CT 06716				
2.	David Kalinowski, Zoning Inspector Town of Wolcott 10 Kenea Avenue Wolcott, CT 06716				
3.	SNET c/o Frontier Communications Tax Department 401 Merritt 7 Norwalk, CT 06851				
4.	EIP Communications I, LLC Two Allegheny Center Nova Tower 2, Suite 703 Pittsburgh, PA 15212 Attn: Legal Department/701770 (Andrews Rd Tower)				
5.	Heather Douglas Wilkins Territory Manager - Business Development American Tower Corporation 10 Presidential Way Woburn, MA 01801				
6.					

