UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

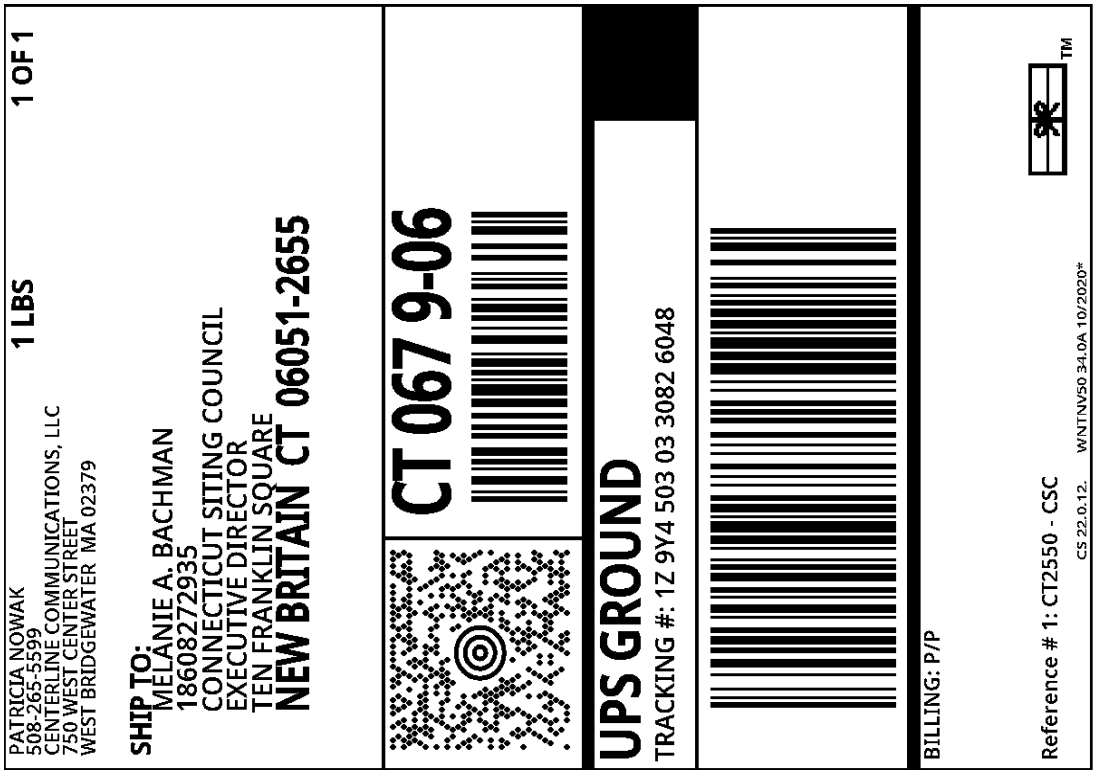
   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE



November 5, 2020

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

Regarding: Notice of Exempt Modification – AT&T Site CT2550
Address: 6 Mountain Road, Washington, CT 06777

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC (hereinafter "AT&T") currently maintains a wireless telecommunications facility on an existing 168' monopole tower (the "Tower") at the above-referenced address, latitude 41.669100, longitude -73.365300. Said Tower is managed by American Tower Corporation.

AT&T desires to modify its existing telecommunications facility on the Tower by swapping (6) antennas, swapping (3) remote radio units, adding (6) remote radio units and adding (2) surge arrestors with accompanying lines, as well as, other related modifications, as more particularly detailed and described in the enclosed Construction Drawings prepared by Infinigy Engineering, PLLC, dated October 13, 2020. Please note this modification includes B2, B5, and B12 hardware that is both 4G (LTE) and 5GNR capable through remote software configuration and either or both services may be turned on or off at various times. Enclosed please also find an Antenna Mount Analysis Report prepared by Infinigy Engineering, PLLC dated October 7, 2020. The centerline height of the antennas will be at 167 feet.

The Tower was originally approved by the Connecticut Siting Council on September 25, 2007 under Docket No. 332. Enclosed please find a copy of the Decision. Additionally, the Council approved a Tower extension under Petition No. 987 on June 9, 2011.

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 the following individuals: The Honorable James L. Brinton, First Selectman of the Town of Washington, CT; Nick Tsacoyannis, Zoning Enforcement Officer of the Town of Washington, CT; Ray and Carol Underwood, Trustees, as the property owner; and American Tower Corporation, as Tower manager. Enclosed please find a property card and GIS map of the property.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require an 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 modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. *Please see the enclosed Radio Frequency Emissions Report for AT&T's modified facility enclosed herewith.*

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

6. The existing structure and its foundation can support the proposed loading. *Please see the Structural Analysis Report dated June 26, 2020 and prepared by American Tower Corporation.*

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

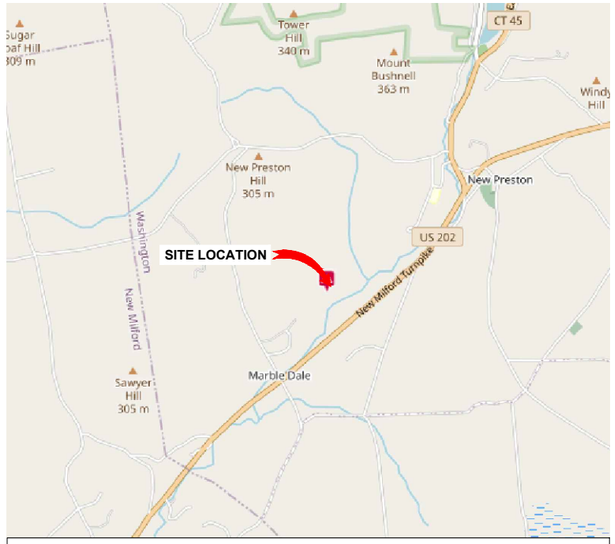
Sincerely,

Patricia Nowak
Site Acquisition Consultant
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
pnowak@clinellc.com

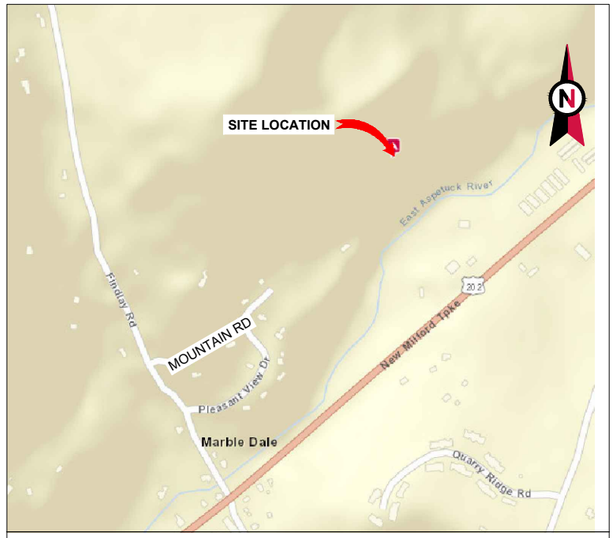
Enclosures:
Exhibit 1 – Construction Drawings
Exhibit 2 - Mount Analysis
Exhibit 3 – CSC Decision
Exhibit 4 – Property Card and GIS Map
Exhibit 5 – Radio Frequency Emissions Report
Exhibit 6 – Structural Analysis

cc:
The Honorable James L. Brinton, First Selectman of the Town of Washington, CT
Nick Tsacoyannis, Zoning Enforcement Officer of the Town of Washington, CT
Ray and Carol Underwood, Trustees, as the property owner
American Tower Corporation, as Tower manager

EXHIBIT 1



VICINITY MAP



LOCATION MAP

CURRENT PROJECTS:

LTE 4C - PACE #: MRCTB047008
4TX4RX - PACE #: MRCTB046758
5G NR - PACE #: MRCTB046868
LTE 2C - PACE #: MRCTB046503
LTE 3C - PACE #: MRCTB046709

AMERICAN TOWER®

ATC SITE NAME: WASHINGTON NORTH CT
ATC SITE NUMBER: 413782
AT&T PACE NUMBER: MRCTB046503
AT&T SITE ID: CTL02550
AT&T FA CODE:10141340
AT&T SITE NAME: WASHINGTON MOUNTAIN ROAD
SITE ADDRESS: 6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518
AT&T MOBILITY PLAN: LTE 4C, 4TX4RX, 5GR NR, LTE 2C, LTE 3C AT&T MOBILITY
ANTENNA AMENDMENT PLAN

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. 2018 INTERNATIONAL BUILDING CODE (IBC)
2. 2020 NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: EVERSOURCE
PHONE: (888) 783-6617

TELEPHONE COMPANY: AT&T
PHONE: (866) 593-1383

811 Know what's below. Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

6 MOUNTAIN ROAD

NEW PRESTON, CT 06777-1518

COUNTY: LITCHFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.669147

LONGITUDE: -73.365281

GROUND ELEVATION: 693' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

AT&T MOBILITY

ENGINEER:

INFINIGY ENGINEERING, PLLC
1211 SR 436, SUITE 101
CASSELBERRY, FL 32707
OFFICE#:407-278-6750

PROPERTY OWNER:

CAROL A UNDERWOOD
PO BOX 2427 -
MARBLE DALE - CT - 06777

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:

REMOVE (6) ANTENNA(S), (3) RRH(S), (3) TMA(S), (6) 1-5/8" COAX CABLES AND (6) DIPLEXER(S), EXISTING ANTENNA MOUNT(S)

INSTALL (6) ANTENNA(S), (9) RRH(S), (2) SQUID(S) AND (3) DIPLEXER(S), NEW ANTENNA MOUNTS

EXISTING (1) SQUID(S), (3)DC TRUNK(S) AND (3) FIBER TRUNK(S) TO REMAIN

GROUND WORK:

INSTALL (1) IDLE AND (2) 6630

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

HEAD EAST ON I-84 E, USE THE LEFT LANE TO TAKE EXIT 7 FOR US 7 N/US 202 E TOWARD BROOKFIELD/NEW MILFORD, CONTINUE ONTO US-202 E/US-7 N CONTINUE TO FOLLOW US-7 N, CONTINUE ONTO US-202 E, TAKE GROVE ST TO EAST ST, TURN RIGHT ONTO STILL RIVER DR, STILL RIVER DR TURNS SLIGHTLY LEFT AND BECOMES GROVE ST/LOWER GROVE ST, CONTINUE TO FOLLOW GROVE ST, TAKE US-202 E TO FINDLAY RD IN WASHINGTON, CONTINUE ONTO EAST ST, CONTINUE ONTO POPLAR ST, CONTINUE ONTO US-202 E/PARK LANE RD, CONTINUE TO FOLLOW US-202 E, CONTINUE ON FINDLAY RD. DRIVE TO MOUNTAIN RD, TURN LEFT ONTO FINDLAY RD, TURN RIGHT ONTO MOUNTAIN RD

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	10/13/20	DGD
G-002	GENERAL NOTES	0	10/13/20	DGD
C-001	DETAILED SITE PLAN	0	10/13/20	DGD
C-101	DETAILED SITE PLAN	0	10/13/20	DGD
C-201	TOWER ELEVATION	0	10/13/20	DGD
C-401	ANTENNA INFORMATION & SCHEDULE	0	10/13/20	DGD
C-501	CONSTRUCTION DETAILS	0	10/13/20	DGD
C-502	CONSTRUCTION DETAILS	0	10/13/20	DGD
E-501	GROUNDING DETAILS	0	10/13/20	DGD
R-601	SUPPLEMENTAL	0	10/13/20	DGD
R-602	SUPPLEMENTAL	0	10/13/20	DGD
R-603	SUPPLEMENTAL	0	10/13/20	DGD
R-604	SUPPLEMENTAL	0	10/13/20	DGD
R-605	SUPPLEMENTAL	0	10/13/20	DGD
R-606	SUPPLEMENTAL	0	10/13/20	DGD
R-607	SUPPLEMENTAL	0	10/13/20	DGD
R-608	SUPPLEMENTAL	0	10/13/20	DGD
R-609	SUPPLEMENTAL	0	10/13/20	DGD
R-610	SUPPLEMENTAL	0	10/13/20	DGD

AMERICAN TOWER®

INFINIGY ENGINEERING, PLLC
1211 SR 436, SUITE 101
CASSELBERRY, FL 32707 OFFICE #:407-278-6750

REV.	DESCRIPTION	BY	DATE
A	PRELIM	IB	06/26/20
B	PRELIM	CAP	08/06/20
C	PRELIM	DGD	10/06/20
0	FOR CONSTRUCTION	DGD	10/13/20

ATC SITE NUMBER:
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AT&T MOBILITY SITE NAME:
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SITE ADDRESS:
6 MOUNTAIN ROAD
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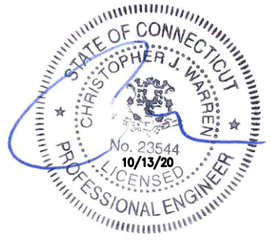


AT&T

DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

TITLE SHEET

SHEET NUMBER: G-001
REVISION: 0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T MOBILITY "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 AT&T MOBILITY TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T MOBILITY REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T MOBILITY REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T MOBILITY 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 AT&T MOBILITY 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 AT&T MOBILITY 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 AT&T MOBILITY 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 AT&T MOBILITY 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 AT&T MOBILITY REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MOBILITY MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T MOBILITY SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T MOBILITY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T MOBILITY 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 AT&T MOBILITY 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 NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT 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 AT&T MOBILITY REP. ANY WORK FOUND BY THE AT&T MOBILITY 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. AT&T MOBILITY FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T MOBILITY 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. AT&T MOBILITY 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 AT&T MOBILITY OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T MOBILITY UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OD COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
   - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND AT&T MOBILITY SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE AND PROVIDE PRINTOUT OF THAT TEST.
   - 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®

REV.	DESCRIPTION	BY	DATE
A	PRELIM	IB	06/26/20
B	PRELIM	CAP	08/06/20
C	PRELIM	DGD	10/06/20
0	FOR CONSTRUCTION	DGD	10/13/20

ATC SITE NUMBER:

413782

ATC SITE NAME:

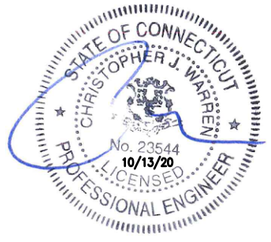
WASHINGTON NORTH CT

AT&T MOBILITY SITE NAME:

WASHINGTON MOUNTAIN ROAD

SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:



AT&T

DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

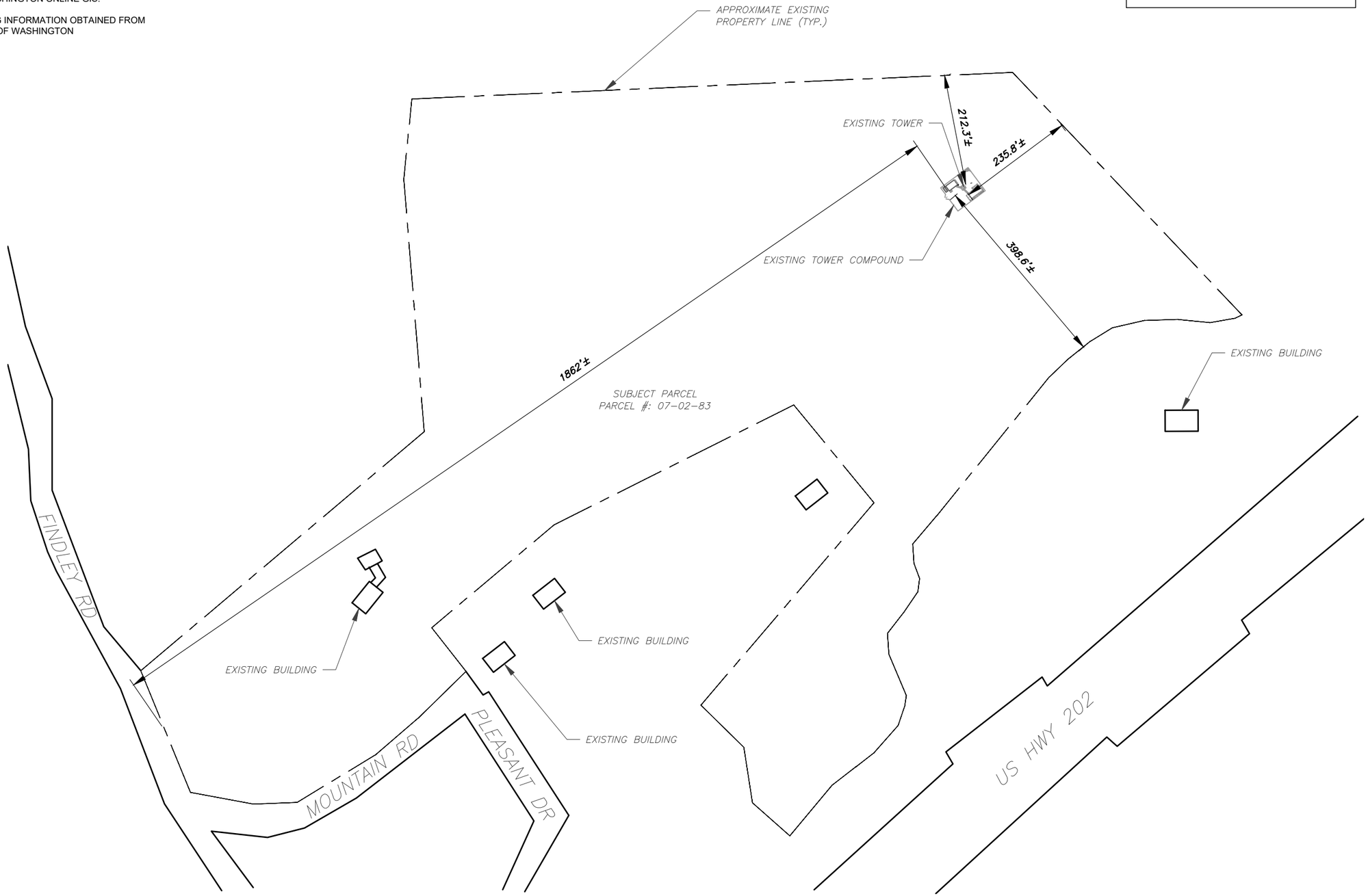
GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

NOTES:

1. BOUNDARY LINES OBTAINED FROM TOWN OF WASHINGTON ONLINE GIS.
2. ZONING INFORMATION OBTAINED FROM TOWN OF WASHINGTON

INFORMATION CONTAINED WITHIN THESE DRAWINGS IS BASED ON PROVIDED INFORMATION. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.



1 OVERALL SITE PLAN

0 200' 400'

SCALE: 1"=200' (11X17)
1"=100' (22X34)

N

AMERICAN TOWER®

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WASHINGTON MOUNTAIN ROAD

SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

STATE OF CONNECTICUT
CHRISTOPHER J. WARREN
No. 23544
10/13/20
LICENSED
PROFESSIONAL ENGINEER

AT&T

DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

OVERALL SITE PLAN

SHEET NUMBER:	REVISION:
C-001	0

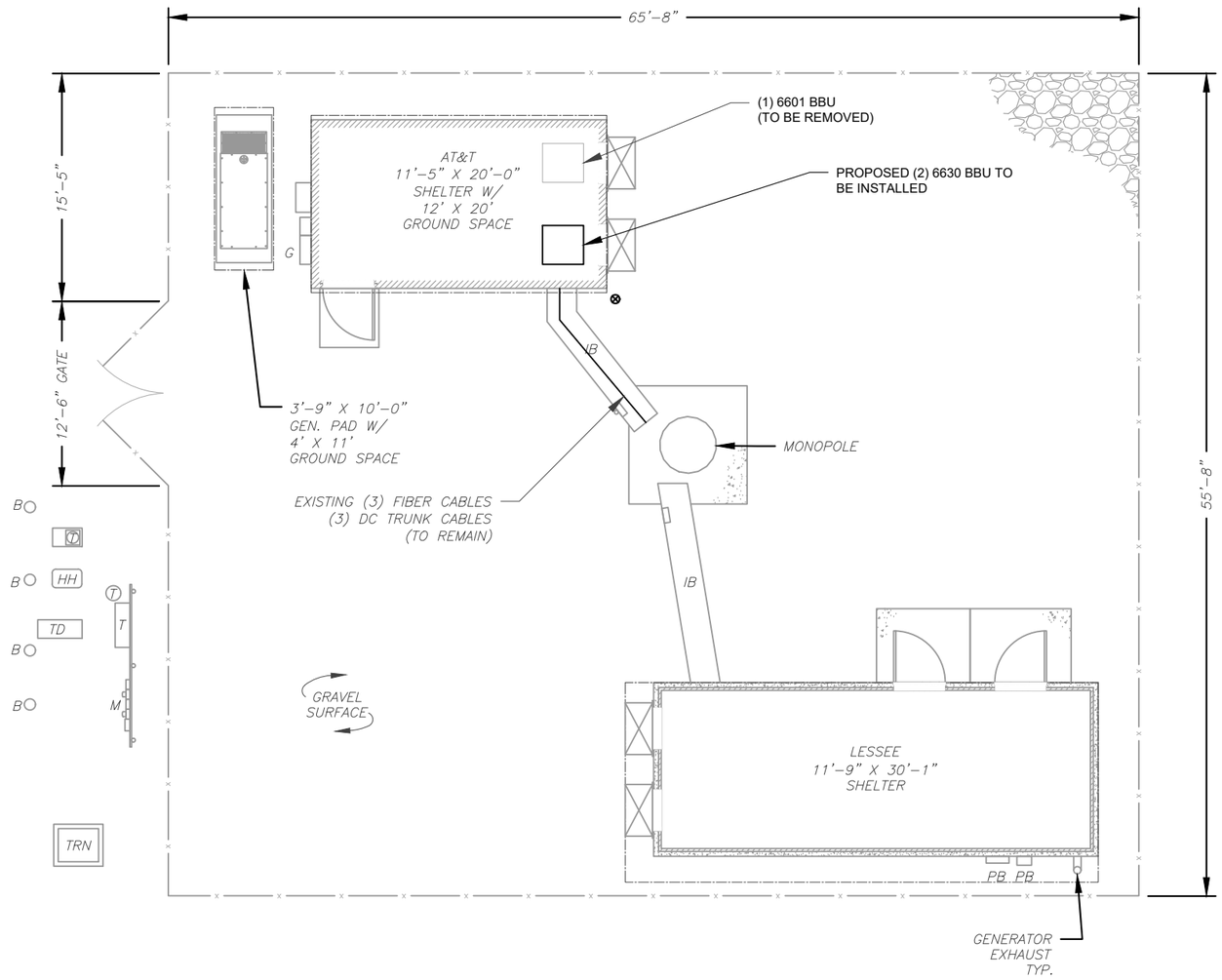
SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

LEGEND

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



1 DETAILED SITE PLAN

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

AMERICAN TOWER®

INFINIGY
ENGINEERING, PLLC
1211 SR 436, SUITE 101
CASSELBERRY, FL 32707 OFFICE #:407-278-6750

REV.	DESCRIPTION	BY	DATE
A	PRELIM	IB	06/26/20
B	PRELIM	CAP	08/06/20
C	PRELIM	DGD	10/06/20
0	FOR_CONSTRUCTION	DGD	10/13/20

ATC SITE NUMBER:
413782
ATC SITE NAME:
WASHINGTON NORTH CT
AT&T MOBILITY SITE NAME:
WASHINGTON MOUNTAIN ROAD
SITE ADDRESS:
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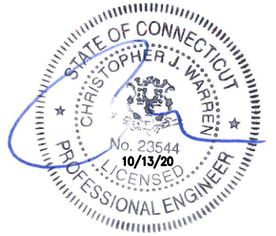
NEW PRESTON, CT 06777-1518

SEAL:



AT&T

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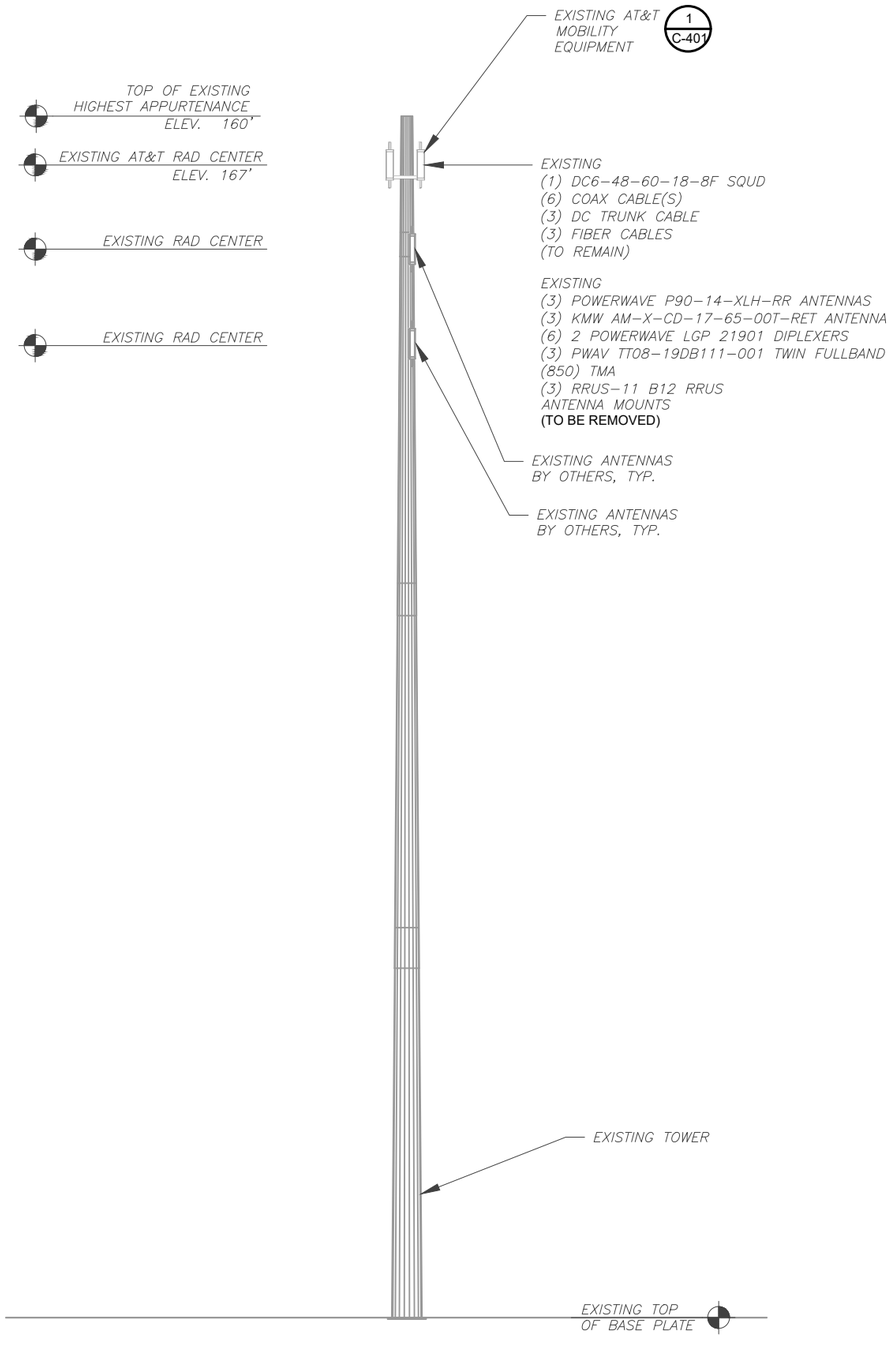
CUSTOMER #:	10141340

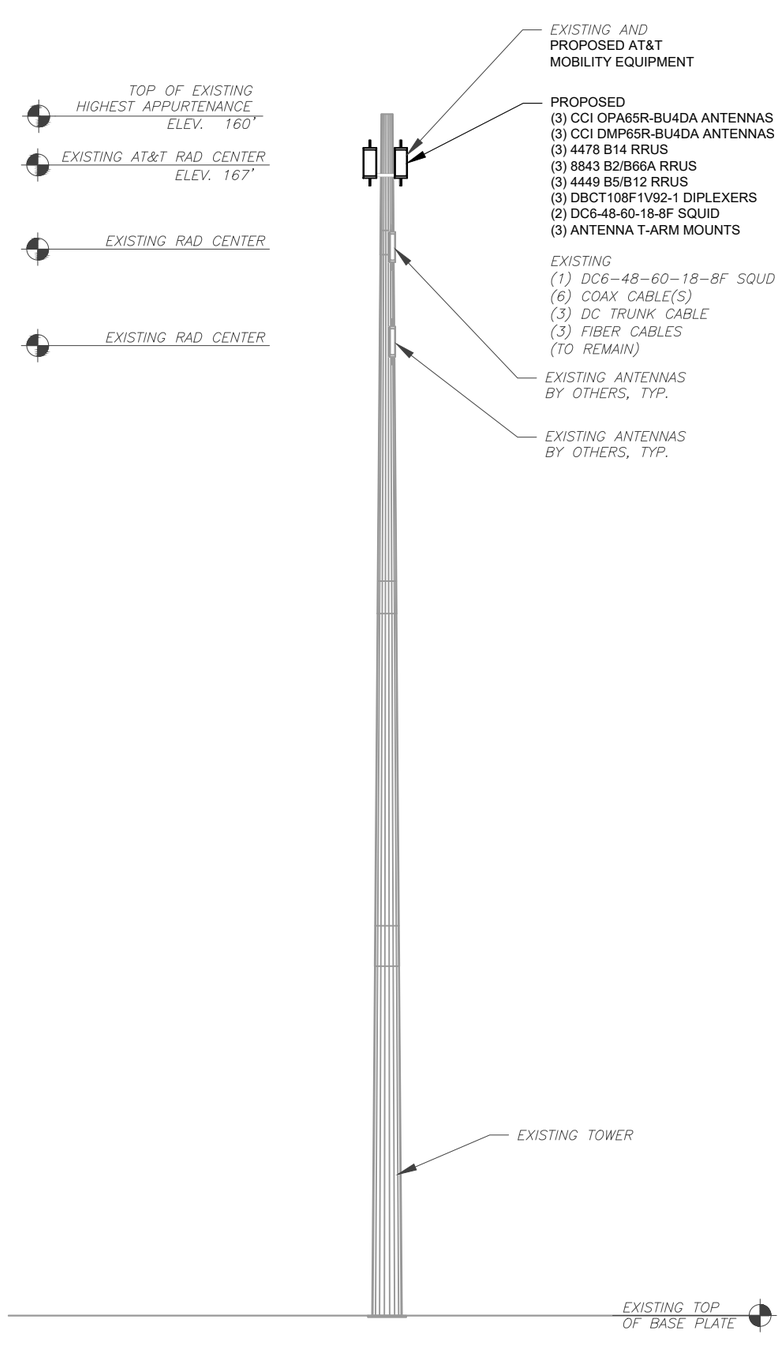
DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0



1 EXISTING TOWER ELEVATION

SCALE: N.T.S.



2 PROPOSED TOWER ELEVATION

SCALE: N.T.S.

INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR MOUNTS FOR THIS PROJECT AND ASSUMES NO LIABILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS REPORT PRIOR TO CONSTRUCTION.

PER MOUNT ANALYSIS COMPLETED BY INFINIGY , DATED 10/07/20, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT REPLACEMENT PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION 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.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
3. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

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413782

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WASHINGTON NORTH CT

AT&T MOBILITY SITE NAME:

WASHINGTON MOUNTAIN ROAD

SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

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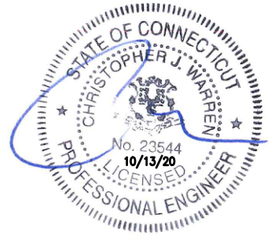

AT&T

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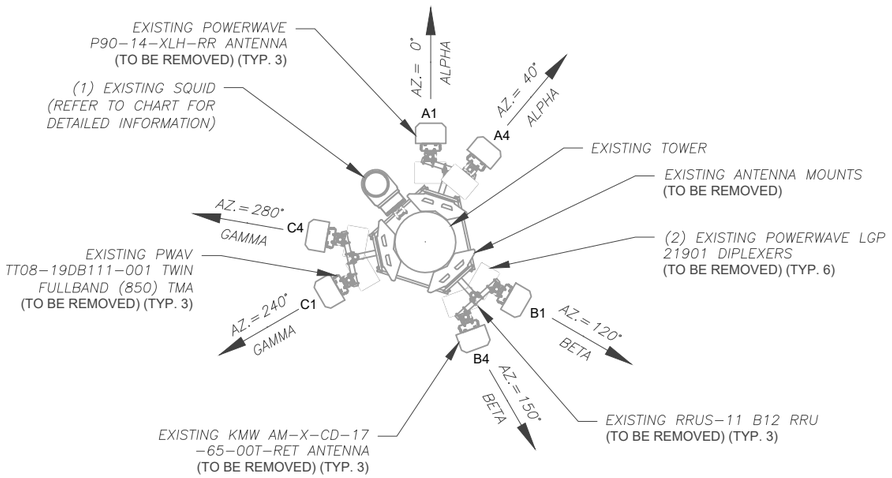
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

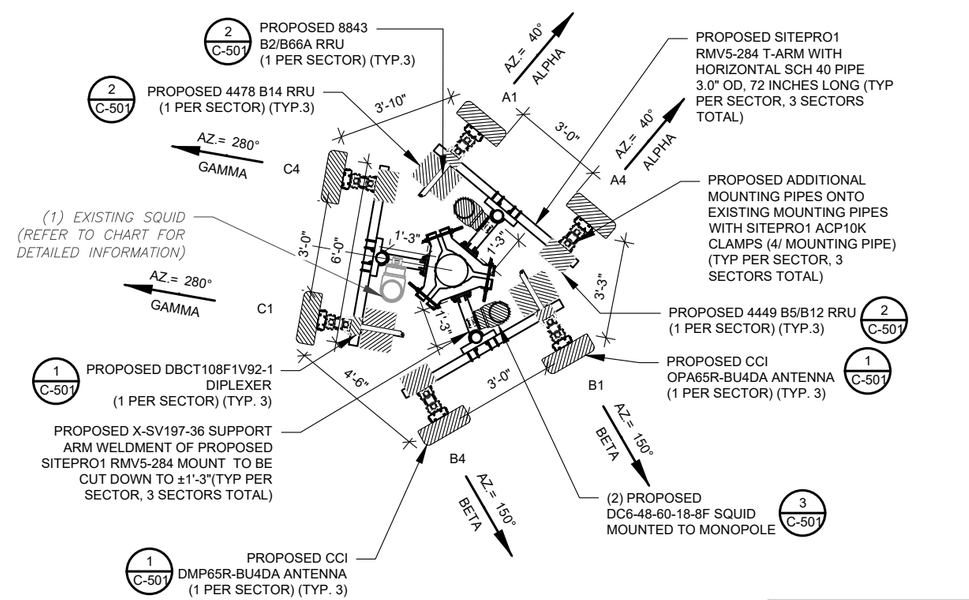
EXISTING CONFIGURATIONS ARE BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.



1 CURRENT ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY INFINIGY , DATED 10/07/20, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT REPLACEMENT PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 8" AWAY FROM ALL ANTENNAS

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	167'	0° 40°	A1	POWERWAVE P90-14-XLH-RR	GSM 850/UMTS 1900	RMV	(2) 2 POWERWAVE LGP 21901 (1) PWAV TT08-19DB111-001 TWIN FULLBAND (850)	RMV RMV
			A2	–	–	–	–	–
			A3	–	–	–	–	–
			A4	KMW AM-X-CD-17-65-00T-RET	LTE 700	RMV	RRUS-11 B12	RMV
BETA	167'	120° 150°	B1	POWERWAVE P90-14-XLH-RR	GSM 850/UMTS 1900	RMV	(2) 2 POWERWAVE LGP 21901 (1) PWAV TT08-19DB111-001 TWIN FULLBAND (850)	RMV RMV
			B2	–	–	–	–	–
			B3	–	–	–	–	–
			B4	KMW AM-X-CD-17-65-00T-RET	LTE 700	RMV	RRUS-11 B12	RMV
GAMMA	167'	240° 280°	C1	POWERWAVE P90-14-XLH-RR	GSM 850/UMTS 1900	RMV	(2) 2 POWERWAVE LGP 21901 (1) PWAV TT08-19DB111-001 TWIN FULLBAND (850)	RMV RMV
			C2	–	–	–	–	–
			C3	–	–	–	–	–
			C4	KMW AM-X-CD-17-65-00T-RET	LTE 700	RMV	RRUS-11 B12	RMV

NOTES

1. CONFIRM WITH AT&T MOBILITY REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
3. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
4. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	167'	40°	A1	CCI OPA65R-BU4DA	LTE 700/LTE 1900	ADD	(1) DBCT108F1V92-1 4478 B14 8843 B2/B66A	ADD ADD ADD
			A2	-	-	-	-	-
			A3	-	-	-	-	-
			A4	CCI DMP65R-BU4DA	5G 850/LTE 700/LTE 850/LTE AWS	ADD	4449 B5/B12	ADD
BETA	167'	150°	B1	CCI OPA65R-BU4DA	LTE 700/LTE 1900	ADD	(1) DBCT108F1V92-1 4478 B14 8843 B2/B66A	ADD ADD ADD
			B2	-	-	-	-	-
			B3	-	-	-	-	-
			B4	CCI DMP65R-BU4DA	5G 850/LTE 700/LTE 850/LTE AWS	ADD	4449 B5/B12	ADD
GAMMA	167'	280°	C1	CCI OPA65R-BU4DA	LTE 700/LTE 1900	ADD	(1) DBCT108F1V92-1 4478 B14 8843 B2/B66A	ADD ADD ADD
			C2	-	-	-	-	-
			C3	-	-	-	-	-
			C4	CCI DMP65R-BU4DA	5G 850/LTE 700/LTE 850/LTE AWS	ADD	4449 B5/B12	ADD

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

CABLE LENGTHS FOR JUMPERS
JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

3 EQUIPMENT SCHEDULES

EXISTING FIBER DISTRIBUTION/SQUID		EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
DC6-48-60-18-8F	*RMN*	–	*3*	*3*	*RMN*
–	–	(6) 1-5/8"	–	–	RMV

FINAL FIBER DISTRIBUTION/SQUID		FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
DC6-48-60-18-8F	*RMN*	-	*3*	*3*	*RMN*
(2) DC6-48-60-18-8F	ADD	-	-	-	-

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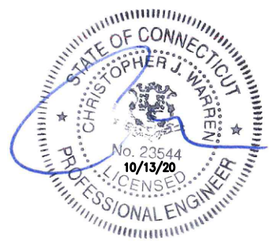
SEAL:



AT&T

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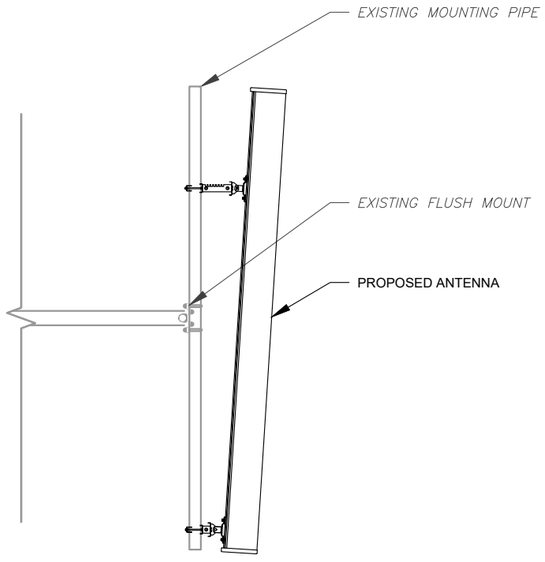
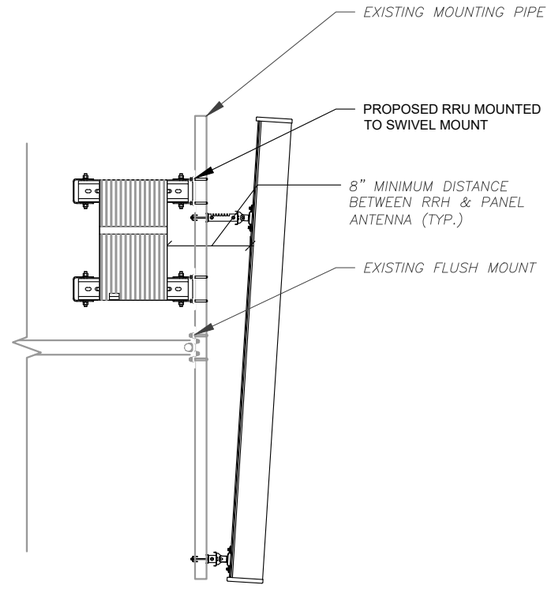
CUSTOMER #:	10141340

RF SCHEDULE AND ANTENNA INSTALLATION

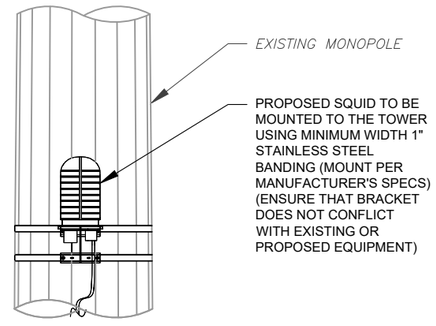
SHEET NUMBER:	REVISION:
C-401	0



1 ANTENNA DETAIL
SCALE: N.T.S.



2 RRU DETAIL
SCALE: N.T.S.



3 PROPOSED SQUID MOUNTING
SCALE: N.T.S.

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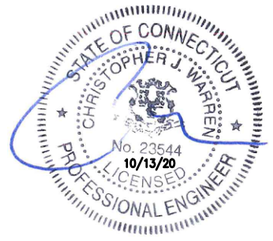

AT&T

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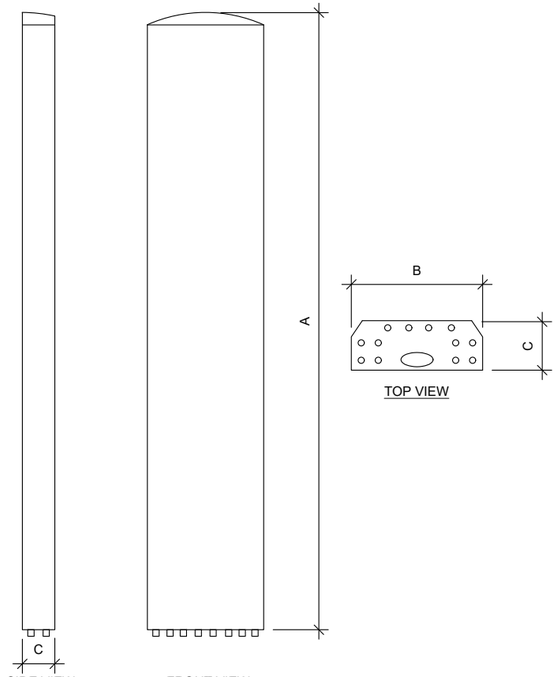
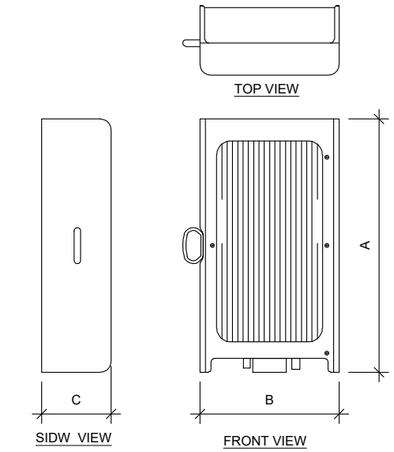
CONSTRUCTION DETAILS

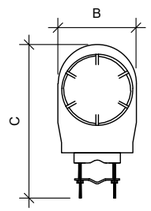
SHEET NUMBER:	REVISION:
C-501	0

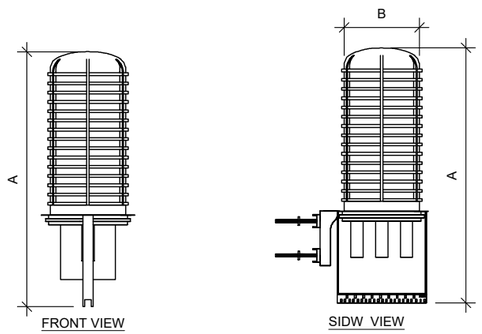


ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
OPA65R-BU4DA	48.2"	21.0"	7.8"	52.5
DMP65R-BU4DA	48.0"	20.7"	7.7"	67.9



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4478 B14	18.1"	13.4"	8.3"	59.4
8843 B2, B66A	14.9"	13.2"	10.9"	72.0
4449 B5, B12	17.9"	13.2"	9.4"	71.0





RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC6-48-60-18-8F	16"	24"	32"	37

1 EQUIPMENT SPECIFICATIONS

SCALE: N.T.S.

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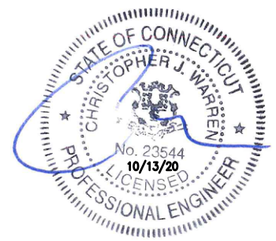

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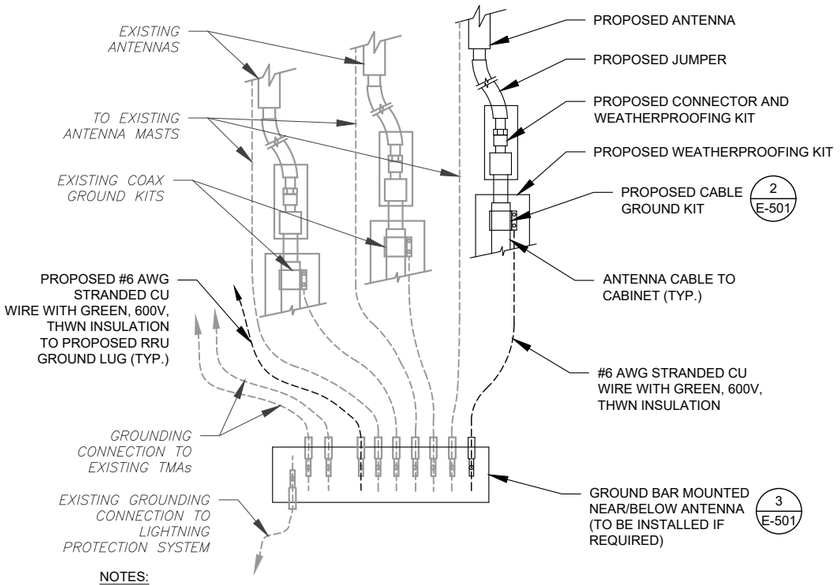
CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-502	0

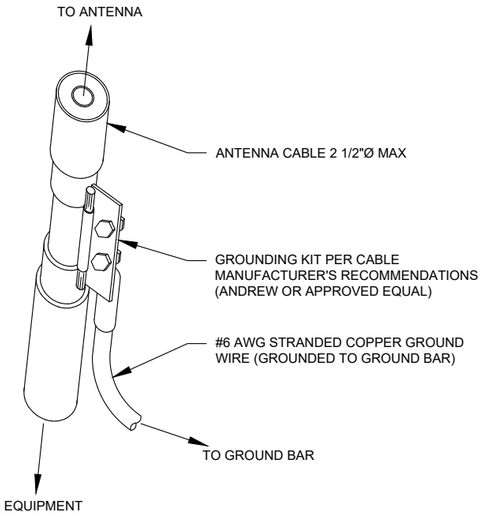


NOTES:

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 AT&T MOBILITY GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T MOBILITY 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.

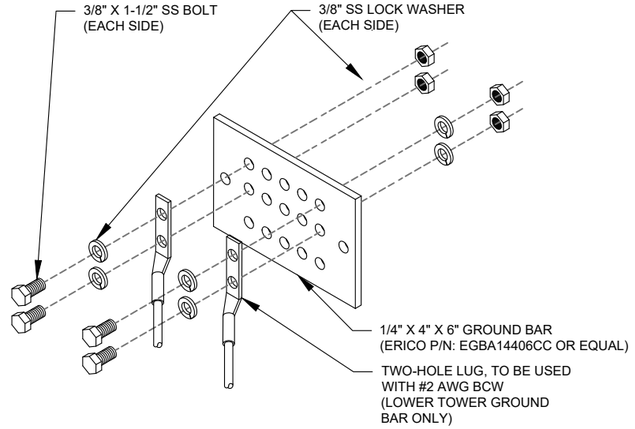


GROUND KIT NOTES:

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.

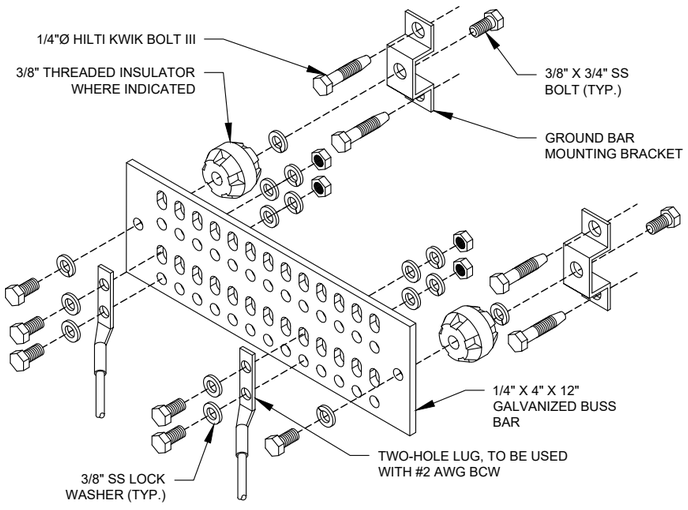


GROUND BAR NOTES:

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.

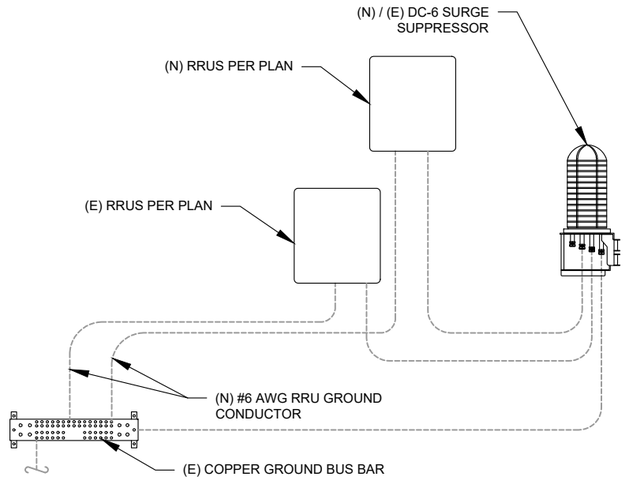


GROUND BAR NOTES

1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

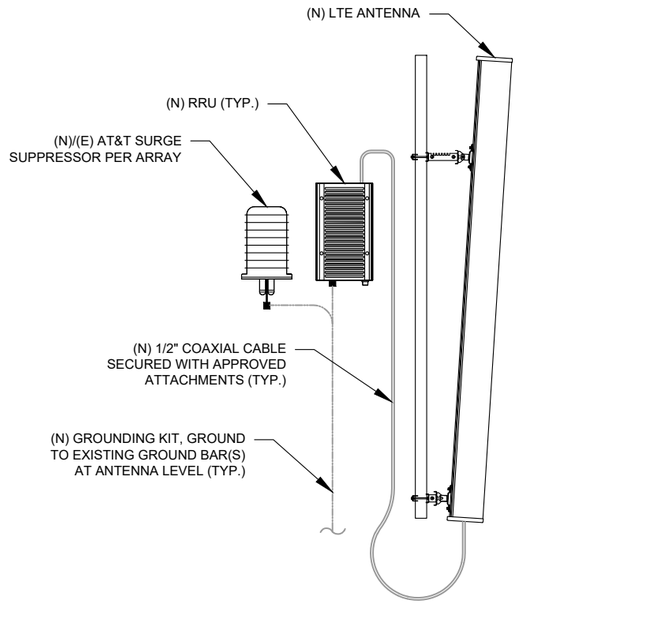
4 MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 RRU GROUNDING

SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING

SCALE: N.T.S.

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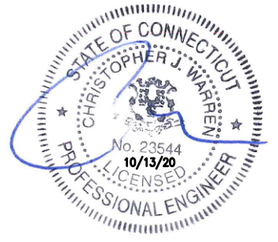
REV.	DESCRIPTION	BY	DATE
A	PRELIM	IB	06/26/20
B	PRELIM	CAP	08/06/20
C	PRELIM	DGD	10/06/20
0	FOR CONSTRUCTION	DGD	10/13/20

ATC SITE NUMBER:
413782
ATC SITE NAME:
WASHINGTON NORTH CT
AT&T MOBILITY SITE NAME:
WASHINGTON MOUNTAIN ROAD

SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

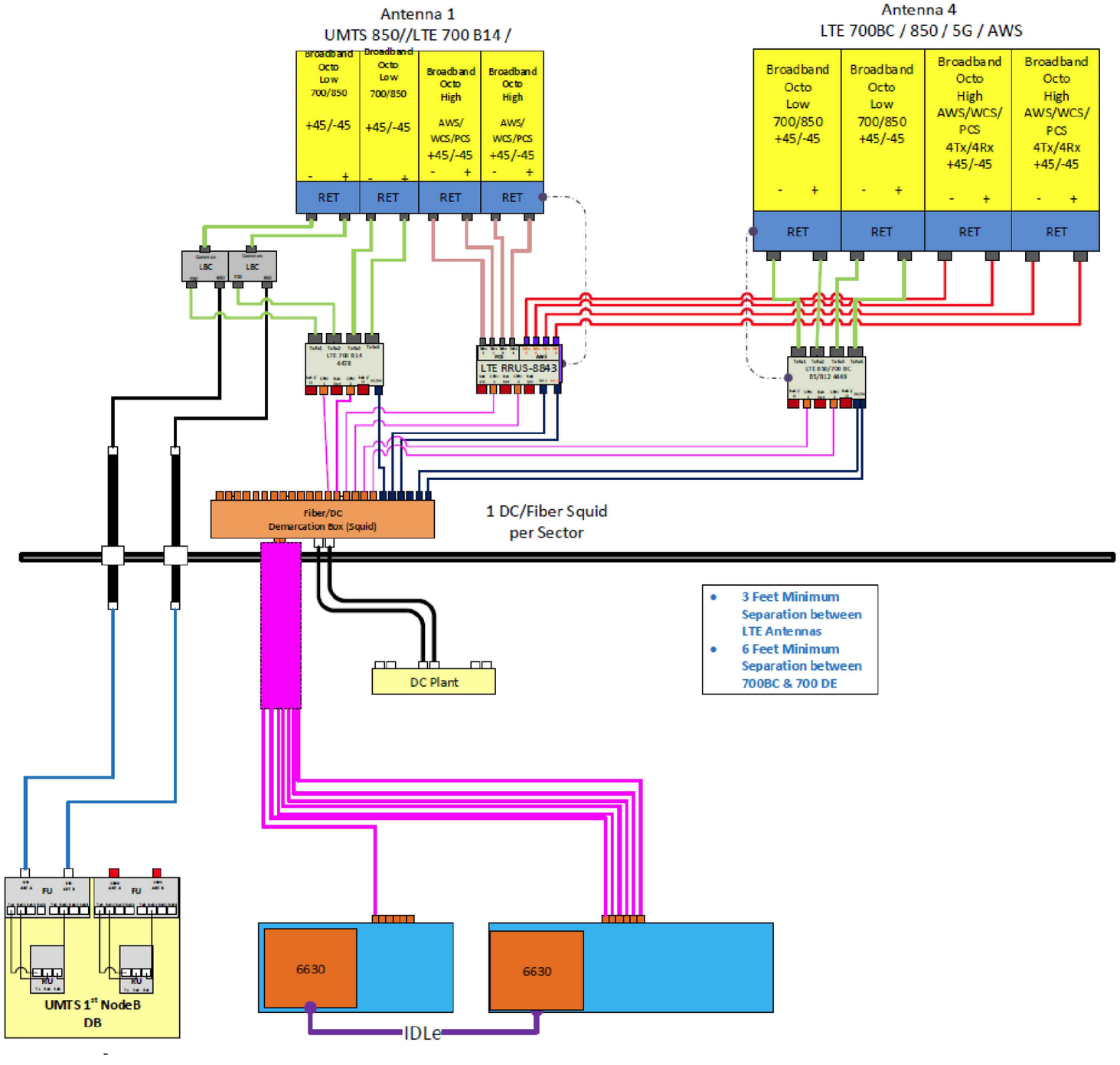


AT&T

DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0



1 RFDS PLUMBING DIAGRAM

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T MOBILITY CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

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NEW PRESTON, CT 06777-1518

SEAL:

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AT&T

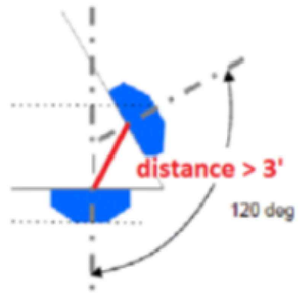
DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- ❑ Horizontal separation (side to side of antenna): >= 3’
- ❑ Vertical separation (between the tips of the antennas): > 3’
- ❑ Inter-sector separation: > 3’ between the center of the antenna backplanes.



- ❑ Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- ❑ Typical 3' horizontal separation can tolerate skew angle up to 6°.

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

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SEAL:

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CUSTOMER #:	10141340

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0

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1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

Mount Analysis Report

October 7, 2020

AT&T Site Name	MRCTB046503
AT&T Site Number	CTL02550
ATC Site Name	Washington North CT, CT
ATC Site Number	413782
ATC Engineering Number	13211690_C8_02
Infinigy Job Number	1009-Z0003-B
Client	ATC
Carrier	AT&T Mobility
Site Location	6 Mountain Road New Preston, CT 06777 Litchfield County 41.669100 N NAD83 73.365300 W NAD83
Mount Centerline EL.	167.0 ft
Mount Type	T-Arm
Structural Usage Ratio	92.7%
Overall Result	**Pass**
Notes	**Please see appended drawings for new proposed mount.**

Upon reviewing the results of this analysis, it is our opinion that the proposed T-Arms meets the specified TIA code requirements. The mounts and connections for the proposed carrier are therefore deemed adequate to support the final loading configuration as listed in this report.

10/07/2020

Mark Iakovenko
Project Engineer I

AZ CA CO FL GA MD NC NH NJ NY TX WA

INFINIGY

Introduction

Infinigy Engineering has been requested to perform a mount analysis on the proposed AT&T Mobility mounts. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The mount was analyzed using RISA-3D Version 17.0.4 analysis software.

Supporting Documentation

Collocation Application	ATC Collo App ID 375894, dated June 18, 2020
RFDS	AT&T RFDS ID #3719904, dated June 11, 2020
Site Photos	ATC Provided, dated October 31, 2018

Analysis Code Requirements

Wind Speed	114 mph (3-Second Gust)
Wind Speed w/ Ice	40 mph (3 Second Gust) w/ 1" Ice
TIA Revision	ANSI/TIA-222-H
Risk Category	II
Exposure Category	B
Topographic Factor Procedure	Method 2
Topographic Feature	Flat
Calculated Crest Height (H)	0 ft
Spectral Response	$S_s = 0.187$ g, $S_1 = 0.054$ g
Site Class	D - Stiff Soil (Assumed)
HMSL	686 ft

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the proposed T-Arms meets the specified TIA code requirements. The mounts and connections for the proposed carrier are therefore deemed adequate to support the final loading configuration as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Mark Iakovenko
Project Engineer I | INFINIGY
1517 Old Apex Rd, Cary, NC, 27513
(O) (518) 690-0790
miakovenko@infinigy.com | www.infinigy.com

1 MOUNT ANALYSIS

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

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AT&T

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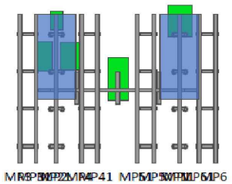
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

SUPPLEMENTAL

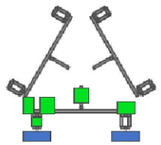
SHEET NUMBER:	REVISION:
R-603	0

Program Inputs

ELEVATION VIEW



PLAN VIEW



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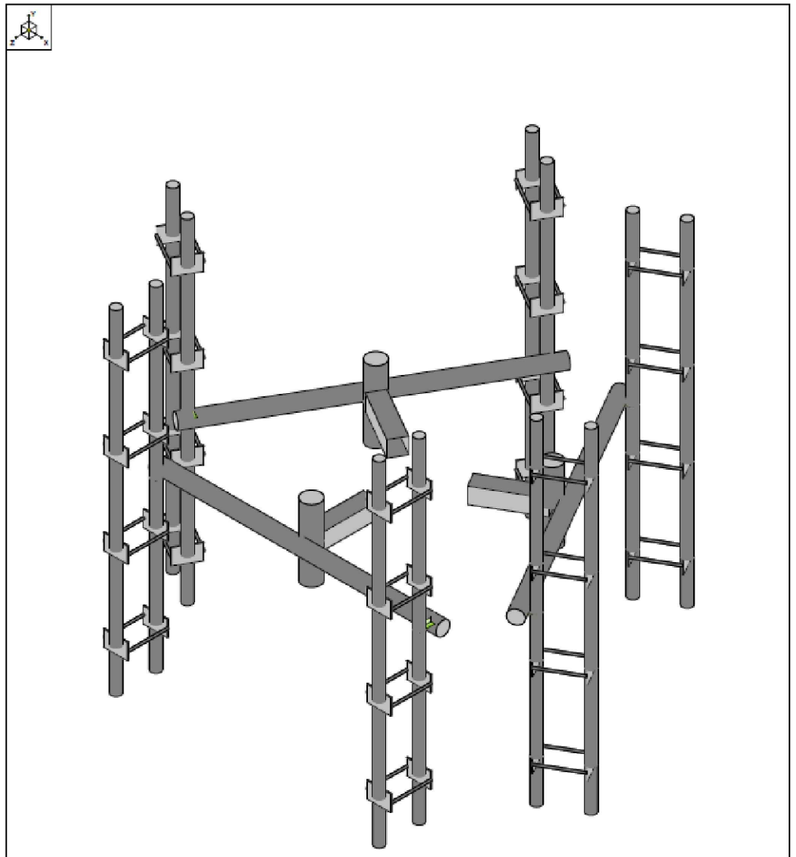
Infinigy Load Calculator V2.1.4

APPURTENANCE INFORMATION

Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
CCI ANTENNAS OPA65R-BU4DA-K	167.0	3	0.90	35.28	8.44	3.56	267.80	113.02	52.50	5.24	MP1
CCI ANTENNAS DMP65R-BU4D	167.0	3	0.90	35.28	8.28	3.51	262.88	111.31	67.90	6.77	MP2
KAELUS DBCT108F1V92-1	167.0	3	0.90	35.28	0.63	0.61	20.10	19.25	13.90	1.39	MP2
RAYCAP TME-DC6-48-60-18-8F	167.0	3	0.90	35.28	2.20	2.20	69.85	69.85	31.80	3.17	S1
ERICSSON TME-RRUS 4478 B14	167.0	3	0.90	35.28	1.84	1.06	58.50	33.61	59.90	5.97	MP21
ERICSSON RRUS 4449 B5, B12	167.0	3	0.90	35.28	1.97	1.40	62.51	44.52	71.00	7.08	MP11
ERICSSON TME-RADIO 8843 - B2 + B66A	167.0	3	0.90	35.28	1.65	1.36	52.38	43.26	71.90	7.17	MP21

413782_Washington North

10/7/2020



Infinigy Engineering PLLC	413782 - Washington North, CT	Full Render
MAI		Oct 7, 2020 at 9:23 AM
1009-Z0003-B		413782_loaded.r3d

1 MOUNT ANALYSIS

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AT&T MOBILITY SITE NAME:
WASHINGTON MOUNTAIN ROAD
SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

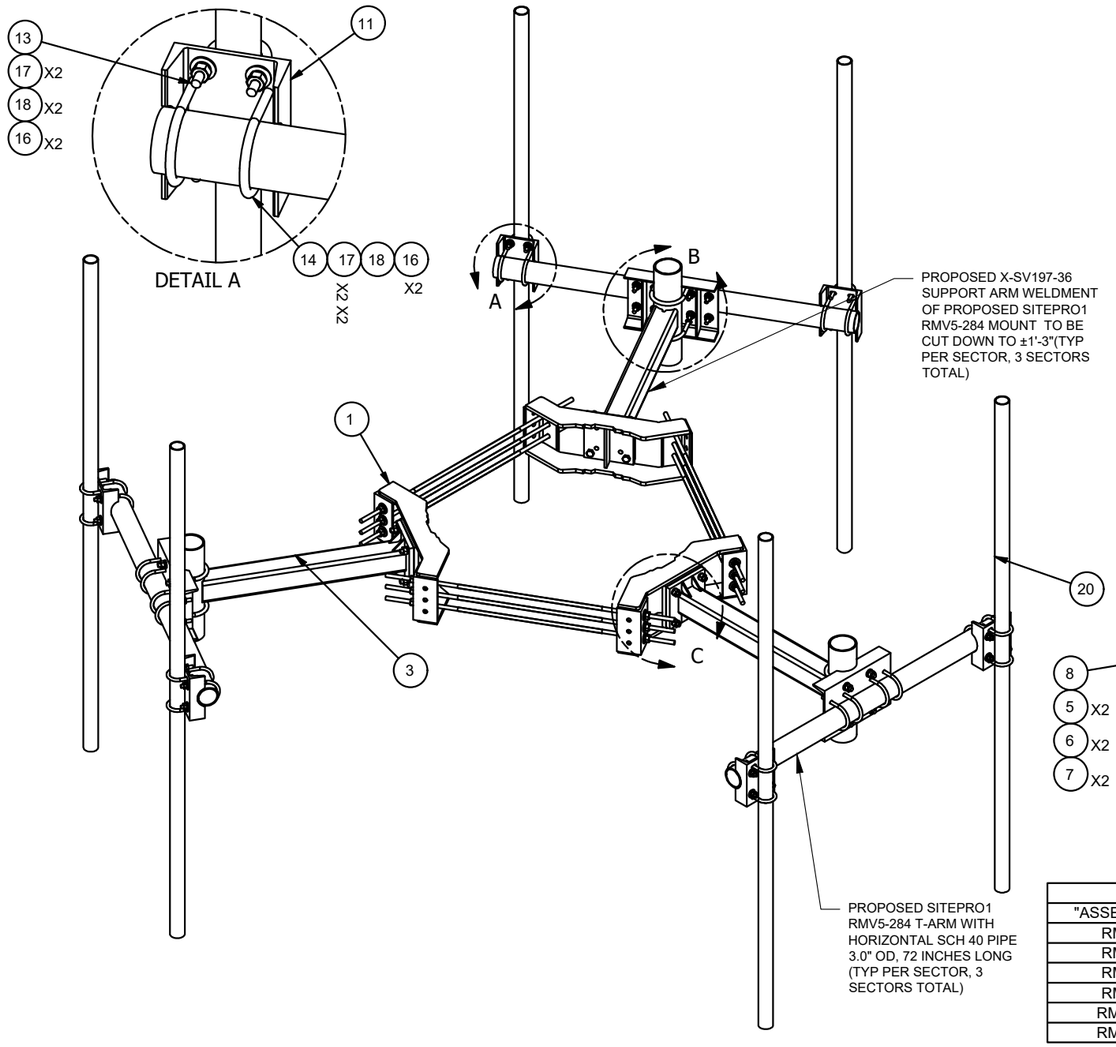
FOR REFERENCE ONLY

AT&T

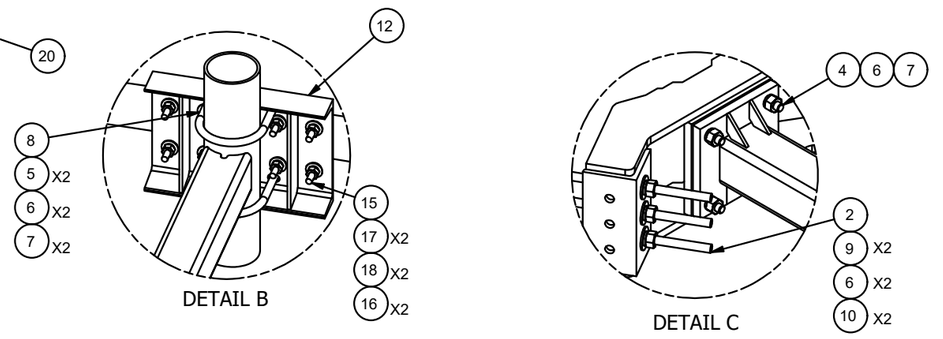
DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	0



PARTS LIST						
ITE Q'TY	M	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24	0.40	3.59
2	9	G58R-48	5/8" X 48" GALV THREADED ROD		4.39	39.52
3	3	X-SV197-36	SUPPORT ARM WELDMENT - 36"		67.29	201.88
4	12	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2.75	0.36	4.27
5	12	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.41
6	42	G58LW	5/8" HDG LOCKWASHER		0.03	1.10
7	24	A58NUT	5/8" HDG A325 HEX NUT		0.13	3.12
8	6	X-UB5458	5/8" X 4-5/8" X 7" X 3" U-BOLT (HDG.)		1.54	9.21
9	18	G58FW	5/8" HDG USS FLATWASHER	.122	0.07	1.27
10	18	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	2.34
11	6	X-SP219	SMALL SUPPORT CROSS PLATE	8.250 in	8.61	51.66
12	3	X-SP216	LARGE SUPPORT CROSS PLATE		22.08	66.23
13	12	X-UB1212	3/8" X 2" X 3" X 1-1/4" U-BOLT (HDG.)		0.60	7.17
14	12	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.83	9.94
15	12	X-UB1358	1/2" X 3-5/8" X 5-1/2" X 3" U-BOLT (HDG.)		0.77	9.27
16	66	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	4.73
17	66	G12FW	1/2" HDG USS FLATWASHER	0.095	0.03	2.25
18	66	G12LW	1/2" HDG LOCKWASHER	.125	0.01	0.92
20	6	A	B	C	D	



2-3/8" MOUNTING PIPES					
"ASSEMBLY NO."	PART NO. "A"	PART DESCRIPTION "B"	LENGTH "C"	UNIT WT. "D"	TOTAL WT.
RMV5-263	P263	2-3/8" O.D. SCH. 40 PIPE	63"	19.22	860.71
RMV5-272	P272	2-3/8" O.D. SCH. 40 PIPE	72"	23.07	883.81
RMV5-284	P284	2-3/8" O.D. SCH. 40 PIPE	84"	26.91	906.85
RMV5-296	P296	2-3/8" O.D. SCH. 40 PIPE	96"	30.76	929.95
RMV5-2120	P2120	2-3/8" O.D. SCH. 40 PIPE	120"	38.81	978.25
RMV5-2126	P2126	2-3/8" O.D. SCH. 40 PIPE	126"	40.75	989.89

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
B	ADDED 10' ANTENNA MOUNTING PIPES		CEK	5/24/18
A	REMOVE FLATWASHERS FROM ARM TO CLAMP RING CONNECTION	CEK		11/4/11

REVISION HISTORY

TOLERANCE NOTES

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

DESCRIPTION
MONOPOLE TRIPLE T-ARM
FOR 6 ANTENNAS

SITE PRO 1 — A valmont COMPANY

Engineering Support Team: 1-888-753-7446

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
4543	CEK 4/15/2011		SEE "ASSEMBLY NO."	1 OF 2
CLASS SUB	DRAWING USAGE	CHECKED BY	DWG. NO.	
81 01	CUSTOMER	BMC 5/24/2018	RMV5-2XX	

1 MOUNT DETAIL
SCALE: N.T.S.

THE RMV5-284 T-ARM'S EXISTING HORIZONTAL PIPES WITH BE REPLACED WITH 3.0" STD SCH 40 PIPES, 72" INCHES LONG

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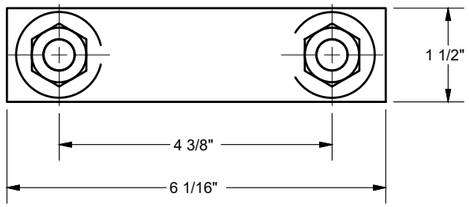
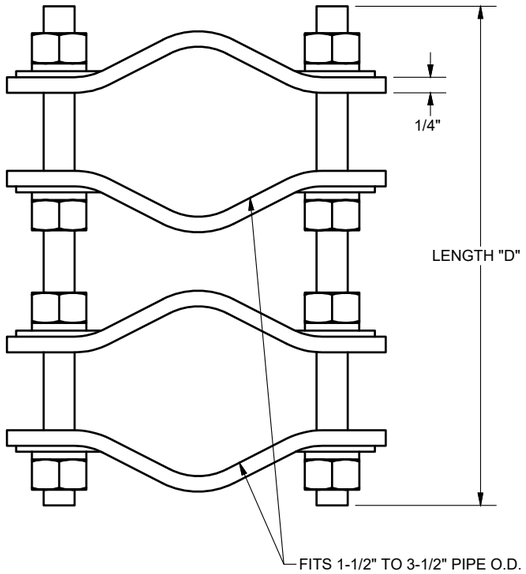
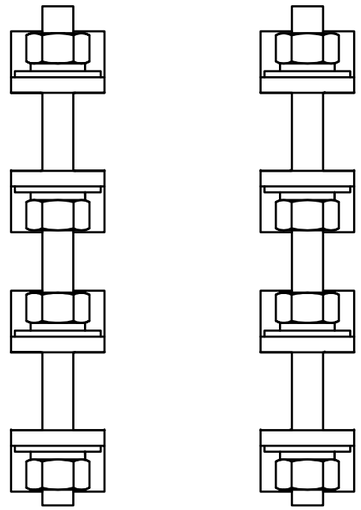
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-605	0

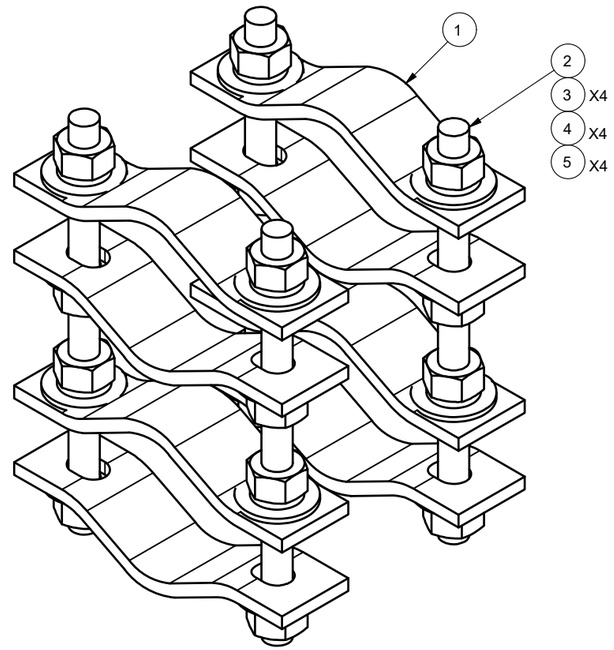






PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	8	ACP	CLAMP HALF 1/4" THICK, 6-1/16" LONG		0.65	5.23
2	B	C	1/2" THREADED ROD	D	E	F
3	16	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.14
4	16	G12LW	1/2" HDG LOCKWASHER		0.01	0.22
5	16	G12FW	1/2" HDG USS FLATWASHER		0.03	0.54

VARIABLE PARTS TABLE						
ASSEMBLY "A"	QTY "B"	PART "C"	LENGTH "D"	UNIT WT. "E"	NET WT. "F"	TOTAL WEIGHT
ACP08K	4	G12R-8	8"	.45	1.78	8.93
ACP10K	4	G12R-10	10"	.56	2.23	9.38



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BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION
PIPE TO PIPE CLAMP SET
1-1/2" TO 3-1/2" PIPE
1/4" THICK CLAMP

SITE PRO 1 — A valmont COMPANY

Engineering Support Team: 1-888-753-7446

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	KC8 8/21/2012		SEE ASSEMBLY "A"	1 OF 1
CLASS SUB: 81 01	DRAWING USAGE: CUSTOMER	CHECKED BY: CEK 1/18/2013	DWG. NO.: ACPxxK	

1 EQUIPMENT SPECIFICATIONS
SCALE: N.T.S.

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CUSTOMER #:	10141340

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-606	0

MOUNT DESIGN DRAWINGS

PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY

the solutions are endless

AMERICAN TOWER CORPORATION

at&t

413782

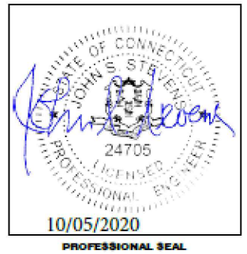
WASHINGTON NORTH CT, CT

6 MOUNTAIN ROAD

NEW PRESTON, CT 06777

10/05/20

INFINIGY JOB # 1009-Z0003-B



PROFESSIONAL SEAL

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THESE DOCUMENTS.

T1

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ATC SITE NUMBER:

413782

ATC SITE NAME:

WASHINGTON NORTH CT

AT&T MOBILITY SITE NAME:

WASHINGTON MOUNTAIN ROAD

SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

FOR REFERENCE ONLY

AT&T

DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-607	0

GENERAL NOTES:

1. THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NDS, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
2. ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
3. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
4. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
5. ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THESE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
7. INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

STEEL CONSTRUCTION NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
2. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
3. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
5. ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
   - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
   - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
   - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
   - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
   - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
   - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
   - U-BOLTS AND LAG SCREWS TO BE A307 OR A. Fu=60 KSI, U.N.O.
6. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
7. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
8. ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
   - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
   - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
   - CONCRETE ANCHORS: ADHESIVE - HY150, U.N.O.
   - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
9. ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
10. BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
11. MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.
12. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

CONCRETE CONSTRUCTION NOTES:

1. CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
2. EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

1. FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE FY = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
2. IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
3. ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
4. THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
5. STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
6. ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
7. TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE		
SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

8. WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
9. STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
10. ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL
11. ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
12. ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
13. ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
14. EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
15. FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
16. ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
17. SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER		
	RANGE	RECOMMENDED
EDGE DISTANCE - CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE - CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH - CL* TO CL*	4.0-5.0	5.0

WOOD CONSTRUCTION NOTES:

1. ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
2. ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
3. ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8E DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

1. ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
   - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI
   - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
2. ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
   - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
   - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
   - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

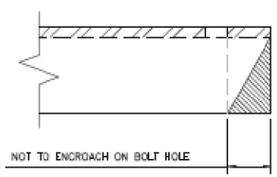
TOWER PLUMB & TENSION NOTES:

1. PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
2. RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
3. PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
4. THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
   a. STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
   b. HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
   c. MECHANICAL AND EPOXIED ANCHORAGES.
   d. FIBER REINFORCED POLYMER.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CUT



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

REV.	DESCRIPTION	BY	DATE
0	FOR REVIEW	JC	10/05/20

ATC SITE NUMBER:
413782
ATC SITE NAME:
WASHINGTON NORTH CT, CT
AT&T MOBILITY SITE NAME:
WASHINGTON MOUNTAIN ROAD
SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

10/05/2020

AT&T

DATE DRAWN:	10/05/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

GENERAL NOTES

SHEET NUMBER:	REVISION:
S1	0

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1211 SR 436, SUITE 101
CASSELBERRY, FL 32707 OFFICE #:407-278-6750

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BP	06/26/20
B	PRELIM	CAP	08/06/20
C	PRELIM	DGD	10/06/20
0	FOR CONSTRUCTION	DGD	10/13/20

ATC SITE NUMBER:
413782
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WASHINGTON NORTH CT
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6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

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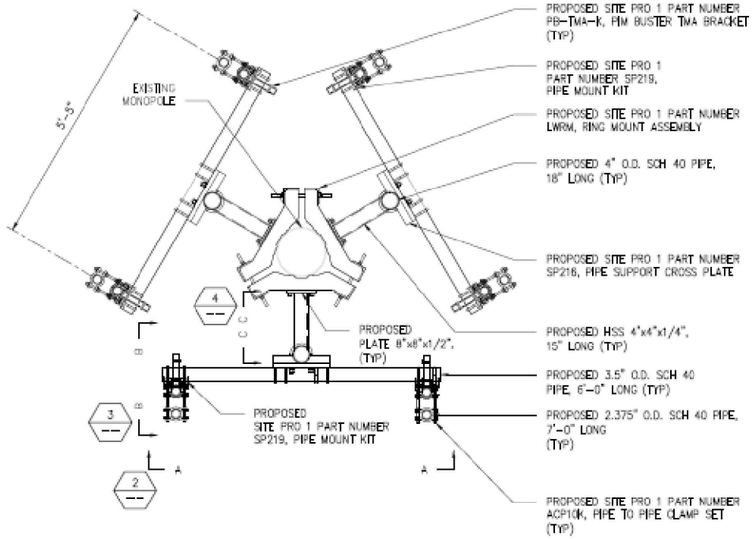
AT&T

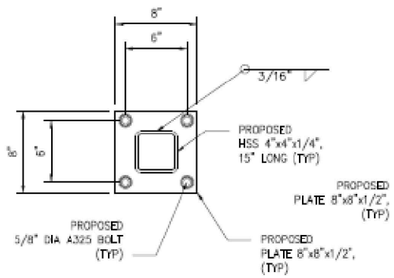
DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

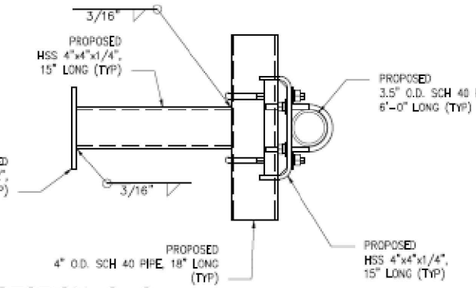
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-608	0



1 PLAN VIEW
SCALE: NOT TO SCALE

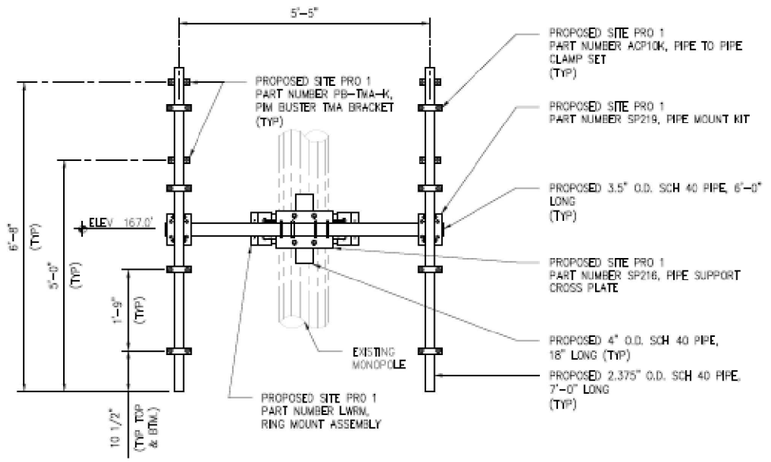




4 SECTION C-C
SCALE: NOT TO SCALE

NOTES:

1. MODIFICATIONS SHOWN ARE TYPICAL FOR ALL SECTORS.
2. VARIOUS EXISTING CONDITIONS AND PROPOSED MODIFICATIONS NOT SHOWN FOR CLARITY.
3. ALL DESIGNATED PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF PROPOSED PIPES, AND CUT & DRILL ON SITE AS NECESSARY.
5. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.



2 SECTION A-A
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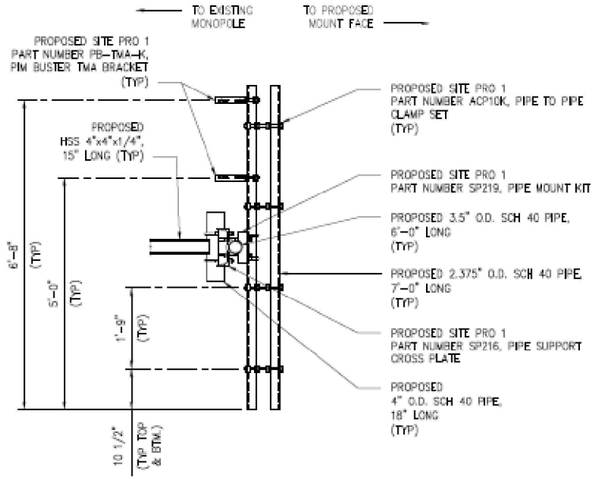

3 SECTION B-B
SCALE: NOT TO SCALE

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SUITE 100
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PHONE: (919) 468-0112
COA: PEC.0001663

REV.	DESCRIPTION	BY	DATE
0	FOR REVIEW	JC	10/05/20

ATC SITE NUMBER:
413782
ATC SITE NAME:
WASHINGTON NORTH CT, CT
AT&T MOBILITY SITE NAME:
WASHINGTON MOUNTAIN ROAD
SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

AT&T

DATE DRAWN:	10/05/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

MOUNT DESIGN DETAILS

SHEET NUMBER:	REVISION:
S2	0

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CASSELBERRY, FL 32707 OFFICE #:407-278-6750

REV.	DESCRIPTION	BY	DATE
A	PRELIM		06/26/20
B	PRELIM	CAP	08/06/20
C	PRELIM	DGD	10/06/20
0	FOR CONSTRUCTION	DGD	10/13/20

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SEAL:

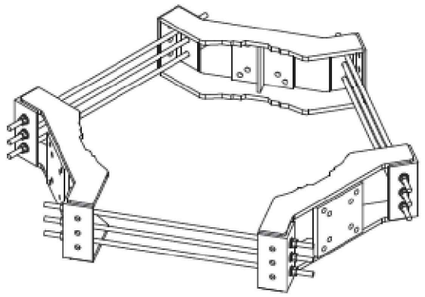
FOR REFERENCE ONLY

AT&T

DATE DRAWN:	06/26/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-609	0



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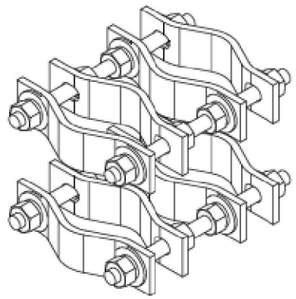

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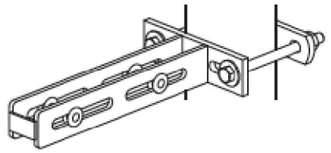

3 SITE PRO 1 P/N PB-TMA-K
SCALE: NOT TO SCALE

NOTES:

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2. VARIOUS EXISTING CONDITIONS AND PROPOSED MODIFICATIONS NOT SHOWN FOR CLARITY.
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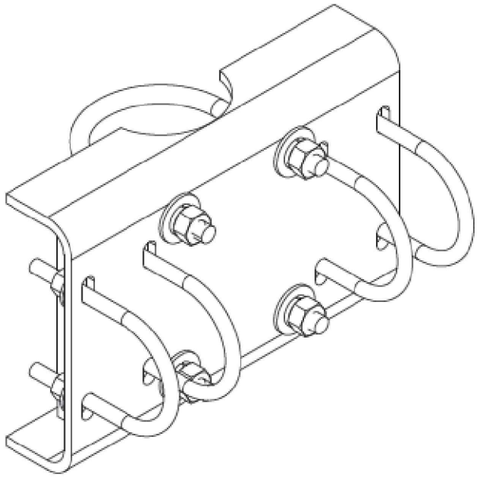

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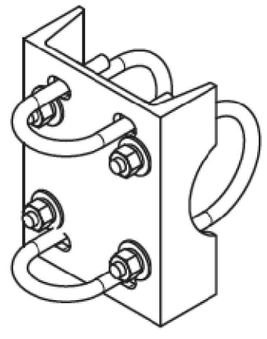

5 SITE PRO 1 P/N SP219
SCALE: NOT TO SCALE

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COA: PEC.0001563

REV.	DESCRIPTION	BY	DATE
0	FOR REVIEW	JC	10/05/20

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SEAL:

10/05/2020

AT&T

DATE DRAWN:	10/05/20
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REQUIRED PARTS

SHEET NUMBER:	REVISION:
S3	0

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SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-610	0

EXHIBIT 2

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

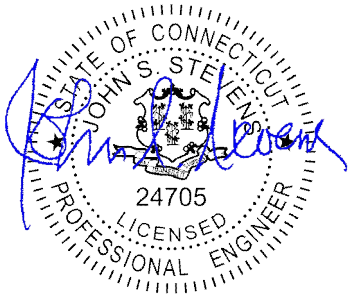
1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

Mount Analysis Report

October 7, 2020

AT&T Site Name	MRCTB046503
AT&T Site Number	CTL02550
ATC Site Name	Washington North CT, CT
ATC Site Number	413782
ATC Engineering Number	13211690_C8_02
Infinigy Job Number	1009-Z0003-B
Client	ATC
Carrier	AT&T Mobility
Site Location	6 Mountain Road New Preston, CT 06777 Litchfield County 41.669100 N NAD83 73.365300 W NAD83
Mount Centerline EL.	167.0 ft
Mount Type	T-Arm
Structural Usage Ratio	**92.7%**
Overall Result	**Pass**
Notes	**Please see appended drawings for new proposed mount.**

Upon reviewing the results of this analysis, it is our opinion that the proposed T-Arms meets the specified TIA code requirements. The mounts and connections for the proposed carrier are therefore deemed adequate to support the final loading configuration as listed in this report.



10/07/2020

Mark Iakovenko
Project Engineer I

Contents

Introduction

Infinigy Engineering has been requested to perform a mount analysis on the proposed AT&T Mobility mounts. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The mount was analyzed using RISA-3D Version 17.0.4 analysis software.

Supporting Documentation

Collocation Application	ATC Collo App ID 375894, dated June 18, 2020
RFDS	AT&T RFDS ID #3719904, dated June 11, 2020
Site Photos	ATC Provided, dated October 31, 2018

Analysis Code Requirements

Wind Speed	114 mph (3-Second Gust)
Wind Speed w/ Ice	40 mph (3 Second Gust) w/ 1" Ice
TIA Revision	ANSI/TIA-222-H
Risk Category	II
Exposure Category	B
Topographic Factor Procedure	Method 2
Topographic Feature	Flat
Calculated Crest Height (H)	0 ft
Spectral Response	S_s = 0.187 g, S_1 = 0.054 g
Site Class	D - Stiff Soil (Assumed)
HMSL	686 ft

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the proposed T-Arms meets the specified TIA code requirements. The mounts and connections for the proposed carrier are therefore deemed adequate to support the final loading configuration as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Mark Iakovenko
Project Engineer I | **INFINIGY**
1517 Old Apex Rd, Cary, NC, 27513
(O) (518) 690-0790
miakovenko@infinigy.com | www.infinigy.com

Final Configuration Loading

Mount CL (ft)	Vert. O/S (ft)	Rad. HT (ft)	Horiz. O/S (ft)*	Qty	Appurtenance	Carrier
167.0	0.0	167.0	5.75	3	CCI ANTENNAS OPA65R-BU4DA-K	AT&T Mobility
			0.25	3	CCI ANTENNAS DMP65R-BU4D	
			0.25	3	KAELUS DBCT108F1V92-1	
			-	3	RAYCAP DC6-48-60-18-8F**	
			0.25	3	ERICSSON RRUS 4478 B14	
			5.75	3	ERICSSON RRUS 4449 B5, B12	
			0.25	3	ERICSSON RADIO 8843 - B2 + B66A	

***Horizontal Offset is defined as the distance from the left most edge of the mount face horizontal when viewed facing the tower**

**** Raycap assumed to be installed directly on standoffs**

Structure Usages

Horizontals	52.8%	Pass
Standoffs	35.6%	Pass
Mount Pipes	40.9%	Pass
Mount Pipe Clamps	92.7%	Pass
Max Usage	**92.7%**	**Pass**

Mount Connection Usages

Reaction Data	Design Capacity*	Analysis Reactions	Results
Max Tension (lbs.)	20,340.15	4,081.23	20.1%
Max Shear (lbs.)	13,805.83	433.06	3.1%
Interaction Check	-	-	0.04
***(1) 5/8" A325 bolts, (4) per connection.**			

Mount Connection Usages

Reaction Data	Design Capacity*	Analysis Reactions	Results
Weld Strength (lbs./in)	4,176.35	1,881.46	45.1%
***Assumed 0.1875-inch-thick fillet weld.**			

Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of "like new" and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure's condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the proposed carriers mount structure only and does not reflect adequacy of the existing tower, other mounts, or coax mounting attachments. These elements are assumed to be adequate for the purposes of this analysis and are assumed to have been installed per their manufacturer requirements.

Program Inputs

PROJECT INFORMATION	
Client:	ATC
Carrier:	AT&T Mobility
Engineer:	Mark Iakovenko

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	B	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil	
Ground Elevation:	686	ft *Rev H

MOUNT INFORMATION		
Mount Type:	T-Arm (Multiple)	
Num Sectors:	3	
Centerline AGL:	167.0	ft
Tower Height AGL:	168.6	ft

TOPOGRAPHIC DATA		
Topo Feature:	N/A	
Slope Distance:	N/A	ft
Crest Distance:	N/A	ft
Crest Height:	N/A	ft

FACTORS		
Directionality Fact. (K_d):	0.95	
Ground Ele. Factor (K_e):	0.98	*Rev H Only
Rooftop Speed-Up (K_s):	1.00	*Rev H Only
Topographic Factor (K_{zt}):	1.00	
Gust Effect Factor (G_h):	1.0	

CODE STANDARDS		
Building Code:	2015 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-16	

WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	114	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	40	mph
Base Ice Thickness (t_i):	1	in
Flat Pressure:	70.55	psf
Round Pressure:	42.33	psf
Ice Wind Pressure:	5.21	psf

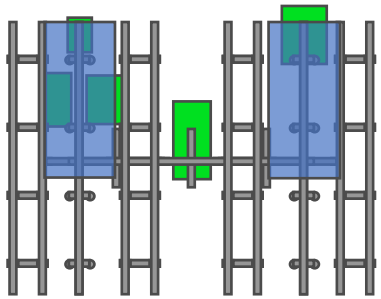
SEISMIC DATA		
Short-Period Accel. (S_s):	0.19	g
1-Second Accel. (S_1):	0.05	g
Short-Period Design (S_{DS}):	0.20	
1-Second Design (S_{D1}):	0.09	
Short-Period Coeff. (F_a):	1.60	
1-Second Coeff. (F_v):	2.40	
Amplification Factor (a_p):	1.00	
Response Mod. (R_p):	2.50	
Overstrength (Ω_o):	1.00	

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

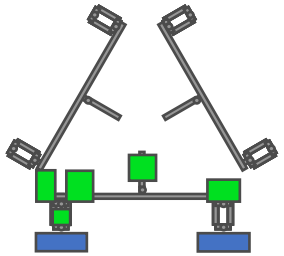
Infinigy Load Calculator V2.1.4

Program Inputs

ELEVATION VIEW



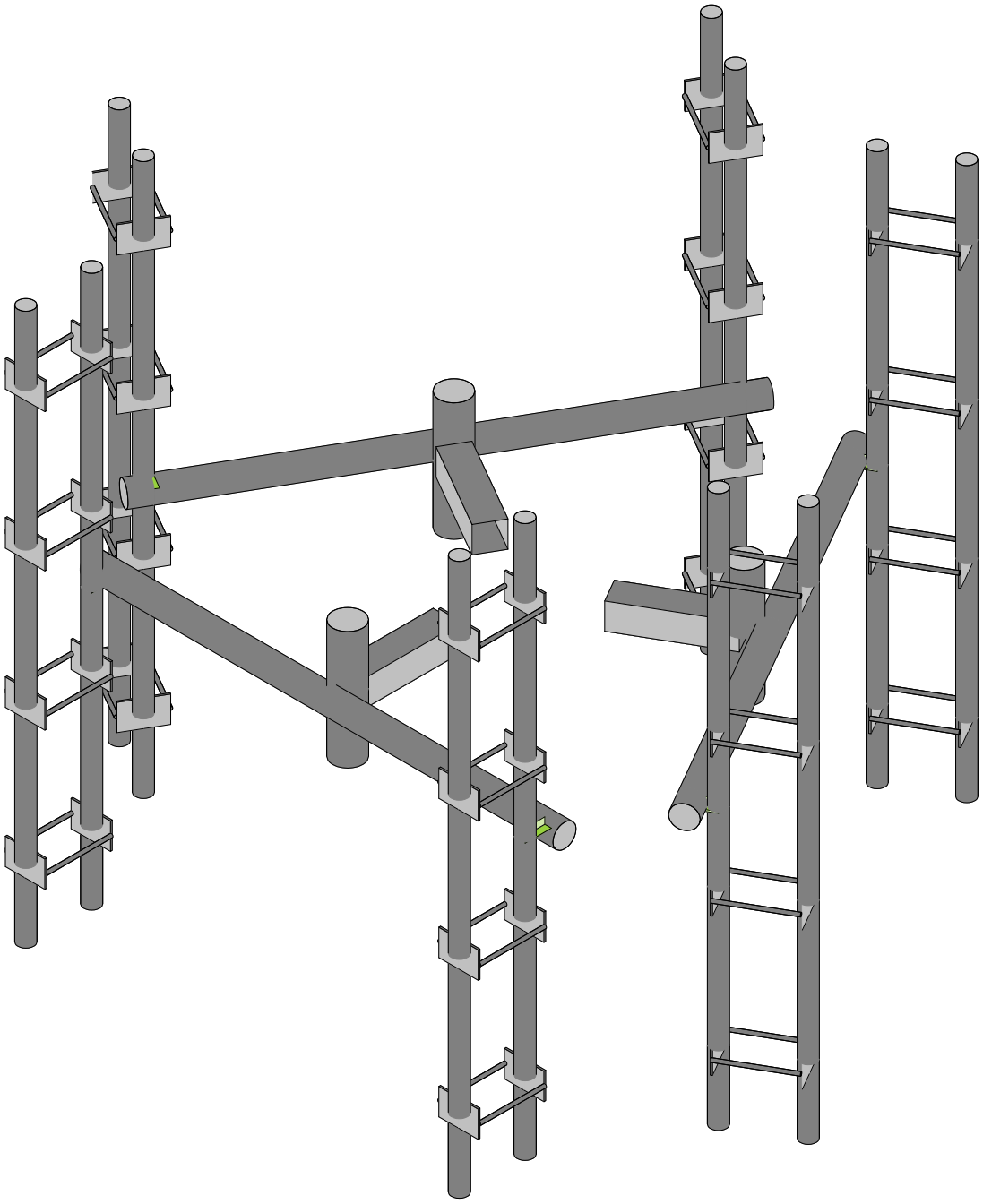
PLAN VIEW



Infinigy Load Calculator V2.1.4

APPURTENANCE INFORMATION

Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
CCI ANTENNAS OPA65R-BU4DA-K	167.0	3	0.90	35.28	8.44	3.56	267.80	113.02	52.50	5.24	MP1
CCI ANTENNAS DMP65R-BU4D	167.0	3	0.90	35.28	8.28	3.51	262.88	111.31	67.90	6.77	MP2
KAELUS DBCT108F1V92-1	167.0	3	0.90	35.28	0.63	0.61	20.10	19.25	13.90	1.39	MP2
RAYCAP TME-DC6-48-60-18-8F	167.0	3	0.90	35.28	2.20	2.20	69.85	69.85	31.80	3.17	S1
ERICSSON TME-RRUS 4478 B14	167.0	3	0.90	35.28	1.84	1.06	58.50	33.61	59.90	5.97	MP21
ERICSSON RRUS 4449 B5, B12	167.0	3	0.90	35.28	1.97	1.40	62.51	44.52	71.00	7.08	MP11
ERICSSON TME-RADIO 8843 - B2 + B66A	167.0	3	0.90	35.28	1.65	1.36	52.38	43.26	71.90	7.17	MP21



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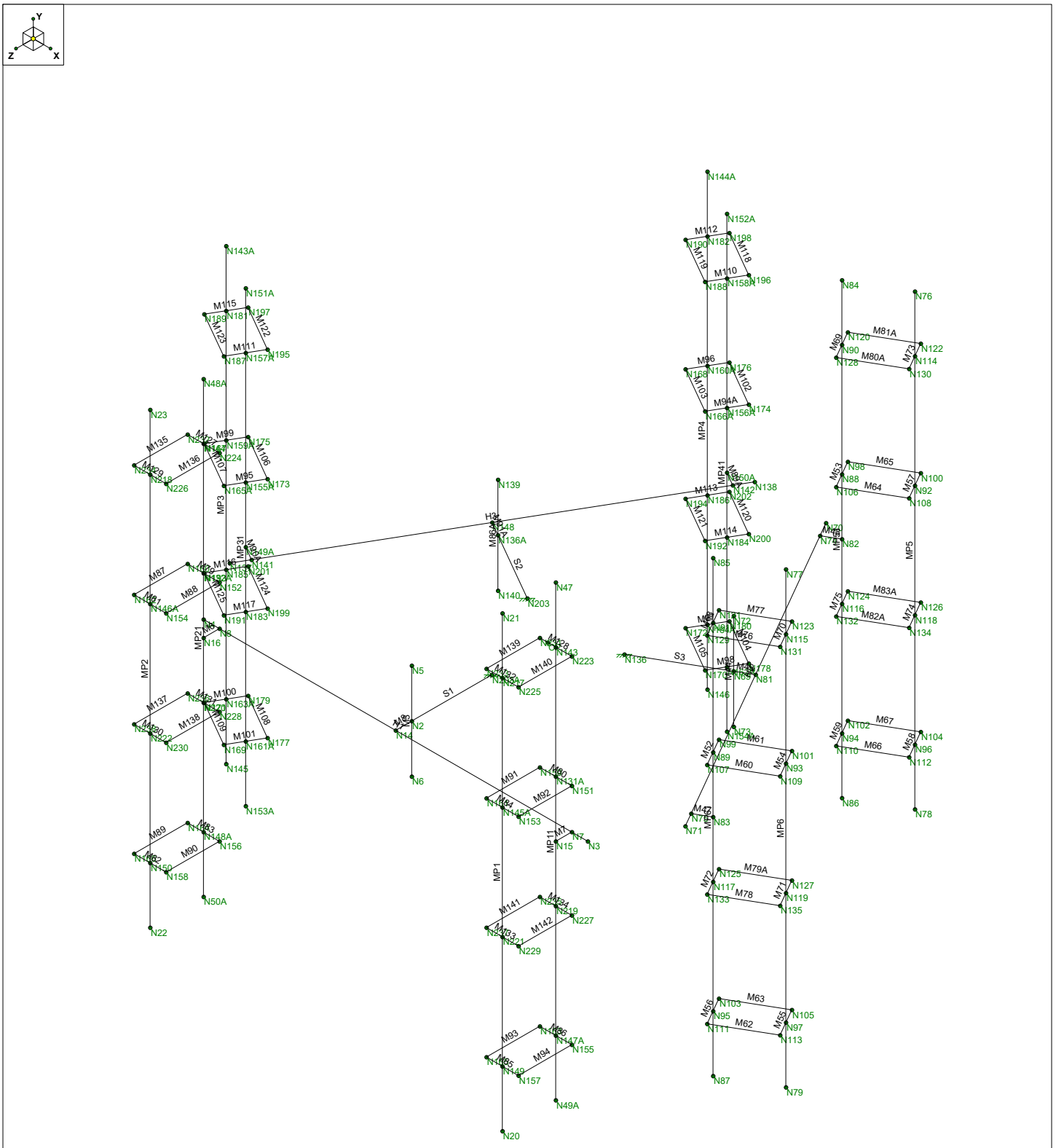

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Wireframe
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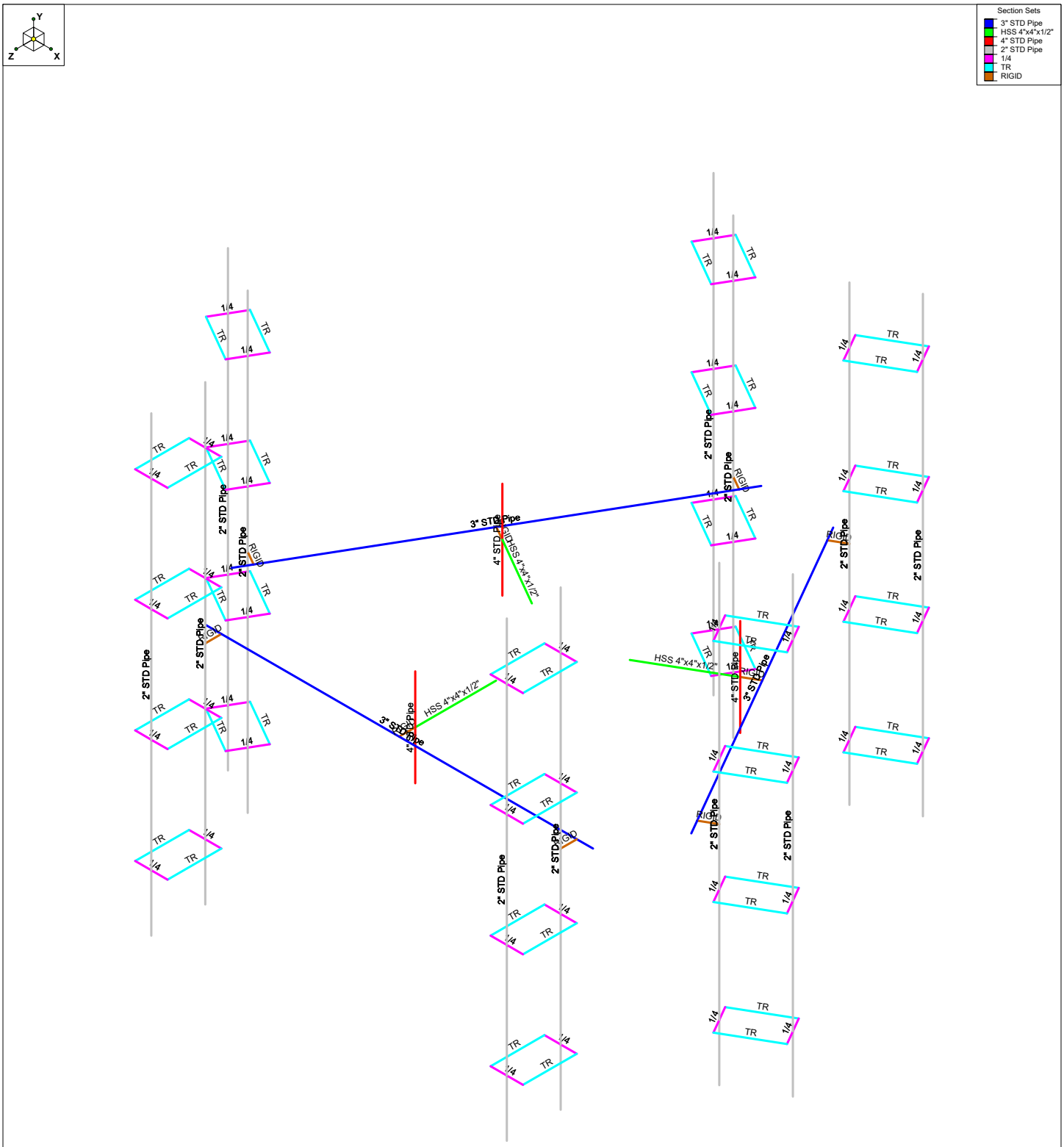

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Section Sets
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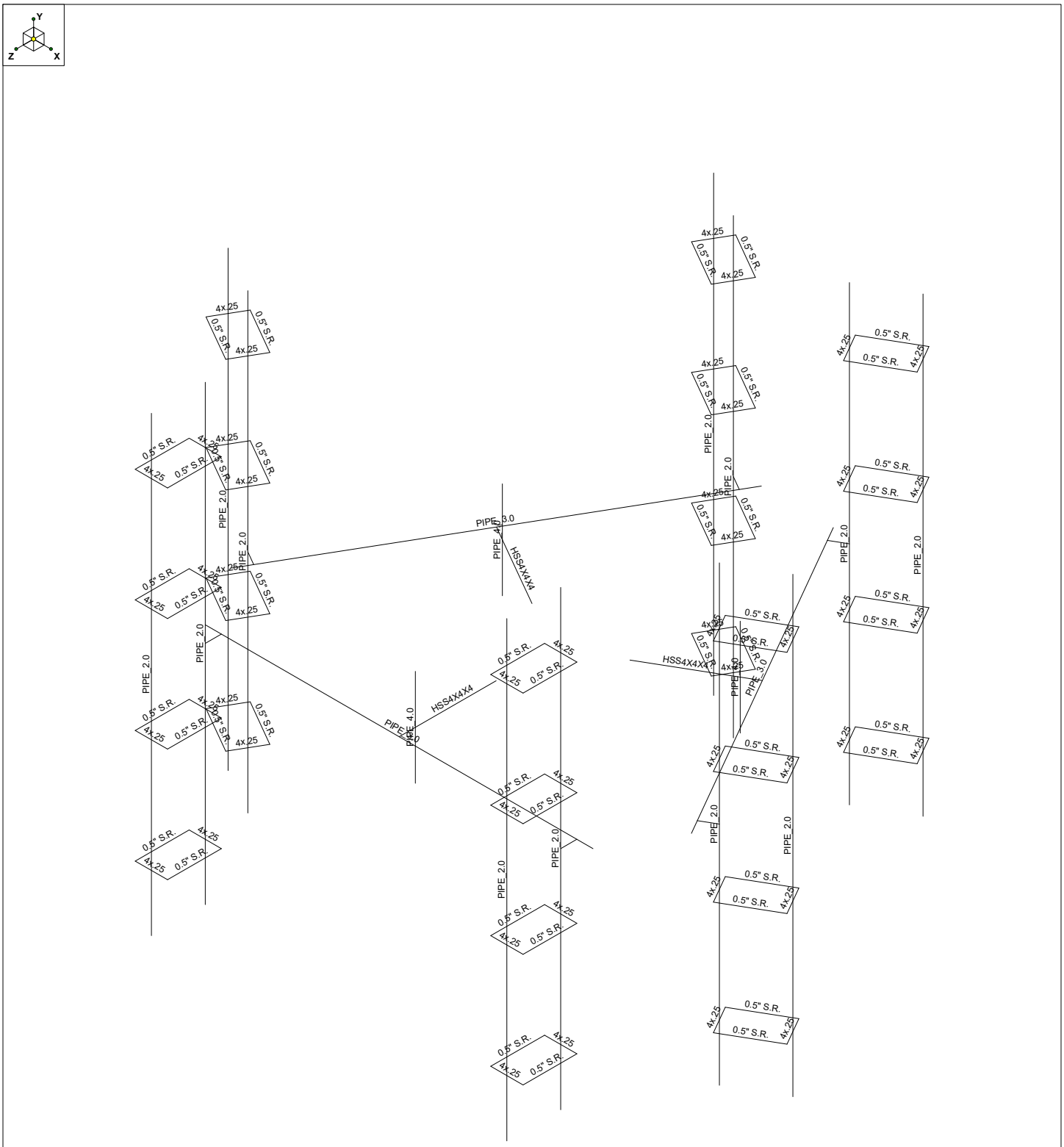

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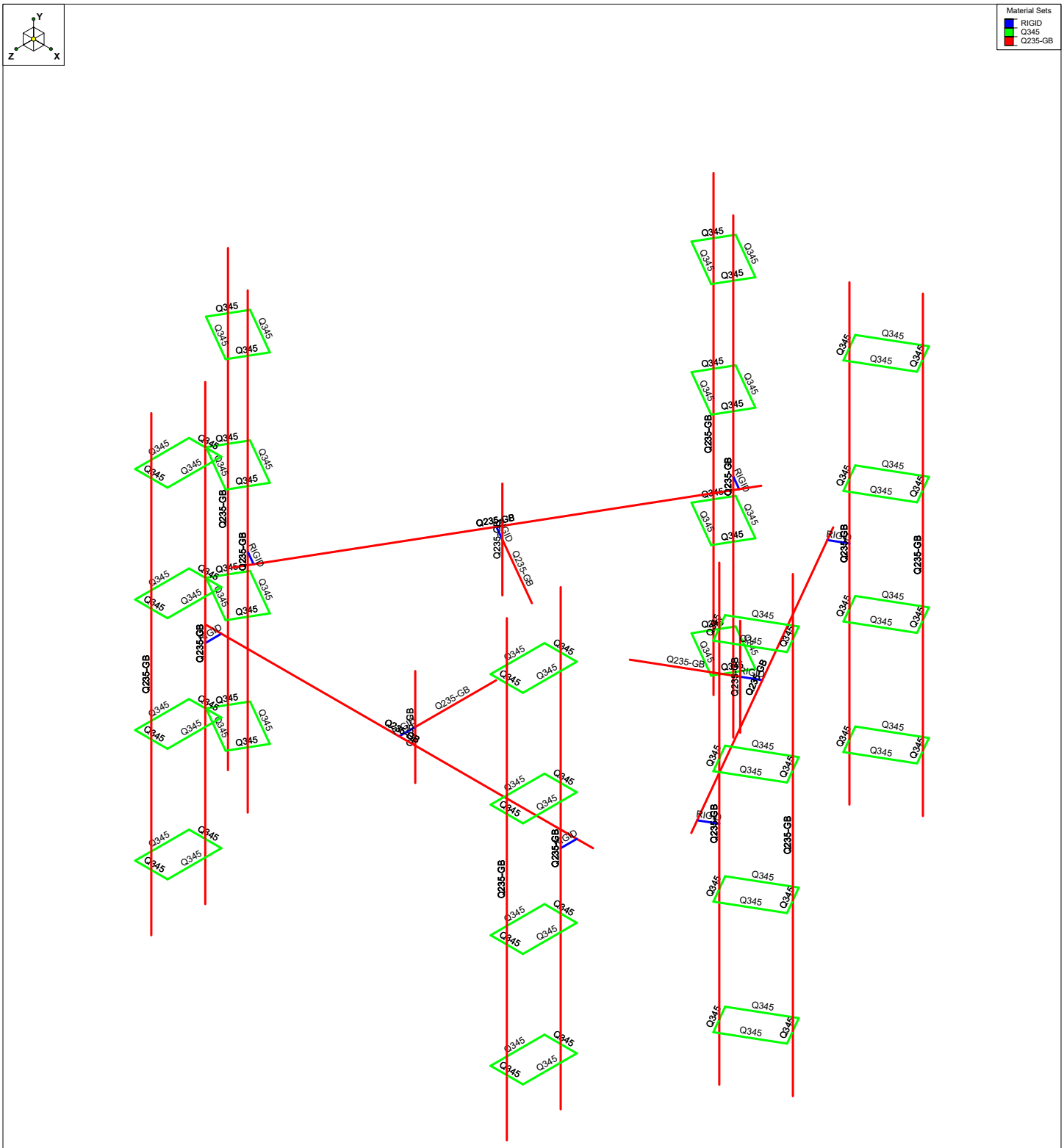

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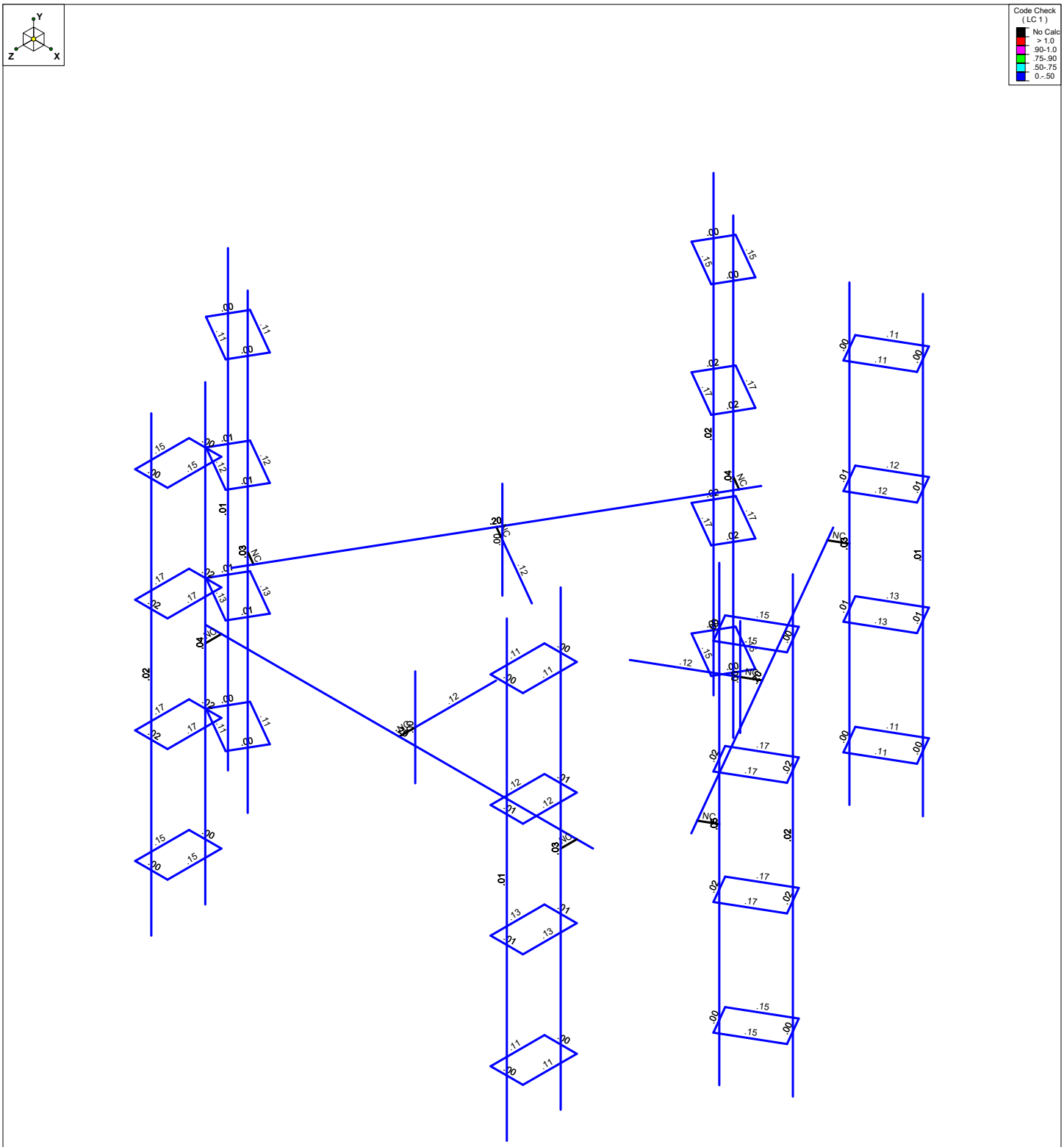

Member Code Checks Displayed
Results for LC 1, 1.4DL

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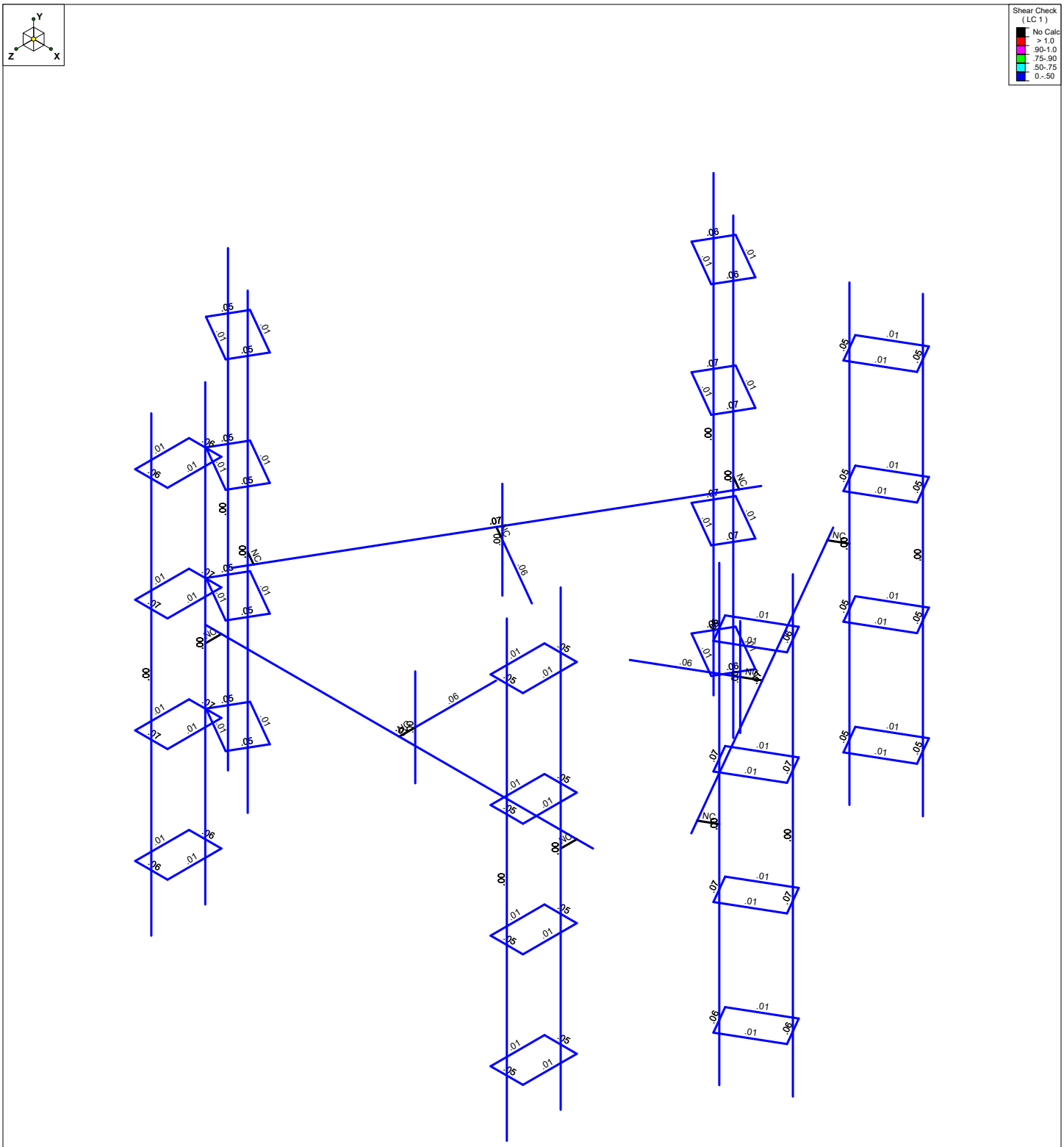

Member Shear Checks Displayed
Results for LC 1, 1.4DL

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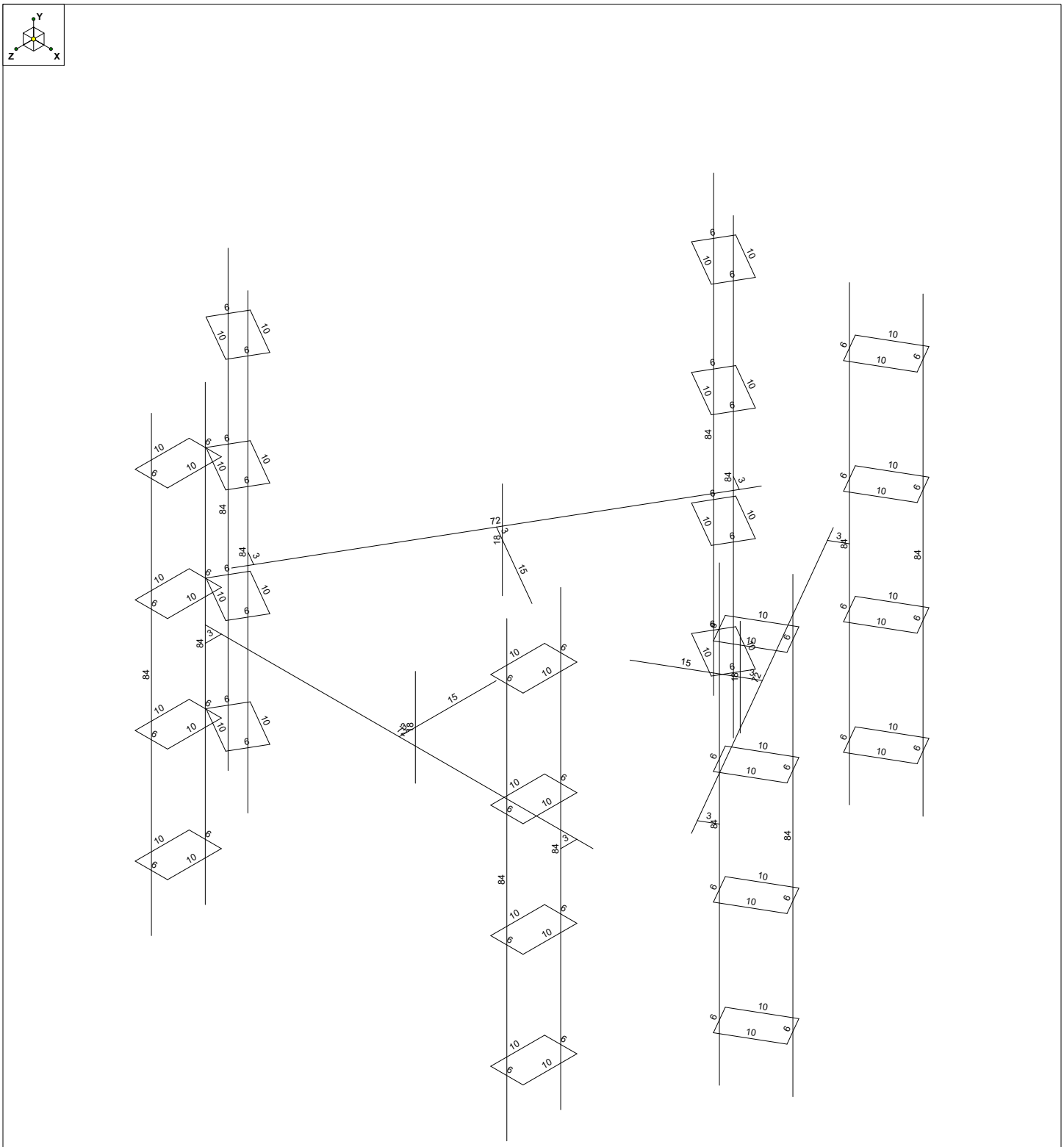

Member Length (in) Displayed

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Member Lengths
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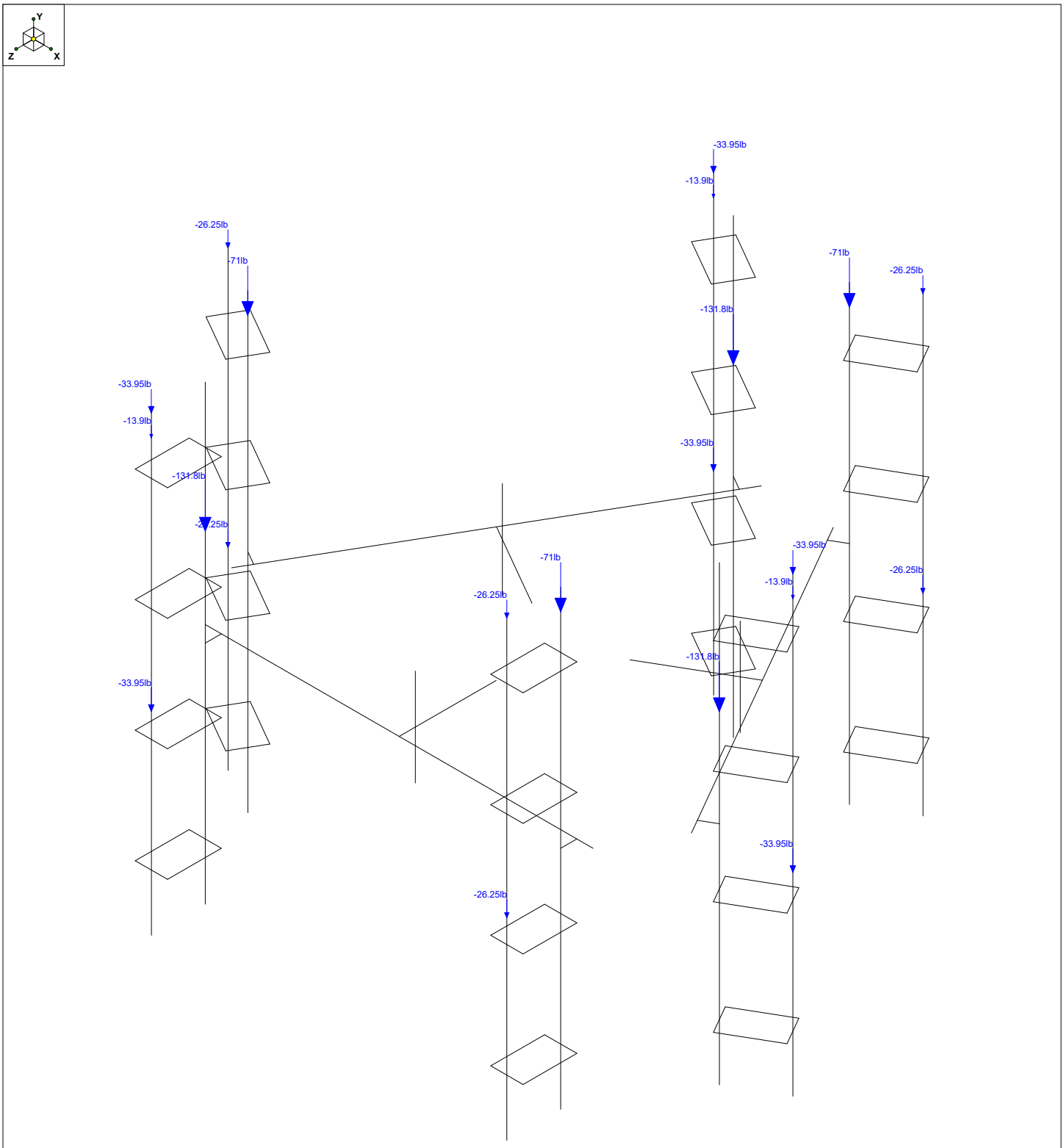

Loads: BLC 1, Self Weight

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Self Weight
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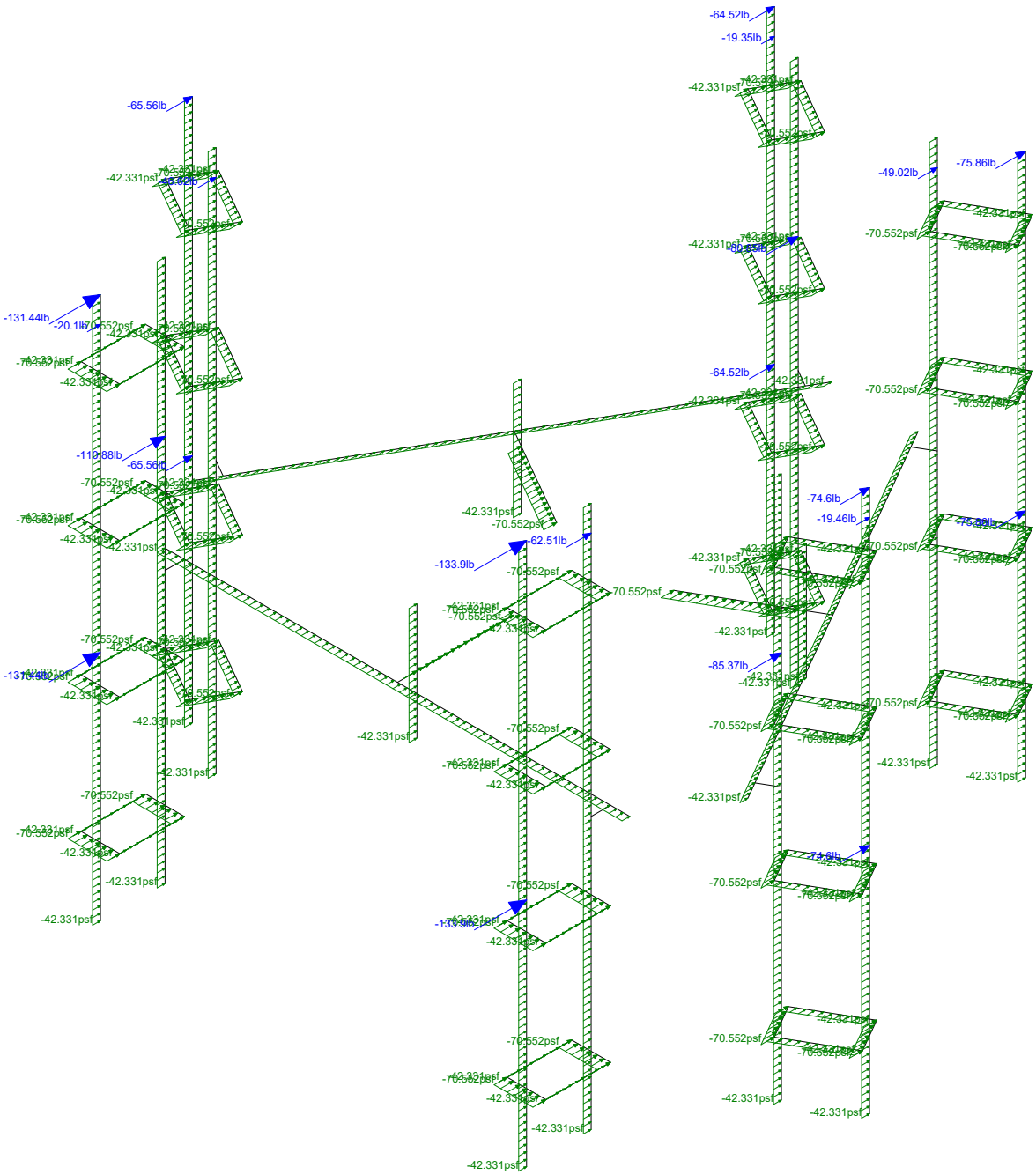
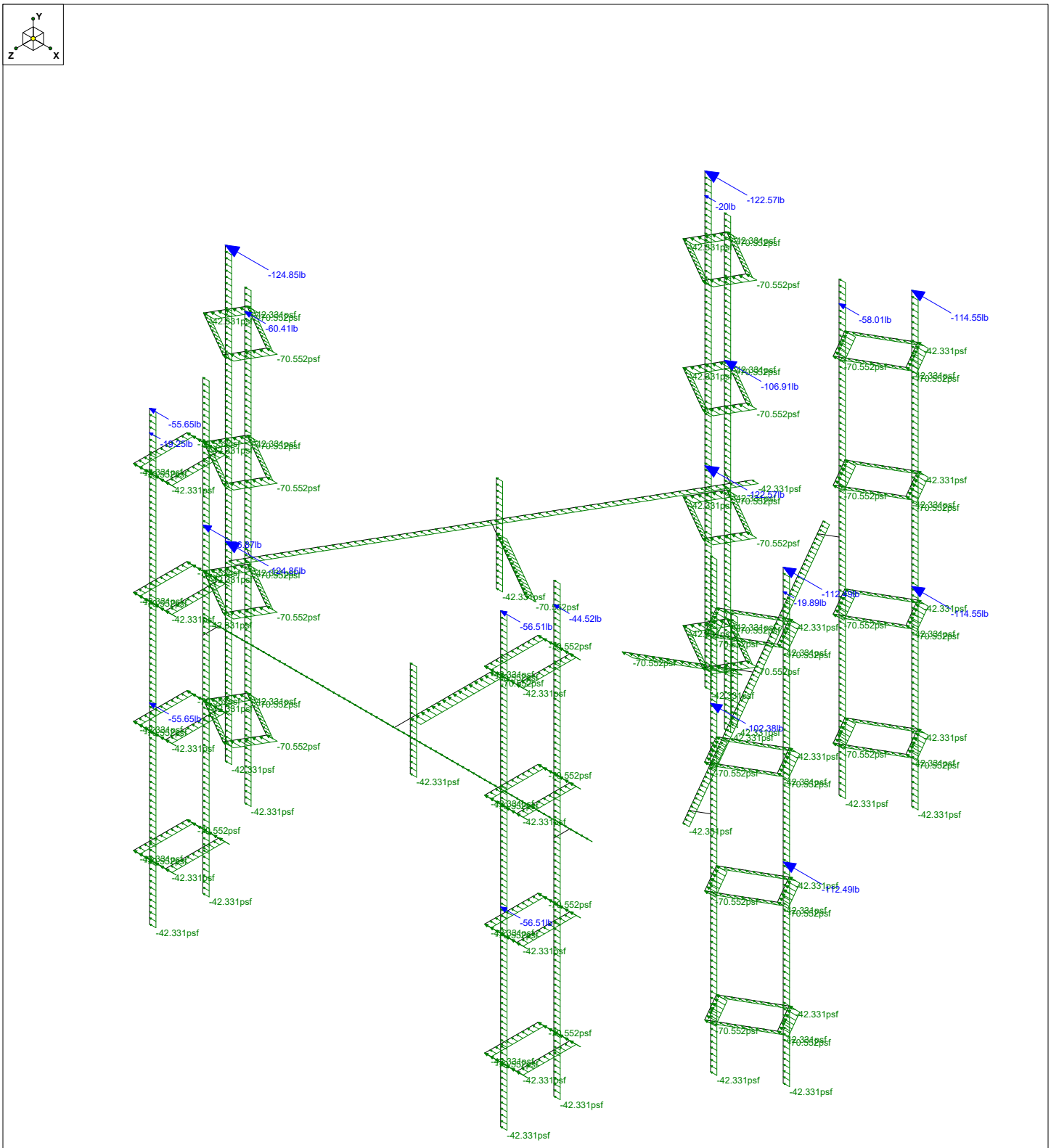


Loads: WLZ - Wind Load Z

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Wind Load 0
MAI		Oct 7, 2020 at 9:27 AM
1009-Z0003-B		413782_loaded.r3d



Loads: WLX - Wind Load X

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Wind Load 90
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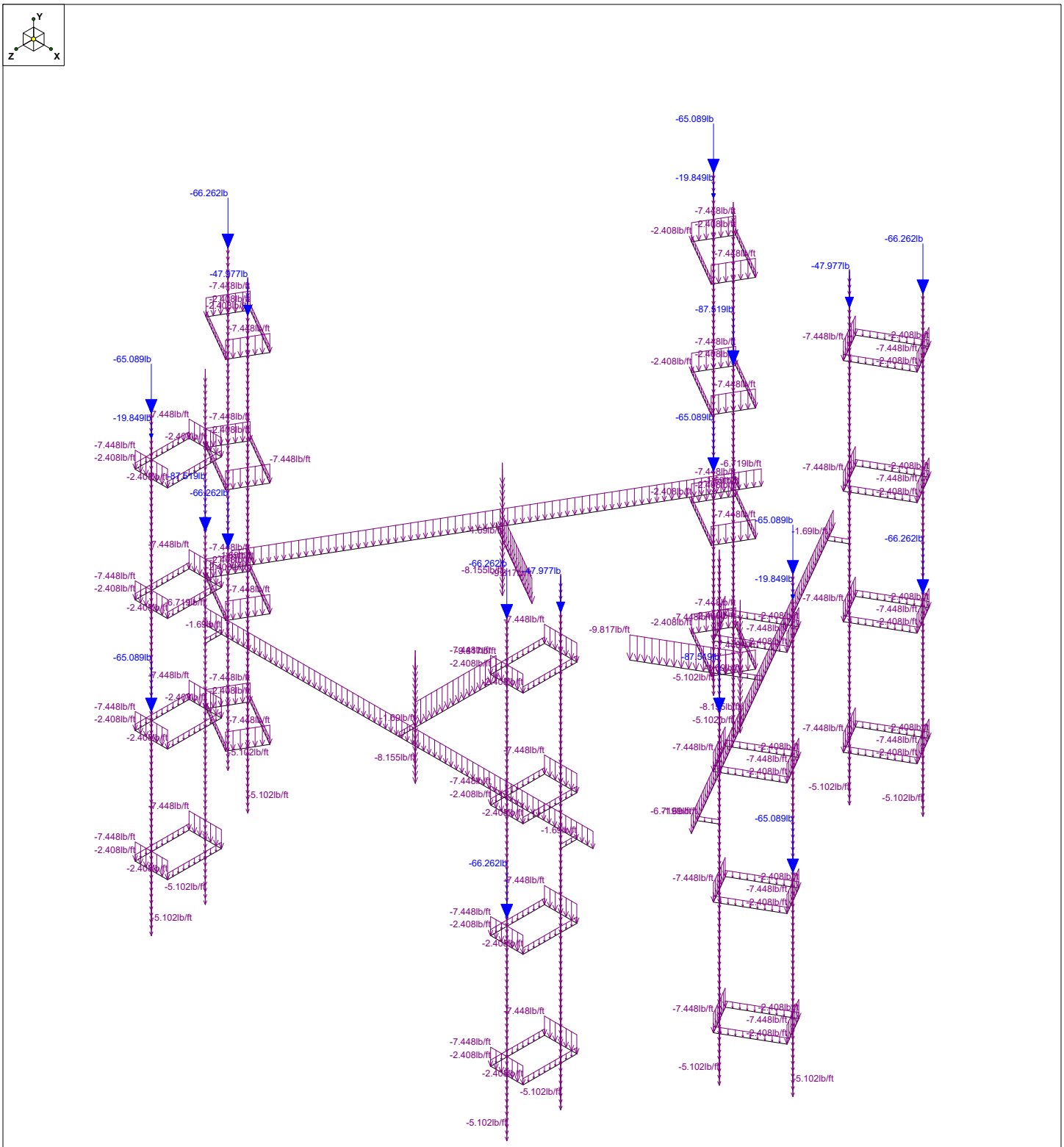

Loads: OL1 - Other Load 1

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Ice Weight
MAI		Oct 7, 2020 at 9:28 AM
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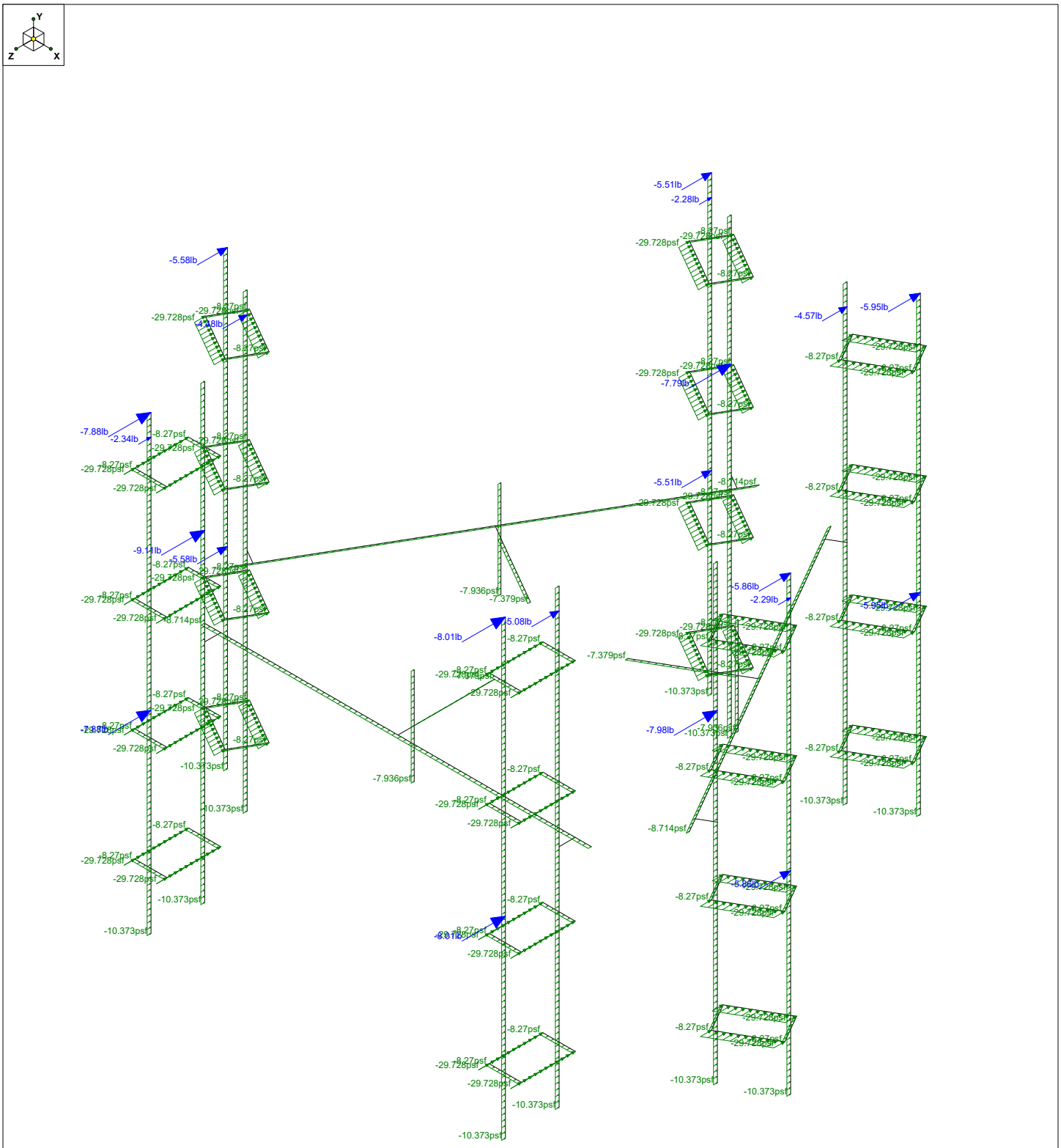

Loads: OL2 - Other Load 2

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Ice Load 0
MAI		Oct 7, 2020 at 9:28 AM
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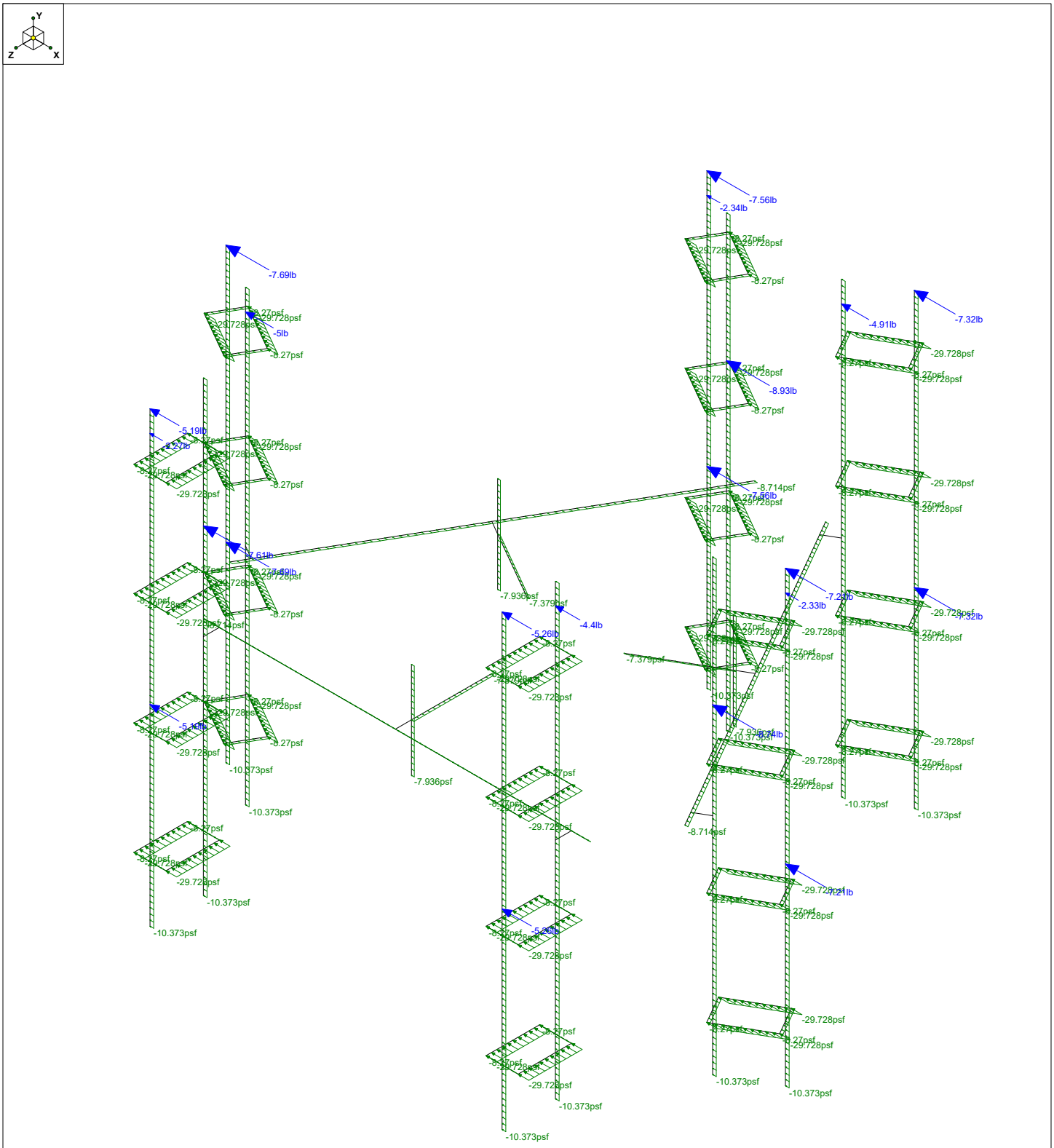

Loads: OL3 - Other Load 3

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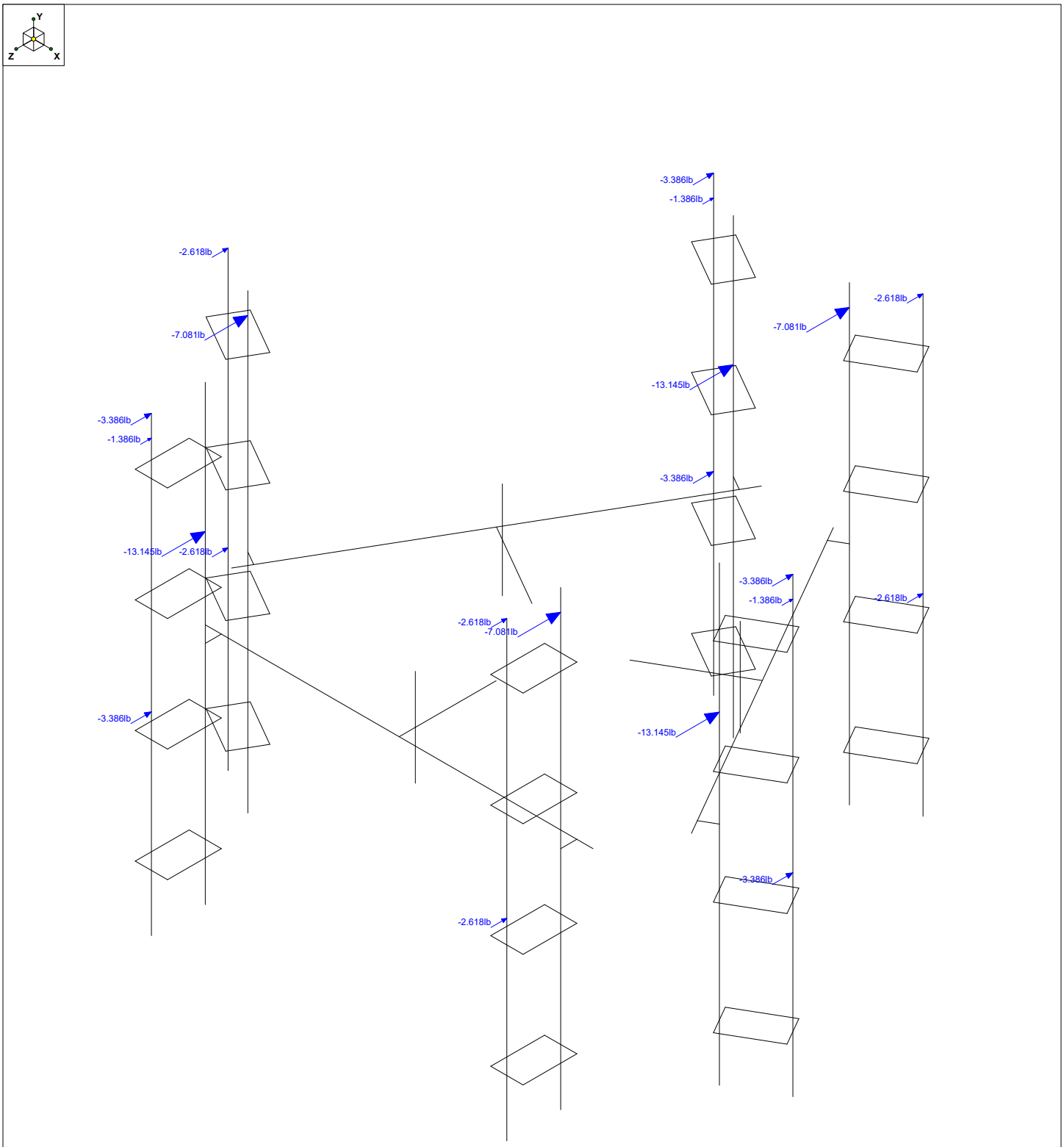

Loads: BLC 31, Seismic Load Z

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Seismic Load 0
MAI		Oct 7, 2020 at 9:29 AM
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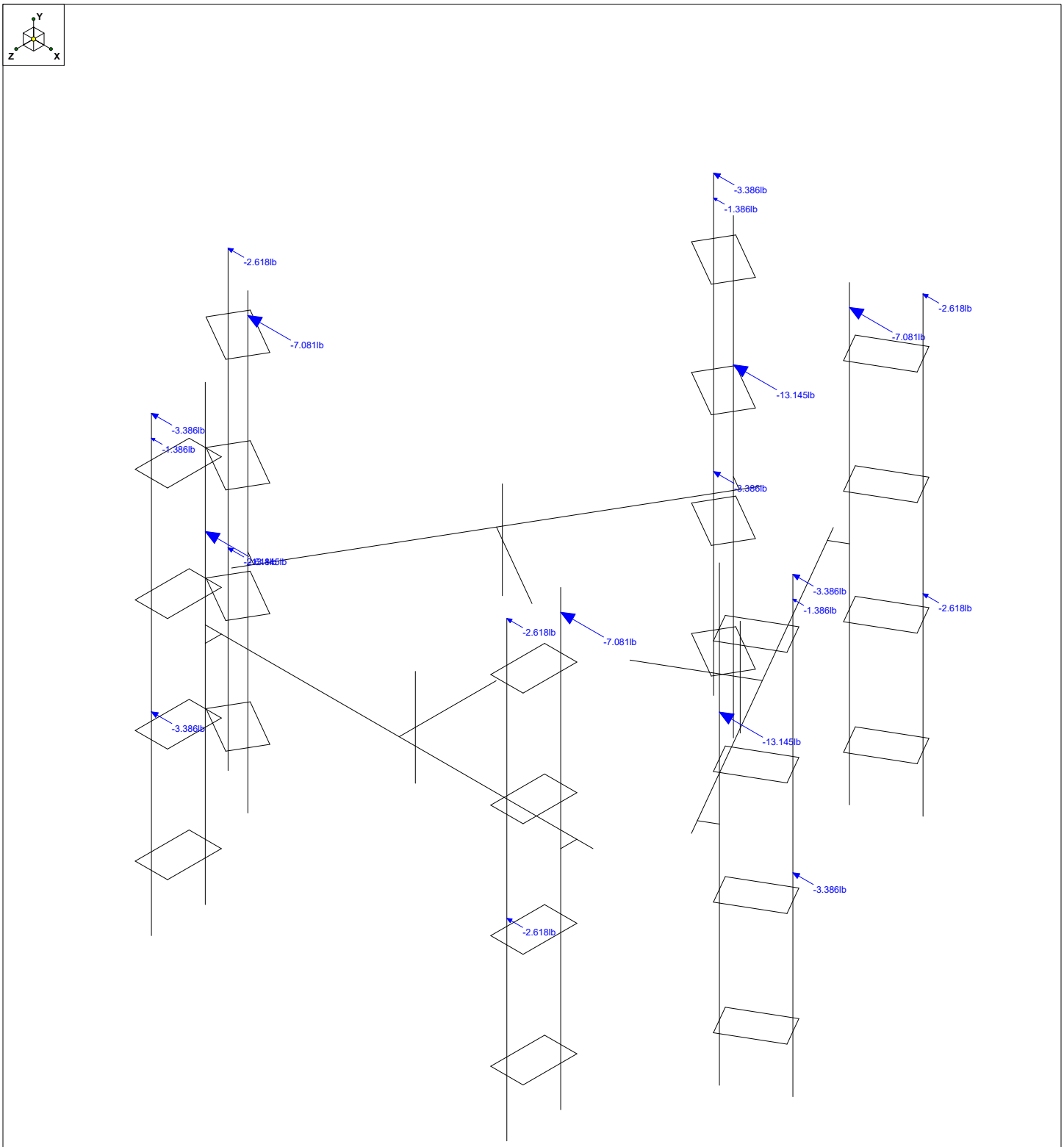

Loads: BLC 32, Seismic Load X

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Seismic Load 90
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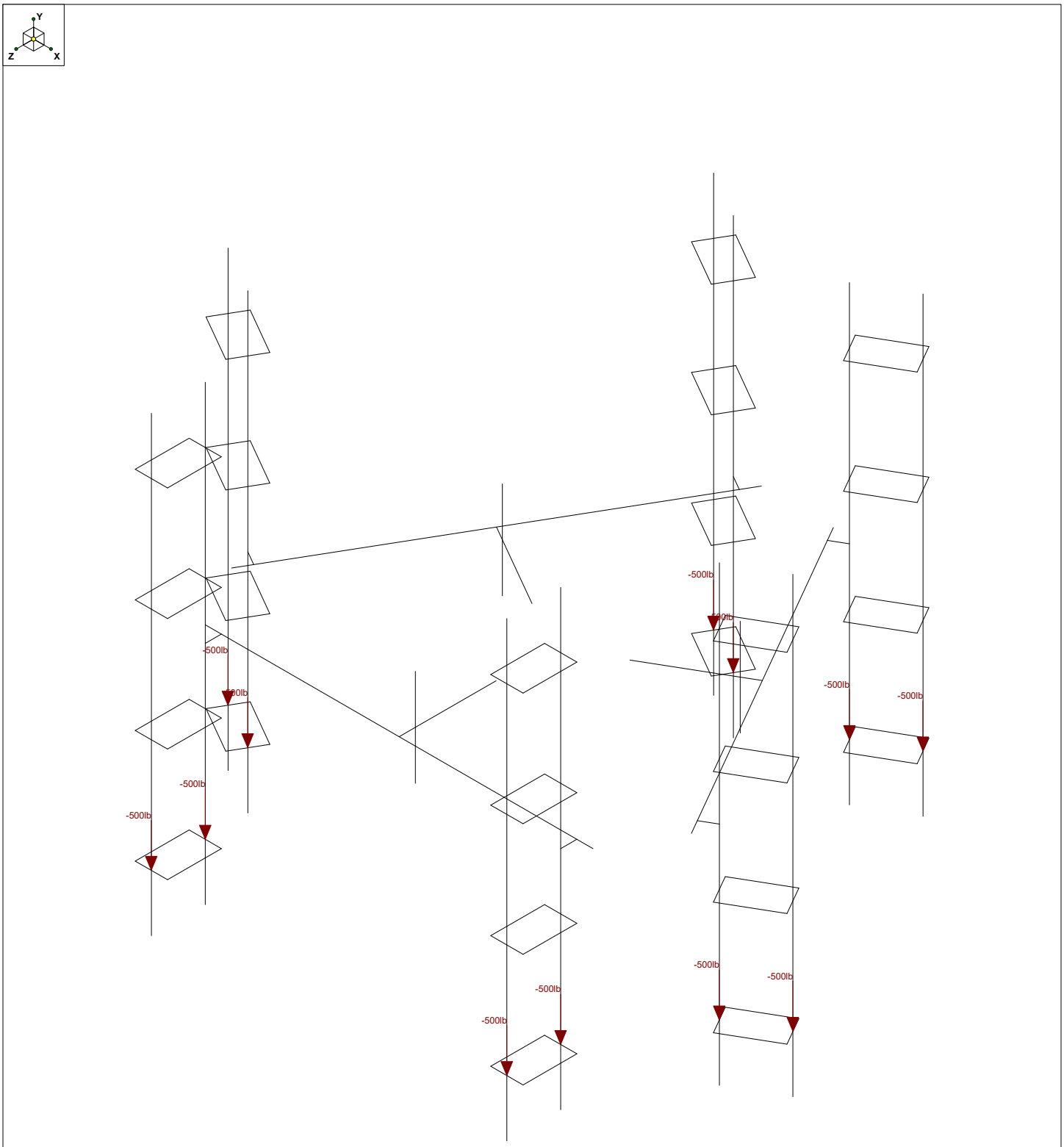

Loads: LL - Live Load

Infinigy Engineering PLLC	413782 - Washington Northrh, CT	Maintenance Load
MAI		Oct 7, 2020 at 9:30 AM
1009-Z0003-B		413782_loaded.r3d

INFINIGY

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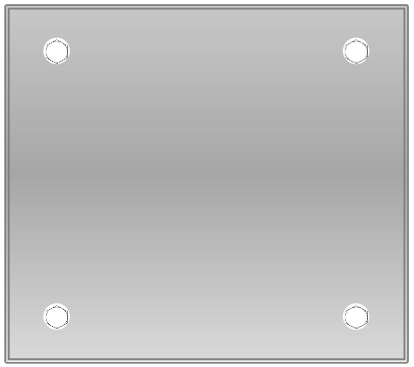
Bolt Calculation Tool, V1.4

PROJECT DATA	
Site Name:	Washington North CT, CT
Site Number:	413782
Job Code:	1009-Z0003-B
Connection Description:	Standoff to Collar

APPLIED LOADS		
Bolt Tension:	4081.23	lbs
Bolt Shear:	433.06	lbs

BOLT PROPERTIES		
Bolt Type:	Bolt	-
Bolt Diameter:	0.625	in
Bolt Grade:	A325	-
# of Bolts:	4	-
Threads Excluded?	No	-

BOLT CHECK		
Tensile Strength	20340.15	
Shear Strength	13805.83	
Tensile Usage	20.1%	
Shear Usage	3.1%	
Interaction Check	0.04	***≤1.05***
Result	Pass	



INFINIGY

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the solutions are endless

Welded Calculation Tool, V1.0

PROJECT DATA	
Site Name:	Washington North CT, CT
Site Number:	413782
Job Code:	1009-Z0003-B
Date:	10/7/2020

WELD INFORMATION		
Design:	LRFD	-
Weld Strength (F_EXX):	70	ksi
Weld Thickness:	0.1875	in

MAIN SHAPE INFORMATION		
Main Shape:	Rectangle	-
Main Shape Material:	A 53 Gr. B	-
Main Shape Thickness:	0.250	in
Main Shape Size:	4X4	in

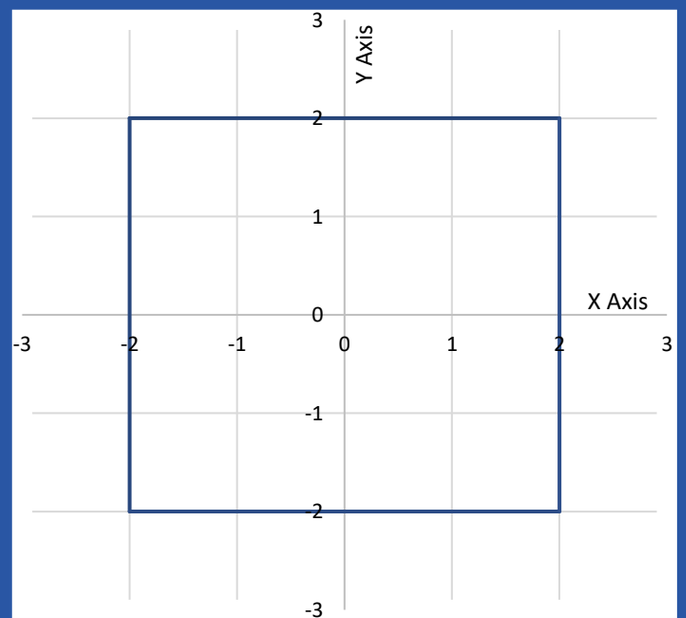
TOTAL SUM OF LINES PROPERTIES		
Polar Moment of Inertia:	85.333	in^3
Section Modulus X-X dir.:	21.333	in^2
Section Modulus Y-Y dir.:	21.333	in^2
Critical Usage Mode*:	Weld Critical	-
Critical Thickness Used:	0.188	in

SECONDARY SHAPE INFORMATION		
Secondary Shape:	N/A	-
Secondary Shape Material:	N/A	-
Secondary Shape Thickness:	N/A	in
Secondary Shape Size:	N/A	in

WELD DESCRIPTION

RESULTS		
Critical Risa Combination:	LC 94	-
Critical Member Label:	S1	-
Member End:	j	-
Weld Strength (Phi*Rn):	4176.349	lb/in
Weld Demand (Ru):	1881.459	lb/in
Usage ratio:	**45.1%**	OK

WELD DIAGRAM (NOT TO SCALE)



NOTES
*The strength of the weld governs the design compared to the effective strength of the welded object.

MOUNT
DESIGN
DRAWINGS

PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY

the solutions are endless

AMERICAN TOWER CORPORATION

at&t

413782
WASHINGTON NORTH CT, CT
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777

10/05/20

INFINIGY JOB # 1009-Z0003-B

STATE OF CONNECTICUT
JOHN S. STEVENS
24705
LICENSED PROFESSIONAL ENGINEER
10/05/2020

PROFESSIONAL SEAL

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THESE DOCUMENTS.

GENERAL NOTES:

1. THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
2. ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
3. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
4. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
5. ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
7. INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

STEEL CONSTRUCTION NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
2. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
3. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
5. ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
   - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
   - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
   - RECTANGULAR HSS TO BE A500, GRADE B. FY=46 KSI, U.N.O.
   - ROUND HSS TO BE A500, GRADE B. FY=42 KSI, U.N.O.
   - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
   - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
   - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
6. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
7. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
8. ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
   - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
   - CMU BLOCK ANCHORS: ADHESIVE – HY120, U.N.O.
   - CONCRETE ANCHORS: ADHESIVE – HY150, U.N.O.
   - CONCRETE REBAR: ADHESIVE – RE500, U.N.O.
9. ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
10. BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
11. MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.
12. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

CONCRETE CONSTRUCTION NOTES:

1. CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
2. EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

1. FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE FY = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
2. IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
3. ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
4. THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
5. STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
6. ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
7. TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE

SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

8. WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
9. STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
10. ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
11. ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
12. ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
13. ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
14. EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
15. FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
16. ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
17. SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER

	RANGE	RECOMMENDED
EDGE DISTANCE – CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE – CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH – CL* TO CL*	4.0-5.0	5.0

WOOD CONSTRUCTION NOTES:

1. ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
2. ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
3. ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

1. ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
   - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI.
   - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
2. ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
   - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 64 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
   - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
   - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

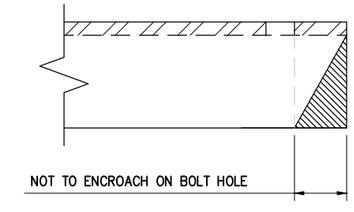
TOWER PLUMB & TENSION NOTES:

1. PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
2. RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
3. PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
4. THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
   a. STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
   b. HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
   c. MECHANICAL AND EPOXIED ANCHORAGES.
   d. FIBER REINFORCED POLYMER.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP



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CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR REVIEW	JC	10/05/20

ATC SITE NUMBER:
413782
ATC SITE NAME:
WASHINGTON NORTH CT, CT
AT&T MOBILITY SITE NAME:
WASHINGTON MOUNTAIN ROAD
SITE ADDRESS:
6 MOUNTAIN ROAD
NEW PRESTON, CT 06777-1518

SEAL:

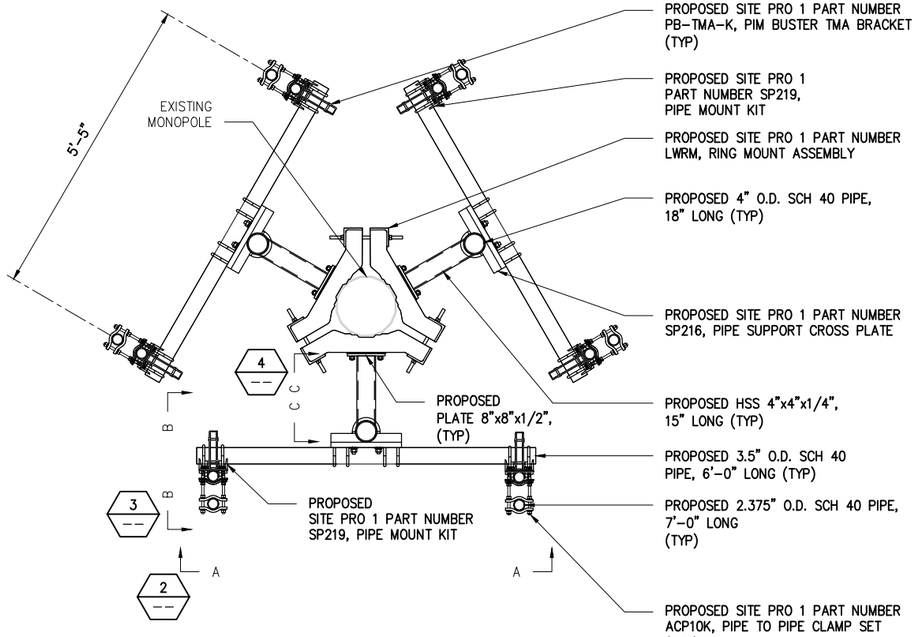
10/05/2020

AT&T

DATE DRAWN:	10/05/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

GENERAL NOTES

SHEET NUMBER:	REVISION:
S1	0



1 PLAN VIEW
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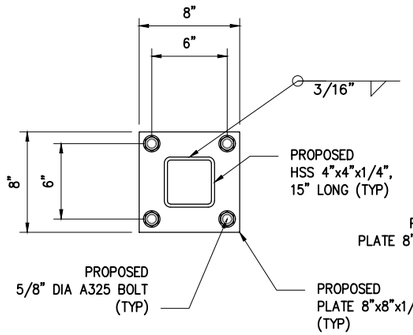

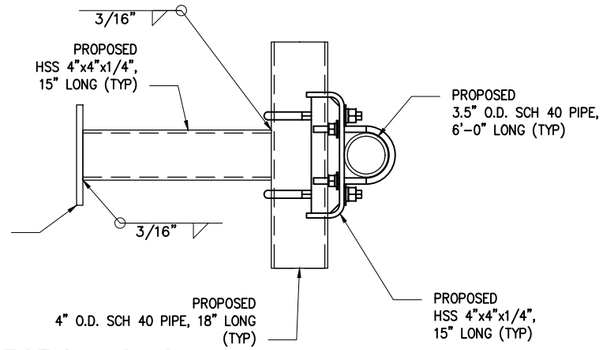

4 SECTION C-C
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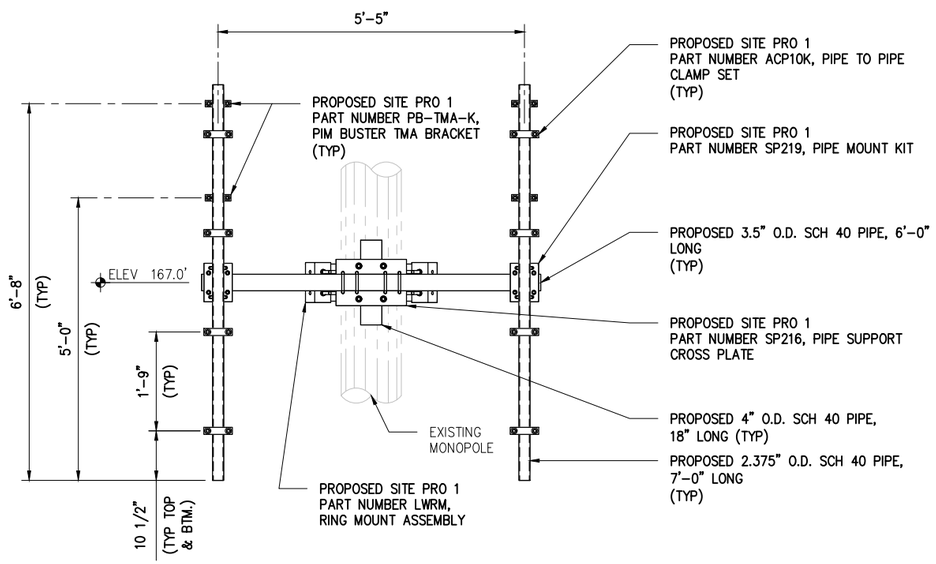

2 SECTION A-A
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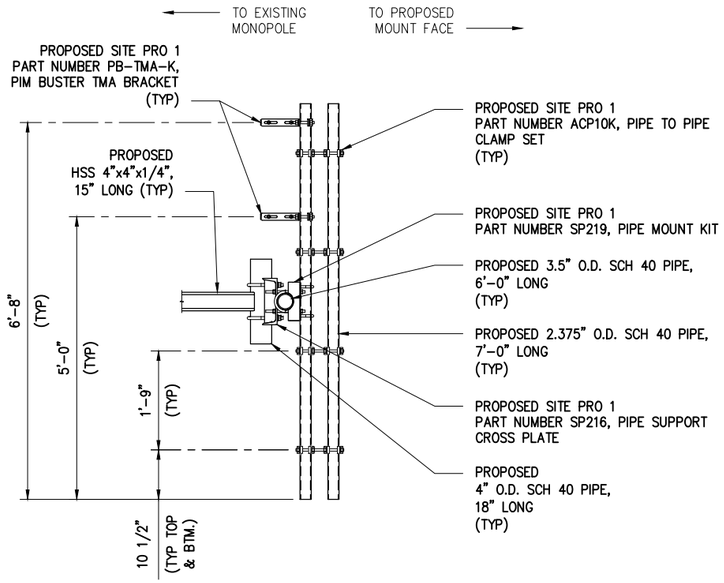

3 SECTION B-B
SCALE: NOT TO SCALE

NOTES:

1. MODIFICATIONS SHOWN ARE TYPICAL FOR ALL SECTORS.
2. VARIOUS EXISTING CONDITIONS AND PROPOSED MODIFICATIONS NOT SHOWN FOR CLARITY.
3. ALL DESIGNATED PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF PROPOSED PIPES, AND CUT & DRILL ON SITE AS NECESSARY.
5. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

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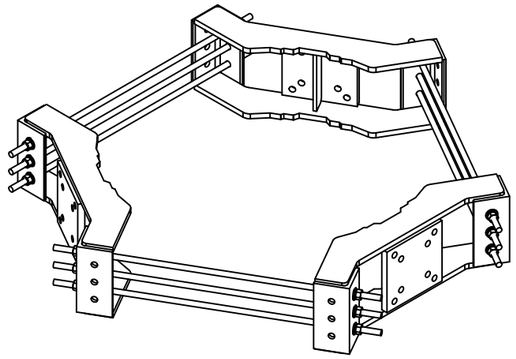
MOUNT DESIGN DETAILS

SHEET NUMBER:	REVISION:
S2	0



1 -- SITE PRO 1 P/N LWRM
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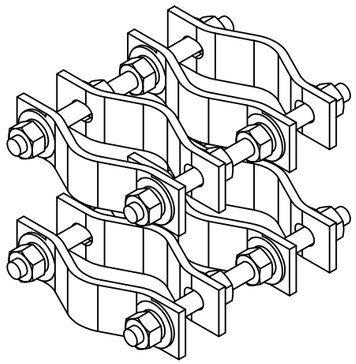

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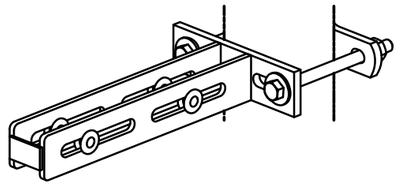
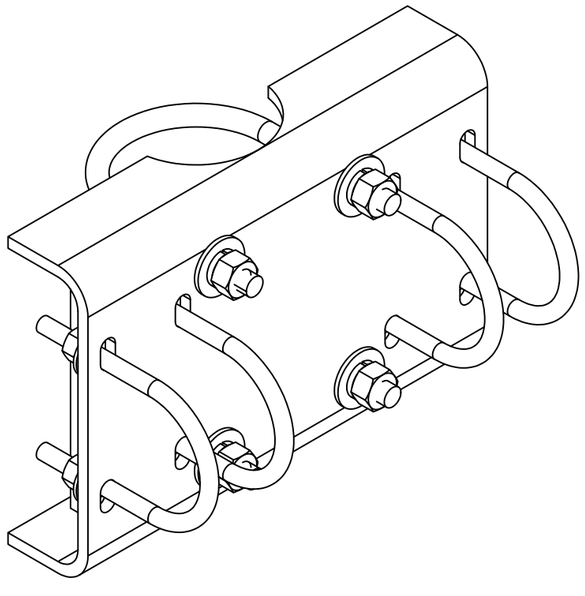


3 -- SITE PRO 1 P/N PB-TMA-K
SCALE: NOT TO SCALE

NOTES:

1. MODIFICATIONS SHOWN ARE TYPICAL FOR ALL SECTORS.
2. VARIOUS EXISTING CONDITIONS AND PROPOSED MODIFICATIONS NOT SHOWN FOR CLARITY.
3. ALL DESIGNATED PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF PROPOSED PIPES, AND CUT & DRILL ON SITE AS NECESSARY.
5. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.



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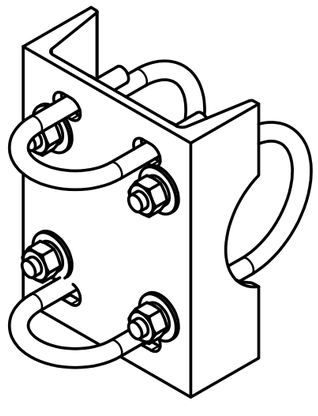

5 -- SITE PRO 1 P/N SP219
SCALE: NOT TO SCALE

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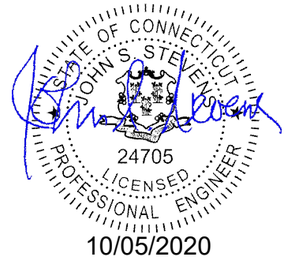


10/05/2020

AT&T

DATE DRAWN:	10/05/20
ATC JOB NO:	13211690_G3
CUSTOMER ID:	CTL02550
CUSTOMER #:	10141340

REQUIRED PARTS

SHEET NUMBER:	REVISION:
S3	0

EXHIBIT 3

DOCKET NO. 332 – Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 6 Mountain Road or 167 New Milford Turnpike, Washington, Connecticut.	}	Connecticut Siting Council September 25, 2007

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Cellco Partnership d/b/a Verizon Wireless, hereinafter referred to as the Certificate Holder, for a telecommunications facility at Site 1 located at 6 Mountain Road, Washington, Connecticut. The Council denies certification of Site 2, located at 167 New Milford Turnpike, Washington, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Verizon Wireless, New Cingular Wireless d/b/a AT&T and other entities, both public and private, but such tower shall not exceed a height of 160 feet above ground level. The height at the top of the antennas shall not exceed 160 feet above ground level.

2. All antennas shall be installed on the tower in an exterior, flush-mount configuration.

3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
   a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
   b) construction plans for site clearing, grading, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Washington public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.

8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.

9. Any request for extension of the time period referred to in Condition 8 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list. Any proposed modifications to this Decision and Order shall likewise be so served.

10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.

12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Waterbury Republican-American and the New Milford Spectrum.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
Cellco Partnership d/b/a Verizon Wireless	Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 Sandy Carter, Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108
Party	**Its Representative**
Town of Washington	Steven R. Smart, Esq. Riefberg, Smart, Donohue & NeJames, P.C. 9 Old Sugar Hollow Road Danbury, CT 06810
Intervenor	**Its Representative**
New Cingular Wireless PCS, LLC d/b/a AT&T	Christopher B. Fisher, Esq. Cuddy & Feder LLP 445 Hamilton Avenue, 14th Floor White Plains, NY 10601
Intervenor	
Malina McNamara 76 Mygatt Road New Preston, CT 06777	

CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, **DOCKET NO. 332** – Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 6 Mountain Road or 167 New Milford Turnpike, Washington, Connecticut, and voted as follows to approve proposed Site 1 located at 6 Mountain Road, Washington, Connecticut, and deny certification of the proposed Site 2, 167 New Milford Turnpike, Washington, Connecticut:

Council Members	**Vote Cast**
Daniel F. Caruso, Chairman	Yes
Colin C. Tait, Vice Chairman	Yes
Commissioner Donald W. Downes Designee: Gerald J. Heffernan	Yes
Commissioner Gina McCarthy Designee: Brian J. Emerick	Yes
Philip T. Ashton	Yes
Daniel P. Lynch, Jr.	Yes
James J. Murphy, Jr.	Yes
Dr. Barbara Currier Bell	Yes
Edward S. Wilensky	Yes

Dated at New Britain, Connecticut, September 25, 2007.

STATE OF CONNECTICUT)

ss. New Britain, Connecticut :

COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

S. Derek Phelps
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 332 has been forwarded by Certified First Class Return Receipt Requested mail on September 28, 2007, to all parties and intervenors of record as listed on the attached service list, dated June 22, 2007.

ATTEST:

Lisa A. Fontaine
Administrative Assistant
Connecticut Siting Council

Date: June 22, 2007

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	Cellco Partnership d/b/a Verizon Wireless	Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 (860) 275-8200 (860) 275-8299 fax kbaldwin@rc.com Sandy Carter, Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108 (860) 803-8219 alexandria.carter@verizonwireless.com
Party (granted on 5/1/07)	Town of Washington	Steven R. Smart, Esq. Riefberg, Smart, Donohue & NeJames, P.C. 9 Old Sugar Hollow Road Danbury, CT 06810 (203) 748-9259 (203) 796-7584 fax ssmart@rsdn.com The Honorable Richard C. Sears First Selectman Washington Town Hall P.O. Box 383, 2 Bryan Plaza Washington Depot, CT 06794 (860) 868-2259 (860) 868-3103 fax First.selectman@washingtonct.org
Intervenor (granted on 05/22/07)	New Cingular Wireless PCS, LLC d/b/a AT&T	Christopher B. Fisher, Esq. Cuddy & Feder LLP 445 Hamilton Avenue, 14th Floor White Plains, NY 10601 (914) 761-1300 (914) 761-6405 fax cfisher@cuddyfeder.com

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Intervenor (granted 06/21/07)	Malina McNamara 76 Mygatt Road New Preston, CT 06777 (860) 868-7996 (860) 868-0203 fax Mmcnamara1955@charter.net	

EXHIBIT 4

qPublic.net™ Town of Washington, CT

Summary

ParcelId	2228
Location Address	6 MOUNTAIN RD
Map-Block-Lot	07-02-83
Use Class/Description	Single Family
Assessing Neighborhood	Marble Dale
Survey	1305/B
Acreage	32.08

Owner

Current Owner
UNDERWOOD H RAY + CAROL A TTES
CAROL A UNDERWOOD REVOCABLE TRUST AGR...
PO BOX 2427
NEW PRESTON, CT 06777

Current Appraised Value

		2019	2018	2017	2016	2015
+	Building Value	$568,480	$568,480	$537,486	$537,480	$537,480
+	OB/Misc	$16,961	$16,961	$16,357	$266,362	$16,362
+	Land Value	$720,690	$720,690	$720,690	$720,690	$720,690
=	Total Appraised Value	**$1,306,131**	**$1,306,131**	**$1,274,533**	**$1,524,532**	**$1,274,532**

Assessment History

		2019	2018	2017	2016	2015
+	Building Value	$397,940	$397,940	$376,240	$376,240	$376,240
+	OB/Misc	$11,870	$11,870	$11,450	$186,450	$11,450
+	Land Value	$204,870	$204,870	$214,740	$214,740	$214,740
=	Total Assessment	**$614,680**	**$614,680**	**$602,430**	**$777,430**	**$602,430**

Land

Use	Class	Land Type	Zoning	Area	Value
Single Family	R	Commercial Site	R-1	1.08	$100,440
Single Family	R	Excess	R-1	29	$0
Single Family	R	House Site	R-1	2	$185,250

Buildings Data

Building #	1
Style	Cape
Actual Year Built	1992
Effective Year Built	2009
Living Area	3808
Stories	1.75
Grade	11 B
Exterior Wall	Clapboards
Interior Wall	Drywall
Roof Cover	Arch Shingles
Roof Structure	
Floor Type	Hardwood
Heat Type	FHA
Fuel Type	Oil
AC	Central
Bdrms/Ful Bth/Hlf Bth/Ttl Rm	5/4/0/11
Basement Finished Area	0
Basement Garages	0

Building Sub Areas

Description	Year Built	Area
Cathedral Ceiling	1992	51
Wood Deck	2000	44
Wood Deck	2000	45
Wood Deck	1992	59
Wood Deck	2000	411
Frame Garage	2000	810
Open Porch	2000	557

Out Buildings\Extra Features

Description	Sub Description	Area	Year Built	Value
Fencing	Fencing	200	2007	$683
Generator	Generator	1	2007	$6,480
Towers	Towers	1	2007	$818
Utility Building	Utility	240	2007	$4,490

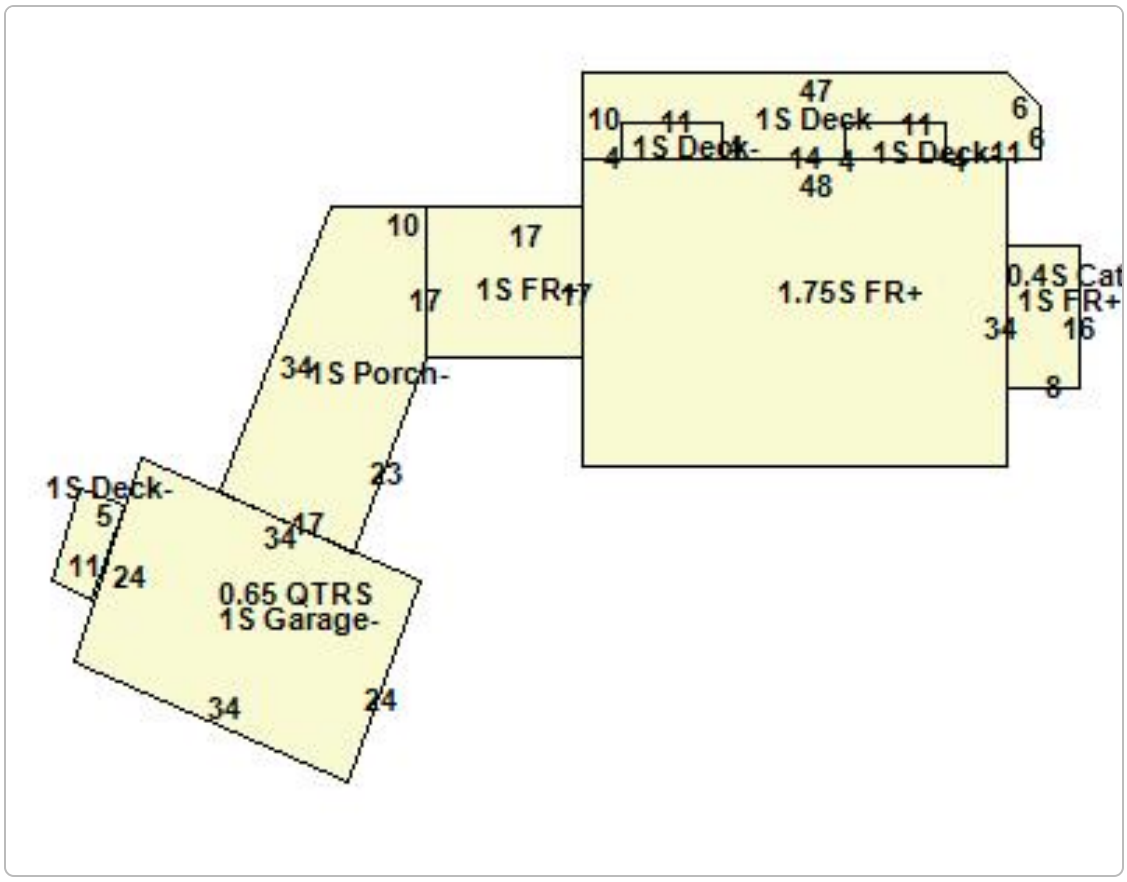
Sales History

Sale Date	Sale Price	Deed Book/Page	Reason	Valid Sale	Owner
6/6/2018	$0	0240/1112		No	UNDERWOOD H RAY + CAROL A TTES
6/6/2018	$0	0240/1114		No	UNDERWOOD H RAY + CAROL A TTES
6/28/2017	$0	/		No	UNDERWOOD H RAY + CAROL A

Permit Information

Permit ID	Issue Date	Type	Amount	Inspection Date	% Complete	Date Complete	Comments
23185	07-30-2020	Building	$0	1/1/1900 12:00:00 AM	0	08-31-2020	TRANSFER PERMIT 23018
23018	05-14-2020	Building	$20,000	1/1/1900 12:00:00 AM	0	06-30-2020	SWAP 3 ANTENNAS/3RRUS/ADD 2 HYBRID CABLES
20935	02-07-2017	Electrical	$5,400	1/1/1900 12:00:00 AM	100	03-13-2017	NW 200 AMP 120/240V SERV (OPN SOCKET AVLBL)
20611	08-04-2016	Building	$0	1/1/1900 12:00:00 AM	100	09-08-2016	ADD T-MOBILE EQUIP TELECOMM FACILITY
18828	12-04-2013	Mechanical	$5,000	1/1/1900 12:00:00 AM	100	06-04-2014	REPLC ANTENNA WITH NEWER MODEL
18583	09-13-2013	Electrical	$20,000	1/1/1900 12:00:00 AM	100	09-30-2013	REPLC 3 ATT ANT INSTALL 6 RHH UNITS W. 6 ANT MODIFY TWR
15215	07-25-2011	Electrical	$6,000	1/1/1900 12:00:00 AM	100	08-03-2011	UNDERGROUND SERVICE FROM METER BANK TO PROPOSED AT&T PREMANUFACTURED SHELTER
14485	06-09-2010	Mechanical	$3,000	1/1/1900 12:00:00 AM	100	07-22-2010	10 KW SOLAR SYSTEM
13096	12-21-2007		$250,000	1/1/1900 12:00:00 AM	100	01-01-1900	8205-15,000. APT #13122-ELECT TO TOWER 8327-APT MECH-$8,800.REDO MASTER BATH/CLOSET

Sketch



Photos

No data available for the following modules: Commercial Building.

Last Data Upload: 10/27/2020, 8:18:46 PM

Version 2.3.92

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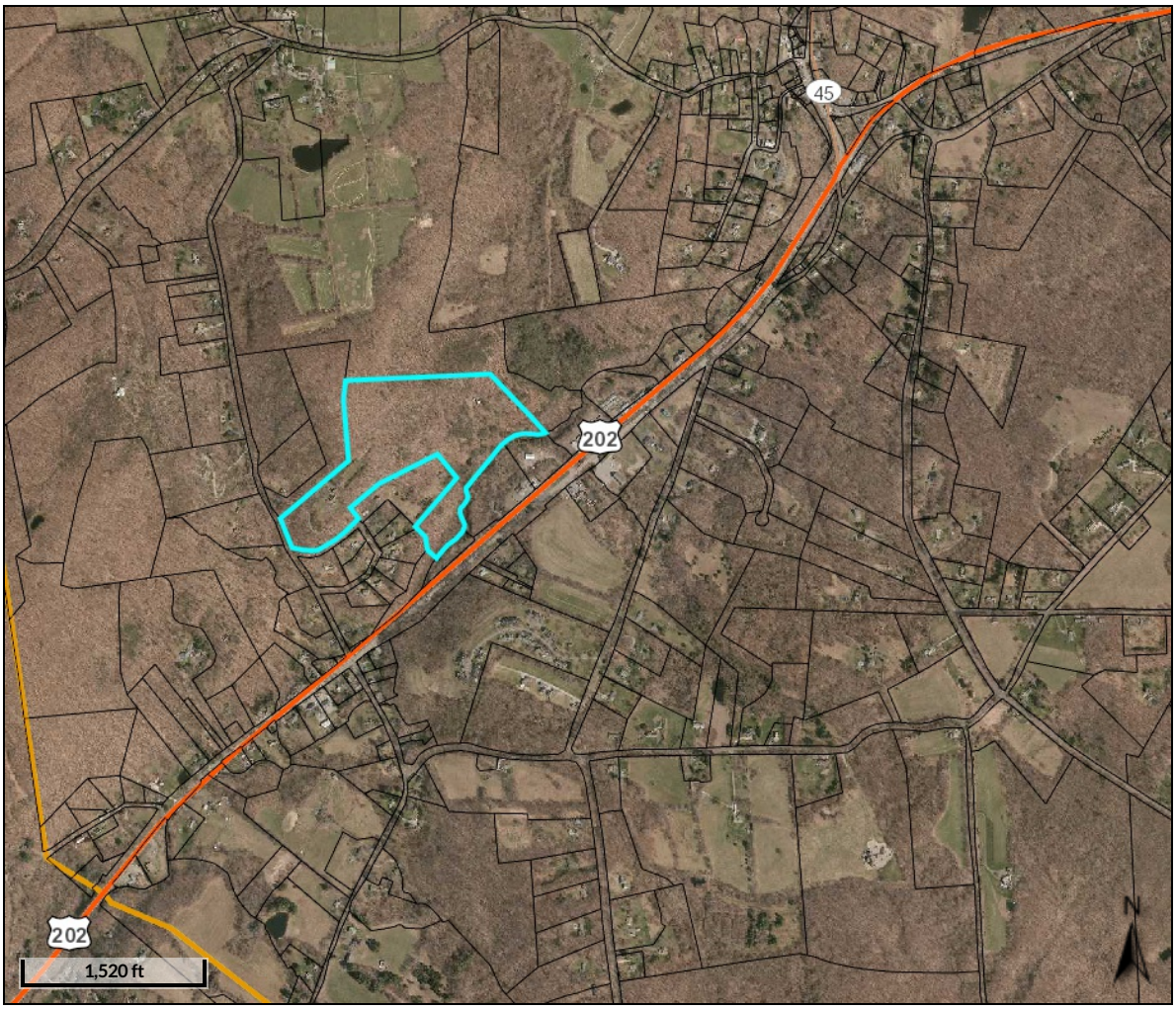
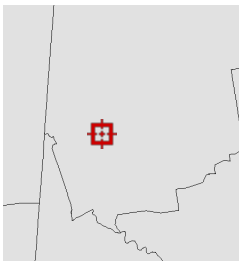


Overview



Legend

- Parcels
- Roads
- City Labels

Parcel ID	2228	**Alternate ID**	25dba2c5-4c8b-40	**Owner Address**	UNDERWOOD H RAY + CAROL A TTES
Sec/Twp/Rng	n/a	**Class**	Residential		PO BOX 2427
Property Address	6 MOUNTAIN RD	**Acreage**	32.08		NEW PRESTON, CT 06777
District	n/a				
Brief Tax Description	n/a				
	(Note: Not to be used on legal documents)				

Date created: 10/28/2020
Last Data Uploaded: 10/27/2020 8:18:46 PM

Developed by Schneider GEOSPATIAL

EXHIBIT 5

Lawrence Behr Associates INC
www.lbagroup.com

Radio Frequency Emissions Report

SITE NAME:

413782 Washington North CT

LOCATION:

New Preston, Connecticut

COMPANY:

American Tower Corporation
Woburn, Massachusetts

September 14th, 2020

3400 Tupper Drive | Greenville, NC 27834
252-757-0279 | 800-522-4464 | lbagrp@lbagroup.com

Contents

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413782 Washington North CT

New Preston, Connecticut

INTRODUCTION

Lawrence Behr Associates, Inc. (LBA) has been retained by American Tower Corporation (ATC) of Woburn, Massachusetts to evaluate the RF emissions of an existing tower at this location. AT&T is adding emitters to this site and the purpose of this study is to determine if, after the addition of the AT&T emitters, the site is in Compliance with FCC Regulations. This study determined that THIS SITE IS IN COMPLIANCE with Federal Regulations.

Details regarding the FCC Rules and the methodology used to determine compliance may be seen below.

SITE AND FACILITY CONSIDERATIONS

Site 413782 Washington North CT is located at 6 Mountain Road in New Preston, Connecticut at coordinates 41.66914, -73.36528. The support structure is a 168' monopole.

All data used in this study was provided by one or more of the following sources:

1. ATC furnished data
2. Compiled from carrier and manufacturer standard configurations
3. Empirical data collected by LBA

AT&T proposes to add antennas to the tower at the 167' level. The structure already supports several antennas, but it does not support any other transmitters. Only the AT&T facility will transmit from this site. This study only considers the new AT&T facility in detail.

The load list may be seen in Appendix 1. Appendix 2 contains the AT&T channel counts, frequency bands, and power levels. AT&T Antenna information may be seen in Appendix 3.

POWER DENSITY CALCULATIONS

Based upon the provided information and the FCC limits for exposure as outlined in 47 CFR 1.1307(b)(1) - (b)(3), the power levels and percentages of the FCC's allowable general population limit are shown in Appendix 4. Calculations were done at industry standard average head height of six feet above ground level.

A summary of the power density from all emitters may be seen in Appendix 5.

These limits are based upon the Information Relating to MPE Standards found in Appendix 6. Study methodology may be seen in Appendix 7, which describes the Non-Ionizing Radiation Prediction Models. Approximate radiation patterns may be found in Appendix 5. This site ***IS*** in compliance with FCC OET-65 MPE limits.

September 14th, 2020

Kathryn G. Tesh
Wireless Services Manager

APPENDIX 1 *Load List*

Proposed	Customer	RAD Height (ft)	Equipment Quantity	Equipment Type	Manufacturer	Model Number	Line Quantity	Line size	Mount Type	Azimuths	TX Frequency	RX Frequency
No	AT&T MOBILITY	168	3	PANEL	Powerwave Allgon	P90-14-XLH-RR (7.3" Depth)	12	1 5/8" Coax	Collar	40, 150, 280		
Yes	AT&T MOBILITY	167	3	PANEL	CCI	DMP65R-BU4D			Leg/Flush	40/150/280	1745-1755, 1770-1780, 1850, 704-716, 824-845, 869-890	2145-2155, 2170-2180, 728-746, 845-849-890-894
Yes	AT&T MOBILITY	167	3	PANEL	CCI	OPA65R-BU4DA-K	6	1 5/8" Coax	Leg/Flush	40/150/280	1850-1865, 1885-1910, 704-716, 824-845, 869-890	1930-1945, 1965-1990, 728-746, 845-849-890-894
No	AT&T MOBILITY	164	1	PANEL	KMW	AM-X-CD-17-65-00T-RET			Leg/Flush	40, 150, 280		
No	AT&T MOBILITY	164	2	PANEL	Kathrein Scala	800-10864K			T-Arm	40, 150, 280		
No	VERIZON WIRELESS	157	3	PANEL	Andrew	DBXNH-6565A-VTM	12	1 5/8" Coax	Stand-Off	60/180/310		
No	VERIZON WIRELESS	146	3	PANEL	Antel	BXA-70063/6CF__2°	6	1 5/8" Coax	Stand-Off	60/180/310		

APPENDIX 2

AT&T Channels Used

Antenna	Technology	Frequency Band	Channel Count	Transmitter Power per Channel (W)
AT&T A1	LTE	1700	1	40
AT&T A2	LTE	1700	1	40
AT&T A3	LTE	1800	1	40
AT&T A4	LTE	700	1	40
AT&T A5	UMTS	850	1	40
AT&T A6	UMTS	850	1	40
AT&T A7	LTE	1800	1	40
AT&T A8	LTE	1800	1	40
AT&T A9	LTE	700	1	40
AT&T A10	UMTS	850	1	40
AT&T A11	UMTS	850	1	40
AT&T B1	LTE	1700	1	40
AT&T B2	LTE	1700	1	40
AT&T B3	LTE	1800	1	40
AT&T B4	LTE	700	1	40
AT&T B5	UMTS	850	1	40
AT&T B6	UMTS	850	1	40
AT&T B7	LTE	1800	1	40
AT&T B8	LTE	1800	1	40
AT&T B9	LTE	700	1	40
AT&T B10	UMTS	850	1	40
AT&T B11	UMTS	850	1	40
AT&T C1	LTE	1700	1	40
AT&T C2	LTE	1700	1	40
AT&T C3	LTE	1800	1	40
AT&T C4	LTE	700	1	40
AT&T C5	UMTS	850	1	40
AT&T C6	UMTS	850	1	40
AT&T C7	LTE	1800	1	40
AT&T C8	LTE	1800	1	40
AT&T C9	LTE	700	1	40
AT&T C10	UMTS	850	1	40
AT&T C11	UMTS	850	1	40

APPENDIX 3

AT&T Antenna Information

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	AT&T A1	CCI DMP65R-BU4D	167
A	AT&T A2	CCI DMP65R-BU4D	167
A	AT&T A3	CCI DMP65R-BU4D	167
A	AT&T A4	CCI DMP65R-BU4D	167
A	AT&T A5	CCI DMP65R-BU4D	167
A	AT&T A6	CCI DMP65R-BU4D	167
A	AT&T A7	CCI OPA65R-BU4DA-K	167
A	AT&T A8	CCI OPA65R-BU4DA-K	167
A	AT&T A9	CCI OPA65R-BU4DA-K	167
A	AT&T A10	CCI OPA65R-BU4DA-K	167
A	AT&T A11	CCI OPA65R-BU4DA-K	167
B	AT&T B1	CCI DMP65R-BU4D	167
B	AT&T B2	CCI DMP65R-BU4D	167
B	AT&T B3	CCI DMP65R-BU4D	167
B	AT&T B4	CCI DMP65R-BU4D	167
B	AT&T B5	CCI DMP65R-BU4D	167
B	AT&T B6	CCI DMP65R-BU4D	167
B	AT&T B7	CCI OPA65R-BU4DA-K	167
B	AT&T B8	CCI OPA65R-BU4DA-K	167
B	AT&T B9	CCI OPA65R-BU4DA-K	167
B	AT&T B10	CCI OPA65R-BU4DA-K	167
B	AT&T B11	CCI OPA65R-BU4DA-K	167
C	AT&T C1	CCI DMP65R-BU4D	167
C	AT&T C2	CCI DMP65R-BU4D	167
C	AT&T C3	CCI DMP65R-BU4D	167
C	AT&T C4	CCI DMP65R-BU4D	167
C	AT&T C5	CCI DMP65R-BU4D	167
C	AT&T C6	CCI DMP65R-BU4D	167
C	AT&T C7	CCI OPA65R-BU4DA-K	167
C	AT&T C8	CCI OPA65R-BU4DA-K	167
C	AT&T C9	CCI OPA65R-BU4DA-K	167
C	AT&T C10	CCI OPA65R-BU4DA-K	167
C	AT&T C11	CCI OPA65R-BU4DA-K	167

APPENDIX 4

FCC OET-65 MPE Limit Study

Antenna ID	Antenna Make / Model	Frequency Band	Antenna Gain (dBd)	Antenna Height (ft)	Channel Count	TX Power (W)	ERP (W) (All Channels)	Total Power Density (µW/cm²)	Allowable Public MPE (µW/cm²)	Public MPE%
AT&T A1	CCI DMP65R-BU4D	1700	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T A2	CCI DMP65R-BU4D	1700	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T A3	CCI DMP65R-BU4D	1800	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T A4	CCI DMP65R-BU4D	700	11.85	167	1	40	1004.75	0.055556	466.67	0.011905%
AT&T A5	CCI DMP65R-BU4D	850	12.45	167	1	40	1153.61	0.0637869	566.67	0.011257%
AT&T A6	CCI DMP65R-BU4D	850	12.45	167	1	40	1153.61	0.0637869	566.67	0.011257%
AT&T A7	CCI OPA65R-BU4DA-K	1800	15.95	167	1	40	2582.62	0.1556786	1000.00	0.015568%
AT&T A8	CCI OPA65R-BU4DA-K	1800	15.95	167	1	40	2582.62	0.1556786	1000.00	0.015568%
AT&T A9	CCI OPA65R-BU4DA-K	700	12.15	167	1	40	1076.61	0.0595294	466.67	0.012756%
AT&T A10	CCI OPA65R-BU4DA-K	850	12.65	167	1	40	1207.98	0.0732933	566.67	0.012934%
AT&T A11	CCI OPA65R-BU4DA-K	850	12.65	167	1	40	1207.98	0.0732933	566.67	0.012934%
AT&T B1	CCI DMP65R-BU4D	1700	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T B2	CCI DMP65R-BU4D	1700	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T B3	CCI DMP65R-BU4D	1800	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T B4	CCI DMP65R-BU4D	700	11.85	167	1	40	1004.75	0.055556	466.67	0.011905%
AT&T B5	CCI DMP65R-BU4D	850	12.45	167	1	40	1153.61	0.0637869	566.67	0.011257%
AT&T B6	CCI DMP65R-BU4D	850	12.45	167	1	40	1153.61	0.0637869	566.67	0.011257%
AT&T B7	CCI OPA65R-BU4DA-K	1800	15.95	167	1	40	2582.62	0.1556786	1000.00	0.015568%
AT&T B8	CCI OPA65R-BU4DA-K	1800	15.95	167	1	40	2582.62	0.1556786	1000.00	0.015568%
AT&T B9	CCI OPA65R-BU4DA-K	700	12.15	167	1	40	1076.61	0.0595294	466.67	0.012756%
AT&T B10	CCI OPA65R-BU4DA-K	850	12.65	167	1	40	1207.98	0.0732933	566.67	0.012934%
AT&T B11	CCI OPA65R-BU4DA-K	850	12.65	167	1	40	1207.98	0.0732933	566.67	0.012934%
AT&T C1	CCI DMP65R-BU4D	1700	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T C2	CCI DMP65R-BU4D	1700	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
AT&T C3	CCI DMP65R-BU4D	1800	15.55	167	1	40	2355.37	3.7196235	1000.00	0.371962%
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AT&T C5	CCI DMP65R-BU4D	850	12.45	167	1	40	1153.61	0.0637869	566.67	0.011257%
AT&T C6	CCI DMP65R-BU4D	850	12.45	167	1	40	1153.61	0.0637869	566.67	0.011257%
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AT&T C8	CCI OPA65R-BU4DA-K	1800	15.95	167	1	40	2582.62	0.1556786	1000.00	0.015568%
AT&T C9	CCI OPA65R-BU4DA-K	700	12.15	167	1	40	1076.61	0.0595294	466.67	0.012756%
AT&T C10	CCI OPA65R-BU4DA-K	850	12.65	167	1	40	1207.98	0.0732933	566.67	0.012934%
AT&T C11	CCI OPA65R-BU4DA-K	850	12.65	167	1	40	1207.98	0.0732933	566.67	0.012934%
AT&T All Sectors									**Total:**	**3.6602%**

APPENDIX 5

Summary of Power Density

Carriers	Power Density Value (% of General Population)
AT&T All Sectors:	3.6602%
Other Carriers:	0.0000%
Site Total:	3.6602%
Site Compliance Status:	Compliant

APPENDIX 6

Information Pertaining to MPE Studies

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

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

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

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

MPE limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm^2), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). The far-field of a transmitting antenna is where the electric field vector (E), the

magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

The FCC guidelines define two separate tiers of exposure limits. As defined by the FCC, these limits are:

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

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

For the purposes of this study, only General population/uncontrolled exposure limits were studied.

APPENDIX 7

MPE Standards Methodology

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

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

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

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

Where:
f = frequency
* = Plane-wave equivalent power density

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

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

Where:
f = frequency
* = Plane-wave equivalent power density

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

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

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

has a curvature but it appears to occupy a flat plane in space (plane-wave radiation). This region is known as the Far Field.

Two models are utilized to predict Near and Far field power densities. They are based on the formulae in FCC OET 65. As this study is concerned only with Near Field calculations, we will only describe the model used for this study. For additional details, refer to FCC OET Bulletin 65.

Cylindrical Model (Near Field Predictions)

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

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

Where:
S = Power Density
P = Total Power into antenna
R = Distance from the antenna
L = Antenna aperture length

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

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

Where:
S = Power Density
θ_{BW} = Beam width of antenna in degrees (3 dB half-power point)
P = Total Power into antenna
R = Distance from the antenna
L = Antenna aperture length

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

Spherical Model (Far Field Predictions)

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

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

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

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

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

Where:
S = Power Density
EIRP = Effective Radiated Power from antenna
Rc = Reflection Coefficient (2.56)
R = Distance from the antenna

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

EXHIBIT 6

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**168.6 ft Monopole**
ATC Site Name	:	**Washington North CT, CT**
ATC Asset Number	:	**413782**
Engineering Number	:	**13211690_C3_04**
Proposed Carrier	:	**AT&T MOBILITY**
Carrier Site Name	:	**MRCTB046503**
Carrier Site Number	:	**CTL02550**
Site Location	:	**6 Mountain Road** **New Preston, CT 06777-1518** **41.669100,-73.365300**
County	:	**Litchfield**
Date	:	**June 26, 2020**
Max Usage	:	**83%**
Result	:	**Pass**

Prepared By:
Steven Nedrud
Structural Engineer

Reviewed By:

Authorized by "EOR"
26 Oct 2020 09:26:10 cosign

COA: PEC.0001553

AMERICAN TOWER®
CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 168.6 ft monopole to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawings	EEI Job #15143, dated October 24, 2007
Foundation Drawing	EEI Job #15143, dated October 24, 2007
Geotechnical Report	JGI Project #J2075402, dated October 10, 2007
Modifications	Centek Project #13046, Rev 3, dated August 19, 2013
Mount Analysis	Infinigy Job #1009-Z0003-B, dated October 7, 2020

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:	114 mph (3-Second Gust, Vult)
Basic Wind Speed w/ Ice:	40 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
Crest Height (H):	0 ft
Spectral Response:	Ss = 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
167.0	-	-	-	(1) 0.39" (10mm) Fiber Trunk (2) 0.78" (19.7mm) 8 AWG 6 (6) 1 5/8" Coax	AT&T MOBILITY
157.0	3	Andrew DBXNH-6565A-VTM	Stand-Off	(12) 1 5/8" Coax	VERIZON WIRELESS
146.0	1	VZW Unused Reserve (10800.84 sqin)	Stand-Off	(6) 1 5/8" Coax	
	3	Antel BXA-70063/6CF ___ 2°			
136.0	3	RFS APXVAARR24_43-U-NA20	T-Arm	(3) 1 5/8" (1.63"-41.3mm) Fiber	T-MOBILE
	3	RFS APXV18-206516S-C-A20			
	3	Ericsson Radio 4449 B12,B71			
	3	Ericsson RRUS 11 B2			

Equipment to be Removed

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
167.0	12	Generic RCU (Remote Control Unit)	-	(6) 1 5/8" Coax	AT&T MOBILITY
	6	Powerwave Allgon TT08-19DB111-001			
	2	Kathrein Scala 800-10864K			
	1	KMW AM-X-CD-17-65-00T-RET			
	3	Powerwave Allgon P90-14-XLH-RR (7.3" Depth)			
	6	Ericsson RRUS 11 B2			

Proposed Equipment

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
167.0	3	Kaelus DBCT108F1V92-1	Side Arm	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (3) 2" conduit	AT&T MOBILITY
	2	Raycap DC6-48-60-18-8F ("Squid")			
	3	Ericsson Radio 8843 - B2 + B66A			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4449 B5, B12			
	3	CCI DMP65R-BU4D			
	3	CCI OPA65R-BU4DA-K			

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

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	46 %	Pass
Shaft	83 %	Pass
Base Plate	19 %	Pass
Flange Bolts	15 %	Pass
Flange Plate	16 %	Pass

Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	2,398.5	1,948.1	81%
Shear (Kips)	23.6	16.7	71%

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
167.0	Kaelus DBCT108F1V92-1	AT&T MOBILITY	3.188	2.089
	Raycap DC6-48-60-18-8F ("Squid")			
	Ericsson Radio 8843 - B2 + B66A			
	Ericsson RRUS 4478 B14			
	Ericsson RRUS 4449 B5, B12			
	CCI DMP65R-BU4D			
	CCI OPA65R-BU4DA-K			

***Deflection 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.

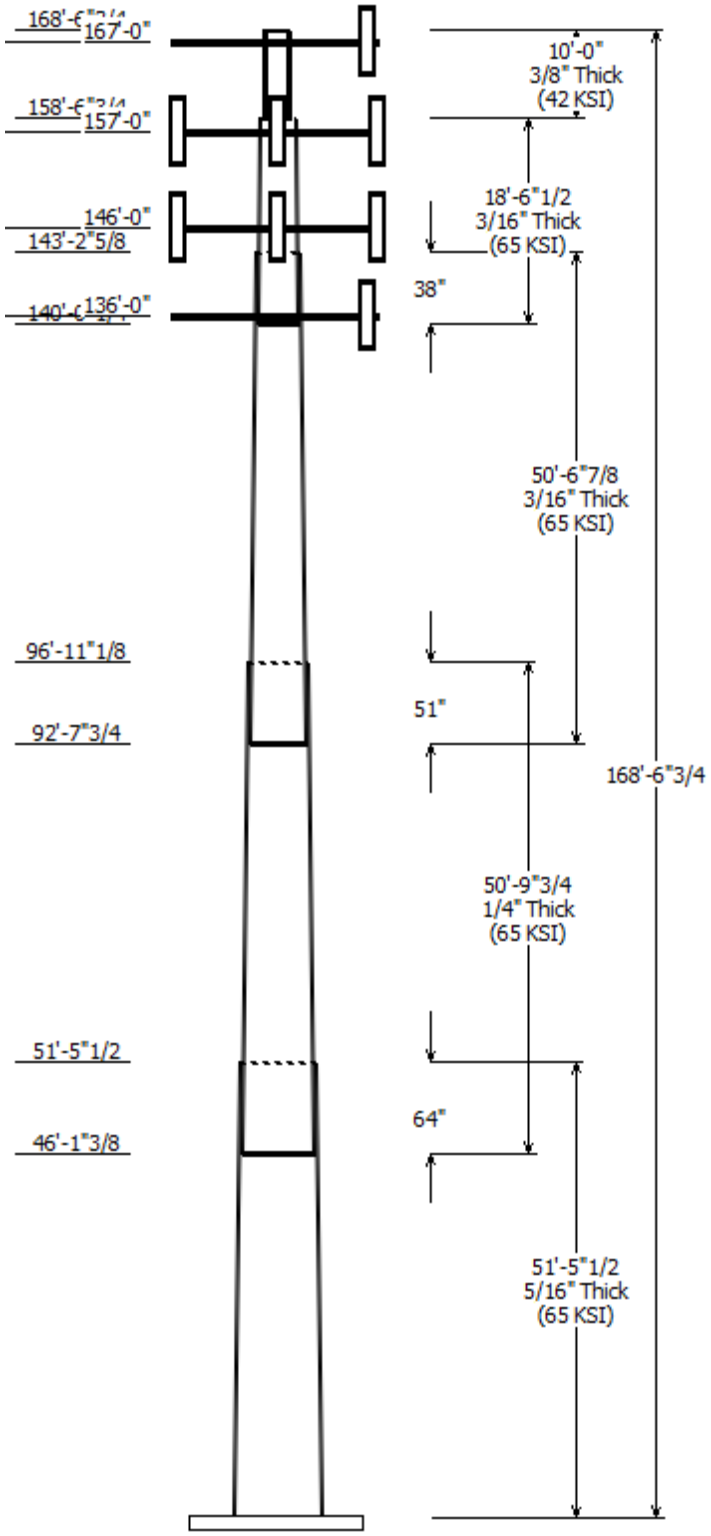
All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with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

Job Information

Client :	AT&T MOBILITY		
Pole :	413782	Code:	ANSI/TIA-222-H
Location :	Washington North CT, CT		
Description :	159 ft EEI Monopole with 10' ext	Risk Category :	II
Shape :	18 Sides	Exposure :	B
Height :	168.56 (ft)	Topo Method :	Method 1
Base Elev (ft):	0.00	Topographic Category :	1
Taper:	0.190776 (in/ft)		



Sections Properties

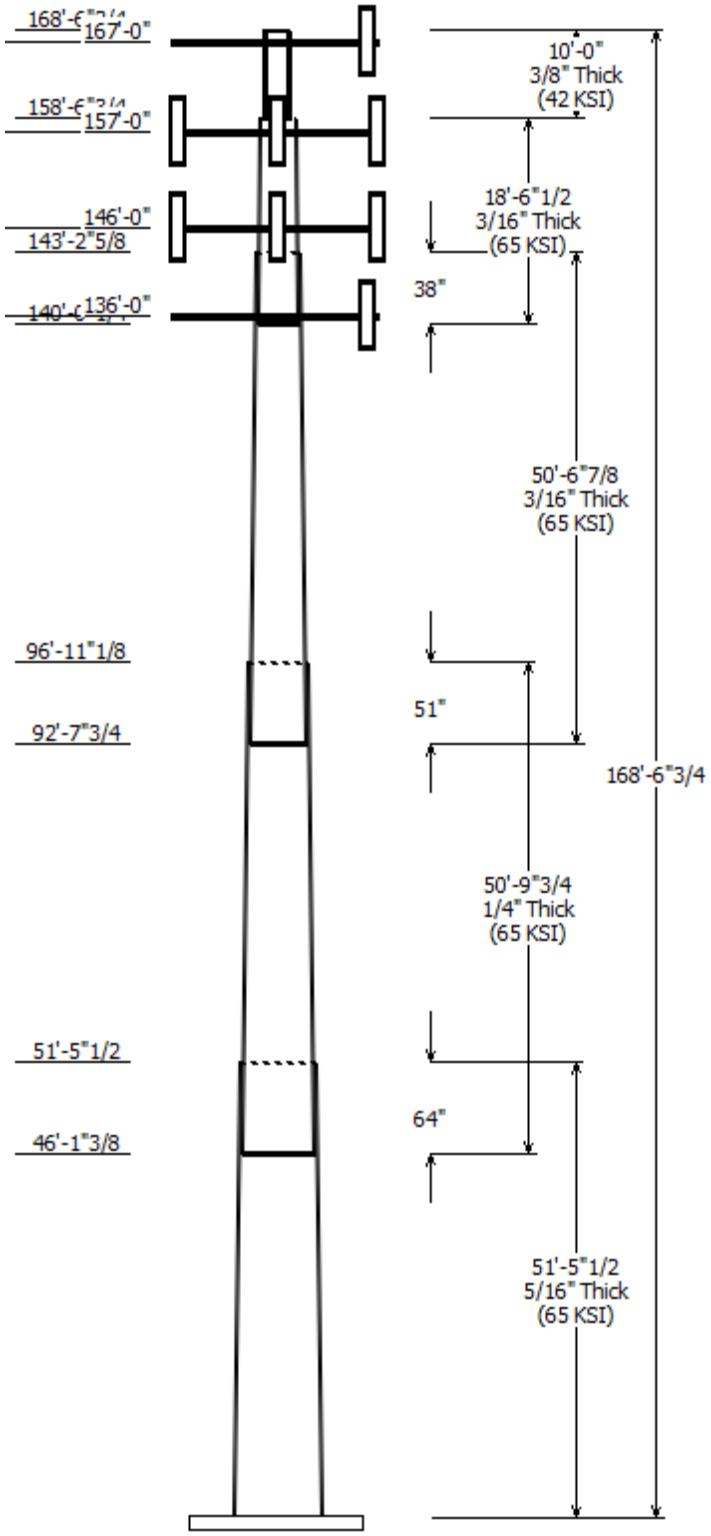
Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	51.458	37.18	47.00	0.313		0.000	18 Sides	65
2	50.810	29.00	38.70	0.250	Slip Joint	64.094	18 Sides	65
3	50.573	20.55	30.20	0.188	Slip Joint	51.375	18 Sides	65
4	18.542	18.00	21.53	0.188	Slip Joint	38.375	18 Sides	65
5	10.000	12.75	12.75	0.375	Butt Joint	0.000	Round	42

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
167.000	167.000	3	CCI OPA65R-BU4DA-K
167.000	167.000	3	CCI DMP65R-BU4D
167.000	167.000	3	Ericsson RRUS 4449 B5, B12
167.000	167.000	3	Ericsson RRUS 4478 B14
167.000	167.000	3	Ericsson Radio 8843 - B2 + B66
167.000	164.000	2	Raycap DC6-48-60-18-8F
167.000	167.000	3	Kaelus DBCT108F1V92-1
167.000	167.000	3	Generic Round Side Arm
157.000	157.000	3	Stand-Off
157.000	157.000	3	Andrew DBXNH-6565A-VTM
146.000	146.000	1	VZW Unused Reserve
146.000	146.000	3	Stand-Off
146.000	146.000	3	Antel BXA-70063/6CF __ 2°
136.000	136.000	3	Flat T-Arm
136.000	136.000	3	RFS APXVAARR24_43-U-NA20
136.000	136.000	3	RFS APXV18-206516S-C-A20
136.000	136.000	3	Ericsson RRUS 11 B2
136.000	136.000	3	Ericsson Radio 4449 B12,B71

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
93.000	108.0	1" Thick Flat Plate	Yes
93.000	108.0	1" Thick Flat Plate	Yes
93.000	108.0	1" Thick Flat Plate	Yes
46.500	76.500	1" Thick Flat Plate	Yes
46.500	76.500	1" Thick Flat Plate	Yes
46.500	76.500	1" Thick Flat Plate	Yes
0.000	136.0	1 5/8" (1.63"-	No
0.000	146.0	1 5/8" Coax	No
0.000	157.0	1 5/8" Coax	No
0.000	167.0	0.39" (10mm)	No
0.000	167.0	0.39" (10mm)	Yes
0.000	167.0	0.78" (19.7mm) 8	No
0.000	167.0	0.78" (19.7mm) 8	Yes
0.000	167.0	1 5/8" Coax	Yes
0.000	167.0	2" conduit	No



Load Cases

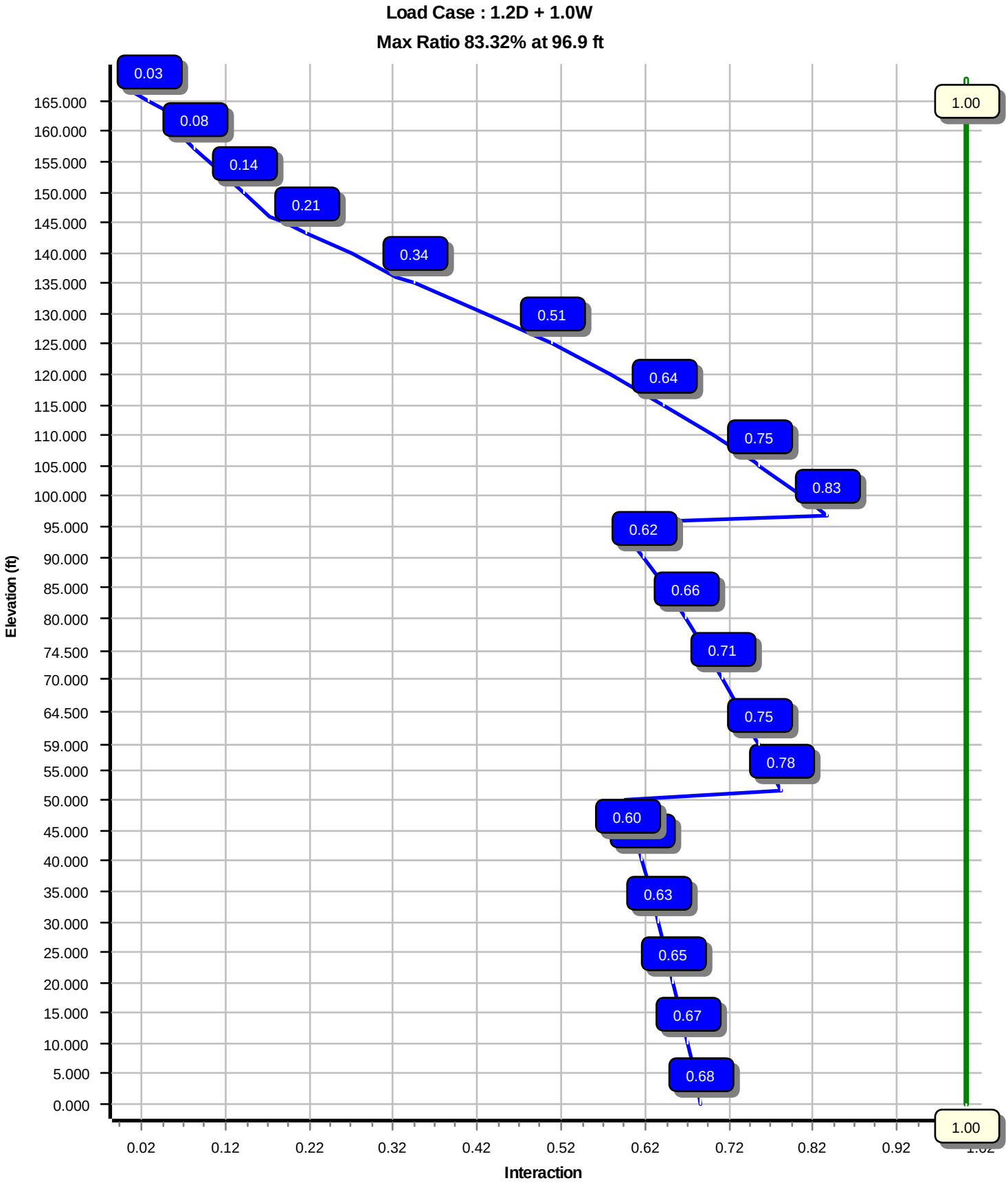
1.2D + 1.0W	114 mph with No Ice
0.9D + 1.0W	114 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	1948.11	16.68	32.09
0.9D + 1.0W	1909.71	16.66	24.06
1.2D + 1.0Di + 1.0Wi	377.65	3.23	44.80
1.2D + 1.0Ev + 1.0Eh	113.99	0.81	31.98
0.9D - 1.0Ev + 1.0Eh	111.13	0.80	22.19
1.0D + 1.0W	479.82	4.14	26.77

Dish Deflections

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


Load Case : 1.2D + 1.0W
Max Ratio 83.32% at 96.9 ft
0.03
0.08
0.14
0.21
0.34
0.51
0.64
0.75
0.83
0.62
0.66
0.71
0.75
0.78
0.60
0.63
0.65
0.67
0.68
1.00
1.00
165.000
160.000
155.000
150.000
145.000
140.000
135.000
130.000
125.000
120.000
115.000
110.000
105.000
100.000
95.000
90.000
85.000
80.000
74.500
70.000
64.500
59.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 413782 Code: ANSI/TIA-222-H

Site Name: Washington North CT, CT Engineering Number:13211690_C3_04 6/26/2020 9:31:36 AM

Customer: AT&T MOBILITY

Analysis Parameters

Location :	Litchfield County, CT	Height (ft) :	168.5625
Code :	ANSI/TIA-222-H	Base Diameter (in) :	47.00
Shape :	18 Sides. Sect 5: Round	Top Diameter (in) :	12.75
Pole Type :	Custom	Taper (in/ft) :	0.191
Pole Manfacturer :	EEI	Rotation (deg) :	0.00
Kd (non-service) :	0.95	Ke :	0.98

Ice & Wind Parameters

Exposure Category:	B	Design Wind Speed Without Ice:	114 mph
Risk Category:	II	Design Wind Speed With Ice:	40 mph
Topographic Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	693.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	3.22				
T_L (sec):	6	p:	1	C_s:	0.030
S_s:	0.187	S_1:	0.054	C_s Max:	0.030
F_a:	1.600	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.199	S_{d1}:	0.086		

Load Cases

1.2D + 1.0W	114 mph with No Ice
0.9D + 1.0W	114 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Site Number: 413782 Code: ANSI/TIA-222-H

Site Name: Washington North CT, CT Engineering Number:13211690_C3_04 6/26/2020 9:31:36 AM

Customer: AT&T MOBILITY

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	51.458	0.3125	65		0.00	7,256	47.00	0.00	46.31	12752.5	24.76	150.40	37.18	51.46	36.57	6281.0	19.22	118.99	0.190776
2-18	50.810	0.2500	65	Slip	64.09	4,610	38.70	46.12	30.51	5699.5	25.53	154.81	29.00	96.93	22.82	2384.4	18.70	116.03	0.190776
3-18	50.573	0.1875	65	Slip	51.38	2,580	30.20	92.65	17.86	2032.7	26.64	161.07	20.55	143.22	12.12	635.0	17.56	109.61	0.190776
4-18	18.542	0.1875	65	Slip	38.38	735	21.53	140.02	12.71	731.7	18.49	114.87	18.00	158.56	10.60	424.9	15.16	96.00	0.190776
5-R	10.000	0.3750	42	Butt	0.00	496	12.75	158.56	14.58	279.3	0.00	34.00	12.75	168.56	14.58	279.3	0.00	34.00	0.000000
				Shaft Weight		15,677													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
167.00	Kaelus DBCT108F1V92-1	3	0.80	0.000	13.90	0.633	0.50	30.88	1.001	0.50
167.00	Raycap DC6-48-60-18-8F	2	0.80	-3.000	31.80	1.470	1.00	73.44	1.941	1.00
167.00	Ericsson Radio 8843 - B2 + B66A	3	0.80	0.000	71.90	1.650	0.50	113.48	2.222	0.50
167.00	Ericsson RRUS 4478 B14	3	0.80	0.000	59.90	1.842	0.50	97.21	2.447	0.50
167.00	Ericsson RRUS 4449 B5, B12	3	0.80	0.000	71.00	1.969	0.50	114.49	2.598	0.50
167.00	Generic Round Side Arm	3	1.00	0.000	187.50	5.200	0.67	249.20	7.034	0.67
167.00	CCI DMP65R-BU4D	3	0.80	0.000	67.90	8.280	0.62	189.78	9.646	0.62
167.00	CCI OPA65R-BU4DA-K	3	0.80	0.000	52.50	8.435	0.62	176.21	9.811	0.62
157.00	Stand-Off	3	1.00	0.000	75.00	2.500	0.67	99.53	3.376	0.67
157.00	Andrew DBXNH-6565A-VTM	3	0.80	0.000	34.20	5.368	0.69	119.03	6.690	0.69
146.00	Stand-Off	3	1.00	0.000	75.00	2.500	0.67	99.36	3.370	0.67
146.00	Antel BXA-70063/6CF __ 2°	3	0.80	0.000	17.00	7.569	0.65	111.19	9.406	0.65
146.00	VZW Unused Reserve (10800.84	1	0.80	0.000	1,096.40	75.006	0.90	1,605.10	109.807	0.90
136.00	Ericsson Radio 4449 B12,B71	3	0.80	0.000	74.00	1.639	0.50	111.02	2.197	0.50
136.00	Ericsson RRUS 11 B2	3	0.80	0.000	50.70	2.791	0.67	98.58	3.516	0.67
136.00	RFS APXV18-206516S-C-A20	3	0.80	0.000	18.70	3.620	0.67	64.94	4.849	0.67
136.00	Flat T-Arm	3	0.67	0.000	250.00	12.900	0.67	388.21	18.308	0.67
136.00	RFS APXVAARR24_43-U-NA20	3	0.80	0.000	127.90	20.243	0.63	387.51	22.696	0.63
Totals	Num Loadings:18	51			4,901.30			9,103.84		

Linear Appurtenance Properties

Load Case Azimuth (deg) :

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	167.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	167.00	1	0.39" (10mm) Fiber	0.39	0.06	N	1	0.00	0.00	75	0.78	Y	AT&T MOBILITY
0.00	167.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	167.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	2	1.00	1.00	80	0.00	Y	AT&T MOBILITY
0.00	167.00	6	1 5/8" Coax	1.98	0.82	N	6	0.00	0.00	90	0.00	Y	AT&T MOBILITY
0.00	167.00	3	2" conduit	2.38	3.65	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	157.00	12	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	146.00	6	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	136.00	3	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0.00	0.00	0	0.00	N	T-MOBILE
93.00	108.00	1	1" Thick Flat Plate	1.00	0.00	Y	1	0.00	0.00	320	0.00	Y	
93.00	108.00	1	1" Thick Flat Plate	1.00	0.00	Y	1	0.00	0.00	80	0.00	Y	
93.00	108.00	1	1" Thick Flat Plate	1.00	0.00	Y	1	0.00	0.00	200	0.00	Y	
46.50	76.50	1	1" Thick Flat Plate	1.00	0.00	Y	1	0.00	0.00	140	0.00	Y	
46.50	76.50	1	1" Thick Flat Plate	1.00	0.00	Y	1	0.00	0.00	240	0.00	Y	

46.50	76.50	1	1" Thick Flat Plate	1.00	0.00	Y	1	0.00	0.00	10	0.00	Y		

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.3125	47.000	46.306	12,752.5	24.76	150.40	72.3	534.4	0.0	0.0
5.00		0.3125	46.046	45.360	11,986.7	24.22	147.35	72.9	512.7	0.0	779.8
10.00		0.3125	45.092	44.414	11,252.2	23.68	144.30	73.5	491.5	0.0	763.7
15.00		0.3125	44.138	43.468	10,548.4	23.14	141.24	74.2	470.7	0.0	747.6
20.00		0.3125	43.184	42.522	9,874.5	22.60	138.19	74.8	450.4	0.0	731.5
25.00		0.3125	42.231	41.576	9,229.9	22.07	135.14	75.4	430.5	0.0	715.4
30.00		0.3125	41.277	40.630	8,614.1	21.53	132.09	76.1	411.0	0.0	699.3
35.00		0.3125	40.323	39.684	8,026.2	20.99	129.03	76.7	392.0	0.0	683.2
40.00		0.3125	39.369	38.738	7,465.7	20.45	125.98	77.3	373.5	0.0	667.1
45.00		0.3125	38.415	37.792	6,932.0	19.91	122.93	78.0	355.4	0.0	651.0
46.12	Bot - Section 2	0.3125	38.202	37.580	6,816.3	19.79	122.25	78.1	351.4	0.0	143.3
49.00		0.3125	37.652	37.035	6,523.8	19.48	120.49	78.5	341.3	0.0	663.1
50.00		0.3125	37.461	36.846	6,424.3	19.37	119.88	78.6	337.8	0.0	227.8
51.46	Top - Section 1	0.2500	37.683	29.702	5,258.3	24.81	150.73	72.2	274.8	0.0	330.1
55.00		0.2500	37.007	29.166	4,978.7	24.34	148.03	72.8	265.0	0.0	354.7
59.00		0.2500	36.244	28.560	4,675.0	23.80	144.98	73.4	254.1	0.0	392.9
60.00		0.2500	36.053	28.409	4,601.1	23.67	144.21	73.6	251.4	0.0	96.9
64.50		0.2500	35.195	27.728	4,278.0	23.06	140.78	74.3	239.4	0.0	429.8
65.00		0.2500	35.100	27.652	4,243.0	22.99	140.40	74.4	238.1	0.0	47.1
70.00		0.2500	34.146	26.895	3,904.1	22.32	136.58	75.1	225.2	0.0	464.0
74.50		0.2500	33.287	26.214	3,614.9	21.71	133.15	75.9	213.9	0.0	406.6
75.00		0.2500	33.192	26.138	3,583.6	21.65	132.77	75.9	212.7	0.0	44.5
80.00		0.2500	32.238	25.381	3,281.3	20.97	128.95	76.7	200.5	0.0	438.3
85.00		0.2500	31.284	24.625	2,996.4	20.30	125.14	77.5	188.6	0.0	425.4
90.00		0.2500	30.330	23.868	2,728.5	19.63	121.32	78.3	177.2	0.0	412.5
92.65	Bot - Section 3	0.2500	29.825	23.467	2,593.4	19.27	119.30	78.7	171.3	0.0	213.1
95.00		0.2500	29.376	23.111	2,477.1	18.96	117.50	79.1	166.1	0.0	328.6
95.50		0.2500	29.281	23.035	2,452.8	18.89	117.12	79.2	165.0	0.0	69.1
96.93	Top - Section 2	0.1875	29.384	17.375	1,871.2	25.87	156.71	71.0	125.4	0.0	196.1
100.0		0.1875	28.797	17.026	1,760.7	25.32	153.59	71.6	120.4	0.0	179.9
105.0		0.1875	27.843	16.458	1,590.4	24.42	148.50	72.7	112.5	0.0	284.8
105.5		0.1875	27.748	16.401	1,574.0	24.33	147.99	72.8	111.7	0.0	28.0
110.0		0.1875	26.890	15.891	1,431.5	23.52	143.41	73.7	104.9	0.0	247.2
115.0		0.1875	25.936	15.323	1,283.5	22.63	138.32	74.8	97.5	0.0	265.5
120.0		0.1875	24.982	14.755	1,146.0	21.73	133.24	75.8	90.4	0.0	255.9
125.0		0.1875	24.028	14.188	1,018.8	20.83	128.15	76.9	83.5	0.0	246.2
130.0		0.1875	23.074	13.620	901.3	19.94	123.06	78.0	76.9	0.0	236.6
135.0		0.1875	22.120	13.052	793.3	19.04	117.97	79.0	70.6	0.0	226.9
136.0		0.1875	21.929	12.939	772.7	18.86	116.96	79.2	69.4	0.0	44.2
140.0		0.1875	21.166	12.485	694.2	18.14	112.89	80.1	64.6	0.0	173.0
140.0	Bot - Section 4	0.1875	21.162	12.482	693.8	18.14	112.87	80.1	64.6	0.0	0.9
143.2	Top - Section 3	0.1875	20.927	12.342	670.7	17.92	111.61	80.3	63.1	0.0	270.1
145.0		0.1875	20.587	12.140	638.3	17.60	109.80	80.7	61.1	0.0	74.2
146.0		0.1875	20.397	12.027	620.6	17.42	108.78	80.9	59.9	0.0	41.1
150.0		0.1875	19.634	11.572	552.9	16.70	104.71	81.8	55.5	0.0	160.6
155.0		0.1875	18.680	11.005	475.5	15.80	99.62	82.6	50.1	0.0	192.1
157.0		0.1875	18.298	10.778	446.6	15.44	97.59	82.6	48.1	0.0	74.1
158.5	Top - Section 4	0.1875	18.000	10.600	424.9	15.16	96.00	82.6	46.5	0.0	56.8
158.5	Bot - Section 5	0.3750	12.750	14.579	279.3	0.00	34.00	42.0	43.8	57.4	
160.0		0.3750	12.750	14.579	279.3	0.00	34.00	42.0	43.8	57.4	71.3
165.0		0.3750	12.750	14.579	279.3	0.00	34.00	42.0	43.8	57.4	248.0
167.0		0.3750	12.750	14.579	279.3	0.00	34.00	42.0	43.8	57.4	99.2
168.5		0.3750	12.750	14.579	279.3	0.00	34.00	42.0	43.8	57.4	77.5
											15,677.0

Load Case: 1.2D + 1.0W — 114 mph with No Ice — 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		170.5	0.0					0.0	0.0	170.5	0.0	0.0	0.0
5.00		337.5	935.8					0.0	235.1	337.5	1,170.8	0.0	0.0
10.00		330.5	916.5					0.0	235.1	330.5	1,151.5	0.0	0.0
15.00		323.6	897.1					0.0	235.1	323.6	1,132.2	0.0	0.0
20.00		316.6	877.8					0.0	235.1	316.6	1,112.9	0.0	0.0
25.00		309.6	858.5					0.0	235.1	309.6	1,093.6	0.0	0.0
30.00		306.2	839.2					0.0	235.1	306.2	1,074.3	0.0	0.0
35.00		308.9	819.9					0.0	235.1	308.9	1,054.9	0.0	0.0
40.00		313.4	800.6					0.0	235.1	313.4	1,035.6	0.0	0.0
45.00		193.0	781.2					0.0	235.1	193.0	1,016.3	0.0	0.0
46.12	Bot - Section 2	128.1	171.9					0.0	52.5	128.1	224.4	0.0	0.0
49.00		124.9	795.8					0.0	135.5	124.9	931.3	0.0	0.0
50.00		79.2	273.3					0.0	47.0	79.2	320.3	0.0	0.0
51.46	Top - Section 1	161.3	396.1					0.0	68.6	161.3	464.7	0.0	0.0
55.00		243.4	425.7					0.0	166.5	243.4	592.2	0.0	0.0
59.00		161.4	471.4					0.0	188.1	161.4	659.5	0.0	0.0
60.00		177.1	116.3					0.0	47.0	177.1	163.3	0.0	0.0
64.50		160.9	515.8					0.0	211.6	160.9	727.3	0.0	0.0
65.00		176.2	56.5					0.0	23.5	176.2	80.0	0.0	0.0
70.00		303.2	556.8					0.0	235.1	303.2	791.9	0.0	0.0
74.50		158.9	487.9					0.0	211.6	158.9	699.5	0.0	0.0
75.00		173.2	53.4					0.0	23.5	173.2	77.0	0.0	0.0
80.00		312.9	525.9					0.0	235.1	312.9	761.0	0.0	0.0
85.00		309.0	510.5					0.0	235.1	309.0	745.6	0.0	0.0
90.00		233.7	495.0					0.0	235.1	233.7	730.1	0.0	0.0
92.65	Bot - Section 3	152.0	255.7					0.0	124.4	152.0	380.1	0.0	0.0
95.00		86.9	394.3					0.0	110.7	86.9	505.0	0.0	0.0
95.50		58.3	83.0					0.0	23.5	58.3	106.5	0.0	0.0
96.93	Top - Section 2	135.2	235.3					0.0	67.1	135.2	302.4	0.0	0.0
100.00		239.7	215.8					0.0	144.5	239.7	360.3	0.0	0.0
105.00		162.2	341.8					0.0	235.1	162.2	576.9	0.0	0.0
105.50		144.6	33.5					0.0	23.5	144.6	57.1	0.0	0.0
110.00		271.3	296.7					0.0	211.6	271.3	508.3	0.0	0.0
115.00		279.3	318.6					0.0	235.1	279.3	553.7	0.0	0.0
120.00		272.3	307.0					0.0	235.1	272.3	542.1	0.0	0.0
125.00		265.0	295.5					0.0	235.1	265.0	530.5	0.0	0.0
130.00		257.3	283.9					0.0	235.1	257.3	518.9	0.0	0.0
135.00		151.6	272.3					0.0	235.1	151.6	507.4	0.0	0.0
136.00	Appurtenance(s)	122.7	53.1	2,204.3	0.0	0.0	1,876.7	0.0	47.0	2,327.0	1,976.8	0.0	0.0
140.00		98.3	207.6					0.0	164.9	98.3	372.5	0.0	0.0
140.02	Bot - Section 4	78.1	1.1					0.0	0.9	78.1	1.9	0.0	0.0
143.22	Top - Section 3	120.1	324.2					0.0	131.8	120.1	456.0	0.0	0.0
145.00		66.1	89.0					0.0	73.4	66.1	162.5	0.0	0.0
146.00	Appurtenance(s)	116.3	49.3	2,644.5	0.0	0.0	1,646.9	0.0	41.2	2,760.8	1,737.4	0.0	0.0
150.00		204.5	192.7					0.0	141.3	204.5	334.0	0.0	0.0
155.00		156.1	230.5					0.0	176.6	156.1	407.1	0.0	0.0
157.00	Appurtenance(s)	78.6	88.9	530.4	0.0	0.0	393.1	0.0	70.6	609.0	552.7	0.0	0.0
158.56	Top - Section 4	57.6	68.2					0.0	36.7	57.6	104.9	0.0	0.0

Load Case: 1.2D + 1.0W 114 mph with No Ice 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

160.00		104.4	85.6					0.0	33.8	104.4	119.4	0.0	0.0
165.00		113.8	297.7					0.0	117.5	113.8	415.2	0.0	0.0
167.00	Appurtenance(s)	47.2	119.1	1,744.8	0.0	-272.3	1,964.9	0.0	47.0	1,792.0	2,131.0	0.0	0.0
168.56		14.5	93.0					0.0	0.0	14.5	93.0	0.0	0.0
								Totals:		16,791.1	32,123.8	0.00	0.00

Load Case: 1.2D + 1.0W 114 mph with No Ice 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-32.09	-16.68	0.00	-1,948.11	0.00	1,948.11	3,012.45	812.68	3,426.89	2,897.19	0.00	0.00	0.683
5.00	-30.86	-16.46	0.00	-1,864.71	0.00	1,864.71	2,976.75	796.07	3,288.31	2,803.97	0.11	-0.21	0.676
10.00	-29.65	-16.23	0.00	-1,782.42	0.00	1,782.42	2,939.96	779.47	3,152.58	2,711.17	0.45	-0.43	0.668
15.00	-28.46	-16.01	0.00	-1,701.26	0.00	1,701.26	2,902.10	762.87	3,019.72	2,618.85	1.02	-0.65	0.660
20.00	-27.29	-15.79	0.00	-1,621.22	0.00	1,621.22	2,863.16	746.26	2,889.71	2,527.08	1.82	-0.87	0.652
25.00	-26.14	-15.56	0.00	-1,542.29	0.00	1,542.29	2,823.15	729.66	2,762.56	2,435.92	2.85	-1.10	0.643
30.00	-25.01	-15.34	0.00	-1,464.49	0.00	1,464.49	2,782.05	713.05	2,638.28	2,345.43	4.13	-1.33	0.634
35.00	-23.90	-15.10	0.00	-1,387.81	0.00	1,387.81	2,739.88	696.45	2,516.86	2,255.68	5.65	-1.57	0.624
40.00	-22.81	-14.85	0.00	-1,312.32	0.00	1,312.32	2,696.63	679.85	2,398.29	2,166.74	7.42	-1.81	0.615
45.00	-21.76	-14.68	0.00	-1,238.07	0.00	1,238.07	2,652.30	663.24	2,282.59	2,078.66	9.45	-2.05	0.604
46.12	-21.52	-14.58	0.00	-1,221.67	0.00	1,221.67	2,642.25	659.53	2,257.13	2,059.10	9.93	-2.11	0.602
49.00	-20.57	-14.46	0.00	-1,179.63	0.00	1,179.63	2,616.06	649.96	2,192.09	2,008.86	11.25	-2.25	0.596
50.00	-20.23	-14.39	0.00	-1,165.17	0.00	1,165.17	2,606.89	646.64	2,169.75	1,991.50	11.73	-2.30	0.593
51.46	-19.75	-14.25	0.00	-1,144.19	0.00	1,144.19	1,930.41	521.27	1,762.37	1,488.56	12.44	-2.38	0.780
55.00	-19.11	-14.05	0.00	-1,093.72	0.00	1,093.72	1,910.28	511.86	1,699.33	1,446.27	14.27	-2.56	0.767
59.00	-18.42	-13.91	0.00	-1,037.51	0.00	1,037.51	1,886.89	501.23	1,629.51	1,398.71	16.52	-2.80	0.752
60.00	-18.23	-13.78	0.00	-1,023.60	0.00	1,023.60	1,880.94	498.58	1,612.29	1,386.85	17.11	-2.86	0.749
64.50	-17.47	-13.63	0.00	-961.59	0.00	961.59	1,853.61	486.62	1,535.90	1,333.70	19.94	-3.14	0.731
65.00	-17.36	-13.50	0.00	-954.78	0.00	954.78	1,850.52	485.29	1,527.53	1,327.82	20.27	-3.17	0.729
70.00	-16.52	-13.24	0.00	-887.28	0.00	887.28	1,819.02	472.01	1,445.06	1,269.24	23.76	-3.48	0.709
74.50	-15.80	-13.08	0.00	-827.72	0.00	827.72	1,789.75	460.06	1,372.80	1,216.96	27.17	-3.76	0.690
75.00	-15.69	-12.95	0.00	-821.19	0.00	821.19	1,786.45	458.73	1,364.88	1,211.17	27.56	-3.79	0.688
80.00	-14.89	-12.66	0.00	-756.46	0.00	756.46	1,752.79	445.44	1,286.99	1,153.69	31.70	-4.11	0.665
85.00	-14.10	-12.38	0.00	-693.14	0.00	693.14	1,718.06	432.16	1,211.39	1,096.84	36.17	-4.42	0.641
90.00	-13.34	-12.14	0.00	-631.26	0.00	631.26	1,682.25	418.88	1,138.07	1,040.71	40.96	-4.74	0.615
92.65	-12.94	-11.99	0.00	-599.14	0.00	599.14	1,662.87	411.85	1,100.20	1,011.31	43.63	-4.90	0.601
95.00	-12.43	-11.88	0.00	-570.90	0.00	570.90	1,645.36	405.60	1,067.05	985.34	46.08	-5.06	0.588
95.50	-12.31	-11.83	0.00	-564.96	0.00	564.96	1,641.61	404.27	1,060.07	979.85	46.61	-5.09	0.585
96.93	-11.99	-11.70	0.00	-548.08	0.00	548.08	1,109.83	304.93	804.08	667.66	48.15	-5.18	0.833
100.00	-11.60	-11.49	0.00	-512.13	0.00	512.13	1,097.48	298.80	772.11	646.89	51.54	-5.38	0.804
105.00	-11.00	-11.31	0.00	-454.70	0.00	454.70	1,076.52	288.84	721.49	613.24	57.37	-5.77	0.753
105.50	-10.92	-11.20	0.00	-449.04	0.00	449.04	1,074.37	287.84	716.52	609.89	57.98	-5.81	0.748
110.00	-10.37	-10.94	0.00	-398.65	0.00	398.65	1,054.48	278.88	672.58	579.83	63.61	-6.15	0.699
115.00	-9.79	-10.66	0.00	-343.95	0.00	343.95	1,031.36	268.92	625.39	546.71	70.24	-6.52	0.640
120.00	-9.22	-10.38	0.00	-290.64	0.00	290.64	1,007.16	258.95	579.92	513.96	77.24	-6.87	0.576
125.00	-8.67	-10.10	0.00	-238.72	0.00	238.72	981.89	248.99	536.16	481.64	84.60	-7.20	0.506
130.00	-8.14	-9.82	0.00	-188.20	0.00	188.20	955.53	239.03	494.12	449.82	92.28	-7.50	0.429
135.00	-7.63	-9.62	0.00	-139.09	0.00	139.09	928.10	229.07	453.79	418.55	100.25	-7.76	0.342
136.00	-5.97	-7.06	0.00	-129.47	0.00	129.47	922.49	227.07	445.93	412.36	101.88	-7.80	0.321
140.00	-5.61	-6.92	0.00	-101.22	0.00	101.22	899.59	219.10	415.18	387.90	108.47	-7.97	0.268
140.02	-5.61	-6.85	0.00	-101.08	0.00	101.08	899.47	219.06	415.03	387.77	108.51	-7.98	0.268
143.22	-5.17	-6.68	0.00	-79.17	0.00	79.17	892.28	216.61	405.78	380.32	113.87	-8.09	0.215
145.00	-5.01	-6.59	0.00	-67.28	0.00	67.28	881.76	213.06	392.59	369.62	116.89	-8.15	0.189

Load Case: 1.2D + 1.0W 114 mph with No Ice 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

146.00	-3.68	-3.62	0.00	-60.69	0.00	60.69	875.80	211.07	385.28	363.66	118.60	-8.18	0.171
150.00	-3.37	-3.37	0.00	-46.23	0.00	46.23	851.52	203.10	356.74	340.10	125.47	-8.28	0.140
155.00	-2.99	-3.16	0.00	-29.37	0.00	29.37	817.60	193.13	322.60	310.38	134.17	-8.38	0.099
157.00	-2.53	-2.48	0.00	-23.05	0.00	23.05	800.73	189.15	309.43	297.64	137.67	-8.41	0.081
158.56	-2.43	-2.41	0.00	-19.18	0.00	19.18	787.55	186.03	299.33	287.88	140.42	-8.43	0.070
158.56	-2.43	-2.41	0.00	-19.18	0.00	19.18	551.08	165.33	179.87	180.95	140.42	-8.43	0.111
160.00	-2.33	-2.29	0.00	-15.72	0.00	15.72	551.08	165.33	179.87	180.95	142.95	-8.44	0.091
165.00	-1.93	-2.12	0.00	-4.27	0.00	4.27	551.08	165.33	179.87	180.95	151.79	-8.50	0.027
167.00	-0.09	-0.03	0.00	-0.04	0.00	0.04	551.08	165.33	179.87	180.95	155.34	-8.50	0.000
168.56	0.00	-0.01	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	158.11	-8.50	0.000

Site Number: 413782 Code: ANSI/TIA-222-H

Site Name: Washington North CT, CT Engineering Number:13211690_C3_04 6/26/2020 9:31:40 AM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.0W 114 mph with No Ice (Reduced DL) 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		170.5	0.0					0.0	0.0	170.5	0.0	0.0	0.0
5.00		337.5	701.8					0.0	176.3	337.5	878.1	0.0	0.0
10.00		330.5	687.3					0.0	176.3	330.5	863.6	0.0	0.0
15.00		323.6	672.9					0.0	176.3	323.6	849.2	0.0	0.0
20.00		316.6	658.4					0.0	176.3	316.6	834.7	0.0	0.0
25.00		309.6	643.9					0.0	176.3	309.6	820.2	0.0	0.0
30.00		306.2	629.4					0.0	176.3	306.2	805.7	0.0	0.0
35.00		308.9	614.9					0.0	176.3	308.9	791.2	0.0	0.0
40.00		313.4	600.4					0.0	176.3	313.4	776.7	0.0	0.0
45.00		193.0	585.9					0.0	176.3	193.0	762.2	0.0	0.0
46.12	Bot - Section 2	128.1	128.9					0.0	39.4	128.1	168.3	0.0	0.0
49.00		124.9	596.8					0.0	101.7	124.9	698.5	0.0	0.0
50.00		79.2	205.0					0.0	35.3	79.2	240.3	0.0	0.0
51.46	Top - Section 1	161.3	297.1					0.0	51.4	161.3	348.5	0.0	0.0
55.00		243.4	319.3					0.0	124.9	243.4	444.1	0.0	0.0
59.00		161.4	353.6					0.0	141.0	161.4	494.6	0.0	0.0
60.00		177.1	87.2					0.0	35.3	177.1	122.5	0.0	0.0
64.50		160.9	386.8					0.0	158.7	160.9	545.5	0.0	0.0
65.00		176.2	42.4					0.0	17.6	176.2	60.0	0.0	0.0
70.00		303.2	417.6					0.0	176.3	303.2	593.9	0.0	0.0
74.50		158.9	366.0					0.0	158.7	158.9	524.6	0.0	0.0
75.00		173.2	40.1					0.0	17.6	173.2	57.7	0.0	0.0
80.00		312.9	394.4					0.0	176.3	312.9	570.8	0.0	0.0
85.00		309.0	382.9					0.0	176.3	309.0	559.2	0.0	0.0
90.00		233.7	371.3					0.0	176.3	233.7	547.6	0.0	0.0
92.65	Bot - Section 3	152.0	191.8					0.0	93.3	152.0	285.1	0.0	0.0
95.00		86.9	295.7					0.0	83.0	86.9	378.7	0.0	0.0
95.50		58.3	62.2					0.0	17.6	58.3	79.9	0.0	0.0
96.93	Top - Section 2	135.2	176.5					0.0	50.3	135.2	226.8	0.0	0.0
100.00		239.7	161.9					0.0	108.4	239.7	270.2	0.0	0.0
105.00		162.2	256.4					0.0	176.3	162.2	432.7	0.0	0.0
105.50		144.6	25.2					0.0	17.6	144.6	42.8	0.0	0.0
110.00		271.3	222.5					0.0	158.7	271.3	381.2	0.0	0.0
115.00		279.3	239.0					0.0	176.3	279.3	415.3	0.0	0.0
120.00		272.3	230.3					0.0	176.3	272.3	406.6	0.0	0.0
125.00		265.0	221.6					0.0	176.3	265.0	397.9	0.0	0.0
130.00		257.3	212.9					0.0	176.3	257.3	389.2	0.0	0.0
135.00		151.6	204.2					0.0	176.3	151.6	380.5	0.0	0.0
136.00	Appurtenance(s)	122.7	39.8	2,204.3	0.0	0.0	1,407.5	0.0	35.3	2,327.0	1,482.6	0.0	0.0
140.00		98.3	155.7					0.0	123.7	98.3	279.4	0.0	0.0
140.02	Bot - Section 4	78.1	0.8					0.0	0.6	78.1	1.4	0.0	0.0
143.22	Top - Section 3	120.1	243.1					0.0	98.9	120.1	342.0	0.0	0.0
145.00		66.1	66.8					0.0	55.1	66.1	121.8	0.0	0.0
146.00	Appurtenance(s)	116.3	37.0	2,644.5	0.0	0.0	1,235.2	0.0	30.9	2,760.8	1,303.1	0.0	0.0
150.00		204.5	144.5					0.0	105.9	204.5	250.5	0.0	0.0
155.00		156.1	172.9					0.0	132.4	156.1	305.3	0.0	0.0
157.00	Appurtenance(s)	78.6	66.7	530.4	0.0	0.0	294.8	0.0	53.0	609.0	414.5	0.0	0.0
158.56	Top - Section 4	57.6	51.1					0.0	27.5	57.6	78.7	0.0	0.0

Load Case: 0.9D + 1.0W 114 mph with No Ice (Reduced DL) 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

160.00		104.4	64.2					0.0	25.3	104.4	89.5	0.0	0.0
165.00		113.8	223.2					0.0	88.2	113.8	311.4	0.0	0.0
167.00	Appurtenance(s)	47.2	89.3	1,744.8	0.0	-272.3	1,473.7	0.0	35.3	1,792.0	1,598.2	0.0	0.0
168.56		14.5	69.8					0.0	0.0	14.5	69.8	0.0	0.0
								Totals:		16,791.1	24,092.8	0.00	0.00

Load Case: 0.9D + 1.0W 114 mph with No Ice (Reduced DL) 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-24.06	-16.66	0.00	-1,909.71	0.00	1,909.71	3,012.45	812.68	3,426.89	2,897.19	0.00	0.00	0.668
5.00	-23.12	-16.41	0.00	-1,826.38	0.00	1,826.38	2,976.75	796.07	3,288.31	2,803.97	0.11	-0.21	0.660
10.00	-22.20	-16.16	0.00	-1,744.33	0.00	1,744.33	2,939.96	779.47	3,152.58	2,711.17	0.44	-0.42	0.651
15.00	-21.30	-15.91	0.00	-1,663.54	0.00	1,663.54	2,902.10	762.87	3,019.72	2,618.85	1.00	-0.64	0.643
20.00	-20.41	-15.66	0.00	-1,584.01	0.00	1,584.01	2,863.16	746.26	2,889.71	2,527.08	1.78	-0.85	0.634
25.00	-19.53	-15.41	0.00	-1,505.71	0.00	1,505.71	2,823.15	729.66	2,762.56	2,435.92	2.79	-1.08	0.625
30.00	-18.67	-15.16	0.00	-1,428.65	0.00	1,428.65	2,782.05	713.05	2,638.28	2,345.43	4.04	-1.30	0.616
35.00	-17.83	-14.91	0.00	-1,352.84	0.00	1,352.84	2,739.88	696.45	2,516.86	2,255.68	5.53	-1.53	0.607
40.00	-17.00	-14.64	0.00	-1,278.30	0.00	1,278.30	2,696.63	679.85	2,398.29	2,166.74	7.26	-1.77	0.597
45.00	-16.21	-14.46	0.00	-1,205.09	0.00	1,205.09	2,652.30	663.24	2,282.59	2,078.66	9.24	-2.00	0.586
46.12	-16.02	-14.36	0.00	-1,188.93	0.00	1,188.93	2,642.25	659.53	2,257.13	2,059.10	9.71	-2.06	0.584
49.00	-15.30	-14.23	0.00	-1,147.54	0.00	1,147.54	2,616.06	649.96	2,192.09	2,008.86	11.00	-2.20	0.578
50.00	-15.05	-14.16	0.00	-1,133.31	0.00	1,133.31	2,606.89	646.64	2,169.75	1,991.50	11.46	-2.25	0.575
51.46	-14.68	-14.02	0.00	-1,112.66	0.00	1,112.66	1,930.41	521.27	1,762.37	1,488.56	12.16	-2.32	0.756
55.00	-14.20	-13.81	0.00	-1,063.02	0.00	1,063.02	1,910.28	511.86	1,699.33	1,446.27	13.95	-2.49	0.743
59.00	-13.67	-13.66	0.00	-1,007.79	0.00	1,007.79	1,886.89	501.23	1,629.51	1,398.71	16.14	-2.73	0.729
60.00	-13.52	-13.51	0.00	-994.14	0.00	994.14	1,880.94	498.58	1,612.29	1,386.85	16.72	-2.79	0.725
64.50	-12.95	-13.36	0.00	-933.32	0.00	933.32	1,853.61	486.62	1,535.90	1,333.70	19.48	-3.06	0.708
65.00	-12.86	-13.22	0.00	-926.64	0.00	926.64	1,850.52	485.29	1,527.53	1,327.82	19.80	-3.09	0.706
70.00	-12.22	-12.94	0.00	-860.56	0.00	860.56	1,819.02	472.01	1,445.06	1,269.24	23.20	-3.39	0.685
74.50	-11.67	-12.78	0.00	-802.32	0.00	802.32	1,789.75	460.06	1,372.80	1,216.96	26.52	-3.66	0.667
75.00	-11.59	-12.64	0.00	-795.93	0.00	795.93	1,786.45	458.73	1,364.88	1,211.17	26.91	-3.70	0.664
80.00	-10.98	-12.35	0.00	-732.73	0.00	732.73	1,752.79	445.44	1,286.99	1,153.69	30.94	-4.00	0.642
85.00	-10.38	-12.05	0.00	-670.99	0.00	670.99	1,718.06	432.16	1,211.39	1,096.84	35.28	-4.30	0.619
90.00	-9.80	-11.82	0.00	-610.72	0.00	610.72	1,682.25	418.88	1,138.07	1,040.71	39.95	-4.61	0.593
92.65	-9.50	-11.67	0.00	-579.45	0.00	579.45	1,662.87	411.85	1,100.20	1,011.31	42.55	-4.77	0.579
95.00	-9.11	-11.57	0.00	-551.98	0.00	551.98	1,645.36	405.60	1,067.05	985.34	44.93	-4.92	0.567
95.50	-9.02	-11.51	0.00	-546.20	0.00	546.20	1,641.61	404.27	1,060.07	979.85	45.45	-4.95	0.564
96.93	-8.78	-11.38	0.00	-529.77	0.00	529.77	1,109.83	304.93	804.08	667.66	46.94	-5.04	0.803
100.00	-8.48	-11.16	0.00	-494.81	0.00	494.81	1,097.48	298.80	772.11	646.89	50.24	-5.23	0.774
105.00	-8.02	-10.98	0.00	-439.03	0.00	439.03	1,076.52	288.84	721.49	613.24	55.91	-5.60	0.725
105.50	-7.96	-10.86	0.00	-433.54	0.00	433.54	1,074.37	287.84	716.52	609.89	56.50	-5.64	0.720
110.00	-7.54	-10.60	0.00	-384.67	0.00	384.67	1,054.48	278.88	672.58	579.83	61.97	-5.97	0.672
115.00	-7.10	-10.32	0.00	-331.68	0.00	331.68	1,031.36	268.92	625.39	546.71	68.41	-6.33	0.615
120.00	-6.67	-10.04	0.00	-280.09	0.00	280.09	1,007.16	258.95	579.92	513.96	75.21	-6.67	0.553
125.00	-6.25	-9.76	0.00	-229.88	0.00	229.88	981.89	248.99	536.16	481.64	82.35	-6.99	0.485
130.00	-5.85	-9.49	0.00	-181.07	0.00	181.07	955.53	239.03	494.12	449.82	89.80	-7.27	0.410
135.00	-5.47	-9.30	0.00	-133.63	0.00	133.63	928.10	229.07	453.79	418.55	97.54	-7.52	0.327
136.00	-4.30	-6.81	0.00	-124.33	0.00	124.33	922.49	227.07	445.93	412.36	99.12	-7.57	0.307
140.00	-4.02	-6.68	0.00	-97.10	0.00	97.10	899.59	219.10	415.18	387.90	105.51	-7.73	0.256
140.02	-4.03	-6.61	0.00	-96.96	0.00	96.96	899.47	219.06	415.03	387.77	105.54	-7.73	0.255
143.22	-3.69	-6.45	0.00	-75.83	0.00	75.83	892.28	216.61	405.78	380.32	110.75	-7.85	0.204
145.00	-3.58	-6.37	0.00	-64.35	0.00	64.35	881.76	213.06	392.59	369.62	113.67	-7.90	0.179

Load Case: 0.9D + 1.0W 114 mph with No Ice (Reduced DL) 33 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

146.00	-2.66	-3.45	0.00	-57.99	0.00	57.99	875.80	211.07	385.28	363.66	115.33	-7.93	0.163
150.00	-2.44	-3.22	0.00	-44.17	0.00	44.17	851.52	203.10	356.74	340.10	121.99	-8.02	0.133
155.00	-2.16	-3.03	0.00	-28.06	0.00	28.06	817.60	193.13	322.60	310.38	130.42	-8.11	0.093
157.00	-1.83	-2.37	0.00	-22.01	0.00	22.01	800.73	189.15	309.43	297.64	133.81	-8.14	0.076
158.56	-1.76	-2.30	0.00	-18.31	0.00	18.31	787.55	186.03	299.33	287.88	136.47	-8.16	0.066
158.56	-1.76	-2.30	0.00	-18.31	0.00	18.31	551.08	165.33	179.87	180.95	136.47	-8.16	0.105
160.00	-1.68	-2.18	0.00	-15.01	0.00	15.01	551.08	165.33	179.87	180.95	138.92	-8.18	0.086
165.00	-1.39	-2.03	0.00	-4.09	0.00	4.09	551.08	165.33	179.87	180.95	147.49	-8.23	0.025
167.00	-0.07	-0.02	0.00	-0.04	0.00	0.04	551.08	165.33	179.87	180.95	150.93	-8.23	0.000
168.56	0.00	-0.01	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	153.61	-8.23	0.000

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph with 1.00 in Radial Ice 31 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		35.6	0.0					0.0	0.0	35.6	0.0	0.0	0.0
5.00		70.7	1,162.4					0.0	283.4	70.7	1,445.8	0.0	0.0
10.00		69.5	1,164.7					0.0	288.3	69.5	1,453.0	0.0	0.0
15.00		68.2	1,153.2					0.0	290.9	68.2	1,444.1	0.0	0.0
20.00		66.8	1,137.2					0.0	292.7	66.8	1,429.9	0.0	0.0
25.00		65.5	1,118.9					0.0	294.0	65.5	1,413.0	0.0	0.0
30.00		64.9	1,099.1					0.0	295.2	64.9	1,394.3	0.0	0.0
35.00		65.6	1,078.3					0.0	296.1	65.6	1,374.5	0.0	0.0
40.00		66.7	1,056.8					0.0	297.0	66.7	1,353.8	0.0	0.0
45.00		41.1	1,034.6					0.0	297.7	41.1	1,332.4	0.0	0.0
46.12	Bot - Section 2	27.3	228.6					0.0	66.6	27.3	295.2	0.0	0.0
49.00		26.6	942.6					0.0	179.3	26.6	1,121.8	0.0	0.0
50.00		16.9	324.2					0.0	62.6	16.9	386.9	0.0	0.0
51.46	Top - Section 1	34.4	470.0					0.0	91.4	34.4	561.4	0.0	0.0
55.00		52.0	602.8					0.0	222.3	52.0	825.0	0.0	0.0
59.00		34.5	668.8					0.0	251.5	34.5	920.3	0.0	0.0
60.00		38.0	165.6					0.0	62.9	38.0	228.6	0.0	0.0
64.50		34.5	733.6					0.0	283.6	34.5	1,017.1	0.0	0.0
65.00		37.8	80.8					0.0	31.5	37.8	112.3	0.0	0.0
70.00		65.2	793.8					0.0	315.8	65.2	1,109.6	0.0	0.0
74.50		34.2	697.5					0.0	284.7	34.2	982.2	0.0	0.0
75.00		37.4	76.7					0.0	31.7	37.4	108.4	0.0	0.0
80.00		67.6	753.3					0.0	306.1	67.6	1,059.4	0.0	0.0
85.00		66.9	732.7					0.0	301.9	66.9	1,034.7	0.0	0.0
90.00		50.7	712.1					0.0	302.3	50.7	1,014.4	0.0	0.0
92.65	Bot - Section 3	33.0	369.2					0.0	160.1	33.0	529.3	0.0	0.0
95.00		18.9	495.3					0.0	148.9	18.9	644.2	0.0	0.0
95.50		12.7	104.4					0.0	31.9	12.7	136.3	0.0	0.0
96.93	Top - Section 2	29.4	296.0					0.0	91.0	29.4	387.0	0.0	0.0
100.00		52.2	344.3					0.0	196.1	52.2	540.3	0.0	0.0
105.00		35.4	545.0					0.0	319.4	35.4	864.4	0.0	0.0
105.50		31.6	53.8					0.0	32.0	31.6	85.8	0.0	0.0
110.00		59.5	474.4					0.0	281.4	59.5	755.8	0.0	0.0
115.00		61.4	510.3					0.0	304.0	61.4	814.3	0.0	0.0
120.00		60.1	492.8					0.0	304.3	60.1	797.1	0.0	0.0
125.00		58.7	475.2					0.0	304.6	58.7	779.8	0.0	0.0
130.00		57.2	457.5					0.0	304.9	57.2	762.4	0.0	0.0
135.00		33.8	439.7					0.0	305.2	33.8	744.9	0.0	0.0
136.00	Appurtenance(s)	27.4	86.4	338.1	0.0	0.0	3,119.1	0.0	61.1	365.5	3,266.5	0.0	0.0
140.00		22.0	336.6					0.0	221.2	22.0	557.8	0.0	0.0
140.02	Bot - Section 4	17.5	1.7					0.0	1.2	17.5	2.9	0.0	0.0
143.22	Top - Section 3	26.9	426.5					0.0	177.0	26.9	603.4	0.0	0.0
145.00		14.9	145.2					0.0	98.6	14.9	243.9	0.0	0.0
146.00	Appurtenance(s)	26.2	80.7	462.0	0.0	0.0	2,324.9	0.0	55.4	488.2	2,461.0	0.0	0.0
150.00		46.2	313.8					0.0	198.0	46.2	511.7	0.0	0.0
155.00		35.2	375.3					0.0	247.7	35.2	623.0	0.0	0.0
157.00	Appurtenance(s)	17.5	145.9	83.8	0.0	0.0	651.0	0.0	99.1	101.3	896.0	0.0	0.0
158.56	Top - Section 4	12.7	112.1					0.0	59.0	12.7	171.1	0.0	0.0

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph with 1.00 in Radial Ice 31 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

160.00		23.0	114.2					0.5	54.3	23.5	168.5	0.0	0.0
165.00		25.1	397.4					1.8	189.1	26.9	586.4	0.0	0.0
167.00	Appurtenance(s)	12.4	159.0	268.0	0.0	-44.3	3,085.4	0.7	75.7	281.0	3,320.1	0.0	0.0
168.56		5.2	124.3					0.0	0.0	5.2	124.3	0.0	0.0
								Totals:		3,249.24	44,796.2	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph with 1.00 in Radial Ice 31 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-44.80	-3.23	0.00	-377.65	0.00	377.65	3,012.45	812.68	3,426.89	2,897.19	0.00	0.00	0.145
5.00	-43.35	-3.19	0.00	-361.51	0.00	361.51	2,976.75	796.07	3,288.31	2,803.97	0.02	-0.04	0.144
10.00	-41.89	-3.15	0.00	-345.56	0.00	345.56	2,939.96	779.47	3,152.58	2,711.17	0.09	-0.08	0.142
15.00	-40.45	-3.11	0.00	-329.82	0.00	329.82	2,902.10	762.87	3,019.72	2,618.85	0.20	-0.13	0.140
20.00	-39.01	-3.07	0.00	-314.27	0.00	314.27	2,863.16	746.26	2,889.71	2,527.08	0.35	-0.17	0.138
25.00	-37.60	-3.03	0.00	-298.93	0.00	298.93	2,823.15	729.66	2,762.56	2,435.92	0.55	-0.21	0.136
30.00	-36.20	-2.98	0.00	-283.80	0.00	283.80	2,782.05	713.05	2,638.28	2,345.43	0.80	-0.26	0.134
35.00	-34.83	-2.94	0.00	-268.88	0.00	268.88	2,739.88	696.45	2,516.86	2,255.68	1.10	-0.30	0.132
40.00	-33.47	-2.89	0.00	-254.17	0.00	254.17	2,696.63	679.85	2,398.29	2,166.74	1.44	-0.35	0.130
45.00	-32.14	-2.86	0.00	-239.71	0.00	239.71	2,652.30	663.24	2,282.59	2,078.66	1.83	-0.40	0.127
46.12	-31.84	-2.84	0.00	-236.51	0.00	236.51	2,642.25	659.53	2,257.13	2,059.10	1.93	-0.41	0.127
49.00	-30.72	-2.82	0.00	-228.32	0.00	228.32	2,616.06	649.96	2,192.09	2,008.86	2.18	-0.44	0.125
50.00	-30.33	-2.80	0.00	-225.50	0.00	225.50	2,606.89	646.64	2,169.75	1,991.50	2.27	-0.45	0.125
51.46	-29.77	-2.78	0.00	-221.42	0.00	221.42	1,930.41	521.27	1,762.37	1,488.56	2.41	-0.46	0.164
55.00	-28.94	-2.74	0.00	-211.58	0.00	211.58	1,910.28	511.86	1,699.33	1,446.27	2.77	-0.50	0.161
59.00	-28.02	-2.71	0.00	-200.63	0.00	200.63	1,886.89	501.23	1,629.51	1,398.71	3.20	-0.54	0.158
60.00	-27.79	-2.69	0.00	-197.92	0.00	197.92	1,880.94	498.58	1,612.29	1,386.85	3.32	-0.55	0.158
64.50	-26.77	-2.66	0.00	-185.83	0.00	185.83	1,853.61	486.62	1,535.90	1,333.70	3.87	-0.61	0.154
65.00	-26.66	-2.63	0.00	-184.50	0.00	184.50	1,850.52	485.29	1,527.53	1,327.82	3.93	-0.61	0.153
70.00	-25.55	-2.58	0.00	-171.34	0.00	171.34	1,819.02	472.01	1,445.06	1,269.24	4.60	-0.67	0.149
74.50	-24.56	-2.55	0.00	-159.74	0.00	159.74	1,789.75	460.06	1,372.80	1,216.96	5.27	-0.73	0.145
75.00	-24.46	-2.52	0.00	-158.46	0.00	158.46	1,786.45	458.73	1,364.88	1,211.17	5.34	-0.73	0.145
80.00	-23.39	-2.46	0.00	-145.86	0.00	145.86	1,752.79	445.44	1,286.99	1,153.69	6.14	-0.79	0.140
85.00	-22.36	-2.41	0.00	-133.53	0.00	133.53	1,718.06	432.16	1,211.39	1,096.84	7.01	-0.86	0.135
90.00	-21.34	-2.36	0.00	-121.50	0.00	121.50	1,682.25	418.88	1,138.07	1,040.71	7.94	-0.92	0.129
92.65	-20.81	-2.33	0.00	-115.26	0.00	115.26	1,662.87	411.85	1,100.20	1,011.31	8.45	-0.95	0.127
95.00	-20.17	-2.30	0.00	-109.78	0.00	109.78	1,645.36	405.60	1,067.05	985.34	8.93	-0.98	0.124
95.50	-20.03	-2.29	0.00	-108.63	0.00	108.63	1,641.61	404.27	1,060.07	979.85	9.03	-0.98	0.123
96.93	-19.64	-2.27	0.00	-105.36	0.00	105.36	1,109.83	304.93	804.08	667.66	9.33	-1.00	0.176
100.00	-19.10	-2.22	0.00	-98.40	0.00	98.40	1,097.48	298.80	772.11	646.89	9.98	-1.04	0.170
105.00	-18.24	-2.18	0.00	-87.28	0.00	87.28	1,076.52	288.84	721.49	613.24	11.11	-1.11	0.159
105.50	-18.15	-2.16	0.00	-86.19	0.00	86.19	1,074.37	287.84	716.52	609.89	11.23	-1.12	0.158
110.00	-17.39	-2.11	0.00	-76.45	0.00	76.45	1,054.48	278.88	672.58	579.83	12.32	-1.19	0.148
115.00	-16.58	-2.05	0.00	-65.91	0.00	65.91	1,031.36	268.92	625.39	546.71	13.60	-1.26	0.137
120.00	-15.78	-1.99	0.00	-55.65	0.00	55.65	1,007.16	258.95	579.92	513.96	14.96	-1.33	0.124
125.00	-15.00	-1.93	0.00	-45.70	0.00	45.70	981.89	248.99	536.16	481.64	16.38	-1.39	0.110
130.00	-14.24	-1.87	0.00	-36.05	0.00	36.05	955.53	239.03	494.12	449.82	17.87	-1.45	0.095
135.00	-13.49	-1.82	0.00	-26.72	0.00	26.72	928.10	229.07	453.79	418.55	19.41	-1.50	0.078
136.00	-10.24	-1.37	0.00	-24.90	0.00	24.90	922.49	227.07	445.93	412.36	19.72	-1.50	0.072
140.00	-9.68	-1.34	0.00	-19.41	0.00	19.41	899.59	219.10	415.18	387.90	21.00	-1.54	0.061
140.02	-9.68	-1.32	0.00	-19.38	0.00	19.38	899.47	219.06	415.03	387.77	21.00	-1.54	0.061
143.22	-9.07	-1.28	0.00	-15.15	0.00	15.15	892.28	216.61	405.78	380.32	22.04	-1.56	0.050
145.00	-8.83	-1.26	0.00	-12.86	0.00	12.86	881.76	213.06	392.59	369.62	22.62	-1.57	0.045

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph with 1.00 in Radial Ice 31 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

146.00	-6.38	-0.71	0.00	-11.60	0.00	11.60	875.80	211.07	385.28	363.66	22.95	-1.58	0.039
150.00	-5.87	-0.65	0.00	-8.76	0.00	8.76	851.52	203.10	356.74	340.10	24.28	-1.60	0.033
155.00	-5.25	-0.60	0.00	-5.51	0.00	5.51	817.60	193.13	322.60	310.38	25.96	-1.61	0.024
157.00	-4.36	-0.47	0.00	-4.31	0.00	4.31	800.73	189.15	309.43	297.64	26.64	-1.62	0.020
158.56	-4.19	-0.46	0.00	-3.57	0.00	3.57	787.55	186.03	299.33	287.88	27.17	-1.62	0.018
158.56	-4.19	-0.46	0.00	-3.57	0.00	3.57	551.08	165.33	179.87	180.95	27.17	-1.62	0.027
160.00	-4.02	-0.43	0.00	-2.92	0.00	2.92	551.08	165.33	179.87	180.95	27.66	-1.63	0.023
165.00	-3.43	-0.38	0.00	-0.78	0.00	0.78	551.08	165.33	179.87	180.95	29.37	-1.64	0.011
167.00	-0.12	-0.01	0.00	-0.01	0.00	0.01	551.08	165.33	179.87	180.95	30.06	-1.64	0.000
168.56	0.00	-0.01	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	30.59	-1.64	0.000

Load Case: 1.0D + 1.0W Serviceability 60 mph 31 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		42.3	0.0					0.0	0.0	42.3	0.0	0.0	0.0
5.00		83.7	779.8					0.0	195.9	83.7	975.7	0.0	0.0
10.00		81.9	763.7					0.0	195.9	81.9	959.6	0.0	0.0
15.00		80.2	747.6					0.0	195.9	80.2	943.5	0.0	0.0
20.00		78.5	731.5					0.0	195.9	78.5	927.4	0.0	0.0
25.00		76.7	715.4					0.0	195.9	76.7	911.3	0.0	0.0
30.00		75.9	699.3					0.0	195.9	75.9	895.2	0.0	0.0
35.00		76.6	683.2					0.0	195.9	76.6	879.1	0.0	0.0
40.00		77.7	667.1					0.0	195.9	77.7	863.0	0.0	0.0
45.00		47.8	651.0					0.0	195.9	47.8	846.9	0.0	0.0
46.12	Bot - Section 2	31.7	143.3					0.0	43.8	31.7	187.0	0.0	0.0
49.00		31.0	663.1					0.0	112.9	31.0	776.1	0.0	0.0
50.00		19.6	227.8					0.0	39.2	19.6	267.0	0.0	0.0
51.46	Top - Section 1	40.0	330.1					0.0	57.1	40.0	387.2	0.0	0.0
55.00		60.3	354.7					0.0	138.8	60.3	493.5	0.0	0.0
59.00		40.0	392.9					0.0	156.7	40.0	549.6	0.0	0.0
60.00		43.9	96.9					0.0	39.2	43.9	136.1	0.0	0.0
64.50		39.9	429.8					0.0	176.3	39.9	606.1	0.0	0.0
65.00		43.7	47.1					0.0	19.6	43.7	66.7	0.0	0.0
70.00		75.2	464.0					0.0	195.9	75.2	659.9	0.0	0.0
74.50		39.4	406.6					0.0	176.3	39.4	582.9	0.0	0.0
75.00		42.9	44.5					0.0	19.6	42.9	64.1	0.0	0.0
80.00		77.6	438.3					0.0	195.9	77.6	634.2	0.0	0.0
85.00		76.6	425.4					0.0	195.9	76.6	621.3	0.0	0.0
90.00		57.9	412.5					0.0	195.9	57.9	608.4	0.0	0.0
92.65	Bot - Section 3	37.7	213.1					0.0	103.7	37.7	316.7	0.0	0.0
95.00		21.5	328.6					0.0	92.2	21.5	420.8	0.0	0.0
95.50		14.4	69.1					0.0	19.6	14.4	88.7	0.0	0.0
96.93	Top - Section 2	33.5	196.1					0.0	55.9	33.5	252.0	0.0	0.0
100.00		59.4	179.9					0.0	120.4	59.4	300.3	0.0	0.0
105.00		40.2	284.8					0.0	195.9	40.2	480.7	0.0	0.0
105.50		35.8	28.0					0.0	19.6	35.8	47.5	0.0	0.0
110.00		67.2	247.2					0.0	176.3	67.2	423.5	0.0	0.0
115.00		69.2	265.5					0.0	195.9	69.2	461.4	0.0	0.0
120.00		67.5	255.9					0.0	195.9	67.5	451.8	0.0	0.0
125.00		65.7	246.2					0.0	195.9	65.7	442.1	0.0	0.0
130.00		63.8	236.6					0.0	195.9	63.8	432.5	0.0	0.0
135.00		37.6	226.9					0.0	195.9	37.6	422.8	0.0	0.0
136.00	Appurtenance(s)	30.4	44.2	546.3	0.0	0.0	1,563.9	0.0	39.2	576.7	1,647.3	0.0	0.0
140.00		24.4	173.0					0.0	137.4	24.4	310.4	0.0	0.0
140.02	Bot - Section 4	19.4	0.9					0.0	0.7	19.4	1.6	0.0	0.0
143.22	Top - Section 3	29.8	270.1					0.0	109.8	29.8	380.0	0.0	0.0
145.00		16.4	74.2					0.0	61.2	16.4	135.4	0.0	0.0
146.00	Appurtenance(s)	28.8	41.1	655.4	0.0	0.0	1,372.4	0.0	34.4	684.3	1,447.9	0.0	0.0
150.00		50.7	160.6					0.0	117.7	50.7	278.3	0.0	0.0
155.00		38.7	192.1					0.0	147.1	38.7	339.2	0.0	0.0
157.00	Appurtenance(s)	19.5	74.1	131.4	0.0	0.0	327.6	0.0	58.9	150.9	460.6	0.0	0.0
158.56	Top - Section 4	15.2	56.8					0.0	30.6	15.2	87.4	0.0	0.0

Load Case: 1.0D + 1.0W Serviceability 60 mph 31 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

160.00		30.1	71.3					0.0	28.2	30.1	99.5	0.0	0.0
165.00		32.8	248.0					0.0	97.9	32.8	346.0	0.0	0.0
167.00	Appurtenance(s)	13.7	99.2	432.5	0.0	-67.5	1,637.4	0.0	39.2	446.2	1,775.8	0.0	0.0
168.56		4.3	77.5					0.0	0.0	4.3	77.5	0.0	0.0
								Totals:		4,174.20	26,769.8	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 31 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-26.77	-4.14	0.00	-479.82	0.00	479.82	3,012.45	812.68	3,426.89	2,897.19	0.00	0.00	0.175
5.00	-25.79	-4.08	0.00	-459.10	0.00	459.10	2,976.75	796.07	3,288.31	2,803.97	0.03	-0.05	0.172
10.00	-24.83	-4.02	0.00	-438.69	0.00	438.69	2,939.96	779.47	3,152.58	2,711.17	0.11	-0.11	0.170
15.00	-23.88	-3.96	0.00	-418.57	0.00	418.57	2,902.10	762.87	3,019.72	2,618.85	0.25	-0.16	0.168
20.00	-22.95	-3.90	0.00	-398.75	0.00	398.75	2,863.16	746.26	2,889.71	2,527.08	0.45	-0.21	0.166
25.00	-22.03	-3.85	0.00	-379.23	0.00	379.23	2,823.15	729.66	2,762.56	2,435.92	0.70	-0.27	0.164
30.00	-21.13	-3.79	0.00	-360.00	0.00	360.00	2,782.05	713.05	2,638.28	2,345.43	1.02	-0.33	0.161
35.00	-20.25	-3.72	0.00	-341.07	0.00	341.07	2,739.88	696.45	2,516.86	2,255.68	1.39	-0.39	0.159
40.00	-19.39	-3.66	0.00	-322.45	0.00	322.45	2,696.63	679.85	2,398.29	2,166.74	1.83	-0.44	0.156
45.00	-18.54	-3.62	0.00	-304.15	0.00	304.15	2,652.30	663.24	2,282.59	2,078.66	2.32	-0.50	0.153
46.12	-18.35	-3.59	0.00	-300.11	0.00	300.11	2,642.25	659.53	2,257.13	2,059.10	2.44	-0.52	0.153
49.00	-17.57	-3.56	0.00	-289.75	0.00	289.75	2,616.06	649.96	2,192.09	2,008.86	2.77	-0.55	0.151
50.00	-17.30	-3.54	0.00	-286.19	0.00	286.19	2,606.89	646.64	2,169.75	1,991.50	2.89	-0.57	0.150
51.46	-16.91	-3.51	0.00	-281.02	0.00	281.02	1,930.41	521.27	1,762.37	1,488.56	3.06	-0.58	0.198
55.00	-16.42	-3.46	0.00	-268.59	0.00	268.59	1,910.28	511.86	1,699.33	1,446.27	3.51	-0.63	0.194
59.00	-15.87	-3.42	0.00	-254.76	0.00	254.76	1,886.89	501.23	1,629.51	1,398.71	4.06	-0.69	0.191
60.00	-15.73	-3.39	0.00	-251.34	0.00	251.34	1,880.94	498.58	1,612.29	1,386.85	4.21	-0.70	0.190
64.50	-15.12	-3.35	0.00	-236.09	0.00	236.09	1,853.61	486.62	1,535.90	1,333.70	4.91	-0.77	0.185
65.00	-15.05	-3.32	0.00	-234.41	0.00	234.41	1,850.52	485.29	1,527.53	1,327.82	4.99	-0.78	0.185
70.00	-14.39	-3.25	0.00	-217.83	0.00	217.83	1,819.02	472.01	1,445.06	1,269.24	5.84	-0.86	0.180
74.50	-13.81	-3.21	0.00	-203.20	0.00	203.20	1,789.75	460.06	1,372.80	1,216.96	6.68	-0.92	0.175
75.00	-13.74	-3.18	0.00	-201.59	0.00	201.59	1,786.45	458.73	1,364.88	1,211.17	6.78	-0.93	0.174
80.00	-13.10	-3.11	0.00	-185.70	0.00	185.70	1,752.79	445.44	1,286.99	1,153.69	7.80	-1.01	0.168
85.00	-12.48	-3.04	0.00	-170.16	0.00	170.16	1,718.06	432.16	1,211.39	1,096.84	8.90	-1.09	0.162
90.00	-11.87	-2.98	0.00	-154.98	0.00	154.98	1,682.25	418.88	1,138.07	1,040.71	10.08	-1.16	0.156
92.65	-11.55	-2.94	0.00	-147.10	0.00	147.10	1,662.87	411.85	1,100.20	1,011.31	10.73	-1.21	0.152
95.00	-11.13	-2.92	0.00	-140.18	0.00	140.18	1,645.36	405.60	1,067.05	985.34	11.34	-1.24	0.149
95.50	-11.04	-2.90	0.00	-138.72	0.00	138.72	1,641.61	404.27	1,060.07	979.85	11.47	-1.25	0.148
96.93	-10.79	-2.87	0.00	-134.58	0.00	134.58	1,109.83	304.93	804.08	667.66	11.84	-1.27	0.211
100.00	-10.48	-2.82	0.00	-125.76	0.00	125.76	1,097.48	298.80	772.11	646.89	12.68	-1.32	0.204
105.00	-10.00	-2.78	0.00	-111.67	0.00	111.67	1,076.52	288.84	721.49	613.24	14.11	-1.42	0.191
105.50	-9.95	-2.75	0.00	-110.28	0.00	110.28	1,074.37	287.84	716.52	609.89	14.26	-1.43	0.190
110.00	-9.53	-2.68	0.00	-97.92	0.00	97.92	1,054.48	278.88	672.58	579.83	15.65	-1.51	0.178
115.00	-9.06	-2.62	0.00	-84.51	0.00	84.51	1,031.36	268.92	625.39	546.71	17.28	-1.60	0.163
120.00	-8.61	-2.55	0.00	-71.43	0.00	71.43	1,007.16	258.95	579.92	513.96	19.00	-1.69	0.148
125.00	-8.17	-2.48	0.00	-58.70	0.00	58.70	981.89	248.99	536.16	481.64	20.81	-1.77	0.130
130.00	-7.73	-2.41	0.00	-46.30	0.00	46.30	955.53	239.03	494.12	449.82	22.71	-1.84	0.111
135.00	-7.31	-2.36	0.00	-34.24	0.00	34.24	928.10	229.07	453.79	418.55	24.67	-1.91	0.090
136.00	-5.68	-1.74	0.00	-31.88	0.00	31.88	922.49	227.07	445.93	412.36	25.07	-1.92	0.084
140.00	-5.37	-1.70	0.00	-24.93	0.00	24.93	899.59	219.10	415.18	387.90	26.70	-1.96	0.070
140.02	-5.37	-1.69	0.00	-24.90	0.00	24.90	899.47	219.06	415.03	387.77	26.71	-1.96	0.070
143.22	-4.99	-1.64	0.00	-19.51	0.00	19.51	892.28	216.61	405.78	380.32	28.03	-1.99	0.057
145.00	-4.86	-1.62	0.00	-16.58	0.00	16.58	881.76	213.06	392.59	369.62	28.77	-2.00	0.050

Load Case: 1.0D + 1.0W Serviceability 60 mph 31 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

146.00	-3.43	-0.89	0.00	-14.96	0.00	14.96	875.80	211.07	385.28	363.66	29.19	-2.01	0.045
150.00	-3.16	-0.83	0.00	-11.40	0.00	11.40	851.52	203.10	356.74	340.10	30.89	-2.03	0.037
155.00	-2.82	-0.78	0.00	-7.24	0.00	7.24	817.60	193.13	322.60	310.38	33.03	-2.06	0.027
157.00	-2.37	-0.61	0.00	-5.68	0.00	5.68	800.73	189.15	309.43	297.64	33.90	-2.07	0.022
158.56	-2.28	-0.60	0.00	-4.72	0.00	4.72	787.55	186.03	299.33	287.88	34.57	-2.07	0.019
158.56	-2.28	-0.60	0.00	-4.72	0.00	4.72	551.08	165.33	179.87	180.95	34.57	-2.07	0.030
160.00	-2.18	-0.56	0.00	-3.86	0.00	3.86	551.08	165.33	179.87	180.95	35.20	-2.08	0.025
165.00	-1.84	-0.52	0.00	-1.05	0.00	1.05	551.08	165.33	179.87	180.95	37.38	-2.09	0.009
167.00	-0.08	-0.01	0.00	-0.01	0.00	0.01	551.08	165.33	179.87	180.95	38.25	-2.09	0.000
168.56	0.00	0.00	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	38.94	-2.09	0.000

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a:	1.60
Site Coeffiecient F_v:	2.40
Response Modification Coefficient (R):	1.50
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):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	3.22
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	2.00
Total Unfactored Dead Load:	26.77 k
Seismic Base Shear (E):	0.80 k

Load Case 1.2D + 1.0Ev + 1.0Eh Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
51	167.78	78	2,182	0.008	7	96
50	166.00	138	3,814	0.015	12	172
49	162.50	346	9,136	0.035	28	429
48	159.28	99	2,524	0.010	8	123
47	157.78	87	2,177	0.008	7	108
46	156.00	133	3,236	0.012	10	165
45	152.50	339	7,889	0.030	24	421
44	148.00	278	6,096	0.024	19	345
43	145.50	75	1,598	0.006	5	94
42	144.11	135	2,812	0.011	9	168
41	141.62	380	7,621	0.029	24	471
40	140.01	2	31	0.000	0	2
39	138.00	310	5,912	0.023	18	385
38	135.50	83	1,531	0.006	5	103
37	132.50	423	7,423	0.029	23	524
36	127.50	432	7,030	0.027	22	536
35	122.50	442	6,634	0.026	21	548
34	117.50	452	6,237	0.024	19	560
33	112.50	461	5,840	0.023	18	572
32	107.75	424	4,917	0.019	15	525
31	105.25	48	527	0.002	2	59
30	102.50	481	5,051	0.019	16	596
29	98.46	300	2,911	0.011	9	372
28	96.21	252	2,333	0.009	7	312
27	95.25	89	805	0.003	2	110

26	93.82	421	3,704	0.014	11	522
25	91.32	317	2,642	0.010	8	393
24	87.50	608	4,658	0.018	14	754
23	82.50	621	4,229	0.016	13	770
22	77.50	634	3,809	0.015	12	786
21	74.75	64	358	0.001	1	80
20	72.25	583	3,043	0.012	9	723
19	67.50	660	3,007	0.012	9	818
18	64.75	67	280	0.001	1	83
17	62.25	606	2,349	0.009	7	752
16	59.50	136	482	0.002	1	169
15	57.00	550	1,786	0.007	6	681
14	53.23	493	1,398	0.005	4	612
13	50.73	387	997	0.004	3	480
12	49.50	267	654	0.003	2	331
11	47.56	776	1,755	0.007	5	962
10	45.56	187	388	0.001	1	232
9	42.50	847	1,530	0.006	5	1,050
8	37.50	863	1,214	0.005	4	1,070
7	32.50	879	929	0.004	3	1,090
6	27.50	895	677	0.003	2	1,110
5	22.50	911	461	0.002	1	1,130
4	17.50	927	284	0.001	1	1,150
3	12.50	944	147	0.001	0	1,170
2	7.50	960	54	0.000	0	1,190
1	2.50	976	6	0.000	0	1,210
Kaelus DBCT108F1V92-	167.00	42	1,163	0.004	4	52
Raycap DC6-48-60-18-	167.00	64	1,774	0.007	5	79
Ericsson Radio 8843	167.00	216	6,016	0.023	19	267
Ericsson RRUS 4478 B	167.00	180	5,012	0.019	16	223
Ericsson RRUS 4449 B	167.00	213	5,940	0.023	18	264
Generic Round Side A	167.00	563	15,688	0.061	49	697
CCI DMP65R-BU4D	167.00	204	5,681	0.022	18	253
CCI OPA65R-BU4DA-K	167.00	157	4,393	0.017	14	195
Stand-Off	157.00	225	5,546	0.021	17	279
Andrew DBXNH-6565A-V	157.00	103	2,529	0.010	8	127
Stand-Off	146.00	225	4,796	0.019	15	279
Antel BXA-70063/6CF	146.00	51	1,087	0.004	3	63
VZW Unused Reserve (	146.00	1,096	23,371	0.090	72	1,359
Ericsson Radio 4449	136.00	222	4,106	0.016	13	275
Ericsson RRUS 11 B2	136.00	152	2,813	0.011	9	189
RFS APXV18-206516S-C	136.00	56	1,038	0.004	3	70
Flat T-Arm	136.00	750	13,872	0.054	43	930
RFS APXVAARR24_43-U-	136.00	384	7,097	0.027	22	476
		26,770	259,027	1.000	803	33,192

Load Case 0.9D - 1.0Ev + 1.0Eh Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
51	167.78	78	2,182	0.008	7	67
50	166.00	138	3,814	0.015	12	119
49	162.50	346	9,136	0.035	28	298
48	159.28	99	2,524	0.010	8	86
47	157.78	87	2,177	0.008	7	75
46	156.00	133	3,236	0.012	10	114
45	152.50	339	7,889	0.030	24	292
44	148.00	278	6,096	0.024	19	239
43	145.50	75	1,598	0.006	5	65
42	144.11	135	2,812	0.011	9	116
41	141.62	380	7,621	0.029	24	327

40	140.01	2	31	0.000	0	1
39	138.00	310	5,912	0.023	18	267
38	135.50	83	1,531	0.006	5	72
37	132.50	423	7,423	0.029	23	364
36	127.50	432	7,030	0.027	22	372
35	122.50	442	6,634	0.026	21	380
34	117.50	452	6,237	0.024	19	389
33	112.50	461	5,840	0.023	18	397
32	107.75	424	4,917	0.019	15	364
31	105.25	48	527	0.002	2	41
30	102.50	481	5,051	0.019	16	413
29	98.46	300	2,911	0.011	9	258
28	96.21	252	2,333	0.009	7	217
27	95.25	89	805	0.003	2	76
26	93.82	421	3,704	0.014	11	362
25	91.32	317	2,642	0.010	8	272
24	87.50	608	4,658	0.018	14	523
23	82.50	621	4,229	0.016	13	534
22	77.50	634	3,809	0.015	12	545
21	74.75	64	358	0.001	1	55
20	72.25	583	3,043	0.012	9	501
19	67.50	660	3,007	0.012	9	568
18	64.75	67	280	0.001	1	57
17	62.25	606	2,349	0.009	7	521
16	59.50	136	482	0.002	1	117
15	57.00	550	1,786	0.007	6	473
14	53.23	493	1,398	0.005	4	424
13	50.73	387	997	0.004	3	333
12	49.50	267	654	0.003	2	230
11	47.56	776	1,755	0.007	5	668
10	45.56	187	388	0.001	1	161
9	42.50	847	1,530	0.006	5	728
8	37.50	863	1,214	0.005	4	742
7	32.50	879	929	0.004	3	756
6	27.50	895	677	0.003	2	770
5	22.50	911	461	0.002	1	784
4	17.50	927	284	0.001	1	798
3	12.50	944	147	0.001	0	812
2	7.50	960	54	0.000	0	825
1	2.50	976	6	0.000	0	839
Kaelus DBCT108F1V92-	167.00	42	1,163	0.004	4	36
Raycap DC6-48-60-18-	167.00	64	1,774	0.007	5	55
Ericsson Radio 8843	167.00	216	6,016	0.023	19	186
Ericsson RRUS 4478 B	167.00	180	5,012	0.019	16	155
Ericsson RRUS 4449 B	167.00	213	5,940	0.023	18	183
Generic Round Side A	167.00	563	15,688	0.061	49	484
CCI DMP65R-BU4D	167.00	204	5,681	0.022	18	175
CCI OPA65R-BU4DA-K	167.00	157	4,393	0.017	14	135
Stand-Off	157.00	225	5,546	0.021	17	194
Andrew DBXNH-6565A-V	157.00	103	2,529	0.010	8	88
Stand-Off	146.00	225	4,796	0.019	15	194
Antel BXA-70063/6CF	146.00	51	1,087	0.004	3	44
VZW Unused Reserve (	146.00	1,096	23,371	0.090	72	943
Ericsson Radio 4449	136.00	222	4,106	0.016	13	191
Ericsson RRUS 11 B2	136.00	152	2,813	0.011	9	131
RFS APXV18-206516S-C	136.00	56	1,038	0.004	3	48
Flat T-Arm	136.00	750	13,872	0.054	43	645
RFS APXVAARR24_43-U-	136.00	384	7,097	0.027	22	330
		26,770	259,027	1.000	803	23,025

Load Case 1.2D + 1.0Ev + 1.0Eh Seismic

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-31.98	-0.81	0.00	-113.99	0.00	113.99	3,012.45	812.68	3,426.89	2,897.19	0.00	0.00	0.050
5.00	-30.79	-0.81	0.00	-109.97	0.00	109.97	2,976.75	796.07	3,288.31	2,803.97	0.01	-0.01	0.050
10.00	-29.62	-0.82	0.00	-105.91	0.00	105.91	2,939.96	779.47	3,152.58	2,711.17	0.03	-0.03	0.049
15.00	-28.47	-0.82	0.00	-101.82	0.00	101.82	2,902.10	762.87	3,019.72	2,618.85	0.06	-0.04	0.049
20.00	-27.34	-0.83	0.00	-97.71	0.00	97.71	2,863.16	746.26	2,889.71	2,527.08	0.11	-0.05	0.048
25.00	-26.23	-0.83	0.00	-93.57	0.00	93.57	2,823.15	729.66	2,762.56	2,435.92	0.17	-0.07	0.048
30.00	-25.14	-0.83	0.00	-89.42	0.00	89.42	2,782.05	713.05	2,638.28	2,345.43	0.25	-0.08	0.047
35.00	-24.07	-0.83	0.00	-85.26	0.00	85.26	2,739.88	696.45	2,516.86	2,255.68	0.34	-0.09	0.047
40.00	-23.02	-0.83	0.00	-81.10	0.00	81.10	2,696.63	679.85	2,398.29	2,166.74	0.44	-0.11	0.046
45.00	-22.79	-0.83	0.00	-76.93	0.00	76.93	2,652.30	663.24	2,282.59	2,078.66	0.57	-0.12	0.046
46.12	-21.83	-0.83	0.00	-76.00	0.00	76.00	2,642.25	659.53	2,257.13	2,059.10	0.59	-0.13	0.045
49.00	-21.50	-0.83	0.00	-73.61	0.00	73.61	2,616.06	649.96	2,192.09	2,008.86	0.67	-0.14	0.045
50.00	-21.02	-0.83	0.00	-72.78	0.00	72.78	2,606.89	646.64	2,169.75	1,991.50	0.70	-0.14	0.045
51.46	-20.40	-0.82	0.00	-71.58	0.00	71.58	1,930.41	521.27	1,762.37	1,488.56	0.75	-0.14	0.059
55.00	-19.72	-0.82	0.00	-68.67	0.00	68.67	1,910.28	511.86	1,699.33	1,446.27	0.86	-0.16	0.058
59.00	-19.55	-0.82	0.00	-65.39	0.00	65.39	1,886.89	501.23	1,629.51	1,398.71	1.00	-0.17	0.057
60.00	-18.80	-0.82	0.00	-64.56	0.00	64.56	1,880.94	498.58	1,612.29	1,386.85	1.03	-0.17	0.057
64.50	-18.72	-0.82	0.00	-60.90	0.00	60.90	1,853.61	486.62	1,535.90	1,333.70	1.20	-0.19	0.056
65.00	-17.90	-0.81	0.00	-60.49	0.00	60.49	1,850.52	485.29	1,527.53	1,327.82	1.22	-0.19	0.055
70.00	-17.18	-0.80	0.00	-56.44	0.00	56.44	1,819.02	472.01	1,445.06	1,269.24	1.44	-0.21	0.054
74.50	-17.10	-0.80	0.00	-52.83	0.00	52.83	1,789.75	460.06	1,372.80	1,216.96	1.65	-0.23	0.053
75.00	-16.31	-0.79	0.00	-52.43	0.00	52.43	1,786.45	458.73	1,364.88	1,211.17	1.67	-0.23	0.052
80.00	-15.54	-0.78	0.00	-48.47	0.00	48.47	1,752.79	445.44	1,286.99	1,153.69	1.93	-0.25	0.051
85.00	-14.79	-0.77	0.00	-44.57	0.00	44.57	1,718.06	432.16	1,211.39	1,096.84	2.21	-0.27	0.049
90.00	-14.39	-0.76	0.00	-40.72	0.00	40.72	1,682.25	418.88	1,138.07	1,040.71	2.50	-0.29	0.048
92.65	-13.87	-0.75	0.00	-38.71	0.00	38.71	1,662.87	411.85	1,100.20	1,011.31	2.67	-0.31	0.047
95.00	-13.76	-0.75	0.00	-36.94	0.00	36.94	1,645.36	405.60	1,067.05	985.34	2.82	-0.32	0.046
95.50	-13.45	-0.74	0.00	-36.57	0.00	36.57	1,641.61	404.27	1,060.07	979.85	2.86	-0.32	0.046
96.93	-13.08	-0.73	0.00	-35.51	0.00	35.51	1,109.83	304.93	804.08	667.66	2.95	-0.32	0.065
100.00	-12.48	-0.72	0.00	-33.26	0.00	33.26	1,097.48	298.80	772.11	646.89	3.16	-0.34	0.063
105.00	-12.42	-0.72	0.00	-29.67	0.00	29.67	1,076.52	288.84	721.49	613.24	3.53	-0.36	0.060
105.50	-11.90	-0.70	0.00	-29.32	0.00	29.32	1,074.37	287.84	716.52	609.89	3.57	-0.36	0.059
110.00	-11.32	-0.69	0.00	-26.16	0.00	26.16	1,054.48	278.88	672.58	579.83	3.92	-0.39	0.056
115.00	-10.76	-0.67	0.00	-22.73	0.00	22.73	1,031.36	268.92	625.39	546.71	4.34	-0.41	0.052
120.00	-10.21	-0.65	0.00	-19.40	0.00	19.40	1,007.16	258.95	579.92	513.96	4.78	-0.43	0.048
125.00	-9.68	-0.62	0.00	-16.17	0.00	16.17	981.89	248.99	536.16	481.64	5.25	-0.46	0.043
130.00	-9.15	-0.60	0.00	-13.05	0.00	13.05	955.53	239.03	494.12	449.82	5.74	-0.48	0.039
135.00	-9.05	-0.60	0.00	-10.06	0.00	10.06	928.10	229.07	453.79	418.55	6.25	-0.49	0.034
136.00	-6.73	-0.47	0.00	-9.46	0.00	9.46	922.49	227.07	445.93	412.36	6.35	-0.50	0.030
140.00	-6.73	-0.47	0.00	-7.59	0.00	7.59	899.59	219.10	415.18	387.90	6.77	-0.51	0.027
140.02	-6.25	-0.44	0.00	-7.58	0.00	7.58	899.47	219.06	415.03	387.77	6.78	-0.51	0.027
143.22	-6.09	-0.43	0.00	-6.17	0.00	6.17	892.28	216.61	405.78	380.32	7.12	-0.52	0.023
145.00	-5.99	-0.43	0.00	-5.40	0.00	5.40	881.76	213.06	392.59	369.62	7.32	-0.52	0.021
146.00	-3.95	-0.30	0.00	-4.97	0.00	4.97	875.80	211.07	385.28	363.66	7.43	-0.53	0.018
150.00	-3.53	-0.27	0.00	-3.78	0.00	3.78	851.52	203.10	356.74	340.10	7.87	-0.53	0.015
155.00	-3.36	-0.26	0.00	-2.42	0.00	2.42	817.60	193.13	322.60	310.38	8.44	-0.54	0.012
157.00	-2.85	-0.22	0.00	-1.90	0.00	1.90	800.73	189.15	309.43	297.64	8.66	-0.55	0.010

158.56	-2.72	-0.21	0.00	-1.56	0.00	1.56	787.55	186.03	299.33	287.88	8.84	-0.55	0.009
158.56	-2.72	-0.21	0.00	-1.56	0.00	1.56	551.08	165.33	179.87	180.95	8.84	-0.55	0.014
160.00	-2.30	-0.18	0.00	-1.25	0.00	1.25	551.08	165.33	179.87	180.95	9.01	-0.55	0.011
165.00	-2.12	-0.17	0.00	-0.34	0.00	0.34	551.08	165.33	179.87	180.95	9.58	-0.55	0.006
167.00	0.00	0.00	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	9.82	-0.55	0.000
168.56	0.00	0.00	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	10.00	-0.55	0.000

Load Case 0.9D - 1.0Ev + 1.0Eh Seismic (Reduced DL)

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-22.19	-0.80	0.00	-111.13	0.00	111.13	3,012.45	812.68	3,426.89	2,897.19	0.00	0.00	0.046
5.00	-21.36	-0.81	0.00	-107.11	0.00	107.11	2,976.75	796.07	3,288.31	2,803.97	0.01	-0.01	0.045
10.00	-20.55	-0.81	0.00	-103.06	0.00	103.06	2,939.96	779.47	3,152.58	2,711.17	0.03	-0.02	0.045
15.00	-19.75	-0.82	0.00	-99.00	0.00	99.00	2,902.10	762.87	3,019.72	2,618.85	0.06	-0.04	0.045
20.00	-18.97	-0.82	0.00	-94.92	0.00	94.92	2,863.16	746.26	2,889.71	2,527.08	0.10	-0.05	0.044
25.00	-18.20	-0.82	0.00	-90.83	0.00	90.83	2,823.15	729.66	2,762.56	2,435.92	0.16	-0.06	0.044
30.00	-17.44	-0.82	0.00	-86.73	0.00	86.73	2,782.05	713.05	2,638.28	2,345.43	0.24	-0.08	0.043
35.00	-16.70	-0.82	0.00	-82.63	0.00	82.63	2,739.88	696.45	2,516.86	2,255.68	0.33	-0.09	0.043
40.00	-15.97	-0.82	0.00	-78.54	0.00	78.54	2,696.63	679.85	2,398.29	2,166.74	0.43	-0.11	0.042
45.00	-15.81	-0.82	0.00	-74.45	0.00	74.45	2,652.30	663.24	2,282.59	2,078.66	0.55	-0.12	0.042
46.12	-15.14	-0.81	0.00	-73.54	0.00	73.54	2,642.25	659.53	2,257.13	2,059.10	0.58	-0.12	0.041
49.00	-14.91	-0.81	0.00	-71.20	0.00	71.20	2,616.06	649.96	2,192.09	2,008.86	0.66	-0.13	0.041
50.00	-14.58	-0.81	0.00	-70.38	0.00	70.38	2,606.89	646.64	2,169.75	1,991.50	0.68	-0.14	0.041
51.46	-14.15	-0.81	0.00	-69.20	0.00	69.20	1,930.41	521.27	1,762.37	1,488.56	0.73	-0.14	0.054
55.00	-13.68	-0.80	0.00	-66.35	0.00	66.35	1,910.28	511.86	1,699.33	1,446.27	0.83	-0.15	0.053
59.00	-13.56	-0.80	0.00	-63.14	0.00	63.14	1,886.89	501.23	1,629.51	1,398.71	0.97	-0.17	0.052
60.00	-13.04	-0.80	0.00	-62.34	0.00	62.34	1,880.94	498.58	1,612.29	1,386.85	1.00	-0.17	0.052
64.50	-12.98	-0.80	0.00	-58.76	0.00	58.76	1,853.61	486.62	1,535.90	1,333.70	1.17	-0.19	0.051
65.00	-12.42	-0.79	0.00	-58.36	0.00	58.36	1,850.52	485.29	1,527.53	1,327.82	1.19	-0.19	0.051
70.00	-11.91	-0.78	0.00	-54.42	0.00	54.42	1,819.02	472.01	1,445.06	1,269.24	1.40	-0.21	0.049
74.50	-11.86	-0.78	0.00	-50.91	0.00	50.91	1,789.75	460.06	1,372.80	1,216.96	1.60	-0.22	0.048
75.00	-11.31	-0.77	0.00	-50.52	0.00	50.52	1,786.45	458.73	1,364.88	1,211.17	1.62	-0.23	0.048
80.00	-10.78	-0.76	0.00	-46.67	0.00	46.67	1,752.79	445.44	1,286.99	1,153.69	1.87	-0.25	0.047
85.00	-10.26	-0.74	0.00	-42.88	0.00	42.88	1,718.06	432.16	1,211.39	1,096.84	2.14	-0.27	0.045
90.00	-9.98	-0.74	0.00	-39.16	0.00	39.16	1,682.25	418.88	1,138.07	1,040.71	2.43	-0.28	0.044
92.65	-9.62	-0.73	0.00	-37.21	0.00	37.21	1,662.87	411.85	1,100.20	1,011.31	2.59	-0.30	0.043
95.00	-9.54	-0.72	0.00	-35.50	0.00	35.50	1,645.36	405.60	1,067.05	985.34	2.74	-0.30	0.042
95.50	-9.33	-0.72	0.00	-35.14	0.00	35.14	1,641.61	404.27	1,060.07	979.85	2.77	-0.31	0.042
96.93	-9.07	-0.71	0.00	-34.12	0.00	34.12	1,109.83	304.93	804.08	667.66	2.86	-0.31	0.059
100.00	-8.66	-0.69	0.00	-31.94	0.00	31.94	1,097.48	298.80	772.11	646.89	3.07	-0.32	0.057
105.00	-8.62	-0.69	0.00	-28.48	0.00	28.48	1,076.52	288.84	721.49	613.24	3.42	-0.35	0.054
105.50	-8.25	-0.68	0.00	-28.14	0.00	28.14	1,074.37	287.84	716.52	609.89	3.46	-0.35	0.054
110.00	-7.85	-0.66	0.00	-25.09	0.00	25.09	1,054.48	278.88	672.58	579.83	3.80	-0.37	0.051
115.00	-7.47	-0.64	0.00	-21.80	0.00	21.80	1,031.36	268.92	625.39	546.71	4.20	-0.40	0.047
120.00	-7.08	-0.62	0.00	-18.60	0.00	18.60	1,007.16	258.95	579.92	513.96	4.63	-0.42	0.043
125.00	-6.71	-0.60	0.00	-15.50	0.00	15.50	981.89	248.99	536.16	481.64	5.08	-0.44	0.039
130.00	-6.35	-0.57	0.00	-12.51	0.00	12.51	955.53	239.03	494.12	449.82	5.55	-0.46	0.034
135.00	-6.28	-0.57	0.00	-9.64	0.00	9.64	928.10	229.07	453.79	418.55	6.04	-0.48	0.030
136.00	-4.67	-0.45	0.00	-9.07	0.00	9.07	922.49	227.07	445.93	412.36	6.14	-0.48	0.027
140.00	-4.66	-0.45	0.00	-7.28	0.00	7.28	899.59	219.10	415.18	387.90	6.55	-0.49	0.024
140.02	-4.34	-0.42	0.00	-7.27	0.00	7.27	899.47	219.06	415.03	387.77	6.55	-0.49	0.024
143.22	-4.22	-0.41	0.00	-5.92	0.00	5.92	892.28	216.61	405.78	380.32	6.88	-0.50	0.020
145.00	-4.16	-0.41	0.00	-5.18	0.00	5.18	881.76	213.06	392.59	369.62	7.07	-0.51	0.019
146.00	-2.74	-0.29	0.00	-4.77	0.00	4.77	875.80	211.07	385.28	363.66	7.18	-0.51	0.016
150.00	-2.45	-0.26	0.00	-3.63	0.00	3.63	851.52	203.10	356.74	340.10	7.61	-0.52	0.014
155.00	-2.33	-0.25	0.00	-2.33	0.00	2.33	817.60	193.13	322.60	310.38	8.15	-0.52	0.010
157.00	-1.98	-0.21	0.00	-1.83	0.00	1.83	800.73	189.15	309.43	297.64	8.37	-0.53	0.009

158.56	-1.89	-0.21	0.00	-1.49	0.00	1.49	787.55	186.03	299.33	287.88	8.54	-0.53	0.008
158.56	-1.89	-0.21	0.00	-1.49	0.00	1.49	551.08	165.33	179.87	180.95	8.54	-0.53	0.012
160.00	-1.59	-0.17	0.00	-1.20	0.00	1.20	551.08	165.33	179.87	180.95	8.70	-0.53	0.010
165.00	-1.47	-0.16	0.00	-0.32	0.00	0.32	551.08	165.33	179.87	180.95	9.26	-0.53	0.004
167.00	0.00	0.00	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	9.48	-0.53	0.000
168.56	0.00	0.00	0.00	0.00	0.00	0.00	551.08	165.33	179.87	180.95	9.66	-0.53	0.000

Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	16.68	0.00	32.09	0.00	0.00	1948.11	96.93	0.83
0.9D + 1.0W	16.66	0.00	24.06	0.00	0.00	1909.71	96.93	0.80
1.2D + 1.0Di + 1.0Wi	3.23	0.00	44.80	0.00	0.00	377.65	96.93	0.18
1.2D + 1.0Ev + 1.0Eh	0.81	0.00	31.98	0.00	0.00	113.99	96.93	0.06
0.9D - 1.0Ev + 1.0Eh	0.80	0.00	22.19	0.00	0.00	111.13	96.93	0.06
1.0D + 1.0W	4.14	0.00	26.77	0.00	0.00	479.82	96.93	0.21

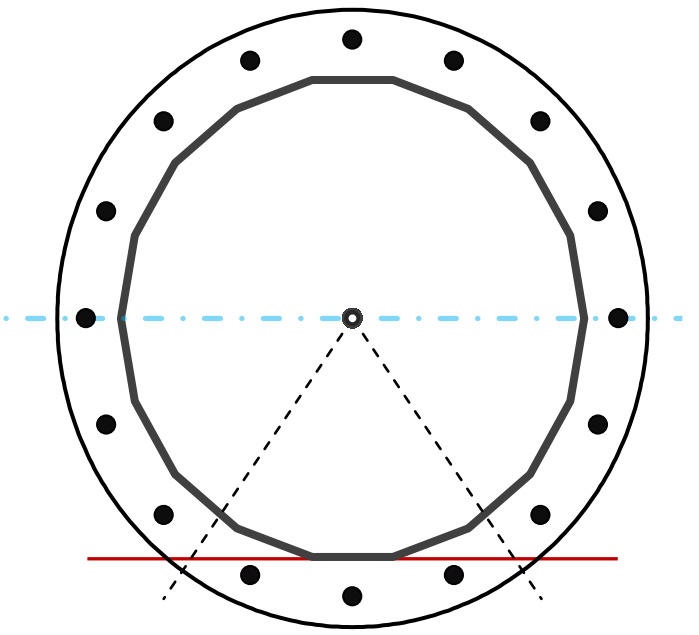
Base Plate & Anchor Rod Analysis

Pole Dimensions		
Number of Sides	18	-
Diameter	47	in
Thickness	5/16	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	1948.1	k-ft
Axial, Pu	32.1	k
Shear, Vu	16.7	k
Neutral Axis	180	°

Report Capacities		
Component	Capacity	Result
Base Plate	19%	Pass
Anchor Rods	46%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, ø	61	in
Thickness	2 1/2	in
Grade	A572-50	
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Clip	N/A	in
Orientation Offset	0	°
Anchor Rod Detail	d	η=0.5
Clear Distance	5 1/8	in
Applied Moment, Mu	466.9	k
Bending Stress, ϕMn	2451.6	k



Original Anchor Rods		
Arrangement	Radial	-
Quantity	16	-
Diameter, ø	2 1/4	in
Bolt Circle	55	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	10.8	in
Orientation Offset	0	°
Applied Force, Pu	113.0	k
Anchor Rods, ϕPn	243.6	k

Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	16.7	1948.1	1.00
Anchor Rod Forces	16.7	1948.1	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in^2	in^2	in^4	#	in^4
Pole	45.6030	2.5335	0.0827		12426.72
Bolt	3.9761	3.2477	0.8393	4.5	18001.67
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Round	-
Diameter, D	61	in
Thickness, t	2.5	in
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Base Plate Chord	38.884	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	5.125	-

Anchor Rods		
Anchor Rod Quantity, N	16	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	55	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	113.0	k
Applied Shear, Vu	0.0	k
Compressive Capacity, ϕPn	243.6	k
Tensile Capacity, ϕRnt	0.464	OK
Interaction Capacity	0.215	OK

External Base Plate		
Chord Length AA	32.947	in
Additional AA	5.000	in
Section Modulus, Z	59.292	in^3
Applied Moment, Mu	466.9	k-ft
Bending Capacity, ϕMn	2668.1	k-ft
Capacity, Mu/ϕMn	0.175	OK
Chord Length AB	31.882	in
Additional AB	5.000	in
Section Modulus, Z	57.628	in^3
Applied Moment, Mu	349.8	k-ft
Bending Capacity, ϕMn	2593.2	k-ft
Capacity, Mu/ϕMn	0.135	OK
Bend Line Length	34.867	in
Additional Bend Line	0.000	in
Section Modulus, Z	54.480	in^3
Applied Moment, Mu	466.9	k-ft
Bending Capacity, ϕMn	2451.6	k-ft
Capacity, Mu/ϕMn	0.190	OK

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in^3
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, ϕMn	0.0	k-ft
Capacity, Mu/ϕMn		

Flange Plate Analysis

Flange Plate			
	Plate Type	***Flange***	***@ 159 ft***
	Pole Diameter	12.75	in
	Pole Thickness	0.375	in
	Plate Diameter	25	in
	Plate Thickness	1 1/2	in
	Plate Fy	36	ksi
	Weld Length	1/4	in
	f_s Resistance	107.18	k-in
	Applied	17.24	k-in

Stiffeners			
	#	***3***	***Show***
	Thickness	5/8	in
	Length	5	in
	Height	7	in
	Chamfer	4	in
	Offset Angle	0	°
	Fy	36	ksi

Bolts			
	#	***9***	
	Bolt Circle	22	in
	(R)adial / (S)quare	R	
•	Diameter	3/4	in
	Hole Diameter	7/8	in
	Type	A325	
	Fy	92	ksi
	Fu	120	ksi
	f_s Resistance	30.10	k
	Applied	4.38	k

Reinforcement •		
#		

Extra Bolts O		
#		

Code Rev.	***H***
Moment	19.2 k-ft
Axial	2.4 k

Date	6/26/2020
Engineer	Steven Nedrud
Site #	413782
Carrier	AT&T Mobility

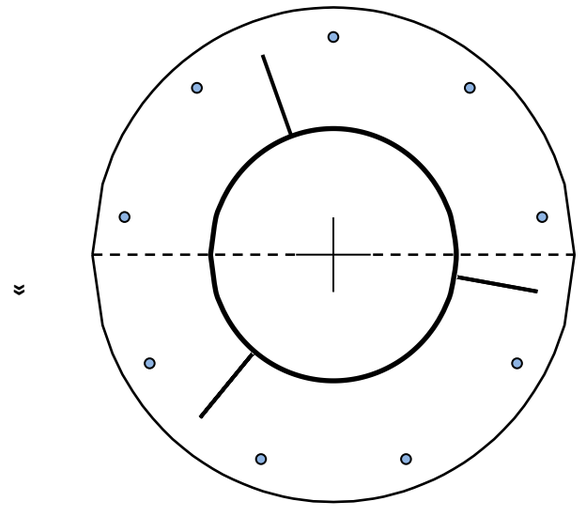


Plate Stress Ratio:

16% Pass

Bolt Stress Ratio:

15% Pass

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2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
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NORTH EASTON ,MA 02356

UPS Access Point™
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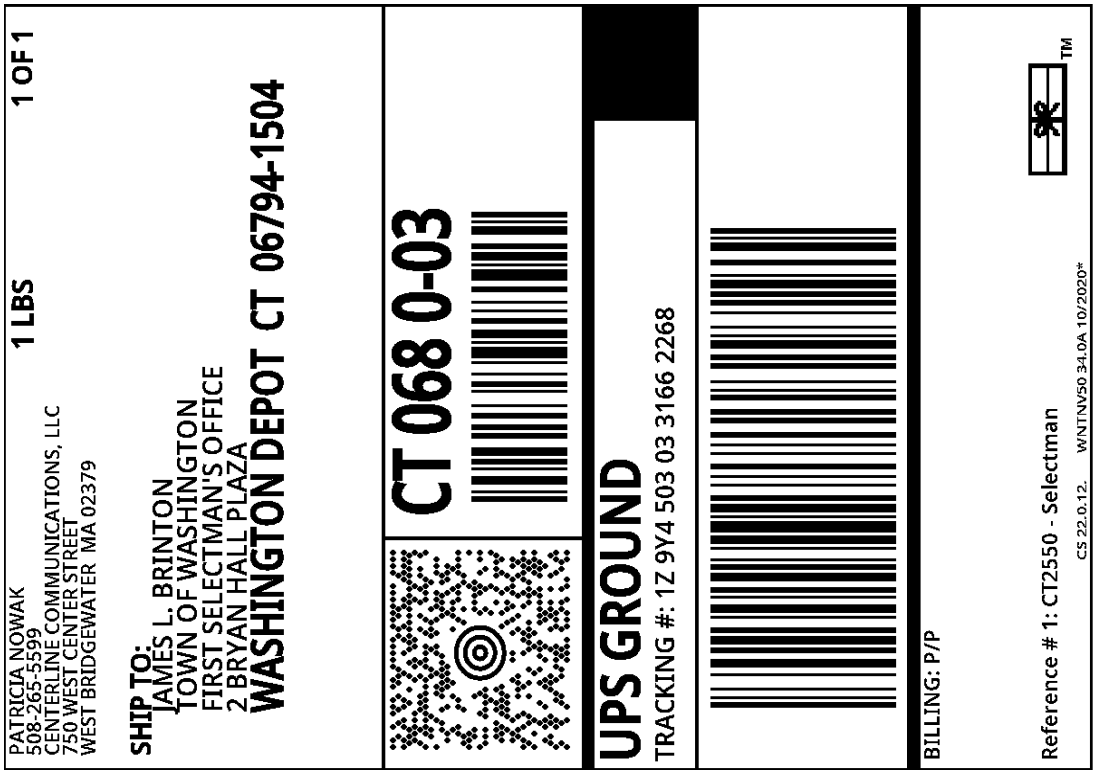

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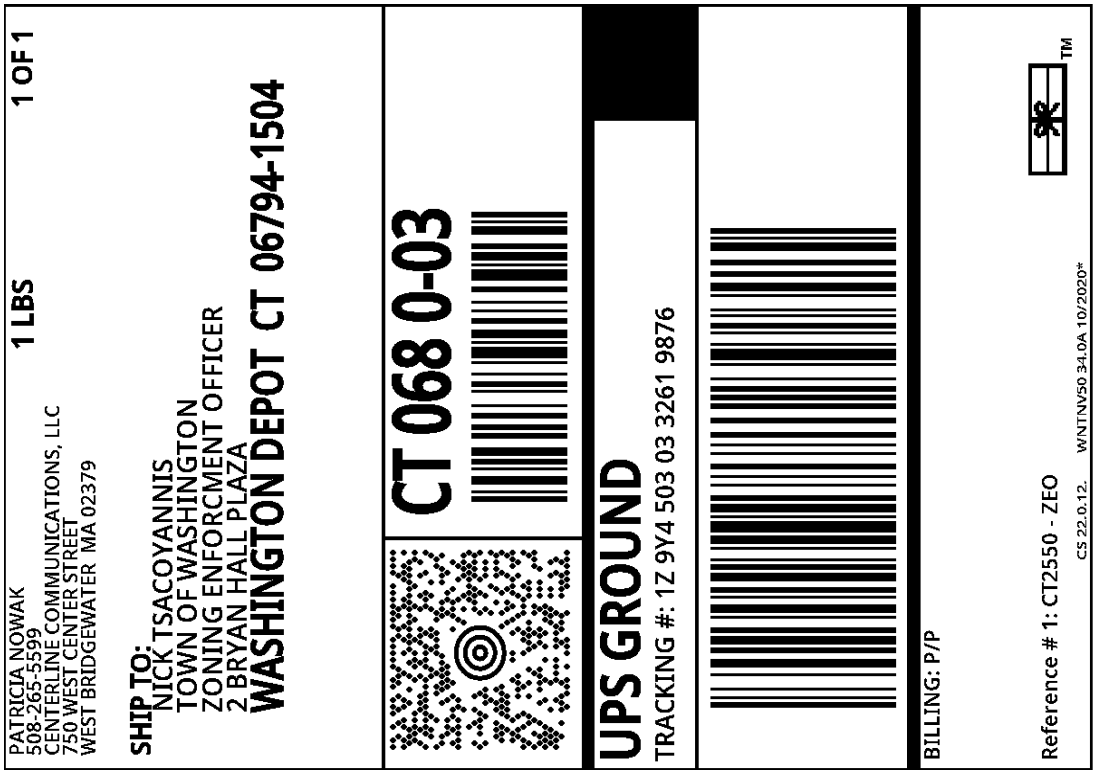

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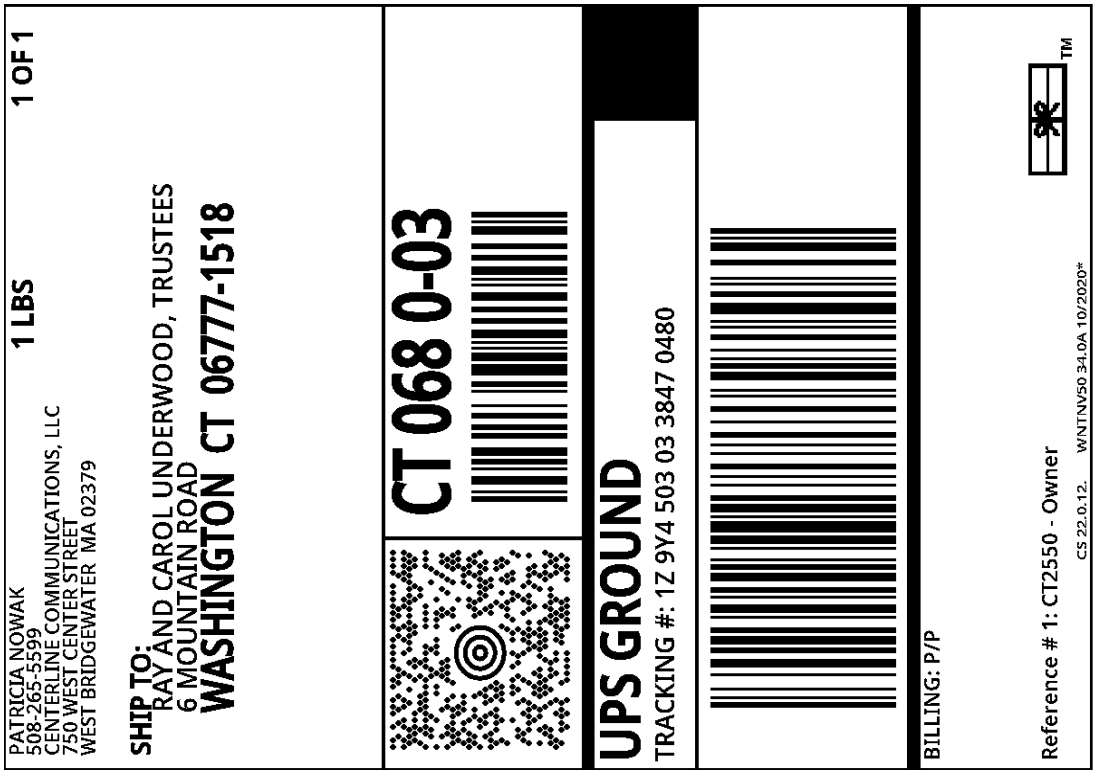

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