Derek Maheux Program Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Mobile: (508)649-3407
Dmaheux@clinellc.com

April 18, 2024

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

RE: Notice of Exempt Modification // Site: BETHEL CT (ATC: 210744)
38 Spring Hill Lane, Bethel, CT 06801
N 41.362067 // W -73.395917

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains twelve (12) antenna at the 93-ft level on the existing 124 ft Tower, located at 38 Spring Hill Lane, Bethel, CT. The tower is owned by American Tower. Verizon Wireless proposed modification involves the installation of a new mount modification and side by side mounts and reinstalling equipment on Verizon Wireless existing antenna platform and mounting assembly.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §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 Bethel's Chief Elected Official and Land Use Officer.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated April 9, 2024 by A.T Engineering Services, LLC, a structural analysis dated February 20, 2024, by American Tower Corp., and a structural mount analysis by Colliers Engineering and Design dated February 13, 2024, and Non-Ionizing Electromagnetic Radiation (NIER) Study dated December 2, 2023, by Tower Engineering Professionals.

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

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

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

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis and a structural mount analysis, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings.

For the foregoing reasons, Verizon Wireless 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,

Derek Maheux

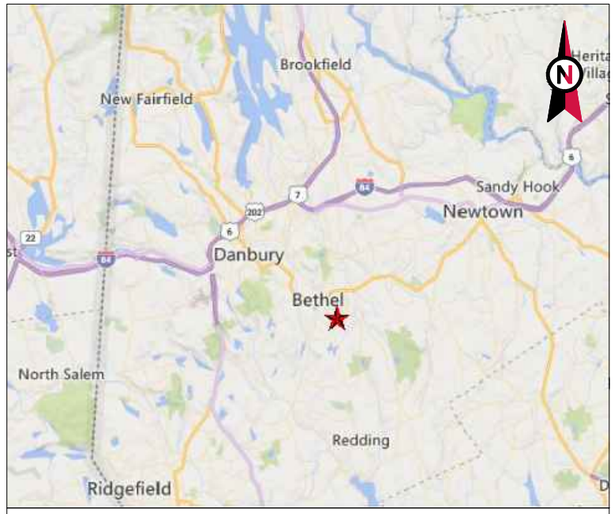
_____

Derek Maheux, Program Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Mobile: (508) 649 2307
Dmaheux@clinellc.com

Attachments:
Exhibit 1 – Construction Drawings
Exhibit 2 – Property Card and GIS
Exhibit 3 – Structural Analysis
Exhibit 4 – Mount Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Available Original Tower Approval Records
Exhibit 7 – Notice Deliver Confirmations

cc: Dan Carter – First Selectman – Chief Elected Official
Beth Cavagna – Town Planner - as P&Z official
American Tower Corporation - as tower owner and ground owner

EXHIBIT 1



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: SPRING HILL LANE CT
ATC SITE NUMBER: 210744
VERIZON SITE NAME: BETHEL CT
VERIZON FUZE PID: 16244636
SITE ADDRESS: 38 SPRING HILL LANE
BETHEL, CT 06801

LOCATION MAP

VERIZON AMENDMENT DRAWINGS

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. 2020 NFPA 70, NATIONAL ELECTRIC CODE (NEC)
2. 2022 CONNECTICUT STATE BUILDING CODE
3. 2021 INTERNATIONAL BUILDING CODE (IBC)

DESIGN CRITERIA FROM TOWER STRUCTUAL ANALYSIS:

BASIC WIND SPEED:	116 MPH (3-SECOND GUST)
BASIC WIND SPEED W/ ICE:	50 MPH (3-SECOND GUST) W/ 1.00" RADIAL ICE CONCURRENT
CODE(S):	ANSI/TIA-222-H / 2021 IBC / 2022 CONNECTICUT STATE BUILDING CODE
EXPOSURE CATEGORY:	B
RISK CATEGORY:	II
TOPO FACTOR PROCEDURE:	METHOD 2
FEATURE:	RIDGE
SPECTRAL RESPONSE:	S_S=0.22, S_1=0.06
SITE CLASS:	D - STIFF SOIL - DEFAULT

INFORMATION TAKEN FROM STRUCTURAL ANALYSIS COMPLETED BY ATC, DATED 02/21/24.

UTILITY COMPANIES

POWER COMPANY: IRTON
PHONE: (800) 635-5461

TELEPHONE COMPANY: UNKNOWN
PHONE: N/A

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

PROJECT SUMMARY

SITE ADDRESS:

38 SPRING HILL LANE
BETHEL, CT 06801
COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41° 21' 43.996" N

LONGITUDE: 73° 23' 47.764" W

GROUND ELEVATION: 0' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON WIRELESS

ENGINEER:

A.T. ENGINEERING SERVICES LLC
1 FENTON MAIN, STE 300
CARY, NC 27511

PROPERTY OWNER:

AMERICAN TOWER
116 HUNTINGTON AVE
BOSTON, MA 02116

PROJECT DESCRIPTION

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

REMOVE (12) ANTENNA(s), (9) RRH(s), (2) OVP(s), (5) 1 5/8" COAX AND (2) 1 1/4" HYBRID CABLE(s)

INSTALL MOUNT MODIFICATIONS, (3) SBS MOUNT(s), (9) ANTENNA(s), (6) RRH(s), (1) OVP(s), AND (2) 1 5/8" HYBRID CABLE(s)

EXISTING (6) 1 5/8" COAX CABLE(s) TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

FROM NEW HAVEN: TAKE CT-15 S TOWARD N.Y. CITY. TAKE EXIT 46 TOWARD CT-59. KEEP RIGHT AND MERGE ONTO CONGRESS ST. TURN LEFT ONTO CT-59 N/SPRT HILL RD. TURN LEFT ONTO CENTER RD. TURN RIGHT ONTO CT-58 N. TURN LEFT ONTO HOYTS HILL. TURN LEFT ONTO GOVERNORS LN. TURN RIGHT ONTO SPRING HILL LN.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	4/9/2024	AP
G-002	GENERAL NOTES	0	4/9/2024	AP
C-001	EXISTING SURVEY	0	4/9/2024	AP
C-101	DETAILED SITE PLAN	0	4/9/2024	AP
C-201	TOWER ELEVATION	0	4/9/2024	AP
C-401	ANTENNA INFORMATION & SCHEDULE	0	4/9/2024	AP
C-501	CONSTRUCTION DETAILS	0	4/9/2024	AP
E-501	GROUNDING DETAILS	0	4/9/2024	AP
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT:	HTTPS://PMI.VZWSMART.COM
SMART TOOL VENDOR PROJECT NUMBER:	10222542
VZW LOCATION CODE (PSLC):	5000381746

***PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

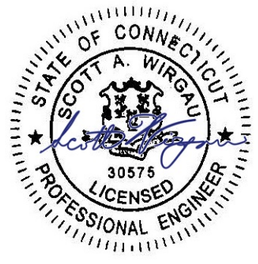
MOUNT MODIFICATION REQUIRED:	YES
VZW APPROVED SMART KIT VENDORS:	REFER TO MOUNT MODIFICATION DRAWINGS PAGES FOR VZW SMART KIT APPROVED VENDORS

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

ATC SITE NUMBER:
210744
ATC SITE NAME:
SPRING HILL LANE CT
VERIZON SITE NAME:
BETHEL CT
SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:



verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. WHEN THE PROJECT SCOPE REQUIRES THE USE OF THE SAFETY CLIMB, THE GENERAL CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS FREE OF OBSTRUCTIONS, NOT RUBBING ON OR TRAPPED BY ANY INSTALLED CUSTOMER EQUIPMENT, IS VISUALLY TAUT, MEETS MANUFACTURER INSTALLATION SPECIFICATIONS, AND IS FIRMLY SECURED AT ALL CABLE GUIDE LOCATIONS UPON PROJECT COMPLETION.
29. COMPLETION OF PROJECT SHALL NOT OBSTRUCT, TRAP, LOOSEN, OR OTHERWISE CAUSE FAILURE TO MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SAFETY CLIMB.
30. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
31. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY 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.
32. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
33. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
34. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
35. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL/HYBRID CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND VERIZON SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. INSTALL COAXIAL/HYBRID CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL/HYBRID CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
2. ANTENNA AND COAXIAL/HYBRID CABLE GROUNDING:
   - A. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
   - B. ALL COAXIAL/HYBRID CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL/HYBRID CABLE (NOT WITHIN BENDS)

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

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

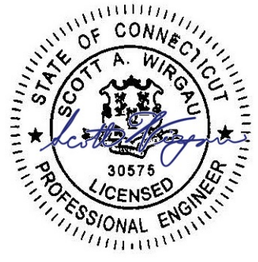
ATC SITE NUMBER:
210744

ATC SITE NAME:
SPRING HILL LANE CT

VERIZON SITE NAME:
BETHEL CT

SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:



Digitally Signed: 2024-04-10

verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

PROJECT SUMMARY

FIELD SURVEY DATE: 03/30/2021

SITE ADDRESS: 38 SPRING HILL LANE, BETHEL, CONNECTICUT

PARCEL INFORMATION
OWNER: BLUE SKY TOWERS
OWNER ADDRESS: 155 WOOSTER ST, SHELTON, CT 06484
APN: 37-47A-121

TOTAL AREAS:
PARENT PARCEL: 1.63± ACRES

GEOGRAPHIC COORDINATES OF TOWER:
LATITUDE: 41°21'43.99" N — LONGITUDE: 73°23'47.70" W
VERTICAL DATUM: NAVD 1988 — HORIZONTAL DATUM: NAD83
GROUND ELEVATION: 807.2'

THIS IS TO CERTIFY THAT THE ABOVE INFORMATION IS PROVIDED TO THE FOLLOWING ACCURACY:
± TWENTY (20) FEET IN THE HORIZONTAL
± THREE (3) FEET IN THE VERTICAL

*MERIDIAN AND COORDINATES REFER TO CONNECTICUT STATE PLANE, NAD 83, AND ARE BASED ON GPS OBSERVATIONS.

FLOODPLAIN:
PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE : X
COMMUNITY PANEL NO. : 09001C0232F
EFFECTIVE DATE: 06/18/2010

BOUNDARY NOTE
THIS SURVEY IS THE RESULT OF AN ACTUAL FIELD SURVEY BASED UPON SUFFICIENT RESEARCH AND FIELD EVIDENCE TO VERIFY THE PARENT PARCEL OF THE SUBJECT PROPERTY. HOWEVER, THIS SURVEYOR HAS RELIED UPON THE DEEDS OF RECORD, AS PROVIDED. THIS SURVEYOR MAKES NO GUARANTEE , EITHER EXPRESSED OR IMPLIED AS TO THE QUALITY OF THE DEED REPORT AND REFERENCE DOCUMENTS PROVIDED AND THE DOCUMENTS PROVED AFFECTING THE LEASE AND IMMEDIATE AREA HAVE BEEN PLOTTED. THE BOUNDARY SHOWN HEREON IS PLOTTED FROM THE RECORD INFORMATION PROVIDED AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

ENCROACHMENT NOTE
1. ACCESS ROAD ENCROACHES ONTO ABUTTING PROPERTY AS SHOWN AND IS LABELED AS AN ENCROACHMENT. TITLE COMMITMENT/REPORT FOR EACH ABUTTER'S PROPERTY IS REQUIRED TO INCLUDE AS-SURVEYED LEGAL DESCRIPTION(S) FOR PORTION OF ACCESS ROAD OVER EACH PROPERTY.

SURVEYOR'S NOTES

1. THERE IS ACCESS TO THE SUBJECT PROPERTY VIA SPRING HILL LANE, A PUBLIC RIGHT OF WAY.
2. THE LOCATIONS OF ALL UTILITIES SHOWN ON THE SURVEY ARE FROM VISIBLE SURFACE EVIDENCE ONLY.
3. AT THE TIME OF THIS SURVEY THERE WAS NO OBSERVABLE SURFACE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.
4. AT THE TIME OF THIS SURVEY, THERE WAS NO OBSERVABLE EVIDENCE OF THE SUBJECT PROPERTY BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
5. AT THE TIME OF THIS SURVEY, THERE WAS NO OBSERVABLE EVIDENCE OF ANY RECENT CHANGES IN STREET RIGHT-OF-WAY LINES EITHER COMPLETED OR PROPOSED, AND AVAILABLE FROM THE CONTROLLING JURISDICTION.
6. AT THE TIME OF THIS SURVEY, THERE WAS NO OBSERVABLE EVIDENCE OF ANY RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
7. ANGLES OR BEARINGS SHOWN HEREON ARE FORMATTED IN DEGREES, MINUTES, AND SECONDS. DISTANCES OR ELEVATIONS SHOWN HEREON ARE IN U.S. SURVEY FEET, UNLESS NOTED OTHERWISE.
8. UNDERGROUND IMPROVEMENTS IF ANY AND NOT VISIBLE AT THE TIME OF THE SURVEY, HAVE NOT BEEN LOCATED IN THE FIELD OR SHOWN HEREON.
9. WETLANDS, IF PRESENT, HAVE NOT BEEN LOCATED OR SHOWN HEREON.
10. NOT ALL IMPROVEMENTS ON THE PARENT PARCEL BEING SURVEYED ARE SHOWN HEREON.
11. REFERENCES:
    A. MAP ENTITLED: "SUBDIVISION MAP PREPARED FOR MERRITT, CHAPMAN AND SCOTT" AS FILED IN THE BETHEL TOWN CLERK'S OFFICE ON MAY 16, 1967 AS FILE 12 MAP #156.
    B. MAP ENTITLED: "ALTA/ACSM LAND TITLE SURVEY" PREPARED BY PFS LAND SURVEYING, INC. ON 07/30/2014.
    C. PRO FORMA REPORT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY AS TITLE NUMBER GGCT2, EFFECTIVE DATE MARCH 24, 2021.

LEGAL DESCRIPTION

PARENT PARCEL - AS PROVIDED:
THE LAND REFERRED TO IN THIS POLICY IS DESCRIBED AS FOLLOWS:

ALL THAT CERTAIN TRACT, PIECE OR PARCEL OF LAND, TOGETHER WITH A 10' X 12' SHED, A RADIO TOWER, AND ANY OTHER BUILDINGS AND IMPROVEMENTS THEREON, SITUATED IN THE TOWN OF BETHEL, COUNTY OF FAIRFIELD, AND STATE OF CONNECTICUT, AND BEING SHOWN AND DESIGNATED AS LOT NUMBER 27 ON A CERTAIN MAP ENTITLED "SUBDIVISION MAP PREPARED FOR MERRIT, CHAPMAN AND SCOTT BETHEL, CONNECTICUT TOTAL AREA = 60.691 ACRES SCALE 1" = 100'. SAID MAP IS CERTIFIED "SUBSTANTIALLY CORRECT" BY HENRICIS', NEW CANAAN, RIDGEFIELD AND BETHEL, CONNECTICUT, MAY 21, 1969, ROBERT M. HENRICI, L.S. #6089. SAID MAP IS ON FILE IN THE LAND RECORDS OF THE TOWN OF BETHEL AS FILE 12, MAP 156. REFERENCE TO SAID MAP IS HEREBY MADE AND HAD FOR A MORE PARTICULAR DESCRIPTION OF SAID PREMISES.

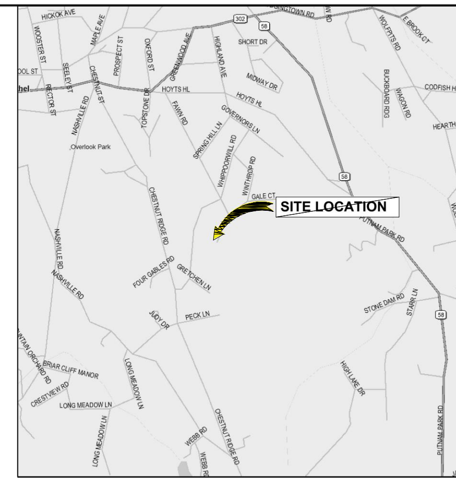
BEING THE SAME PROPERTY CONVEYED TO BLUE SKY TOWERS, LLC, A DELAWARE LIMITED LIABILITY COMPANY, WITH WARRANTY COVENANTS, FROM SPRING HILL LANE PROPERTIES, LLC, A CONNECTICUT LIMITED LIABILITY COMPANY BY WARRANTY DEED DATED SEPTEMBER 23, 2014 AND RECORDED ON OCTOBER 3, 2014 IN BOOK 1051, PAGE 496.

FEE AREA - AS SURVEYED:
ALL THAT CERTAIN PLOT, PIECE OR PARCEL OF LAND SITUATE, LYING AND BEING IN THE TOWN OF BETHEL, COUNTY OF FAIRFIELD, STATE OF CONNECTICUT, SAID BEING TAX MAP 32, BLOCK 47A, LOT 121 AS DESIGNATED ON THE FAIRFIELD COUNTY TAX MAPS, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

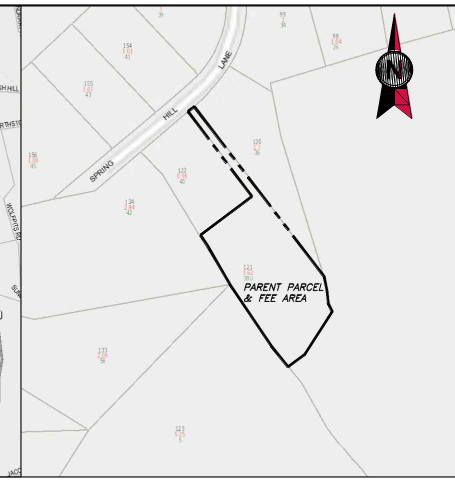
BEGINNING AT THE NORTHEASTERLY CORNER OF THE HEREIN DESCRIBED FEE AREA SAID POINT BEING SOUTH 44°01'21" WEST FOR A DISTANCE OF 132.29 FEET FROM A FOUND IRON PIN AT THE SOUTHERLY SIDELINE OF SPRING HILL LANE AND THE NORTHEASTERLY CORNER OF LANDS NOW OR FORMERLY STEVEN J. & DEBRA A. MITCHELL

SOUTH 37°35'22" EAST FOR A DISTANCE OF 269.54 FEET TO A POINT; THENCE
SOUTH 37°35'22" EAST FOR A DISTANCE OF 225.22 FEET TO A POINT; THENCE
SOUTH 15°48'22" EAST FOR A DISTANCE OF 39.31 FEET TO A POINT; THENCE
SOUTH 03°22'22" EAST FOR A DISTANCE OF 24.50 FEET TO A POINT; THENCE
SOUTH 30°27'22" EAST FOR A DISTANCE OF 26.20 FEET TO A POINT; THENCE
SOUTH 25°12'38" WEST FOR A DISTANCE OF 134.50 FEET TO A POINT; THENCE
SOUTH 34°31'38" WEST FOR A DISTANCE OF 44.59 FEET TO A POINT; THENCE
NORTH 43°29'22" WEST FOR A DISTANCE OF 109.57 FEET TO A POINT; THENCE
NORTH 33°05'22" WEST FOR A DISTANCE OF 107.80 FEET TO A POINT; THENCE
NORTH 32°25'22" WEST FOR A DISTANCE OF 133.00 FEET TO A POINT; THENCE
NORTH 34°04'52" WEST FOR A DISTANCE OF 34.30 FEET TO A POINT; THENCE
NORTH 52°24'38" EAST FOR A DISTANCE OF 162.41 FEET TO A POINT; THENCE
NORTH 37°35'22" WEST FOR A DISTANCE OF 269.54 FEET TO A POINT; THENCE
NORTH 52°24'38" EAST FOR A DISTANCE OF 20.00 FEET TO THE POINT OF BEGINNING.

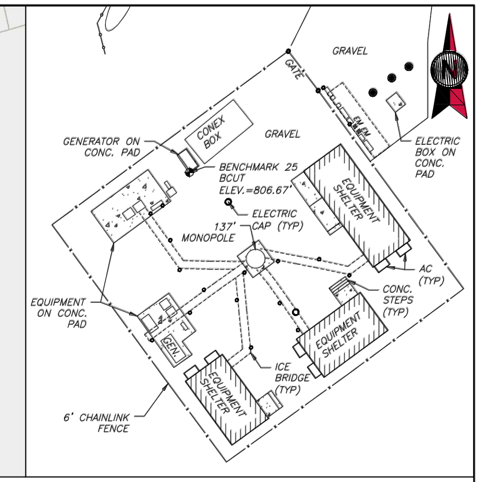
CONTAINING 1.62± ACRES OR 70,735 SQUARE FEET



1 VICINITY MAP
NTS



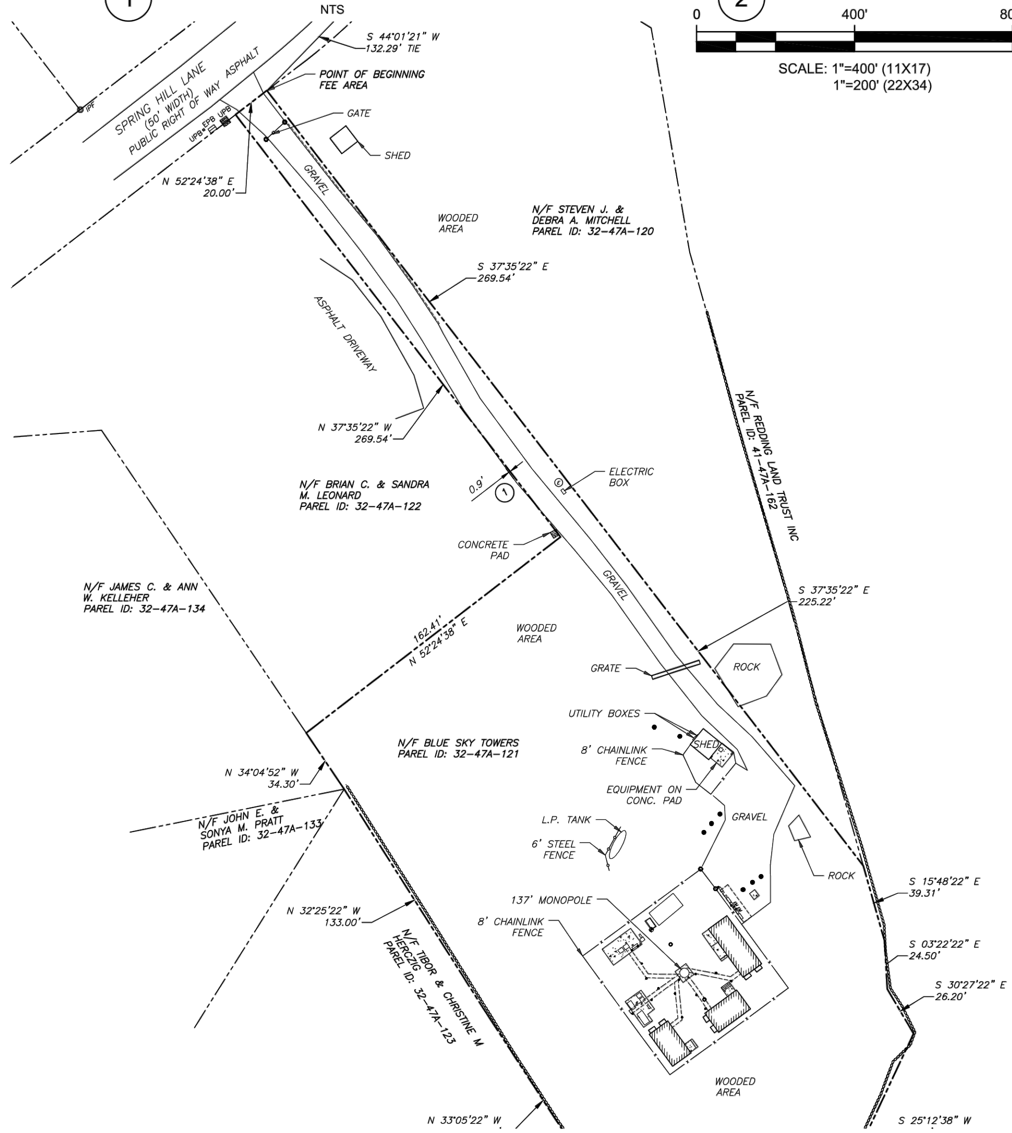
2 PARENT PARCEL
0 400' 800'
SCALE: 1"=400' (11X17)
1"=200' (22X34)



3 COMPOUND DETAIL
0 40' 80'
SCALE: 1"=40' (11X17)
1"=20' (22X34)

SURVEY LEGEND

— - - — - - —	EXISTING PROPERTY
— - - — - - —	EXISTING ADJ. PROPERTY
—— - ——	EXISTING LEASE
- - - - - - -	EXISTING EASEMENT
- - -730- - -	EXISTING CONTOUR (MAJOR)
- - -731- - -	EXISTING CONTOUR (MINOR)
	EXISTING TREELINE
—x—x—	EXISTING CHAINLINK FENCE
—OHW—	EXISTING OVERHEAD WIRES
	EXISTING STONEWALL
	EXISTING BUILDING
	EXISTING ROAD (DIRT)
	EXISTING ROAD (PAVED)
IPF	SURVEY IRON PIN FOUND
	SURVEY BENCHMARK
	EXISTING UTILITY POLE
	EXISTING GUY ANCHOR
EM	EXISTING ELECTRIC METER
	EXISTING BOLLARD
UPB	EXISTING UTILITY PULLBOX
	EXISTING POST
LT. POLE	EXISTING LIGHT
E	EXISTING ELECTRIC MANHOLE
1	ENCROACHMENT REFERENCE #



4 EXISTING CONDITIONS PLAN
0 80' 160'
SCALE: 1"=80' (11X17)
1"=40' (22X34)

AMERICAN TOWER®
ATC TOWER SERVICES, INC
3533 REGENCY PARKWAY
SUITE 133
CARY, NC 27551
PHONE: (919) 468-0145
COA: D-0204

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	ISSUED FOR COMMENT	SW	04/06/21
1	PER COMMENT	SW	05/03/21

ATC SITE NUMBER:
210744

ATC SITE NAME:
SPRING HILL LANE CT

SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CONNECTICUT

SURVEY CERTIFICATE:
I HEREBY DECLARE TO, AND ONLY, TO, THE INDIVIDUALS LISTED BELOW THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF THIS MAP SIS SUBSTANTIALLY CORRECT. THIS MAP AND SURVEY WERE PREPARED IN ACCORDANCE WITH THE STANDARDS OF A CLASS A-1 SURVEY AS DEFINED IN THE "RECOMMENDED STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC., ON SEPT. 13 1984, EXCEPT AS NOTED.

AMERICAN TOWER CORPORATION

SURVEY LOGO:
Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road, P.O. Box 37, Mountainville, NY 10953
Phone: (845) 534-5959, (800) 829-6531, www.tectonicengineering.com
Project Contact Info
1279 Route 300, Newburgh, NY 12550
Phone: (845) 567-6656

DRAWN BY:	SW
APPROVED BY:	DS
DATE DRAWN:	04/06/2021
ATC JOB NO:	210744

TITLE AND BOUNDARY PLAN

SHEET NUMBER:	REVISION:
V-101	0

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

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

ATC SITE NUMBER:
210744
ATC SITE NAME:
SPRING HILL LANE CT
VERIZON SITE NAME:
BETHEL CT
SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:

FOR REFERENCE ONLY

verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

EXISTING SURVEY

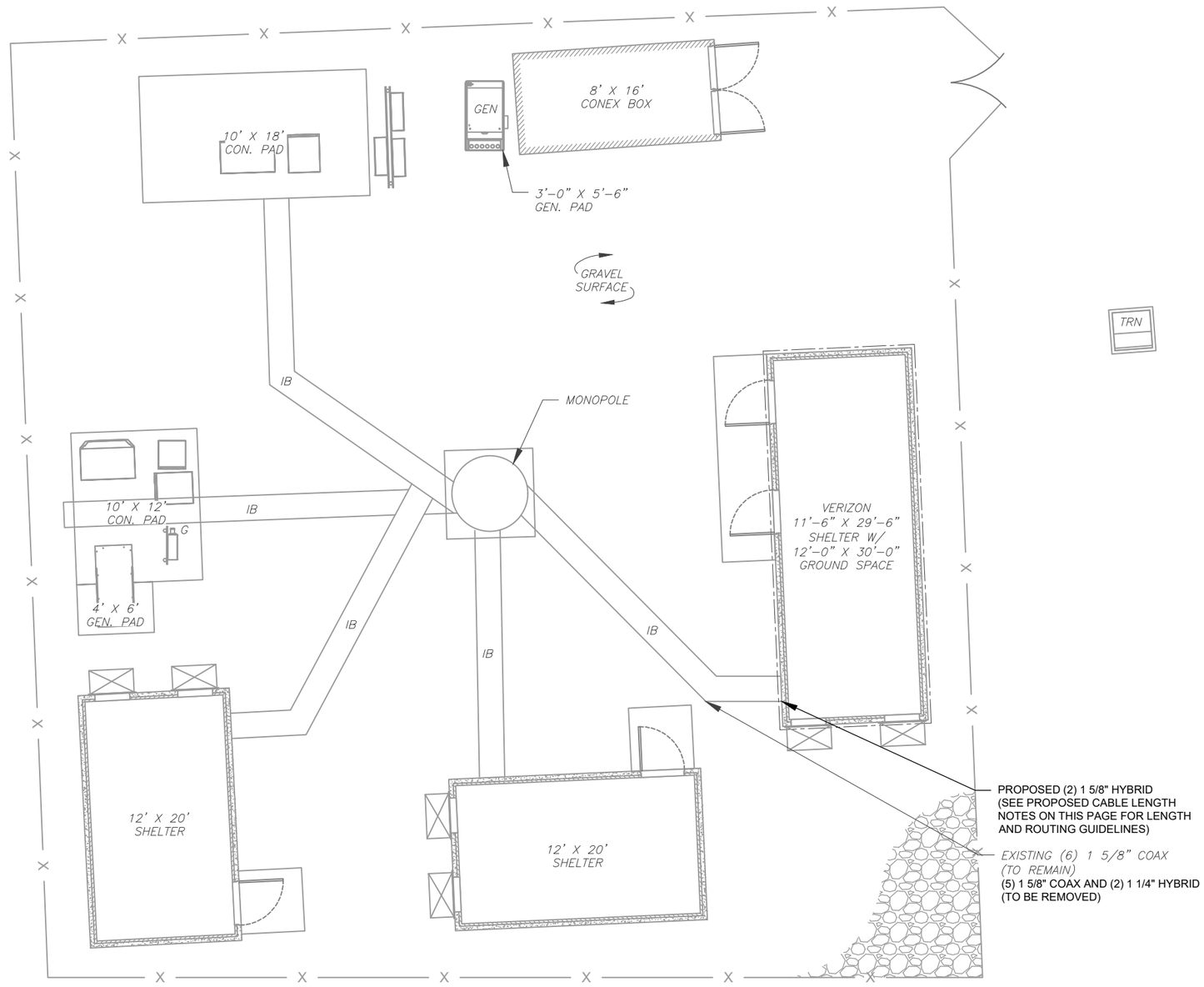
SHEET NUMBER:	REVISION:
C-001	0

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.

3. NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.



1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

LEGEND

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

PROPOSED CABLE NOTES:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **170'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
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.

AMERICAN TOWER®

A.T. ENGINEERING SERVICES LLC

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

ATC SITE NUMBER:
210744

ATC SITE NAME:
SPRING HILL LANE CT

VERIZON SITE NAME:
BETHEL CT

SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:

Digitally Signed: 2024-04-10

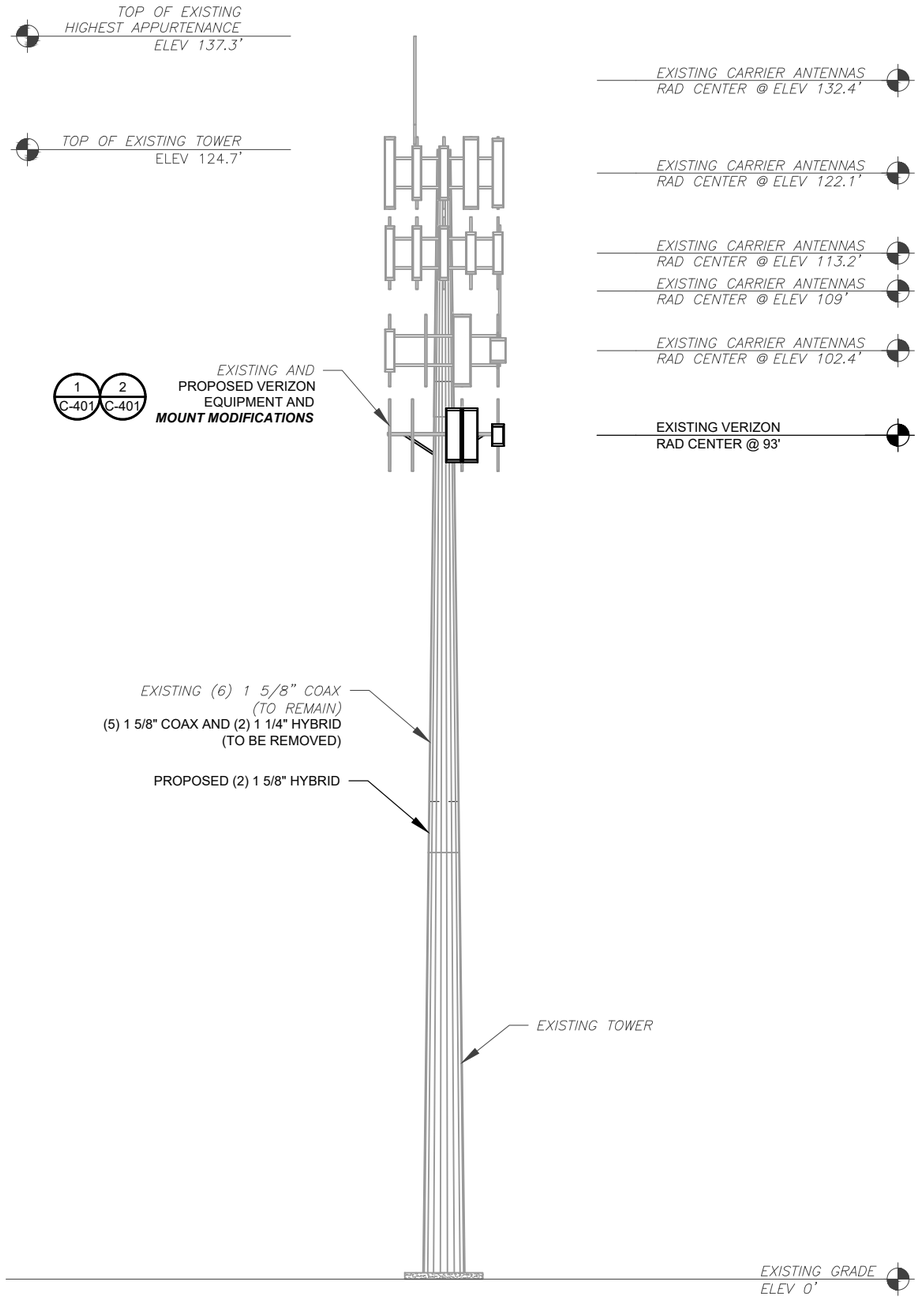
verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY COLLIERS ENGINEERING & DESIGN, DATED 02/13/24, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



1 TOWER ELEVATION
SCALE: N.T.S.

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

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. 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.
4. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

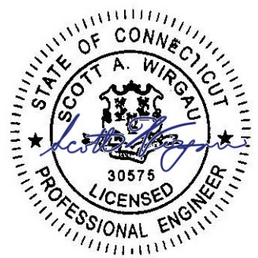
ATC SITE NUMBER:
210744

ATC SITE NAME:
SPRING HILL LANE CT

VERIZON SITE NAME:
BETHEL CT

SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:



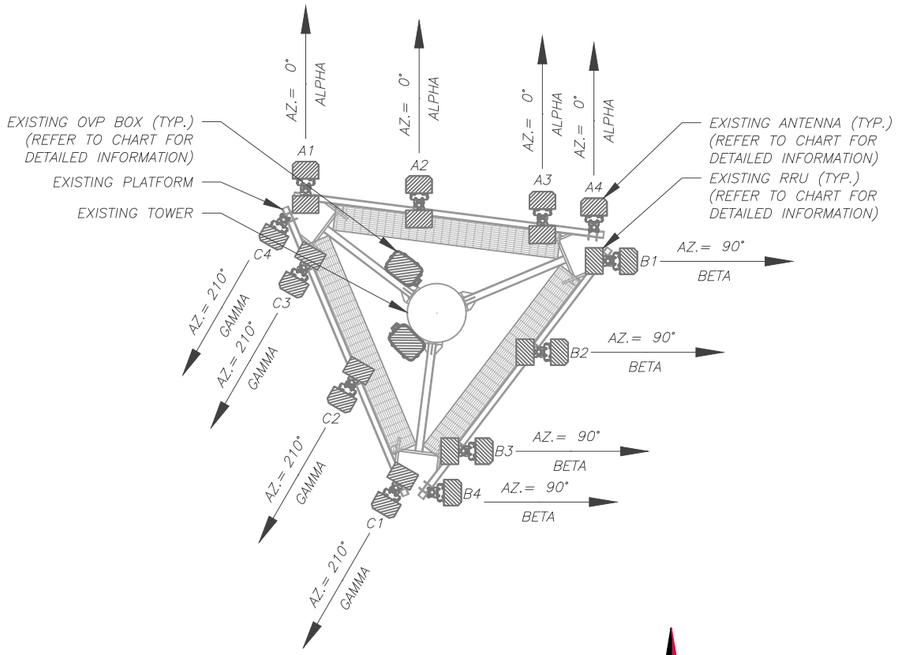
Digitally Signed: 2024-04-10

verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

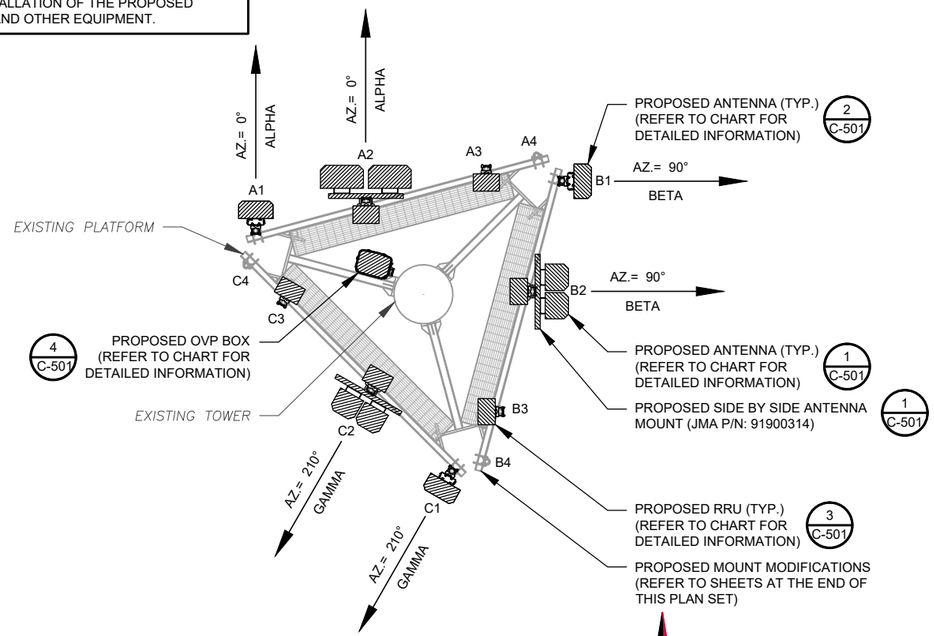


1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY COLLIERS ENGINEERING & DESIGN, DATED 02/13/24, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION 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.

CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(s) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

3 EQUIPMENT SCHEDULES

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	93'	0°	A1	WWX063X19G00	L1900/LAWS	RMV	RRH2X60-AWS BAND 4	RMV
			A2	X7C-FRO-660-VR0	L700	RMV	RRH2X60-1900A-4R	RMV
			A3	WWX063X19G00	L1900/LAWS	RMV	RRH2X60-1900A-4R	RMV
			A4	BXA-80063-6CF-EDIN-2	CDMA 850	RMV	–	–
BETA	93'	90°	B1	WWX063X19G00	L1900/LAWS	RMV	RRH2X60-AWS BAND 4	RMV
			B2	800 10765	L700	RMV	RRH2X60-1900A-4R	RMV
			B3	WWX063X19G00	L1900/LAWS	RMV	RRH2X60-1900A-4R	RMV
			B4	BXA-80080-6CF-EDIN-X	CDMA 850	RMV	–	–
GAMMA	93'	210°	C1	WWX063X19G00	L1900/LAWS	RMV	RRH2X60-AWS BAND 4	RMV
			C2	800 10765	L700	RMV	RRH2X60-1900A-4R	RMV
			C3	WWX063X19G00	L1900/LAWS	RMV	RRH2X60-1900A-4R	RMV
			C4	BXA-80080-6CF-EDIN-X	CDMA 850	RMV	–	–

NOTES

1. GC TO VERIFY THE FINAL RFDS MATCHES THE FINAL CONSTRUCTION DRAWINGS. GC TO NOTIFY ATC PM OF ANY DISCREPANCY PRIOR TO INSTALLING THE EQUIPMENT.
2. GC TO CAP ALL UNUSED PORTS.
3. GC TO CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

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

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	93'	0°	A1	MT6413-77A	5G L-SUB6	ADD	-	-
			A2	(2) MX06FRO640-02	L700/L850/L1900/LAWS/ 5G 850	ADD	RF4440D-13A	ADD
			A3	-	-	-	RF 4439D-25A	ADD
			A4	-	-	-	-	-
BETA	93'	90°	B1	MT6413-77A	5G L-SUB6	ADD	-	-
			B2	(2) MX06FIT665-02	L700/L850/L1900/LAWS/ 5G 850	ADD	RF4440D-13A	ADD
			B3	-	-	-	RF 4439D-25A	ADD
			B4	-	-	-	-	-
GAMMA	93'	210°	C1	MT6413-77A	5G L-SUB6	ADD	-	-
			C2	(2) MX06FIT665-02	L700/L850/L1900/LAWS/ 5G 850	ADD	RF4440D-13A	ADD
			C3	-	-	-	RF 4439D-25A	ADD
			C4	-	-	-	-	-

EXISTING FIBER DISTRIBUTION / OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
(2) RXXDC-3315-PF-48	RMV	(6) 1 5/8" COAX	RMN
–	–	(5) 1 5/8" COAX AND (2) 1 1/4" HYBRID	RMV

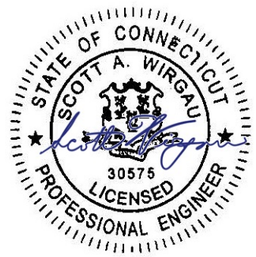
FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
(1) RCMDC-6627-PF-48	ADD	(6) 1 5/8" COAX	RMN
-	-	(2) 1 5/8" HYBRID	ADD

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

ATC SITE NUMBER:
210744
ATC SITE NAME:
SPRING HILL LANE CT
VERIZON SITE NAME:
BETHEL CT
SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:



Digitally Signed: 2024-04-10

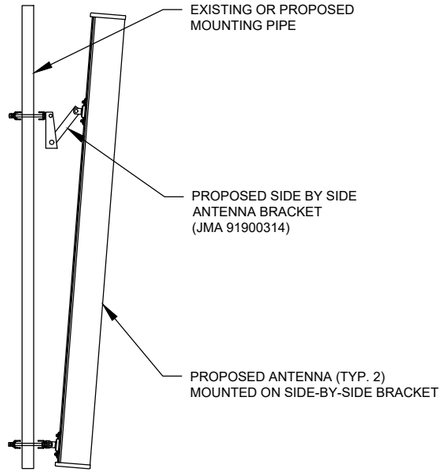
verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

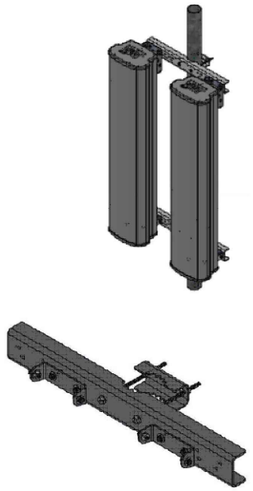
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0

EXISTING/PROPOSED MOUNTS AND/OR MOUNT MODIFICATIONS NOT SHOWN FOR CLARITY. REFER TO ANTENNA PLANS, MOUNT ANALYSES AND/OR MOUNT MODIFICATION DOCUMENTS FOR ADDITIONAL DETAIL.



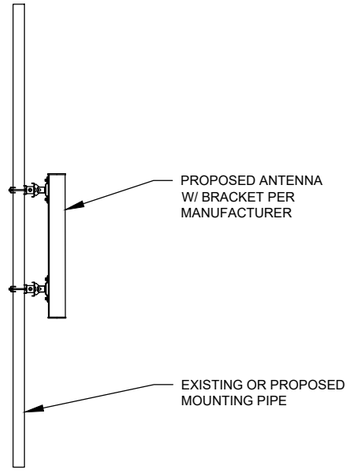
PROFILE VIEW



ISOMETRIC VIEW (BY MANUFACTURER)

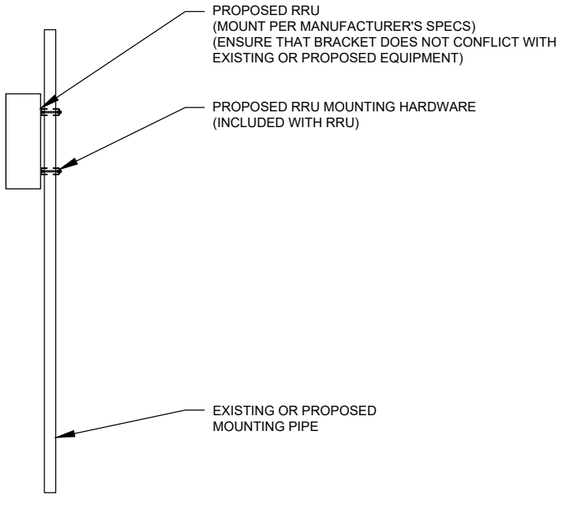
1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



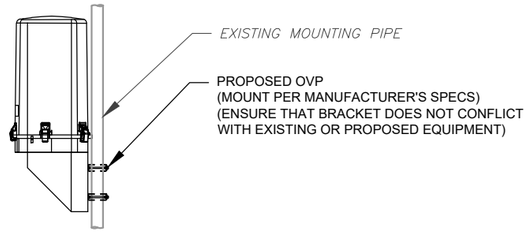
2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



4 PROPOSED OVP MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

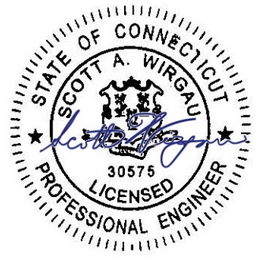
ATC SITE NUMBER:
210744

ATC SITE NAME:
SPRING HILL LANE CT

VERIZON SITE NAME:
BETHEL CT

SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:



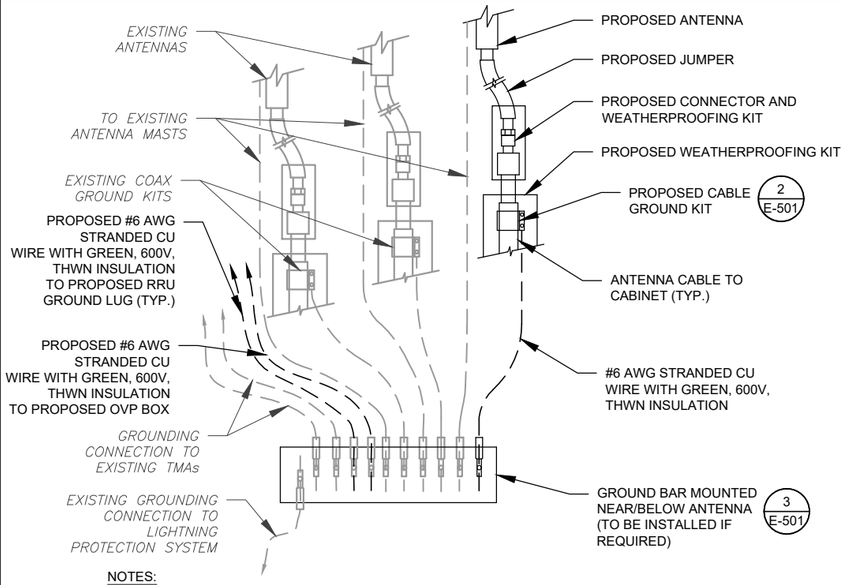
Digitally Signed: 2024-04-10

verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

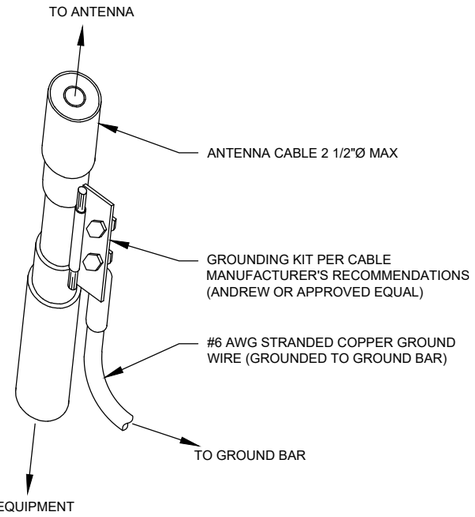


NOTES:

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

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

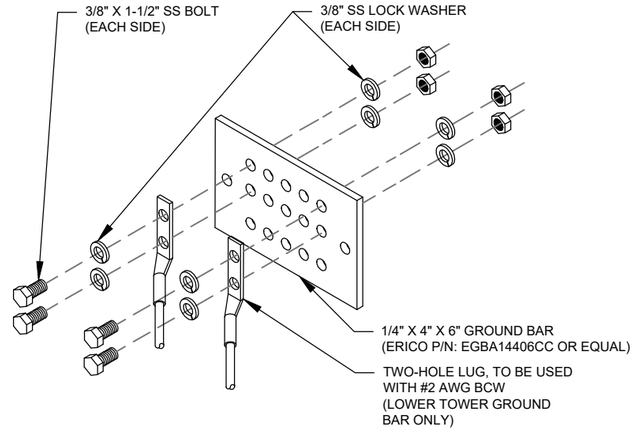


GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AP	4/9/2024

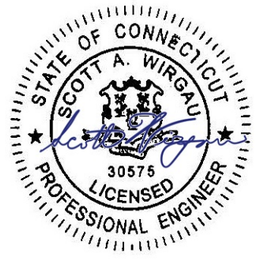
ATC SITE NUMBER:
210744

ATC SITE NAME:
SPRING HILL LANE CT

VERIZON SITE NAME:
BETHEL CT

SITE ADDRESS:
38 SPRING HILL LANE
BETHEL, CT 06801

SEAL:



Digitally Signed: 2024-04-10

verizon

ATC JOB NO:	14542809_G0
CUSTOMER ID:	BETHEL CT
CUSTOMER #:	5000381746

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

Colliers Engineering & Design, Architecture,
Landscape Architecture, Surveying, CT P.C
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@collierseng.com

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10222542
Colliers Engineering & Design Project #: 20777354 (Rev 2)

February 13, 2024

Site Information

Site ID:	*5000381746-VZW / Bethel CT*
Site Name:	*Bethel CT*
Carrier Name:	*Verizon Wireless*
Address:	*38 Spring Hill Ln* *Bethel, Connecticut 06801* *Fairfield County*
Latitude:	*41.362067°*
Longitude:	*-73.395917°*

Structure Information

Tower Type:	*130-Ft Monopole*
Mount Type:	*14.00-Ft Platform*

FUZE ID # 16244636

Analysis Results

Platform: **50.1% Pass w/ Modifications***

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

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

Report Prepared By: Grant Walters

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED
PROFESSIONAL ENGINEER
02/13/2024

Requirements:

The existing mounts will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

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

Attachments:

1. **Contractor Required PMI Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Modification Drawings
4. Mount Photos
5. Mount Mapping Report (for reference only)
6. Analysis Calculations

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.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

MOUNT MODIFICATION DRAWINGS
14.00' PLATFORM

SITE NAME: BETHEL CT
SITE NUMBER: 468263

38 SPRING HILL ROAD
BETHEL, CT 06801
FAIRFIELD COUNTY

PROJECT INFORMATION

SITE INFORMATION

LATITUDE: 41.362067° N
LONGITUDE: -73.395917° W
JURISDICTION: FAIRFIELD COUNTY

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON
ADDRESS: 118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP: WESTBOROUGH, MA 01581
CONTACT: ANDREW CANDIELLO
EMAIL: ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY: MASER CONSULTING
CONTACT: GREG DULNIK
PHONE: (615) 686-2575
E-MAIL: GDULNIK@MASERCONSULTING.COM

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
S-1	BILL OF MATERIALS
S-2	MODIFICATION NOTES
S-3	MODIFICATION NOTES
S-4	MODIFICATION DETAILS
S-5	MODIFICATION DETAILS
S-6	MOUNT PHOTOS
	SPECIFICATION SHEETS

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10038251
VZW LOCATION CODE (PSLC): 468263
FUZE ID: 16244636

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

CONTRACTOR PMI REQUIREMENTS

FAILING MOUNT ANALYSIS REPORT
SMART TOOL PROJECT #: 10019432
MASER CONSULTING PROJECT #: 20777354A
ANALYSIS DATE: 1/22/2021

PROJECT NOTES

TITLE SHEET T-1

BILL OF MATERIALS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
VZWSMART KITS				
1	VZWSMART	PLK5	KICKER KIT	VERIFY LENGTH IN FIELD, TRIM AS NEEDED
1	VZWSMART	PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY	
OTHER REQUIRED PARTS				
	SITE PRO 1	120-123/317	ANGLE STAND-OFF ASSEMBLIES	

NOTE: ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTE: WHEN SPECIFIED, VZWSMART KITS SHALL BE REQUIRED AND WILL BE VERIFIED DURING THE DESKTOP PMI

BILL OF MATERIALS S-1

GENERAL NOTES

DESIGN LOADS

STRUCTURAL STEEL

MODIFICATION NOTES S-2

MODIFICATION INSPECTION NOTES

CONSTRUCTION/ INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVED SHOP DRAWINGS
NA	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	ON SITE COLD GALVANIZING VERIFICATION
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
X	VZW PMI DOCUMENTS
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

MI INSPECTOR

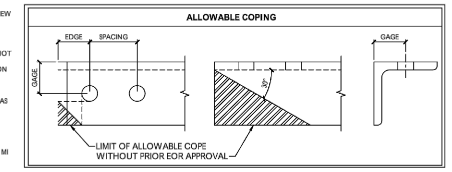
GENERAL CONTRACTOR

RECOMMENDATIONS

CORRECTION OF FAILING MI'S

REQUIRED PHOTOS

ALLOWABLE COPING

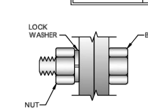


BOLT SCHEDULE (IN.)

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)

LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.

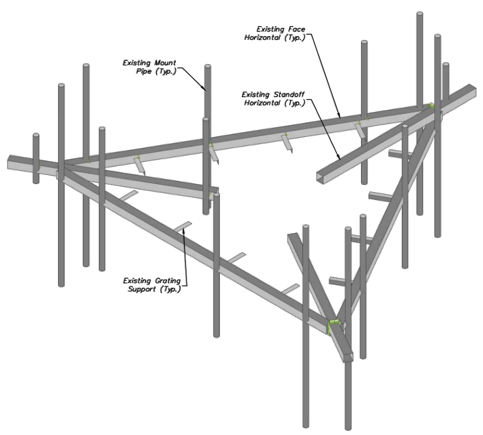
MODIFICATION NOTES S-3

(1) MOUNT MODIFICATIONS

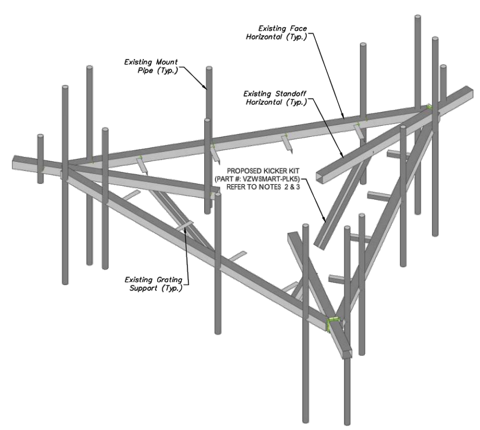
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0



(1) **EXISTING PLATFORM ISOMETRIC VIEW**
SCALE : N.T.S.



(2) **PROPOSED PLATFORM ISOMETRIC VIEW**
SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY TOWER ENGINEERING PROFESSIONALS, INC. ON 11/17/2020, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (93'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONNECT OTHER END OF KICKER KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
3. CONTRACTOR TO VERIFY LENGTH IN FIELD, TRIM AS NEEDED.

MASER CONSULTING CONNECTICUT

verizon

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
811 Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	20777354A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0	2/17/21	ISSUED FOR CONSTRUCTION	MPC	DX

STATE OF CONNECTICUT · DEJIAN XU · No. 33733 · LICENSED · PROFESSIONAL ENGINEER
DEJIAN XU
CONNECTICUT LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER 33733
02/19/2021

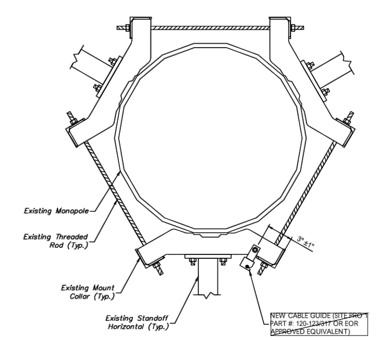
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:
BETHEL CT
468263
38 SPRING HILL ROAD
BETHEL, CT 06801
FAIRFIELD COUNTY

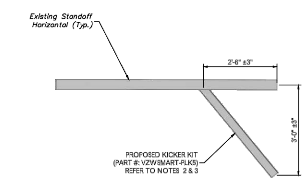
MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: MODIFICATION DETAILS
SHEET NUMBER: S-4

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



(1) **CABLE GUIDE COLLAR ATTACHMENT - PLAN VIEW**



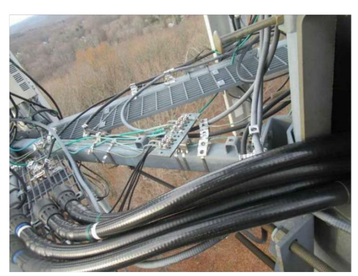
(2) **PROPOSED SIDE ELEVATION VIEW (TYP. ALL SECTORS)**
SCALE : N.T.S.

MODIFICATION NOTES:

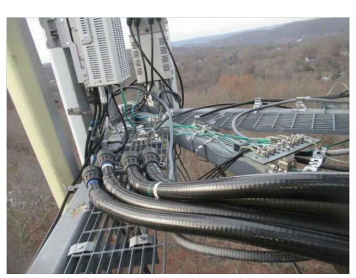
1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONNECT OTHER END OF KICKER KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
3. CONTRACTOR TO VERIFY LENGTH IN FIELD, TRIM AS NEEDED.

MASER CONSULTING CONNECTICUT
verizon
SITE NAME: BETHEL CT 468263 38 SPRING HILL ROAD BETHEL, CT 06801 FAIRFIELD COUNTY
SHEET TITLE: MODIFICATION DETAILS
SHEET NUMBER: S-5

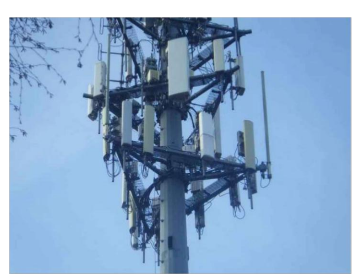
MOUNT PHOTO 1



MOUNT PHOTO 2



MOUNT PHOTO 3



MOUNT PHOTO 4

MASER CONSULTING CONNECTICUT
verizon
SITE NAME: BETHEL CT 468263 38 SPRING HILL ROAD BETHEL, CT 06801 FAIRFIELD COUNTY
SHEET TITLE: MOUNT PHOTOS
SHEET NUMBER: S-6

(1) MOUNT MODIFICATIONS

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.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0

EXHIBIT 2

Bethel, CT : Assessor Database

Property Search:

Parcel ID:	Alternate ID:	Owner 1 Name:	Street Number:	Street Name:
			38	SPRING HILL LANE

Search Reset

Property Detail:

Parcel ID:	Alternate ID/Map Block Lot:	Card:	Card:	Street Name:	Street Number:	Zoning:	LUC:	Acres:
32 47A 121	R06064			SPRING HILL LANE	38U	R-40	PP FOR PUBLIC UTILITIES	1.63

Owner Information:

Owner 1 Name:	BLUE SKY TOWERS LLC
Owner 2 Name:	C/O AMERICAN TOWER
Street 1:	PO BOX 723597
Street 2:	
City:	ATLANTA
State:	GA
Zip:	31139
Volume:	1051
Page:	496
Deed Date:	0000-00-00

Valuation:

Appraised Land:	$151,300.00
Appraised Land PA490:	$0.00
Appraised Bldg:	$768,700.00
Appraised Total:	$920,000.00
Total Assessment:	$644,000.00

Property Images:

Picture:

Sketch:

There is no sketch available.

Sales History:

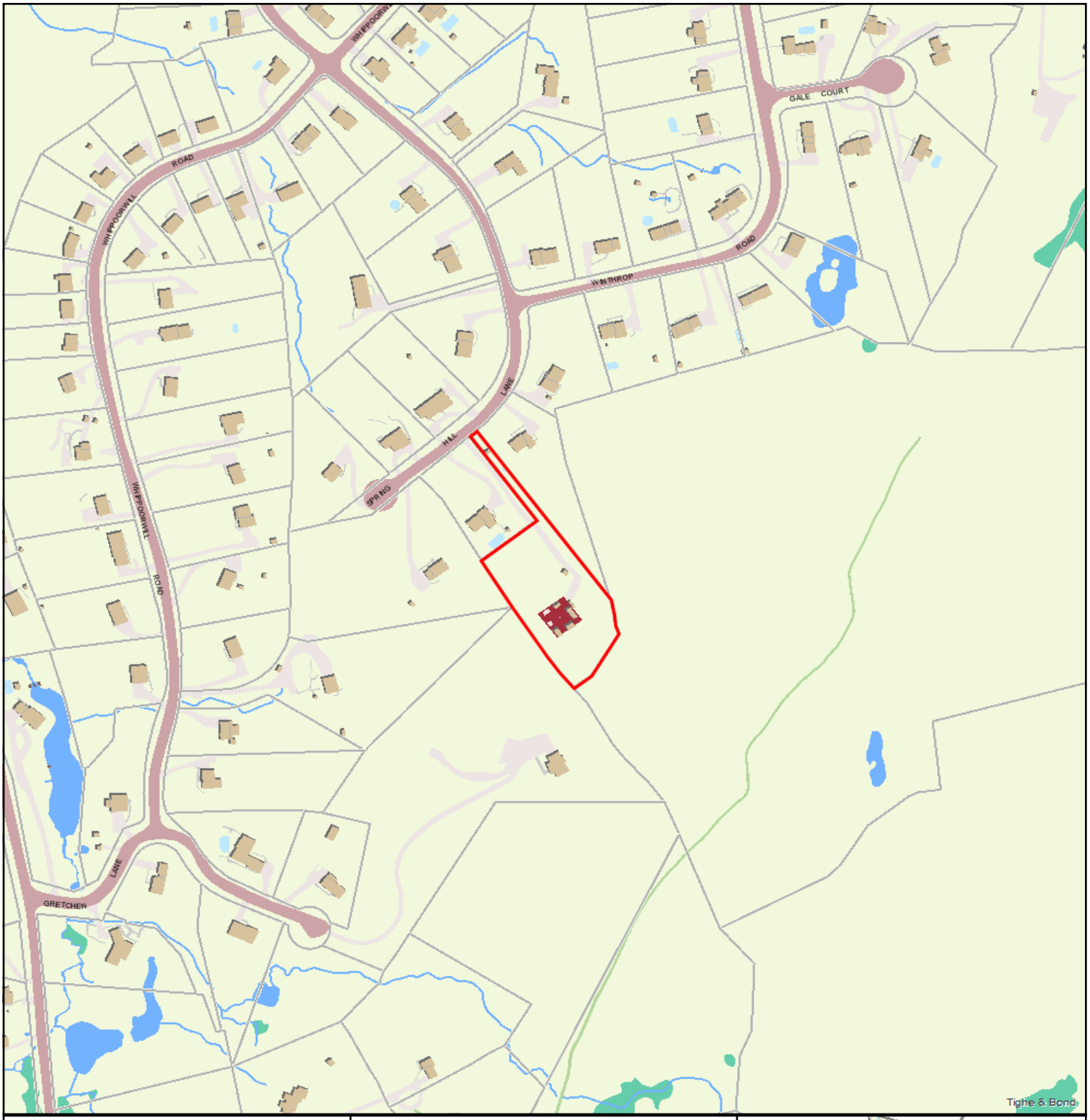
Book:	Page:	Sale Date:	Price:	Validity:	Sale Type:
455	393	12/20/88			
979	229	10/2/09	240,000	03	LAND ONLY
1051	496	10/3/14	220,720	SALE OF PROPERTY INFUENCED BY Z	LAND + BLDG

Out-Buildings:

Code:	Description:	Units:	Year Built:	Size1:	Size2:	Area:	Grade:	Condition:
RS1	FRAME UTILITY SHED	1	2006	8	15	120	B	GOOD (Comm)
TT4	TOWER CELLULAR	1	2011	1	120	120	A	GOOD (Comm)
RS1	FRAME UTILITY SHED	1	2006	9	23	207	B	GOOD (Comm)
RS1	FRAME UTILITY SHED	1	2006	9	12	108	B	GOOD (Comm)

RS1	FRAME UTILITY SHED	1	2006	10	12	120	B	GOOD (Comm)

Fri. April 12, 2024 : 11:24 AM : 0.03s : 10mb



38 SPRING HILL LANE

4/12/2024 11:33:42

1"=333'

Property Information

Parcel ID	undefined
Address	38 SPRING HILL LANE
Total Value	undefined

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

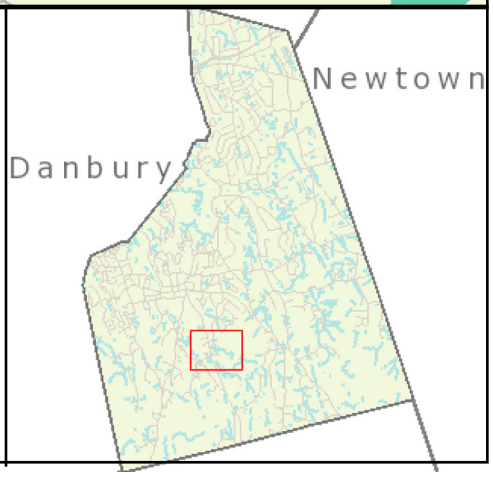


EXHIBIT 3

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	124 ft Monopole
ATC Asset Name	:	Spring Hill Lane CT
ATC Asset Number	:	210744
Engineering Number	:	14542809_C3_04
Proposed Carrier	:	VERIZON WIRELESS
Carrier Site Name	:	BETHEL CT
Carrier Site Number	:	5000381746
Site Location	:	38 Spring Hill Lane Bethel, CT 06801 41.3622° N, 73.3966° W
County	:	Fairfield
Date	:	February 20, 2024
Max Usage	:	99%
Analysis Result	:	Pass

Created By:

Aviskar Ghansam
Structural Engineer I

Aviskar Ghansam

COA: PEC.0001553

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 124 ft Monopole tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower:	Ramaker & Associates Inc Project #37840, dated June 26, 2018
Foundation:	EEI Project # 13252, dated March 25, 2005
Geotechnical:	JGI Project #05130G, dated March 3, 2005
Modification:	Ramaker & Associates, Inc, Project #37840, dated June 26, 2018 ATC Project #OAA767892_C6_07, dated December 1, 2022

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:	116 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Ridge
Crest Height (H):	354 ft
Crest Length (L):	2640 ft
Spectral Response:	Ss = 0.22, S_1 = 0.06
Site Class:	D - Stiff Soil - Default

Wind load and Ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, ANNEX-S

Conclusion

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

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

Structure Usages

Structural Component	Usage	Control	Result
Pole Shaft	99.3%	1.2D + 1.0W	Pass
Reinforcement	96.2%	0 ft to 20.08 ft	Pass
Upper Termination	86.5%	0 ft to 20.08 ft	Pass
Intermediate Connector	44.6%	51.75 ft to 66.25 ft	Pass
Lower Termination	70.0%	51.75 ft to 66.25 ft	Pass
Serviceability Usage	41.0%	1.0D + 1.0W	Pass
Base Plate @ 0.0 ft	55.6%	Rods	Pass
Mat & Pier	95.5%	Flexure [Steel (Pier)]	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Shear (k)
Monopole Base	3,790.3	51.0	40.7

Reactions shown reflect the results from the Load Case with maximum Moment

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

VERIZON WIRELESS Final Loading

Elev (ft)	Qty	Equipment	Lines
93.0	1	Low Profile Platform	(2) 1 5/8" Hybriflex
	1	Raycap RCMDC-6627-PF-48	
	2	JMA Wireless MX06FRO640-02	
	3	Samsung B2/B66A RRH ORAN (RF 4439d-25A)	
	3	Samsung B5/B13 RRH ORAN (RF4440d-13A)	
	3	Samsung MT6413-77A	
	3	VZWSMART-PLK5	
	4	JMA Wireless MX06FIT665-02	

Install proposed lines inside the pole shaft.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
129.4	1	Bird 101-68-10-0-03	-	NEW ENGLAND RADIO CONSULTANTS, LLC
128.2	1	2' HP Dish	-	AT&T MOBILITY
	2	Radio/ODU		
126.2	1	Raycap DC6-48-60-18	-	AT&T MOBILITY
	2	Raycap DC6-48-60-18		
123.1	5	Powerwave Allgon LGP21401	-	AT&T MOBILITY
122.9	2	CCI HPA-65R-BUU-H6	-	AT&T MOBILITY
	2	Kathrein Scala 80010965		
122.8	3	Powerwave Allgon 7770.00	-	AT&T MOBILITY
122.7	1	CCI HPA-65R-BUU-H8	-	AT&T MOBILITY
122.3	1	Kathrein Scala 80010966	-	AT&T MOBILITY
	3	Ericsson RRUS-11		
122.1	1	CCI TPA-65R-LCUUUU-H8	-	AT&T MOBILITY
122.0	1	Platform with Handrails	(12) 1 5/8" Coax (1) 1" (25.4mm) Hybrid	AT&T MOBILITY
	3	Ericsson RRUS 32 B66		
	3	Ericsson RRUS 4478 B14		
	3	Mount Reinforcement		
	3	Kathrein Scala 800-10964K		
	3	Quintel QS66512-2		
119.6	6	Ericsson RRUS 32 B66	-	AT&T MOBILITY
115.6	3	Alcatel-Lucent TD-RRH8x20-25	-	SPRINT NEXTEL
113.8	3	RFS APXVTM14-C-I20	-	SPRINT NEXTEL
113.2	3	RFS APXVSPP18-C-A20	-	SPRINT NEXTEL
112.0	1	Low Profile Platform	-	SPRINT NEXTEL
108.5	3	Alcatel-Lucent 800 MHz 2X50W RRH w/ Filter	-	SPRINT NEXTEL
105.0	6	Alcatel-Lucent 1900 MHz 4X45 RRH	-	SPRINT NEXTEL
	1	NAiS VIC-100	(24) 1 5/8" Coax	T-MOBILE
	12	EMS DR65-19-00DPQ		
103.7	3	Ericsson Radio 4449 - B13&B5	-	T-MOBILE
103.5	3	Ericsson Air6449 B41	-	T-MOBILE
102.4	3	Ericsson AIR32 B4A B2P	-	T-MOBILE
	3	6.7" x 10.7" TTA		

Elev (ft)	Qty	Equipment	Lines	Carrier
102.2	3	RFS APXVAARR24_43-U-NA20	-	T-MOBILE
102.0	1	Telewave ANT150D6-9	-	NEW ENGLAND RADIO CONSULTANTS, LLC
	1	Platform with Handrails	-	T-MOBILE
100.3	3	BTS	-	T-MOBILE
92.0	2	Bird 101-68-10-0-03	-	NEW ENGLAND RADIO CONSULTANTS, LLC
72.0	1	Telewave ANT150D6-9	-	NEW ENGLAND RADIO CONSULTANTS, LLC

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

Standard Conditions

All engineering services performed by A.T. Engineering Services LLC 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 Services LLC

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

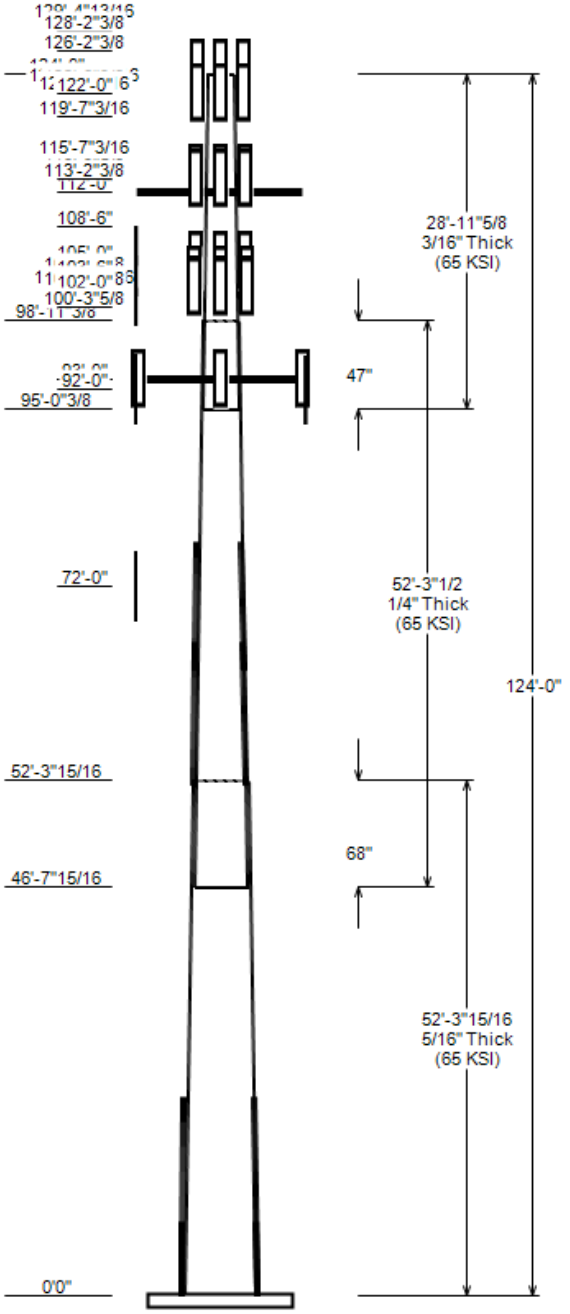
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with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

Unless explicitly agreed by both the client and A.T. Engineering Services LLC, 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 Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ANALYSIS PARAMETERS

Nominal Wind:	113 mph	**Ice Wind:**	49 mph w/ 0.85" ice	**Service Wind:**	60 mph
Risk Category:	II	**Exposure:**	B	**S_s:** 0.222	**S_1:** 0.056
Topo Category:	0	**Topo Factor:**	Method 2	**Topo Feature:**	Ridge
Structure Height:	124 ft	**Base Elevation:**	1.00 ft	**Structure Type:**	Taper
Base Diameter:	55 in	**Base Rotation:**	0°	**Taper:**	0.3050 (in/ft)



POLE SECTION PROPERTIES

Section	Length (ft)	Flat Diameter (in) Top	Flat Diameter (in) Bottom	Thick (in)	Joint Type	Joint Length (in)	Pole Shape	Yield Strength (ksi)
1	52.330	39.02	55.00	0.312		0.000	18 Sides	65
2	52.290	25.28	41.25	0.250	Slip Joint	68.040	18 Sides	65
3	28.970	18.00	26.85	0.188	Slip Joint	47.040	18 Sides	65

DISCRETE APPURTENANCE

Elev (ft)	Description
129.4	(1) Bird 101-68-10-0-03
128.2	(2) Generic Radio/ODU
128.2	(1) Generic 2' HP Dish
126.2	(1) Raycap DC6-48-60-18
126.2	(2) Raycap DC6-48-60-18
123.1	(5) Powerwave Allgon LGP21401
122.9	(2) CCI HPA-65R-BUU-H6
122.9	(2) Kathrein Scala 80010965
122.8	(3) Powerwave Allgon 7770.00
122.7	(1) CCI HPA-65R-BUU-H8
122.3	(3) Ericsson RRUS-11
122.3	(1) Kathrein Scala 80010966
122.1	(1) CCI TPA-65R-LCUUUU-H8
122.0	(3) Ericsson RRUS 4478 B14
122.0	(3) Ericsson RRUS 32 B66
122.0	(3) Generic Mount Reinforcement
122.0	(3) Quintel QS66512-2
122.0	(3) Kathrein Scala 800-10964K
122.0	(1) Flat Platform with Round Handr
119.6	(6) Ericsson RRUS 32 B66
115.6	(3) Alcatel-Lucent TD-RRH8x20-25
113.8	(3) RFS APXVTM14-C-I20
113.2	(3) RFS APXVSPP18-C-A20
112.0	(1) Generic Flat Low Profile Platf
108.5	(3) Alcatel-Lucent 800 MHz 2X50W R
105.0	(1) NAiS VIC-100
105.0	(6) Alcatel-Lucent 1900 MHz 4X45 R
105.0	(12) EMS DR65-19-00DPQ
103.7	(3) Ericsson Radio 4449 - B13&B5
103.5	(3) Ericsson Air6449 B41
102.4	(3) Generic 6.7" x 10.7" TTA
102.4	(3) Ericsson AIR32 B4A B2P
102.2	(3) RFS APXVAARR24_43-U-NA20
102.0	(1) Telewave ANT150D6-9
102.0	(1) Flat Platform with Round Handr
100.3	(3) Generic BTS
93.0	(3) Samsung B2/B66A RRH ORAN (RF 4
93.0	(3) Samsung B5/B13 RRH ORAN (RF444
93.0	(3) Samsung MT6413-77A
93.0	(1) Raycap RCMDC-6627-PF-48
93.0	(3) VZWSMART-PLK5
93.0	(4) JMA Wireless MX06FIT665-02
93.0	(2) JMA Wireless MX06FRO640-02
93.0	(1) Generic Flat Low Profile Platf
92.0	(2) Bird 101-68-10-0-03
72.0	(1) Telewave ANT150D6-9

LINEAR APPURTENANCE

Elev To (ft)	Description
129.0	(1) 1 5/8" Coax
129.0	(3) 1 5/8" Coax
126.0	(2) 2" Carflex Non-Metallic Conduit
126.0	(4) 0.78" (19.7mm) 8 AWG 6
126.0	(2) 0.39" (10mm) Fiber Trunk
122.0	(1) 1" (25.4mm) Hybrid
122.0	(6) 1 5/8" Coax
122.0	(6) 1 5/8" Coax
113.0	(1) 7/8" (0.88"- 22.2mm) Fiber
113.0	(3) 1 1/4" Hybriflex Cable
108.0	(3) 1 5/8" Coax
105.0	(24) 1 5/8" Coax
98.0	(2) 1 5/8" Coax
93.0	(1) 1 5/8" Hybriflex
93.0	(1) 1 5/8" Hybriflex
80.0	(1) 1.25" Thick Flat Plate
80.0	(1) 1.25" Thick Flat Plate
80.0	(1) 1.25" Thick Flat Plate
69.0	(1) 1.25" Thick Flat Plate
69.0	(1) 1.25" Thick Flat Plate
69.0	(1) 1.25" Thick Flat Plate
64.0	(1) 1 5/8" Coax
26.0	(1) #20 w/ Angle Brackets
26.0	(1) #20 w/ Angle Brackets
26.0	(1) #20 w/ Angle Brackets
26.0	(1) #20 w/ Angle Brackets
26.0	(1) #20 w/ Angle Brackets
26.0	(1) #20 w/ Angle Brackets
26.0	(1) #20 w/ Angle Brackets
26.0	(1) #20 w/ Angle Brackets

DISH SERVICEABILITY

Load Case	Elevation (ft)	Deflection (in)	Rotation (°)
1.0D + 1.0W	124.00	18.306	1.501

GLOBAL BASE REACTIONS

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.0W	3790.33	51.03	40.73
0.9D + 1.0W	3758.32	38.26	40.71
1.2D + 1.0Di + 1.0Wi	991.38	68.30	10.67
1.2D + 1.0Ev + 1.0Eh	139.11	49.94	1.35
0.9D - 1.0Ev + 1.0Eh	137.58	34.14	1.35
1.0D + 1.0W	950.62	42.55	10.26

ANALYSIS PARAMETERS

Location:	Fairfield County,CT	**Height:**	124 ft
Type and Shape:	Taper, 18 Sides	**Base Diameter:**	55.00 in
Manufacturer:	EEI	**Top Diameter:**	18.00 in
K_d (non-service):	0.95	**Taper:**	0.3050 in/ft
K_e:	1.00	**Rotation:**	0.000º

ICE & WIND PARAMETERS

Risk Category:	II	**Design Wind Speed:**	113 mph
Exposure Category:	B	**Design Wind Speed w/ Ice:**	49 mph
Topo Factor Procedure:	Method 2	**Design Ice Thickness:**	0.85 in
		Service Wind Speed:	60 mph
		HMSL:	0.00 ft
Crest Height(H):	354 ft	**Distance from Apex (x):**	0 ft
Crest Length(L):	2640 ft	**Upwind/Downwind:**	Upwind
Feature:	Ridge		

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil		**Period Based on Rayleigh Method (sec):**		1.88
T_L (sec):	6	**P:**	1	**C_s:**	0.032
S_s:	0.222	**S_1:**	0.056	**C_s Max:**	0.032
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.237	**S_{d1}:**	0.090		

LOAD CASES

1.2D + 1.0W	113.06 mph Wind with No Ice
0.9D + 1.0W	113.06 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	48.73 mph Wind with 0.85" Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

Section	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in^2)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in^2)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	52.33	0.3125	65		0.00	8,247	55.00	0.000	54.24	20,495.5	29.62	176.00	39.02	52.33	38.39	7,265.3	20.60	124.85	0.3054
2-18	52.29	0.2500	65	Slip	68.04	4,661	41.25	46.660	32.53	6,908.4	27.68	164.99	25.28	98.95	19.86	1,571.4	16.42	101.11	0.3054
3-18	28.97	0.1875	65	Slip	47.04	1,305	26.85	95.030	15.87	1,425.0	23.84	143.19	18.00	124.00	10.60	425.0	15.52	96.00	0.3054
			Total Shaft Weight			**14,213**													

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
129.40	Bird 101-68-10-0-03	1	1.00	0.000	70.00	5.530	1.00	159.41	9.226	1.00
128.20	Generic Radio/ODU	2	0.75	0.000	30.00	1.600	0.50	63.56	2.152	0.50
128.20	Generic 2' HP Dish	1	1.00	0.000	90.00	3.960	1.00	144.56	4.729	1.00
126.20	Raycap DC6-48-60-18	1	0.75	0.000	30.00	3.813	1.00	85.61	4.672	1.00
126.20	Raycap DC6-48-60-18	2	0.75	0.000	30.00	3.813	1.00	85.61	4.672	1.00
123.10	Powerwave Allgon LGP21401	5	0.75	0.000	14.10	1.104	0.50	30.47	1.572	0.50
122.90	Kathrein Scala 80010965	2	0.75	0.000	97.60	13.814	0.72	272.49	15.815	0.72
122.90	CCI HPA-65R-BUU-H6	2	0.75	0.000	51.00	9.658	0.77	194.92	11.476	0.77
122.80	Powerwave Allgon 7770.00	3	0.75	0.000	35.00	5.508	0.65	109.57	6.902	0.65
122.70	CCI HPA-65R-BUU-H8	1	0.75	0.000	68.00	12.976	1.00	236.53	15.324	1.00
122.30	Kathrein Scala 80010966	1	0.75	0.000	114.60	17.363	1.00	325.18	19.782	1.00
122.30	Ericsson RRUS-11	3	0.75	0.000	55.00	3.792	0.61	113.87	4.634	0.61
122.10	CCI TPA-65R-LCUUUU-H8	1	0.75	0.000	75.00	13.298	1.00	256.49	15.746	1.00
122.00	Ericsson RRUS 32 B66	3	0.75	1.800	53.00	2.743	0.50	101.21	3.510	0.50
122.00	Flat Platform with Round Handr	1	1.00	0.000	2500.00	34.800	1.00	3641.50	50.690	1.00
122.00	Kathrein Scala 800-10964K	3	0.75	0.000	94.80	9.997	0.62	233.18	11.544	0.62
122.00	Quintel QS66512-2	3	0.75	0.200	111.00	8.133	0.74	241.61	9.960	0.74
122.00	Generic Mount Reinforcement	3	0.75	0.000	200.00	4.980	0.67	326.84	8.238	0.67
122.00	Ericsson RRUS 4478 B14	3	0.75	2.100	59.90	1.842	0.50	96.14	2.430	0.50
119.60	Ericsson RRUS 32 B66	6	0.75	1.800	53.00	2.743	0.50	101.12	3.508	0.50
115.60	Alcatel-Lucent TD-RRH8x20-25	3	0.80	0.000	66.00	3.704	0.60	120.45	4.537	0.60
113.80	RFS APXVTM14-C-I20	3	0.80	0.000	52.90	6.342	0.66	142.79	7.764	0.66
113.20	RFS APXVSPP18-C-A20	3	0.80	0.000	57.00	8.024	0.69	169.57	9.844	0.69
112.00	Generic Flat Low Profile Platf	1	1.00	0.000	1875.00	26.100	1.00	2403.05	38.548	1.00
108.50	Alcatel-Lucent 800 MHz 2X50W R	3	0.80	0.000	64.00	2.058	0.50	114.11	2.681	0.50
105.00	NAiS VIC-100	1	1.00	0.000	0.70	0.080	1.00	3.87	0.191	1.00
105.00	Alcatel-Lucent 1900 MHz 4X45 R	6	0.80	0.000	60.00	2.322	0.50	112.34	3.024	0.50
105.00	EMS DR65-19-00DPQ	12	0.75	0.000	32.00	8.133	0.63	134.96	8.952	0.63
103.70	Ericsson Radio 4449 - B13&B5	3	0.75	0.000	70.00	1.650	0.50	106.57	2.200	0.50
103.50	Ericsson Air6449 B41	3	0.75	0.000	104.00	5.682	0.63	192.44	6.712	0.63
102.40	Ericsson AIR32 B4A B2P	3	0.75	0.000	105.80	6.523	0.71	209.41	7.947	0.71
102.40	Generic 6.7" x 10.7" TTA	3	0.75	0.000	9.90	0.597	0.50	15.66	0.943	0.50
102.20	RFS APXVAARR24_43-U-NA20	3	0.75	0.000	127.90	20.243	0.63	382.54	22.649	0.63
102.00	Flat Platform with Round Handr	1	1.00	0.000	2500.00	34.800	1.00	3628.97	50.515	1.00
102.00	Telewave ANT150D6-9	1	1.00	0.000	26.00	6.120	1.00	126.63	10.915	1.00
100.30	Generic BTS	3	0.75	0.000	20.00	1.800	0.50	51.66	2.383	0.50
93.00	Samsung MT6413-77A	3	0.80	0.000	57.30	3.805	0.61	112.02	4.661	0.61
93.00	JMA Wireless MX06FRO640-02	2	0.80	0.000	70.00	12.380	0.75	252.69	14.186	0.75
93.00	Samsung B5/B13 RRH ORAN (RF444	3	0.80	0.000	70.30	1.875	0.50	110.19	2.457	0.50
93.00	Samsung B2/B66A RRH ORAN (RF 4	3	0.80	0.000	74.70	1.875	0.50	115.88	2.455	0.50
93.00	Generic Flat Low Profile Platf	1	1.00	0.000	1875.00	26.100	1.00	2396.91	38.404	1.00
93.00	Raycap RCMDC-6627-PF-48	1	0.80	0.000	32.00	4.056	1.00	113.90	4.936	1.00
93.00	VZWSMART-PLK5	3	0.75	0.000	200.00	4.980	0.67	289.79	7.216	0.67
93.00	JMA Wireless MX06FIT665-02	4	0.80	0.000	45.00	8.147	0.76	180.20	9.925	0.76
92.00	Bird 101-68-10-0-03	2	1.00	0.000	70.00	5.530	1.00	157.71	9.156	1.00
72.00	Telewave ANT150D6-9	1	1.00	0.000	26.00	6.120	1.00	124.22	10.800	1.00
Totals	**Row Count: 46**	**122**			**16,357.50**			**29,540.72**		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg): 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/ Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
0.00	129.00	3	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	NEW ENGLAND RADIO C
0.00	129.00	1	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	NEW ENGLAND RADIO C
0.00	126.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	126.00	2	2" Carflex Non-Metall	2.36	0.68	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	126.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	122.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	122.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	122.00	1	1" (25.4mm) Hybrid	1	0.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	113.00	3	1 1/4" Hybriflex Cabl	1.54	1	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	113.00	1	7/8" (0.88"- 22.2mm)	0.88	0.7	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	108.00	3	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	NEW ENGLAND RADIO C
0.00	105.00	24	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	T-MOBILE
0.00	98.00	2	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	NEW ENGLAND RADIO C
0.00	93.00	1	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	93.00	1	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIRELESS
60.00	80.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	300	0	Y	
60.00	80.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	180	0	Y	
60.00	80.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	60	0	Y	
49.00	69.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	240	0	Y	
49.00	69.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	0	0	Y	
49.00	69.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	120	0	Y	
0.00	64.00	1	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	NEW ENGLAND RADIO C
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	54	0	Y	
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	0	0	Y	
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	330	0	Y	
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	276	0	Y	
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	234	0	Y	
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	180	0	Y	
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	78	0	Y	
0.00	26.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	150	0	Y	

ADDITIONAL STEEL

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Intermediate Connectors: Offset (in)	Intermediate Connectors: Bracket Type	Intermediate Connectors: Spacing (in)	Intermediate Connectors: Length (in)	Connectors	Continuation?
0.00	7.50	4	PL PL 1.25" x 6"	65		5/8" Hollo Bolt	0.00	0.00	5/8" Hollo Bolt	N
0.00	20.08	8	SOL #20 All Thread Bar	43	2.19	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	N
51.75	66.25	3	PL PL 6.5 x 1.25	65		AJAX M20 Class 8.8	30.00	3.00	AJAX M20 Class 8.8	N
63.50	76.50	3	PL PL 6 x 1.25	57	0.00	AJAX M20 Class 8.8	18.00	3.00	AJAX M20 Class 8.8	N

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description *(Max Length: 5 ft)*	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)	Additional Reinforcing: Area (in^2)	Additional Reinforcing: Ix (in^4)	Additional Reinforcing: Weight (lb)
0.00		0.3125	55.000	54.241	20,495.5	29.62	176.00	66.6	734.0	0.0	0.0	69.280	33,065.60	0.0
5.00		0.3125	53.473	52.726	18,825.9	28.76	171.11	67.6	693.4	0.0	910.0	69.280	31,438.90	1,178.0
7.50	Reinf. Top	0.3125	52.709	51.969	18,026.3	28.33	168.67	68.1	673.6	0.0	445.3	69.280	30,641.00	589.0
10.00		0.3125	51.946	51.212	17,249.6	27.90	166.23	68.6	654.1	0.0	438.9	39.280	17,215.10	334.0
15.00		0.3125	50.418	49.697	15,763.8	27.04	161.34	69.6	615.8	0.0	858.4	39.280	16,325.60	668.0
20.00		0.3125	48.891	48.182	14,365.9	26.18	156.45	70.6	578.7	0.0	832.7	39.280	15,459.70	668.0
20.08	Reinf. Top	0.3125	48.867	48.158	14,344.2	26.16	156.37	70.6	578.2	0.0	13.1	39.280	15,446.00	10.7
25.00		0.3125	47.364	46.668	13,053.1	25.31	151.56	71.6	542.8	0.0	793.8			
30.00		0.3125	45.837	45.153	11,822.9	24.45	146.68	72.6	508.0	0.0	781.1			
35.00		0.3125	44.310	43.638	10,672.5	23.59	141.79	73.7	474.4	0.0	755.3			
40.00		0.3125	42.782	42.123	9,599.30	22.73	136.90	74.7	441.9	0.0	729.6			
45.00		0.3125	41.255	40.609	8,600.50	21.87	132.02	75.7	410.6	0.0	703.8			
46.66	Bot - Section 2	0.3125	40.748	40.106	8,284.90	21.58	130.39	76	400.5	0.0	228.0			
50.00		0.3125	39.728	39.094	7,673.50	21.01	127.13	76.7	380.4	0.0	815.2			

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description *(Max Length: 5 ft)*	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)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ix (in^4)	Additional Reinforcing Weight (lb)
51.75	Reinf Bottom	0.3125	39.193	38.564	7,365.60	20.70	125.42	77	370.1	0.0	418.9			
52.33	Top - Section 1	0.2500	39.516	31.157	6,069.40	26.46	158.07	70.3	302.5	0.0	137.6	24.390	5,111.20	48.1
55.00		0.2500	38.701	30.510	5,699.00	25.89	154.80	71	290.0	0.0	280.1	24.390	4,910.50	221.4
60.00		0.2500	37.174	29.298	5,046.60	24.81	148.69	72.2	267.4	0.0	508.8	24.390	4,545.60	414.6
63.50	Reinf Bottom	0.2500	36.105	28.450	4,620.80	24.05	144.42	73.1	252.1	0.0	343.9	24.390	4,298.60	290.2
65.00		0.2500	35.646	28.086	4,445.90	23.73	142.59	73.5	245.7	0.0	144.3	46.890	8,058.90	239.1
66.25	Reinf. Top	0.2500	35.265	27.783	4,303.60	23.46	141.06	73.8	240.4	0.0	118.8	46.890	7,894.60	199.3
70.00		0.2500	34.119	26.874	3,894.90	22.65	136.48	74.8	224.8	0.0	348.7	22.500	3,553.60	286.9
72.00		0.2500	33.508	26.390	3,688.00	22.22	134.03	75.3	216.8	0.0	181.2	22.500	3,433.10	153.0
75.00		0.2500	32.592	25.662	3,391.40	21.58	130.37	76	205.0	0.0	265.7	22.500	3,256.30	229.5
76.50	Reinf. Top	0.2500	32.134	25.299	3,249.30	21.25	128.54	76.4	199.2	0.0	130.1	22.500	3,169.70	114.8
80.00		0.2500	31.065	24.451	2,933.30	20.50	124.26	77.3	186.0	0.0	296.3			
85.00		0.2500	29.538	23.239	2,518.50	19.42	118.15	78.6	167.9	0.0	405.7			
90.00		0.2500	28.010	22.027	2,144.70	18.35	112.04	79.8	150.8	0.0	385.1			
92.00		0.2500	27.400	21.542	2,006.20	17.91	109.60	80.3	144.2	0.0	148.3			
93.00		0.2500	27.094	21.300	1,939.20	17.70	108.38	80.6	141.0	0.0	72.9			
95.00		0.2500	26.483	20.815	1,809.80	17.27	105.93	81.1	134.6	0.0	143.3			
95.03	Bot - Section 3	0.2500	26.474	20.808	1,807.90	17.26	105.90	81.1	134.5	0.0	2.1			
98.95	Top - Section 2	0.1875	25.652	15.154	1,241.50	22.71	136.81	74.7	95.3	0.0	478.1			
100.00		0.1875	25.331	14.963	1,195.20	22.41	135.10	75	92.9	0.0	53.8			
100.30		0.1875	25.239	14.908	1,182.10	22.32	134.61	75.1	92.3	0.0	15.2			
102.00		0.1875	24.720	14.599	1,110.10	21.84	131.84	75.7	88.5	0.0	85.3			
102.20		0.1875	24.659	14.563	1,101.90	21.78	131.51	75.8	88.0	0.0	9.9			
102.40		0.1875	24.598	14.527	1,093.60	21.72	131.19	75.9	87.6	0.0	9.9			
103.50		0.1875	24.262	14.327	1,049.10	21.41	129.40	76.2	85.2	0.0	54.0			
103.70		0.1875	24.201	14.290	1,041.10	21.35	129.07	76.3	84.7	0.0	9.7			
105.00		0.1875	23.804	14.054	990.30	20.97	126.95	76.7	81.9	0.0	62.7			
108.50		0.1875	22.735	13.418	861.80	19.97	121.25	77.9	74.7	0.0	163.6			
110.00		0.1875	22.277	13.145	810.40	19.54	118.81	78.4	71.6	0.0	67.8			
112.00		0.1875	21.666	12.782	745.00	18.96	115.55	79.1	67.7	0.0	88.2			
113.20		0.1875	21.299	12.564	707.50	18.62	113.60	79.5	65.4	0.0	51.7			
113.80		0.1875	21.116	12.455	689.20	18.45	112.62	79.7	64.3	0.0	25.5			
115.00		0.1875	20.749	12.236	653.60	18.10	110.66	80.1	62.0	0.0	50.4			
115.60		0.1875	20.566	12.127	636.30	17.93	109.69	80.3	60.9	0.0	24.9			
119.60		0.1875	19.344	11.400	528.60	16.78	103.17	81.7	53.8	0.0	160.1			
120.00		0.1875	19.222	11.328	518.50	16.67	102.52	81.8	53.1	0.0	15.5			
122.00		0.1875	18.611	10.964	470.20	16.09	99.26	82.5	49.8	0.0	75.9			
122.10		0.1875	18.581	10.946	467.90	16.06	99.10	82.5	49.6	0.0	3.7			
122.30		0.1875	18.520	10.910	463.20	16.01	98.77	82.6	49.3	0.0	7.4			
122.70		0.1875	18.398	10.837	454.00	15.89	98.12	82.6	48.6	0.0	14.8			
122.80		0.1875	18.367	10.819	451.70	15.86	97.96	82.6	48.4	0.0	3.7			
122.90		0.1875	18.336	10.800	449.50	15.83	97.79	82.6	48.3	0.0	3.7			
123.10		0.1875	18.275	10.764	444.90	15.78	97.47	82.6	48.0	0.0	7.3			
124.00		0.1875	18.000	10.601	425.00	15.52	96.00	82.6	46.5	0.0	32.7			
									Totals:		**14,212.5**			**5,644.6**

CALCULATED FORCES

Load Case: 1.2D + 1.0W — 113.06 mph Wind with No Ice — 25 Iterations

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

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	-51.03	-40.73	0.00	-3,790.3	0.00	3,790.33	3,249.22	951.93	4,701.78	3,663.92	0	0	0.405
5.00	-47.96	-40.14	0.00	-3,586.7	0.00	3,586.70	3,206.58	925.35	4,442.87	3,514.28	0.05	-0.1	0.391
7.50	-46.42	-39.75	0.00	-3,486.4	0.00	3,486.36	3,184.22	912.06	4,316.16	3,439.36	0.12	-0.15	0.384
7.50	-46.42	-39.75	0.00	-3,486.4	0.00	3,486.36	3,184.22	912.06	4,316.16	3,439.36	0.12	-0.15	0.522
10.00	-45.18	-39.18	0.00	-3,387.0	0.00	3,387.00	3,161.17	898.77	4,191.29	3,364.41	0.21	-0.2	0.514
15.00	-42.74	-38.43	0.00	-3,191.1	0.00	3,191.10	3,113.00	872.18	3,947.04	3,214.56	0.5	-0.33	0.497
20.00	-40.38	-38.04	0.00	-2,999.0	0.00	2,998.96	3,062.07	845.60	3,710.12	3,064.99	0.92	-0.47	0.481

CALCULATED FORCES

20.08	-40.30	-37.67	0.00	-2,995.9	0.00	2,995.91	3,061.23	845.17	3,706.39	3,062.60	0.93	-0.47	0.480
20.08	-40.30	-37.67	0.00	-2,995.9	0.00	2,995.91	3,061.23	845.17	3,706.39	3,062.60	0.93	-0.47	0.993
25.00	-38.71	-36.99	0.00	-2,810.6	0.00	2,810.57	3,008.37	819.02	3,480.53	2,915.97	1.49	-0.61	0.979
30.00	-37.26	-36.46	0.00	-2,625.6	0.00	2,625.64	2,951.91	792.43	3,258.28	2,767.76	2.29	-0.91	0.963
35.00	-35.88	-36.02	0.00	-2,443.4	0.00	2,443.37	2,892.69	765.85	3,043.36	2,620.63	3.4	-1.21	0.947
40.00	-34.53	-35.59	0.00	-2,263.2	0.00	2,263.25	2,830.70	739.26	2,835.77	2,474.83	4.84	-1.52	0.929
45.00	-33.27	-35.28	0.00	-2,085.3	0.00	2,085.31	2,765.95	712.68	2,635.51	2,330.63	6.61	-1.85	0.909
46.66	-32.81	-35.07	0.00	-2,026.8	0.00	2,026.75	2,743.85	703.85	2,570.65	2,283.15	7.28	-1.96	0.902
50.00	-31.54	-34.82	0.00	-1,909.6	0.00	1,909.62	2,698.44	686.10	2,442.59	2,188.28	8.73	-2.19	0.887
51.75	-30.89	-34.70	0.00	-1,848.7	0.00	1,848.68	2,674.16	676.79	2,376.79	2,138.95	9.55	-2.31	0.878
52.33	-30.60	-34.54	0.00	-1,828.6	0.00	1,828.56	1,970.68	546.80	1,939.21	1,594.53	9.84	-2.35	0.635
55.00	-29.76	-34.15	0.00	-1,736.3	0.00	1,736.33	1,948.33	535.44	1,859.51	1,543.50	11.18	-2.46	0.617
60.00	-28.28	-33.69	0.00	-1,565.6	0.00	1,565.58	1,904.35	514.18	1,714.74	1,448.35	13.88	-2.68	0.581
63.50	-27.26	-33.42	0.00	-1,447.7	0.00	1,447.66	1,871.92	499.29	1,616.90	1,382.19	15.9	-2.84	0.555
65.00	-26.69	-33.26	0.00	-1,397.5	0.00	1,397.53	1,857.61	492.91	1,575.84	1,353.97	16.8	-2.9	0.377
66.25	-26.21	-33.00	0.00	-1,356.0	0.00	1,355.96	1,845.49	487.59	1,542.03	1,330.53	17.57	-2.94	0.369
66.25	-26.21	-33.00	0.00	-1,356.0	0.00	1,355.96	1,845.49	487.59	1,542.03	1,330.53	17.57	-2.94	0.555
70.00	-25.19	-32.68	0.00	-1,232.2	0.00	1,232.21	1,808.10	471.64	1,442.81	1,260.63	19.93	-3.06	0.524
72.00	-24.61	-32.11	0.00	-1,166.9	0.00	1,166.86	1,787.53	463.14	1,391.24	1,223.64	21.23	-3.15	0.506
75.00	-23.81	-31.88	0.00	-1,070.5	0.00	1,070.52	1,755.83	450.38	1,315.64	1,168.58	23.25	-3.28	0.480
76.50	-23.38	-31.64	0.00	-1,022.7	0.00	1,022.70	1,739.61	444.00	1,278.63	1,141.26	24.3	-3.35	0.466
76.50	-23.38	-31.64	0.00	-1,022.7	0.00	1,022.70	1,739.61	444.00	1,278.63	1,141.26	24.3	-3.35	0.915
80.00	-22.70	-31.29	0.00	-912.0	0.00	911.97	1,700.80	429.11	1,194.34	1,078.09	26.81	-3.5	0.865
85.00	-21.75	-30.90	0.00	-755.5	0.00	755.52	1,643.00	407.84	1,078.90	989.43	30.69	-3.9	0.783
90.00	-20.89	-30.61	0.00	-601.0	0.00	601.01	1,582.44	386.58	969.33	902.85	34.99	-4.29	0.685
92.00	-20.42	-29.88	0.00	-539.8	0.00	539.78	1,557.45	378.07	927.14	868.86	36.82	-4.44	0.641
93.00	-16.48	-25.01	0.00	-509.9	0.00	509.90	1,544.78	373.82	906.40	852.01	37.76	-4.51	0.614
95.00	-16.18	-24.91	0.00	-459.9	0.00	459.89	1,519.12	365.31	865.62	818.61	39.68	-4.65	0.577
95.03	-16.13	-24.77	0.00	-459.1	0.00	459.14	1,518.73	365.18	865.02	818.11	39.71	-4.66	0.576
98.95	-15.30	-24.53	0.00	-362.0	0.00	362.03	1,018.61	265.95	611.67	533.96	43.64	-4.91	0.702
100.00	-15.17	-24.47	0.00	-336.3	0.00	336.27	1,010.56	262.60	596.37	523.02	44.73	-4.98	0.667
100.30	-15.05	-24.29	0.00	-328.9	0.00	328.93	1,008.24	261.64	592.03	519.90	45.04	-5	0.656
102.00	-12.02	-21.68	0.00	-287.6	0.00	287.64	994.89	256.22	567.74	502.30	46.84	-5.13	0.592
102.20	-11.68	-20.03	0.00	-283.3	0.00	283.31	993.29	255.58	564.92	500.24	47.06	-5.14	0.584
102.40	-11.29	-19.33	0.00	-279.3	0.00	279.30	991.70	254.94	562.10	498.18	47.27	-5.16	0.578
103.50	-10.82	-18.80	0.00	-258.0	0.00	258.03	982.84	251.44	546.74	486.88	48.47	-5.23	0.547
103.70	-10.55	-18.62	0.00	-254.3	0.00	254.27	981.21	250.80	543.97	484.83	48.69	-5.25	0.541
105.00	-9.76	-15.48	0.00	-230.1	0.00	230.07	970.54	246.65	526.13	471.57	50.13	-5.33	0.502
108.50	-9.23	-15.12	0.00	-175.9	0.00	175.90	940.89	235.49	479.58	436.30	54.11	-5.54	0.417
110.00	-9.10	-14.98	0.00	-153.2	0.00	153.22	927.77	230.70	460.29	421.40	55.86	-5.62	0.378
112.00	-6.85	-13.17	0.00	-123.3	0.00	123.26	909.88	224.32	435.19	401.76	58.23	-5.71	0.318
113.20	-6.63	-12.33	0.00	-107.4	0.00	107.45	898.94	220.49	420.46	390.09	59.68	-5.77	0.286
113.80	-6.45	-11.68	0.00	-100.1	0.00	100.06	893.41	218.58	413.19	384.30	60.4	-5.79	0.270
115.00	-6.37	-11.61	0.00	-86.0	0.00	86.04	882.23	214.75	398.85	372.78	61.86	-5.84	0.241
115.60	-6.12	-11.12	0.00	-79.1	0.00	79.08	876.57	212.84	391.77	367.06	62.6	-5.86	0.225
119.60	-5.51	-10.56	0.00	-33.9	0.00	33.94	837.89	200.08	346.21	329.63	67.55	-5.96	0.112
120.00	-5.49	-10.48	0.00	-29.7	0.00	29.72	833.92	198.80	341.81	325.96	68.05	-5.97	0.101
122.00	-0.97	-5.62	0.00	-8.0	0.00	8.05	813.82	192.42	320.23	307.80	70.55	-5.99	0.028
122.10	-0.94	-5.03	0.00	-7.5	0.00	7.48	812.81	192.10	319.16	306.90	70.68	-5.99	0.026
122.30	-0.70	-3.94	0.00	-6.5	0.00	6.48	810.53	191.46	317.05	305.01	70.93	-5.99	0.023
122.70	-0.66	-3.35	0.00	-4.9	0.00	4.90	805.12	190.19	312.84	300.94	71.43	-5.99	0.017
122.80	-0.58	-2.87	0.00	-4.6	0.00	4.57	803.77	189.87	311.79	299.92	71.55	-5.99	0.016
122.90	-0.38	-1.34	0.00	-4.3	0.00	4.28	802.42	189.55	310.74	298.91	71.68	-5.99	0.015
123.10	-0.30	-1.18	0.00	-4.0	0.00	4.01	799.72	188.91	308.65	296.89	71.93	-5.99	0.014
124.00	0.00	-1.14	0.00	-3.0	0.00	2.95	787.57	186.04	299.35	287.89	73.06	-6	0.010

CALCULATED FORCES

Load Case: 0.9D + 1.0W — 113.06 mph Wind with No Ice (Reduced DL) — 25 Iterations

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

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	-38.26	-40.71	0.00	-3,758.3	0.00	3,758.32	3,249.22	951.93	4,701.78	3,663.92	0	0	0.400
5.00	-35.95	-40.11	0.00	-3,554.8	0.00	3,554.76	3,206.58	925.35	4,442.87	3,514.28	0.05	-0.1	0.386
7.50	-34.79	-39.71	0.00	-3,454.5	0.00	3,454.48	3,184.22	912.06	4,316.16	3,439.36	0.12	-0.15	0.379
7.50	-34.79	-39.71	0.00	-3,454.5	0.00	3,454.48	3,184.22	912.06	4,316.16	3,439.36	0.12	-0.15	0.515
10.00	-33.84	-39.13	0.00	-3,355.2	0.00	3,355.21	3,161.17	898.77	4,191.29	3,364.41	0.21	-0.2	0.507
15.00	-31.99	-38.35	0.00	-3,159.6	0.00	3,159.59	3,113.00	872.18	3,947.04	3,214.56	0.49	-0.33	0.491
20.00	-30.21	-37.95	0.00	-2,967.8	0.00	2,967.83	3,062.07	845.60	3,710.12	3,064.99	0.91	-0.47	0.474
20.08	-30.14	-37.57	0.00	-2,964.8	0.00	2,964.80	3,061.23	845.17	3,706.39	3,062.60	0.92	-0.47	0.474
20.08	-30.14	-37.57	0.00	-2,964.8	0.00	2,964.80	3,061.23	845.17	3,706.39	3,062.60	0.92	-0.47	0.980
25.00	-28.92	-36.85	0.00	-2,779.9	0.00	2,779.94	3,008.37	819.02	3,480.53	2,915.97	1.48	-0.6	0.965
30.00	-27.78	-36.27	0.00	-2,595.7	0.00	2,595.68	2,951.91	792.43	3,258.28	2,767.76	2.27	-0.9	0.949
35.00	-26.71	-35.80	0.00	-2,414.3	0.00	2,414.32	2,892.69	765.85	3,043.36	2,620.63	3.37	-1.2	0.933
40.00	-25.65	-35.32	0.00	-2,235.3	0.00	2,235.33	2,830.70	739.26	2,835.77	2,474.83	4.79	-1.51	0.915
45.00	-24.68	-34.99	0.00	-2,058.8	0.00	2,058.75	2,765.95	712.68	2,635.51	2,330.63	6.54	-1.83	0.895
46.66	-24.31	-34.75	0.00	-2,000.7	0.00	2,000.67	2,743.85	703.85	2,570.65	2,283.15	7.2	-1.94	0.888
50.00	-23.34	-34.49	0.00	-1,884.6	0.00	1,884.60	2,698.44	686.10	2,442.59	2,188.28	8.64	-2.16	0.872
51.75	-22.85	-34.36	0.00	-1,824.2	0.00	1,824.25	2,674.16	676.79	2,376.79	2,138.95	9.45	-2.28	0.864
52.33	-22.62	-34.19	0.00	-1,804.3	0.00	1,804.32	1,970.68	546.80	1,939.21	1,594.53	9.73	-2.32	0.625
55.00	-21.97	-33.79	0.00	-1,713.0	0.00	1,713.02	1,948.33	535.44	1,859.51	1,543.50	11.06	-2.43	0.606
60.00	-20.84	-33.32	0.00	-1,544.1	0.00	1,544.09	1,904.35	514.18	1,714.74	1,448.35	13.73	-2.65	0.571
63.50	-20.06	-33.04	0.00	-1,427.5	0.00	1,427.46	1,871.92	499.29	1,616.90	1,382.19	15.73	-2.8	0.545
65.00	-19.63	-32.89	0.00	-1,377.9	0.00	1,377.90	1,857.61	492.91	1,575.84	1,353.97	16.62	-2.87	0.370
66.25	-19.26	-32.62	0.00	-1,336.8	0.00	1,336.79	1,845.49	487.59	1,542.03	1,330.53	17.38	-2.91	0.363
66.25	-19.26	-32.62	0.00	-1,336.8	0.00	1,336.79	1,845.49	487.59	1,542.03	1,330.53	17.38	-2.91	0.545
70.00	-18.49	-32.30	0.00	-1,214.5	0.00	1,214.46	1,808.10	471.64	1,442.81	1,260.63	19.71	-3.02	0.514
72.00	-18.05	-31.73	0.00	-1,149.9	0.00	1,149.86	1,787.53	463.14	1,391.24	1,223.64	20.99	-3.11	0.497
75.00	-17.44	-31.49	0.00	-1,054.7	0.00	1,054.67	1,755.83	450.38	1,315.64	1,168.58	22.99	-3.24	0.471
76.50	-17.11	-31.25	0.00	-1,007.4	0.00	1,007.43	1,739.61	444.00	1,278.63	1,141.26	24.02	-3.31	0.457
76.50	-17.11	-31.25	0.00	-1,007.4	0.00	1,007.43	1,739.61	444.00	1,278.63	1,141.26	24.02	-3.31	0.898
80.00	-16.57	-30.88	0.00	-898.1	0.00	898.06	1,700.80	429.11	1,194.34	1,078.09	26.5	-3.46	0.848
85.00	-15.81	-30.46	0.00	-743.7	0.00	743.67	1,643.00	407.84	1,078.90	989.43	30.34	-3.85	0.767
90.00	-15.14	-30.16	0.00	-591.4	0.00	591.37	1,582.44	386.58	969.33	902.85	34.58	-4.23	0.671
92.00	-14.80	-29.42	0.00	-531.1	0.00	531.06	1,557.45	378.07	927.14	868.86	36.38	-4.38	0.627
93.00	-11.92	-24.63	0.00	-501.6	0.00	501.64	1,544.78	373.82	906.40	852.01	37.31	-4.45	0.601
95.00	-11.68	-24.53	0.00	-452.4	0.00	452.39	1,519.12	365.31	865.62	818.61	39.2	-4.59	0.565
95.03	-11.64	-24.38	0.00	-451.6	0.00	451.65	1,518.73	365.18	865.02	818.11	39.23	-4.6	0.564
98.95	-11.01	-24.14	0.00	-356.1	0.00	356.07	1,018.61	265.95	611.67	533.96	43.11	-4.84	0.686
100.00	-10.90	-24.09	0.00	-330.7	0.00	330.72	1,010.56	262.60	596.37	523.02	44.18	-4.91	0.652
100.30	-10.81	-23.90	0.00	-323.5	0.00	323.50	1,008.24	261.64	592.03	519.90	44.49	-4.93	0.641
102.00	-8.58	-21.35	0.00	-282.9	0.00	282.87	994.89	256.22	567.74	502.30	46.27	-5.06	0.579
102.20	-8.36	-19.72	0.00	-278.6	0.00	278.60	993.29	255.58	564.92	500.24	46.48	-5.07	0.571
102.40	-8.08	-19.03	0.00	-274.7	0.00	274.66	991.70	254.94	562.10	498.18	46.7	-5.09	0.565
103.50	-7.74	-18.50	0.00	-253.7	0.00	253.73	982.84	251.44	546.74	486.88	47.88	-5.16	0.534
103.70	-7.53	-18.33	0.00	-250.0	0.00	250.03	981.21	250.80	543.97	484.83	48.09	-5.17	0.529
105.00	-7.00	-15.20	0.00	-226.2	0.00	226.20	970.54	246.65	526.13	471.57	49.51	-5.26	0.491
108.50	-6.60	-14.85	0.00	-173.0	0.00	172.99	940.89	235.49	479.58	436.30	53.44	-5.46	0.407
110.00	-6.50	-14.71	0.00	-150.7	0.00	150.72	927.77	230.70	460.29	421.40	55.17	-5.54	0.369
112.00	-4.84	-12.96	0.00	-121.3	0.00	121.29	909.88	224.32	435.19	401.76	57.51	-5.64	0.311
113.20	-4.70	-12.13	0.00	-105.7	0.00	105.74	898.94	220.49	420.46	390.09	58.93	-5.69	0.279
113.80	-4.58	-11.48	0.00	-98.5	0.00	98.46	893.41	218.58	413.19	384.30	59.65	-5.71	0.264
115.00	-4.51	-11.41	0.00	-84.7	0.00	84.69	882.23	214.75	398.85	372.78	61.09	-5.76	0.235
115.60	-4.34	-10.93	0.00	-77.8	0.00	77.84	876.57	212.84	391.77	367.06	61.81	-5.78	0.220
119.60	-3.89	-10.38	0.00	-33.5	0.00	33.48	837.89	200.08	346.21	329.63	66.69	-5.88	0.109
120.00	-3.88	-10.30	0.00	-29.3	0.00	29.33	833.92	198.80	341.81	325.96	67.19	-5.89	0.097
122.00	-0.59	-5.58	0.00	-8.0	0.00	8.00	813.82	192.42	320.23	307.80	69.65	-5.91	0.028

CALCULATED FORCES

122.10	-0.58	-4.99	0.00	-7.4	0.00	7.45	812.81	192.10	319.16	306.90	69.78	-5.91	0.026
122.30	-0.43	-3.91	0.00	-6.4	0.00	6.45	810.53	191.46	317.05	305.01	70.02	-5.91	0.022
122.70	-0.42	-3.33	0.00	-4.9	0.00	4.89	805.12	190.19	312.84	300.94	70.52	-5.91	0.017
122.80	-0.37	-2.85	0.00	-4.6	0.00	4.55	803.77	189.87	311.79	299.92	70.64	-5.91	0.016
122.90	-0.25	-1.33	0.00	-4.3	0.00	4.27	802.42	189.55	310.74	298.91	70.77	-5.91	0.015
123.10	-0.20	-1.17	0.00	-4.0	0.00	4.00	799.72	188.91	308.65	296.89	71.01	-5.91	0.014
124.00	0.00	-1.14	0.00	-3.0	0.00	2.95	787.57	186.04	299.35	287.89	72.13	-5.91	0.010

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi — 48.73 mph Wind with 0.85" Radial Ice — 24 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

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	-68.30	-10.67	0.00	-991.4	0.00	991.38	3,249.22	951.93	4,701.78	3,663.92	0	0	0.113
5.00	-64.90	-10.53	0.00	-938.0	0.00	938.01	3,206.58	925.35	4,442.87	3,514.28	0.01	-0.03	0.109
7.50	-63.20	-10.43	0.00	-911.7	0.00	911.69	3,184.22	912.06	4,316.16	3,439.36	0.03	-0.04	0.107
7.50	-63.20	-10.43	0.00	-911.7	0.00	911.69	3,184.22	912.06	4,316.16	3,439.36	0.03	-0.04	0.145
10.00	-61.80	-10.29	0.00	-885.6	0.00	885.62	3,161.17	898.77	4,191.29	3,364.41	0.06	-0.05	0.143
15.00	-59.04	-10.11	0.00	-834.2	0.00	834.17	3,113.00	872.18	3,947.04	3,214.56	0.13	-0.09	0.138
20.00	-56.31	-10.02	0.00	-783.6	0.00	783.60	3,062.07	845.60	3,710.12	3,064.99	0.24	-0.12	0.133
20.08	-56.26	-9.94	0.00	-782.8	0.00	782.80	3,061.23	845.17	3,706.39	3,062.60	0.24	-0.12	0.133
20.08	-56.26	-9.94	0.00	-782.8	0.00	782.80	3,061.23	845.17	3,706.39	3,062.60	0.24	-0.12	0.274
25.00	-54.38	-9.79	0.00	-733.9	0.00	733.90	3,008.37	819.02	3,480.53	2,915.97	0.39	-0.16	0.270
30.00	-52.77	-9.67	0.00	-684.9	0.00	684.93	2,951.91	792.43	3,258.28	2,767.76	0.6	-0.24	0.265
35.00	-51.27	-9.54	0.00	-636.6	0.00	636.60	2,892.69	765.85	3,043.36	2,620.63	0.89	-0.32	0.261
40.00	-49.80	-9.41	0.00	-588.9	0.00	588.90	2,830.70	739.26	2,835.77	2,474.83	1.26	-0.4	0.256
45.00	-48.38	-9.32	0.00	-541.9	0.00	541.86	2,765.95	712.68	2,635.51	2,330.63	1.73	-0.48	0.250
46.66	-47.91	-9.26	0.00	-526.4	0.00	526.39	2,743.85	703.85	2,570.65	2,283.15	1.9	-0.51	0.248
50.00	-46.54	-9.18	0.00	-495.5	0.00	495.47	2,698.44	686.10	2,442.59	2,188.28	2.28	-0.57	0.244
51.75	-45.83	-9.15	0.00	-479.4	0.00	479.40	2,674.16	676.79	2,376.79	2,138.95	2.49	-0.6	0.241
52.33	-45.54	-9.10	0.00	-474.1	0.00	474.10	1,970.68	546.80	1,939.21	1,594.53	2.57	-0.61	0.175
55.00	-44.63	-8.98	0.00	-449.8	0.00	449.81	1,948.33	535.44	1,859.51	1,543.50	2.92	-0.64	0.170
60.00	-42.94	-8.84	0.00	-404.9	0.00	404.91	1,904.35	514.18	1,714.74	1,448.35	3.62	-0.7	0.160
63.50	-41.77	-8.75	0.00	-374.0	0.00	373.98	1,871.92	499.29	1,616.90	1,382.19	4.15	-0.74	0.152
65.00	-41.14	-8.70	0.00	-360.8	0.00	360.85	1,857.61	492.91	1,575.84	1,353.97	4.38	-0.76	0.103
66.25	-40.61	-8.62	0.00	-350.0	0.00	349.97	1,845.49	487.59	1,542.03	1,330.53	4.58	-0.77	0.101
66.25	-40.61	-8.62	0.00	-350.0	0.00	349.97	1,845.49	487.59	1,542.03	1,330.53	4.58	-0.77	0.152
70.00	-39.43	-8.52	0.00	-317.6	0.00	317.64	1,808.10	471.64	1,442.81	1,260.63	5.2	-0.79	0.144
72.00	-38.70	-8.34	0.00	-300.6	0.00	300.60	1,787.53	463.14	1,391.24	1,223.64	5.53	-0.82	0.139
75.00	-37.78	-8.27	0.00	-275.6	0.00	275.57	1,755.83	450.38	1,315.64	1,168.58	6.06	-0.85	0.132
76.50	-37.32	-8.19	0.00	-263.2	0.00	263.17	1,739.61	444.00	1,278.63	1,141.26	6.33	-0.87	0.128
76.50	-37.32	-8.19	0.00	-263.2	0.00	263.17	1,739.61	444.00	1,278.63	1,141.26	6.33	-0.87	0.252
80.00	-36.59	-8.09	0.00	-234.5	0.00	234.49	1,700.80	429.11	1,194.34	1,078.09	6.98	-0.91	0.239
85.00	-35.59	-7.98	0.00	-194.0	0.00	194.05	1,643.00	407.84	1,078.90	989.43	7.99	-1.01	0.218
90.00	-34.63	-7.89	0.00	-154.2	0.00	154.17	1,582.44	386.58	969.33	902.85	9.11	-1.11	0.193
92.00	-33.96	-7.66	0.00	-138.4	0.00	138.40	1,557.45	378.07	927.14	868.86	9.58	-1.15	0.182
93.00	-27.97	-6.42	0.00	-130.7	0.00	130.74	1,544.78	373.82	906.40	852.01	9.83	-1.17	0.172
95.00	-27.61	-6.39	0.00	-117.9	0.00	117.89	1,519.12	365.31	865.62	818.61	10.32	-1.21	0.162
95.03	-27.61	-6.35	0.00	-117.7	0.00	117.70	1,518.73	365.18	865.02	818.11	10.33	-1.21	0.162
98.95	-26.67	-6.28	0.00	-92.8	0.00	92.80	1,018.61	265.95	611.67	533.96	11.35	-1.27	0.201
100.00	-26.51	-6.26	0.00	-86.2	0.00	86.21	1,010.56	262.60	596.37	523.02	11.63	-1.29	0.192
100.30	-26.32	-6.21	0.00	-84.3	0.00	84.33	1,008.24	261.64	592.03	519.90	11.71	-1.29	0.189
102.00	-22.09	-5.46	0.00	-73.8	0.00	73.77	994.89	256.22	567.74	502.30	12.18	-1.33	0.170
102.20	-21.02	-5.10	0.00	-72.7	0.00	72.68	993.29	255.58	564.92	500.24	12.24	-1.33	0.167
102.40	-20.32	-4.93	0.00	-71.7	0.00	71.66	991.70	254.94	562.10	498.18	12.29	-1.33	0.165
103.50	-19.58	-4.80	0.00	-66.2	0.00	66.24	982.84	251.44	546.74	486.88	12.6	-1.35	0.156
103.70	-19.21	-4.75	0.00	-65.3	0.00	65.28	981.21	250.80	543.97	484.83	12.66	-1.36	0.155
105.00	-16.66	-4.03	0.00	-59.1	0.00	59.11	970.54	246.65	526.13	471.57	13.03	-1.38	0.143
108.50	-15.90	-3.92	0.00	-45.0	0.00	45.02	940.89	235.49	479.58	436.30	14.06	-1.43	0.120
110.00	-15.73	-3.88	0.00	-39.1	0.00	39.14	927.77	230.70	460.29	421.40	14.52	-1.45	0.110
112.00	-12.86	-3.36	0.00	-31.4	0.00	31.39	909.88	224.32	435.19	401.76	15.13	-1.48	0.092
113.20	-12.26	-3.15	0.00	-27.4	0.00	27.35	898.94	220.49	420.46	390.09	15.51	-1.49	0.084
113.80	-11.80	-2.99	0.00	-25.5	0.00	25.46	893.41	218.58	413.19	384.30	15.69	-1.5	0.080
115.00	-11.68	-2.97	0.00	-21.9	0.00	21.87	882.23	214.75	398.85	372.78	16.07	-1.51	0.072
115.60	-11.26	-2.84	0.00	-20.1	0.00	20.09	876.57	212.84	391.77	367.06	16.26	-1.51	0.068
119.60	-10.26	-2.68	0.00	-8.6	0.00	8.59	837.89	200.08	346.21	329.63	17.54	-1.54	0.038
120.00	-10.22	-2.65	0.00	-7.5	0.00	7.52	833.92	198.80	341.81	325.96	17.67	-1.54	0.036
122.00	-3.18	-1.34	0.00	-2.0	0.00	2.05	813.82	192.42	320.23	307.80	18.32	-1.55	0.011

CALCULATED FORCES

122.10	-2.94	-1.21	0.00	-1.9	0.00	1.92	812.81	192.10	319.16	306.90	18.35	-1.55	0.010
122.30	-2.30	-0.96	0.00	-1.7	0.00	1.68	810.53	191.46	317.05	305.01	18.42	-1.55	0.008
122.70	-2.05	-0.82	0.00	-1.3	0.00	1.29	805.12	190.19	312.84	300.94	18.55	-1.55	0.007
122.80	-1.75	-0.71	0.00	-1.2	0.00	1.21	803.77	189.87	311.79	299.92	18.58	-1.55	0.006
122.90	-0.89	-0.36	0.00	-1.1	0.00	1.14	802.42	189.55	310.74	298.91	18.61	-1.55	0.005
123.10	-0.73	-0.31	0.00	-1.1	0.00	1.07	799.72	188.91	308.65	296.89	18.68	-1.55	0.005
124.00	0.00	-0.29	0.00	-0.8	0.00	0.79	787.57	186.04	299.35	287.89	18.97	-1.55	0.003

CALCULATED FORCES

Load Case: 1.0D + 1.0W — 60 mph Wind with No Ice — 23 Iterations

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

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	-42.55	-10.26	0.00	-950.6	0.00	950.62	3,249.22	951.93	4,701.78	3,663.92	0	0	0.105
5.00	-40.03	-10.11	0.00	-899.3	0.00	899.33	3,206.58	925.35	4,442.87	3,514.28	0.01	-0.02	0.101
7.50	-38.78	-10.01	0.00	-874.1	0.00	874.06	3,184.22	912.06	4,316.16	3,439.36	0.03	-0.04	0.099
7.50	-38.78	-10.01	0.00	-874.1	0.00	874.06	3,184.22	912.06	4,316.16	3,439.36	0.03	-0.04	0.135
10.00	-37.79	-9.86	0.00	-849.0	0.00	849.04	3,161.17	898.77	4,191.29	3,364.41	0.05	-0.05	0.133
15.00	-35.83	-9.67	0.00	-799.7	0.00	799.73	3,113.00	872.18	3,947.04	3,214.56	0.12	-0.08	0.129
20.00	-33.89	-9.57	0.00	-751.4	0.00	751.39	3,062.07	845.60	3,710.12	3,064.99	0.23	-0.12	0.124
20.08	-33.86	-9.47	0.00	-750.6	0.00	750.62	3,061.23	845.17	3,706.39	3,062.60	0.23	-0.12	0.124
20.08	-33.86	-9.47	0.00	-750.6	0.00	750.62	3,061.23	845.17	3,706.39	3,062.60	0.23	-0.12	0.256
25.00	-32.64	-9.30	0.00	-704.0	0.00	704.01	3,008.37	819.02	3,480.53	2,915.97	0.37	-0.15	0.252
30.00	-31.56	-9.16	0.00	-657.5	0.00	657.52	2,951.91	792.43	3,258.28	2,767.76	0.57	-0.23	0.248
35.00	-30.55	-9.04	0.00	-611.8	0.00	611.75	2,892.69	765.85	3,043.36	2,620.63	0.85	-0.3	0.244
40.00	-29.57	-8.92	0.00	-566.6	0.00	566.55	2,830.70	739.26	2,835.77	2,474.83	1.21	-0.38	0.240
45.00	-28.62	-8.84	0.00	-521.9	0.00	521.93	2,765.95	712.68	2,635.51	2,330.63	1.66	-0.46	0.234
46.66	-28.30	-8.79	0.00	-507.2	0.00	507.25	2,743.85	703.85	2,570.65	2,283.15	1.82	-0.49	0.233
50.00	-27.32	-8.72	0.00	-477.9	0.00	477.90	2,698.44	686.10	2,442.59	2,188.28	2.19	-0.55	0.229
51.75	-26.81	-8.69	0.00	-462.6	0.00	462.63	2,674.16	676.79	2,376.79	2,138.95	2.39	-0.58	0.226
52.33	-26.60	-8.65	0.00	-457.6	0.00	457.59	1,970.68	546.80	1,939.21	1,594.53	2.46	-0.59	0.164
55.00	-25.96	-8.55	0.00	-434.5	0.00	434.50	1,948.33	535.44	1,859.51	1,543.50	2.8	-0.62	0.159
60.00	-24.79	-8.44	0.00	-391.7	0.00	391.74	1,904.35	514.18	1,714.74	1,448.35	3.48	-0.67	0.150
63.50	-23.98	-8.37	0.00	-362.2	0.00	362.22	1,871.92	499.29	1,616.90	1,382.19	3.98	-0.71	0.143
65.00	-23.53	-8.33	0.00	-349.7	0.00	349.67	1,857.61	492.91	1,575.84	1,353.97	4.21	-0.73	0.097
66.25	-23.15	-8.26	0.00	-339.3	0.00	339.26	1,845.49	487.59	1,542.03	1,330.53	4.4	-0.74	0.095
66.25	-23.15	-8.26	0.00	-339.3	0.00	339.26	1,845.49	487.59	1,542.03	1,330.53	4.4	-0.74	0.143
70.00	-22.33	-8.18	0.00	-308.3	0.00	308.29	1,808.10	471.64	1,442.81	1,260.63	4.99	-0.77	0.135
72.00	-21.87	-8.04	0.00	-291.9	0.00	291.93	1,787.53	463.14	1,391.24	1,223.64	5.32	-0.79	0.130
75.00	-21.23	-7.98	0.00	-267.8	0.00	267.81	1,755.83	450.38	1,315.64	1,168.58	5.83	-0.82	0.124
76.50	-20.91	-7.92	0.00	-255.8	0.00	255.84	1,739.61	444.00	1,278.63	1,141.26	6.09	-0.84	0.120
76.50	-20.91	-7.92	0.00	-255.8	0.00	255.84	1,739.61	444.00	1,278.63	1,141.26	6.09	-0.84	0.237
80.00	-20.44	-7.83	0.00	-228.1	0.00	228.13	1,700.80	429.11	1,194.34	1,078.09	6.72	-0.88	0.224
85.00	-19.79	-7.73	0.00	-189.0	0.00	188.99	1,643.00	407.84	1,078.90	989.43	7.69	-0.98	0.203
90.00	-19.15	-7.66	0.00	-150.3	0.00	150.34	1,582.44	386.58	969.33	902.85	8.77	-1.07	0.179
92.00	-18.77	-7.47	0.00	-135.0	0.00	135.03	1,557.45	378.07	927.14	868.86	9.22	-1.11	0.168
93.00	-15.24	-6.25	0.00	-127.6	0.00	127.56	1,544.78	373.82	906.40	852.01	9.46	-1.13	0.160
95.00	-15.00	-6.23	0.00	-115.0	0.00	115.05	1,519.12	365.31	865.62	818.61	9.94	-1.17	0.151
95.03	-15.00	-6.20	0.00	-114.9	0.00	114.86	1,518.73	365.18	865.02	818.11	9.95	-1.17	0.151
98.95	-14.34	-6.14	0.00	-90.6	0.00	90.58	1,018.61	265.95	611.67	533.96	10.93	-1.23	0.184
100.00	-14.24	-6.12	0.00	-84.1	0.00	84.14	1,010.56	262.60	596.37	523.02	11.2	-1.25	0.175
100.30	-14.15	-6.07	0.00	-82.3	0.00	82.30	1,008.24	261.64	592.03	519.90	11.28	-1.25	0.173
102.00	-11.48	-5.43	0.00	-72.0	0.00	71.97	994.89	256.22	567.74	502.30	11.73	-1.28	0.155
102.20	-11.08	-5.01	0.00	-70.9	0.00	70.89	993.29	255.58	564.92	500.24	11.79	-1.29	0.153
102.40	-10.72	-4.84	0.00	-69.9	0.00	69.88	991.70	254.94	562.10	498.18	11.84	-1.29	0.151
103.50	-10.31	-4.70	0.00	-64.6	0.00	64.56	982.84	251.44	546.74	486.88	12.14	-1.31	0.143
103.70	-10.08	-4.66	0.00	-63.6	0.00	63.62	981.21	250.80	543.97	484.83	12.2	-1.31	0.142
105.00	-9.23	-3.87	0.00	-57.6	0.00	57.56	970.54	246.65	526.13	471.57	12.56	-1.33	0.132
108.50	-8.79	-3.78	0.00	-44.0	0.00	44.02	940.89	235.49	479.58	436.30	13.56	-1.39	0.111
110.00	-8.69	-3.75	0.00	-38.4	0.00	38.35	927.77	230.70	460.29	421.40	14	-1.41	0.101
112.00	-6.70	-3.30	0.00	-30.9	0.00	30.86	909.88	224.32	435.19	401.76	14.59	-1.43	0.084
113.20	-6.46	-3.09	0.00	-26.9	0.00	26.91	898.94	220.49	420.46	390.09	14.95	-1.44	0.076
113.80	-6.26	-2.92	0.00	-25.0	0.00	25.05	893.41	218.58	413.19	384.30	15.13	-1.45	0.072
115.00	-6.19	-2.90	0.00	-21.6	0.00	21.55	882.23	214.75	398.85	372.78	15.5	-1.46	0.065
115.60	-5.96	-2.78	0.00	-19.8	0.00	19.81	876.57	212.84	391.77	367.06	15.68	-1.47	0.061
119.60	-5.42	-2.64	0.00	-8.5	0.00	8.51	837.89	200.08	346.21	329.63	16.93	-1.49	0.032
120.00	-5.39	-2.62	0.00	-7.4	0.00	7.45	833.92	198.80	341.81	325.96	17.05	-1.49	0.030
122.00	-1.26	-1.42	0.00	-2.0	0.00	2.03	813.82	192.42	320.23	307.80	17.68	-1.5	0.008

CALCULATED FORCES

122.10	-1.18	-1.27	0.00	-1.9	0.00	1.88	812.81	192.10	319.16	306.90	17.71	-1.5	0.008
122.30	-0.90	-0.99	0.00	-1.6	0.00	1.63	810.53	191.46	317.05	305.01	17.77	-1.5	0.006
122.70	-0.82	-0.84	0.00	-1.2	0.00	1.23	805.12	190.19	312.84	300.94	17.9	-1.5	0.005
122.80	-0.71	-0.72	0.00	-1.2	0.00	1.15	803.77	189.87	311.79	299.92	17.93	-1.5	0.005
122.90	-0.42	-0.34	0.00	-1.1	0.00	1.08	802.42	189.55	310.74	298.91	17.96	-1.5	0.004
123.10	-0.34	-0.30	0.00	-1.0	0.00	1.01	799.72	188.91	308.65	296.89	18.02	-1.5	0.004
124.00	0.00	-0.29	0.00	-0.7	0.00	0.74	787.57	186.04	299.35	287.89	18.31	-1.5	0.003

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.222
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.056
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a:	1.600
Site Coefficient F_v:	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.237
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.090
Seismic Response Coefficient (C_s):	0.032
Upper Limit C_S:	0.032
Lower Limit C_S:	0.030
Period based on Rayleigh Method (sec):	1.880
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	1.690
Total Unfactored Dead Load:	42.560 k
Seismic Base Shear (E):	1.350 k

SEISMIC FORCES

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)
57	123.55	39	136	0.002	3	49
56	123	9	30	0.000	1	11
55	122.85	4	15	0.000	0	5
54	122.75	4	15	0.000	0	5
53	122.5	18	60	0.001	1	22
52	122.2	9	30	0.000	1	11
51	122.05	4	15	0.000	0	6
50	121	111	372	0.006	7	139
49	119.8	23	74	0.001	1	28
48	117.6	231	735	0.011	15	288
47	115.3	35	109	0.002	2	44
46	114.4	72	218	0.003	4	89
45	113.5	36	108	0.002	2	45
44	112.6	77	227	0.003	5	96
43	111	131	378	0.006	8	163
42	109.25	100	281	0.004	6	124
41	106.75	246	665	0.010	13	306
40	104.35	119	310	0.005	6	149
39	103.6	18	47	0.001	1	23
38	102.95	102	259	0.004	5	127
37	102.3	19	47	0.001	1	23
36	102.1	19	47	0.001	1	23
35	101.15	159	393	0.006	8	199
34	100.15	28	69	0.001	1	35
33	99.475	99	239	0.004	5	124
32	96.99	653	1,503	0.022	30	815
31	95.015	3	8	0.000	0	4
30	94	233	510	0.008	10	291
29	92.5	121	256	0.004	5	150
28	91	244	503	0.008	10	304
27	87.5	624	1,205	0.018	24	778
26	82.5	644	1,127	0.017	23	803
25	78.25	463	741	0.011	15	578
24	75.75	316	479	0.007	10	395
23	73.5	638	919	0.014	19	796
22	71	430	583	0.009	12	536
21	68.125	814	1,031	0.015	21	1,016
20	65.625	378	449	0.007	9	471

SEISMIC FORCES

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)
19	64.25	455	522	0.008	11	568
18	61.75	804	862	0.013	17	1,003
17	57.5	1,166	1,108	0.017	22	1,454
16	53.665	631	533	0.008	11	787
15	52.04	214	172	0.003	3	267
14	50.875	504	389	0.006	8	628
13	48.33	977	692	0.010	14	1,219
12	45.83	308	200	0.003	4	385
11	42.5	946	539	0.008	11	1,180
10	37.5	972	448	0.007	9	1,213
9	32.5	998	361	0.005	7	1,245
8	27.5	1,061	289	0.004	6	1,324
7	22.54	1,217	237	0.004	5	1,518
6	20.04	31	5	0.000	0	38
5	17.5	1,930	245	0.004	5	2,408
4	12.5	1,956	140	0.002	3	2,440
3	8.75	988	39	0.001	1	1,232
2	6.25	1,249	28	0.000	1	1,558
1	2.5	2,518	12	0.000	0	3,140
Bird 101-68-10-0-03	124	70	244	0.004	5	87
Bird 101-68-10-0-03	92	140	295	0.004	6	175
Generic Radio/ODU	124	60	209	0.003	4	75
Generic 2' HP Dish	124	90	314	0.005	6	112
Raycap DC6-48-60-18	124	30	105	0.002	2	37
Raycap DC6-48-60-18	124	60	209	0.003	4	75
Powerwave Allgon LGP21401	123.1	70	243	0.004	5	88
CCI HPA-65R-BUU-H6	122.9	102	350	0.005	7	127
Kathrein Scala 80010965	122.9	195	671	0.010	14	243
Powerwave Allgon 7770.00	122.8	105	360	0.005	7	131
CCI HPA-65R-BUU-H8	122.7	68	233	0.004	5	85
Ericsson RRUS-11	122.3	165	562	0.008	11	206
Kathrein Scala 80010966	122.3	115	390	0.006	8	143
CCI TPA-65R-LCUUUU-H8	122.1	75	255	0.004	5	94
Ericsson RRUS 4478 B14	122	180	610	0.009	12	224
Ericsson RRUS 32 B66	122	159	539	0.008	11	198
Ericsson RRUS 32 B66	119.6	318	1,043	0.016	21	397
Generic Mount Reinforcement	122	600	2,036	0.030	41	748
Quintel QS66512-2	122	333	1,130	0.017	23	415
Kathrein Scala 800-10964K	122	284	965	0.014	19	355
Flat Platform with Round Handrails	122	2,500	8,482	0.127	171	3,118
Flat Platform with Round Handrails	102	2,500	6,265	0.094	126	3,118
Alcatel-Lucent TD-RRH8x20-25	115.6	198	613	0.009	12	247
RFS APXVTM14-C-I20	113.8	159	479	0.007	10	198
RFS APXVSPP18-C-A20	113.2	171	511	0.008	10	213
Generic Flat Low Profile Platform	112	1,875	5,504	0.082	111	2,339
Generic Flat Low Profile Platform	93	1,875	4,019	0.060	81	2,339
Alcatel-Lucent 800 MHz 2X50W RRH w/ Filter	108.5	192	534	0.008	11	239
NAiS VIC-100	105	1	2	0.000	0	1
Alcatel-Lucent 1900 MHz 4X45 RRH	105	360	948	0.014	19	449
EMS DR65-19-00DPQ	105	384	1,011	0.015	20	479
Ericsson Radio 4449 - B13&B5	103.7	210	541	0.008	11	262
Ericsson Air6449 B41	103.5	312	801	0.012	16	389
Generic 6.7" x 10.7" TTA	102.4	30	75	0.001	2	37
Ericsson AIR32 B4A B2P	102.4	317	801	0.012	16	396
RFS APXVAARR24_43-U-NA20	102.2	384	965	0.014	19	479
Telewave ANT150D6-9	102	26	65	0.001	1	32
Telewave ANT150D6-9	72	26	36	0.000	1	32
Generic BTS	100.3	60	146	0.002	3	75
Samsung B5/B13 RRH ORAN (RF4440d-13A)	93	211	452	0.007	9	263
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	93	224	480	0.007	10	280
Samsung MT6413-77A	93	172	368	0.006	7	214

SEISMIC FORCES

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)
Raycap RCMDC-6627-PF-48	93	32	69	0.001	1	40
VZWSMART-PLK5	93	600	1,286	0.019	26	748
JMA Wireless MX06FIT665-02	93	180	386	0.006	8	225
JMA Wireless MX06FRO640-02	93	140	300	0.004	6	175
	Totals:	**42,556**	**66,916**	**1.000**	**1,349**	**53,082**

SEISMIC FORCES

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)
57	123.55	39	136	0.002	3	33
56	123	9	30	0.000	1	7
55	122.85	4	15	0.000	0	4
54	122.75	4	15	0.000	0	4
53	122.5	18	60	0.001	1	15
52	122.2	9	30	0.000	1	8
51	122.05	4	15	0.000	0	4
50	121	111	372	0.006	7	95
49	119.8	23	74	0.001	1	19
48	117.6	231	735	0.011	15	197
47	115.3	35	109	0.002	2	30
46	114.4	72	218	0.003	4	61
45	113.5	36	108	0.002	2	31
44	112.6	77	227	0.003	5	65
43	111	131	378	0.006	8	112
42	109.25	100	281	0.004	6	85
41	106.75	246	665	0.010	13	209
40	104.35	119	310	0.005	6	102
39	103.6	18	47	0.001	1	16
38	102.95	102	259	0.004	5	87
37	102.3	19	47	0.001	1	16
36	102.1	19	47	0.001	1	16
35	101.15	159	393	0.006	8	136
34	100.15	28	69	0.001	1	24
33	99.475	99	239	0.004	5	85
32	96.99	653	1,503	0.022	30	557
31	95.015	3	8	0.000	0	3
30	94	233	510	0.008	10	199
29	92.5	121	256	0.004	5	103
28	91	244	503	0.008	10	208
27	87.5	624	1,205	0.018	24	532
26	82.5	644	1,127	0.017	23	549
25	78.25	463	741	0.011	15	395
24	75.75	316	479	0.007	10	270
23	73.5	638	919	0.014	19	544
22	71	430	583	0.009	12	366
21	68.125	814	1,031	0.015	21	694
20	65.625	378	449	0.007	9	322
19	64.25	455	522	0.008	11	388
18	61.75	804	862	0.013	17	685
17	57.5	1,166	1,108	0.017	22	994
16	53.665	631	533	0.008	11	538
15	52.04	214	172	0.003	3	182
14	50.875	504	389	0.006	8	430
13	48.33	977	692	0.010	14	833
12	45.83	308	200	0.003	4	263
11	42.5	946	539	0.008	11	807
10	37.5	972	448	0.007	9	829
9	32.5	998	361	0.005	7	851
8	27.5	1,061	289	0.004	6	905
7	22.54	1,217	237	0.004	5	1,037

SEISMIC FORCES

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)
6	20.04	31	5	0.000	0	26
5	17.5	1,930	245	0.004	5	1,646
4	12.5	1,956	140	0.002	3	1,668
3	8.75	988	39	0.001	1	842
2	6.25	1,249	28	0.000	1	1,065
1	2.5	2,518	12	0.000	0	2,147
Bird 101-68-10-0-03	124	70	244	0.004	5	60
Bird 101-68-10-0-03	92	140	295	0.004	6	119
Generic Radio/ODU	124	60	209	0.003	4	51
Generic 2' HP Dish	124	90	314	0.005	6	77
Raycap DC6-48-60-18	124	30	105	0.002	2	26
Raycap DC6-48-60-18	124	60	209	0.003	4	51
Powerwave Allgon LGP21401	123.1	70	243	0.004	5	60
CCI HPA-65R-BUU-H6	122.9	102	350	0.005	7	87
Kathrein Scala 80010965	122.9	195	671	0.010	14	166
Powerwave Allgon 7770.00	122.8	105	360	0.005	7	90
CCI HPA-65R-BUU-H8	122.7	68	233	0.004	5	58
Ericsson RRUS-11	122.3	165	562	0.008	11	141
Kathrein Scala 80010966	122.3	115	390	0.006	8	98
CCI TPA-65R-LCUUUU-H8	122.1	75	255	0.004	5	64
Ericsson RRUS 4478 B14	122	180	610	0.009	12	153
Ericsson RRUS 32 B66	122	159	539	0.008	11	136
Ericsson RRUS 32 B66	119.6	318	1,043	0.016	21	271
Generic Mount Reinforcement	122	600	2,036	0.030	41	512
Quintel QS66512-2	122	333	1,130	0.017	23	284
Kathrein Scala 800-10964K	122	284	965	0.014	19	242
Flat Platform with Round Handrails	122	2,500	8,482	0.127	171	2,132
Flat Platform with Round Handrails	102	2,500	6,265	0.094	126	2,132
Alcatel-Lucent TD-RRH8x20-25	115.6	198	613	0.009	12	169
RFS APXVTM14-C-I20	113.8	159	479	0.007	10	135
RFS APXVSPP18-C-A20	113.2	171	511	0.008	10	146
Generic Flat Low Profile Platform	112	1,875	5,504	0.082	111	1,599
Generic Flat Low Profile Platform	93	1,875	4,019	0.060	81	1,599
Alcatel-Lucent 800 MHz 2X50W RRH w/ Filter	108.5	192	534	0.008	11	164
NAiS VIC-100	105	1	2	0.000	0	1
Alcatel-Lucent 1900 MHz 4X45 RRH	105	360	948	0.014	19	307
EMS DR65-19-00DPQ	105	384	1,011	0.015	20	327
Ericsson Radio 4449 - B13&B5	103.7	210	541	0.008	11	179
Ericsson Air6449 B41	103.5	312	801	0.012	16	266
Generic 6.7" x 10.7" TTA	102.4	30	75	0.001	2	25
Ericsson AIR32 B4A B2P	102.4	317	801	0.012	16	271
RFS APXVAARR24_43-U-NA20	102.2	384	965	0.014	19	327
Telewave ANT150D6-9	102	26	65	0.001	1	22
Telewave ANT150D6-9	72	26	36	0.000	1	22
Generic BTS	100.3	60	146	0.002	3	51
Samsung B5/B13 RRH ORAN (RF4440d-13A)	93	211	452	0.007	9	180
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	93	224	480	0.007	10	191
Samsung MT6413-77A	93	172	368	0.006	7	147
Raycap RCMDC-6627-PF-48	93	32	69	0.001	1	27
VZWSMART-PLK5	93	600	1,286	0.019	26	512
JMA Wireless MX06FIT665-02	93	180	386	0.006	8	153
JMA Wireless MX06FRO640-02	93	140	300	0.004	6	119
	Totals:	**42,556**	**66,916**	**1.000**	**1,349**	**36,285**

1.2D + 1.0Ev + 1.0Eh **Seismic**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-49.94	-1.35	0.00	-139.11	0.00	139.11	3,249.22	951.93	4,702	3,663.92	0.00	0.00	0.02

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
5.00	-48.38	-1.35	0.00	-132.37	0.00	132.37	3,206.58	925.35	4,443	3,514.28	0.00	0.00	0.02
7.50	-47.15	-1.35	0.00	-128.99	0.00	128.99	3,184.22	912.06	4,316	3,439.36	0.00	-0.01	0.02
7.50	-47.15	-1.35	0.00	-128.99	0.00	128.99	3,184.22	912.06	4,316	3,439.36	0.00	-0.01	0.03
10.00	-44.71	-1.35	0.00	-125.61	0.00	125.61	3,161.17	898.77	4,191	3,364.41	0.01	-0.01	0.03
15.00	-42.30	-1.35	0.00	-118.85	0.00	118.85	3,113.00	872.18	3,947	3,214.56	0.02	-0.01	0.03
20.00	-42.26	-1.35	0.00	-112.10	0.00	112.10	3,062.07	845.60	3,710	3,064.99	0.03	-0.02	0.03
20.08	-40.75	-1.35	0.00	-112.00	0.00	112.00	3,061.23	845.17	3,706	3,062.60	0.03	-0.02	0.03
20.08	-40.75	-1.35	0.00	-112.00	0.00	112.00	3,061.23	845.17	3,706	3,062.60	0.03	-0.02	0.05
25.00	-39.42	-1.35	0.00	-105.36	0.00	105.36	3,008.37	819.02	3,481	2,915.97	0.06	-0.02	0.05
30.00	-38.18	-1.35	0.00	-98.63	0.00	98.63	2,951.91	792.43	3,258	2,767.76	0.08	-0.03	0.05
35.00	-36.97	-1.34	0.00	-91.89	0.00	91.89	2,892.69	765.85	3,043	2,620.63	0.13	-0.05	0.05
40.00	-35.78	-1.34	0.00	-85.17	0.00	85.17	2,830.70	739.26	2,836	2,474.83	0.18	-0.06	0.05
45.00	-35.40	-1.34	0.00	-78.47	0.00	78.47	2,765.95	712.68	2,636	2,330.63	0.25	-0.07	0.05
46.66	-34.18	-1.33	0.00	-76.24	0.00	76.24	2,743.85	703.85	2,571	2,283.15	0.27	-0.07	0.05
50.00	-33.55	-1.32	0.00	-71.80	0.00	71.80	2,698.44	686.10	2,443	2,188.28	0.33	-0.08	0.05
51.75	-33.29	-1.32	0.00	-69.48	0.00	69.48	2,674.16	676.79	2,377	2,138.95	0.36	-0.09	0.05
52.33	-32.50	-1.31	0.00	-68.72	0.00	68.72	1,970.68	546.80	1,939	1,594.53	0.37	-0.09	0.03
55.00	-31.04	-1.29	0.00	-65.21	0.00	65.21	1,948.33	535.44	1,860	1,543.50	0.42	-0.09	0.03
60.00	-30.04	-1.28	0.00	-58.76	0.00	58.76	1,904.35	514.18	1,715	1,448.35	0.52	-0.10	0.03
63.50	-29.47	-1.27	0.00	-54.30	0.00	54.30	1,871.92	499.29	1,617	1,382.19	0.59	-0.11	0.03
65.00	-29.00	-1.26	0.00	-52.40	0.00	52.40	1,857.61	492.91	1,576	1,353.97	0.63	-0.11	0.02
66.25	-27.99	-1.24	0.00	-50.83	0.00	50.83	1,845.49	487.59	1,542	1,330.53	0.66	-0.11	0.02
66.25	-27.99	-1.24	0.00	-50.83	0.00	50.83	1,845.49	487.59	1,542	1,330.53	0.66	-0.11	0.03
70.00	-27.45	-1.22	0.00	-46.19	0.00	46.19	1,808.10	471.64	1,443	1,260.63	0.75	-0.11	0.03
72.00	-26.62	-1.21	0.00	-43.74	0.00	43.74	1,787.53	463.14	1,391	1,223.64	0.79	-0.12	0.03
75.00	-26.23	-1.20	0.00	-40.12	0.00	40.12	1,755.83	450.38	1,316	1,168.58	0.87	-0.12	0.03
76.50	-25.65	-1.18	0.00	-38.33	0.00	38.33	1,739.61	444.00	1,279	1,141.26	0.91	-0.13	0.03
76.50	-25.65	-1.18	0.00	-38.33	0.00	38.33	1,739.61	444.00	1,279	1,141.26	0.91	-0.13	0.05
80.00	-24.85	-1.16	0.00	-34.19	0.00	34.19	1,700.80	429.11	1,194	1,078.09	1.00	-0.13	0.05
85.00	-24.07	-1.14	0.00	-28.38	0.00	28.38	1,643.00	407.84	1,079	989.43	1.15	-0.15	0.04
90.00	-23.76	-1.14	0.00	-22.66	0.00	22.66	1,582.44	386.58	969	902.85	1.31	-0.16	0.04
92.00	-23.44	-1.13	0.00	-20.39	0.00	20.39	1,557.45	378.07	927	868.86	1.38	-0.17	0.04
93.00	-18.86	-0.96	0.00	-19.26	0.00	19.26	1,544.78	373.82	906	852.01	1.42	-0.17	0.04
95.00	-18.86	-0.96	0.00	-17.35	0.00	17.35	1,519.12	365.31	866	818.61	1.49	-0.17	0.03
95.03	-18.04	-0.92	0.00	-17.32	0.00	17.32	1,518.73	365.18	865	818.11	1.49	-0.17	0.03
98.95	-17.92	-0.92	0.00	-13.70	0.00	13.70	1,018.61	265.95	612	533.96	1.64	-0.18	0.04
100.00	-17.89	-0.92	0.00	-12.73	0.00	12.73	1,010.56	262.60	596	523.02	1.68	-0.19	0.04
100.30	-17.61	-0.91	0.00	-12.46	0.00	12.46	1,008.24	261.64	592	519.90	1.69	-0.19	0.04
102.00	-14.44	-0.77	0.00	-10.91	0.00	10.91	994.89	256.22	568	502.30	1.76	-0.19	0.04
102.20	-13.94	-0.75	0.00	-10.76	0.00	10.76	993.29	255.58	565	500.24	1.76	-0.19	0.04
102.40	-13.38	-0.72	0.00	-10.61	0.00	10.61	991.70	254.94	562	498.18	1.77	-0.19	0.04
103.50	-12.96	-0.71	0.00	-9.81	0.00	9.81	982.84	251.44	547	486.88	1.82	-0.20	0.03
103.70	-12.55	-0.69	0.00	-9.67	0.00	9.67	981.21	250.80	544	484.83	1.83	-0.20	0.03
105.00	-11.32	-0.63	0.00	-8.77	0.00	8.77	970.54	246.65	526	471.57	1.88	-0.20	0.03
108.50	-10.96	-0.62	0.00	-6.56	0.00	6.56	940.89	235.49	480	436.30	2.03	-0.21	0.03
110.00	-10.79	-0.61	0.00	-5.64	0.00	5.64	927.77	230.70	460	421.40	2.10	-0.21	0.03
112.00	-8.36	-0.48	0.00	-4.42	0.00	4.42	909.88	224.32	435	401.76	2.19	-0.21	0.02
113.20	-8.10	-0.47	0.00	-3.84	0.00	3.84	898.94	220.49	420	390.09	2.24	-0.22	0.02
113.80	-7.81	-0.46	0.00	-3.56	0.00	3.56	893.41	218.58	413	384.30	2.27	-0.22	0.02
115.00	-7.77	-0.45	0.00	-3.01	0.00	3.01	882.23	214.75	399	372.78	2.32	-0.22	0.02
115.60	-7.23	-0.42	0.00	-2.74	0.00	2.74	876.57	212.84	392	367.06	2.35	-0.22	0.02
119.60	-6.81	-0.40	0.00	-1.04	0.00	1.04	837.89	200.08	346	329.63	2.53	-0.22	0.01
120.00	-6.67	-0.39	0.00	-0.88	0.00	0.88	833.92	198.80	342	325.96	2.55	-0.22	0.01
122.00	-1.61	-0.10	0.00	-0.09	0.00	0.09	813.82	192.42	320	307.80	2.65	-0.22	0.00
122.10	-1.50	-0.09	0.00	-0.08	0.00	0.08	812.81	192.10	319	306.90	2.65	-0.22	0.00
122.30	-1.13	-0.07	0.00	-0.07	0.00	0.07	810.53	191.46	317	305.01	2.66	-0.22	0.00
122.70	-1.04	-0.06	0.00	-0.04	0.00	0.04	805.12	190.19	313	300.94	2.68	-0.22	0.00
122.80	-0.90	-0.05	0.00	-0.03	0.00	0.03	803.77	189.87	312	299.92	2.68	-0.22	0.00
122.90	-0.52	-0.03	0.00	-0.03	0.00	0.03	802.42	189.55	311	298.91	2.69	-0.22	0.00
123.10	-0.39	-0.02	0.00	-0.02	0.00	0.02	799.72	188.91	309	296.89	2.70	-0.22	0.00
124.00	0.00	-0.02	0.00	0.00	0.00	0.00	787.57	186.04	299	287.89	2.74	-0.22	0.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio

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 (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-34.14	-1.35	0.00	-137.58	0.00	137.58	3,249.22	951.93	4,702	3,663.92	0.00	0.00	0.02
5.00	-33.07	-1.35	0.00	-130.84	0.00	130.84	3,206.58	925.35	4,443	3,514.28	0.00	0.00	0.02
7.50	-32.23	-1.35	0.00	-127.47	0.00	127.47	3,184.22	912.06	4,316	3,439.36	0.00	-0.01	0.02
7.50	-32.23	-1.35	0.00	-127.47	0.00	127.47	3,184.22	912.06	4,316	3,439.36	0.00	-0.01	0.02
10.00	-30.56	-1.35	0.00	-124.09	0.00	124.09	3,161.17	898.77	4,191	3,364.41	0.01	-0.01	0.02
15.00	-28.92	-1.35	0.00	-117.35	0.00	117.35	3,113.00	872.18	3,947	3,214.56	0.02	-0.01	0.02
20.00	-28.89	-1.35	0.00	-110.61	0.00	110.61	3,062.07	845.60	3,710	3,064.99	0.03	-0.02	0.02
20.08	-27.85	-1.34	0.00	-110.51	0.00	110.51	3,061.23	845.17	3,706	3,062.60	0.03	-0.02	0.02
20.08	-27.85	-1.34	0.00	-110.51	0.00	110.51	3,061.23	845.17	3,706	3,062.60	0.03	-0.02	0.05
25.00	-26.95	-1.34	0.00	-103.90	0.00	103.90	3,008.37	819.02	3,481	2,915.97	0.05	-0.02	0.05
30.00	-26.10	-1.34	0.00	-97.19	0.00	97.19	2,951.91	792.43	3,258	2,767.76	0.08	-0.03	0.04
35.00	-25.27	-1.33	0.00	-90.50	0.00	90.50	2,892.69	765.85	3,043	2,620.63	0.12	-0.04	0.04
40.00	-24.46	-1.33	0.00	-83.83	0.00	83.83	2,830.70	739.26	2,836	2,474.83	0.18	-0.06	0.04
45.00	-24.20	-1.33	0.00	-77.19	0.00	77.19	2,765.95	712.68	2,636	2,330.63	0.24	-0.07	0.04
46.66	-23.36	-1.31	0.00	-74.99	0.00	74.99	2,743.85	703.85	2,571	2,283.15	0.27	-0.07	0.04
50.00	-22.93	-1.31	0.00	-70.60	0.00	70.60	2,698.44	686.10	2,443	2,188.28	0.32	-0.08	0.04
51.75	-22.75	-1.31	0.00	-68.31	0.00	68.31	2,674.16	676.79	2,377	2,138.95	0.35	-0.09	0.04
52.33	-22.21	-1.30	0.00	-67.55	0.00	67.55	1,970.68	546.80	1,939	1,594.53	0.36	-0.09	0.03
55.00	-21.22	-1.27	0.00	-64.09	0.00	64.09	1,948.33	535.44	1,860	1,543.50	0.41	-0.09	0.03
60.00	-20.53	-1.26	0.00	-57.73	0.00	57.73	1,904.35	514.18	1,715	1,448.35	0.51	-0.10	0.03
63.50	-20.15	-1.25	0.00	-53.32	0.00	53.32	1,871.92	499.29	1,617	1,382.19	0.59	-0.10	0.03
65.00	-19.82	-1.24	0.00	-51.45	0.00	51.45	1,857.61	492.91	1,576	1,353.97	0.62	-0.11	0.02
66.25	-19.13	-1.22	0.00	-49.90	0.00	49.90	1,845.49	487.59	1,542	1,330.53	0.65	-0.11	0.02
66.25	-19.13	-1.22	0.00	-49.90	0.00	49.90	1,845.49	487.59	1,542	1,330.53	0.65	-0.11	0.03
70.00	-18.76	-1.21	0.00	-45.34	0.00	45.34	1,808.10	471.64	1,443	1,260.63	0.74	-0.11	0.02
72.00	-18.20	-1.19	0.00	-42.92	0.00	42.92	1,787.53	463.14	1,391	1,223.64	0.78	-0.12	0.02
75.00	-17.93	-1.18	0.00	-39.36	0.00	39.36	1,755.83	450.38	1,316	1,168.58	0.86	-0.12	0.02
76.50	-17.53	-1.16	0.00	-37.59	0.00	37.59	1,739.61	444.00	1,279	1,141.26	0.90	-0.12	0.02
76.50	-17.53	-1.16	0.00	-37.59	0.00	37.59	1,739.61	444.00	1,279	1,141.26	0.90	-0.12	0.04
80.00	-16.98	-1.14	0.00	-33.52	0.00	33.52	1,700.80	429.11	1,194	1,078.09	0.99	-0.13	0.04
85.00	-16.45	-1.12	0.00	-27.80	0.00	27.80	1,643.00	407.84	1,079	989.43	1.13	-0.14	0.04
90.00	-16.24	-1.11	0.00	-22.19	0.00	22.19	1,582.44	386.58	969	902.85	1.29	-0.16	0.04
92.00	-16.02	-1.10	0.00	-19.97	0.00	19.97	1,557.45	378.07	927	868.86	1.36	-0.16	0.03
93.00	-12.89	-0.94	0.00	-18.86	0.00	18.86	1,544.78	373.82	906	852.01	1.39	-0.17	0.03
95.00	-12.89	-0.94	0.00	-16.99	0.00	16.99	1,519.12	365.31	866	818.61	1.46	-0.17	0.03
95.03	-12.33	-0.91	0.00	-16.96	0.00	16.96	1,518.73	365.18	865	818.11	1.47	-0.17	0.03
98.95	-12.25	-0.90	0.00	-13.41	0.00	13.41	1,018.61	265.95	612	533.96	1.61	-0.18	0.04
100.00	-12.22	-0.90	0.00	-12.46	0.00	12.46	1,010.56	262.60	596	523.02	1.65	-0.18	0.04
100.30	-12.04	-0.89	0.00	-12.19	0.00	12.19	1,008.24	261.64	592	519.90	1.66	-0.18	0.04
102.00	-9.87	-0.76	0.00	-10.68	0.00	10.68	994.89	256.22	568	502.30	1.73	-0.19	0.03
102.20	-9.53	-0.73	0.00	-10.53	0.00	10.53	993.29	255.58	565	500.24	1.74	-0.19	0.03
102.40	-9.14	-0.71	0.00	-10.38	0.00	10.38	991.70	254.94	562	498.18	1.74	-0.19	0.03
103.50	-8.86	-0.69	0.00	-9.60	0.00	9.60	982.84	251.44	547	486.88	1.79	-0.19	0.03
103.70	-8.58	-0.67	0.00	-9.46	0.00	9.46	981.21	250.80	544	484.83	1.80	-0.19	0.03
105.00	-7.74	-0.62	0.00	-8.59	0.00	8.59	970.54	246.65	526	471.57	1.85	-0.20	0.03
108.50	-7.49	-0.60	0.00	-6.42	0.00	6.42	940.89	235.49	480	436.30	2.00	-0.20	0.02
110.00	-7.38	-0.60	0.00	-5.52	0.00	5.52	927.77	230.70	460	421.40	2.06	-0.21	0.02
112.00	-5.71	-0.47	0.00	-4.33	0.00	4.33	909.88	224.32	435	401.76	2.15	-0.21	0.02
113.20	-5.54	-0.46	0.00	-3.76	0.00	3.76	898.94	220.49	420	390.09	2.20	-0.21	0.02
113.80	-5.34	-0.45	0.00	-3.48	0.00	3.48	893.41	218.58	413	384.30	2.23	-0.21	0.02
115.00	-5.31	-0.44	0.00	-2.95	0.00	2.95	882.23	214.75	399	372.78	2.28	-0.22	0.01
115.60	-4.94	-0.42	0.00	-2.68	0.00	2.68	876.57	212.84	392	367.06	2.31	-0.22	0.01
119.60	-4.65	-0.39	0.00	-1.02	0.00	1.02	837.89	200.08	346	329.63	2.49	-0.22	0.01
120.00	-4.56	-0.38	0.00	-0.86	0.00	0.86	833.92	198.80	342	325.96	2.51	-0.22	0.01

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
122.00	-1.10	-0.09	0.00	-0.09	0.00	0.09	813.82	192.42	320	307.80	2.60	-0.22	0.00
122.10	-1.03	-0.09	0.00	-0.08	0.00	0.08	812.81	192.10	319	306.90	2.61	-0.22	0.00
122.30	-0.77	-0.07	0.00	-0.06	0.00	0.06	810.53	191.46	317	305.01	2.62	-0.22	0.00
122.70	-0.71	-0.06	0.00	-0.04	0.00	0.04	805.12	190.19	313	300.94	2.64	-0.22	0.00
122.80	-0.62	-0.05	0.00	-0.03	0.00	0.03	803.77	189.87	312	299.92	2.64	-0.22	0.00
122.90	-0.36	-0.03	0.00	-0.03	0.00	0.03	802.42	189.55	311	298.91	2.65	-0.22	0.00
123.10	-0.26	-0.02	0.00	-0.02	0.00	0.02	799.72	188.91	309	296.89	2.65	-0.22	0.00
124.00	0.00	-0.02	0.00	0.00	0.00	0.00	787.57	186.04	299	287.89	2.70	-0.22	0.00

ANALYSIS SUMMARY

Load Case	Base Reactions Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Max Usage Elev (ft)	Interaction Ratio
1.2D + 1.0W	40.73	0.00	51.03	0.00	0.00	3790.33	20.08	0.99
0.9D + 1.0W	40.71	0.00	38.26	0.00	0.00	3758.32	20.08	0.98
1.2D + 1.0Di + 1.0Wi	10.67	0.00	68.30	0.00	0.00	991.38	20.08	0.27
1.2D + 1.0Ev + 1.0Eh	1.35	0.00	49.94	0.00	0.00	139.11	20.08	0.05
0.9D - 1.0Ev + 1.0Eh	1.35	0.00	34.14	0.00	0.00	137.58	20.08	0.05
1.0D + 1.0W	10.26	0.00	42.55	0.00	0.00	950.62	20.08	0.26

ADDITIONAL STEEL SUMMARY

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors VQ/I (k/in)	Shear Applied (kips)	phiVn (kips)	Ratio	Max Member Pu (kip)	phiPn (kip)	Ratio
0.00	7.50	PL PL 1.25" x 6"	0.0	0.0	25.3	0	197.4	438.8	
0.00	20.08	SOL #20 All Thread Bar	175.6	5.3	16.8	0.3134	175.0	182.0	
51.75	66.25	PL PL 6.5 x 1.25	568.9	17.1	38.3	0.446	323.3	403.6	
63.50	76.50	PL PL 6 x 1.25	617.1	11.1	38.3	0.2902	279.4	364.1	

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors MQ/I (kips)	phiVn (kips)	Number Required	Number Actual	Ratio	Lower Termination Connectors MQ/I (kips)	phiVn (kip)	Number Required	Number Actual	Ratio
0.00	7.50	PL PL 1.25" x 6"	189.2579	25.27	8	17	0.4406	0	25.27	0	0	0.0000
0.00	20.08	SOL #20 All Thread Bar	166.0886	12	14	16	0.8650	0	12	0	0	0.0000
51.75	66.25	PL PL 6.5 x 1.25	197.9966	38.27	6	11	0.4703	294.8853	38.27	8	11	0.7005
63.50	76.50	PL PL 6 x 1.25	239.3474	38.27	7	14	0.4467	188.9455	38.27	5	14	0.3527

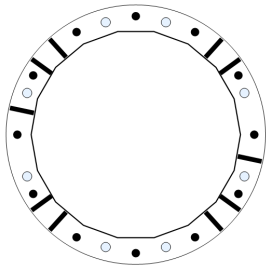
BASE PLATE ANALYSIS @ 0 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3790.33	51.03	40.73

PLATE PARAMETERS (ID# 27399)

Width:	69	in
Shape:	Round	
Thickness:	1.75	in
Grade:	A572-60	
Yield Strength:	60	ksi
Tensile Strength:	75	ksi
Rod Detail Type:	d	
Clear Distance	5	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	90	°



ANCHOR ROD PARAMETERS

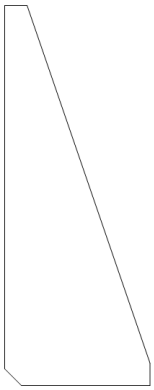
Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F_y (ksi)	F_u (ksi)	Spacing (in)	Offset (°)
Original [ID#28115]	Radial	12	2.25	63	A615-75	75	100	-	-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	F_y (ksi)	F_u (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
8 [ID# 2450]	#20	2.5	80	100	Angle	2.19	61.88	7.5

STIFFENER PARAMETERS

Arrangement:	Radial	
Quantity:	10	
Height:	17	in
Width:	6.5	in
Thickness:	1.25	in
Notch:	0.75	in
Grade:	A572-65	
Yield Strength:	65	ksi
Tensile Strength:	80	ksi
Horizontal Weld Type:	Bevel + Fillet	
Horizontal Weld Fillet Size:	0.25	in
Horizontal Weld Bevel Size:	0.625	in
Vertical Weld Fillet Size:	0.25	in
Weld Strength:	80	ksi
Orientation Offset:	-	°



COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	55"ø x 0.3125" (18 Sides)	53.4172	-	-	19971.23	-
Bolt Group	Original (12) 2.25"ø	3.9761	3.2477	0.8393	17767.50	4.5
Dywidag Group	(8) #20	4.9087	4.9087	1.9175	17656.71	-
Stiffeners	(10) 17"H x 6.5"W x 1.25"T	7.1875	6.4688	114.4271	38784.28	-

REACTION DISTRIBUTION

Component	ID	Moment M_u (k-ft)	Axial Load P_u (k)	Shear V_u (k)	Moment Factor
Pole	55"ø x 0.3125" (18 Sides)	2011.7	51.03	40.73	0.531
Bolt Group	Original (12) 2.25"ø	2011.7	-	40.73	0.531
Dywidag Group	(8) #20	1778.6	-	-	0.469
Stiffeners	(10) 17"H x 6.5"W x 1.25"T	1327.9	-	26.89	0.350

BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	55.12	in	Flat Width:	9.720	in	Neutral Axis:	90	°
Point-to-Point Diameter:	55.98	in	Flat Radians:	0.349	rad	Bend Line Limits:	2.764 to 3.519	rad
Orientation Offset:	-	°						

PLATE PROPERTIES

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment M_u (k-in)	Moment Capacity ΦM_n (k-in)	Flexure Result $M_u/\Phi M_n$
Flats	36.998	5.96	32.894	355.6	1776.3	20.0%
Corners	35.699	5.17	31.289	298.0	1689.6	17.6%
Circumferential	37.110	7.34	34.033	298.0	1837.8	16.2%

ELASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load P_u (k)	Applied Shear Load V_u (k)	Compressive Capacity ΦP_n (k)	Compressive Result	Interaction Result
Original	12	2.25	135.5	0.0	243.6	0.556	30.9%

DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load P_u (k)	Compressive Capacity ΦP_n (k)	Compressive Result P_u / ΦP_n
8	#20	61.88	174.4	368.2	47.4%

BASE PLATE STIFFENER ANALYSIS

Quantity:	10	
Height:	17	in
Width:	6.5	in
Effective Width:	6.500	in
Thickness:	1.25	in
Notch:	0.75	in
Grade:	A572-65	
Yield Strength:	65	ksi
Tensile Strength:	80	ksi
Horizontal Weld Type:	Bevel + Fillet	
Horizontal Weld Fillet Size:	0.25	in
Horizontal Weld Bevel Size:	0.625	in
Vertical Weld Fillet Size:	0.25	in
Weld Strength:	80	ksi
Electrode Coefficient:	1.030	

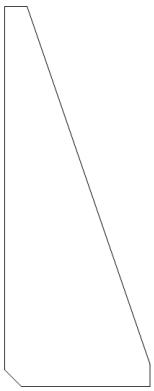


PLATE COMPRESSION

Radius of Gyration:	0.361	in^3
kl/r:	28.27	
$4.71 \sqrt{(E/F_y)}$:	99.49	
Buckling Stress, F_e:	358.21	ksi
Crit. Buckling Stress, F_{cr}:	314.15	ksi
Applied Compression, P_u:	81.73	k
Compressive Capacity, ΦP:	2032.15	k
Compressive Result, $P_u/\Phi P_n$:	2.0%	✓

PLATE TENSION

Gross Cross Section:	7.1875	in^2
Net Cross Section:	6.4688	in^2
Applied Tension, T_u:	78.15	k
Tensile Capacity, ΦT_n:	388.13	k
Tension Result, Tu/ϕTn:	10.1%	✓

VERTICAL WELD TO POLE

Vertical Eccentricity Ratio, $a=e_x/l$:	0.127	
Spacing Ratio, k:	0.074	
Weld Coefficient, C:	3.720	
Applied Compression, P_u:	81.73	k
Compressive Capacity, ΦP_n:	195.41	k
Horizontal Eccentricity Ratio, $a=e_x/l$:	0.333	
Weld Coefficient, C:	2.940	
Applied Shear, V_u:	0.71	k
Shear Capacity, ΦV_n:	154.44	k
Weld Result, $P_u/\Phi P_n + V_u/\Phi V_n$:	42.3%	✓

HORIZONTAL WELD TO PLATE

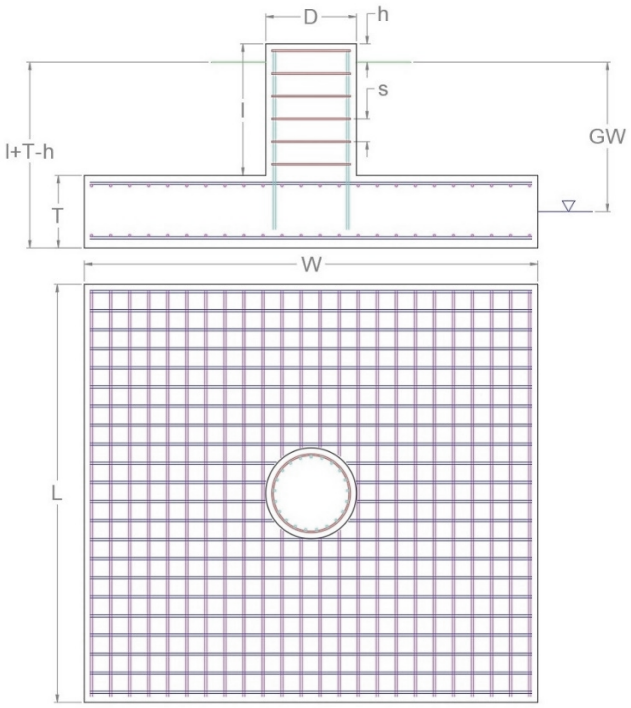
Horizontal Eccentricity Ratio, $a=e_x/l$:	0.167	
Spacing Ratio, k:	0.192	
Weld Coefficient, C:	3.940	
Effective Fillet Size:	0.673	in
Applied Compression, P_u:	81.73	k
Compressive Capacity, ΦP_n:	213.08	k
Vertical Eccentricity Ratio, $a=e_x/l$:	0.436	
Weld Coefficient, C:	2.670	
Applied Shear, V_u:	0.71	k
Shear Capacity, ΦV_n:	144.40	k
Weld Result, $P_u/\Phi P_n + V_u/\Phi V_n$:	38.8%	✓

APPLIED GLOBAL REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3,790.33	51.03	40.73

FOUNDATION PARAMETERS

Mat Length:	L	25	ft
Mat Width:	W	25	ft
Mat Thickness:	T	4.5	ft
Base Depth:	L+T-h	4.5	ft
Pier Shape:		Square	
Pier Width:	D	7	ft
Pier Height above Grade:	h	1	ft
Concrete Compressive Strength:		4,000	psi
Mat Top Rebar:		(28) #9 bars [60 ksi]	
Mat Bottom Rebar:		(28) #9 bars [60 ksi]	
Pier Vertical Rebar:		(24) #9 bars [60 ksi]	
Pier Rebar Ties:	s	#4 bars @ 6.0" c/c [60 ksi]	
Rebar Clear Cover:		3.0	in
Tower Eccentricity:	ecc	0	ft
Tower Leg Count		1	



SOIL PARAMETERS

Water Table Depth [BGL]:	GW	7	ft
Soil Unit Weight:		130	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		30,000	psf
Bearing Pressure Type:		Net	
Coefficient of Shear Friction:		0.5	

SOIL STRENGTH ANALYSIS

Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

SOIL OVERTURNING ANALYSIS

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$	
4,014.34	5,530.70	**72.6%**	✓

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (k-ft)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
2,509.00	22,939.00	Diagonal to Pad Edge	**10.9%**	✓

SOIL SLIDING SHEAR ANALYSIS

Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$	
40.73	0.00	292.5	32.91	201.59	**20.0%**	✓

MAT REINFORCING STEEL STRENGTH ANALYSIS

Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
29,000	0.9	0.75	0.65

MAT REINFORCING ONE WAY SHEAR ANALYSIS

One Way Design Shear, V_u (k)	Nominal One Way Shear Capacity, $\Phi_c V_n$ (k)	One Way Shear Controlling Load Direction	Mat One Way Shear Usage, $V_u / \Phi_c V_n$	
193.22	1,138.01	Diagonal to Pad Edge	**17.0%**	✓

MAT REINFORCING PUNCHING SHEAR ANALYSIS

Punching Shear Design Stress, v_u (psi)	Nominal Punching Shear Capacity, $\Phi_c v_n$ (psi)	Mat Punching Shear Usage, $v_u / \Phi_c v_n$	
17.4	189.7	**9.2%**	✓

MAT REINFORCING MOMENT TRANSFER ANALYSIS

Moment Transfer Effective Flexural Width, w_f (in)	Neutral Axis Depth (in)	Pier Moment at Joint, M_{ut} (k-in)	Nominal Moment Transfer Capacity, $\Phi M_{sc,f}$ (k-in)	Mat Moment Transfer Usage, $0.6\ M_{ut} / \Phi M_{sc,f}$	
20.50	1.70	0.00	62,735.7	**0.0%**	✓

MAT REINFORCING FLEXURE ANALYSIS – UPPER STEEL

Factored Moment, M_u (k-ft)	Nominal Flexural Capacity, ΦM_n (k-ft)	Flexural Steel Controlling Load Direction	Mat Upper Rebar Flexure Usage, $M_u / \Phi M_n$	
683.44	6,196.05	Parallel to Pad Edge	**11.0%**	✓

MAT REINFORCING FLEXURE ANALYSIS – LOWER STEEL

Factored Moment, M_u (k-ft)	Nominal Flexural Capacity, ΦM_n (k-ft)	Flexural Steel Controlling Load Direction	Mat Lower Rebar Flexure Usage, $M_u / \Phi M_n$	
1,686.10	6,196.05	Parallel to Pad Edge	**27.2%**	✓

PIER REINFORCING STEEL STRENGTH ANALYSIS

Rebar Cage Diameter (in)	Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
75.88	29,000	0.9	0.75	0.65

PIER REINFORCING MOMENT ANALYSIS

Design Moment, M_u (k-ft)	Nominal Moment Capacity, $\Phi_b M_n$ (k-ft)	Bending Reinforcement Ratio	Pier Rebar Flexure Usage, $M_u/\Phi_b M_n$	
3,831.06	4,012.52	0.003	**95.5%**	✓

PIER REINFORCING COMPRESSION ANALYSIS

Design Compression, P_u (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$	
51.03	12,463.78	**0.4%**	✓

PIER REINFORCING SHEAR ANALYSIS

Design Shear, V_u (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$	
40.73	873.41	**4.7%**	✓

EXHIBIT 4

Colliers Engineering & Design, Architecture,
Landscape Architecture, Surveying, CT P.C
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@collierseng.com

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10222542
Colliers Engineering & Design Project #: 20777354 (Rev 2)

February 13, 2024

Site Information	*Site ID:*	*5000381746-VZW / Bethel CT*
	Site Name:	*Bethel CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*38 Spring Hill Ln* *Bethel, Connecticut 06801* *Fairfield County*
	Latitude:	*41.362067°*
	Longitude:	*-73.395917°*
Structure Information	*Tower Type:*	*130-Ft Monopole*
	Mount Type:	*14.00-Ft Platform*

FUZE ID # 16244636

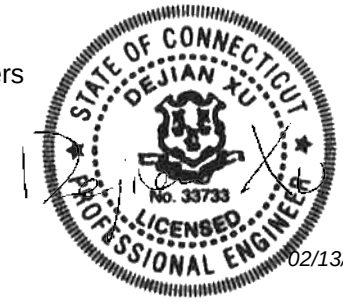
Analysis Results

Platform: **50.1% Pass w/ Modifications***

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

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

Report Prepared By: Grant Walters



02/13/2024

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 323443* *Dated January 9, 2024*
Mount Mapping Report	*Tower Engineering Professionals Site ID: 468263* *Dated November 17, 2020*
Previous Mount Analysis	*Colliers Engineering & Design, Project #: 20777354 (Rev 2)* *Dated January 30, 2024*
Mount Modification Drawings	*Maser Consulting Connecticut, Project #: 20777354* *Dated February 17, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	120 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.972
Seismic Parameters:	S_S:	0.223 g
	S_1:	0.056 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V21)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
93.00	95.00	4	JMA Wireless	MX06FIT665-02	Added
		2	JMA Wireless	MX06FRO640-02	
		3	Samsung	MT6413-77A	
		1	Raycap	RVZDC-6627-PF-48	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		2	Generic	16' Omni	Retained

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

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

8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Kicker Kit	9.1%	Pass
Mount Pipe	40.1%	Pass
Grating Support	2.1%	Pass
Face Horizontal	15.2%	Pass
Standoff Horizontal	21.4%	Pass
Mount Connection	50.1%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**50.1%**

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector B Standoff	93	N3	869	2716	0.544	0.645	1351	2511	0.862	0.269
Sector A Standoff	93	N14	854	2695	0.583	1.007	1296	2723	0.866	0.320
Sector C Standoff	93	N26	746	2370	0.463	0.724	1216	2350	0.767	0.196
Sector B Reinforcement	90	N132	2087	1700	0.000	0.000	3316	2728	0.000	0.000
Sector A Reinforcement	90	N134	2157	1759	0.000	0.000	3545	2919	0.000	0.000
Sector C Reinforcement	90	N136	1884	1534	0.000	0.000	3149	2589	0.000	0.000

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

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

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	19.7	19.7	36.8	36.8
0.5	25.0	25.0	49.4	49.4
1	29.7	29.7	61.2	61.2

Notes:
- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mounts will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

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

Attachments:

1. **Contractor Required PMI Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Modification Drawings
4. Mount Photos
5. Mount Mapping Report (for reference only)
6. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com
For additional questions and support, please reach out to pmisupport@colliersengineering.com

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MDG #: 5000381746 SMART Project #: 10222542 Fuze Project ID: 16244636

Purpose – to upload the proper documentation to the SMART Tool in order to allow the SMART Tool engineering vendor to complete the required Mount Desktop review of the Post Modification Inspection Report.

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

Base Requirements:

- If installation of the modification will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: **https://pmi.vzwsmart.com**

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation of the modifications.
  - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- *Photos taken at Mount Elevation*
  - Photos showing the safety climb wire rope above and below the mount prior to modification.
  - Photos showing the climbing facility and safety climb if present.

- Photos showing each individual sector after installation of modifications. Each entire sector must be in one photo to show the interconnection of members.
    - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.
- Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
    - If the materials are as specified on the drawings
        - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
        - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
    - If seeking permission to use an equivalent
        - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Antenna & Equipment Placement and Geometry Confirmation:

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

OR

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

Comments:

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

Install proposed OVP on existing OVP pipe

Response:

Special Instruction Confirmation:

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

Comments:

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

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

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

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Comments:

Certifying Individual:

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

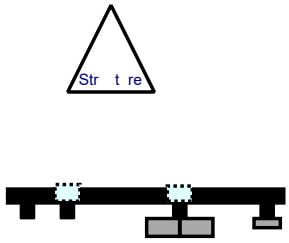
Structure: 50003 1 46-VZW - Bethel CT

Se tor: **A** 2/8/2024

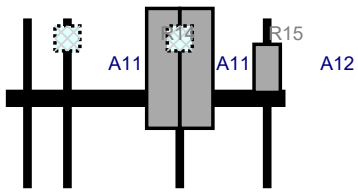
Str t re Type: Mo opole 10222542

Mo t Elev: 93.00 P ge: 1

Plan View



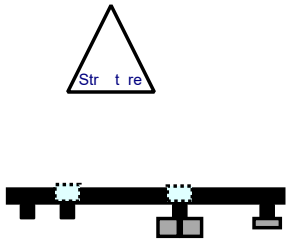
Front View - Loo i g t Str t re



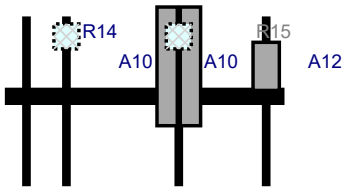
4 3 2 1

Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A12	MT6413-77A	28.9	15.8	157	1		Fro t	30	0	Added	
A11	MX06FRO640-02	72	19.8	104.5	2		Fro t	30	-10	Added	
A11	MX06FRO640-02	72	19.8	104.5	2		Fro t	30	10	Added	
R15	RF4440d-13A	15	15	104.5	2		Behi d	12	0	Added	
R14	RF4439d-25A	15	15	37	3		Behi d	12	0	Added	
O1	RVZDC-6627-PF-48	28.9	15.7		Me er					Added	

Plan View



Front View - Loo i g t Str t re



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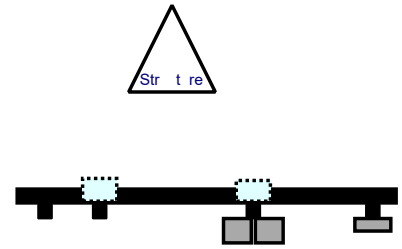
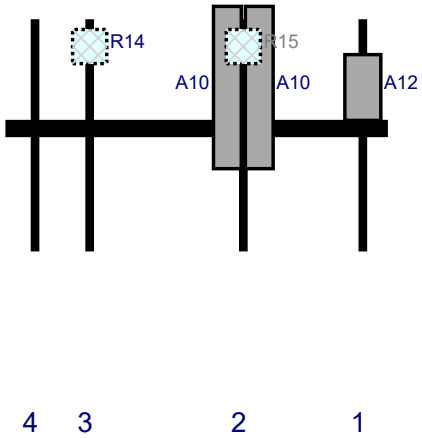
A10	MX06FIT665-02	71.3	12.2	104.5	2		Fro t	30	-7	Added	
A10	MX06FIT665-02	71.3	12.2	104.5	2		Fro t	30	7	Added	
R15	RF4440d-13A	15	15	104.5	2		Behi d	12	0	Added	
R14	RF4439d-25A	15	15	37	3		Behi d	12	0	Added	

Plan View



Front View - Loo i g t Str t re



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A10	MX06FIT665-02	71.3	12.2	104.5	2		Fro t	30	7	Added	
R15	RF4440d-13A	15	15	104.5	2		Behi d	12	0	Added	
R14	RF4439d-25A	15	15	37	3		Behi d	12	0	Added	

verizon

MOUNT MODIFICATION DRAWINGS
14.00' PLATFORM

SITE NAME: BETHEL CT
SITE NUMBER: 468263

38 SPRING HILL ROAD
BETHEL, CT 06801
FAIRFIELD COUNTY

PROJECT NOTES

1. SEE MODIFICATION NOTES
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

PROJECT INFORMATION

SITE INFORMATION

LATITUDE: 41.362067° N
LONGITUDE: -73.395917° W
JURISDICTION: FAIRFIELD COUNTY

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON
ADDRESS: 118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP: WESTBOROUGH, MA 01581
CONTACT: ANDREW CANDIELLO
EMAIL: ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY: MASER CONSULTING
CONTACT: GREG DULNIK
PHONE: (615) 686-2575
E-MAIL: GDULNIK@MASERCONSULTING.COM

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
S-1	BILL OF MATERIALS
S-2	MODIFICATION NOTES
S-3	MODIFICATION NOTES
S-4	MODIFICATION DETAILS
S-5	MODIFICATION DETAILS
S-6	MOUNT PHOTOS
	SPECIFICATION SHEETS

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10038251
VZW LOCATION CODE (PSLC): 468263
FUZE ID: 16244636

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

CONTRACTOR PMI REQUIREMENTS

FAILING MOUNT ANALYSIS REPORT
SMART TOOL PROJECT #: 10019432
MASER CONSULTING PROJECT #: 20777354A
ANALYSIS DATE: 1/22/2021

MASER CONSULTING
CONNECTICUT

verizon

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
811 Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE : AS SHOWN
JOB NUMBER : 20777354A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
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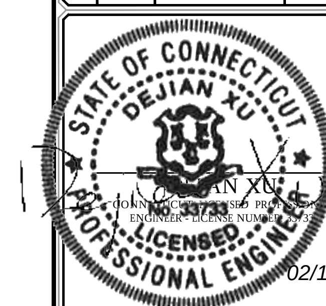
0	2/17/21	ISSUED FOR CONSTRUCTION	MPC	DX



02/19/2021

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SITE NAME:

BETHEL CT
468263

38 SPRING HILL ROAD
BETHEL, CT 06801
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : TITLE SHEET

SHEET NUMBER : T-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

VZWSMART KITS				
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
1	VZWSMART	PLK5	KICKER KIT	VERIFY LENGTH IN FIELD, TRIM AS NEEDED
1		PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY	

OTHER REQUIRED PARTS				
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
	SITE PRO 1	120-123/317	ANGLE STAND-OFF ASSEMBLIES	

NOTE: ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTE: WHEN SPECIFIED, VZWSMART KITS SHALL BE REQUIRED AND WILL BE VERIFIED DURING THE DESKTOP PMI

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STATE OF CONNECTICUT · DEJIAN XU · No. 33733 · LICENSED · PROFESSIONAL ENGINEER

DEJIAN XU
CONNECTICUT LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 33733

02/19/2021

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Fax: 856.722.1120

SHEET TITLE :
BILL OF MATERIALS

SHEET NUMBER :
S-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

DESIGN LOADS

WIND LOADS

a. BASIC WIND SPEED (3 SECOND GUST), V = 120 MPH

b. EXPOSURE CATEGORY B

c. TOPOGRAPHIC CATEGORY 1

d. MEAN BASE ELEVATION (AMSL) = 782.79'

ICE LOADS

a. ICE WIND SPEED (3 SECOND GUST), V = 50 MPH

b. ICE THICKNESS = 1.000 IN

SEISMIC LOADS

a. SEISMIC DESIGN CATEGORY B

b. SHORT TERM MCER GROUND MOTION, S_S = .223

c. LONG TERM MCER GROUND MOTION, S_1 = .056

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO GDULNIK@MASERCONSULTING.COM
   b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

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STATE OF CONNECTICUT DEJIAN XU LICENSED PROFESSIONAL ENGINEER

02/19/2021

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Fax: 856.722.1120

SHEET TITLE : MODIFICATION NOTES

SHEET NUMBER : S-2

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

MODIFICATION INSPECTION NOTES

MI CHECKLIST	
CONSTRUCTION/ INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVED SHOP DRAWINGS
NA	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	ON SITE COLD GALVANIZING VERIFICATION
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
X	VZW PMI DOCUMENTS
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GC INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO EOR.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI ("FAILED MI"), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN:

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

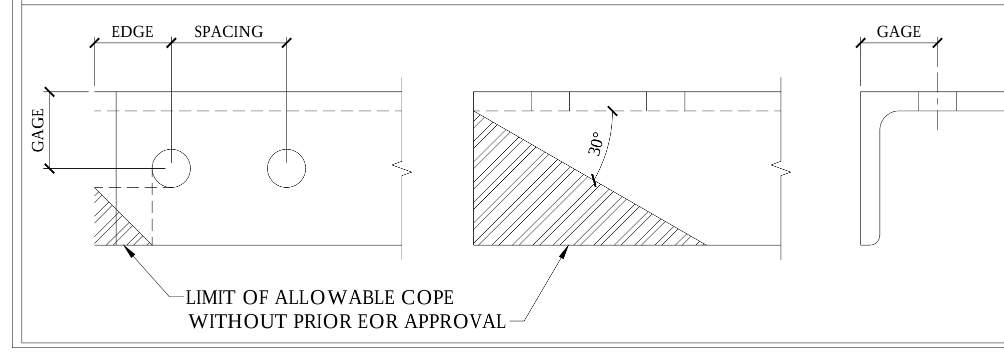
REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
  - RAW MATERIALS
  - PHOTOS OF ALL CRITICAL DETAILS
  - FOUNDATION MODIFICATIONS
  - WELD PREPARATION
  - BOLT INSTALLATION
  - FINAL INSTALLED CONDITION
  - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
  - FINAL INFIELD CONDITION

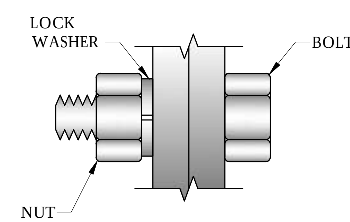
PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

ALLOWABLE COPING



BOLT SCHEDULE (IN.)				
BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)	
LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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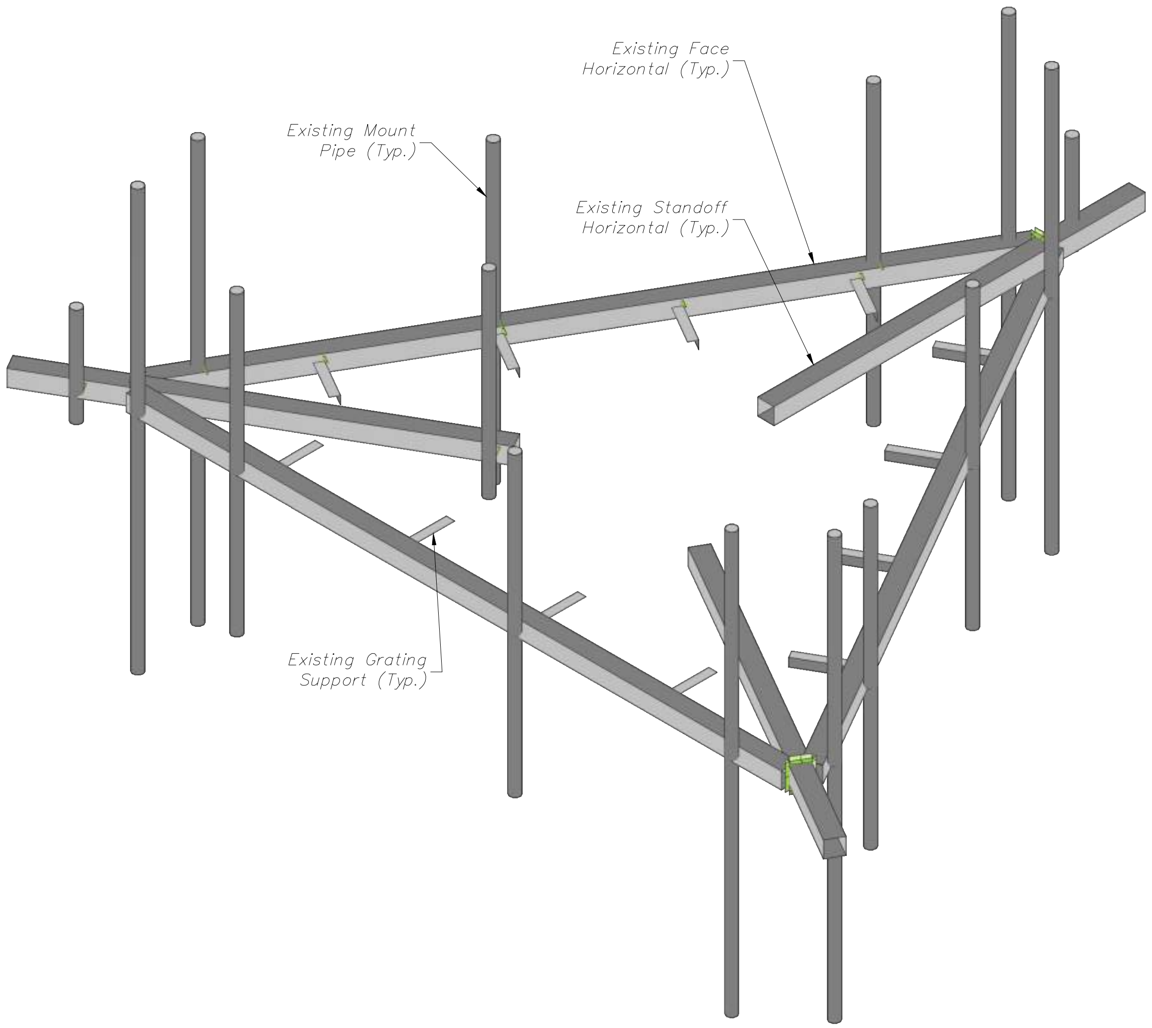
SHEET TITLE :
MODIFICATION NOTES

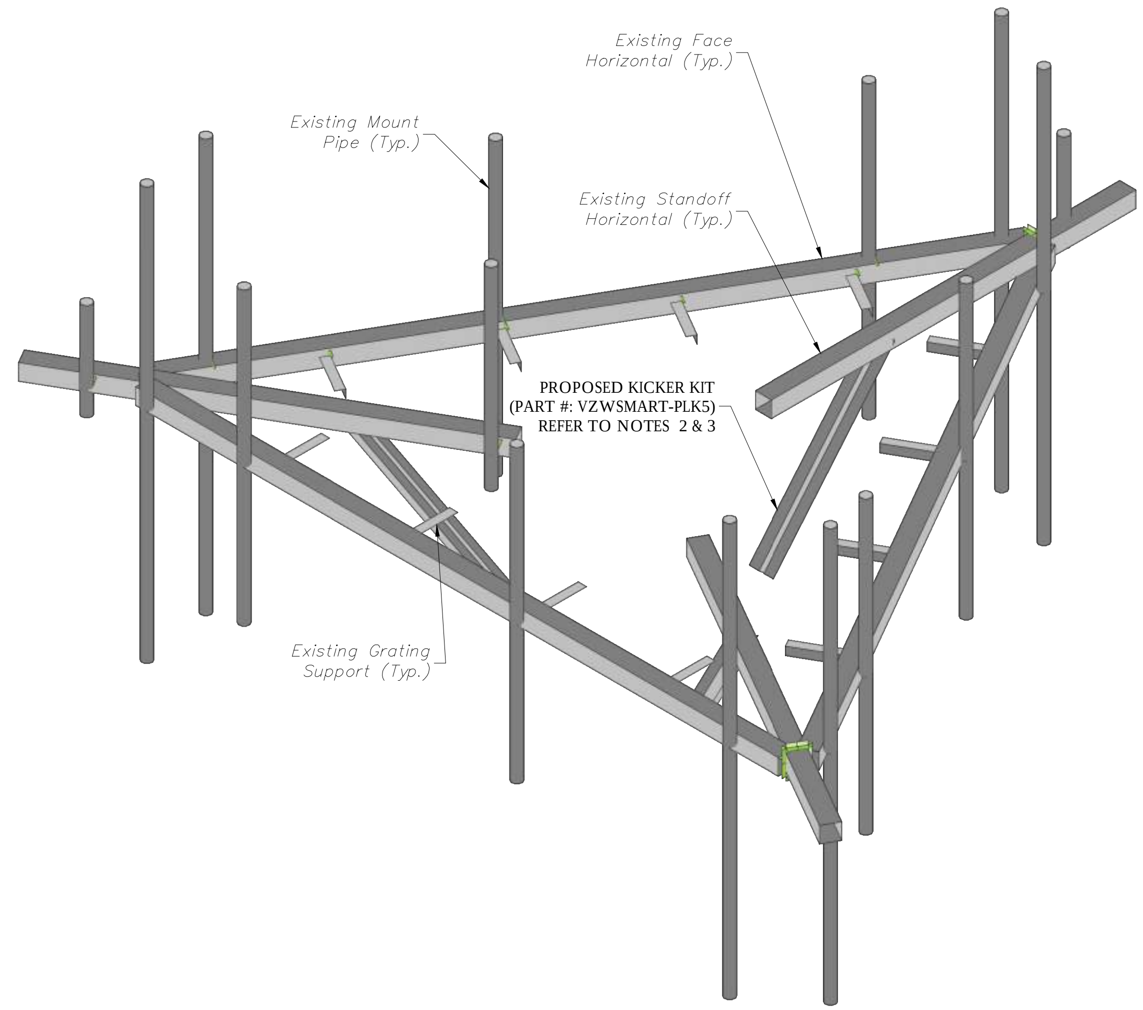
SHEET NUMBER :
S-3

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 EXISTING PLATFORM ISOMETRIC VIEW

SCALE : N.T.S.



2 PROPOSED PLATFORM ISOMETRIC VIEW

SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY TOWER ENGINEERING PROFESSIONALS, INC. ON 11/17/2020, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (93'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.

2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.

2. CONNECT OTHER END OF KICKER KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).

3. CONTRACTOR TO VERIFY LENGTH IN FIELD, TRIM AS NEEDED.

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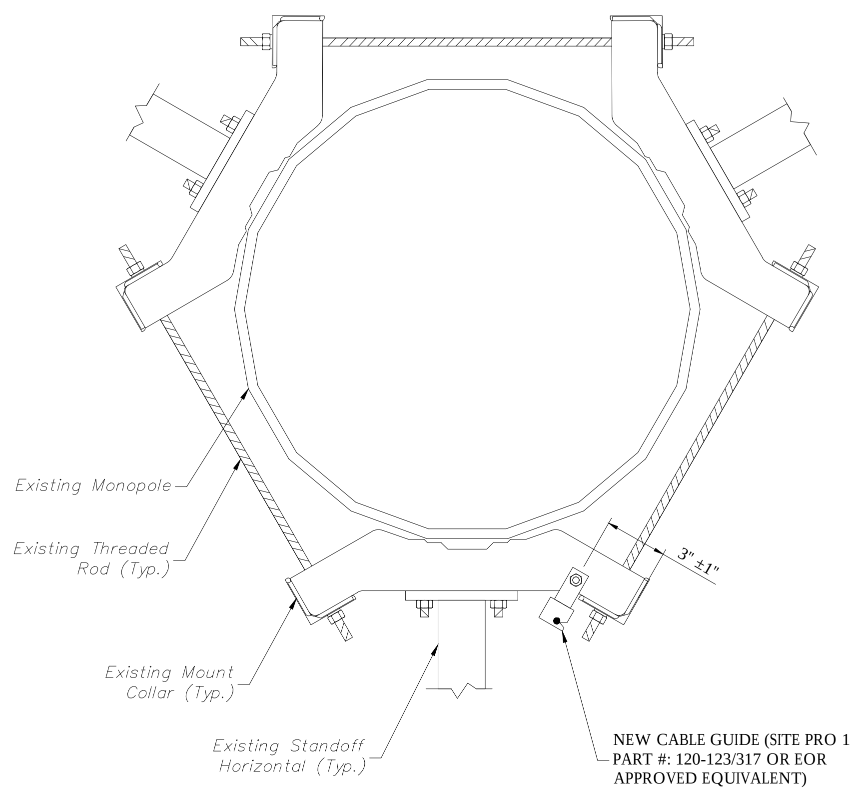
SHEET TITLE :

MODIFICATION DETAILS

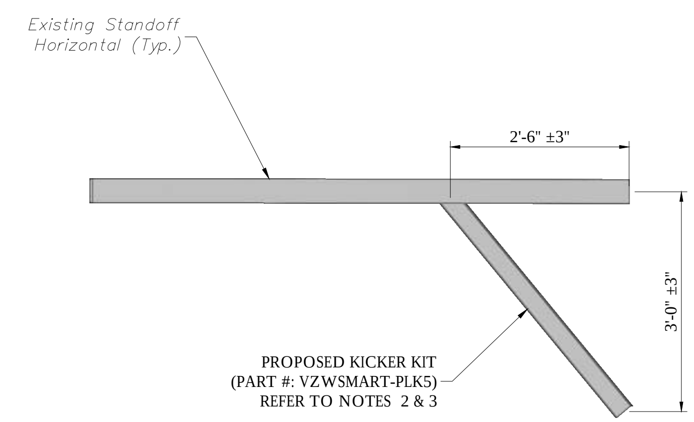
SHEET NUMBER :

S-4

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 CABLE GUIDE COLLAR ATTACHMENT - PLAN VIEW



2 PROPOSED SIDE ELEVATION VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONNECT OTHER END OF KICKER KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
3. CONTRACTOR TO VERIFY LENGTH IN FIELD, TRIM AS NEEDED.

MASER CONSULTING CONNECTICUT

verizon

PROTECT YOURSELF

ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

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

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE : AS SHOWN

JOB NUMBER : 20777354A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
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.	.	.	.	.
.	.	.	.	.
0	2/17/21	ISSUED FOR CONSTRUCTION	MPC	DX

STATE OF CONNECTICUT DEJIAN XU LICENSED PROFESSIONAL ENGINEER

02/19/2021

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

SITE NAME:

BETHEL CT
468263

38 SPRING HILL ROAD
BETHEL, CT 06801
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : MODIFICATION DETAILS

SHEET NUMBER : S-5

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

MASER CONSULTING
CONNECTICUT

verizon

PROTECT YOURSEFL

PROTECT YOURSELF

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

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE :	JOB NUMBER :
AS SHOWN	20777354A

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0	2/17/21	ISSUED FOR CONSTRUCTION	MPC	DX
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY

STATE OF CONNECTICUT · DEJIAN XU · LICENSED PROFESSIONAL ENGINEER

02/19/2021

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BETHEL, CT 06801
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

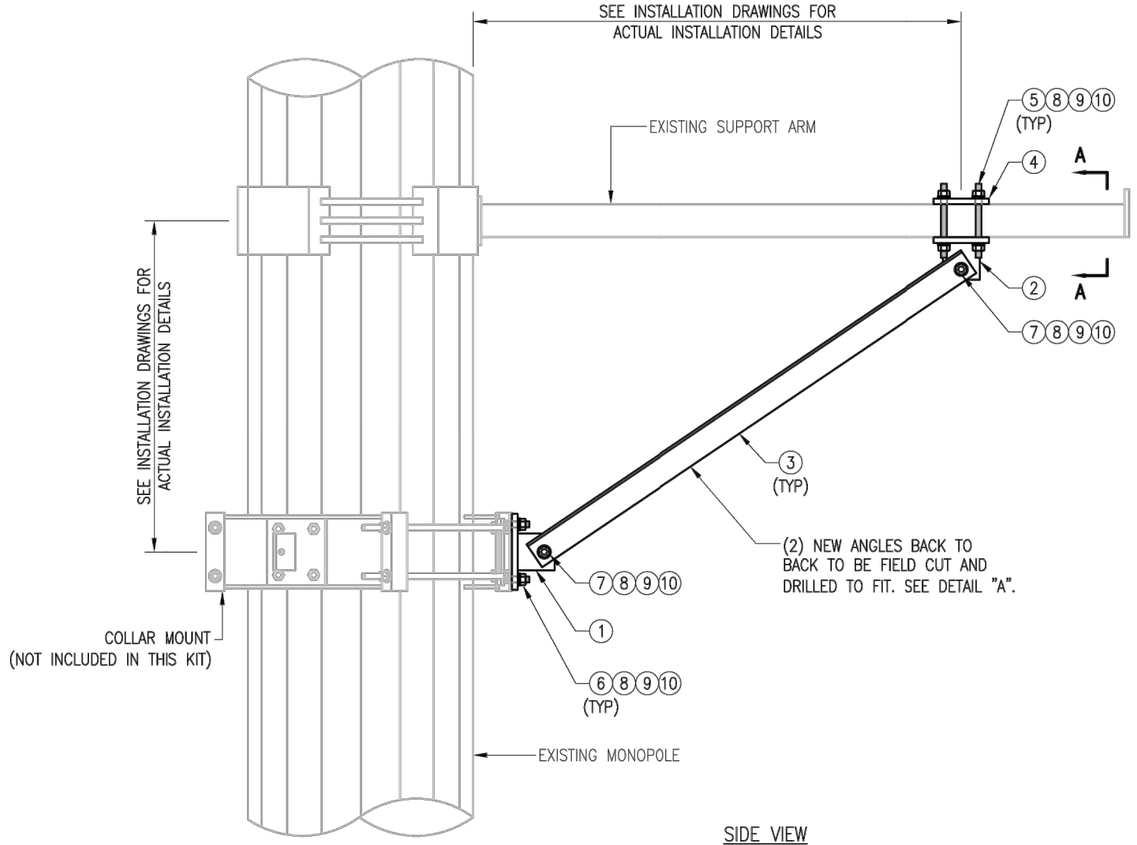
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE :
MOUNT PHOTOS

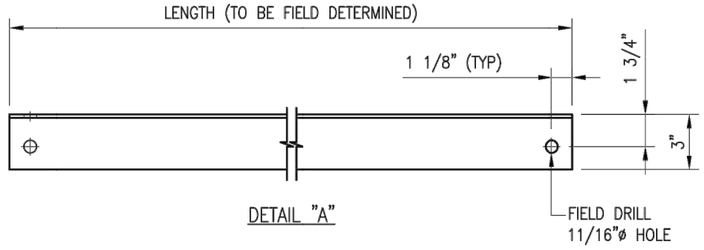
SHEET NUMBER :
S-6

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

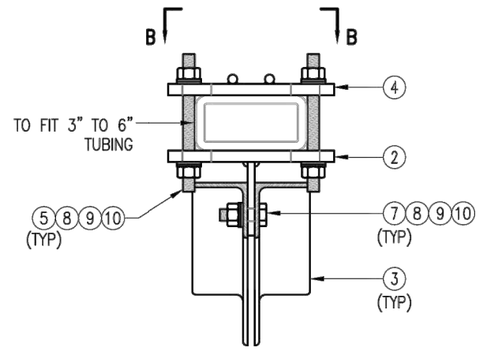
NOTE:
THE LOCATION OF KICKER AND EXISTING ANTENNA MOUNT SHOWN ON THE DRAWING IS FOR REPRESENTATION PURPOSE ONLY. SEE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION OF DETAILS.



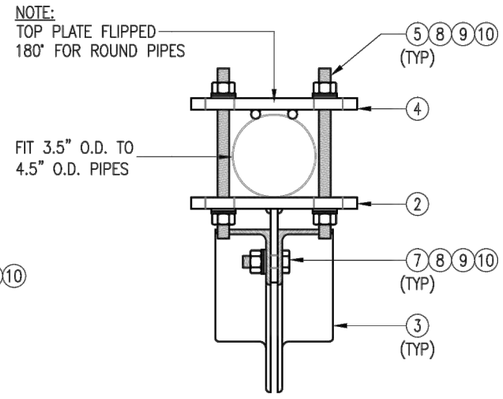
SIDE VIEW
KICKER KIT



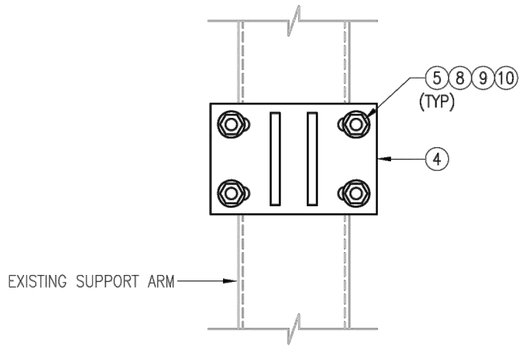
DETAIL "A"



SECTION "A–A"
RECT. HSS MOUNTING



SECTION "A–A"
ROUND PIPE MOUNTING



SECTION "B–B"

VZWSMART–PLK5 (KICKER KIT)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	BRKW–XXX	BRACKET WELDMENT A36	PLK5–F3	43.8
2	3	BRKW–XXXX	BRACKET WELDMENT A36	PLK5–F2	35.7
3	6	L331875–8	L 3" X 3" X 3/16" X 8'–0" A36	PLK5–F4	182.9
4	3	PL–KI	PL 5/8" X 6" X 9" A36	PLK5–F1	29.0
5	12	---	THREADED ROD 5/8" DIA. X 1'–0" F1554–36 HDG	---	--
6	6	---	BOLT 5/8" X 2" A325	---	--
7	12	---	BOLT 5/8" X 2 1/2" A325	---	--
8	42	FW–625	5/8" HDG USS FLAT WASHER	---	3
9	42	LW–625	5/8" HDG LOCK WASHER	---	1
10	42	NUT–625	5/8" HDG HEX NUT	---	5
				GALVANIZED WT	291

NOTES:
1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT–DIPPED GALVANIZED PER ASTM A123.
3. FIT UP TO 6" SQ. TUBING OR 4 1/2" O.D. PIPE

VzW SMART Tool© Vendor

verizon

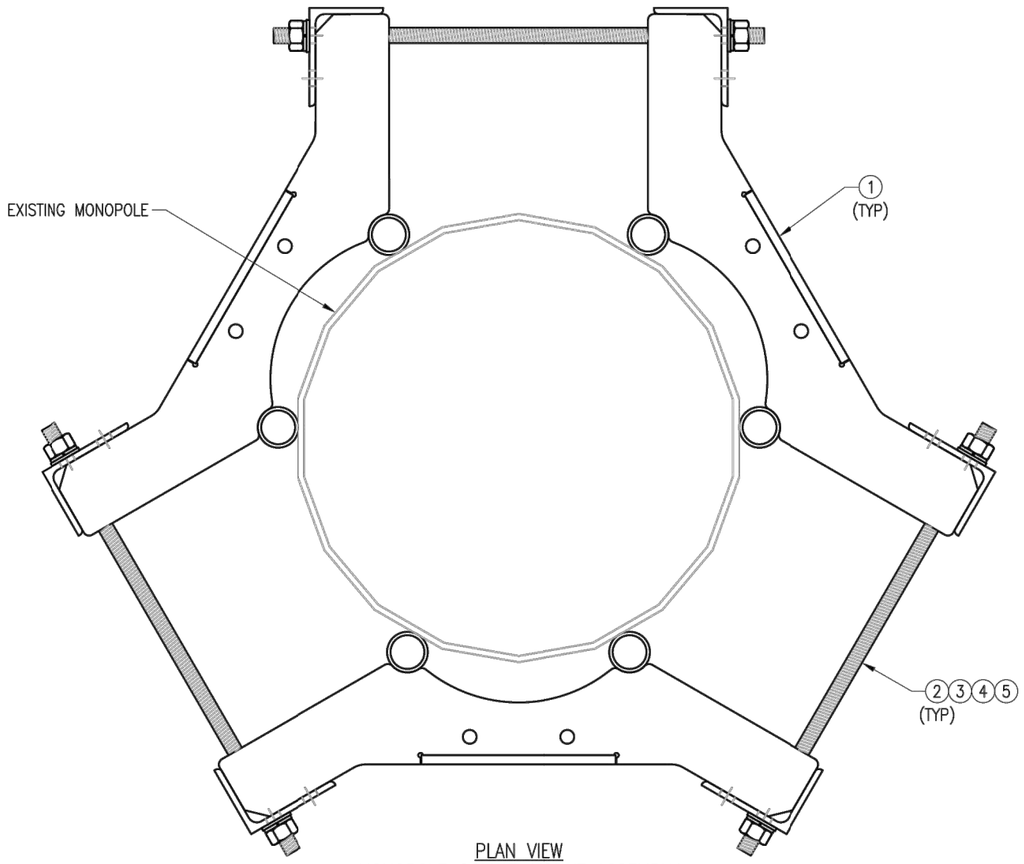
DRAWN BY: MN | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	MN	05/08/20

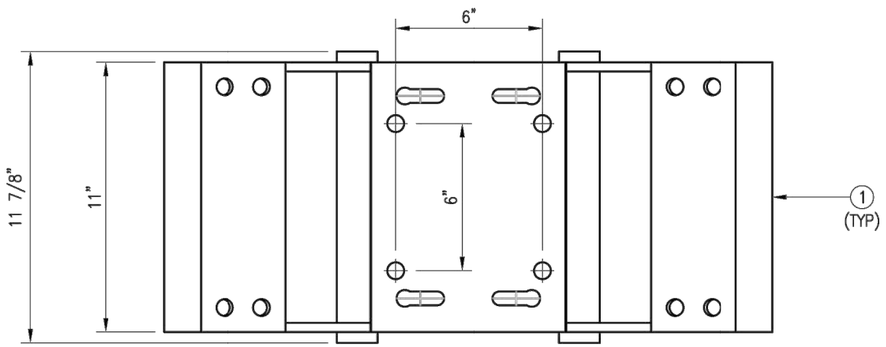
SHEET TITLE:
VZWSMART–PLK5
KICKER KIT

SHEET NUMBER: VZWSMART–PLK5

REV #: 0



PLAN VIEW
MONOPOLE COLLAR MOUNT ASSEMBLY



FRONT VIEW

NOTES:
1. FIT 12" TO 45" DIA MONOPOLE.
2. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK7 (MONOPOLE COLLAR MOUNT ASSEMBLY)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	CM-1245	COLLAR MOUNT ASSEMBLY	PLK7-F1	147
2	6	---	THREADED ROD 5/8" X 4'-0" A193-B7	---	
3	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	12	LW-625	5/8" HDG LOCK WASHER	---	0
5	12	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	150

VzW
SMART Tool©
Vendor

verizon

DRAWN BY: BT | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/11/20

SHEET TITLE:
VZWSMART-PLK7
MONOPOLE COLLAR
MOUNT ASSEMBLY

SHEET NUMBER: VZWSMART-PLK7

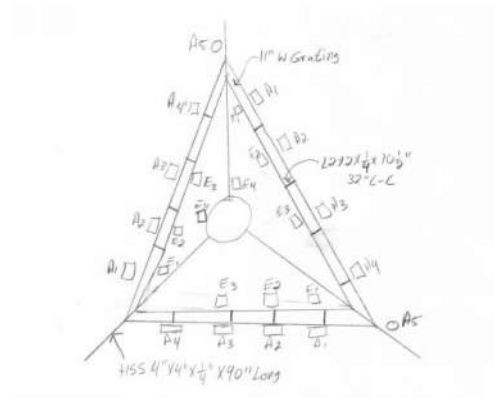
REV #: 0

V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
N/A

Tower Owner:	Unknown	**Mapping Date:**	11/17/20200
Site Name:	Bethel CT	**Tower Type:**	Monopole
Site Number or ID:	468263	**Tower Height (Ft.):**	130
Mapping Contractor:	TEP	**Mount Elevation (Ft.):**	93



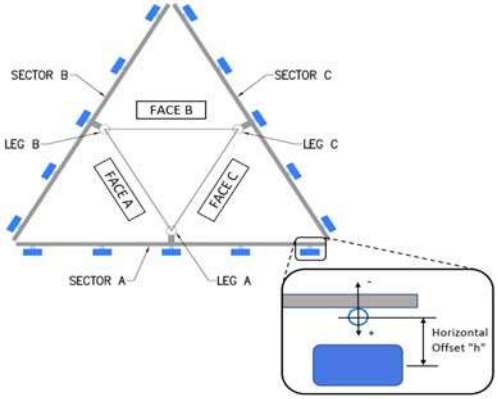
Mount Pipe Configuration and Geometries [Unit = Inches]

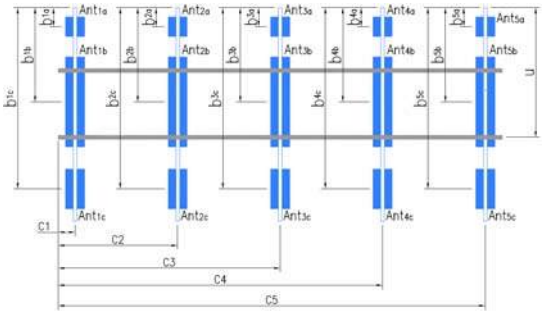
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2.4"Øx0.154"x8'-6"	48.00	11.00	C1	2.4"Øx0.154"x8'-6"	48.00	11.00
A2	2.4"Øx0.154"x6'-0"	38.00	63.50	C2	2.4"Øx0.154"x8'-6"	38.00	63.50
A3	2.4"Øx0.154"x6'-0"	38.00	131.00	C3	2.4"Øx0.154"x6'-0"	48.00	131.00
A4	2.4"Øx0.154"x8'-6"	48.00	155.00	C4	2.4"Øx0.154"x8'-6"	48.00	155.00
A5	2.4"Øx0.154"x2'-0"	18.00	168.00	C5	2.4"Øx0.154"x2'-0"	18.00	168.00
A6				C6			
B1	2.4"Øx0.154"x8'-6"	48.00	11.00	D1			
B2	2.4"Øx0.154"x8'-6"	48.00	63.50	D2			
B3	2.4"Øx0.154"x6'-0"	38.00	131.00	D3			
B4	2.4"Øx0.154"x8'-6"	48.00	155.00	D4			
B5				D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	9
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	

Please enter additional infomation or comments below.

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	31.19



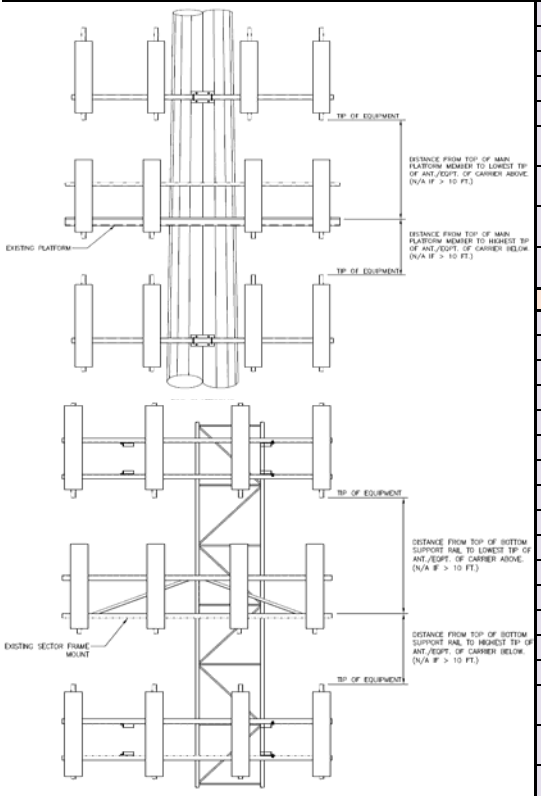


Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	WWX063X19G00	12.10	7.00	75.00	1) 1 5/8 FT	94.5	30.00	10.00	15.00	68
Ant_{1c}	B4 RRH2x60-4R	10.63	5.74	36.60		96.5417	5.50	6.50		70
Ant_{2a}										
Ant_{2b}	Unknown	14.50	7.00	72.00	1) 1 5/8 FT	94.25	23.00	11.50	15.00	72
Ant_{2c}	B13 RRH4x30	11.80	7.50	20.90		95.0833	13.00	7.00		74
Ant_{3a}										
Ant_{3b}	WWX063X19G00	12.10	7.00	75.00	1) 1 5/8 FT	93.9167	27.00	9.50	15.00	79
Ant_{3c}	B25 RRH4x30	12.00	7.20	21.20		94.9167	15.00	7.50		81
Ant_{4a}										
Ant_{4b}	BXA-80063-6BF	11.20	5.00	71.10	1) 1 5/8 FT	94.1667	34.00	8.00	15.00	84
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	Omni	4.00	4.00	192.00		94.5				121
Ant_{5c}										
Ant on Standoff	RRFDC-3315-PF-48	15.73	10.30	28.93	1/4 Hybrid					76
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	20.00	Deg	Leg A:		Deg
Sector B:	140.00	Deg	Leg B:		Deg
Sector C:	260.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	180.00	Deg	Sector B
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}										
Ant_{1b}	WWX063X19G00	12.10	7.00	75.00	1) 1 5/8 FI	94.5	30.00	10.00	135.00	87
Ant_{1c}	B4 RRH2x60-4R	10.63	5.74	36.60		96.5417	5.50	6.50		89
Ant_{2a}										
Ant_{2b}	80010736V01	11.90	3.90	96.00	1) 1 5/8 FI	93.75	39.00	6.00	135.00	92
Ant_{2c}	B13 RRH4x30	11.80	7.50	20.90		95	24.00	7.00		94
Ant_{3a}										
Ant_{3b}	WWX063X19G00	12.10	7.00	75.00	1) 1 5/8 FI	93.9167	27.00	9.50	135.00	96
Ant_{3c}	B25 RRH4x30	12.00	7.20	21.20		94.9167	15.00	7.50		98
Ant_{4a}										
Ant_{4b}	Unknown	5.00	11.50	72.00	1) 1 5/8 FI	93.7083	39.50	10.50	135.00	100
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	WWX063X19G00	12.10	7.00	75.00	1) 1 5/8 FI	94.5	30.00	10.00	255.00	103
Ant_{1c}	B4 RRH2x60-4R	10.63	5.74	36.60		96.5417	5.50	6.50		105
Ant_{2a}										
Ant_{2b}	80010736V01	11.90	3.90	96.00	1) 1 5/8 FI	92.9167	39.00	6.00	255.00	107
Ant_{2c}	B13 RRH4x30	11.80	7.50	20.90		94.1667	24.00	7.00		109
Ant_{3a}										
Ant_{3b}	WWX063X19G00	12.10	7.00	75.00	1) 1 5/8 FI	94.75	27.00	9.50	255.00	113
Ant_{3c}	B25 RRH4x30	12.00	7.20	21.20		95.75	15.00	7.50		114
Ant_{4a}										
Ant_{4b}	BXA-80080-6CF	11.20	4.60	72.60	1) 1 5/8 FI	93.75	39.00	8.50	255.00	118
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	Omni	4.00	4.00	192.00		94.5				121
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower	RRFDC-3315-PF-48	15.73	10.30	28.93	1/4 Hybrid					111
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

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

1		
2		
3		
4		
5		
6		
7		
8		

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

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

V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
N/A

Tower Owner:	Unknown	**Mapping Date:**	11/17/20200
Site Name:	Bethel CT	**Tower Type:**	Monopole
Site Number or ID:	468263	**Tower Height (Ft.):**	130
Mapping Contractor:	TEP	**Mount Elevation (Ft.):**	93

Please Insert Sketches of the Antenna Mount

Bethel CT
468263-VZW
11/17/2020

ele
MNT: 93'-0"
ANT: 95'-0"

safety @ 180°
A2

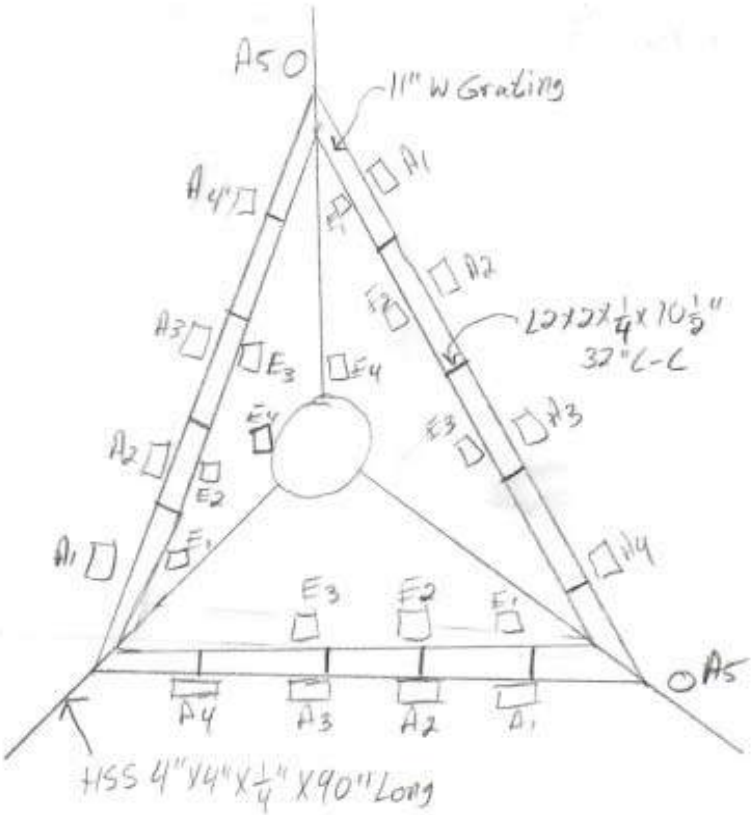
	MNT	ANT
A	20°	15°
B	140°	135°
C	260°	255°

Maser

coax
(2) 1 1/4" Hybrid
(2) 1 5/8" FH

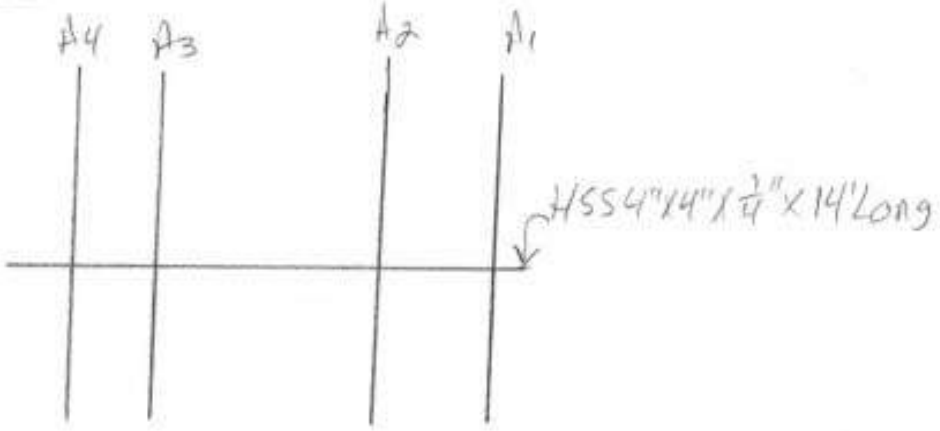
WAF: 5 1/8"
MNT 9' above VZW

plan view



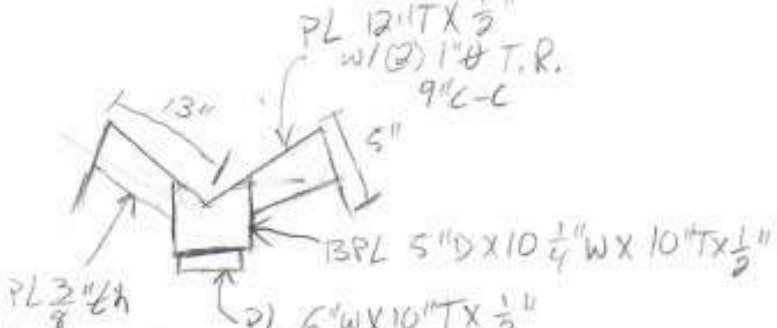
Please Insert Sketches of the Antenna Mount, cont'd

Front View



Collar Detail

6½" clear spacing



M.P. CNX - 6'-0" pipes

PL 7"WX7"TX¼"
w/(4) ½"Ø U-bolts
3"C-C H; 5"C-

M.P. CNX - 8'-6" Pipes

(2) PL 7"WX7"TX¼"
w/(4) ½"Ø T.R. 5½"C-C
(2) ½"Ø U-bolts
3"C-C H; 5"C-C V

Omni CNX

(4) BPL 2"TX8"WX⅜"
w/(2) ⅝"Ø T.R. 6"C-C
17½" U.S.

Face to Face CNX

L 1½"X3"X¼"X9"Long
w/(2) ½"Ø bolts 6"C-C
w/ ¼" stiffeners 4"C-C

Raycap CNX

PL 7"WX8"TX⅜"
w/(2) ½"Ø T.R. 5"C-C
w/(2) ½"Ø U-bolts
3"C-C H; 5"C-C V

Please Insert Sketches of the Antenna Mount, cont'd

Alpha

	m.P./location	a	b	H	C	model #
A1	2.4"Ø x 8'-6"	48"	30"	10"	11"	WWX063X19600
A2	2.4"Ø x 6'-0"	38"	23"	11½"	63.5	14½" WX6'TX 7'D Panel
A3	2.4"Ø x 6'-0"	38"	27"	9½"	131	WWX063X19600
A4	2.4"Ø x 8'-6"	48"	34"	8"	155	BXA-80063-6BF
A5	2.4"Ø x 2'-0"	18"	—	—	—	4"Ø x 16' omni
E1	behind A1	—	5⅝	6½	—	B4 RRH2X60-4R
E2	behind A2	—	13"	7"	—	B13 RRH 4X30
E3	behind A3	—	15"	7½"	—	B25 RRH 4X30
E4	on MNT	—	—	—	—	RRFDC-3315-PF-48

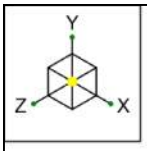
Beta

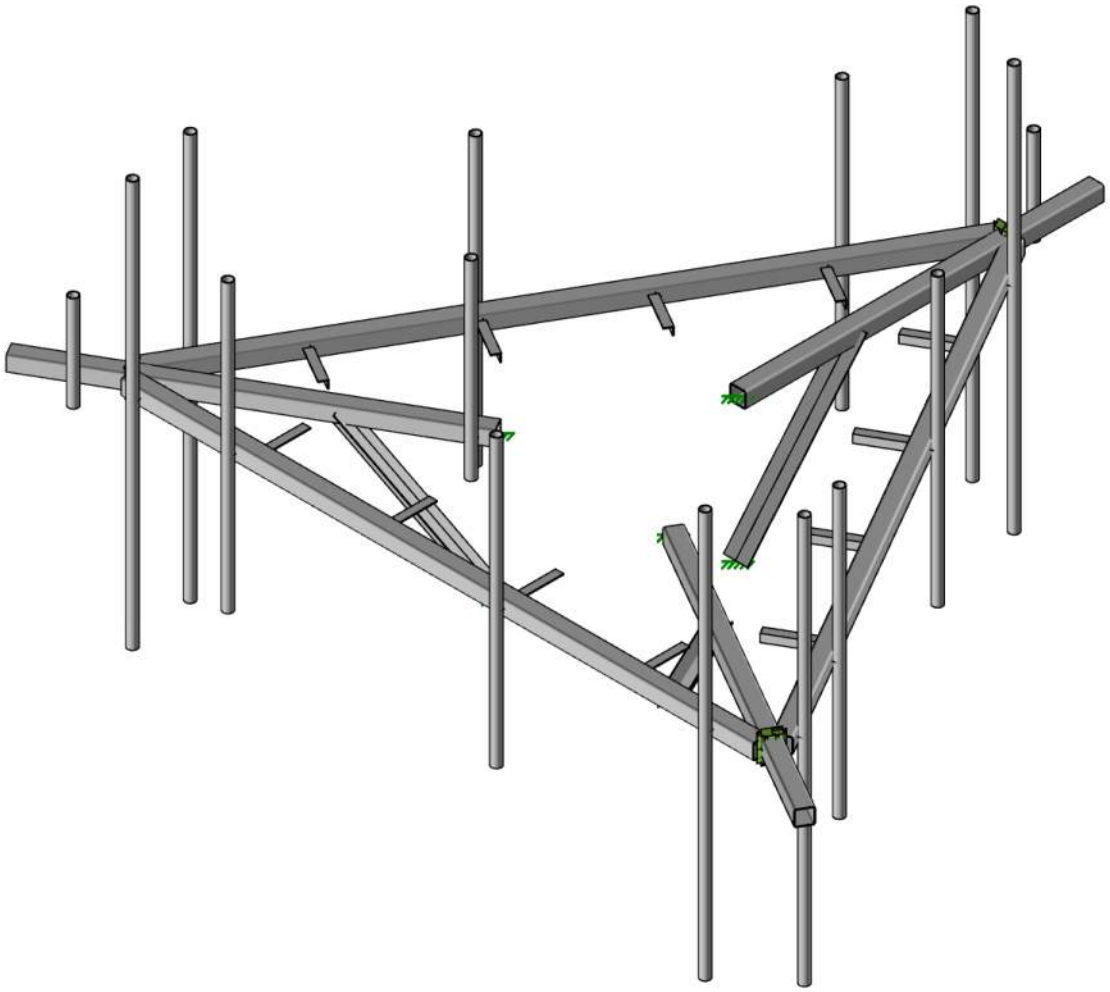
	m.P/Location	a	b	H	C	model #
A1	2.4"Ø x 8'-6"	48"	30"	10"	11"	WWX063X19600
A2	2.4"Ø x 8'-6"	48"	34"	6"	63.5"	800/0736V01
A3	2.4"Ø x 6'-0"	38"	27"	9½"	131"	WWX063X19600
A4	2.4"Ø x 8'-6"	48"	39½"	10½"	155"	11½"WX6'TX5'D Panel
E1	behind A1	—	5½"	6½"	—	B4 RRH 2X60-4R
E2	behind A2	—	24"	7"	—	B13 RRH 4X30
E3	behind A3	—	15"	7½"	—	B25 RRH 4X30

Please Insert Sketches of the Antenna Mount, cont'd

Gamma

	m.P/Location	W	b	H	C	model #
A1	2.4"Ø X 8'-6"	48"	30"	10"	11"	WWX063X19600
A2	2.4"Ø X 8'-6"	38"	39"	6"	63.5	800/10736V01
A3	2.4"Ø X 6'-0"	48"	27"	9 1/2"	131"	WWX063X19600
A4	2.4"Ø X 8'-6"	48"	39"	8 1/2"	155"	BXA-80080-6CF
A5	2.4"Ø X 2'-0"	18"	–	–	–	4"Ø X 16' omni
E1	behind A1	–	5 1/2"	6 7/8"	–	B4 RRH 2X60-4R
E2	behind A2	–	24"	7"	–	B13 RRH 4X30
E3	behind A3	–	15"	7 1/2"	–	B25 RRH 4X30
E4	Direct MNT to tower	–	–	–	–	RRFDC-3315-PF-48





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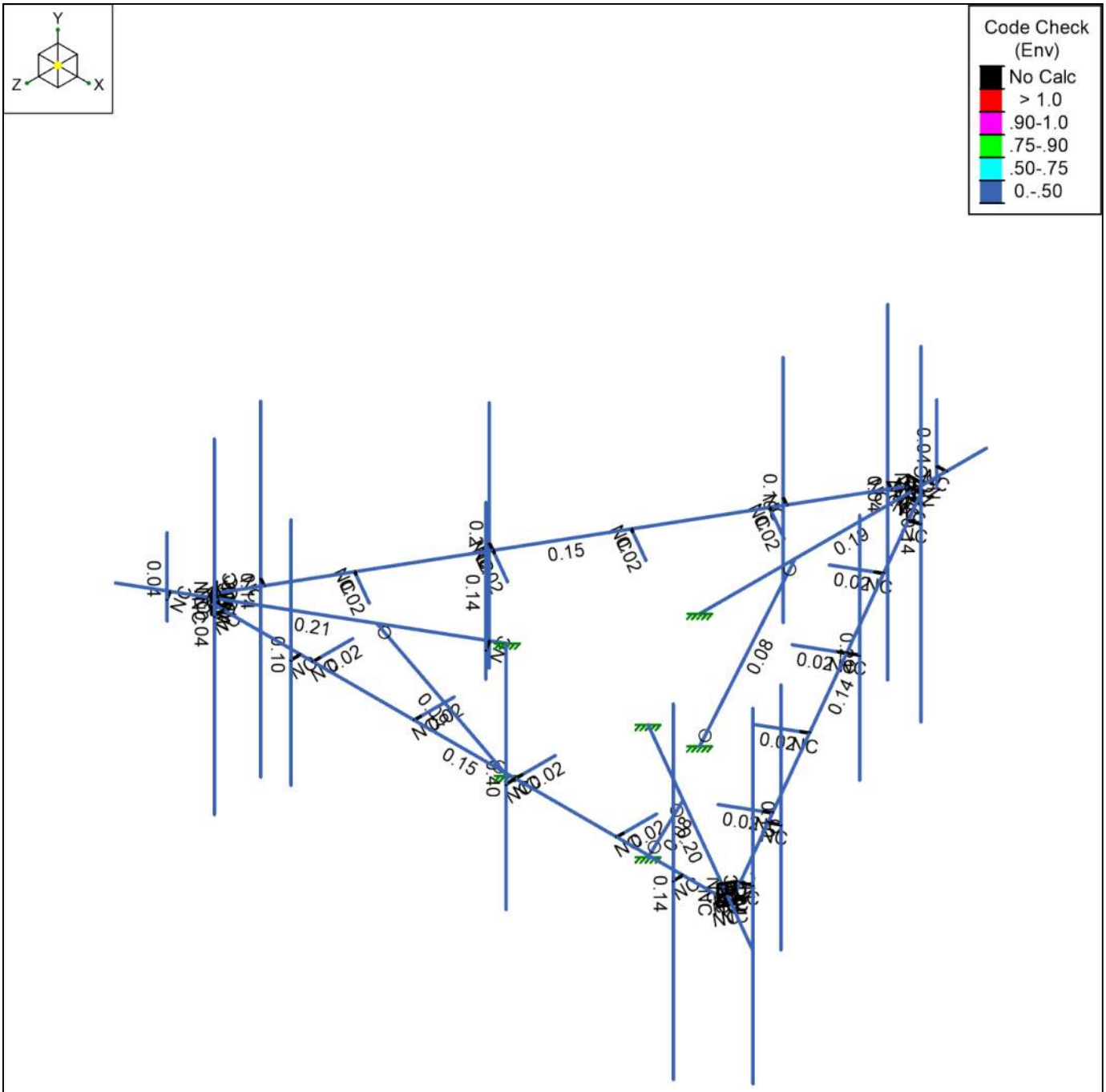

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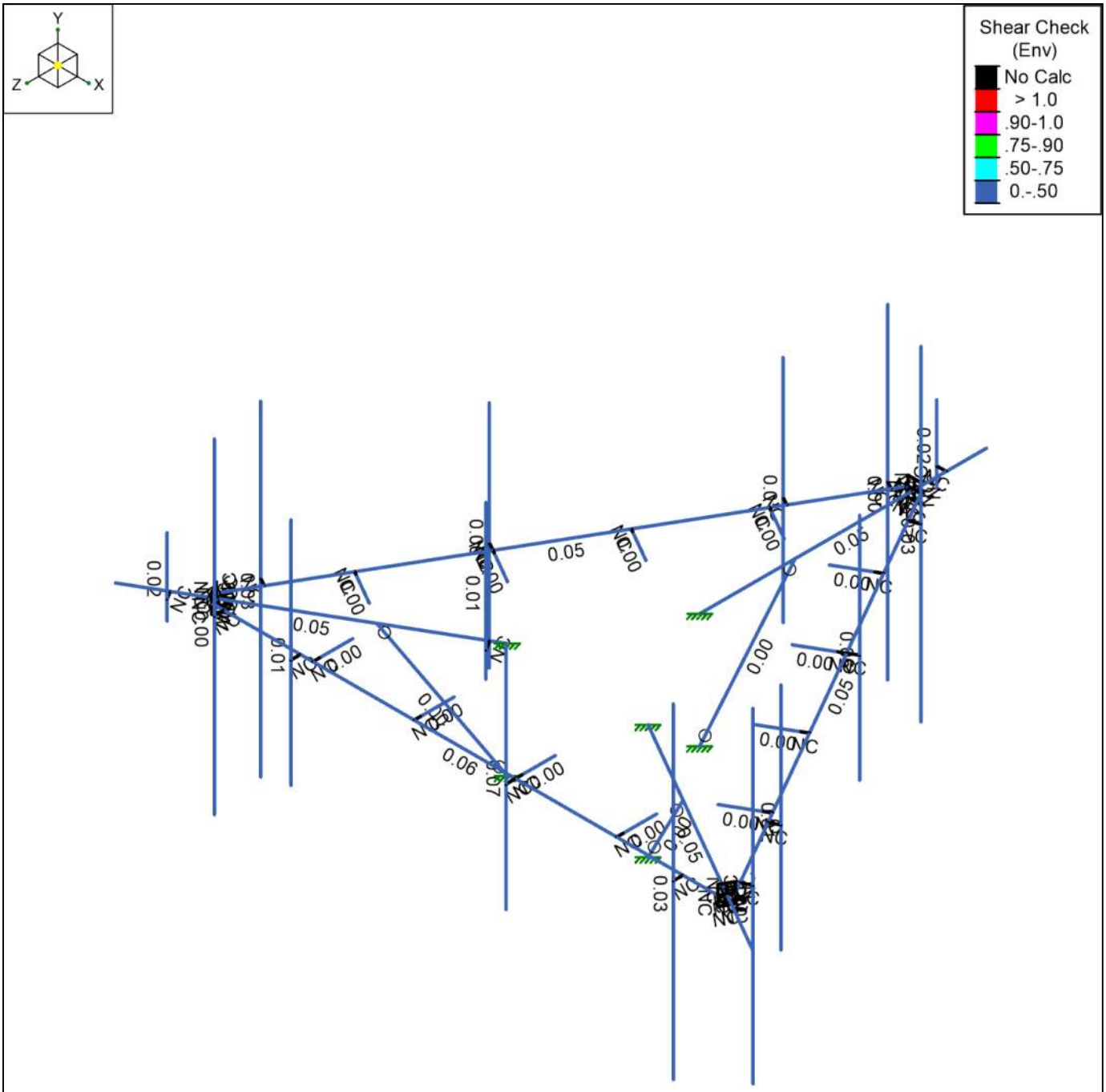


Member Shear Checks Displayed (Enveloped)

IRISA A NEMETSCHEK COMPANY			SK-8
			Feb 08, 2024 at 04:08 PM
			5000381746-VZW_MT_LO…

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
1	Antenna D	None				81		
2	Antenna Di	None				81		
3	Antenna Wo (0 Deg)	None				81		
4	Antenna Wo (30 Deg)	None				81		
5	Antenna Wo (60 Deg)	None				81		
6	Antenna Wo (90 Deg)	None				81		
7	Antenna Wo (120 Deg)	None				81		
8	Antenna Wo (150 Deg)	None				81		
9	Antenna Wo (180 Deg)	None				81		
10	Antenna Wo (210 Deg)	None				81		
11	Antenna Wo (240 Deg)	None				81		
12	Antenna Wo (270 Deg)	None				81		
13	Antenna Wo (300 Deg)	None				81		
14	Antenna Wo (330 Deg)	None				81		
15	Antenna Wi (0 Deg)	None				81		
16	Antenna Wi (30 Deg)	None				81		
17	Antenna Wi (60 Deg)	None				81		
18	Antenna Wi (90 Deg)	None				81		
19	Antenna Wi (120 Deg)	None				81		
20	Antenna Wi (150 Deg)	None				81		
21	Antenna Wi (180 Deg)	None				81		
22	Antenna Wi (210 Deg)	None				81		
23	Antenna Wi (240 Deg)	None				81		
24	Antenna Wi (270 Deg)	None				81		
25	Antenna Wi (300 Deg)	None				81		
26	Antenna Wi (330 Deg)	None				81		
27	Antenna Wm (0 Deg)	None				81		
28	Antenna Wm (30 Deg)	None				81		
29	Antenna Wm (60 Deg)	None				81		
30	Antenna Wm (90 Deg)	None				81		
31	Antenna Wm (120 Deg)	None				81		
32	Antenna Wm (150 Deg)	None				81		
33	Antenna Wm (180 Deg)	None				81		
34	Antenna Wm (210 Deg)	None				81		
35	Antenna Wm (240 Deg)	None				81		
36	Antenna Wm (270 Deg)	None				81		
37	Antenna Wm (300 Deg)	None				81		
38	Antenna Wm (330 Deg)	None				81		
39	Structure D	None		-1				3
40	Structure Di	None					36	3
41	Structure Wo (0 Deg)	None					72	
42	Structure Wo (30 Deg)	None					72	
43	Structure Wo (60 Deg)	None					72	
44	Structure Wo (90 Deg)	None					72	
45	Structure Wo (120 Deg)	None					72	
46	Structure Wo (150 Deg)	None					72	
47	Structure Wo (180 Deg)	None					72	
48	Structure Wo (210 Deg)	None					72	
49	Structure Wo (240 Deg)	None					72	
50	Structure Wo (270 Deg)	None					72	
51	Structure Wo (300 Deg)	None					72	
52	Structure Wo (330 Deg)	None					72	
53	Structure Wi (0 Deg)	None					72	
54	Structure Wi (30 Deg)	None					72	
55	Structure Wi (60 Deg)	None					72	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
56	Structure Wi (90 Deg)	None					72	
57	Structure Wi (120 Deg)	None					72	
58	Structure Wi (150 Deg)	None					72	
59	Structure Wi (180 Deg)	None					72	
60	Structure Wi (210 Deg)	None					72	
61	Structure Wi (240 Deg)	None					72	
62	Structure Wi (270 Deg)	None					72	
63	Structure Wi (300 Deg)	None					72	
64	Structure Wi (330 Deg)	None					72	
65	Structure Wm (0 Deg)	None					72	
66	Structure Wm (30 Deg)	None					72	
67	Structure Wm (60 Deg)	None					72	
68	Structure Wm (90 Deg)	None					72	
69	Structure Wm (120 Deg)	None					72	
70	Structure Wm (150 Deg)	None					72	
71	Structure Wm (180 Deg)	None					72	
72	Structure Wm (210 Deg)	None					72	
73	Structure Wm (240 Deg)	None					72	
74	Structure Wm (270 Deg)	None					72	
75	Structure Wm (300 Deg)	None					72	
76	Structure Wm (330 Deg)	None					72	
77	Lm1	None				1		
78	Lm2	None				1		
79	Lv1	None				1		
80	Lv2	None				1		
81	Antenna Ev	None				81		
82	Antenna Eh (0 Deg)	None				54		
83	Antenna Eh (90 Deg)	None				54		
84	Structure Ev	ELY		-0.048				3
85	Structure Eh (0 Deg)	ELZ			-0.119			3
86	Structure Eh (90 Deg)	ELX	0.119					3
87	BLC 39 Transient Area Loads	None					75	
88	BLC 40 Transient Area Loads	None					75	
89	BLC 84 Transient Area Loads	None					93	
90	BLC 85 Transient Area Loads	None					93	
91	BLC 86 Transient Area Loads	None					93	

Load Combinations

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

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1				
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1				
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1				
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1				
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1				
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1				
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1				
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1				
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1						
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1						
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1						
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1						
29	1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1						
30	1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1						
31	1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1						
32	1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1						
33	1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1						
34	1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1						
35	1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1						
36	1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1						
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1						
38	1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1						
39	1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1						
40	1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1						
41	1.2D + 1.5Lm2 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1						
42	1.2D + 1.5Lm2 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1						
43	1.2D + 1.5Lm2 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1						
44	1.2D + 1.5Lm2 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1						
45	1.2D + 1.5Lm2 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1						
46	1.2D + 1.5Lm2 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1						
47	1.2D + 1.5Lm2 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1						
48	1.2D + 1.5Lm2 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1						
49	1.2D + 1.5Lv1	Yes	Y	1	1.2	39	1.2	79	1.5										
50	1.2D + 1.5Lv2	Yes	Y	1	1.2	39	1.2	80	1.5										
51	1.4D	Yes	Y	1	1.4	39	1.4												
52	1.2D + 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX	
53	1.2D + 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5
54	1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866
55	1.2D + 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1
56	1.2D + 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866
57	1.2D + 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5
58	1.2D + 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX	
59	1.2D + 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5
60	1.2D + 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
61	1.2D + 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1
62	1.2D + 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
63	1.2D + 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5
64	0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX	
65	0.9D - 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5
66	0.9D - 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866
67	0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1
68	0.9D - 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866
69	0.9D - 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5
70	0.9D - 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX	
71	0.9D - 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
72	0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
73	0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1
74	0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
75	0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Face Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
2	Standoff Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
3	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
4	Grating Support	L2X2X4	Beam	Single Angle	A36 Gr.36	Typical	0.944	0.346	0.346	0.021
5	Kicker Kit	LL3X3X3X0	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical	2.18	3.35	1.9	0.027

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	Q235	29000	11154	0.3	0.65	0.49	35	1.5	58	1.2

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M4	N3	N87		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
2	M2	N7	N5		RIGID	None	None	RIGID	Typical
3	M3	N6	N5		RIGID	None	None	RIGID	Typical
4	M4A	N10	N8		RIGID	None	None	RIGID	Typical
5	M5	N9	N8		RIGID	None	None	RIGID	Typical
6	M6	N13	N11		RIGID	None	None	RIGID	Typical
7	M7	N12	N11		RIGID	None	None	RIGID	Typical
8	M8	N8	N5		RIGID	None	None	RIGID	Typical
9	M9	N11	N5		RIGID	None	None	RIGID	Typical
10	M10	N7	N10		RIGID	None	None	RIGID	Typical
11	M11	N6	N9		RIGID	None	None	RIGID	Typical
12	M12	N7	N13		RIGID	None	None	RIGID	Typical
13	M13	N6	N12		RIGID	None	None	RIGID	Typical
14	M14	N14	N88		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
15	M15	N19	N17		RIGID	None	None	RIGID	Typical
16	M16	N18	N17		RIGID	None	None	RIGID	Typical
17	M17	N22	N20		RIGID	None	None	RIGID	Typical
18	M18	N21	N20		RIGID	None	None	RIGID	Typical
19	M19	N25	N23		RIGID	None	None	RIGID	Typical
20	M20	N24	N23		RIGID	None	None	RIGID	Typical
21	M21	N20	N17		RIGID	None	None	RIGID	Typical
22	M22	N23	N17		RIGID	None	None	RIGID	Typical
23	M23	N19	N22		RIGID	None	None	RIGID	Typical
24	M24	N18	N21		RIGID	None	None	RIGID	Typical
25	M25	N19	N25		RIGID	None	None	RIGID	Typical
26	M26	N18	N24		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
27	M27	N26	N89		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
28	M28	N31	N29		RIGID	None	None	RIGID	Typical
29	M29	N30	N29		RIGID	None	None	RIGID	Typical
30	M30	N34	N32		RIGID	None	None	RIGID	Typical
31	M31	N33	N32		RIGID	None	None	RIGID	Typical
32	M32	N37	N35		RIGID	None	None	RIGID	Typical
33	M33	N36	N35		RIGID	None	None	RIGID	Typical
34	M34	N32	N29		RIGID	None	None	RIGID	Typical
35	M35	N35	N29		RIGID	None	None	RIGID	Typical
36	M36	N31	N34		RIGID	None	None	RIGID	Typical
37	M37	N30	N33		RIGID	None	None	RIGID	Typical
38	M38	N31	N37		RIGID	None	None	RIGID	Typical
39	M39	N30	N36		RIGID	None	None	RIGID	Typical
40	M40	N18	N7		Face Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
41	M41	N6	N31		Face Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
42	M42	N19	N30		Face Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
43	O1	N92	N93		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
44	M68	N91	N90		RIGID	None	None	RIGID	Typical
45	M69	N87A	N91A		RIGID	None	None	RIGID	Typical
46	M70	N88A	N92A		RIGID	None	None	RIGID	Typical
47	M71	N89A	N93A		RIGID	None	None	RIGID	Typical
48	M72	N90A	N94		RIGID	None	None	RIGID	Typical
49	M73	N91A	N95	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
50	M74	N92A	N96	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
51	M75	N93A	N97	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
52	M76	N94	N98	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
53	M77	N99	N103		RIGID	None	None	RIGID	Typical
54	M78	N100	N104		RIGID	None	None	RIGID	Typical
55	M79	N101	N105		RIGID	None	None	RIGID	Typical
56	M80	N102	N106		RIGID	None	None	RIGID	Typical
57	M81	N103	N107	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
58	M82	N104	N108	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
59	M83	N105	N109	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
60	M84	N106	N110	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
61	M85	N111	N115		RIGID	None	None	RIGID	Typical
62	M86	N112	N116		RIGID	None	None	RIGID	Typical
63	M87	N113	N117		RIGID	None	None	RIGID	Typical
64	M88	N114	N118		RIGID	None	None	RIGID	Typical
65	M89	N115	N119	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
66	M90	N116	N120	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
67	M91	N117	N121	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
68	M92	N118	N122	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
69	M69A	N76	N75		RIGID	None	None	RIGID	Typical
70	M70A	N78	N77		RIGID	None	None	RIGID	Typical
71	M71A	N80	N79		RIGID	None	None	RIGID	Typical
72	M72A	N82	N89A		RIGID	None	None	RIGID	Typical
73	M73A	N84	N83		RIGID	None	None	RIGID	Typical
74	M74A	N86	N85		RIGID	None	None	RIGID	Typical
75	M75A	N88B	N87B		RIGID	None	None	RIGID	Typical
76	M76A	N89B	N101		RIGID	None	None	RIGID	Typical
77	M77A	N91B	N90B		RIGID	None	None	RIGID	Typical
78	M78A	N93B	N92B		RIGID	None	None	RIGID	Typical
79	M79A	N96A	N95A		RIGID	None	None	RIGID	Typical
80	M80A	N97A	N113		RIGID	None	None	RIGID	Typical
81	M81A	N99A	N98A		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
82	M82A	N101A	N100A		RIGID	None	None	RIGID	Typical
83	MP4A	N101B	N103A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
84	MP1A	N100B	N102A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
85	MP3A	N105A	N107A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
86	MP2A	N104A	N106A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
87	MP5A	N108A	N109A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
88	MP4C	N111A	N113A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
89	MP1C	N110A	N112A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
90	MP3C	N115A	N117A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
91	MP2C	N114A	N116A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
92	MP4B	N119A	N121A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
93	MP1B	N118A	N120A		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
94	MP3B	N123	N125		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
95	MP2B	N122A	N124		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
96	MP5B	N126	N127		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
97	M97	N131	N132		Kicker Kit	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical
98	M98	N133	N134		Kicker Kit	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical
99	M99	N135	N136		Kicker Kit	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
1	M4			Yes	N/A	None
2	M2		BenPIN	Yes	** NA **	None
3	M3		BenPIN	Yes	** NA **	None
4	M4A			Yes	** NA **	None
5	M5			Yes	** NA **	None
6	M6			Yes	** NA **	None
7	M7			Yes	** NA **	None
8	M8		BenPIN	Yes	** NA **	None
9	M9		BenPIN	Yes	** NA **	None
10	M10			Yes	** NA **	None
11	M11			Yes	** NA **	None
12	M12			Yes	** NA **	None
13	M13			Yes	** NA **	None
14	M14			Yes	N/A	None
15	M15		BenPIN	Yes	** NA **	None
16	M16		BenPIN	Yes	** NA **	None
17	M17			Yes	** NA **	None
18	M18			Yes	** NA **	None
19	M19			Yes	** NA **	None
20	M20			Yes	** NA **	None
21	M21		BenPIN	Yes	** NA **	None
22	M22		BenPIN	Yes	** NA **	None
23	M23			Yes	** NA **	None
24	M24			Yes	** NA **	None
25	M25			Yes	** NA **	None
26	M26			Yes	** NA **	None
27	M27			Yes	N/A	None
28	M28		BenPIN	Yes	** NA **	None
29	M29		BenPIN	Yes	** NA **	None
30	M30			Yes	** NA **	None
31	M31			Yes	** NA **	None
32	M32			Yes	** NA **	None
33	M33			Yes	** NA **	None
34	M34		BenPIN	Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
35	M35		BenPIN	Yes	** NA **	None
36	M36			Yes	** NA **	None
37	M37			Yes	** NA **	None
38	M38			Yes	** NA **	None
39	M39			Yes	** NA **	None
40	M40			Yes	N/A	None
41	M41			Yes	N/A	None
42	M42			Yes	N/A	None
43	O1			Yes	** NA **	None
44	M68			Yes	** NA **	None
45	M69			Yes	** NA **	None
46	M70			Yes	** NA **	None
47	M71			Yes	** NA **	None
48	M72			Yes	** NA **	None
49	M73			Yes	N/A	None
50	M74			Yes	N/A	None
51	M75			Yes	N/A	None
52	M76			Yes	N/A	None
53	M77			Yes	** NA **	None
54	M78			Yes	** NA **	None
55	M79			Yes	** NA **	None
56	M80			Yes	** NA **	None
57	M81			Yes	N/A	None
58	M82			Yes	N/A	None
59	M83			Yes	N/A	None
60	M84			Yes	N/A	None
61	M85			Yes	** NA **	None
62	M86			Yes	** NA **	None
63	M87			Yes	** NA **	None
64	M88			Yes	** NA **	None
65	M89			Yes	N/A	None
66	M90			Yes	N/A	None
67	M91			Yes	N/A	None
68	M92			Yes	N/A	None
69	M69A			Yes	** NA **	None
70	M70A			Yes	** NA **	None
71	M71A			Yes	** NA **	None
72	M72A			Yes	** NA **	None
73	M73A			Yes	** NA **	None
74	M74A			Yes	** NA **	None
75	M75A			Yes	** NA **	None
76	M76A			Yes	** NA **	None
77	M77A			Yes	** NA **	None
78	M78A			Yes	** NA **	None
79	M79A			Yes	** NA **	None
80	M80A			Yes	** NA **	None
81	M81A			Yes	** NA **	None
82	M82A			Yes	** NA **	None
83	MP4A			Yes	** NA **	None
84	MP1A			Yes	** NA **	None
85	MP3A			Yes	** NA **	None
86	MP2A			Yes	** NA **	None
87	MP5A			Yes	** NA **	None
88	MP4C			Yes	** NA **	None
89	MP1C			Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
90	MP3C			Yes	** NA **	None
91	MP2C			Yes	** NA **	None
92	MP4B			Yes	** NA **	None
93	MP1B			Yes	** NA **	None
94	MP3B			Yes	** NA **	None
95	MP2B			Yes	** NA **	None
96	MP5B			Yes	** NA **	None
97	M97	BenPIN	BenPIN	Yes	N/A	None
98	M98	BenPIN	BenPIN	Yes	N/A	None
99	M99	BenPIN	BenPIN	Yes	N/A	None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	Y	-34.5	0.5
2	MP2B	My	0.02	0.5
3	MP2B	Mz	-0.029	0.5
4	MP2B	Y	-34.5	4.5
5	MP2B	My	0.02	4.5
6	MP2B	Mz	-0.029	4.5
7	MP2C	Y	-34.5	0.5
8	MP2C	My	0.015	0.5
9	MP2C	Mz	0.032	0.5
10	MP2C	Y	-34.5	4.5
11	MP2C	My	0.015	4.5
12	MP2C	Mz	0.032	4.5
13	MP2B	Y	-34.5	0.5
14	MP2B	My	-0.02	0.5
15	MP2B	Mz	-0.029	0.5
16	MP2B	Y	-34.5	4.5
17	MP2B	My	-0.02	4.5
18	MP2B	Mz	-0.029	4.5
19	MP2C	Y	-34.5	0.5
20	MP2C	My	0.035	0.5
21	MP2C	Mz	-0.003	0.5
22	MP2C	Y	-34.5	4.5
23	MP2C	My	0.035	4.5
24	MP2C	Mz	-0.003	4.5
25	MP2A	Y	-43.5	0.5
26	MP2A	My	-0.036	0.5
27	MP2A	Mz	-0.036	0.5
28	MP2A	Y	-43.5	4.5
29	MP2A	My	-0.036	4.5
30	MP2A	Mz	-0.036	4.5
31	MP2A	Y	-43.5	0.5
32	MP2A	My	-0.036	0.5
33	MP2A	Mz	0.036	0.5
34	MP2A	Y	-43.5	4.5
35	MP2A	My	-0.036	4.5
36	MP2A	Mz	0.036	4.5
37	MP1A	Y	-28.65	1.5
38	MP1A	My	-0.024	1.5
39	MP1A	Mz	0	1.5
40	MP1A	Y	-28.65	3.5
41	MP1A	My	-0.024	3.5
42	MP1A	Mz	0	3.5

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
43	MP1B	Y	-28.65	1.5
44	MP1B	My	0	1.5
45	MP1B	Mz	-0.024	1.5
46	MP1B	Y	-28.65	3.5
47	MP1B	My	0	3.5
48	MP1B	Mz	-0.024	3.5
49	MP1C	Y	-28.65	1.5
50	MP1C	My	0.021	1.5
51	MP1C	Mz	0.012	1.5
52	MP1C	Y	-28.65	3.5
53	MP1C	My	0.021	3.5
54	MP1C	Mz	0.012	3.5
55	O1	Y	-32	1
56	O1	My	0	1
57	O1	Mz	0	1
58	MP3A	Y	-74.7	1
59	MP3A	My	0.037	1
60	MP3A	Mz	0	1
61	MP3B	Y	-74.7	1
62	MP3B	My	-0.019	1
63	MP3B	Mz	0.032	1
64	MP3C	Y	-74.7	1
65	MP3C	My	-0.019	1
66	MP3C	Mz	-0.032	1
67	MP2A	Y	-70.3	1
68	MP2A	My	0.035	1
69	MP2A	Mz	0	1
70	MP2B	Y	-70.3	1
71	MP2B	My	-0.018	1
72	MP2B	Mz	0.03	1
73	MP2C	Y	-70.3	1
74	MP2C	My	-0.018	1
75	MP2C	Mz	-0.03	1
76	MP5A	Y	-55	1
77	MP5A	My	0	1
78	MP5A	Mz	0	1
79	MP5B	Y	-55	1
80	MP5B	My	0	1
81	MP5B	Mz	0	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	Y	-69.375	0.5
2	MP2B	My	0.04	0.5
3	MP2B	Mz	-0.058	0.5
4	MP2B	Y	-69.375	4.5
5	MP2B	My	0.04	4.5
6	MP2B	Mz	-0.058	4.5
7	MP2C	Y	-69.375	0.5
8	MP2C	My	0.03	0.5
9	MP2C	Mz	0.064	0.5
10	MP2C	Y	-69.375	4.5
11	MP2C	My	0.03	4.5
12	MP2C	Mz	0.064	4.5
13	MP2B	Y	-69.375	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
14	MP2B	My	-0.04	0.5
15	MP2B	Mz	-0.058	0.5
16	MP2B	Y	-69.375	4.5
17	MP2B	My	-0.04	4.5
18	MP2B	Mz	-0.058	4.5
19	MP2C	Y	-69.375	0.5
20	MP2C	My	0.07	0.5
21	MP2C	Mz	-0.006	0.5
22	MP2C	Y	-69.375	4.5
23	MP2C	My	0.07	4.5
24	MP2C	Mz	-0.006	4.5
25	MP2A	Y	-93.063	0.5
26	MP2A	My	-0.078	0.5
27	MP2A	Mz	-0.078	0.5
28	MP2A	Y	-93.063	4.5
29	MP2A	My	-0.078	4.5
30	MP2A	Mz	-0.078	4.5
31	MP2A	Y	-93.063	0.5
32	MP2A	My	-0.078	0.5
33	MP2A	Mz	0.078	0.5
34	MP2A	Y	-93.063	4.5
35	MP2A	My	-0.078	4.5
36	MP2A	Mz	0.078	4.5
37	MP1A	Y	-28.487	1.5
38	MP1A	My	-0.024	1.5
39	MP1A	Mz	0	1.5
40	MP1A	Y	-28.487	3.5
41	MP1A	My	-0.024	3.5
42	MP1A	Mz	0	3.5
43	MP1B	Y	-28.487	1.5
44	MP1B	My	0	1.5
45	MP1B	Mz	-0.024	1.5
46	MP1B	Y	-28.487	3.5
47	MP1B	My	0	3.5
48	MP1B	Mz	-0.024	3.5
49	MP1C	Y	-28.487	1.5
50	MP1C	My	0.021	1.5
51	MP1C	Mz	0.012	1.5
52	MP1C	Y	-28.487	3.5
53	MP1C	My	0.021	3.5
54	MP1C	Mz	0.012	3.5
55	O1	Y	-72.706	1
56	O1	My	0	1
57	O1	Mz	0	1
58	MP3A	Y	-42.938	1
59	MP3A	My	0.021	1
60	MP3A	Mz	0	1
61	MP3B	Y	-42.938	1
62	MP3B	My	-0.011	1
63	MP3B	Mz	0.019	1
64	MP3C	Y	-42.938	1
65	MP3C	My	-0.011	1
66	MP3C	Mz	-0.019	1
67	MP2A	Y	-40.884	1
68	MP2A	My	0.02	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
69	MP2A	Mz	0	1
70	MP2B	Y	-40.884	1
71	MP2B	My	-0.01	1
72	MP2B	Mz	0.018	1
73	MP2C	Y	-40.884	1
74	MP2C	My	-0.01	1
75	MP2C	Mz	-0.018	1
76	MP5A	Y	-42.192	1
77	MP5A	My	0	1
78	MP5A	Mz	0	1
79	MP5B	Y	-42.192	1
80	MP5B	My	0	1
81	MP5B	Mz	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	0	0.5
2	MP2B	Z	-47.598	0.5
3	MP2B	Mx	0.04	0.5
4	MP2B	X	0	4.5
5	MP2B	Z	-47.598	4.5
6	MP2B	Mx	0.04	4.5
7	MP2C	X	0	0.5
8	MP2C	Z	-40.258	0.5
9	MP2C	Mx	-0.037	0.5
10	MP2C	X	0	4.5
11	MP2C	Z	-40.258	4.5
12	MP2C	Mx	-0.037	4.5
13	MP2B	X	0	0.5
14	MP2B	Z	-47.598	0.5
15	MP2B	Mx	0.04	0.5
16	MP2B	X	0	4.5
17	MP2B	Z	-47.598	4.5
18	MP2B	Mx	0.04	4.5
19	MP2C	X	0	0.5
20	MP2C	Z	-40.258	0.5
21	MP2C	Mx	0.004	0.5
22	MP2C	X	0	4.5
23	MP2C	Z	-40.258	4.5
24	MP2C	Mx	0.004	4.5
25	MP2A	X	0	0.5
26	MP2A	Z	-106.762	0.5
27	MP2A	Mx	0.089	0.5
28	MP2A	X	0	4.5
29	MP2A	Z	-106.762	4.5
30	MP2A	Mx	0.089	4.5
31	MP2A	X	0	0.5
32	MP2A	Z	-106.762	0.5
33	MP2A	Mx	-0.089	0.5
34	MP2A	X	0	4.5
35	MP2A	Z	-106.762	4.5
36	MP2A	Mx	-0.089	4.5
37	MP1A	X	0	1.5
38	MP1A	Z	-46.857	1.5
39	MP1A	Mx	0	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
40	MP1A	X	0	3.5
41	MP1A	Z	-46.857	3.5
42	MP1A	Mx	0	3.5
43	MP1B	X	0	1.5
44	MP1B	Z	-16.459	1.5
45	MP1B	Mx	0.014	1.5
46	MP1B	X	0	3.5
47	MP1B	Z	-16.459	3.5
48	MP1B	Mx	0.014	3.5
49	MP1C	X	0	1.5
50	MP1C	Z	-39.257	1.5
51	MP1C	Mx	-0.016	1.5
52	MP1C	X	0	3.5
53	MP1C	Z	-39.257	3.5
54	MP1C	Mx	-0.016	3.5
55	O1	X	0	1
56	O1	Z	-94.01	1
57	O1	Mx	0	1
58	MP3A	X	0	1
59	MP3A	Z	-45.967	1
60	MP3A	Mx	0	1
61	MP3B	X	0	1
62	MP3B	Z	-34.624	1
63	MP3B	Mx	-0.015	1
64	MP3C	X	0	1
65	MP3C	Z	-34.624	1
66	MP3C	Mx	0.015	1
67	MP2A	X	0	1
68	MP2A	Z	-45.967	1
69	MP2A	Mx	0	1
70	MP2B	X	0	1
71	MP2B	Z	-32.399	1
72	MP2B	Mx	-0.014	1
73	MP2C	X	0	1
74	MP2C	Z	-32.399	1
75	MP2C	Mx	0.014	1
76	MP5A	X	0	1
77	MP5A	Z	-142.35	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	-142.35	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	22.576	0.5
2	MP2B	Z	-39.102	0.5
3	MP2B	Mx	0.046	0.5
4	MP2B	X	22.576	4.5
5	MP2B	Z	-39.102	4.5
6	MP2B	Mx	0.046	4.5
7	MP2C	X	18.906	0.5
8	MP2C	Z	-32.746	0.5
9	MP2C	Mx	-0.022	0.5
10	MP2C	X	18.906	4.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
11	MP2C	Z	-32.746	4.5
12	MP2C	Mx	-0.022	4.5
13	MP2B	X	22.576	0.5
14	MP2B	Z	-39.102	0.5
15	MP2B	Mx	0.019	0.5
16	MP2B	X	22.576	4.5
17	MP2B	Z	-39.102	4.5
18	MP2B	Mx	0.019	4.5
19	MP2C	X	18.906	0.5
20	MP2C	Z	-32.746	0.5
21	MP2C	Mx	0.022	0.5
22	MP2C	X	18.906	4.5
23	MP2C	Z	-32.746	4.5
24	MP2C	Mx	0.022	4.5
25	MP2A	X	46.634	0.5
26	MP2A	Z	-80.773	0.5
27	MP2A	Mx	0.028	0.5
28	MP2A	X	46.634	4.5
29	MP2A	Z	-80.773	4.5
30	MP2A	Mx	0.028	4.5
31	MP2A	X	46.634	0.5
32	MP2A	Z	-80.773	0.5
33	MP2A	Mx	-0.106	0.5
34	MP2A	X	46.634	4.5
35	MP2A	Z	-80.773	4.5
36	MP2A	Mx	-0.106	4.5
37	MP1A	X	19.629	1.5
38	MP1A	Z	-33.998	1.5
39	MP1A	Mx	-0.016	1.5
40	MP1A	X	19.629	3.5
41	MP1A	Z	-33.998	3.5
42	MP1A	Mx	-0.016	3.5
43	MP1B	X	12.029	1.5
44	MP1B	Z	-20.835	1.5
45	MP1B	Mx	0.017	1.5
46	MP1B	X	12.029	3.5
47	MP1B	Z	-20.835	3.5
48	MP1B	Mx	0.017	3.5
49	MP1C	X	23.428	1.5
50	MP1C	Z	-40.579	1.5
51	MP1C	Mx	0	1.5
52	MP1C	X	23.428	3.5
53	MP1C	Z	-40.579	3.5
54	MP1C	Mx	0	3.5
55	O1	X	44.188	1
56	O1	Z	-76.535	1
57	O1	Mx	0	1
58	MP3A	X	21.093	1
59	MP3A	Z	-36.534	1
60	MP3A	Mx	0.011	1
61	MP3B	X	15.421	1
62	MP3B	Z	-26.71	1
63	MP3B	Mx	-0.015	1
64	MP3C	X	21.093	1
65	MP3C	Z	-36.534	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
66	MP3C	Mx	0.011	1
67	MP2A	X	20.722	1
68	MP2A	Z	-35.892	1
69	MP2A	Mx	0.01	1
70	MP2B	X	13.938	1
71	MP2B	Z	-24.142	1
72	MP2B	Mx	-0.014	1
73	MP2C	X	20.722	1
74	MP2C	Z	-35.892	1
75	MP2C	Mx	0.01	1
76	MP5A	X	53.381	1
77	MP5A	Z	-92.459	1
78	MP5A	Mx	0	1
79	MP5B	X	53.381	1
80	MP5B	Z	-92.459	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	34.865	0.5
2	MP2B	Z	-20.129	0.5
3	MP2B	Mx	0.037	0.5
4	MP2B	X	34.865	4.5
5	MP2B	Z	-20.129	4.5
6	MP2B	Mx	0.037	4.5
7	MP2C	X	34.865	0.5
8	MP2C	Z	-20.129	0.5
9	MP2C	Mx	-0.004	0.5
10	MP2C	X	34.865	4.5
11	MP2C	Z	-20.129	4.5
12	MP2C	Mx	-0.004	4.5
13	MP2B	X	34.865	0.5
14	MP2B	Z	-20.129	0.5
15	MP2B	Mx	-0.004	0.5
16	MP2B	X	34.865	4.5
17	MP2B	Z	-20.129	4.5
18	MP2B	Mx	-0.004	4.5
19	MP2C	X	34.865	0.5
20	MP2C	Z	-20.129	0.5
21	MP2C	Mx	0.037	0.5
22	MP2C	X	34.865	4.5
23	MP2C	Z	-20.129	4.5
24	MP2C	Mx	0.037	4.5
25	MP2A	X	57.402	0.5
26	MP2A	Z	-33.141	0.5
27	MP2A	Mx	-0.02	0.5
28	MP2A	X	57.402	4.5
29	MP2A	Z	-33.141	4.5
30	MP2A	Mx	-0.02	4.5
31	MP2A	X	57.402	0.5
32	MP2A	Z	-33.141	0.5
33	MP2A	Mx	-0.075	0.5
34	MP2A	X	57.402	4.5
35	MP2A	Z	-33.141	4.5
36	MP2A	Mx	-0.075	4.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
37	MP1A	X	20.835	1.5
38	MP1A	Z	-12.029	1.5
39	MP1A	Mx	-0.017	1.5
40	MP1A	X	20.835	3.5
41	MP1A	Z	-12.029	3.5
42	MP1A	Mx	-0.017	3.5
43	MP1B	X	33.998	1.5
44	MP1B	Z	-19.629	1.5
45	MP1B	Mx	0.016	1.5
46	MP1B	X	33.998	3.5
47	MP1B	Z	-19.629	3.5
48	MP1B	Mx	0.016	3.5
49	MP1C	X	33.998	1.5
50	MP1C	Z	-19.629	1.5
51	MP1C	Mx	0.016	1.5
52	MP1C	X	33.998	3.5
53	MP1C	Z	-19.629	3.5
54	MP1C	Mx	0.016	3.5
55	O1	X	66.776	1
56	O1	Z	-38.553	1
57	O1	Mx	0	1
58	MP3A	X	29.985	1
59	MP3A	Z	-17.312	1
60	MP3A	Mx	0.015	1
61	MP3B	X	29.985	1
62	MP3B	Z	-17.312	1
63	MP3B	Mx	-0.015	1
64	MP3C	X	39.809	1
65	MP3C	Z	-22.984	1
66	MP3C	Mx	0	1
67	MP2A	X	28.059	1
68	MP2A	Z	-16.2	1
69	MP2A	Mx	0.014	1
70	MP2B	X	28.059	1
71	MP2B	Z	-16.2	1
72	MP2B	Mx	-0.014	1
73	MP2C	X	39.809	1
74	MP2C	Z	-22.984	1
75	MP2C	Mx	0	1
76	MP5A	X	30.82	1
77	MP5A	Z	-17.794	1
78	MP5A	Mx	0	1
79	MP5B	X	30.82	1
80	MP5B	Z	-17.794	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	37.812	0.5
2	MP2B	Z	0	0.5
3	MP2B	Mx	0.022	0.5
4	MP2B	X	37.812	4.5
5	MP2B	Z	0	4.5
6	MP2B	Mx	0.022	4.5
7	MP2C	X	45.152	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
8	MP2C	Z	0	0.5
9	MP2C	Mx	0.019	0.5
10	MP2C	X	45.152	4.5
11	MP2C	Z	0	4.5
12	MP2C	Mx	0.019	4.5
13	MP2B	X	37.812	0.5
14	MP2B	Z	0	0.5
15	MP2B	Mx	-0.022	0.5
16	MP2B	X	37.812	4.5
17	MP2B	Z	0	4.5
18	MP2B	Mx	-0.022	4.5
19	MP2C	X	45.152	0.5
20	MP2C	Z	0	0.5
21	MP2C	Mx	0.046	0.5
22	MP2C	X	45.152	4.5
23	MP2C	Z	0	4.5
24	MP2C	Mx	0.046	4.5
25	MP2A	X	52.788	0.5
26	MP2A	Z	0	0.5
27	MP2A	Mx	-0.044	0.5
28	MP2A	X	52.788	4.5
29	MP2A	Z	0	4.5
30	MP2A	Mx	-0.044	4.5
31	MP2A	X	52.788	0.5
32	MP2A	Z	0	0.5
33	MP2A	Mx	-0.044	0.5
34	MP2A	X	52.788	4.5
35	MP2A	Z	0	4.5
36	MP2A	Mx	-0.044	4.5
37	MP1A	X	16.459	1.5
38	MP1A	Z	0	1.5
39	MP1A	Mx	-0.014	1.5
40	MP1A	X	16.459	3.5
41	MP1A	Z	0	3.5
42	MP1A	Mx	-0.014	3.5
43	MP1B	X	46.857	1.5
44	MP1B	Z	0	1.5
45	MP1B	Mx	0	1.5
46	MP1B	X	46.857	3.5
47	MP1B	Z	0	3.5
48	MP1B	Mx	0	3.5
49	MP1C	X	24.059	1.5
50	MP1C	Z	0	1.5
51	MP1C	Mx	0.017	1.5
52	MP1C	X	24.059	3.5
53	MP1C	Z	0	3.5
54	MP1C	Mx	0.017	3.5
55	O1	X	71.471	1
56	O1	Z	0	1
57	O1	Mx	0	1
58	MP3A	X	30.842	1
59	MP3A	Z	0	1
60	MP3A	Mx	0.015	1
61	MP3B	X	42.186	1
62	MP3B	Z	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
63	MP3B	Mx	-0.011	1
64	MP3C	X	42.186	1
65	MP3C	Z	0	1
66	MP3C	Mx	-0.011	1
67	MP2A	X	27.877	1
68	MP2A	Z	0	1
69	MP2A	Mx	0.014	1
70	MP2B	X	41.445	1
71	MP2B	Z	0	1
72	MP2B	Mx	-0.01	1
73	MP2C	X	41.445	1
74	MP2C	Z	0	1
75	MP2C	Mx	-0.01	1
76	MP5A	X	0	1
77	MP5A	Z	0	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	0	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	34.865	0.5
2	MP2B	Z	20.129	0.5
3	MP2B	Mx	0.004	0.5
4	MP2B	X	34.865	4.5
5	MP2B	Z	20.129	4.5
6	MP2B	Mx	0.004	4.5
7	MP2C	X	41.221	0.5
8	MP2C	Z	23.799	0.5
9	MP2C	Mx	0.04	0.5
10	MP2C	X	41.221	4.5
11	MP2C	Z	23.799	4.5
12	MP2C	Mx	0.04	4.5
13	MP2B	X	34.865	0.5
14	MP2B	Z	20.129	0.5
15	MP2B	Mx	-0.037	0.5
16	MP2B	X	34.865	4.5
17	MP2B	Z	20.129	4.5
18	MP2B	Mx	-0.037	4.5
19	MP2C	X	41.221	0.5
20	MP2C	Z	23.799	0.5
21	MP2C	Mx	0.04	0.5
22	MP2C	X	41.221	4.5
23	MP2C	Z	23.799	4.5
24	MP2C	Mx	0.04	4.5
25	MP2A	X	57.402	0.5
26	MP2A	Z	33.141	0.5
27	MP2A	Mx	-0.075	0.5
28	MP2A	X	57.402	4.5
29	MP2A	Z	33.141	4.5
30	MP2A	Mx	-0.075	4.5
31	MP2A	X	57.402	0.5
32	MP2A	Z	33.141	0.5
33	MP2A	Mx	-0.02	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
34	MP2A	X	57.402	4.5
35	MP2A	Z	33.141	4.5
36	MP2A	Mx	-0.02	4.5
37	MP1A	X	20.835	1.5
38	MP1A	Z	12.029	1.5
39	MP1A	Mx	-0.017	1.5
40	MP1A	X	20.835	3.5
41	MP1A	Z	12.029	3.5
42	MP1A	Mx	-0.017	3.5
43	MP1B	X	33.998	1.5
44	MP1B	Z	19.629	1.5
45	MP1B	Mx	-0.016	1.5
46	MP1B	X	33.998	3.5
47	MP1B	Z	19.629	3.5
48	MP1B	Mx	-0.016	3.5
49	MP1C	X	14.254	1.5
50	MP1C	Z	8.23	1.5
51	MP1C	Mx	0.014	1.5
52	MP1C	X	14.254	3.5
53	MP1C	Z	8.23	3.5
54	MP1C	Mx	0.014	3.5
55	O1	X	66.776	1
56	O1	Z	38.553	1
57	O1	Mx	0	1
58	MP3A	X	29.985	1
59	MP3A	Z	17.312	1
60	MP3A	Mx	0.015	1
61	MP3B	X	39.809	1
62	MP3B	Z	22.984	1
63	MP3B	Mx	0	1
64	MP3C	X	29.985	1
65	MP3C	Z	17.312	1
66	MP3C	Mx	-0.015	1
67	MP2A	X	28.059	1
68	MP2A	Z	16.2	1
69	MP2A	Mx	0.014	1
70	MP2B	X	39.809	1
71	MP2B	Z	22.984	1
72	MP2B	Mx	0	1
73	MP2C	X	28.059	1
74	MP2C	Z	16.2	1
75	MP2C	Mx	-0.014	1
76	MP5A	X	30.82	1
77	MP5A	Z	17.794	1
78	MP5A	Mx	0	1
79	MP5B	X	30.82	1
80	MP5B	Z	17.794	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	22.576	0.5
2	MP2B	Z	39.102	0.5
3	MP2B	Mx	-0.019	0.5
4	MP2B	X	22.576	4.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP2B	Z	39.102	4.5
6	MP2B	Mx	-0.019	4.5
7	MP2C	X	22.576	0.5
8	MP2C	Z	39.102	0.5
9	MP2C	Mx	0.046	0.5
10	MP2C	X	22.576	4.5
11	MP2C	Z	39.102	4.5
12	MP2C	Mx	0.046	4.5
13	MP2B	X	22.576	0.5
14	MP2B	Z	39.102	0.5
15	MP2B	Mx	-0.046	0.5
16	MP2B	X	22.576	4.5
17	MP2B	Z	39.102	4.5
18	MP2B	Mx	-0.046	4.5
19	MP2C	X	22.576	0.5
20	MP2C	Z	39.102	0.5
21	MP2C	Mx	0.019	0.5
22	MP2C	X	22.576	4.5
23	MP2C	Z	39.102	4.5
24	MP2C	Mx	0.019	4.5
25	MP2A	X	46.634	0.5
26	MP2A	Z	80.773	0.5
27	MP2A	Mx	-0.106	0.5
28	MP2A	X	46.634	4.5
29	MP2A	Z	80.773	4.5
30	MP2A	Mx	-0.106	4.5
31	MP2A	X	46.634	0.5
32	MP2A	Z	80.773	0.5
33	MP2A	Mx	0.028	0.5
34	MP2A	X	46.634	4.5
35	MP2A	Z	80.773	4.5
36	MP2A	Mx	0.028	4.5
37	MP1A	X	19.629	1.5
38	MP1A	Z	33.998	1.5
39	MP1A	Mx	-0.016	1.5
40	MP1A	X	19.629	3.5
41	MP1A	Z	33.998	3.5
42	MP1A	Mx	-0.016	3.5
43	MP1B	X	12.029	1.5
44	MP1B	Z	20.835	1.5
45	MP1B	Mx	-0.017	1.5
46	MP1B	X	12.029	3.5
47	MP1B	Z	20.835	3.5
48	MP1B	Mx	-0.017	3.5
49	MP1C	X	12.029	1.5
50	MP1C	Z	20.835	1.5
51	MP1C	Mx	0.017	1.5
52	MP1C	X	12.029	3.5
53	MP1C	Z	20.835	3.5
54	MP1C	Mx	0.017	3.5
55	O1	X	44.188	1
56	O1	Z	76.535	1
57	O1	Mx	0	1
58	MP3A	X	21.093	1
59	MP3A	Z	36.534	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
60	MP3A	Mx	0.011	1
61	MP3B	X	21.093	1
62	MP3B	Z	36.534	1
63	MP3B	Mx	0.011	1
64	MP3C	X	15.421	1
65	MP3C	Z	26.71	1
66	MP3C	Mx	-0.015	1
67	MP2A	X	20.722	1
68	MP2A	Z	35.892	1
69	MP2A	Mx	0.01	1
70	MP2B	X	20.722	1
71	MP2B	Z	35.892	1
72	MP2B	Mx	0.01	1
73	MP2C	X	13.938	1
74	MP2C	Z	24.142	1
75	MP2C	Mx	-0.014	1
76	MP5A	X	53.381	1
77	MP5A	Z	92.459	1
78	MP5A	Mx	0	1
79	MP5B	X	53.381	1
80	MP5B	Z	92.459	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	0	0.5
2	MP2B	Z	47.598	0.5
3	MP2B	Mx	-0.04	0.5
4	MP2B	X	0	4.5
5	MP2B	Z	47.598	4.5
6	MP2B	Mx	-0.04	4.5
7	MP2C	X	0	0.5
8	MP2C	Z	40.258	0.5
9	MP2C	Mx	0.037	0.5
10	MP2C	X	0	4.5
11	MP2C	Z	40.258	4.5
12	MP2C	Mx	0.037	4.5
13	MP2B	X	0	0.5
14	MP2B	Z	47.598	0.5
15	MP2B	Mx	-0.04	0.5
16	MP2B	X	0	4.5
17	MP2B	Z	47.598	4.5
18	MP2B	Mx	-0.04	4.5
19	MP2C	X	0	0.5
20	MP2C	Z	40.258	0.5
21	MP2C	Mx	-0.004	0.5
22	MP2C	X	0	4.5
23	MP2C	Z	40.258	4.5
24	MP2C	Mx	-0.004	4.5
25	MP2A	X	0	0.5
26	MP2A	Z	106.762	0.5
27	MP2A	Mx	-0.089	0.5
28	MP2A	X	0	4.5
29	MP2A	Z	106.762	4.5
30	MP2A	Mx	-0.089	4.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
31	MP2A	X	0	0.5
32	MP2A	Z	106.762	0.5
33	MP2A	Mx	0.089	0.5
34	MP2A	X	0	4.5
35	MP2A	Z	106.762	4.5
36	MP2A	Mx	0.089	4.5
37	MP1A	X	0	1.5
38	MP1A	Z	46.857	1.5
39	MP1A	Mx	0	1.5
40	MP1A	X	0	3.5
41	MP1A	Z	46.857	3.5
42	MP1A	Mx	0	3.5
43	MP1B	X	0	1.5
44	MP1B	Z	16.459	1.5
45	MP1B	Mx	-0.014	1.5
46	MP1B	X	0	3.5
47	MP1B	Z	16.459	3.5
48	MP1B	Mx	-0.014	3.5
49	MP1C	X	0	1.5
50	MP1C	Z	39.257	1.5
51	MP1C	Mx	0.016	1.5
52	MP1C	X	0	3.5
53	MP1C	Z	39.257	3.5
54	MP1C	Mx	0.016	3.5
55	O1	X	0	1
56	O1	Z	94.01	1
57	O1	Mx	0	1
58	MP3A	X	0	1
59	MP3A	Z	45.967	1
60	MP3A	Mx	0	1
61	MP3B	X	0	1
62	MP3B	Z	34.624	1
63	MP3B	Mx	0.015	1
64	MP3C	X	0	1
65	MP3C	Z	34.624	1
66	MP3C	Mx	-0.015	1
67	MP2A	X	0	1
68	MP2A	Z	45.967	1
69	MP2A	Mx	0	1
70	MP2B	X	0	1
71	MP2B	Z	32.399	1
72	MP2B	Mx	0.014	1
73	MP2C	X	0	1
74	MP2C	Z	32.399	1
75	MP2C	Mx	-0.014	1
76	MP5A	X	0	1
77	MP5A	Z	142.35	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	142.35	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-22.576	0.5
2	MP2B	Z	39.102	0.5
3	MP2B	Mx	-0.046	0.5
4	MP2B	X	-22.576	4.5
5	MP2B	Z	39.102	4.5
6	MP2B	Mx	-0.046	4.5
7	MP2C	X	-18.906	0.5
8	MP2C	Z	32.746	0.5
9	MP2C	Mx	0.022	0.5
10	MP2C	X	-18.906	4.5
11	MP2C	Z	32.746	4.5
12	MP2C	Mx	0.022	4.5
13	MP2B	X	-22.576	0.5
14	MP2B	Z	39.102	0.5
15	MP2B	Mx	-0.019	0.5
16	MP2B	X	-22.576	4.5
17	MP2B	Z	39.102	4.5
18	MP2B	Mx	-0.019	4.5
19	MP2C	X	-18.906	0.5
20	MP2C	Z	32.746	0.5
21	MP2C	Mx	-0.022	0.5
22	MP2C	X	-18.906	4.5
23	MP2C	Z	32.746	4.5
24	MP2C	Mx	-0.022	4.5
25	MP2A	X	-46.634	0.5
26	MP2A	Z	80.773	0.5
27	MP2A	Mx	-0.028	0.5
28	MP2A	X	-46.634	4.5
29	MP2A	Z	80.773	4.5
30	MP2A	Mx	-0.028	4.5
31	MP2A	X	-46.634	0.5
32	MP2A	Z	80.773	0.5
33	MP2A	Mx	0.106	0.5
34	MP2A	X	-46.634	4.5
35	MP2A	Z	80.773	4.5
36	MP2A	Mx	0.106	4.5
37	MP1A	X	-19.629	1.5
38	MP1A	Z	33.998	1.5
39	MP1A	Mx	0.016	1.5
40	MP1A	X	-19.629	3.5
41	MP1A	Z	33.998	3.5
42	MP1A	Mx	0.016	3.5
43	MP1B	X	-12.029	1.5
44	MP1B	Z	20.835	1.5
45	MP1B	Mx	-0.017	1.5
46	MP1B	X	-12.029	3.5
47	MP1B	Z	20.835	3.5
48	MP1B	Mx	-0.017	3.5
49	MP1C	X	-23.428	1.5
50	MP1C	Z	40.579	1.5
51	MP1C	Mx	0	1.5
52	MP1C	X	-23.428	3.5
53	MP1C	Z	40.579	3.5
54	MP1C	Mx	0	3.5
55	O1	X	-44.188	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	76.535	1
57	O1	Mx	0	1
58	MP3A	X	-21.093	1
59	MP3A	Z	36.534	1
60	MP3A	Mx	-0.011	1
61	MP3B	X	-15.421	1
62	MP3B	Z	26.71	1
63	MP3B	Mx	0.015	1
64	MP3C	X	-21.093	1
65	MP3C	Z	36.534	1
66	MP3C	Mx	-0.011	1
67	MP2A	X	-20.722	1
68	MP2A	Z	35.892	1
69	MP2A	Mx	-0.01	1
70	MP2B	X	-13.938	1
71	MP2B	Z	24.142	1
72	MP2B	Mx	0.014	1
73	MP2C	X	-20.722	1
74	MP2C	Z	35.892	1
75	MP2C	Mx	-0.01	1
76	MP5A	X	-53.381	1
77	MP5A	Z	92.459	1
78	MP5A	Mx	0	1
79	MP5B	X	-53.381	1
80	MP5B	Z	92.459	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-34.865	0.5
2	MP2B	Z	20.129	0.5
3	MP2B	Mx	-0.037	0.5
4	MP2B	X	-34.865	4.5
5	MP2B	Z	20.129	4.5
6	MP2B	Mx	-0.037	4.5
7	MP2C	X	-34.865	0.5
8	MP2C	Z	20.129	0.5
9	MP2C	Mx	0.004	0.5
10	MP2C	X	-34.865	4.5
11	MP2C	Z	20.129	4.5
12	MP2C	Mx	0.004	4.5
13	MP2B	X	-34.865	0.5
14	MP2B	Z	20.129	0.5
15	MP2B	Mx	0.004	0.5
16	MP2B	X	-34.865	4.5
17	MP2B	Z	20.129	4.5
18	MP2B	Mx	0.004	4.5
19	MP2C	X	-34.865	0.5
20	MP2C	Z	20.129	0.5
21	MP2C	Mx	-0.037	0.5
22	MP2C	X	-34.865	4.5
23	MP2C	Z	20.129	4.5
24	MP2C	Mx	-0.037	4.5
25	MP2A	X	-57.402	0.5
26	MP2A	Z	33.141	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.02	0.5
28	MP2A	X	-57.402	4.5
29	MP2A	Z	33.141	4.5
30	MP2A	Mx	0.02	4.5
31	MP2A	X	-57.402	0.5
32	MP2A	Z	33.141	0.5
33	MP2A	Mx	0.075	0.5
34	MP2A	X	-57.402	4.5
35	MP2A	Z	33.141	4.5
36	MP2A	Mx	0.075	4.5
37	MP1A	X	-20.835	1.5
38	MP1A	Z	12.029	1.5
39	MP1A	Mx	0.017	1.5
40	MP1A	X	-20.835	3.5
41	MP1A	Z	12.029	3.5
42	MP1A	Mx	0.017	3.5
43	MP1B	X	-33.998	1.5
44	MP1B	Z	19.629	1.5
45	MP1B	Mx	-0.016	1.5
46	MP1B	X	-33.998	3.5
47	MP1B	Z	19.629	3.5
48	MP1B	Mx	-0.016	3.5
49	MP1C	X	-33.998	1.5
50	MP1C	Z	19.629	1.5
51	MP1C	Mx	-0.016	1.5
52	MP1C	X	-33.998	3.5
53	MP1C	Z	19.629	3.5
54	MP1C	Mx	-0.016	3.5
55	O1	X	-66.776	1
56	O1	Z	38.553	1
57	O1	Mx	0	1
58	MP3A	X	-29.985	1
59	MP3A	Z	17.312	1
60	MP3A	Mx	-0.015	1
61	MP3B	X	-29.985	1
62	MP3B	Z	17.312	1
63	MP3B	Mx	0.015	1
64	MP3C	X	-39.809	1
65	MP3C	Z	22.984	1
66	MP3C	Mx	0	1
67	MP2A	X	-28.059	1
68	MP2A	Z	16.2	1
69	MP2A	Mx	-0.014	1
70	MP2B	X	-28.059	1
71	MP2B	Z	16.2	1
72	MP2B	Mx	0.014	1
73	MP2C	X	-39.809	1
74	MP2C	Z	22.984	1
75	MP2C	Mx	0	1
76	MP5A	X	-30.82	1
77	MP5A	Z	17.794	1
78	MP5A	Mx	0	1
79	MP5B	X	-30.82	1
80	MP5B	Z	17.794	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-37.812	0.5
2	MP2B	Z	0	0.5
3	MP2B	Mx	-0.022	0.5
4	MP2B	X	-37.812	4.5
5	MP2B	Z	0	4.5
6	MP2B	Mx	-0.022	4.5
7	MP2C	X	-45.152	0.5
8	MP2C	Z	0	0.5
9	MP2C	Mx	-0.019	0.5
10	MP2C	X	-45.152	4.5
11	MP2C	Z	0	4.5
12	MP2C	Mx	-0.019	4.5
13	MP2B	X	-37.812	0.5
14	MP2B	Z	0	0.5
15	MP2B	Mx	0.022	0.5
16	MP2B	X	-37.812	4.5
17	MP2B	Z	0	4.5
18	MP2B	Mx	0.022	4.5
19	MP2C	X	-45.152	0.5
20	MP2C	Z	0	0.5
21	MP2C	Mx	-0.046	0.5
22	MP2C	X	-45.152	4.5
23	MP2C	Z	0	4.5
24	MP2C	Mx	-0.046	4.5
25	MP2A	X	-52.788	0.5
26	MP2A	Z	0	0.5
27	MP2A	Mx	0.044	0.5
28	MP2A	X	-52.788	4.5
29	MP2A	Z	0	4.5
30	MP2A	Mx	0.044	4.5
31	MP2A	X	-52.788	0.5
32	MP2A	Z	0	0.5
33	MP2A	Mx	0.044	0.5
34	MP2A	X	-52.788	4.5
35	MP2A	Z	0	4.5
36	MP2A	Mx	0.044	4.5
37	MP1A	X	-16.459	1.5
38	MP1A	Z	0	1.5
39	MP1A	Mx	0.014	1.5
40	MP1A	X	-16.459	3.5
41	MP1A	Z	0	3.5
42	MP1A	Mx	0.014	3.5
43	MP1B	X	-46.857	1.5
44	MP1B	Z	0	1.5
45	MP1B	Mx	0	1.5
46	MP1B	X	-46.857	3.5
47	MP1B	Z	0	3.5
48	MP1B	Mx	0	3.5
49	MP1C	X	-24.059	1.5
50	MP1C	Z	0	1.5
51	MP1C	Mx	-0.017	1.5
52	MP1C	X	-24.059	3.5
53	MP1C	Z	0	3.5
54	MP1C	Mx	-0.017	3.5
55	O1	X	-71.471	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	0	1
57	O1	Mx	0	1
58	MP3A	X	-30.842	1
59	MP3A	Z	0	1
60	MP3A	Mx	-0.015	1
61	MP3B	X	-42.186	1
62	MP3B	Z	0	1
63	MP3B	Mx	0.011	1
64	MP3C	X	-42.186	1
65	MP3C	Z	0	1
66	MP3C	Mx	0.011	1
67	MP2A	X	-27.877	1
68	MP2A	Z	0	1
69	MP2A	Mx	-0.014	1
70	MP2B	X	-41.445	1
71	MP2B	Z	0	1
72	MP2B	Mx	0.01	1
73	MP2C	X	-41.445	1
74	MP2C	Z	0	1
75	MP2C	Mx	0.01	1
76	MP5A	X	0	1
77	MP5A	Z	0	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	0	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-34.865	0.5
2	MP2B	Z	-20.129	0.5
3	MP2B	Mx	-0.004	0.5
4	MP2B	X	-34.865	4.5
5	MP2B	Z	-20.129	4.5
6	MP2B	Mx	-0.004	4.5
7	MP2C	X	-41.221	0.5
8	MP2C	Z	-23.799	0.5
9	MP2C	Mx	-0.04	0.5
10	MP2C	X	-41.221	4.5
11	MP2C	Z	-23.799	4.5
12	MP2C	Mx	-0.04	4.5
13	MP2B	X	-34.865	0.5
14	MP2B	Z	-20.129	0.5
15	MP2B	Mx	0.037	0.5
16	MP2B	X	-34.865	4.5
17	MP2B	Z	-20.129	4.5
18	MP2B	Mx	0.037	4.5
19	MP2C	X	-41.221	0.5
20	MP2C	Z	-23.799	0.5
21	MP2C	Mx	-0.04	0.5
22	MP2C	X	-41.221	4.5
23	MP2C	Z	-23.799	4.5
24	MP2C	Mx	-0.04	4.5
25	MP2A	X	-57.402	0.5
26	MP2A	Z	-33.141	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.075	0.5
28	MP2A	X	-57.402	4.5
29	MP2A	Z	-33.141	4.5
30	MP2A	Mx	0.075	4.5
31	MP2A	X	-57.402	0.5
32	MP2A	Z	-33.141	0.5
33	MP2A	Mx	0.02	0.5
34	MP2A	X	-57.402	4.5
35	MP2A	Z	-33.141	4.5
36	MP2A	Mx	0.02	4.5
37	MP1A	X	-20.835	1.5
38	MP1A	Z	-12.029	1.5
39	MP1A	Mx	0.017	1.5
40	MP1A	X	-20.835	3.5
41	MP1A	Z	-12.029	3.5
42	MP1A	Mx	0.017	3.5
43	MP1B	X	-33.998	1.5
44	MP1B	Z	-19.629	1.5
45	MP1B	Mx	0.016	1.5
46	MP1B	X	-33.998	3.5
47	MP1B	Z	-19.629	3.5
48	MP1B	Mx	0.016	3.5
49	MP1C	X	-14.254	1.5
50	MP1C	Z	-8.23	1.5
51	MP1C	Mx	-0.014	1.5
52	MP1C	X	-14.254	3.5
53	MP1C	Z	-8.23	3.5
54	MP1C	Mx	-0.014	3.5
55	O1	X	-66.776	1
56	O1	Z	-38.553	1
57	O1	Mx	0	1
58	MP3A	X	-29.985	1
59	MP3A	Z	-17.312	1
60	MP3A	Mx	-0.015	1
61	MP3B	X	-39.809	1
62	MP3B	Z	-22.984	1
63	MP3B	Mx	0	1
64	MP3C	X	-29.985	1
65	MP3C	Z	-17.312	1
66	MP3C	Mx	0.015	1
67	MP2A	X	-28.059	1
68	MP2A	Z	-16.2	1
69	MP2A	Mx	-0.014	1
70	MP2B	X	-39.809	1
71	MP2B	Z	-22.984	1
72	MP2B	Mx	0	1
73	MP2C	X	-28.059	1
74	MP2C	Z	-16.2	1
75	MP2C	Mx	0.014	1
76	MP5A	X	-30.82	1
77	MP5A	Z	-17.794	1
78	MP5A	Mx	0	1
79	MP5B	X	-30.82	1
80	MP5B	Z	-17.794	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-22.576	0.5
2	MP2B	Z	-39.102	0.5
3	MP2B	Mx	0.019	0.5
4	MP2B	X	-22.576	4.5
5	MP2B	Z	-39.102	4.5
6	MP2B	Mx	0.019	4.5
7	MP2C	X	-22.576	0.5
8	MP2C	Z	-39.102	0.5
9	MP2C	Mx	-0.046	0.5
10	MP2C	X	-22.576	4.5
11	MP2C	Z	-39.102	4.5
12	MP2C	Mx	-0.046	4.5
13	MP2B	X	-22.576	0.5
14	MP2B	Z	-39.102	0.5
15	MP2B	Mx	0.046	0.5
16	MP2B	X	-22.576	4.5
17	MP2B	Z	-39.102	4.5
18	MP2B	Mx	0.046	4.5
19	MP2C	X	-22.576	0.5
20	MP2C	Z	-39.102	0.5
21	MP2C	Mx	-0.019	0.5
22	MP2C	X	-22.576	4.5
23	MP2C	Z	-39.102	4.5
24	MP2C	Mx	-0.019	4.5
25	MP2A	X	-46.634	0.5
26	MP2A	Z	-80.773	0.5
27	MP2A	Mx	0.106	0.5
28	MP2A	X	-46.634	4.5
29	MP2A	Z	-80.773	4.5
30	MP2A	Mx	0.106	4.5
31	MP2A	X	-46.634	0.5
32	MP2A	Z	-80.773	0.5
33	MP2A	Mx	-0.028	0.5
34	MP2A	X	-46.634	4.5
35	MP2A	Z	-80.773	4.5
36	MP2A	Mx	-0.028	4.5
37	MP1A	X	-19.629	1.5
38	MP1A	Z	-33.998	1.5
39	MP1A	Mx	0.016	1.5
40	MP1A	X	-19.629	3.5
41	MP1A	Z	-33.998	3.5
42	MP1A	Mx	0.016	3.5
43	MP1B	X	-12.029	1.5
44	MP1B	Z	-20.835	1.5
45	MP1B	Mx	0.017	1.5
46	MP1B	X	-12.029	3.5
47	MP1B	Z	-20.835	3.5
48	MP1B	Mx	0.017	3.5
49	MP1C	X	-12.029	1.5
50	MP1C	Z	-20.835	1.5
51	MP1C	Mx	-0.017	1.5
52	MP1C	X	-12.029	3.5
53	MP1C	Z	-20.835	3.5
54	MP1C	Mx	-0.017	3.5
55	O1	X	-44.188	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	-76.535	1
57	O1	Mx	0	1
58	MP3A	X	-21.093	1
59	MP3A	Z	-36.534	1
60	MP3A	Mx	-0.011	1
61	MP3B	X	-21.093	1
62	MP3B	Z	-36.534	1
63	MP3B	Mx	-0.011	1
64	MP3C	X	-15.421	1
65	MP3C	Z	-26.71	1
66	MP3C	Mx	0.015	1
67	MP2A	X	-20.722	1
68	MP2A	Z	-35.892	1
69	MP2A	Mx	-0.01	1
70	MP2B	X	-20.722	1
71	MP2B	Z	-35.892	1
72	MP2B	Mx	-0.01	1
73	MP2C	X	-13.938	1
74	MP2C	Z	-24.142	1
75	MP2C	Mx	0.014	1
76	MP5A	X	-53.381	1
77	MP5A	Z	-92.459	1
78	MP5A	Mx	0	1
79	MP5B	X	-53.381	1
80	MP5B	Z	-92.459	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	0	0.5
2	MP2B	Z	-20.876	0.5
3	MP2B	Mx	0.017	0.5
4	MP2B	X	0	4.5
5	MP2B	Z	-20.876	4.5
6	MP2B	Mx	0.017	4.5
7	MP2C	X	0	0.5
8	MP2C	Z	-22.494	0.5
9	MP2C	Mx	-0.021	0.5
10	MP2C	X	0	4.5
11	MP2C	Z	-22.494	4.5
12	MP2C	Mx	-0.021	4.5
13	MP2B	X	0	0.5
14	MP2B	Z	-20.876	0.5
15	MP2B	Mx	0.017	0.5
16	MP2B	X	0	4.5
17	MP2B	Z	-20.876	4.5
18	MP2B	Mx	0.017	4.5
19	MP2C	X	0	0.5
20	MP2C	Z	-22.494	0.5
21	MP2C	Mx	0.002	0.5
22	MP2C	X	0	4.5
23	MP2C	Z	-22.494	4.5
24	MP2C	Mx	0.002	4.5
25	MP2A	X	0	0.5
26	MP2A	Z	-34.251	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.029	0.5
28	MP2A	X	0	4.5
29	MP2A	Z	-34.251	4.5
30	MP2A	Mx	0.029	4.5
31	MP2A	X	0	0.5
32	MP2A	Z	-34.251	0.5
33	MP2A	Mx	-0.029	0.5
34	MP2A	X	0	4.5
35	MP2A	Z	-34.251	4.5
36	MP2A	Mx	-0.029	4.5
37	MP1A	X	0	1.5
38	MP1A	Z	-11.098	1.5
39	MP1A	Mx	0	1.5
40	MP1A	X	0	3.5
41	MP1A	Z	-11.098	3.5
42	MP1A	Mx	0	3.5
43	MP1B	X	0	1.5
44	MP1B	Z	-4.669	1.5
45	MP1B	Mx	0.004	1.5
46	MP1B	X	0	3.5
47	MP1B	Z	-4.669	3.5
48	MP1B	Mx	0.004	3.5
49	MP1C	X	0	1.5
50	MP1C	Z	-9.491	1.5
51	MP1C	Mx	-0.004	1.5
52	MP1C	X	0	3.5
53	MP1C	Z	-9.491	3.5
54	MP1C	Mx	-0.004	3.5
55	O1	X	0	1
56	O1	Z	-22.067	1
57	O1	Mx	0	1
58	MP3A	X	0	1
59	MP3A	Z	-11.443	1
60	MP3A	Mx	0	1
61	MP3B	X	0	1
62	MP3B	Z	-8.821	1
63	MP3B	Mx	-0.004	1
64	MP3C	X	0	1
65	MP3C	Z	-8.821	1
66	MP3C	Mx	0.004	1
67	MP2A	X	0	1
68	MP2A	Z	-11.443	1
69	MP2A	Mx	0	1
70	MP2B	X	0	1
71	MP2B	Z	-8.349	1
72	MP2B	Mx	-0.004	1
73	MP2C	X	0	1
74	MP2C	Z	-8.349	1
75	MP2C	Mx	0.004	1
76	MP5A	X	0	1
77	MP5A	Z	-43.484	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	-43.484	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	10.707	0.5
2	MP2B	Z	-18.546	0.5
3	MP2B	Mx	0.022	0.5
4	MP2B	X	10.707	4.5
5	MP2B	Z	-18.546	4.5
6	MP2B	Mx	0.022	4.5
7	MP2C	X	11.516	0.5
8	MP2C	Z	-19.947	0.5
9	MP2C	Mx	-0.013	0.5
10	MP2C	X	11.516	4.5
11	MP2C	Z	-19.947	4.5
12	MP2C	Mx	-0.013	4.5
13	MP2B	X	10.707	0.5
14	MP2B	Z	-18.546	0.5
15	MP2B	Mx	0.009	0.5
16	MP2B	X	10.707	4.5
17	MP2B	Z	-18.546	4.5
18	MP2B	Mx	0.009	4.5
19	MP2C	X	11.516	0.5
20	MP2C	Z	-19.947	0.5
21	MP2C	Mx	0.013	0.5
22	MP2C	X	11.516	4.5
23	MP2C	Z	-19.947	4.5
24	MP2C	Mx	0.013	4.5
25	MP2A	X	15.484	0.5
26	MP2A	Z	-26.818	0.5
27	MP2A	Mx	0.009	0.5
28	MP2A	X	15.484	4.5
29	MP2A	Z	-26.818	4.5
30	MP2A	Mx	0.009	4.5
31	MP2A	X	15.484	0.5
32	MP2A	Z	-26.818	0.5
33	MP2A	Mx	-0.035	0.5
34	MP2A	X	15.484	4.5
35	MP2A	Z	-26.818	4.5
36	MP2A	Mx	-0.035	4.5
37	MP1A	X	4.745	1.5
38	MP1A	Z	-8.219	1.5
39	MP1A	Mx	-0.004	1.5
40	MP1A	X	4.745	3.5
41	MP1A	Z	-8.219	3.5
42	MP1A	Mx	-0.004	3.5
43	MP1B	X	3.138	1.5
44	MP1B	Z	-5.436	1.5
45	MP1B	Mx	0.005	1.5
46	MP1B	X	3.138	3.5
47	MP1B	Z	-5.436	3.5
48	MP1B	Mx	0.005	3.5
49	MP1C	X	5.549	1.5
50	MP1C	Z	-9.611	1.5
51	MP1C	Mx	0	1.5
52	MP1C	X	5.549	3.5
53	MP1C	Z	-9.611	3.5
54	MP1C	Mx	0	3.5
55	O1	X	10.159	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	-17.596	1
57	O1	Mx	0	1
58	MP3A	X	5.284	1
59	MP3A	Z	-9.153	1
60	MP3A	Mx	0.003	1
61	MP3B	X	3.973	1
62	MP3B	Z	-6.882	1
63	MP3B	Mx	-0.004	1
64	MP3C	X	5.284	1
65	MP3C	Z	-9.153	1
66	MP3C	Mx	0.003	1
67	MP2A	X	5.206	1
68	MP2A	Z	-9.016	1
69	MP2A	Mx	0.003	1
70	MP2B	X	3.659	1
71	MP2B	Z	-6.337	1
72	MP2B	Mx	-0.004	1
73	MP2C	X	5.206	1
74	MP2C	Z	-9.016	1
75	MP2C	Mx	0.003	1
76	MP5A	X	21.742	1
77	MP5A	Z	-37.659	1
78	MP5A	Mx	0	1
79	MP5B	X	21.742	1
80	MP5B	Z	-37.659	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	19.48	0.5
2	MP2B	Z	-11.247	0.5
3	MP2B	Mx	0.021	0.5
4	MP2B	X	19.48	4.5
5	MP2B	Z	-11.247	4.5
6	MP2B	Mx	0.021	4.5
7	MP2C	X	19.48	0.5
8	MP2C	Z	-11.247	0.5
9	MP2C	Mx	-0.002	0.5
10	MP2C	X	19.48	4.5
11	MP2C	Z	-11.247	4.5
12	MP2C	Mx	-0.002	4.5
13	MP2B	X	19.48	0.5
14	MP2B	Z	-11.247	0.5
15	MP2B	Mx	-0.002	0.5
16	MP2B	X	19.48	4.5
17	MP2B	Z	-11.247	4.5
18	MP2B	Mx	-0.002	4.5
19	MP2C	X	19.48	0.5
20	MP2C	Z	-11.247	0.5
21	MP2C	Mx	0.021	0.5
22	MP2C	X	19.48	4.5
23	MP2C	Z	-11.247	4.5
24	MP2C	Mx	0.021	4.5
25	MP2A	X	21.129	0.5
26	MP2A	Z	-12.199	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	-0.007	0.5
28	MP2A	X	21.129	4.5
29	MP2A	Z	-12.199	4.5
30	MP2A	Mx	-0.007	4.5
31	MP2A	X	21.129	0.5
32	MP2A	Z	-12.199	0.5
33	MP2A	Mx	-0.028	0.5
34	MP2A	X	21.129	4.5
35	MP2A	Z	-12.199	4.5
36	MP2A	Mx	-0.028	4.5
37	MP1A	X	5.436	1.5
38	MP1A	Z	-3.138	1.5
39	MP1A	Mx	-0.005	1.5
40	MP1A	X	5.436	3.5
41	MP1A	Z	-3.138	3.5
42	MP1A	Mx	-0.005	3.5
43	MP1B	X	8.219	1.5
44	MP1B	Z	-4.745	1.5
45	MP1B	Mx	0.004	1.5
46	MP1B	X	8.219	3.5
47	MP1B	Z	-4.745	3.5
48	MP1B	Mx	0.004	3.5
49	MP1C	X	8.219	1.5
50	MP1C	Z	-4.745	1.5
51	MP1C	Mx	0.004	1.5
52	MP1C	X	8.219	3.5
53	MP1C	Z	-4.745	3.5
54	MP1C	Mx	0.004	3.5
55	O1	X	14.567	1
56	O1	Z	-8.41	1
57	O1	Mx	0	1
58	MP3A	X	7.639	1
59	MP3A	Z	-4.41	1
60	MP3A	Mx	0.004	1
61	MP3B	X	7.639	1
62	MP3B	Z	-4.41	1
63	MP3B	Mx	-0.004	1
64	MP3C	X	9.909	1
65	MP3C	Z	-5.721	1
66	MP3C	Mx	0	1
67	MP2A	X	7.23	1
68	MP2A	Z	-4.174	1
69	MP2A	Mx	0.004	1
70	MP2B	X	7.23	1
71	MP2B	Z	-4.174	1
72	MP2B	Mx	-0.004	1
73	MP2C	X	9.909	1
74	MP2C	Z	-5.721	1
75	MP2C	Mx	0	1
76	MP5A	X	37.659	1
77	MP5A	Z	-21.742	1
78	MP5A	Mx	0	1
79	MP5B	X	37.659	1
80	MP5B	Z	-21.742	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	23.033	0.5
2	MP2B	Z	0	0.5
3	MP2B	Mx	0.013	0.5
4	MP2B	X	23.033	4.5
5	MP2B	Z	0	4.5
6	MP2B	Mx	0.013	4.5
7	MP2C	X	21.415	0.5
8	MP2C	Z	0	0.5
9	MP2C	Mx	0.009	0.5
10	MP2C	X	21.415	4.5
11	MP2C	Z	0	4.5
12	MP2C	Mx	0.009	4.5
13	MP2B	X	23.033	0.5
14	MP2B	Z	0	0.5
15	MP2B	Mx	-0.013	0.5
16	MP2B	X	23.033	4.5
17	MP2B	Z	0	4.5
18	MP2B	Mx	-0.013	4.5
19	MP2C	X	21.415	0.5
20	MP2C	Z	0	0.5
21	MP2C	Mx	0.022	0.5
22	MP2C	X	21.415	4.5
23	MP2C	Z	0	4.5
24	MP2C	Mx	0.022	4.5
25	MP2A	X	21.114	0.5
26	MP2A	Z	0	0.5
27	MP2A	Mx	-0.018	0.5
28	MP2A	X	21.114	4.5
29	MP2A	Z	0	4.5
30	MP2A	Mx	-0.018	4.5
31	MP2A	X	21.114	0.5
32	MP2A	Z	0	0.5
33	MP2A	Mx	-0.018	0.5
34	MP2A	X	21.114	4.5
35	MP2A	Z	0	4.5
36	MP2A	Mx	-0.018	4.5
37	MP1A	X	4.669	1.5
38	MP1A	Z	0	1.5
39	MP1A	Mx	-0.004	1.5
40	MP1A	X	4.669	3.5
41	MP1A	Z	0	3.5
42	MP1A	Mx	-0.004	3.5
43	MP1B	X	11.098	1.5
44	MP1B	Z	0	1.5
45	MP1B	Mx	0	1.5
46	MP1B	X	11.098	3.5
47	MP1B	Z	0	3.5
48	MP1B	Mx	0	3.5
49	MP1C	X	6.277	1.5
50	MP1C	Z	0	1.5
51	MP1C	Mx	0.005	1.5
52	MP1C	X	6.277	3.5
53	MP1C	Z	0	3.5
54	MP1C	Mx	0.005	3.5
55	O1	X	15.071	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	0	1
57	O1	Mx	0	1
58	MP3A	X	7.947	1
59	MP3A	Z	0	1
60	MP3A	Mx	0.004	1
61	MP3B	X	10.569	1
62	MP3B	Z	0	1
63	MP3B	Mx	-0.003	1
64	MP3C	X	10.569	1
65	MP3C	Z	0	1
66	MP3C	Mx	-0.003	1
67	MP2A	X	7.318	1
68	MP2A	Z	0	1
69	MP2A	Mx	0.004	1
70	MP2B	X	10.411	1
71	MP2B	Z	0	1
72	MP2B	Mx	-0.003	1
73	MP2C	X	10.411	1
74	MP2C	Z	0	1
75	MP2C	Mx	-0.003	1
76	MP5A	X	43.484	1
77	MP5A	Z	0	1
78	MP5A	Mx	0	1
79	MP5B	X	43.484	1
80	MP5B	Z	0	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	19.48	0.5
2	MP2B	Z	11.247	0.5
3	MP2B	Mx	0.002	0.5
4	MP2B	X	19.48	4.5
5	MP2B	Z	11.247	4.5
6	MP2B	Mx	0.002	4.5
7	MP2C	X	18.079	0.5
8	MP2C	Z	10.438	0.5
9	MP2C	Mx	0.017	0.5
10	MP2C	X	18.079	4.5
11	MP2C	Z	10.438	4.5
12	MP2C	Mx	0.017	4.5
13	MP2B	X	19.48	0.5
14	MP2B	Z	11.247	0.5
15	MP2B	Mx	-0.021	0.5
16	MP2B	X	19.48	4.5
17	MP2B	Z	11.247	4.5
18	MP2B	Mx	-0.021	4.5
19	MP2C	X	18.079	0.5
20	MP2C	Z	10.438	0.5
21	MP2C	Mx	0.017	0.5
22	MP2C	X	18.079	4.5
23	MP2C	Z	10.438	4.5
24	MP2C	Mx	0.017	4.5
25	MP2A	X	21.129	0.5
26	MP2A	Z	12.199	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	-0.028	0.5
28	MP2A	X	21.129	4.5
29	MP2A	Z	12.199	4.5
30	MP2A	Mx	-0.028	4.5
31	MP2A	X	21.129	0.5
32	MP2A	Z	12.199	0.5
33	MP2A	Mx	-0.007	0.5
34	MP2A	X	21.129	4.5
35	MP2A	Z	12.199	4.5
36	MP2A	Mx	-0.007	4.5
37	MP1A	X	5.436	1.5
38	MP1A	Z	3.138	1.5
39	MP1A	Mx	-0.005	1.5
40	MP1A	X	5.436	3.5
41	MP1A	Z	3.138	3.5
42	MP1A	Mx	-0.005	3.5
43	MP1B	X	8.219	1.5
44	MP1B	Z	4.745	1.5
45	MP1B	Mx	-0.004	1.5
46	MP1B	X	8.219	3.5
47	MP1B	Z	4.745	3.5
48	MP1B	Mx	-0.004	3.5
49	MP1C	X	4.044	1.5
50	MP1C	Z	2.335	1.5
51	MP1C	Mx	0.004	1.5
52	MP1C	X	4.044	3.5
53	MP1C	Z	2.335	3.5
54	MP1C	Mx	0.004	3.5
55	O1	X	14.567	1
56	O1	Z	8.41	1
57	O1	Mx	0	1
58	MP3A	X	7.639	1
59	MP3A	Z	4.41	1
60	MP3A	Mx	0.004	1
61	MP3B	X	9.909	1
62	MP3B	Z	5.721	1
63	MP3B	Mx	0	1
64	MP3C	X	7.639	1
65	MP3C	Z	4.41	1
66	MP3C	Mx	-0.004	1
67	MP2A	X	7.23	1
68	MP2A	Z	4.174	1
69	MP2A	Mx	0.004	1
70	MP2B	X	9.909	1
71	MP2B	Z	5.721	1
72	MP2B	Mx	0	1
73	MP2C	X	7.23	1
74	MP2C	Z	4.174	1
75	MP2C	Mx	-0.004	1
76	MP5A	X	37.659	1
77	MP5A	Z	21.742	1
78	MP5A	Mx	0	1
79	MP5B	X	37.659	1
80	MP5B	Z	21.742	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	10.707	0.5
2	MP2B	Z	18.546	0.5
3	MP2B	Mx	-0.009	0.5
4	MP2B	X	10.707	4.5
5	MP2B	Z	18.546	4.5
6	MP2B	Mx	-0.009	4.5
7	MP2C	X	10.707	0.5
8	MP2C	Z	18.546	0.5
9	MP2C	Mx	0.022	0.5
10	MP2C	X	10.707	4.5
11	MP2C	Z	18.546	4.5
12	MP2C	Mx	0.022	4.5
13	MP2B	X	10.707	0.5
14	MP2B	Z	18.546	0.5
15	MP2B	Mx	-0.022	0.5
16	MP2B	X	10.707	4.5
17	MP2B	Z	18.546	4.5
18	MP2B	Mx	-0.022	4.5
19	MP2C	X	10.707	0.5
20	MP2C	Z	18.546	0.5
21	MP2C	Mx	0.009	0.5
22	MP2C	X	10.707	4.5
23	MP2C	Z	18.546	4.5
24	MP2C	Mx	0.009	4.5
25	MP2A	X	15.484	0.5
26	MP2A	Z	26.818	0.5
27	MP2A	Mx	-0.035	0.5
28	MP2A	X	15.484	4.5
29	MP2A	Z	26.818	4.5
30	MP2A	Mx	-0.035	4.5
31	MP2A	X	15.484	0.5
32	MP2A	Z	26.818	0.5
33	MP2A	Mx	0.009	0.5
34	MP2A	X	15.484	4.5
35	MP2A	Z	26.818	4.5
36	MP2A	Mx	0.009	4.5
37	MP1A	X	4.745	1.5
38	MP1A	Z	8.219	1.5
39	MP1A	Mx	-0.004	1.5
40	MP1A	X	4.745	3.5
41	MP1A	Z	8.219	3.5
42	MP1A	Mx	-0.004	3.5
43	MP1B	X	3.138	1.5
44	MP1B	Z	5.436	1.5
45	MP1B	Mx	-0.005	1.5
46	MP1B	X	3.138	3.5
47	MP1B	Z	5.436	3.5
48	MP1B	Mx	-0.005	3.5
49	MP1C	X	3.138	1.5
50	MP1C	Z	5.436	1.5
51	MP1C	Mx	0.005	1.5
52	MP1C	X	3.138	3.5
53	MP1C	Z	5.436	3.5
54	MP1C	Mx	0.005	3.5
55	O1	X	10.159	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	17.596	1
57	O1	Mx	0	1
58	MP3A	X	5.284	1
59	MP3A	Z	9.153	1
60	MP3A	Mx	0.003	1
61	MP3B	X	5.284	1
62	MP3B	Z	9.153	1
63	MP3B	Mx	0.003	1
64	MP3C	X	3.973	1
65	MP3C	Z	6.882	1
66	MP3C	Mx	-0.004	1
67	MP2A	X	5.206	1
68	MP2A	Z	9.016	1
69	MP2A	Mx	0.003	1
70	MP2B	X	5.206	1
71	MP2B	Z	9.016	1
72	MP2B	Mx	0.003	1
73	MP2C	X	3.659	1
74	MP2C	Z	6.337	1
75	MP2C	Mx	-0.004	1
76	MP5A	X	21.742	1
77	MP5A	Z	37.659	1
78	MP5A	Mx	0	1
79	MP5B	X	21.742	1
80	MP5B	Z	37.659	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	0	0.5
2	MP2B	Z	20.876	0.5
3	MP2B	Mx	-0.017	0.5
4	MP2B	X	0	4.5
5	MP2B	Z	20.876	4.5
6	MP2B	Mx	-0.017	4.5
7	MP2C	X	0	0.5
8	MP2C	Z	22.494	0.5
9	MP2C	Mx	0.021	0.5
10	MP2C	X	0	4.5
11	MP2C	Z	22.494	4.5
12	MP2C	Mx	0.021	4.5
13	MP2B	X	0	0.5
14	MP2B	Z	20.876	0.5
15	MP2B	Mx	-0.017	0.5
16	MP2B	X	0	4.5
17	MP2B	Z	20.876	4.5
18	MP2B	Mx	-0.017	4.5
19	MP2C	X	0	0.5
20	MP2C	Z	22.494	0.5
21	MP2C	Mx	-0.002	0.5
22	MP2C	X	0	4.5
23	MP2C	Z	22.494	4.5
24	MP2C	Mx	-0.002	4.5
25	MP2A	X	0	0.5
26	MP2A	Z	34.251	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	-0.029	0.5
28	MP2A	X	0	4.5
29	MP2A	Z	34.251	4.5
30	MP2A	Mx	-0.029	4.5
31	MP2A	X	0	0.5
32	MP2A	Z	34.251	0.5
33	MP2A	Mx	0.029	0.5
34	MP2A	X	0	4.5
35	MP2A	Z	34.251	4.5
36	MP2A	Mx	0.029	4.5
37	MP1A	X	0	1.5
38	MP1A	Z	11.098	1.5
39	MP1A	Mx	0	1.5
40	MP1A	X	0	3.5
41	MP1A	Z	11.098	3.5
42	MP1A	Mx	0	3.5
43	MP1B	X	0	1.5
44	MP1B	Z	4.669	1.5
45	MP1B	Mx	-0.004	1.5
46	MP1B	X	0	3.5
47	MP1B	Z	4.669	3.5
48	MP1B	Mx	-0.004	3.5
49	MP1C	X	0	1.5
50	MP1C	Z	9.491	1.5
51	MP1C	Mx	0.004	1.5
52	MP1C	X	0	3.5
53	MP1C	Z	9.491	3.5
54	MP1C	Mx	0.004	3.5
55	O1	X	0	1
56	O1	Z	22.067	1
57	O1	Mx	0	1
58	MP3A	X	0	1
59	MP3A	Z	11.443	1
60	MP3A	Mx	0	1
61	MP3B	X	0	1
62	MP3B	Z	8.821	1
63	MP3B	Mx	0.004	1
64	MP3C	X	0	1
65	MP3C	Z	8.821	1
66	MP3C	Mx	-0.004	1
67	MP2A	X	0	1
68	MP2A	Z	11.443	1
69	MP2A	Mx	0	1
70	MP2B	X	0	1
71	MP2B	Z	8.349	1
72	MP2B	Mx	0.004	1
73	MP2C	X	0	1
74	MP2C	Z	8.349	1
75	MP2C	Mx	-0.004	1
76	MP5A	X	0	1
77	MP5A	Z	43.484	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	43.484	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-10.707	0.5
2	MP2B	Z	18.546	0.5
3	MP2B	Mx	-0.022	0.5
4	MP2B	X	-10.707	4.5
5	MP2B	Z	18.546	4.5
6	MP2B	Mx	-0.022	4.5
7	MP2C	X	-11.516	0.5
8	MP2C	Z	19.947	0.5
9	MP2C	Mx	0.013	0.5
10	MP2C	X	-11.516	4.5
11	MP2C	Z	19.947	4.5
12	MP2C	Mx	0.013	4.5
13	MP2B	X	-10.707	0.5
14	MP2B	Z	18.546	0.5
15	MP2B	Mx	-0.009	0.5
16	MP2B	X	-10.707	4.5
17	MP2B	Z	18.546	4.5
18	MP2B	Mx	-0.009	4.5
19	MP2C	X	-11.516	0.5
20	MP2C	Z	19.947	0.5
21	MP2C	Mx	-0.013	0.5
22	MP2C	X	-11.516	4.5
23	MP2C	Z	19.947	4.5
24	MP2C	Mx	-0.013	4.5
25	MP2A	X	-15.484	0.5
26	MP2A	Z	26.818	0.5
27	MP2A	Mx	-0.009	0.5
28	MP2A	X	-15.484	4.5
29	MP2A	Z	26.818	4.5
30	MP2A	Mx	-0.009	4.5
31	MP2A	X	-15.484	0.5
32	MP2A	Z	26.818	0.5
33	MP2A	Mx	0.035	0.5
34	MP2A	X	-15.484	4.5
35	MP2A	Z	26.818	4.5
36	MP2A	Mx	0.035	4.5
37	MP1A	X	-4.745	1.5
38	MP1A	Z	8.219	1.5
39	MP1A	Mx	0.004	1.5
40	MP1A	X	-4.745	3.5
41	MP1A	Z	8.219	3.5
42	MP1A	Mx	0.004	3.5
43	MP1B	X	-3.138	1.5
44	MP1B	Z	5.436	1.5
45	MP1B	Mx	-0.005	1.5
46	MP1B	X	-3.138	3.5
47	MP1B	Z	5.436	3.5
48	MP1B	Mx	-0.005	3.5
49	MP1C	X	-5.549	1.5
50	MP1C	Z	9.611	1.5
51	MP1C	Mx	0	1.5
52	MP1C	X	-5.549	3.5
53	MP1C	Z	9.611	3.5
54	MP1C	Mx	0	3.5
55	O1	X	-10.159	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	17.596	1
57	O1	Mx	0	1
58	MP3A	X	-5.284	1
59	MP3A	Z	9.153	1
60	MP3A	Mx	-0.003	1
61	MP3B	X	-3.973	1
62	MP3B	Z	6.882	1
63	MP3B	Mx	0.004	1
64	MP3C	X	-5.284	1
65	MP3C	Z	9.153	1
66	MP3C	Mx	-0.003	1
67	MP2A	X	-5.206	1
68	MP2A	Z	9.016	1
69	MP2A	Mx	-0.003	1
70	MP2B	X	-3.659	1
71	MP2B	Z	6.337	1
72	MP2B	Mx	0.004	1
73	MP2C	X	-5.206	1
74	MP2C	Z	9.016	1
75	MP2C	Mx	-0.003	1
76	MP5A	X	-21.742	1
77	MP5A	Z	37.659	1
78	MP5A	Mx	0	1
79	MP5B	X	-21.742	1
80	MP5B	Z	37.659	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-19.48	0.5
2	MP2B	Z	11.247	0.5
3	MP2B	Mx	-0.021	0.5
4	MP2B	X	-19.48	4.5
5	MP2B	Z	11.247	4.5
6	MP2B	Mx	-0.021	4.5
7	MP2C	X	-19.48	0.5
8	MP2C	Z	11.247	0.5
9	MP2C	Mx	0.002	0.5
10	MP2C	X	-19.48	4.5
11	MP2C	Z	11.247	4.5
12	MP2C	Mx	0.002	4.5
13	MP2B	X	-19.48	0.5
14	MP2B	Z	11.247	0.5
15	MP2B	Mx	0.002	0.5
16	MP2B	X	-19.48	4.5
17	MP2B	Z	11.247	4.5
18	MP2B	Mx	0.002	4.5
19	MP2C	X	-19.48	0.5
20	MP2C	Z	11.247	0.5
21	MP2C	Mx	-0.021	0.5
22	MP2C	X	-19.48	4.5
23	MP2C	Z	11.247	4.5
24	MP2C	Mx	-0.021	4.5
25	MP2A	X	-21.129	0.5
26	MP2A	Z	12.199	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.007	0.5
28	MP2A	X	-21.129	4.5
29	MP2A	Z	12.199	4.5
30	MP2A	Mx	0.007	4.5
31	MP2A	X	-21.129	0.5
32	MP2A	Z	12.199	0.5
33	MP2A	Mx	0.028	0.5
34	MP2A	X	-21.129	4.5
35	MP2A	Z	12.199	4.5
36	MP2A	Mx	0.028	4.5
37	MP1A	X	-5.436	1.5
38	MP1A	Z	3.138	1.5
39	MP1A	Mx	0.005	1.5
40	MP1A	X	-5.436	3.5
41	MP1A	Z	3.138	3.5
42	MP1A	Mx	0.005	3.5
43	MP1B	X	-8.219	1.5
44	MP1B	Z	4.745	1.5
45	MP1B	Mx	-0.004	1.5
46	MP1B	X	-8.219	3.5
47	MP1B	Z	4.745	3.5
48	MP1B	Mx	-0.004	3.5
49	MP1C	X	-8.219	1.5
50	MP1C	Z	4.745	1.5
51	MP1C	Mx	-0.004	1.5
52	MP1C	X	-8.219	3.5
53	MP1C	Z	4.745	3.5
54	MP1C	Mx	-0.004	3.5
55	O1	X	-14.567	1
56	O1	Z	8.41	1
57	O1	Mx	0	1
58	MP3A	X	-7.639	1
59	MP3A	Z	4.41	1
60	MP3A	Mx	-0.004	1
61	MP3B	X	-7.639	1
62	MP3B	Z	4.41	1
63	MP3B	Mx	0.004	1
64	MP3C	X	-9.909	1
65	MP3C	Z	5.721	1
66	MP3C	Mx	0	1
67	MP2A	X	-7.23	1
68	MP2A	Z	4.174	1
69	MP2A	Mx	-0.004	1
70	MP2B	X	-7.23	1
71	MP2B	Z	4.174	1
72	MP2B	Mx	0.004	1
73	MP2C	X	-9.909	1
74	MP2C	Z	5.721	1
75	MP2C	Mx	0	1
76	MP5A	X	-37.659	1
77	MP5A	Z	21.742	1
78	MP5A	Mx	0	1
79	MP5B	X	-37.659	1
80	MP5B	Z	21.742	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-23.033	0.5
2	MP2B	Z	0	0.5
3	MP2B	Mx	-0.013	0.5
4	MP2B	X	-23.033	4.5
5	MP2B	Z	0	4.5
6	MP2B	Mx	-0.013	4.5
7	MP2C	X	-21.415	0.5
8	MP2C	Z	0	0.5
9	MP2C	Mx	-0.009	0.5
10	MP2C	X	-21.415	4.5
11	MP2C	Z	0	4.5
12	MP2C	Mx	-0.009	4.5
13	MP2B	X	-23.033	0.5
14	MP2B	Z	0	0.5
15	MP2B	Mx	0.013	0.5
16	MP2B	X	-23.033	4.5
17	MP2B	Z	0	4.5
18	MP2B	Mx	0.013	4.5
19	MP2C	X	-21.415	0.5
20	MP2C	Z	0	0.5
21	MP2C	Mx	-0.022	0.5
22	MP2C	X	-21.415	4.5
23	MP2C	Z	0	4.5
24	MP2C	Mx	-0.022	4.5
25	MP2A	X	-21.114	0.5
26	MP2A	Z	0	0.5
27	MP2A	Mx	0.018	0.5
28	MP2A	X	-21.114	4.5
29	MP2A	Z	0	4.5
30	MP2A	Mx	0.018	4.5
31	MP2A	X	-21.114	0.5
32	MP2A	Z	0	0.5
33	MP2A	Mx	0.018	0.5
34	MP2A	X	-21.114	4.5
35	MP2A	Z	0	4.5
36	MP2A	Mx	0.018	4.5
37	MP1A	X	-4.669	1.5
38	MP1A	Z	0	1.5
39	MP1A	Mx	0.004	1.5
40	MP1A	X	-4.669	3.5
41	MP1A	Z	0	3.5
42	MP1A	Mx	0.004	3.5
43	MP1B	X	-11.098	1.5
44	MP1B	Z	0	1.5
45	MP1B	Mx	0	1.5
46	MP1B	X	-11.098	3.5
47	MP1B	Z	0	3.5
48	MP1B	Mx	0	3.5
49	MP1C	X	-6.277	1.5
50	MP1C	Z	0	1.5
51	MP1C	Mx	-0.005	1.5
52	MP1C	X	-6.277	3.5
53	MP1C	Z	0	3.5
54	MP1C	Mx	-0.005	3.5
55	O1	X	-15.071	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	0	1
57	O1	Mx	0	1
58	MP3A	X	-7.947	1
59	MP3A	Z	0	1
60	MP3A	Mx	-0.004	1
61	MP3B	X	-10.569	1
62	MP3B	Z	0	1
63	MP3B	Mx	0.003	1
64	MP3C	X	-10.569	1
65	MP3C	Z	0	1
66	MP3C	Mx	0.003	1
67	MP2A	X	-7.318	1
68	MP2A	Z	0	1
69	MP2A	Mx	-0.004	1
70	MP2B	X	-10.411	1
71	MP2B	Z	0	1
72	MP2B	Mx	0.003	1
73	MP2C	X	-10.411	1
74	MP2C	Z	0	1
75	MP2C	Mx	0.003	1
76	MP5A	X	-43.484	1
77	MP5A	Z	0	1
78	MP5A	Mx	0	1
79	MP5B	X	-43.484	1
80	MP5B	Z	0	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-19.48	0.5
2	MP2B	Z	-11.247	0.5
3	MP2B	Mx	-0.002	0.5
4	MP2B	X	-19.48	4.5
5	MP2B	Z	-11.247	4.5
6	MP2B	Mx	-0.002	4.5
7	MP2C	X	-18.079	0.5
8	MP2C	Z	-10.438	0.5
9	MP2C	Mx	-0.017	0.5
10	MP2C	X	-18.079	4.5
11	MP2C	Z	-10.438	4.5
12	MP2C	Mx	-0.017	4.5
13	MP2B	X	-19.48	0.5
14	MP2B	Z	-11.247	0.5
15	MP2B	Mx	0.021	0.5
16	MP2B	X	-19.48	4.5
17	MP2B	Z	-11.247	4.5
18	MP2B	Mx	0.021	4.5
19	MP2C	X	-18.079	0.5
20	MP2C	Z	-10.438	0.5
21	MP2C	Mx	-0.017	0.5
22	MP2C	X	-18.079	4.5
23	MP2C	Z	-10.438	4.5
24	MP2C	Mx	-0.017	4.5
25	MP2A	X	-21.129	0.5
26	MP2A	Z	-12.199	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.028	0.5
28	MP2A	X	-21.129	4.5
29	MP2A	Z	-12.199	4.5
30	MP2A	Mx	0.028	4.5
31	MP2A	X	-21.129	0.5
32	MP2A	Z	-12.199	0.5
33	MP2A	Mx	0.007	0.5
34	MP2A	X	-21.129	4.5
35	MP2A	Z	-12.199	4.5
36	MP2A	Mx	0.007	4.5
37	MP1A	X	-5.436	1.5
38	MP1A	Z	-3.138	1.5
39	MP1A	Mx	0.005	1.5
40	MP1A	X	-5.436	3.5
41	MP1A	Z	-3.138	3.5
42	MP1A	Mx	0.005	3.5
43	MP1B	X	-8.219	1.5
44	MP1B	Z	-4.745	1.5
45	MP1B	Mx	0.004	1.5
46	MP1B	X	-8.219	3.5
47	MP1B	Z	-4.745	3.5
48	MP1B	Mx	0.004	3.5
49	MP1C	X	-4.044	1.5
50	MP1C	Z	-2.335	1.5
51	MP1C	Mx	-0.004	1.5
52	MP1C	X	-4.044	3.5
53	MP1C	Z	-2.335	3.5
54	MP1C	Mx	-0.004	3.5
55	O1	X	-14.567	1
56	O1	Z	-8.41	1
57	O1	Mx	0	1
58	MP3A	X	-7.639	1
59	MP3A	Z	-4.41	1
60	MP3A	Mx	-0.004	1
61	MP3B	X	-9.909	1
62	MP3B	Z	-5.721	1
63	MP3B	Mx	0	1
64	MP3C	X	-7.639	1
65	MP3C	Z	-4.41	1
66	MP3C	Mx	0.004	1
67	MP2A	X	-7.23	1
68	MP2A	Z	-4.174	1
69	MP2A	Mx	-0.004	1
70	MP2B	X	-9.909	1
71	MP2B	Z	-5.721	1
72	MP2B	Mx	0	1
73	MP2C	X	-7.23	1
74	MP2C	Z	-4.174	1
75	MP2C	Mx	0.004	1
76	MP5A	X	-37.659	1
77	MP5A	Z	-21.742	1
78	MP5A	Mx	0	1
79	MP5B	X	-37.659	1
80	MP5B	Z	-21.742	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-10.707	0.5
2	MP2B	Z	-18.546	0.5
3	MP2B	Mx	0.009	0.5
4	MP2B	X	-10.707	4.5
5	MP2B	Z	-18.546	4.5
6	MP2B	Mx	0.009	4.5
7	MP2C	X	-10.707	0.5
8	MP2C	Z	-18.546	0.5
9	MP2C	Mx	-0.022	0.5
10	MP2C	X	-10.707	4.5
11	MP2C	Z	-18.546	4.5
12	MP2C	Mx	-0.022	4.5
13	MP2B	X	-10.707	0.5
14	MP2B	Z	-18.546	0.5
15	MP2B	Mx	0.022	0.5
16	MP2B	X	-10.707	4.5
17	MP2B	Z	-18.546	4.5
18	MP2B	Mx	0.022	4.5
19	MP2C	X	-10.707	0.5
20	MP2C	Z	-18.546	0.5
21	MP2C	Mx	-0.009	0.5
22	MP2C	X	-10.707	4.5
23	MP2C	Z	-18.546	4.5
24	MP2C	Mx	-0.009	4.5
25	MP2A	X	-15.484	0.5
26	MP2A	Z	-26.818	0.5
27	MP2A	Mx	0.035	0.5
28	MP2A	X	-15.484	4.5
29	MP2A	Z	-26.818	4.5
30	MP2A	Mx	0.035	4.5
31	MP2A	X	-15.484	0.5
32	MP2A	Z	-26.818	0.5
33	MP2A	Mx	-0.009	0.5
34	MP2A	X	-15.484	4.5
35	MP2A	Z	-26.818	4.5
36	MP2A	Mx	-0.009	4.5
37	MP1A	X	-4.745	1.5
38	MP1A	Z	-8.219	1.5
39	MP1A	Mx	0.004	1.5
40	MP1A	X	-4.745	3.5
41	MP1A	Z	-8.219	3.5
42	MP1A	Mx	0.004	3.5
43	MP1B	X	-3.138	1.5
44	MP1B	Z	-5.436	1.5
45	MP1B	Mx	0.005	1.5
46	MP1B	X	-3.138	3.5
47	MP1B	Z	-5.436	3.5
48	MP1B	Mx	0.005	3.5
49	MP1C	X	-3.138	1.5
50	MP1C	Z	-5.436	1.5
51	MP1C	Mx	-0.005	1.5
52	MP1C	X	-3.138	3.5
53	MP1C	Z	-5.436	3.5
54	MP1C	Mx	-0.005	3.5
55	O1	X	-10.159	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	-17.596	1
57	O1	Mx	0	1
58	MP3A	X	-5.284	1
59	MP3A	Z	-9.153	1
60	MP3A	Mx	-0.003	1
61	MP3B	X	-5.284	1
62	MP3B	Z	-9.153	1
63	MP3B	Mx	-0.003	1
64	MP3C	X	-3.973	1
65	MP3C	Z	-6.882	1
66	MP3C	Mx	0.004	1
67	MP2A	X	-5.206	1
68	MP2A	Z	-9.016	1
69	MP2A	Mx	-0.003	1
70	MP2B	X	-5.206	1
71	MP2B	Z	-9.016	1
72	MP2B	Mx	-0.003	1
73	MP2C	X	-3.659	1
74	MP2C	Z	-6.337	1
75	MP2C	Mx	0.004	1
76	MP5A	X	-21.742	1
77	MP5A	Z	-37.659	1
78	MP5A	Mx	0	1
79	MP5B	X	-21.742	1
80	MP5B	Z	-37.659	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	0	0.5
2	MP2B	Z	-2.975	0.5
3	MP2B	Mx	0.002	0.5
4	MP2B	X	0	4.5
5	MP2B	Z	-2.975	4.5
6	MP2B	Mx	0.002	4.5
7	MP2C	X	0	0.5
8	MP2C	Z	-2.516	0.5
9	MP2C	Mx	-0.002	0.5
10	MP2C	X	0	4.5
11	MP2C	Z	-2.516	4.5
12	MP2C	Mx	-0.002	4.5
13	MP2B	X	0	0.5
14	MP2B	Z	-2.975	0.5
15	MP2B	Mx	0.002	0.5
16	MP2B	X	0	4.5
17	MP2B	Z	-2.975	4.5
18	MP2B	Mx	0.002	4.5
19	MP2C	X	0	0.5
20	MP2C	Z	-2.516	0.5
21	MP2C	Mx	0.000223	0.5
22	MP2C	X	0	4.5
23	MP2C	Z	-2.516	4.5
24	MP2C	Mx	0.000223	4.5
25	MP2A	X	0	0.5
26	MP2A	Z	-6.673	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.006	0.5
28	MP2A	X	0	4.5
29	MP2A	Z	-6.673	4.5
30	MP2A	Mx	0.006	4.5
31	MP2A	X	0	0.5
32	MP2A	Z	-6.673	0.5
33	MP2A	Mx	-0.006	0.5
34	MP2A	X	0	4.5
35	MP2A	Z	-6.673	4.5
36	MP2A	Mx	-0.006	4.5
37	MP1A	X	0	1.5
38	MP1A	Z	-2.929	1.5
39	MP1A	Mx	0	1.5
40	MP1A	X	0	3.5
41	MP1A	Z	-2.929	3.5
42	MP1A	Mx	0	3.5
43	MP1B	X	0	1.5
44	MP1B	Z	-1.029	1.5
45	MP1B	Mx	0.000858	1.5
46	MP1B	X	0	3.5
47	MP1B	Z	-1.029	3.5
48	MP1B	Mx	0.000858	3.5
49	MP1C	X	0	1.5
50	MP1C	Z	-2.454	1.5
51	MP1C	Mx	-0.001	1.5
52	MP1C	X	0	3.5
53	MP1C	Z	-2.454	3.5
54	MP1C	Mx	-0.001	3.5
55	O1	X	0	1
56	O1	Z	-5.876	1
57	O1	Mx	0	1
58	MP3A	X	0	1
59	MP3A	Z	-2.873	1
60	MP3A	Mx	0	1
61	MP3B	X	0	1
62	MP3B	Z	-2.164	1
63	MP3B	Mx	-0.000937	1
64	MP3C	X	0	1
65	MP3C	Z	-2.164	1
66	MP3C	Mx	0.000937	1
67	MP2A	X	0	1
68	MP2A	Z	-2.873	1
69	MP2A	Mx	0	1
70	MP2B	X	0	1
71	MP2B	Z	-2.025	1
72	MP2B	Mx	-0.000877	1
73	MP2C	X	0	1
74	MP2C	Z	-2.025	1
75	MP2C	Mx	0.000877	1
76	MP5A	X	0	1
77	MP5A	Z	-8.897	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	-8.897	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	1.411	0.5
2	MP2B	Z	-2.444	0.5
3	MP2B	Mx	0.003	0.5
4	MP2B	X	1.411	4.5
5	MP2B	Z	-2.444	4.5
6	MP2B	Mx	0.003	4.5
7	MP2C	X	1.182	0.5
8	MP2C	Z	-2.047	0.5
9	MP2C	Mx	-0.001	0.5
10	MP2C	X	1.182	4.5
11	MP2C	Z	-2.047	4.5
12	MP2C	Mx	-0.001	4.5
13	MP2B	X	1.411	0.5
14	MP2B	Z	-2.444	0.5
15	MP2B	Mx	0.001	0.5
16	MP2B	X	1.411	4.5
17	MP2B	Z	-2.444	4.5
18	MP2B	Mx	0.001	4.5
19	MP2C	X	1.182	0.5
20	MP2C	Z	-2.047	0.5
21	MP2C	Mx	0.001	0.5
22	MP2C	X	1.182	4.5
23	MP2C	Z	-2.047	4.5
24	MP2C	Mx	0.001	4.5
25	MP2A	X	2.915	0.5
26	MP2A	Z	-5.048	0.5
27	MP2A	Mx	0.002	0.5
28	MP2A	X	2.915	4.5
29	MP2A	Z	-5.048	4.5
30	MP2A	Mx	0.002	4.5
31	MP2A	X	2.915	0.5
32	MP2A	Z	-5.048	0.5
33	MP2A	Mx	-0.007	0.5
34	MP2A	X	2.915	4.5
35	MP2A	Z	-5.048	4.5
36	MP2A	Mx	-0.007	4.5
37	MP1A	X	1.227	1.5
38	MP1A	Z	-2.125	1.5
39	MP1A	Mx	-0.001	1.5
40	MP1A	X	1.227	3.5
41	MP1A	Z	-2.125	3.5
42	MP1A	Mx	-0.001	3.5
43	MP1B	X	0.752	1.5
44	MP1B	Z	-1.302	1.5
45	MP1B	Mx	0.001	1.5
46	MP1B	X	0.752	3.5
47	MP1B	Z	-1.302	3.5
48	MP1B	Mx	0.001	3.5
49	MP1C	X	1.464	1.5
50	MP1C	Z	-2.536	1.5
51	MP1C	Mx	0	1.5
52	MP1C	X	1.464	3.5
53	MP1C	Z	-2.536	3.5
54	MP1C	Mx	0	3.5
55	O1	X	2.762	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	-4.783	1
57	O1	Mx	0	1
58	MP3A	X	1.318	1
59	MP3A	Z	-2.283	1
60	MP3A	Mx	0.000659	1
61	MP3B	X	0.964	1
62	MP3B	Z	-1.669	1
63	MP3B	Mx	-0.000964	1
64	MP3C	X	1.318	1
65	MP3C	Z	-2.283	1
66	MP3C	Mx	0.000659	1
67	MP2A	X	1.295	1
68	MP2A	Z	-2.243	1
69	MP2A	Mx	0.000648	1
70	MP2B	X	0.871	1
71	MP2B	Z	-1.509	1
72	MP2B	Mx	-0.000871	1
73	MP2C	X	1.295	1
74	MP2C	Z	-2.243	1
75	MP2C	Mx	0.000647	1
76	MP5A	X	3.336	1
77	MP5A	Z	-5.779	1
78	MP5A	Mx	0	1
79	MP5B	X	3.336	1
80	MP5B	Z	-5.779	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	2.179	0.5
2	MP2B	Z	-1.258	0.5
3	MP2B	Mx	0.002	0.5
4	MP2B	X	2.179	4.5
5	MP2B	Z	-1.258	4.5
6	MP2B	Mx	0.002	4.5
7	MP2C	X	2.179	0.5
8	MP2C	Z	-1.258	0.5
9	MP2C	Mx	-0.000223	0.5
10	MP2C	X	2.179	4.5
11	MP2C	Z	-1.258	4.5
12	MP2C	Mx	-0.000223	4.5
13	MP2B	X	2.179	0.5
14	MP2B	Z	-1.258	0.5
15	MP2B	Mx	-0.000223	0.5
16	MP2B	X	2.179	4.5
17	MP2B	Z	-1.258	4.5
18	MP2B	Mx	-0.000223	4.5
19	MP2C	X	2.179	0.5
20	MP2C	Z	-1.258	0.5
21	MP2C	Mx	0.002	0.5
22	MP2C	X	2.179	4.5
23	MP2C	Z	-1.258	4.5
24	MP2C	Mx	0.002	4.5
25	MP2A	X	3.588	0.5
26	MP2A	Z	-2.071	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	-0.001	0.5
28	MP2A	X	3.588	4.5
29	MP2A	Z	-2.071	4.5
30	MP2A	Mx	-0.001	4.5
31	MP2A	X	3.588	0.5
32	MP2A	Z	-2.071	0.5
33	MP2A	Mx	-0.005	0.5
34	MP2A	X	3.588	4.5
35	MP2A	Z	-2.071	4.5
36	MP2A	Mx	-0.005	4.5
37	MP1A	X	1.302	1.5
38	MP1A	Z	-0.752	1.5
39	MP1A	Mx	-0.001	1.5
40	MP1A	X	1.302	3.5
41	MP1A	Z	-0.752	3.5
42	MP1A	Mx	-0.001	3.5
43	MP1B	X	2.125	1.5
44	MP1B	Z	-1.227	1.5
45	MP1B	Mx	0.001	1.5
46	MP1B	X	2.125	3.5
47	MP1B	Z	-1.227	3.5
48	MP1B	Mx	0.001	3.5
49	MP1C	X	2.125	1.5
50	MP1C	Z	-1.227	1.5
51	MP1C	Mx	0.001	1.5
52	MP1C	X	2.125	3.5
53	MP1C	Z	-1.227	3.5
54	MP1C	Mx	0.001	3.5
55	O1	X	4.173	1
56	O1	Z	-2.41	1
57	O1	Mx	0	1
58	MP3A	X	1.874	1
59	MP3A	Z	-1.082	1
60	MP3A	Mx	0.000937	1
61	MP3B	X	1.874	1
62	MP3B	Z	-1.082	1
63	MP3B	Mx	-0.000937	1
64	MP3C	X	2.488	1
65	MP3C	Z	-1.436	1
66	MP3C	Mx	0	1
67	MP2A	X	1.754	1
68	MP2A	Z	-1.012	1
69	MP2A	Mx	0.000877	1
70	MP2B	X	1.754	1
71	MP2B	Z	-1.012	1
72	MP2B	Mx	-0.000877	1
73	MP2C	X	2.488	1
74	MP2C	Z	-1.436	1
75	MP2C	Mx	0	1
76	MP5A	X	1.926	1
77	MP5A	Z	-1.112	1
78	MP5A	Mx	0	1
79	MP5B	X	1.926	1
80	MP5B	Z	-1.112	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	2.363	0.5
2	MP2B	Z	0	0.5
3	MP2B	Mx	0.001	0.5
4	MP2B	X	2.363	4.5
5	MP2B	Z	0	4.5
6	MP2B	Mx	0.001	4.5
7	MP2C	X	2.822	0.5
8	MP2C	Z	0	0.5
9	MP2C	Mx	0.001	0.5
10	MP2C	X	2.822	4.5
11	MP2C	Z	0	4.5
12	MP2C	Mx	0.001	4.5
13	MP2B	X	2.363	0.5
14	MP2B	Z	0	0.5
15	MP2B	Mx	-0.001	0.5
16	MP2B	X	2.363	4.5
17	MP2B	Z	0	4.5
18	MP2B	Mx	-0.001	4.5
19	MP2C	X	2.822	0.5
20	MP2C	Z	0	0.5
21	MP2C	Mx	0.003	0.5
22	MP2C	X	2.822	4.5
23	MP2C	Z	0	4.5
24	MP2C	Mx	0.003	4.5
25	MP2A	X	3.299	0.5
26	MP2A	Z	0	0.5
27	MP2A	Mx	-0.003	0.5
28	MP2A	X	3.299	4.5
29	MP2A	Z	0	4.5
30	MP2A	Mx	-0.003	4.5
31	MP2A	X	3.299	0.5
32	MP2A	Z	0	0.5
33	MP2A	Mx	-0.003	0.5
34	MP2A	X	3.299	4.5
35	MP2A	Z	0	4.5
36	MP2A	Mx	-0.003	4.5
37	MP1A	X	1.029	1.5
38	MP1A	Z	0	1.5
39	MP1A	Mx	-0.000858	1.5
40	MP1A	X	1.029	3.5
41	MP1A	Z	0	3.5
42	MP1A	Mx	-0.000858	3.5
43	MP1B	X	2.929	1.5
44	MP1B	Z	0	1.5
45	MP1B	Mx	0	1.5
46	MP1B	X	2.929	3.5
47	MP1B	Z	0	3.5
48	MP1B	Mx	0	3.5
49	MP1C	X	1.504	1.5
50	MP1C	Z	0	1.5
51	MP1C	Mx	0.001	1.5
52	MP1C	X	1.504	3.5
53	MP1C	Z	0	3.5
54	MP1C	Mx	0.001	3.5
55	O1	X	4.467	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	0	1
57	O1	Mx	0	1
58	MP3A	X	1.928	1
59	MP3A	Z	0	1
60	MP3A	Mx	0.000964	1
61	MP3B	X	2.637	1
62	MP3B	Z	0	1
63	MP3B	Mx	-0.000659	1
64	MP3C	X	2.637	1
65	MP3C	Z	0	1
66	MP3C	Mx	-0.000659	1
67	MP2A	X	1.742	1
68	MP2A	Z	0	1
69	MP2A	Mx	0.000871	1
70	MP2B	X	2.59	1
71	MP2B	Z	0	1
72	MP2B	Mx	-0.000648	1
73	MP2C	X	2.59	1
74	MP2C	Z	0	1
75	MP2C	Mx	-0.000648	1
76	MP5A	X	0	1
77	MP5A	Z	0	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	0	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	2.179	0.5
2	MP2B	Z	1.258	0.5
3	MP2B	Mx	0.000223	0.5
4	MP2B	X	2.179	4.5
5	MP2B	Z	1.258	4.5
6	MP2B	Mx	0.000223	4.5
7	MP2C	X	2.576	0.5
8	MP2C	Z	1.487	0.5
9	MP2C	Mx	0.002	0.5
10	MP2C	X	2.576	4.5
11	MP2C	Z	1.487	4.5
12	MP2C	Mx	0.002	4.5
13	MP2B	X	2.179	0.5
14	MP2B	Z	1.258	0.5
15	MP2B	Mx	-0.002	0.5
16	MP2B	X	2.179	4.5
17	MP2B	Z	1.258	4.5
18	MP2B	Mx	-0.002	4.5
19	MP2C	X	2.576	0.5
20	MP2C	Z	1.487	0.5
21	MP2C	Mx	0.002	0.5
22	MP2C	X	2.576	4.5
23	MP2C	Z	1.487	4.5
24	MP2C	Mx	0.002	4.5
25	MP2A	X	3.588	0.5
26	MP2A	Z	2.071	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	-0.005	0.5
28	MP2A	X	3.588	4.5
29	MP2A	Z	2.071	4.5
30	MP2A	Mx	-0.005	4.5
31	MP2A	X	3.588	0.5
32	MP2A	Z	2.071	0.5
33	MP2A	Mx	-0.001	0.5
34	MP2A	X	3.588	4.5
35	MP2A	Z	2.071	4.5
36	MP2A	Mx	-0.001	4.5
37	MP1A	X	1.302	1.5
38	MP1A	Z	0.752	1.5
39	MP1A	Mx	-0.001	1.5
40	MP1A	X	1.302	3.5
41	MP1A	Z	0.752	3.5
42	MP1A	Mx	-0.001	3.5
43	MP1B	X	2.125	1.5
44	MP1B	Z	1.227	1.5
45	MP1B	Mx	-0.001	1.5
46	MP1B	X	2.125	3.5
47	MP1B	Z	1.227	3.5
48	MP1B	Mx	-0.001	3.5
49	MP1C	X	0.891	1.5
50	MP1C	Z	0.514	1.5
51	MP1C	Mx	0.000857	1.5
52	MP1C	X	0.891	3.5
53	MP1C	Z	0.514	3.5
54	MP1C	Mx	0.000857	3.5
55	O1	X	4.173	1
56	O1	Z	2.41	1
57	O1	Mx	0	1
58	MP3A	X	1.874	1
59	MP3A	Z	1.082	1
60	MP3A	Mx	0.000937	1
61	MP3B	X	2.488	1
62	MP3B	Z	1.436	1
63	MP3B	Mx	0	1
64	MP3C	X	1.874	1
65	MP3C	Z	1.082	1
66	MP3C	Mx	-0.000937	1
67	MP2A	X	1.754	1
68	MP2A	Z	1.012	1
69	MP2A	Mx	0.000877	1
70	MP2B	X	2.488	1
71	MP2B	Z	1.436	1
72	MP2B	Mx	0	1
73	MP2C	X	1.754	1
74	MP2C	Z	1.012	1
75	MP2C	Mx	-0.000877	1
76	MP5A	X	1.926	1
77	MP5A	Z	1.112	1
78	MP5A	Mx	0	1
79	MP5B	X	1.926	1
80	MP5B	Z	1.112	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	1.411	0.5
2	MP2B	Z	2.444	0.5
3	MP2B	Mx	-0.001	0.5
4	MP2B	X	1.411	4.5
5	MP2B	Z	2.444	4.5
6	MP2B	Mx	-0.001	4.5
7	MP2C	X	1.411	0.5
8	MP2C	Z	2.444	0.5
9	MP2C	Mx	0.003	0.5
10	MP2C	X	1.411	4.5
11	MP2C	Z	2.444	4.5
12	MP2C	Mx	0.003	4.5
13	MP2B	X	1.411	0.5
14	MP2B	Z	2.444	0.5
15	MP2B	Mx	-0.003	0.5
16	MP2B	X	1.411	4.5
17	MP2B	Z	2.444	4.5
18	MP2B	Mx	-0.003	4.5
19	MP2C	X	1.411	0.5
20	MP2C	Z	2.444	0.5
21	MP2C	Mx	0.001	0.5
22	MP2C	X	1.411	4.5
23	MP2C	Z	2.444	4.5
24	MP2C	Mx	0.001	4.5
25	MP2A	X	2.915	0.5
26	MP2A	Z	5.048	0.5
27	MP2A	Mx	-0.007	0.5
28	MP2A	X	2.915	4.5
29	MP2A	Z	5.048	4.5
30	MP2A	Mx	-0.007	4.5
31	MP2A	X	2.915	0.5
32	MP2A	Z	5.048	0.5
33	MP2A	Mx	0.002	0.5
34	MP2A	X	2.915	4.5
35	MP2A	Z	5.048	4.5
36	MP2A	Mx	0.002	4.5
37	MP1A	X	1.227	1.5
38	MP1A	Z	2.125	1.5
39	MP1A	Mx	-0.001	1.5
40	MP1A	X	1.227	3.5
41	MP1A	Z	2.125	3.5
42	MP1A	Mx	-0.001	3.5
43	MP1B	X	0.752	1.5
44	MP1B	Z	1.302	1.5
45	MP1B	Mx	-0.001	1.5
46	MP1B	X	0.752	3.5
47	MP1B	Z	1.302	3.5
48	MP1B	Mx	-0.001	3.5
49	MP1C	X	0.752	1.5
50	MP1C	Z	1.302	1.5
51	MP1C	Mx	0.001	1.5
52	MP1C	X	0.752	3.5
53	MP1C	Z	1.302	3.5
54	MP1C	Mx	0.001	3.5
55	O1	X	2.762	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	4.783	1
57	O1	Mx	0	1
58	MP3A	X	1.318	1
59	MP3A	Z	2.283	1
60	MP3A	Mx	0.000659	1
61	MP3B	X	1.318	1
62	MP3B	Z	2.283	1
63	MP3B	Mx	0.000659	1
64	MP3C	X	0.964	1
65	MP3C	Z	1.669	1
66	MP3C	Mx	-0.000964	1
67	MP2A	X	1.295	1
68	MP2A	Z	2.243	1
69	MP2A	Mx	0.000648	1
70	MP2B	X	1.295	1
71	MP2B	Z	2.243	1
72	MP2B	Mx	0.000647	1
73	MP2C	X	0.871	1
74	MP2C	Z	1.509	1
75	MP2C	Mx	-0.000871	1
76	MP5A	X	3.336	1
77	MP5A	Z	5.779	1
78	MP5A	Mx	0	1
79	MP5B	X	3.336	1
80	MP5B	Z	5.779	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	0	0.5
2	MP2B	Z	2.975	0.5
3	MP2B	Mx	-0.002	0.5
4	MP2B	X	0	4.5
5	MP2B	Z	2.975	4.5
6	MP2B	Mx	-0.002	4.5
7	MP2C	X	0	0.5
8	MP2C	Z	2.516	0.5
9	MP2C	Mx	0.002	0.5
10	MP2C	X	0	4.5
11	MP2C	Z	2.516	4.5
12	MP2C	Mx	0.002	4.5
13	MP2B	X	0	0.5
14	MP2B	Z	2.975	0.5
15	MP2B	Mx	-0.002	0.5
16	MP2B	X	0	4.5
17	MP2B	Z	2.975	4.5
18	MP2B	Mx	-0.002	4.5
19	MP2C	X	0	0.5
20	MP2C	Z	2.516	0.5
21	MP2C	Mx	-0.000223	0.5
22	MP2C	X	0	4.5
23	MP2C	Z	2.516	4.5
24	MP2C	Mx	-0.000223	4.5
25	MP2A	X	0	0.5
26	MP2A	Z	6.673	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	-0.006	0.5
28	MP2A	X	0	4.5
29	MP2A	Z	6.673	4.5
30	MP2A	Mx	-0.006	4.5
31	MP2A	X	0	0.5
32	MP2A	Z	6.673	0.5
33	MP2A	Mx	0.006	0.5
34	MP2A	X	0	4.5
35	MP2A	Z	6.673	4.5
36	MP2A	Mx	0.006	4.5
37	MP1A	X	0	1.5
38	MP1A	Z	2.929	1.5
39	MP1A	Mx	0	1.5
40	MP1A	X	0	3.5
41	MP1A	Z	2.929	3.5
42	MP1A	Mx	0	3.5
43	MP1B	X	0	1.5
44	MP1B	Z	1.029	1.5
45	MP1B	Mx	-0.000858	1.5
46	MP1B	X	0	3.5
47	MP1B	Z	1.029	3.5
48	MP1B	Mx	-0.000858	3.5
49	MP1C	X	0	1.5
50	MP1C	Z	2.454	1.5
51	MP1C	Mx	0.001	1.5
52	MP1C	X	0	3.5
53	MP1C	Z	2.454	3.5
54	MP1C	Mx	0.001	3.5
55	O1	X	0	1
56	O1	Z	5.876	1
57	O1	Mx	0	1
58	MP3A	X	0	1
59	MP3A	Z	2.873	1
60	MP3A	Mx	0	1
61	MP3B	X	0	1
62	MP3B	Z	2.164	1
63	MP3B	Mx	0.000937	1
64	MP3C	X	0	1
65	MP3C	Z	2.164	1
66	MP3C	Mx	-0.000937	1
67	MP2A	X	0	1
68	MP2A	Z	2.873	1
69	MP2A	Mx	0	1
70	MP2B	X	0	1
71	MP2B	Z	2.025	1
72	MP2B	Mx	0.000877	1
73	MP2C	X	0	1
74	MP2C	Z	2.025	1
75	MP2C	Mx	-0.000877	1
76	MP5A	X	0	1
77	MP5A	Z	8.897	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	8.897	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-1.411	0.5
2	MP2B	Z	2.444	0.5
3	MP2B	Mx	-0.003	0.5
4	MP2B	X	-1.411	4.5
5	MP2B	Z	2.444	4.5
6	MP2B	Mx	-0.003	4.5
7	MP2C	X	-1.182	0.5
8	MP2C	Z	2.047	0.5
9	MP2C	Mx	0.001	0.5
10	MP2C	X	-1.182	4.5
11	MP2C	Z	2.047	4.5
12	MP2C	Mx	0.001	4.5
13	MP2B	X	-1.411	0.5
14	MP2B	Z	2.444	0.5
15	MP2B	Mx	-0.001	0.5
16	MP2B	X	-1.411	4.5
17	MP2B	Z	2.444	4.5
18	MP2B	Mx	-0.001	4.5
19	MP2C	X	-1.182	0.5
20	MP2C	Z	2.047	0.5
21	MP2C	Mx	-0.001	0.5
22	MP2C	X	-1.182	4.5
23	MP2C	Z	2.047	4.5
24	MP2C	Mx	-0.001	4.5
25	MP2A	X	-2.915	0.5
26	MP2A	Z	5.048	0.5
27	MP2A	Mx	-0.002	0.5
28	MP2A	X	-2.915	4.5
29	MP2A	Z	5.048	4.5
30	MP2A	Mx	-0.002	4.5
31	MP2A	X	-2.915	0.5
32	MP2A	Z	5.048	0.5
33	MP2A	Mx	0.007	0.5
34	MP2A	X	-2.915	4.5
35	MP2A	Z	5.048	4.5
36	MP2A	Mx	0.007	4.5
37	MP1A	X	-1.227	1.5
38	MP1A	Z	2.125	1.5
39	MP1A	Mx	0.001	1.5
40	MP1A	X	-1.227	3.5
41	MP1A	Z	2.125	3.5
42	MP1A	Mx	0.001	3.5
43	MP1B	X	-0.752	1.5
44	MP1B	Z	1.302	1.5
45	MP1B	Mx	-0.001	1.5
46	MP1B	X	-0.752	3.5
47	MP1B	Z	1.302	3.5
48	MP1B	Mx	-0.001	3.5
49	MP1C	X	-1.464	1.5
50	MP1C	Z	2.536	1.5
51	MP1C	Mx	0	1.5
52	MP1C	X	-1.464	3.5
53	MP1C	Z	2.536	3.5
54	MP1C	Mx	0	3.5
55	O1	X	-2.762	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	4.783	1
57	O1	Mx	0	1
58	MP3A	X	-1.318	1
59	MP3A	Z	2.283	1
60	MP3A	Mx	-0.000659	1
61	MP3B	X	-0.964	1
62	MP3B	Z	1.669	1
63	MP3B	Mx	0.000964	1
64	MP3C	X	-1.318	1
65	MP3C	Z	2.283	1
66	MP3C	Mx	-0.000659	1
67	MP2A	X	-1.295	1
68	MP2A	Z	2.243	1
69	MP2A	Mx	-0.000648	1
70	MP2B	X	-0.871	1
71	MP2B	Z	1.509	1
72	MP2B	Mx	0.000871	1
73	MP2C	X	-1.295	1
74	MP2C	Z	2.243	1
75	MP2C	Mx	-0.000647	1
76	MP5A	X	-3.336	1
77	MP5A	Z	5.779	1
78	MP5A	Mx	0	1
79	MP5B	X	-3.336	1
80	MP5B	Z	5.779	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-2.179	0.5
2	MP2B	Z	1.258	0.5
3	MP2B	Mx	-0.002	0.5
4	MP2B	X	-2.179	4.5
5	MP2B	Z	1.258	4.5
6	MP2B	Mx	-0.002	4.5
7	MP2C	X	-2.179	0.5
8	MP2C	Z	1.258	0.5
9	MP2C	Mx	0.000223	0.5
10	MP2C	X	-2.179	4.5
11	MP2C	Z	1.258	4.5
12	MP2C	Mx	0.000223	4.5
13	MP2B	X	-2.179	0.5
14	MP2B	Z	1.258	0.5
15	MP2B	Mx	0.000223	0.5
16	MP2B	X	-2.179	4.5
17	MP2B	Z	1.258	4.5
18	MP2B	Mx	0.000223	4.5
19	MP2C	X	-2.179	0.5
20	MP2C	Z	1.258	0.5
21	MP2C	Mx	-0.002	0.5
22	MP2C	X	-2.179	4.5
23	MP2C	Z	1.258	4.5
24	MP2C	Mx	-0.002	4.5
25	MP2A	X	-3.588	0.5
26	MP2A	Z	2.071	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.001	0.5
28	MP2A	X	-3.588	4.5
29	MP2A	Z	2.071	4.5
30	MP2A	Mx	0.001	4.5
31	MP2A	X	-3.588	0.5
32	MP2A	Z	2.071	0.5
33	MP2A	Mx	0.005	0.5
34	MP2A	X	-3.588	4.5
35	MP2A	Z	2.071	4.5
36	MP2A	Mx	0.005	4.5
37	MP1A	X	-1.302	1.5
38	MP1A	Z	0.752	1.5
39	MP1A	Mx	0.001	1.5
40	MP1A	X	-1.302	3.5
41	MP1A	Z	0.752	3.5
42	MP1A	Mx	0.001	3.5
43	MP1B	X	-2.125	1.5
44	MP1B	Z	1.227	1.5
45	MP1B	Mx	-0.001	1.5
46	MP1B	X	-2.125	3.5
47	MP1B	Z	1.227	3.5
48	MP1B	Mx	-0.001	3.5
49	MP1C	X	-2.125	1.5
50	MP1C	Z	1.227	1.5
51	MP1C	Mx	-0.001	1.5
52	MP1C	X	-2.125	3.5
53	MP1C	Z	1.227	3.5
54	MP1C	Mx	-0.001	3.5
55	O1	X	-4.173	1
56	O1	Z	2.41	1
57	O1	Mx	0	1
58	MP3A	X	-1.874	1
59	MP3A	Z	1.082	1
60	MP3A	Mx	-0.000937	1
61	MP3B	X	-1.874	1
62	MP3B	Z	1.082	1
63	MP3B	Mx	0.000937	1
64	MP3C	X	-2.488	1
65	MP3C	Z	1.436	1
66	MP3C	Mx	0	1
67	MP2A	X	-1.754	1
68	MP2A	Z	1.012	1
69	MP2A	Mx	-0.000877	1
70	MP2B	X	-1.754	1
71	MP2B	Z	1.012	1
72	MP2B	Mx	0.000877	1
73	MP2C	X	-2.488	1
74	MP2C	Z	1.436	1
75	MP2C	Mx	0	1
76	MP5A	X	-1.926	1
77	MP5A	Z	1.112	1
78	MP5A	Mx	0	1
79	MP5B	X	-1.926	1
80	MP5B	Z	1.112	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-2.363	0.5
2	MP2B	Z	0	0.5
3	MP2B	Mx	-0.001	0.5
4	MP2B	X	-2.363	4.5
5	MP2B	Z	0	4.5
6	MP2B	Mx	-0.001	4.5
7	MP2C	X	-2.822	0.5
8	MP2C	Z	0	0.5
9	MP2C	Mx	-0.001	0.5
10	MP2C	X	-2.822	4.5
11	MP2C	Z	0	4.5
12	MP2C	Mx	-0.001	4.5
13	MP2B	X	-2.363	0.5
14	MP2B	Z	0	0.5
15	MP2B	Mx	0.001	0.5
16	MP2B	X	-2.363	4.5
17	MP2B	Z	0	4.5
18	MP2B	Mx	0.001	4.5
19	MP2C	X	-2.822	0.5
20	MP2C	Z	0	0.5
21	MP2C	Mx	-0.003	0.5
22	MP2C	X	-2.822	4.5
23	MP2C	Z	0	4.5
24	MP2C	Mx	-0.003	4.5
25	MP2A	X	-3.299	0.5
26	MP2A	Z	0	0.5
27	MP2A	Mx	0.003	0.5
28	MP2A	X	-3.299	4.5
29	MP2A	Z	0	4.5
30	MP2A	Mx	0.003	4.5
31	MP2A	X	-3.299	0.5
32	MP2A	Z	0	0.5
33	MP2A	Mx	0.003	0.5
34	MP2A	X	-3.299	4.5
35	MP2A	Z	0	4.5
36	MP2A	Mx	0.003	4.5
37	MP1A	X	-1.029	1.5
38	MP1A	Z	0	1.5
39	MP1A	Mx	0.000858	1.5
40	MP1A	X	-1.029	3.5
41	MP1A	Z	0	3.5
42	MP1A	Mx	0.000858	3.5
43	MP1B	X	-2.929	1.5
44	MP1B	Z	0	1.5
45	MP1B	Mx	0	1.5
46	MP1B	X	-2.929	3.5
47	MP1B	Z	0	3.5
48	MP1B	Mx	0	3.5
49	MP1C	X	-1.504	1.5
50	MP1C	Z	0	1.5
51	MP1C	Mx	-0.001	1.5
52	MP1C	X	-1.504	3.5
53	MP1C	Z	0	3.5
54	MP1C	Mx	-0.001	3.5
55	O1	X	-4.467	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	0	1
57	O1	Mx	0	1
58	MP3A	X	-1.928	1
59	MP3A	Z	0	1
60	MP3A	Mx	-0.000964	1
61	MP3B	X	-2.637	1
62	MP3B	Z	0	1
63	MP3B	Mx	0.000659	1
64	MP3C	X	-2.637	1
65	MP3C	Z	0	1
66	MP3C	Mx	0.000659	1
67	MP2A	X	-1.742	1
68	MP2A	Z	0	1
69	MP2A	Mx	-0.000871	1
70	MP2B	X	-2.59	1
71	MP2B	Z	0	1
72	MP2B	Mx	0.000648	1
73	MP2C	X	-2.59	1
74	MP2C	Z	0	1
75	MP2C	Mx	0.000648	1
76	MP5A	X	0	1
77	MP5A	Z	0	1
78	MP5A	Mx	0	1
79	MP5B	X	0	1
80	MP5B	Z	0	1
81	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-2.179	0.5
2	MP2B	Z	-1.258	0.5
3	MP2B	Mx	-0.000223	0.5
4	MP2B	X	-2.179	4.5
5	MP2B	Z	-1.258	4.5
6	MP2B	Mx	-0.000223	4.5
7	MP2C	X	-2.576	0.5
8	MP2C	Z	-1.487	0.5
9	MP2C	Mx	-0.002	0.5
10	MP2C	X	-2.576	4.5
11	MP2C	Z	-1.487	4.5
12	MP2C	Mx	-0.002	4.5
13	MP2B	X	-2.179	0.5
14	MP2B	Z	-1.258	0.5
15	MP2B	Mx	0.002	0.5
16	MP2B	X	-2.179	4.5
17	MP2B	Z	-1.258	4.5
18	MP2B	Mx	0.002	4.5
19	MP2C	X	-2.576	0.5
20	MP2C	Z	-1.487	0.5
21	MP2C	Mx	-0.002	0.5
22	MP2C	X	-2.576	4.5
23	MP2C	Z	-1.487	4.5
24	MP2C	Mx	-0.002	4.5
25	MP2A	X	-3.588	0.5
26	MP2A	Z	-2.071	0.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2A	Mx	0.005	0.5
28	MP2A	X	-3.588	4.5
29	MP2A	Z	-2.071	4.5
30	MP2A	Mx	0.005	4.5
31	MP2A	X	-3.588	0.5
32	MP2A	Z	-2.071	0.5
33	MP2A	Mx	0.001	0.5
34	MP2A	X	-3.588	4.5
35	MP2A	Z	-2.071	4.5
36	MP2A	Mx	0.001	4.5
37	MP1A	X	-1.302	1.5
38	MP1A	Z	-0.752	1.5
39	MP1A	Mx	0.001	1.5
40	MP1A	X	-1.302	3.5
41	MP1A	Z	-0.752	3.5
42	MP1A	Mx	0.001	3.5
43	MP1B	X	-2.125	1.5
44	MP1B	Z	-1.227	1.5
45	MP1B	Mx	0.001	1.5
46	MP1B	X	-2.125	3.5
47	MP1B	Z	-1.227	3.5
48	MP1B	Mx	0.001	3.5
49	MP1C	X	-0.891	1.5
50	MP1C	Z	-0.514	1.5
51	MP1C	Mx	-0.000857	1.5
52	MP1C	X	-0.891	3.5
53	MP1C	Z	-0.514	3.5
54	MP1C	Mx	-0.000857	3.5
55	O1	X	-4.173	1
56	O1	Z	-2.41	1
57	O1	Mx	0	1
58	MP3A	X	-1.874	1
59	MP3A	Z	-1.082	1
60	MP3A	Mx	-0.000937	1
61	MP3B	X	-2.488	1
62	MP3B	Z	-1.436	1
63	MP3B	Mx	0	1
64	MP3C	X	-1.874	1
65	MP3C	Z	-1.082	1
66	MP3C	Mx	0.000937	1
67	MP2A	X	-1.754	1
68	MP2A	Z	-1.012	1
69	MP2A	Mx	-0.000877	1
70	MP2B	X	-2.488	1
71	MP2B	Z	-1.436	1
72	MP2B	Mx	0	1
73	MP2C	X	-1.754	1
74	MP2C	Z	-1.012	1
75	MP2C	Mx	0.000877	1
76	MP5A	X	-1.926	1
77	MP5A	Z	-1.112	1
78	MP5A	Mx	0	1
79	MP5B	X	-1.926	1
80	MP5B	Z	-1.112	1
81	MP5B	Mx	0	1

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	-1.411	0.5
2	MP2B	Z	-2.444	0.5
3	MP2B	Mx	0.001	0.5
4	MP2B	X	-1.411	4.5
5	MP2B	Z	-2.444	4.5
6	MP2B	Mx	0.001	4.5
7	MP2C	X	-1.411	0.5
8	MP2C	Z	-2.444	0.5
9	MP2C	Mx	-0.003	0.5
10	MP2C	X	-1.411	4.5
11	MP2C	Z	-2.444	4.5
12	MP2C	Mx	-0.003	4.5
13	MP2B	X	-1.411	0.5
14	MP2B	Z	-2.444	0.5
15	MP2B	Mx	0.003	0.5
16	MP2B	X	-1.411	4.5
17	MP2B	Z	-2.444	4.5
18	MP2B	Mx	0.003	4.5
19	MP2C	X	-1.411	0.5
20	MP2C	Z	-2.444	0.5
21	MP2C	Mx	-0.001	0.5
22	MP2C	X	-1.411	4.5
23	MP2C	Z	-2.444	4.5
24	MP2C	Mx	-0.001	4.5
25	MP2A	X	-2.915	0.5
26	MP2A	Z	-5.048	0.5
27	MP2A	Mx	0.007	0.5
28	MP2A	X	-2.915	4.5
29	MP2A	Z	-5.048	4.5
30	MP2A	Mx	0.007	4.5
31	MP2A	X	-2.915	0.5
32	MP2A	Z	-5.048	0.5
33	MP2A	Mx	-0.002	0.5
34	MP2A	X	-2.915	4.5
35	MP2A	Z	-5.048	4.5
36	MP2A	Mx	-0.002	4.5
37	MP1A	X	-1.227	1.5
38	MP1A	Z	-2.125	1.5
39	MP1A	Mx	0.001	1.5
40	MP1A	X	-1.227	3.5
41	MP1A	Z	-2.125	3.5
42	MP1A	Mx	0.001	3.5
43	MP1B	X	-0.752	1.5
44	MP1B	Z	-1.302	1.5
45	MP1B	Mx	0.001	1.5
46	MP1B	X	-0.752	3.5
47	MP1B	Z	-1.302	3.5
48	MP1B	Mx	0.001	3.5
49	MP1C	X	-0.752	1.5
50	MP1C	Z	-1.302	1.5
51	MP1C	Mx	-0.001	1.5
52	MP1C	X	-0.752	3.5
53	MP1C	Z	-1.302	3.5
54	MP1C	Mx	-0.001	3.5
55	O1	X	-2.762	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	O1	Z	-4.783	1
57	O1	Mx	0	1
58	MP3A	X	-1.318	1
59	MP3A	Z	-2.283	1
60	MP3A	Mx	-0.000659	1
61	MP3B	X	-1.318	1
62	MP3B	Z	-2.283	1
63	MP3B	Mx	-0.000659	1
64	MP3C	X	-0.964	1
65	MP3C	Z	-1.669	1
66	MP3C	Mx	0.000964	1
67	MP2A	X	-1.295	1
68	MP2A	Z	-2.243	1
69	MP2A	Mx	-0.000648	1
70	MP2B	X	-1.295	1
71	MP2B	Z	-2.243	1
72	MP2B	Mx	-0.000647	1
73	MP2C	X	-0.871	1
74	MP2C	Z	-1.509	1
75	MP2C	Mx	0.000871	1
76	MP5A	X	-3.336	1
77	MP5A	Z	-5.779	1
78	MP5A	Mx	0	1
79	MP5B	X	-3.336	1
80	MP5B	Z	-5.779	1
81	MP5B	Mx	0	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M42	Y	-500	%59

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M42	Y	-500	%93

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M42	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M42	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	Y	-1.641	0.5
2	MP2B	My	0.000957	0.5
3	MP2B	Mz	-0.001	0.5
4	MP2B	Y	-1.641	4.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP2B	My	0.000957	4.5
6	MP2B	Mz	-0.001	4.5
7	MP2C	Y	-1.641	0.5
8	MP2C	My	0.000706	0.5
9	MP2C	Mz	0.002	0.5
10	MP2C	Y	-1.641	4.5
11	MP2C	My	0.000706	4.5
12	MP2C	Mz	0.002	4.5
13	MP2B	Y	-1.641	0.5
14	MP2B	My	-0.000957	0.5
15	MP2B	Mz	-0.001	0.5
16	MP2B	Y	-1.641	4.5
17	MP2B	My	-0.000957	4.5
18	MP2B	Mz	-0.001	4.5
19	MP2C	Y	-1.641	0.5
20	MP2C	My	0.002	0.5
21	MP2C	Mz	-0.000145	0.5
22	MP2C	Y	-1.641	4.5
23	MP2C	My	0.002	4.5
24	MP2C	Mz	-0.000145	4.5
25	MP2A	Y	-2.069	0.5
26	MP2A	My	-0.002	0.5
27	MP2A	Mz	-0.002	0.5
28	MP2A	Y	-2.069	4.5
29	MP2A	My	-0.002	4.5
30	MP2A	Mz	-0.002	4.5
31	MP2A	Y	-2.069	0.5
32	MP2A	My	-0.002	0.5
33	MP2A	Mz	0.002	0.5
34	MP2A	Y	-2.069	4.5
35	MP2A	My	-0.002	4.5
36	MP2A	Mz	0.002	4.5
37	MP1A	Y	-1.363	1.5
38	MP1A	My	-0.001	1.5
39	MP1A	Mz	0	1.5
40	MP1A	Y	-1.363	3.5
41	MP1A	My	-0.001	3.5
42	MP1A	Mz	0	3.5
43	MP1B	Y	-1.363	1.5
44	MP1B	My	0	1.5
45	MP1B	Mz	-0.001	1.5
46	MP1B	Y	-1.363	3.5
47	MP1B	My	0	3.5
48	MP1B	Mz	-0.001	3.5
49	MP1C	Y	-1.363	1.5
50	MP1C	My	0.000984	1.5
51	MP1C	Mz	0.000568	1.5
52	MP1C	Y	-1.363	3.5
53	MP1C	My	0.000984	3.5
54	MP1C	Mz	0.000568	3.5
55	O1	Y	-1.522	1
56	O1	My	0	1
57	O1	Mz	0	1
58	MP3A	Y	-3.554	1
59	MP3A	My	0.002	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
60	MP3A	Mz	0	1
61	MP3B	Y	-3.554	1
62	MP3B	My	-0.000888	1
63	MP3B	Mz	0.002	1
64	MP3C	Y	-3.554	1
65	MP3C	My	-0.000888	1
66	MP3C	Mz	-0.002	1
67	MP2A	Y	-3.344	1
68	MP2A	My	0.002	1
69	MP2A	Mz	0	1
70	MP2B	Y	-3.344	1
71	MP2B	My	-0.000836	1
72	MP2B	Mz	0.001	1
73	MP2C	Y	-3.344	1
74	MP2C	My	-0.000836	1
75	MP2C	Mz	-0.001	1
76	MP5A	Y	-2.617	1
77	MP5A	My	0	1
78	MP5A	Mz	0	1
79	MP5B	Y	-2.617	1
80	MP5B	My	0	1
81	MP5B	Mz	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	Z	-4.103	0.5
2	MP2B	Mx	0.003	0.5
3	MP2B	Z	-4.103	4.5
4	MP2B	Mx	0.003	4.5
5	MP2C	Z	-4.103	0.5
6	MP2C	Mx	-0.004	0.5
7	MP2C	Z	-4.103	4.5
8	MP2C	Mx	-0.004	4.5
9	MP2B	Z	-4.103	0.5
10	MP2B	Mx	0.003	0.5
11	MP2B	Z	-4.103	4.5
12	MP2B	Mx	0.003	4.5
13	MP2C	Z	-4.103	0.5
14	MP2C	Mx	0.000363	0.5
15	MP2C	Z	-4.103	4.5
16	MP2C	Mx	0.000363	4.5
17	MP2A	Z	-5.174	0.5
18	MP2A	Mx	0.004	0.5
19	MP2A	Z	-5.174	4.5
20	MP2A	Mx	0.004	4.5
21	MP2A	Z	-5.174	0.5
22	MP2A	Mx	-0.004	0.5
23	MP2A	Z	-5.174	4.5
24	MP2A	Mx	-0.004	4.5
25	MP1A	Z	-3.407	1.5
26	MP1A	Mx	0	1.5
27	MP1A	Z	-3.407	3.5
28	MP1A	Mx	0	3.5
29	MP1B	Z	-3.407	1.5
30	MP1B	Mx	0.003	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
31	MP1B	Z	-3.407	3.5
32	MP1B	Mx	0.003	3.5
33	MP1C	Z	-3.407	1.5
34	MP1C	Mx	-0.001	1.5
35	MP1C	Z	-3.407	3.5
36	MP1C	Mx	-0.001	3.5
37	O1	Z	-3.806	1
38	O1	Mx	0	1
39	MP3A	Z	-8.884	1
40	MP3A	Mx	0	1
41	MP3B	Z	-8.884	1
42	MP3B	Mx	-0.004	1
43	MP3C	Z	-8.884	1
44	MP3C	Mx	0.004	1
45	MP2A	Z	-8.361	1
46	MP2A	Mx	0	1
47	MP2B	Z	-8.361	1
48	MP2B	Mx	-0.004	1
49	MP2C	Z	-8.361	1
50	MP2C	Mx	0.004	1
51	MP5A	Z	-6.541	1
52	MP5A	Mx	0	1
53	MP5B	Z	-6.541	1
54	MP5B	Mx	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP2B	X	4.103	0.5
2	MP2B	Mx	0.002	0.5
3	MP2B	X	4.103	4.5
4	MP2B	Mx	0.002	4.5
5	MP2C	X	4.103	0.5
6	MP2C	Mx	0.002	0.5
7	MP2C	X	4.103	4.5
8	MP2C	Mx	0.002	4.5
9	MP2B	X	4.103	0.5
10	MP2B	Mx	-0.002	0.5
11	MP2B	X	4.103	4.5
12	MP2B	Mx	-0.002	4.5
13	MP2C	X	4.103	0.5
14	MP2C	Mx	0.004	0.5
15	MP2C	X	4.103	4.5
16	MP2C	Mx	0.004	4.5
17	MP2A	X	5.174	0.5
18	MP2A	Mx	-0.004	0.5
19	MP2A	X	5.174	4.5
20	MP2A	Mx	-0.004	4.5
21	MP2A	X	5.174	0.5
22	MP2A	Mx	-0.004	0.5
23	MP2A	X	5.174	4.5
24	MP2A	Mx	-0.004	4.5
25	MP1A	X	3.407	1.5
26	MP1A	Mx	-0.003	1.5
27	MP1A	X	3.407	3.5
28	MP1A	Mx	-0.003	3.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
29	MP1B	X	3.407	1.5
30	MP1B	Mx	0	1.5
31	MP1B	X	3.407	3.5
32	MP1B	Mx	0	3.5
33	MP1C	X	3.407	1.5
34	MP1C	Mx	0.002	1.5
35	MP1C	X	3.407	3.5
36	MP1C	Mx	0.002	3.5
37	O1	X	3.806	1
38	O1	Mx	0	1
39	MP3A	X	8.884	1
40	MP3A	Mx	0.004	1
41	MP3B	X	8.884	1
42	MP3B	Mx	-0.002	1
43	MP3C	X	8.884	1
44	MP3C	Mx	-0.002	1
45	MP2A	X	8.361	1
46	MP2A	Mx	0.004	1
47	MP2B	X	8.361	1
48	MP2B	Mx	-0.002	1
49	MP2C	X	8.361	1
50	MP2C	Mx	-0.002	1
51	MP5A	X	6.541	1
52	MP5A	Mx	0	1
53	MP5B	X	6.541	1
54	MP5B	Mx	0	1

Member Area Loads (BLC 39 : Structure D)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N17	N29	N130	N129	Y	A-B	-0.009
2	N17	N5	N128	N129	Y	A-B	-0.009
3	N130	N128	N5	N29	Y	A-B	-0.009

Member Area Loads (BLC 40 : Structure Di)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N17	N29	N130	N129	Y	A-B	-0.001
2	N17	N5	N128	N129	Y	A-B	-0.001
3	N130	N128	N5	N29	Y	A-B	-0.001

Member Area Loads (BLC 84 : Structure Ev)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N17	N29	N130	N129	Y	Two Way	-0.000247
2	N17	N5	N128	N129	Y	Two Way	-0.000247
3	N130	N128	N5	N29	Y	Two Way	-0.000247

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N17	N29	N130	N129	Z	Two Way	-0.000618
2	N17	N5	N128	N129	Z	Two Way	-0.000618
3	N130	N128	N5	N29	Z	Two Way	-0.000618

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N17	N29	N130	N129	X	Two Way	0.000618
2	N17	N5	N128	N129	X	Two Way	0.000618
3	N130	N128	N5	N29	X	Two Way	0.000618

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N3	max	312.241	10	-503.813	70	2715.487	1	-0.324	70	0.643	4	0.011	2
2		min	-311.945	4	-1351.218	13	-456.204	7	-0.861	13	-0.645	10	-0.055	22
3	N14	max	2352.37	21	-483.45	66	296.838	2	0.472	1	1.007	12	0.815	18
4		min	-273.124	3	-1295.784	21	-1489.446	8	-0.061	7	-1.007	6	0.27	12
5	N26	max	288.845	11	-436.419	74	274.2	12	0.46	42	0.724	8	-0.241	74
6		min	-2033.85	17	-1425.155	42	-1280.142	6	0.139	74	-0.723	2	-0.796	42
7	N132	max	23.818	10	3315.957	13	-1038.37	70	0	75	0	4	0	10
8		min	-23.821	4	1256.239	70	-2728.223	13	0	1	0	10	0	4
9	N134	max	-937.01	66	3544.835	21	1459.648	21	0	6	0	12	0	12
10		min	-2527.882	21	1308.544	66	540.978	66	0	12	0	6	0	6
11	N136	max	2332.468	42	3249.777	42	1346.277	41	0	8	0	8	0	8
12		min	824.249	74	1152.323	74	475.881	74	0	2	0	2	0	2
13	Totals:	max	2233.794	10	6027.758	19	2806.871	1						
14		min	-2233.795	4	2348.287	64	-2806.871	7						

Node Reactions

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N3	-65.284	-868.744	2715.487	-0.544	0.209	-0.019
2	1	N14	474.955	-610.27	222.346	0.472	0.719	0.316
3	1	N26	-267.995	-560.478	182.107	0.181	-0.464	-0.313
4	1	N132	0.273	2086.888	-1700.463	0	0	0
5	1	N134	-1231.143	1722.719	734.477	0	0	0
6	1	N136	1089.198	1526.306	652.917	0	0	0
7	1	Totals:	0.005	3296.42	2806.871			
8	1	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
9	2	N3	-116.864	-850.453	2476.389	-0.534	0.176	0.011
10	2	N14	-160.477	-560.806	296.838	0.371	0.174	0.413
11	2	N26	-1047.384	-630.915	-186.811	0.2	-0.723	-0.346
12	2	N132	-12.053	2047.76	-1671.098	0	0	0
13	2	N134	-1174.747	1628.071	692.19	0	0	0
14	2	N136	1175.657	1662.766	706.266	0	0	0
15	2	Totals:	-1335.868	3296.423	2313.776			
16	2	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
17	3	N3	-244.207	-792.408	1858.287	-0.502	0.462	0.001
18	3	N14	-273.124	-559.135	144.558	0.243	-0.042	0.491
19	3	N26	-1597.876	-690.222	-653.342	0.216	-0.427	-0.374
20	3	N132	-20.706	1933.914	-1585.101	0	0	0
21	3	N134	-1180.915	1624.35	681.818	0	0	0
22	3	N136	1251.19	1779.927	746.37	0	0	0
23	3	Totals:	-2065.638	3296.427	1192.591			
24	3	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
25	4	N3	-311.945	-731.382	1147.897	-0.468	0.643	-0.013
26	4	N14	-115.912	-584.682	-117.683	0.146	-0.181	0.529
27	4	N26	-1856.251	-718.759	-986.603	0.223	-0.071	-0.387
28	4	N132	-23.821	1812.008	-1495.676	0	0	0
29	4	N134	-1220.397	1674.55	690.612	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
30	4	N136	1294.532	1844.695	761.457	0	0	0
31	4	Totals:	-2233.795	3296.429	0.004			
32	4	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
33	5	N3	-189.214	-678.886	450.48	-0.44	0.285	0.001
34	5	N14	146.472	-634.26	-521.047	0.047	-0.648	0.562
35	5	N26	-2032.393	-737.776	-1177.043	0.228	-0.058	-0.395
36	5	N132	-20.947	1703.014	-1417.019	0	0	0
37	5	N134	-1280.282	1762.335	715.408	0	0	0
38	5	N136	1324.785	1882.006	764.756	0	0	0
39	5	Totals:	-2051.579	3296.432	-1184.466			
40	5	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
41	6	N3	-10.121	-627.607	-167.602	-0.413	-0.17	0.011
42	6	N14	726.034	-715.374	-1033.579	-0.05	-1.007	0.581
43	6	N26	-1994.302	-746.017	-1280.142	0.231	0.026	-0.401
44	6	N132	-12.429	1599.853	-1339.939	0	0	0
45	6	N134	-1371.869	1901.883	765.026	0	0	0
46	6	N136	1334.926	1883.698	756.528	0	0	0
47	6	Totals:	-1327.759	3296.436	-2299.707			
48	6	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
49	7	N3	64.957	-596.191	-456.204	-0.394	-0.21	-0.019
50	7	N14	1590.29	-802.489	-1415.766	-0.061	-0.719	0.535
51	7	N26	-1473.93	-712.604	-1188.646	0.223	0.465	-0.386
52	7	N132	-0.202	1541.888	-1294.877	0	0	0
53	7	N134	-1472.872	2058.511	826.831	0	0	0
54	7	N136	1291.751	1807.321	721.792	0	0	0
55	7	Totals:	-0.005	3296.436	-2806.871			
56	7	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
57	8	N3	116.72	-614.671	-217.674	-0.404	-0.176	-0.048
58	8	N14	2226.03	-851.704	-1489.446	0.04	-0.173	0.438
59	8	N26	-695.57	-642.576	-819.796	0.204	0.724	-0.353
60	8	N132	12.086	1581.182	-1324.376	0	0	0
61	8	N134	-1529.083	2152.828	868.909	0	0	0
62	8	N136	1205.685	1671.374	668.607	0	0	0
63	8	Totals:	1335.868	3296.433	-2313.776			
64	8	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
65	9	N3	243.959	-673.236	400.335	-0.437	-0.462	-0.038
66	9	N14	2339.309	-853.603	-1337.168	0.168	0.042	0.36
67	9	N26	-145.419	-583.301	-352.728	0.188	0.427	-0.325
68	9	N132	20.76	1695.588	-1410.828	0	0	0
69	9	N134	-1523.124	2156.809	879.353	0	0	0
70	9	N136	1130.152	1554.173	628.445	0	0	0
71	9	Totals:	2065.637	3296.43	-1192.591			
72	9	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
73	10	N3	312.241	-734.516	1111.067	-0.471	-0.645	-0.024
74	10	N14	2181.909	-828.257	-1074.686	0.265	0.182	0.322
75	10	N26	113.001	-554.636	-19.831	0.18	0.071	-0.313
76	10	N132	23.818	1817.798	-1500.502	0	0	0
77	10	N134	-1483.816	2106.846	870.639	0	0	0
78	10	N136	1086.64	1489.193	613.309	0	0	0
79	10	Totals:	2233.794	3296.428	-0.004			
80	10	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
81	11	N3	189.911	-786.826	1808.025	-0.498	-0.287	-0.038
82	11	N14	1919.788	-778.844	-671.007	0.364	0.648	0.289
83	11	N26	288.845	-535.418	170.624	0.175	0.058	-0.304
84	11	N132	20.919	1926.556	-1578.966	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
85	11	N134	-1424.124	2019.296	845.885	0	0	0
86	11	N136	1056.24	1451.662	609.904	0	0	0
87	11	Totals:	2051.578	3296.425	1184.466			
88	11	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
89	12	N3	10.123	-837.663	2426.204	-0.526	0.168	-0.048
90	12	N14	1340.204	-697.782	-159.446	0.462	1.007	0.27
91	12	N26	251.593	-526.918	274.2	0.172	-0.026	-0.298
92	12	N132	12.489	2029.241	-1655.659	0	0	0
93	12	N134	-1332.555	1879.844	796.388	0	0	0
94	12	N136	1045.904	1449.699	618.02	0	0	0
95	12	Totals:	1327.758	3296.421	2299.707			
96	12	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
97	13	N3	-24.09	-1351.218	2510.539	-0.861	0.073	-0.031
98	13	N14	1714.44	-1221.164	-839.946	0.43	0.228	0.742
99	13	N26	-1425.244	-1164.109	-716.161	0.37	-0.148	-0.641
100	13	N132	0.147	3315.957	-2728.223	0	0	0
101	13	N134	-2433.891	3407.774	1410.838	0	0	0
102	13	N136	2168.638	3040.513	1257.938	0	0	0
103	13	Totals:	0.001	6027.754	894.986			
104	13	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
105	14	N3	-57.395	-1347.309	2452.841	-0.859	0.117	-0.02
106	14	N14	1502.853	-1205.021	-795.453	0.403	0.098	0.764
107	14	N26	-1667.603	-1184.204	-838.702	0.375	-0.195	-0.65
108	14	N132	-2.636	3306.608	-2720.972	0	0	0
109	14	N134	-2413.977	3376.437	1396.783	0	0	0
110	14	N136	2194.945	3081.243	1274.21	0	0	0
111	14	Totals:	-443.813	6027.755	768.707			
112	14	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
113	15	N3	-106.534	-1330.796	2262.173	-0.85	0.242	-0.011
114	15	N14	1426.621	-1200.56	-809.696	0.366	0.056	0.783
115	15	N26	-1865.869	-1201.509	-1007.634	0.38	-0.073	-0.658
116	15	N132	-4.85	3273.584	-2695.292	0	0	0
117	15	N134	-2410.573	3369.127	1391.577	0	0	0
118	15	N136	2219.194	3117.909	1287.268	0	0	0
119	15	Totals:	-742.01	6027.755	428.396			
120	15	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
121	16	N3	-118.28	-1309.363	1997.534	-0.839	0.267	-0.008
122	16	N14	1461.538	-1207.09	-893.019	0.334	-0.024	0.797
123	16	N26	-1983.211	-1210.272	-1129.122	0.382	0.018	-0.661
124	16	N132	-5.842	3231.85	-2663.536	0	0	0
125	16	N134	-2421.716	3383.336	1394.882	0	0	0
126	16	N136	2234.18	3139.294	1293.262	0	0	0
127	16	Totals:	-833.332	6027.756	0.001			
128	16	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
129	17	N3	-67.024	-1290.725	1742.274	-0.829	0.109	-0.011
130	17	N14	1579.412	-1224.538	-1049.779	0.307	-0.212	0.81
131	17	N26	-2033.85	-1215.154	-1177.805	0.383	-0.011	-0.663
132	17	N132	-5.129	3193.949	-2634.975	0	0	0
133	17	N134	-2443.911	3414.871	1405.313	0	0	0
134	17	N136	2242.445	3149.354	1294.635	0	0	0
135	17	Totals:	-728.058	6027.757	-420.338			
136	17	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
137	18	N3	-6.536	-1276.607	1556.944	-0.821	-0.044	-0.02
138	18	N14	1793.196	-1250.095	-1223.805	0.29	-0.32	0.815
139	18	N26	-1987.888	-1215.976	-1189.291	0.384	0.013	-0.664

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
140	18	N132	-2.962	3163.91	-2611.785	0	0	0
141	18	N134	-2474.063	3459.721	1421.799	0	0	0
142	18	N136	2242.495	3146.805	1291.386	0	0	0
143	18	Totals:	-435.758	6027.758	-754.752			
144	18	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
145	19	N3	24.511	-1268.818	1478.692	-0.817	-0.075	-0.032
146	19	N14	2064.501	-1275.223	-1341.733	0.291	-0.227	0.803
147	19	N26	-1812.049	-1205.523	-1153.284	0.381	0.149	-0.66
148	19	N132	-0.143	3148.417	-2599.411	0	0	0
149	19	N134	-2504.596	3506.24	1440.411	0	0	0
150	19	N136	2227.774	3122.665	1280.34	0	0	0
151	19	Totals:	-0.002	6027.758	-894.986			
152	19	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
153	20	N3	57.787	-1272.737	1536.346	-0.819	-0.119	-0.043
154	20	N14	2276.117	-1291.33	-1386.194	0.318	-0.097	0.781
155	20	N26	-1569.75	-1185.459	-1030.715	0.376	0.196	-0.651
156	20	N132	2.641	3157.774	-2606.669	0	0	0
157	20	N134	-2524.482	3537.533	1454.445	0	0	0
158	20	N136	2201.499	3081.976	1264.08	0	0	0
159	20	Totals:	443.812	6027.758	-768.707			
160	20	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
161	21	N3	106.911	-1289.297	1727.03	-0.828	-0.244	-0.052
162	21	N14	2352.37	-1295.784	-1371.955	0.355	-0.056	0.763
163	21	N26	-1371.488	-1168.146	-861.742	0.371	0.074	-0.643
164	21	N132	4.857	3190.852	-2632.393	0	0	0
165	21	N134	-2527.882	3544.835	1459.648	0	0	0
166	21	N136	2177.24	3045.295	1251.014	0	0	0
167	21	Totals:	742.008	6027.757	-428.396			
168	21	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
169	22	N3	118.769	-1310.754	1991.685	-0.84	-0.269	-0.055
170	22	N14	2317.419	-1289.264	-1288.538	0.387	0.025	0.749
171	22	N26	-1254.18	-1159.362	-740.331	0.369	-0.017	-0.64
172	22	N132	5.839	3232.616	-2664.173	0	0	0
173	22	N134	-2516.749	3530.638	1456.342	0	0	0
174	22	N136	2162.233	3023.882	1245.013	0	0	0
175	22	Totals:	833.33	6027.756	-0.001			
176	22	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
177	23	N3	67.57	-1329.371	2246.862	-0.849	-0.111	-0.052
178	23	N14	2199.608	-1271.852	-1131.721	0.413	0.213	0.735
179	23	N26	-1203.609	-1154.462	-691.639	0.368	0.012	-0.637
180	23	N132	5.121	3270.49	-2692.712	0	0	0
181	23	N134	-2494.589	3499.147	1445.919	0	0	0
182	23	N136	2153.956	3013.803	1243.628	0	0	0
183	23	Totals:	728.057	6027.755	420.338			
184	23	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
185	24	N3	6.998	-1343.454	2432.216	-0.857	0.043	-0.043
186	24	N14	1985.832	-1246.32	-957.815	0.431	0.32	0.73
187	24	N26	-1249.48	-1153.632	-680.106	0.367	-0.012	-0.636
188	24	N132	2.964	3300.491	-2715.871	0	0	0
189	24	N134	-2464.455	3454.328	1429.455	0	0	0
190	24	N136	2153.899	3016.341	1246.873	0	0	0
191	24	Totals:	435.757	6027.754	754.751			
192	24	COG (ft):	X: -0.176	Y: 0.542	Z: 0.049			
193	25	N3	-4.118	-657.109	995.744	-0.421	0.013	-0.019
194	25	N14	1273.86	-826.147	-704.995	0.257	0.043	0.479

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
195	25	N26	-1325.586	-885.659	-744.79	0.276	-0.027	-0.478
196	25	N132	0.014	1638.593	-1349.61	0	0	0
197	25	N134	-1683.46	2349.705	973.412	0	0	0
198	25	N136	1739.289	2427.059	1005.673	0	0	0
199	25	Totals:	-0.001	4046.441	175.435			
200	25	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
201	26	N3	-7.347	-655.952	980.808	-0.421	0.011	-0.017
202	26	N14	1234.158	-823.071	-700.385	0.251	0.009	0.485
203	26	N26	-1374.226	-889.997	-767.813	0.277	-0.043	-0.48
204	26	N132	-0.755	1636.13	-1347.761	0	0	0
205	26	N134	-1679.959	2343.831	970.796	0	0	0
206	26	N136	1744.634	2435.5	1008.966	0	0	0
207	26	Totals:	-83.495	4046.441	144.61			
208	26	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
209	27	N3	-15.299	-652.291	942.163	-0.418	0.029	-0.017
210	27	N14	1227.089	-822.931	-709.897	0.243	-0.005	0.49
211	27	N26	-1408.591	-893.654	-796.977	0.278	-0.025	-0.482
212	27	N132	-1.298	1628.974	-1342.353	0	0	0
213	27	N134	-1680.321	2343.569	970.139	0	0	0
214	27	N136	1749.317	2442.775	1011.461	0	0	0
215	27	Totals:	-129.104	4046.442	74.535			
216	27	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
217	28	N3	-19.547	-648.448	897.735	-0.416	0.04	-0.018
218	28	N14	1236.899	-824.482	-726.281	0.237	-0.013	0.492
219	28	N26	-1424.721	-895.402	-817.793	0.278	-0.003	-0.482
220	28	N132	-1.493	1621.316	-1336.732	0	0	0
221	28	N134	-1682.755	2346.66	970.671	0	0	0
222	28	N136	1752.004	2446.798	1012.401	0	0	0
223	28	Totals:	-139.614	4046.442	0.001			
224	28	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
225	29	N3	-11.892	-645.152	854.144	-0.415	0.018	-0.017
226	29	N14	1253.273	-827.543	-751.499	0.23	-0.042	0.494
227	29	N26	-1435.698	-896.551	-829.678	0.279	-0.002	-0.483
228	29	N132	-1.31	1614.482	-1331.798	0	0	0
229	29	N134	-1686.468	2352.111	972.215	0	0	0
230	29	N136	1753.87	2449.094	1012.592	0	0	0
231	29	Totals:	-128.224	4046.442	-74.024			
232	29	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
233	30	N3	-0.683	-641.942	815.495	-0.413	-0.01	-0.017
234	30	N14	1289.471	-832.574	-783.494	0.224	-0.065	0.495
235	30	N26	-1433.333	-897.043	-836.129	0.279	0.003	-0.483
236	30	N132	-0.777	1608.026	-1326.973	0	0	0
237	30	N134	-1692.16	2360.789	975.301	0	0	0
238	30	N136	1754.494	2449.186	1012.071	0	0	0
239	30	Totals:	-82.988	4046.442	-143.729			
240	30	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
241	31	N3	4.018	-639.979	797.428	-0.412	-0.013	-0.019
242	31	N14	1343.482	-837.995	-807.346	0.224	-0.047	0.492
243	31	N26	-1400.858	-894.97	-830.421	0.278	0.031	-0.482
244	31	N132	-0.013	1604.403	-1324.157	0	0	0
245	31	N134	-1698.446	2370.536	979.139	0	0	0
246	31	N136	1751.815	2444.447	1009.923	0	0	0
247	31	Totals:	-0.002	4046.442	-175.434			
248	31	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
249	32	N3	7.248	-641.136	812.361	-0.412	-0.011	-0.02

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
250	32	N14	1383.186	-841.07	-811.952	0.23	-0.013	0.486
251	32	N26	-1352.221	-890.634	-807.398	0.277	0.047	-0.48
252	32	N132	0.755	1606.866	-1326.006	0	0	0
253	32	N134	-1701.946	2376.408	981.755	0	0	0
254	32	N136	1746.471	2436.008	1006.631	0	0	0
255	32	Totals:	83.493	4046.442	-144.61			
256	32	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
257	33	N3	15.2	-644.799	851.006	-0.414	-0.029	-0.02
258	33	N14	1390.256	-841.211	-802.44	0.238	0.001	0.481
259	33	N26	-1317.857	-886.976	-778.232	0.276	0.028	-0.478
260	33	N132	1.299	1614.024	-1331.416	0	0	0
261	33	N134	-1701.585	2376.672	982.412	0	0	0
262	33	N136	1741.789	2428.733	1004.135	0	0	0
263	33	Totals:	129.102	4046.442	-74.534			
264	33	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
265	34	N3	19.45	-648.643	895.435	-0.417	-0.04	-0.019
266	34	N14	1380.446	-839.661	-786.056	0.244	0.009	0.479
267	34	N26	-1301.727	-885.228	-757.417	0.276	0.006	-0.478
268	34	N132	1.493	1621.683	-1337.038	0	0	0
269	34	N134	-1699.152	2373.581	981.88	0	0	0
270	34	N136	1739.101	2424.709	1003.195	0	0	0
271	34	Totals:	139.611	4046.442	0			
272	34	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
273	35	N3	11.796	-651.938	939.024	-0.418	-0.018	-0.02
274	35	N14	1364.073	-836.601	-760.837	0.25	0.039	0.477
275	35	N26	-1290.751	-884.078	-745.533	0.275	0.005	-0.477
276	35	N132	1.31	1628.516	-1341.972	0	0	0
277	35	N134	-1695.439	2368.131	980.337	0	0	0
278	35	N136	1737.234	2422.412	1003.005	0	0	0
279	35	Totals:	128.222	4046.441	74.024			
280	35	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
281	36	N3	0.584	-655.147	977.674	-0.42	0.011	-0.02
282	36	N14	1327.875	-831.57	-728.845	0.256	0.061	0.476
283	36	N26	-1293.114	-883.585	-739.079	0.275	0	-0.477
284	36	N132	0.777	1634.971	-1346.795	0	0	0
285	36	N134	-1689.748	2359.453	977.251	0	0	0
286	36	N136	1736.61	2422.319	1003.524	0	0	0
287	36	Totals:	82.985	4046.441	143.73			
288	36	COG (ft):	X: 0.069	Y: 0.445	Z: 0.735			
289	37	N3	-4.911	-699.776	1034.552	-0.449	0.016	-0.019
290	37	N14	936.533	-710.269	-510.785	0.225	0.041	0.424
291	37	N26	-1875.808	-1413.792	-1062.068	0.457	-0.029	-0.791
292	37	N132	0.017	1722.878	-1419.861	0	0	0
293	37	N134	-1373.101	1919.775	794.24	0	0	0
294	37	N136	2317.269	3227.657	1339.357	0	0	0
295	37	Totals:	0	4046.473	175.434			
296	37	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
297	38	N3	-8.14	-698.624	1019.62	-0.449	0.014	-0.017
298	38	N14	896.818	-707.185	-506.157	0.219	0.007	0.43
299	38	N26	-1924.451	-1418.103	-1085.083	0.458	-0.045	-0.793
300	38	N132	-0.751	1720.42	-1418.016	0	0	0
301	38	N134	-1369.584	1913.874	791.606	0	0	0
302	38	N136	2322.615	3236.091	1342.64	0	0	0
303	38	Totals:	-83.495	4046.474	144.61			
304	38	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
305	39	N3	-16.092	-694.976	980.99	-0.447	0.032	-0.017
306	39	N14	889.757	-707.066	-515.67	0.211	-0.006	0.435
307	39	N26	-1958.8	-1421.737	-1114.247	0.459	-0.026	-0.794
308	39	N132	-1.294	1713.284	-1412.624	0	0	0
309	39	N134	-1369.955	1913.622	790.95	0	0	0
310	39	N136	2327.281	3243.347	1345.135	0	0	0
311	39	Totals:	-129.104	4046.474	74.535			
312	39	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
313	40	N3	-20.341	-691.148	936.58	-0.445	0.043	-0.018
314	40	N14	899.579	-708.645	-532.06	0.205	-0.015	0.437
315	40	N26	-1974.921	-1423.484	-1135.068	0.459	-0.004	-0.795
316	40	N132	-1.488	1705.651	-1407.024	0	0	0
317	40	N134	-1372.404	1916.734	791.49	0	0	0
318	40	N136	2329.96	3247.366	1346.082	0	0	0
319	40	Totals:	-139.613	4046.474	0			
320	40	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
321	41	N3	-12.684	-687.868	893.008	-0.443	0.021	-0.017
322	41	N14	915.963	-711.729	-557.273	0.199	-0.044	0.439
323	41	N26	-1985.907	-1424.647	-1146.955	0.459	-0.003	-0.796
324	41	N132	-1.306	1698.845	-1402.113	0	0	0
325	41	N134	-1376.128	1922.196	793.032	0	0	0
326	41	N136	2331.838	3249.677	1346.277	0	0	0
327	41	Totals:	-128.224	4046.474	-74.024			
328	41	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
329	42	N3	-1.475	-684.672	854.376	-0.441	-0.007	-0.017
330	42	N14	952.175	-716.787	-589.269	0.193	-0.067	0.441
331	42	N26	-1983.544	-1425.155	-1153.408	0.46	0.002	-0.796
332	42	N132	-0.774	1692.416	-1397.311	0	0	0
333	42	N134	-1381.837	1930.895	796.121	0	0	0
334	42	N136	2332.468	3249.777	1345.76	0	0	0
335	42	Totals:	-82.987	4046.474	-143.73			
336	42	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
337	43	N3	3.226	-682.716	836.318	-0.44	-0.01	-0.019
338	43	N14	1006.211	-722.235	-613.141	0.192	-0.049	0.438
339	43	N26	-1951.056	-1423.1	-1147.706	0.459	0.03	-0.795
340	43	N132	-0.01	1688.808	-1394.507	0	0	0
341	43	N134	-1388.15	1940.682	799.98	0	0	0
342	43	N136	2329.78	3245.035	1343.621	0	0	0
343	43	Totals:	-0.001	4046.474	-175.434			
344	43	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
345	44	N3	6.455	-683.868	851.247	-0.441	-0.008	-0.02
346	44	N14	1045.927	-725.318	-617.765	0.198	-0.014	0.432
347	44	N26	-1902.417	-1418.791	-1124.691	0.458	0.046	-0.793
348	44	N132	0.758	1691.267	-1396.353	0	0	0
349	44	N134	-1391.666	1946.582	802.613	0	0	0
350	44	N136	2324.435	3236.602	1340.338	0	0	0
351	44	Totals:	83.493	4046.474	-144.61			
352	44	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
353	45	N3	14.407	-687.518	889.878	-0.443	-0.026	-0.02
354	45	N14	1052.99	-725.438	-608.252	0.206	-0.001	0.427
355	45	N26	-1868.069	-1415.156	-1095.525	0.457	0.027	-0.791
356	45	N132	1.301	1698.406	-1401.747	0	0	0
357	45	N134	-1391.296	1946.835	803.269	0	0	0
358	45	N136	2319.77	3229.346	1337.843	0	0	0
359	45	Totals:	129.102	4046.474	-74.535			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
360	45	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
361	46	N3	18.657	-691.347	934.289	-0.445	-0.037	-0.019
362	46	N14	1043.167	-723.86	-591.862	0.212	0.008	0.424
363	46	N26	-1851.949	-1413.409	-1074.706	0.457	0.005	-0.791
364	46	N132	1.494	1706.04	-1407.348	0	0	0
365	46	N134	-1388.847	1943.724	802.73	0	0	0
366	46	N136	2317.089	3225.326	1336.896	0	0	0
367	46	Totals:	139.612	4046.474	0			
368	46	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
369	47	N3	11.002	-694.626	977.859	-0.447	-0.015	-0.02
370	47	N14	1026.785	-720.776	-566.647	0.219	0.037	0.422
371	47	N26	-1840.964	-1412.246	-1062.819	0.456	0.004	-0.79
372	47	N132	1.312	1712.844	-1412.257	0	0	0
373	47	N134	-1385.124	1938.263	801.188	0	0	0
374	47	N136	2315.211	3223.015	1336.701	0	0	0
375	47	Totals:	128.222	4046.474	74.024			
376	47	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
377	48	N3	-0.21	-697.821	1016.491	-0.448	0.014	-0.02
378	48	N14	990.572	-715.719	-534.655	0.225	0.059	0.421
379	48	N26	-1843.323	-1411.736	-1056.363	0.456	-0.001	-0.79
380	48	N132	0.781	1719.272	-1417.059	0	0	0
381	48	N134	-1379.415	1929.565	798.099	0	0	0
382	48	N136	2314.58	3222.913	1337.217	0	0	0
383	48	Totals:	82.986	4046.474	143.73			
384	48	COG (ft):	X: 0.904	Y: 0.445	Z: 0.735			
385	49	N3	0.731	-720.06	1039.692	-0.462	-0.003	-0.019
386	49	N14	1626.122	-1184.029	-938.746	0.364	0	0.7
387	49	N26	-807.884	-631.131	-467.178	0.201	0.002	-0.347
388	49	N132	-0.003	1775.983	-1465.647	0	0	0
389	49	N134	-1995.934	2782.582	1152.353	0	0	0
390	49	N136	1176.968	1648.089	679.526	0	0	0
391	49	Totals:	0	3671.434	0			
392	49	COG (ft):	X: -0.843	Y: 0.491	Z: 0.4			
393	50	N3	0.144	-689.865	1012.216	-0.442	-0.001	-0.019
394	50	N14	1222.45	-796.731	-705.972	0.231	-0.001	0.47
395	50	N26	-1061.051	-726.926	-612.953	0.228	0.001	-0.394
396	50	N132	-0.001	1716.341	-1415.936	0	0	0
397	50	N134	-1572.624	2196.199	907.956	0	0	0
398	50	N136	1411.081	1972.415	814.69	0	0	0
399	50	Totals:	-0.001	3671.433	0			
400	50	COG (ft):	X: -0.167	Y: 0.491	Z: 0.4			
401	51	N3	0.168	-855.452	1317.994	-0.548	-0.001	-0.022
402	51	N14	1205.452	-824.802	-695.839	0.24	0	0.497
403	51	N26	-1017.125	-743.331	-587.3	0.236	0	-0.408
404	51	N132	-0.001	2117.684	-1748.048	0	0	0
405	51	N134	-1577.916	2206.428	911.01	0	0	0
406	51	N136	1389.422	1945.307	802.183	0	0	0
407	51	Totals:	0	3845.833	0			
408	51	COG (ft):	X: -0.186	Y: 0.547	Z: -0.011			
409	52	N3	-5.42	-778.951	1365.603	-0.497	0.017	-0.019
410	52	N14	1006.905	-723.617	-536.431	0.224	0.071	0.434
411	52	N26	-834.624	-652.356	-447.33	0.207	-0.048	-0.359
412	52	N132	0.02	1919.897	-1583.311	0	0	0
413	52	N134	-1389.62	1943.326	803.938	0	0	0
414	52	N136	1222.74	1712.163	707.63	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
415	52	Totals:	0	3420.462	310.099			
416	52	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
417	53	N3	-22.321	-776.546	1340.515	-0.496	0.048	-0.017
418	53	N14	933.813	-716.483	-512.853	0.219	0.043	0.436
419	53	N26	-919.856	-660.914	-492.301	0.21	-0.056	-0.363
420	53	N132	-0.813	1915.088	-1579.533	0	0	0
421	53	N134	-1380.493	1929.51	797.971	0	0	0
422	53	N136	1234.62	1729.807	714.748	0	0	0
423	53	Totals:	-155.051	3420.462	268.546			
424	53	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
425	54	N3	-33.197	-769.963	1270.346	-0.492	0.065	-0.016
426	54	N14	897.817	-713.942	-517.697	0.212	0.004	0.439
427	54	N26	-1000.949	-669.501	-545.286	0.212	-0.048	-0.367
428	54	N132	-1.429	1901.829	-1569.11	0	0	0
429	54	N134	-1377.533	1924.562	795.311	0	0	0
430	54	N136	1246.744	1747.477	721.487	0	0	0
431	54	Totals:	-268.548	3420.462	155.05			
432	54	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
433	55	N3	-35.137	-760.962	1173.885	-0.487	0.065	-0.016
434	55	N14	908.551	-716.678	-549.669	0.206	-0.037	0.444
435	55	N26	-1056.188	-675.818	-592.101	0.214	-0.027	-0.37
436	55	N132	-1.663	1883.667	-1554.83	0	0	0
437	55	N134	-1381.533	1929.811	796.671	0	0	0
438	55	N136	1255.867	1760.444	726.043	0	0	0
439	55	Totals:	-310.102	3420.463	0			
440	55	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
441	56	N3	-27.621	-751.955	1076.985	-0.482	0.048	-0.016
442	56	N14	963.154	-723.957	-600.21	0.202	-0.067	0.447
443	56	N26	-1070.753	-678.174	-620.191	0.214	0.001	-0.371
444	56	N132	-1.45	1865.467	-1540.519	0	0	0
445	56	N134	-1391.423	1943.849	801.689	0	0	0
446	56	N136	1259.545	1765.233	727.197	0	0	0
447	56	Totals:	-268.549	3420.463	-155.049			
448	56	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
449	57	N3	-12.67	-745.356	1005.615	-0.479	0.017	-0.017
450	57	N14	1046.976	-733.824	-655.77	0.201	-0.08	0.449
451	57	N26	-1040.755	-675.939	-622.034	0.214	0.028	-0.37
452	57	N132	-0.849	1852.109	-1530.013	0	0	0
453	57	N134	-1404.546	1962.91	809.016	0	0	0
454	57	N136	1256.794	1760.564	724.64	0	0	0
455	57	Totals:	-155.052	3420.463	-268.546			
456	57	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
457	58	N3	5.714	-742.935	978.884	-0.477	-0.018	-0.019
458	58	N14	1137.575	-743.637	-701.468	0.203	-0.071	0.45
459	58	N26	-974.23	-669.712	-597.133	0.212	0.049	-0.367
460	58	N132	-0.021	1847.172	-1526.128	0	0	0
461	58	N134	-1417.39	1981.887	816.69	0	0	0
462	58	N136	1248.35	1747.687	719.056	0	0	0
463	58	Totals:	-0.001	3420.463	-310.099			
464	58	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
465	59	N3	22.608	-745.343	1003.972	-0.479	-0.049	-0.021
466	59	N14	1210.667	-750.765	-725.047	0.208	-0.043	0.448
467	59	N26	-889.001	-661.157	-552.156	0.21	0.056	-0.363
468	59	N132	0.813	1851.985	-1529.909	0	0	0
469	59	N134	-1426.511	1995.696	822.654	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
470	59	N136	1236.474	1730.049	711.939	0	0	0
471	59	Totals:	155.05	3420.463	-268.546			
472	59	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
473	60	N3	33.487	-751.932	1074.138	-0.482	-0.066	-0.023
474	60	N14	1246.667	-753.302	-720.194	0.215	-0.003	0.444
475	60	N26	-807.915	-652.568	-499.166	0.207	0.048	-0.359
476	60	N132	1.429	1865.252	-1540.339	0	0	0
477	60	N134	-1429.468	2000.638	825.312	0	0	0
478	60	N136	1224.348	1712.375	705.198	0	0	0
479	60	Totals:	268.547	3420.463	-155.05			
480	60	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
481	61	N3	35.437	-760.935	1170.596	-0.487	-0.067	-0.023
482	61	N14	1235.936	-750.57	-688.211	0.221	0.037	0.44
483	61	N26	-752.681	-646.245	-452.353	0.206	0.028	-0.356
484	61	N132	1.661	1883.418	-1554.623	0	0	0
485	61	N134	-1425.472	1995.394	823.952	0	0	0
486	61	N136	1215.219	1699.4	700.638	0	0	0
487	61	Totals:	310.101	3420.462	-0.001			
488	61	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
489	62	N3	27.929	-769.94	1267.496	-0.492	-0.049	-0.023
490	62	N14	1181.334	-743.297	-637.67	0.225	0.068	0.437
491	62	N26	-738.113	-643.886	-424.268	0.205	0	-0.355
492	62	N132	1.448	1901.614	-1568.93	0	0	0
493	62	N134	-1415.588	1981.364	818.937	0	0	0
494	62	N136	1211.538	1694.607	699.483	0	0	0
495	62	Totals:	268.548	3420.462	155.049			
496	62	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
497	63	N3	12.975	-776.532	1338.869	-0.496	-0.018	-0.021
498	63	N14	1097.508	-733.433	-582.119	0.226	0.08	0.434
499	63	N26	-768.103	-646.123	-422.43	0.205	-0.028	-0.356
500	63	N132	0.848	1914.964	-1579.43	0	0	0
501	63	N134	-1402.467	1962.307	811.613	0	0	0
502	63	N136	1214.291	1699.279	702.043	0	0	0
503	63	Totals:	155.051	3420.462	268.546			
504	63	COG (ft):	X: -0.186	Y: 0.548	Z: -0.011			
505	64	N3	-5.463	-539.997	997.918	-0.344	0.017	-0.013
506	64	N14	670.315	-493.173	-342.153	0.157	0.071	0.295
507	64	N26	-551.216	-444.926	-283.69	0.141	-0.048	-0.245
508	64	N132	0.014	1329.112	-1095.669	0	0	0
509	64	N134	-949.12	1327.355	549.641	0	0	0
510	64	N136	835.47	1169.916	484.053	0	0	0
511	64	Totals:	0	2348.287	310.099			
512	64	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
513	65	N3	-22.36	-537.582	972.824	-0.343	0.048	-0.011
514	65	N14	597.207	-486.003	-318.56	0.152	0.043	0.297
515	65	N26	-636.469	-453.524	-328.675	0.144	-0.056	-0.249
516	65	N132	-0.828	1324.294	-1091.883	0	0	0
517	65	N134	-939.974	1313.505	543.653	0	0	0
518	65	N136	847.374	1187.597	491.186	0	0	0
519	65	Totals:	-155.051	2348.287	268.546			
520	65	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
521	66	N3	-33.234	-530.968	902.638	-0.339	0.066	-0.01
522	66	N14	561.205	-483.45	-323.393	0.145	0.004	0.3
523	66	N26	-717.584	-462.15	-381.673	0.146	-0.048	-0.253
524	66	N132	-1.448	1311.007	-1081.438	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
525	66	N134	-937.01	1308.544	540.978	0	0	0
526	66	N136	859.524	1205.304	497.939	0	0	0
527	66	Totals:	-268.548	2348.287	155.05			
528	66	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
529	67	N3	-35.175	-521.926	806.153	-0.334	0.066	-0.01
530	67	N14	571.948	-486.197	-355.361	0.139	-0.037	0.305
531	67	N26	-772.839	-468.497	-428.495	0.148	-0.027	-0.256
532	67	N132	-1.681	1292.807	-1067.129	0	0	0
533	67	N134	-941.023	1313.802	542.331	0	0	0
534	67	N136	868.668	1218.299	502.502	0	0	0
535	67	Totals:	-310.102	2348.288	0			
536	67	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
537	68	N3	-27.662	-512.876	709.228	-0.329	0.048	-0.01
538	68	N14	626.571	-493.51	-405.908	0.135	-0.067	0.308
539	68	N26	-787.411	-470.865	-456.587	0.149	0.001	-0.257
540	68	N132	-1.463	1274.571	-1052.789	0	0	0
541	68	N134	-950.938	1327.871	547.352	0	0	0
542	68	N136	872.356	1223.098	503.654	0	0	0
543	68	Totals:	-268.549	2348.288	-155.049			
544	68	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
545	69	N3	-12.716	-506.246	637.84	-0.325	0.017	-0.011
546	69	N14	710.419	-503.425	-461.479	0.134	-0.08	0.31
547	69	N26	-757.41	-468.622	-458.424	0.148	0.028	-0.256
548	69	N132	-0.853	1261.185	-1042.262	0	0	0
549	69	N134	-964.094	1346.975	554.692	0	0	0
550	69	N136	869.602	1218.42	501.087	0	0	0
551	69	Totals:	-155.052	2348.288	-268.546			
552	69	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
553	70	N3	5.662	-503.813	611.101	-0.324	-0.018	-0.013
554	70	N14	801.044	-513.285	-507.193	0.136	-0.071	0.311
555	70	N26	-690.87	-462.366	-433.512	0.146	0.049	-0.253
556	70	N132	-0.014	1256.239	-1038.37	0	0	0
557	70	N134	-976.966	1365.997	562.386	0	0	0
558	70	N136	861.143	1205.516	495.488	0	0	0
559	70	Totals:	-0.001	2348.288	-310.099			
560	70	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
561	71	N3	22.552	-506.232	636.195	-0.325	-0.049	-0.015
562	71	N14	874.153	-520.448	-530.787	0.141	-0.043	0.309
563	71	N26	-605.62	-453.772	-388.522	0.144	0.056	-0.249
564	71	N132	0.829	1261.062	-1042.159	0	0	0
565	71	N134	-986.106	1379.839	568.37	0	0	0
566	71	N136	849.242	1187.84	488.355	0	0	0
567	71	Totals:	155.05	2348.288	-268.546			
568	71	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
569	72	N3	33.429	-512.852	706.379	-0.329	-0.066	-0.016
570	72	N14	910.159	-522.998	-525.944	0.148	-0.003	0.305
571	72	N26	-524.512	-445.143	-335.52	0.141	0.048	-0.245
572	72	N132	1.449	1274.356	-1052.61	0	0	0
573	72	N134	-989.067	1384.795	571.043	0	0	0
574	72	N136	837.09	1170.129	481.601	0	0	0
575	72	Totals:	268.548	2348.288	-155.05			
576	72	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
577	73	N3	35.38	-521.897	802.862	-0.334	-0.066	-0.017
578	73	N14	899.419	-520.254	-493.966	0.154	0.037	0.301
579	73	N26	-469.261	-438.79	-288.699	0.14	0.028	-0.242

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
580	73	N132	1.681	1292.56	-1066.922	0	0	0
581	73	N134	-985.057	1379.541	569.69	0	0	0
582	73	N136	827.94	1157.127	477.034	0	0	0
583	73	Totals:	310.101	2348.287	-0.001			
584	73	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
585	74	N3	27.875	-530.944	899.786	-0.339	-0.049	-0.016
586	74	N14	844.796	-512.947	-443.419	0.158	0.068	0.298
587	74	N26	-454.685	-436.419	-260.613	0.139	0	-0.241
588	74	N132	1.462	1310.793	-1081.259	0	0	0
589	74	N134	-975.148	1365.48	564.673	0	0	0
590	74	N136	824.249	1152.323	475.881	0	0	0
591	74	Totals:	268.548	2348.287	155.049			
592	74	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			
593	75	N3	12.926	-537.567	971.177	-0.343	-0.018	-0.015
594	75	N14	760.944	-503.036	-387.857	0.159	0.08	0.295
595	75	N26	-484.68	-438.665	-258.78	0.14	-0.028	-0.242
596	75	N132	0.852	1324.17	-1091.78	0	0	0
597	75	N134	-961.995	1346.381	557.335	0	0	0
598	75	N136	827.005	1157.005	478.45	0	0	0
599	75	Totals:	155.051	2348.287	268.546			
600	75	COG (ft):	X: -0.185	Y: 0.545	Z: -0.011			

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M4	HSS4X4X4	0.195	5.547	16	0.051	2.5	y	23	110253.459	139518	16.181	16.181	2.569	H1-1b
2	M14	HSS4X4X4	0.214	5.547	18	0.055	2.5	y	19	110253.459	139518	16.181	16.181	2.641	H1-1b
3	M27	HSS4X4X4	0.205	5.547	14	0.047	2.5	y	17	110253.459	139518	16.181	16.181	2.957	H1-1b
4	M40	HSS4X4X4	0.148	0	17	0.052	0	y	22	67000.615	139518	16.181	16.181	3	H1-1b
5	M41	HSS4X4X4	0.143	13.239	18	0.047	13.239	y	16	67000.615	139518	16.181	16.181	2.739	H1-1b
6	M42	HSS4X4X4	0.152	0	13	0.059	13.239	y	19	67000.615	139518	16.181	16.181	2.436	H1-1b
7	O1	PIPE_2.0	0.137	3.333	1	0.012	3.333		1	26521.424	32130	1.872	1.872	1	H1-1b
8	M73	L2X2X4	0.019	0	16	0.003	0	z	15	29422.979	30585.6	0.691	1.577	1.5	H2-1
9	M74	L2X2X4	0.021	0	16	0.004	0	z	15	29422.979	30585.6	0.691	1.577	1.5	H2-1
10	M75	L2X2X4	0.021	0	16	0.004	0	z	23	29422.979	30585.6	0.691	1.577	1.5	H2-1
11	M76	L2X2X4	0.019	0	16	0.003	0	z	23	29422.979	30585.6	0.691	1.577	1.5	H2-1
12	M81	L2X2X4	0.019	0	24	0.003	0	z	17	29422.979	30585.6	0.691	1.577	1.5	H2-1
13	M82	L2X2X4	0.021	0	24	0.004	0	z	18	29422.979	30585.6	0.691	1.577	1.5	H2-1
14	M83	L2X2X4	0.021	0	24	0.004	0	z	23	29422.979	30585.6	0.691	1.577	1.5	H2-1
15	M84	L2X2X4	0.019	0	24	0.003	0	z	19	29422.979	30585.6	0.691	1.577	1.5	H2-1
16	M89	L2X2X4	0.019	0	20	0.003	0	z	19	29422.979	30585.6	0.691	1.577	1.5	H2-1
17	M90	L2X2X4	0.021	0	20	0.004	0	z	19	29422.979	30585.6	0.691	1.577	1.5	H2-1
18	M91	L2X2X4	0.021	0	20	0.004	0	z	15	29422.979	30585.6	0.691	1.577	1.5	H2-1
19	M92	L2X2X4	0.019	0	20	0.003	0	z	15	29422.979	30585.6	0.691	1.577	1.5	H2-1
20	MP4A	PIPE_2.0	0.037	4.073	7	0.003	4.073		7	13511.278	32130	1.872	1.872	1	H1-1b
21	MP1A	PIPE_2.0	0.138	3.984	7	0.031	3.984		8	13511.278	32130	1.872	1.872	1	H1-1b
22	MP3A	PIPE_2.0	0.097	3.125	1	0.015	3.125		5	20866.733	32130	1.872	1.872	1	H1-1b
23	MP2A	PIPE_2.0	0.401	3.125	7	0.073	3.188		9	20866.733	32130	1.872	1.872	1	H1-1b
24	MP5A	PIPE_2.0	0.042	1.5	7	0.016	1.5		7	30625.434	32130	1.872	1.872	1	H1-1b
25	MP4C	PIPE_2.0	0.037	4.073	8	0.003	4.073		8	13511.278	32130	1.872	1.872	1	H1-1b
26	MP1C	PIPE_2.0	0.138	3.984	2	0.031	3.984		3	13511.278	32130	1.872	1.872	1	H1-1b
27	MP3C	PIPE_2.0	0.097	3.125	9	0.015	3.125		11	20866.733	32130	1.872	1.872	1	H1-1b
28	MP2C	PIPE_2.0	0.206	3.125	11	0.06	3.188		5	20866.733	32130	1.872	1.872	1	H1-1b
29	MP4B	PIPE_2.0	0.037	4.073	4	0.003	4.073		4	13511.278	32130	1.872	1.872	1	H1-1b
30	MP1B	PIPE_2.0	0.138	3.984	10	0.031	3.984		11	13511.278	32130	1.872	1.872	1	H1-1b
31	MP3B	PIPE_2.0	0.097	3.125	5	0.015	3.125		9	20866.733	32130	1.872	1.872	1	H1-1b

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
32	MP2B	PIPE_2.0	0.206	3.125	7	0.06	3.188		1	20866.733	32130	1.872	1.872	1	H1-1b
33	MP5B	PIPE_2.0	0.042	1.5	1	0.016	1.5		1	30625.434	32130	1.872	1.872	1	H1-1b
34	M97	LL3X3X3X0	0.085	3.905	13	0.002	3.905	z	4	50632.009	70632	4.823	3.751	1	H1-1b*
35	M98	LL3X3X3X0	0.091	3.905	21	0.002	3.905	z	12	50632.009	70632	4.823	3.751	1	H1-1b*
36	M99	LL3X3X3X0	0.083	3.905	42	0.002	3.905	z	8	50632.009	70632	4.823	3.751	1	H1-1b*

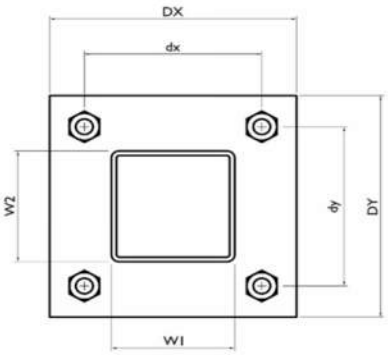
VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	2/8/2024
Site Name:	Bethel CT		
MDG #:	5000381746		
Fuze ID #:	16244636	Page:	1

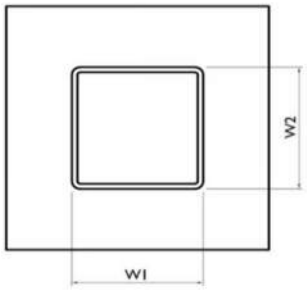
Version 2.00

I. Mount-to-Tower Connection Check

Custom Orientation Required	No
Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	3
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	8
Bolt Type:	A325N
Bolt Diameter (in):	0.75
Required Tensile Strength / bolt (kips):	2.7
Required Shear Strength / bolt (kips):	0.5
Tensile Capacity / bolt (kips):	29.8
Shear Capacity / bolt (kips):	17.9
Bolt Overall Utilization:	**9.0%**



Tower Connection Baseplate Checks	Yes
Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D_x (in):	6
Plate Height, D_y (in):	10
W1(in):	4
W2 (in):	4
Member Thickness (in):	0.25
Stiffener location a_1 (in):	
Stiffener location b_1 (in):	
Stiffener location a_2 (in):	
Stiffener location b_2 (in):	
F_y (ksi, plate):	36
Plate Thickness (in):	0.5
Length of Yield Line, L_y (in):	4.90
Bolt Eccentricity, e (in):	1.86
M_u (kip-in):	4.97
Phi*M_n (kip-in):	9.92
Plate Bending Utilization:	**50.1%**



VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	2/8/2024
Site Name:	Bethel CT		
MDG #:	5000381746		
Fuze ID #:	16244636	Page:	2

Version 2.00

Tower Connection Weld Checks	Yes

Weld Shape:	Rectangle
Weld Stiffener Configuration:	None
Stiffener Notch Length, n (in):	
Weld Size (1/16 in):	3
W1 (in):	4
W2 (in):	4
Weld Total Length (in):	16.00
Z_x (in^3/in):	21.33
Z_y (in^3/in):	21.33
J_p (in^4/in):	85.33
c_x (in)	2.25
c_y (in)	2.25
Required combined strength (kip/in):	0.63
Weld Capacity (kip/in):	4.18
Weld Utilization:	**15.2%**

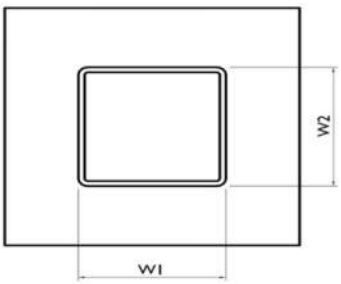


EXHIBIT 5

Non-Ionizing Electromagnetic Radiation (NIER) Study

Site Number:

210744

Site Name:

Spring Hill Lane CT

Location:

Bethel, Connecticut

Tenants:

New England Radio Consultants, L.L.C.,
AT&T Mobility, T-Mobile, & Verizon Wireless

Prepared For:

American Tower, Inc.
Woburn, Massachusetts

December 2nd, 2023

257162 P412373

Prepared By:

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

Approved By:

12/06/23

TOWER ENGINEERING PROFESSIONALS

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COMPLIANCE DETERMINATION 5

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TOWER ENGINEERING PROFESSIONALS

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Non-Ionizing Electromagnetic Radiation (NIER) Study

210744 Spring Hill Lane CT
Bethel, Connecticut

INTRODUCTION

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

SITE AND FACILITY CONSIDERATIONS

Site 210744 Spring Hill Lane CT is located at 38 Spring Hill Ln., in Bethel, Connecticut at coordinates 41.362221, -73.396601. The support structure is 125' monopole. An aerial view of the tower can be found in Appendix 1, Site Photos. The tenants are New England Radio Consultants, L.L.C. (NERC) ,AT&T Mobility (AT&T), T-Mobile (T-Mobile), & Verizon Wireless (VZW). A table listing all antennae and effective radiated power (ERP) levels that were used in this study may be found in Appendix 2, Antenna Inventory.

POWER DENSITY CALCULATIONS

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

For the purpose of this study, a radius of 100' from the base of the tower with a height of 6' above ground level was used, beyond 100' the MPE levels become *di minimus*. This study utilized FCC recognized and accepted software programs using the maximum ERP levels for the antenna models provided by ATC. Diagrams depicting the predicted spatial average power density level at any specific location may be found in Appendix 3, MPE Limit Study. A discussion regarding the FCC limits may be found in Appendix 4, Information Pertaining to MPE Studies. Study methodology describing Non-ionizing Radiation Prediction Models used in this study may be found in Appendix 5, MPE Standards Methodology.

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

- ATC furnished data and does not include other unidentified communication facilities.
- Load List at Load List at 210744 Spring Hill Lane CT.RF NIER Study 11/15/23.
- FCC databases.
- Carrier standard configurations.
- Empirical data collected by TEP.

SITE MITIGATION & CONTROL

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

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

COMPLIANCE DETERMINATION

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

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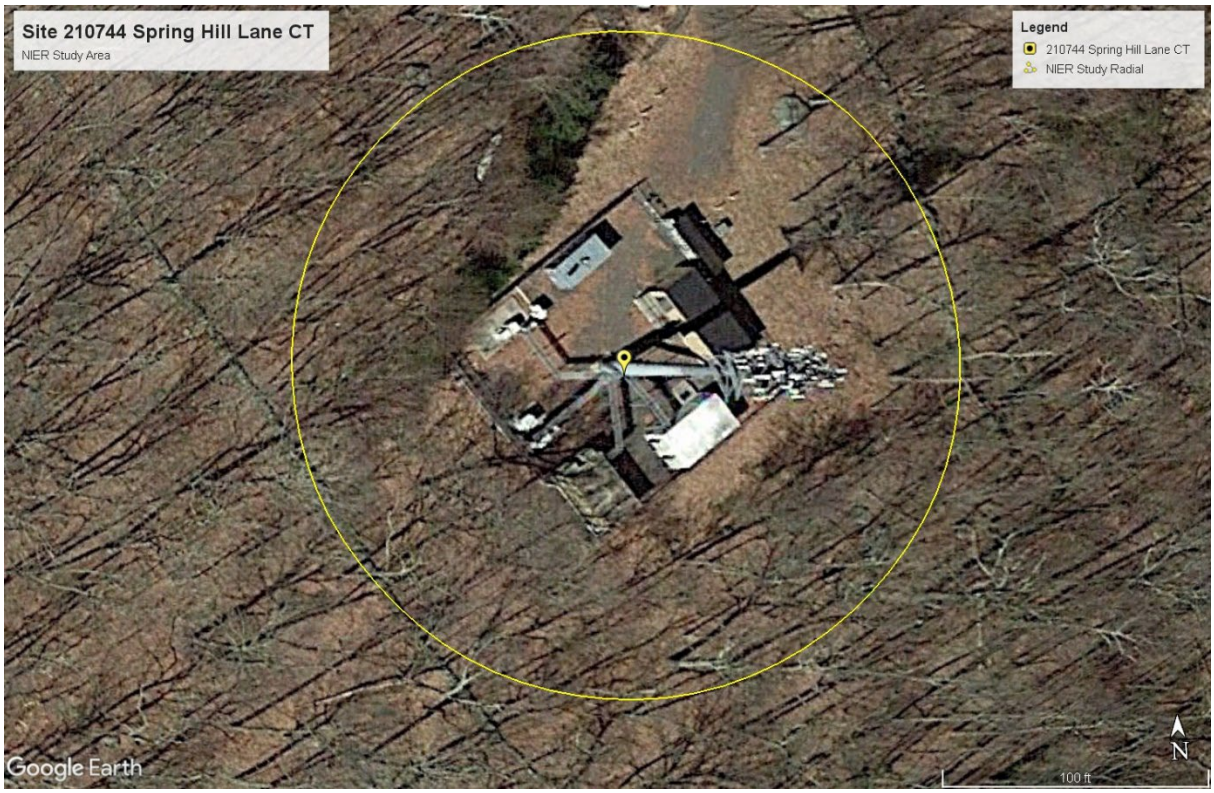
APPENDIX 1 Site Photos



Aerial View of Site

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Appendix 2 .1 Antenna Inventory

210744 Spring Hill Lane CT							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azmiuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
1	NERC	Bird	101-68-10-0-03	400	301	4074	129.4
2	AT&T	Generic	2' HP Dish	1100	016	65600	128.2
3	NERC	Bird	101-68-10-0-03	400	000	4074	124.0
4	AT&T	Scala	80010965	700-900	303	53141	122.9
5	AT&T	Scala	80010965	700-900	177	53141	122.9
6	AT&T	CCI	HPA-65R-BUU-H6	700	304	12302	122.9
7	AT&T	CCI	HPA-65R-BUU-H6	700	178	12302	122.9
8	AT&T	Allgon	7770	800/1900	026	36500	122.8
9	AT&T	Allgon	7770	800/1900	146	36500	122.8
10	AT&T	Allgon	7770	800/1900	271	36500	122.8
11	AT&T	CCI	HPA-65R-BUU-H6	700	055	12302	122.7
12	AT&T	Scala	80010965	700	050	5532	122.3
13	AT&T	Quintel	QS66512-2	800/1900	307	16690	122.2
14	AT&T	Quintel	QS66512-2	800/1900	183	16690	122.2
15	AT&T	CCI	TPA-65R-LCUUUU	700/1900/2100	052	57987	122.1
16	AT&T	Scala	800-10964K	1900	000	8242	122.0
17	AT&T	Scala	800-10964K	1900	120	8242	122.0
18	AT&T	Scala	800-10964K	1900	240	8242	122.0
19	AT&T	Quintel	QS66512-2	800/1900	000	16690	122.0
20	AT&T	Quintel	QS66512-2	800/1900	120	16690	122.0
21	AT&T	Quintel	QS66512-2	800/1900	240	16690	122.0
22	NERC	Generic	15' Dipole	100	301	937	108.6
23	T-Mobile	EMS	DR65-19-00DPQ	1900	000	4327	105.0
24	T-Mobile	EMS	DR65-19-00DPQ	1900	120	4327	105.0
25	T-Mobile	EMS	DR65-19-00DPQ	1900	240	4327	105.0
26	T-Mobile	EMS	DR65-19-00DPQ	1900	000	4327	105.0
27	T-Mobile	EMS	DR65-19-00DPQ	1900	120	4327	105.0
28	T-Mobile	EMS	DR65-19-00DPQ	1900	240	4327	105.0
29	T-Mobile	EMS	DR65-19-00DPQ	1900	000	4327	105.0
30	T-Mobile	EMS	DR65-19-00DPQ	1900	120	4327	105.0

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Appendix 2 .2 Antenna Inventory

210744 Spring Hill CT							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azmiuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
29	T-Mobile	EMS	DR65-19-00DPQ	1900	000	4327	105.0
30	T-Mobile	EMS	DR65-19-00DPQ	1900	120	4327	105.0
31	T-Mobile	EMS	DR65-19-00DPQ	1900	240	4327	105.0
32	T-Mobile	EMS	DR65-19-00DPQ	1900	240	4327	105.0
33	T-Mobile	EMS	DR65-19-00DPQ	1900	000	4327	105.0
34	T-Mobile	EMS	DR65-19-00DPQ	1900	120	4327	105.0
35	T-Mobile	EMS	DR65-19-00DPQ	1900	240	4327	105.0
36	T-Mobile	Ericsson	Air 6449	600/700/1900/2100/2500/2600	240	24400	103.5
37	T-Mobile	Ericsson	Air 6449	600/700/1900/2100/2500/2600	240	24400	103.5
38	T-Mobile	Ericsson	Air 6449	600/700/1900/2100/2500/2600	240	24400	103.5
39	T-Mobile	Ericsson	Air 32	2500/2600	47	20300	102.4
40	T-Mobile	Ericsson	Air 32	2500/2600	160	20300	102.4
41	T-Mobile	Ericsson	Air 32	2500/2600	280	20300	102.4
42	T-Mobile	RFS	APXVAALL24	600/700/1900/2100/2500	040	23200	102.2
43	T-Mobile	RFS	APXVAALL24	600/700/1900/2100/2500	134	23200	102.2
44	T-Mobile	RFS	APXVAALL24	600/700/1900/2100/2500	277	23200	102.2
45	NERC	Telewave	ANT150D6-9	100	000	2420	102.0
46	NERC	Generic	Omni 15'	400	060	4074	98.3
47	NERC	Generic	Omni 15'	400	306	4074	98.3
48	Verizon	Samsung	MT6407	3700/3800/3900	000	18286	95.0
49	Verizon	Samsung	MT6407	3700/3800/3900	185	18286	95.0
50	Verizon	Samsung	MT6407	3700/3800/3900	270	18286	95.0
51	Verizon	JMA	MX08FRO640-02	600/1900/2000/2100	000	54494	95.0
52	Verizon	JMA	MX08FRO640-02	600/1900/2000/2100	000	54494	95.0
53	Verizon	Antel	BXA-80063-6BF	800/1900/2100	000	84209	95.0
54	Verizon	Antel	BXA-80063-6BF	800/1900/2100	090	84209	95.0
55	Verizon	Antel	BXA-80063-6BF	800/1900/2100	210	84209	95.0
56	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	090	46285	95.0
57	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	210	46285	95.0
58	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	090	46285	95.0

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Appendix 2 .3 Antenna Inventory

210744 Spring Hill Lane CT							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azmiuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
59	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	210	46285	95.0
60	Verizon	JMA	X7C-FRO-660-VR0	600/700	003	11587	93.6
61	Verizon	Antel	BXA-80063-6CF	800	015	13930	93.6
62	Verizon	Antel	WWX063X19G00	1700/1800/1900/2100	091	30408	93.6
63	Verizon	Antel	WWX063X19G00	1700/1800/1900/2100	093	30408	93.6
64	Verizon	Antel	WWX063X19G00	1700/1800/1900/2100	359	30408	93.6
65	Verizon	Antel	WWX063X19G00	1700/1800/1900/2100	003	30408	93.6
66	Verizon	Antel	WWX063X19G00	1700/1800/1900/2100	212	30408	93.6
67	Verizon	Antel	WWX063X19G00	1700/1800/1900/2100	215	30408	93.6
68	Verizon	Antel	BXA-80063-6CF	800	234	13930	93.3
69	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	090	46285	93.0
70	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	210	46285	93.0
71	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	090	46285	93.0
72	Verizon	JMA	MX06FIT665-02	700/800/1900/2000/2100	090	46285	93.0
73	Verizon	Antel	BXA-80063-6BF	800/1900/2100	000	84209	93.0
74	Verizon	JMA	MX08FRO640-02	600/1900/2000/2100	000	54494	93.0
75	Verizon	JMA	MX08FRO640-02	600/1900/2000/2100	000	54494	93.0
76	Verizon	Samsung	MT6407	3700/3800/3900	000	18286	93.0
77	Verizon	Samsung	MT6407	3700/3800/3900	185	18286	93.0
78	Verizon	Samsung	MT6407	3700/3800/3900	270	18286	93.0
79	Verizon	Antel	BXA-80080-6BF	800	000	13930	93.0
80	Verizon	Antel	BXA-80080-6BF	800	000	13930	93.0
81	Verizon	Generic	72" x 12" Panel	600/1900/2000/2100	119	54494	132.0
82	Verizon	Scala	80010965	700/800/1900/2000/2100	229	33222	92.8
83	Verizon	Scala	80010965	700/800/1900/2000/2100	100	33222	92.8
84	NERC	Bird	101-68-10-0-03	400	000	4074	92.0
85	NERC	Bird	101-68-10-0-03	400	000	4074	92.0
86	NERC	Telewave	ANT150D6-9	100	000	2420	72.0
87	NERC	Generic	Dipole	100	000	2420	64.4

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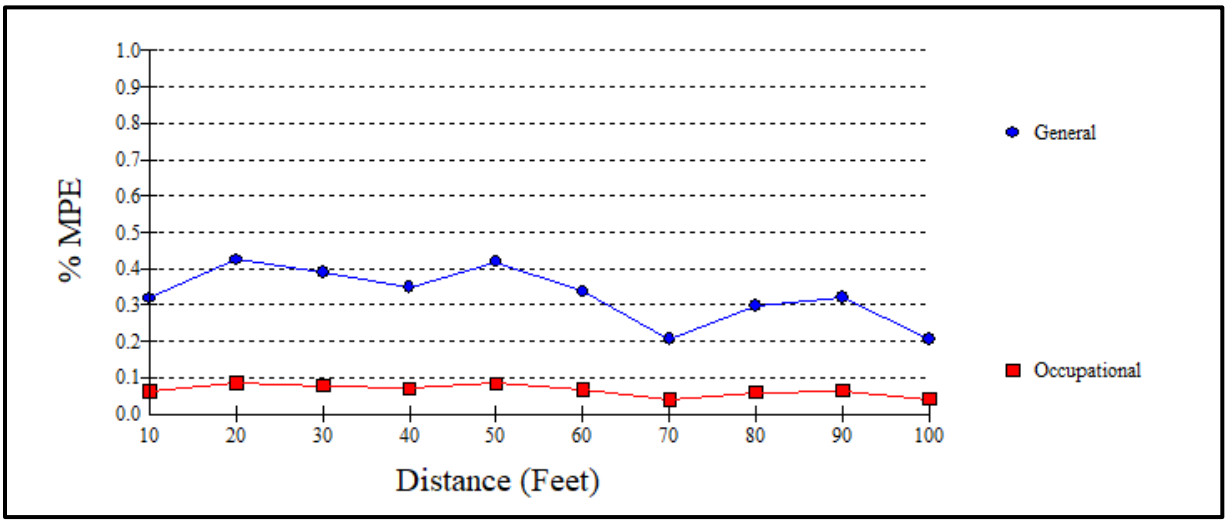
Appendix 3.1 MPE Limit Study



Maximum Power Density (@20'):	0.0027 mW/cm²
General Population MPE (@20'):	0.4249%
Occupational MPE (@20'):	0.0850%

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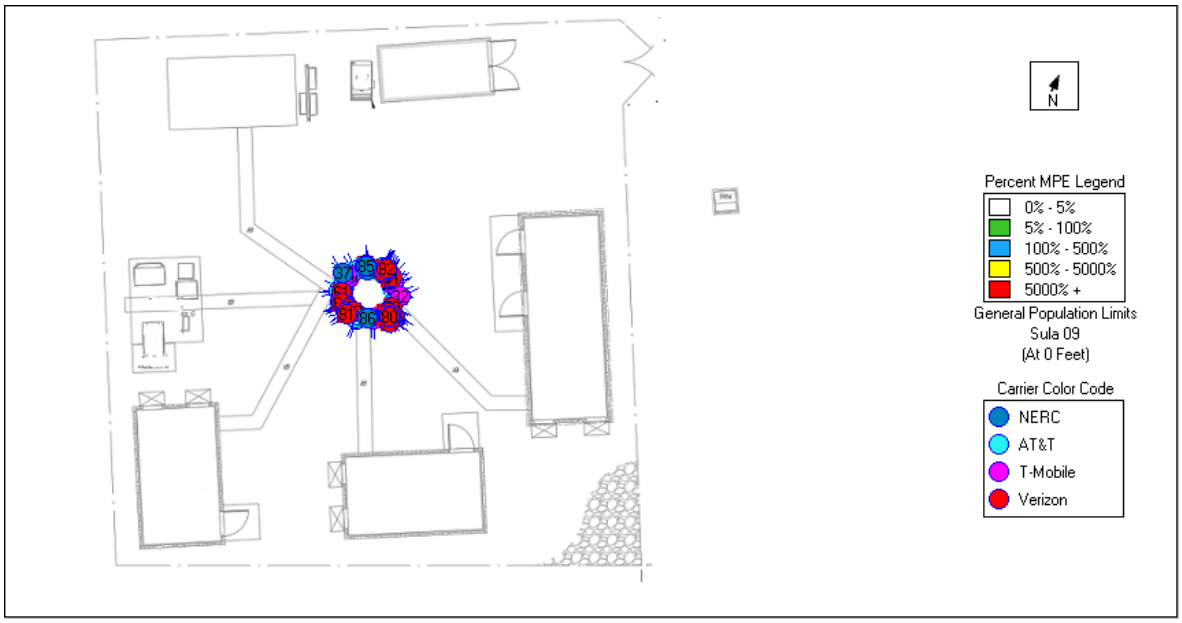
Appendix 3.2 MPE Limit Study



Appendix 4 Information Pertaining to MPE Studies

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

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

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

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

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

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

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

Appendix 5 MPE Standards Methodology

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

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

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

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

f = frequency

* = Plane-wave equivalent power density

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

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

f = frequency

* = Plane-wave equivalent power density

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

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

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

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

Cylindrical Model (Near Field Predictions)

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

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

Where:

S = Power Density

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

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

DOCKET NO. 288 – AT&T Wireless PCS, LLC d/b/a AT&T Wireless and Valley Communications, Inc. application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at 38 Spring Hill Lane, Bethel, Connecticut.	} } }	Connecticut Siting Council August 12, 2004

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 Valley Communications, Inc. for the construction, maintenance and operation of a wireless telecommunications facility at Site A, 38 Spring Hill Lane, Bethel, Connecticut. The Council denies certification of Site B, also located at 38 Spring Hill Lane, Bethel, 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 AT&T Wireless PCS LLC, Sprint Spectrum L.P., Omnipoint Network Facilities Network 2 LLC, Nextel Communications, Inc., the Town of Bethel, Thomas Refuse, Utility Communications, Valley Communications, Inc. and other entities, both public and private, but such tower shall not exceed a height of 125 feet above ground level including appurtenances.
2. The Certificate Holder shall ensure that all tower users install the least visually obtrusive antennas and associated antenna mounts at the site while maintaining coverage objectives. Coverage objectives shall not be compromised by the use of such equipment.

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 on the Town of Bethel, and 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. The D&M Plan shall include:

   a. a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment building, access road, utility line, and landscaping; and

   b. construction plans for site clearing, 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 remove the existing 90-foot guyed lattice tower at the site parcel within 60-days of completion of the approved facility.

5. Prior to submission of the D&M plan to the Council, the Certificate Holder shall discuss site construction details with the Town. Items to be discussed shall include but not limited to site clearing, site grading, access road improvements, erosion and sedimentation controls, fencing, access gate improvements, landscaping, and construction work hours. The Town and Certificate Holder shall agree upon all construction details prior to submission of the D&M to the Council.

6. 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 when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

7. 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.

8. 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.

9. The Certificate Holder shall provide reasonable space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.

10. If the facility does not initially provide wireless services within one year of completion of construction or 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. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.

12. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved. Any request for extension of this period shall be filed with the Council no later than sixty days prior to 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.

Pursuant to General Statutes **§** 16-50p, we hereby direct 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 Hartford Courant, The Bethel Beacon, and the Danbury News Times.

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**
AT&T Wireless PCS, LLC d/b/a AT&T Wireless	Christopher B. Fisher, Esq. Cuddy & Feder LLP 90 Maple Avenue White Plains, New York 10601 Paul Zito Valley Communications, Inc. 155 Wooster Street Shelton, CT 06484
Intervenor	**Its Representative**

Sprint Spectrum, L.P. d/b/a/ Sprint PCS	Thomas J. Regan, Esquire Brown Rudnick Berlack Israels LLP CityPlace I, 38th Floor 185 Asylum Street Hartford, CT 06103-3402
Intervenor Omnipoint Facilities Network 2 LLC d/b/a T-Mobile	**Its Representative** Stephen J. Humes LeBoeuf, Lamb, Greene & MacRae, LLP Goodwin Square 25 Asylum Street Hartford, CT 06103
Intervenor William Huertas, Jr. 40 Spring Hill Lane Bethel, CT 06801	
Intervenor James C. Kelleher 42 Spring Hill Lane Bethel, CT 06801	

Intervenor

Steven Mitchell
36 Spring Hill Lane
Bethel, CT 06801

Intervenor

Representative Hank Bielawa
P.O. Box 689
Redding, CT 06896

Intervenor

Alice M. Hutchinson
First Selectman
Town of Bethel
1 School Street
Bethel, CT 06801

April 13, 2005

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-009-060405** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 38 Spring Hill Road, Bethel, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on April 12, 2006, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated April 5, 2006, and additional information dated April 10, 2006, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: The Honorable Robert E. Burke, First Selectman, Town of Bethel
Steve Palmer, Planning & Zoning Official, Town of Bethel
Christopher B. Fisher, Cuddy & Feder LLP
Michele G. Briggs, New Cingular Wireless PCS, LLC
Thomas F. Flynn, III, Nextel Communications, Inc.
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels LLP
Christine Farrell, T-Mobile

EXHIBIT 7

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