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Also admitted in Massachusetts and New York

May 30, 2024

Via Electronic and U.S. Mail

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

Re: **Notice of Exempt Modification – Facility Modification**
29 Mahoney Road, Colchester, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas on an existing tower and related equipment on the ground, near the base of the tower. The tower was approved by the Town of Colchester ("Town") in March of 2000. Cellco's use of the tower was approved by the Siting Council ("Council") in July of 2008 (EM-VER-028-080616). A copy of the Town's tower approval and the Council's shared use approval are included in Attachment 1.

Cellco now intends to modify its facility by removing nine (9) antennas and six (6) remote radio heads ("RRHs") and installing nine (9) new antennas and six (6) new RRHs on its existing antenna platform and antenna mounts. A set of project plans showing Cellco's proposed facility modifications and the specifications for Cellco's new antennas and RRHs are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Colchester's Chief Elected Official and Land Use Officer. A copy of this letter is being sent to the owner of the Property.

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

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's new antennas and RRHs will be installed at the same height on the tower.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

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

4. The installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Included in Attachment 3 is a Calculated Radio Frequency Emissions Report demonstrating that the proposed modified facility will comply with the FCC safety standards. The modified facility will be capable of providing Cellco's 5G wireless service.

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

6. According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, tower foundation, antenna platform and antenna mounts, with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 6.

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

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Bernie Dennler, First Selectman
Demian Sorrentino, Planning Director
Colchester Fish and Game Club, Inc., Tower Owner
Aleksey Tyurin

ATTACHMENT 1

Planning and Zoning
Planning Director
Town Engineer
Code Administration
Health Director
Building Official
Fire Marshal
Registered Sanitarian
Zoning Enforcement
Wetlands Enforcement

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

March 16, 2000

Esther McNanny and Jim Smith
SBA, Inc.
80 Eastern Boulevard
Glastonbury, CT 06033

RE: SDP#2000-238, Application of SBA, Inc. for Site Development Plan Review for Communications Tower at 29 Mahoney Road, Colchester, CT

Dear Esther and Jim:

The Colchester Zoning & Planning Commission at its March 15, 2000 regular meeting *approved* your above-referenced application. Notice of this decision will be published in the Zone 4 Section of the Hartford Courant and in the Rivereast News Bulletin on Friday, March 17, 2000.

Per Section 12.10.1 of the Zoning Regulations, a bond in the amount of 25% of the total cost of site improvements must be posted prior to the endorsement of this plan and/or commencement of work. A bond estimate must be submitted to the Town Engineer for his review and approval.

Please feel free to contact me at (860) 537-7294 with any questions.

Very truly yours,

Liz Rasmussen
Zoning Enforcement Officer

/lbr
cc: File
(p:/liz/zpc/decisionletters/sdp#2000-23829mahoneyroadsba)

July 25, 2008

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

RE: **EM-VER-028-080616** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 29 Mahoney Road, Colchester, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies, with the condition that the proposed coax be installed inside the monopole's shaft.

The proposed modifications are to be implemented as specified here and in your notice dated June 16, 2008, 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,

S. Derek Phelps
Executive Director

SDP/MP/cm

c: The Honorable Linda M. Riley Hodge, First Selectman, Town of Colchester
Christopher Beauchemin, Town Planner, Town of Colchester
SBA Towers

ATTACHMENT 2

ANTENNA MOUNT REINFORCEMENT NOTE:
PRIOR TO THE COMMENCEMENT OF THE UPGRADE WORK SHOWN ON THESE DRAWINGS, THE EXISTING VERIZON TRI-SECTOR ANTENNA MOUNTING FRAME LOCATED ON THE EXISTING MONOPOLE SHALL BE REINFORCED AS PER THE MOUNT MODIFICATION DRAWINGS PREPARED BY COLLIERS ENGINEERING & DESIGN (PROJECT #21777294).

SBA APPROVED
By Stephen Roth at 8:52:52 AM, 4/11/2024

verizon

20 ALEXANDER DRIVE, 2nd FLOOR
WALLINGFORD, CT 06492

COLCHESTER EAST CT

29 MAHONEY ROAD
COLCHESTER, CT 06415
NEW LONDON COUNTY

PROJECT TYPE: UPGRADE TO EXISTING WIRELESS TELECOMMUNICATIONS INSTALLATION ON EXISTING 180'± MONOPOLE

SUPPORTING DOCUMENTS

RADIO FREQUENCY (RF) DESIGN DATE: 02/20/24
ANTENNA MOUNT STRUCTURAL ANALYSIS DATE: 01/03/24 (BY COLLIERS ENGINEERING & DESIGN)
ANTENNA SUPPORT STRUCTURE (180± MONOPOLE) STRUCTURAL ANALYSIS DATE: 09/13/94 (BY TOWER ENGINEERING SOLUTIONS)

SITE INFORMATION

VERIZON LOCATION CODE:	467283
VERIZON SITE NAME:	COLCHESTER EAST CT
SBA SITE NUMBER:	CT02622-S
SBA SITE NAME:	COLCHESTER 3 CT
SBA COLLO APP NUMBER:	244213, V2
MDG LOCATION ID:	5000245707
FUZE PROJECT ID:	10272105
SITE ADDRESS:	29 MAHONEY ROAD COLCHESTER, CT 06415
PROPERTY OWNER:	COLCHESTER FISH & GAME CLUB, INC. P.O. BOX 257 COLCHESTER, CT 06415-0257
TOWER OWNER:	SBA PROPERTIES, LLC 8051 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226 9523
COUNTY	NEW HAVEN, CT
ZONING DISTRICT:	(RU) RURAL
STRUCTURE TYPE:	MONOPOLE
STRUCTURE HEIGHT:	180'±
STRUCTURE HEIGHT W/APPURTENANCE:	185'±
GROUND ELEVATION:	378'±
TOTAL AMSL:	561'±
SITE CONTROL POINT:	CENTER OF EXISTING MONOPOLE N 41°-33'-52.32" (41.5645°) (NAD '83) W 72°-15'-06.11" (-72.2517°) (NAD '83)
ARCHITECT/ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752

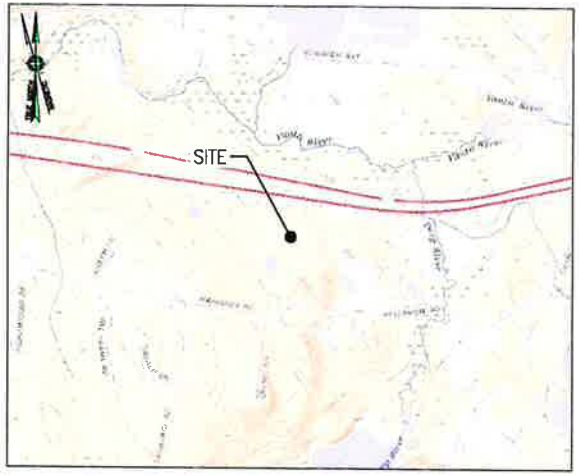
GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
2. NEW CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
   - BUILDING CODE: 2022 CONNECTICUT STATE BUILDING CODE
   - ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE
   - STRUCTURAL CODE: TIA/EIA-222-H STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811

VICINITY MAP

SCALE: 1"=1000'



DRIVING DIRECTIONS

FROM WALLINGFORD, TAKE CT 68 EAST. TAKE SHARP LEFT FOR I 91 NORTH TOWARD HARTFORD. MERGE ONTO I 91 NORTH. TAKE EXITS 25-26 FOR CT 3 NORTH/GLASTONBURY/OLD WETHERSFIELD. TAKE EXIT 25 ON LEFT FOR CT 3 NORTH TOWARD GLASTONBURY. MERGE ONTO CT 3 NORTH. USE RIGHT LANE TO MERGE ONTO CT 2 EAST TOWARD NORWICH. TAKE EXIT 21 FOR CHESTNUT HILL ROAD. TURN LEFT ONTO CHESTNUT HILL ROAD. CONTINUE ONTO MAHONEY ROAD. THE SITE IS LOCATED ON THE LEFT HAND SIDE.

SHEET INDEX

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MM01	MOUNT MODIFICATION DRAWINGS I	1
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MM03	MOUNT MODIFICATION DRAWINGS III	1

DO NOT SCALE DRAWINGS

ALL PLANS, EXISTING DIMENSIONS AND CONDITIONS AT THE PROPOSED PROJECT SITE SHALL BE VERIFIED IN THE FIELD DURING THE CONSTRUCTION PHASE. THE PROJECT OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO PROCEEDING WITH THE PROPOSED WORK AFFECTED BY SUCH DISCREPANCIES. IN THE EVENT OF LACK OF SUCH NOTIFICATION, SUCH DISCREPANCIES SHALL BECOME THE RESPONSIBILITY OF THE PREVAILING CONTRACTOR RESPONSIBLE FOR CONSTRUCTION.

PROJECT DESCRIPTION

1. THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT INSTALLATION AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC WIRELESS TELECOMMUNICATIONS SERVICE.
2. THIS FACILITY DOES NOT, NOR WILL IT CONSUME UNRECOVERABLE ENERGY.
3. NO PORTABLE WATER SUPPLY IS OR WILL BE PROVIDED AT THIS LOCATION.
4. NO WASTE WATER IS OR WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE IS OR WILL BE GENERATED AT THIS LOCATION.

SCOPE OF WORK

REMOVE:
- (6) ANTENNAS
- (6) RADIOS
- (2) JUNCTION BOXES (6 CWP)
- (2) COAXIAL CABLES

INSTALL:
- (1) HANDRAIL KIT
- (9) ANTENNAS
- (6) RADIOS
- (1) JUNCTION BOX (12 CWP)

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7338

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED
PROFESSIONAL CIVIL ENGINEER
4/5/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/20/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
COLCHESTER EAST CT
29 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE: 467283
MDG LOCATION ID: 5000245707
FUZE PROJECT ID: 10272105

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T01

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   - CONTRACTOR – VERIZON WIRELESS
   - SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   - OWNER – VERIZON WIRELESS
   - OEM – ORIGINAL EQUIPMENT MANUFACTURER

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.

4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC. 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACK FILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS & POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.

15. CONSTRUCTION SHALL COMPLY WITH VERIZON WIRELESS NETWORK STANDARD #NSTD123 TO THE MAXIMUM EXTENT FEASIBLE UNLESS PRECLUDED OR LIMITED BY DESIGN SHOWN ON THESE DRAWINGS.

16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

17. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

18. SINCE THE CELL SITE IS 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 TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.

3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.

4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.

6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.

9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.

10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE VERIZON WIRELESS SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS

3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.

4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   - CONCRETE CAST AGAINST EARTH.......3 IN.
   - CONCRETE EXPOSED TO EARTH OR WEATHER:
     - #6 AND LARGER ....2 IN.
     - #5 AND SMALLER & WWF ....1½ IN.
   - CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
     - SLAB AND WALL ....¾ IN.
     - BEAMS AND COLUMNS ....1½ IN.

5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.

7. CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
   (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
   (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
   FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.

8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.

9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND VERIZON WIRELESS SPECIFICATION 23252-000-3PS-GET-00001 UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".

2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.

3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾"ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.

4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ⅝" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.

5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.

6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.

7. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.

2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.

3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.

4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.

5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OF A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, VERIZON WIRELESS ANTENNA PLATFORM LOCATION AND ANTENNAS TO BE REPLACED.

2. COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.

3. CABLE LADDER RACK:
SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.

2. SUBCONTRACTOR SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.

3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.

4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.

5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.

6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS

7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANEL BOARD AND CIRCUIT ID'S).

8. PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.

9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.

13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.

14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).

15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE

20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.

21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

23. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

24. CABINETS, BOXES, AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

25. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS

27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON- CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.

32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

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STATE OF CONNECTICUT · JAMES M. FITZGERALD · No. 25997 · LICENSED · PROFESSIONAL CIVIL ENGINEER
9/5/2024

CHECKED BY:	JMT
APPROVED BY:	JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	[illegible]	ISSUED FOR CONSTRUCTION	CMC
0	[illegible]	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS

COLCHESTER EAST CT

29 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE:	[illegible]
MDG LOCATION ID:	[illegible]
FUZE PROJECT ID:	[illegible]

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN01

SITE PLAN
SCALE: 1" = 100'-0"
0 100' 200' 300'
1 A01

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STATE OF CONNECTICUT * JAMES M. FITZGERALD No. 25987 LICENSED PROFESSIONAL CIVIL ENGINEER
4/5/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CHC
0	03/28/24	ISSUED FOR REVIEW	CHC

PROJECT NAME & ADDRESS
COLCHESTER EAST CT
29 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE: [illegible]
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: [illegible]

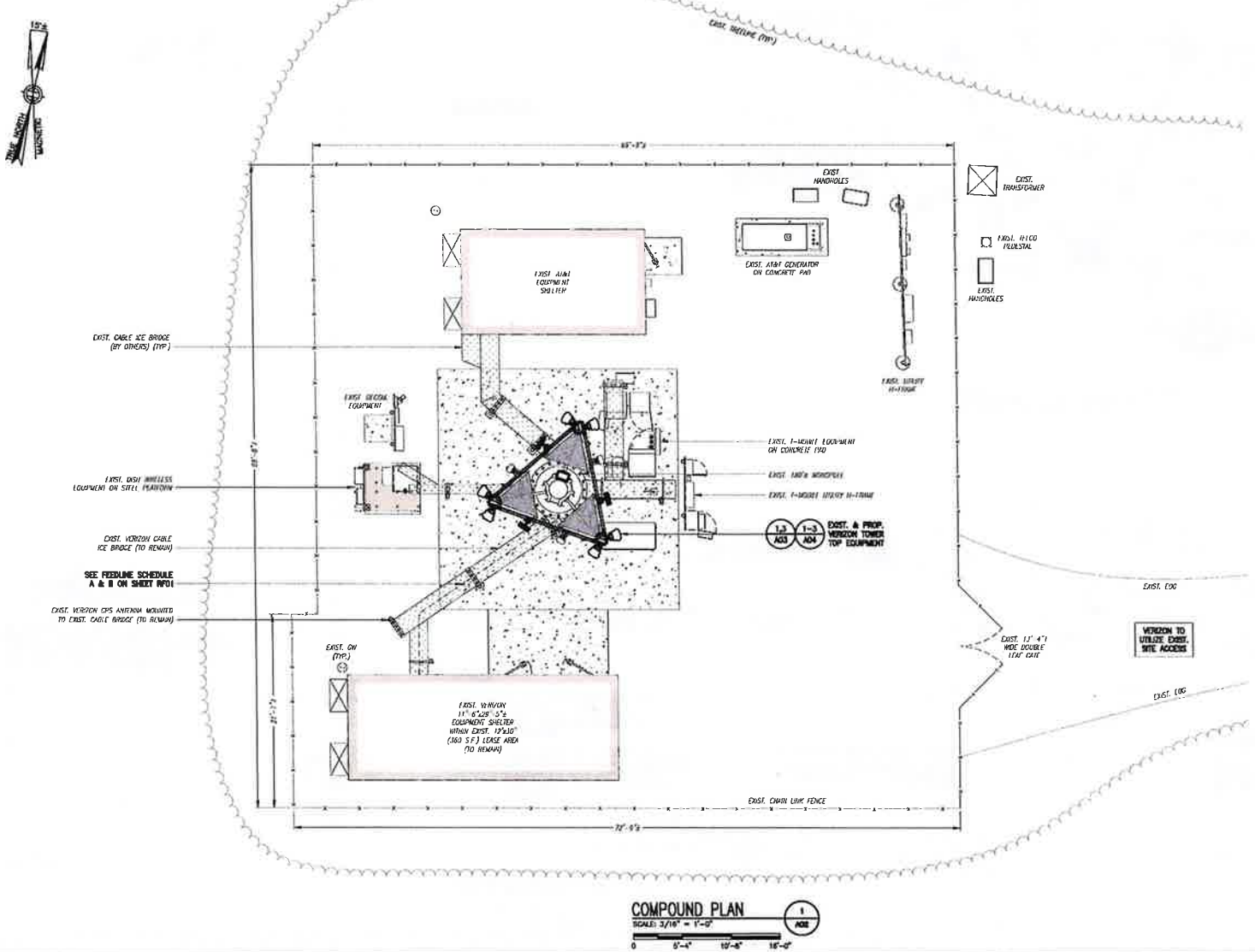
SHEET TITLE
SITE PLAN

SHEET NUMBER
A01

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

ANTENNA MOUNT REINFORCEMENT NOTE:
PRIOR TO THE COMMENCEMENT OF THE UPGRADE WORK SHOWN ON THESE DRAWINGS, THE EXISTING VERIZON TRI-SECTOR ANTENNA MOUNTING FRAME LOCATED ON THE EXISTING MONOPOLE SHALL BE REINFORCED AS PER THE MOUNT MODIFICATION DRAWINGS PREPARED BY COLLIERS ENGINEERING & DESIGN (PROJECT #21777294).

SPECIAL CONSTRUCTION NOTE (SBA-PROVIDED ANTENNA MOUNT STRUCTURAL MOD SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT THE VERIZON RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).



COMPOUND PLAN
SCALE: 3/16" = 1'-0"
0 5'-4" 10'-8" 16'-0"

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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
4/5/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/29/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
COLCHESTER EAST CT
99 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE:	467283
MDG LOCATION ID:	5000045707
FUZE PROJECT ID:	10072108

SHEET TITLE
COMPOUND PLAN

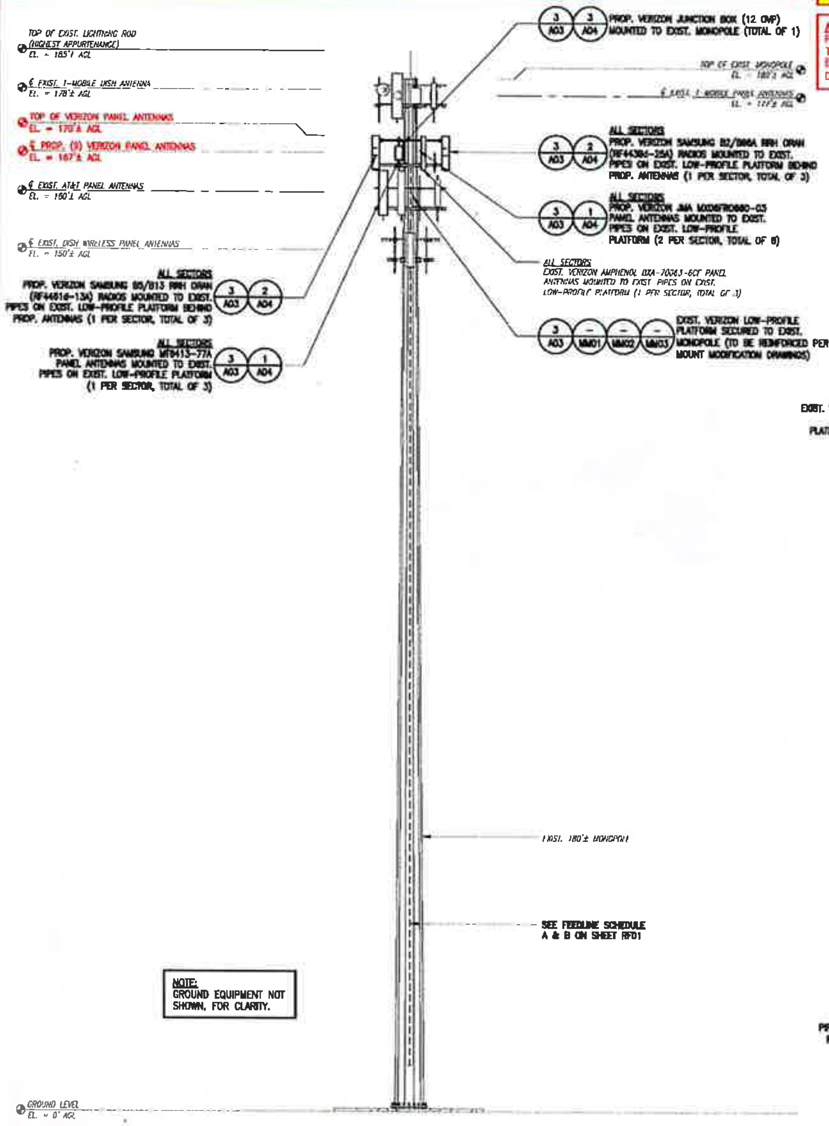
SHEET NUMBER
A02

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

SPECIAL CONSTRUCTION NOTE (SBA-PROVIDED ANTENNA MOUNT STRUCTURAL MOD SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT THE VERIZON RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).

ANTENNA MOUNT REINFORCEMENT NOTE:
PRIOR TO THE COMMENCEMENT OF THE UPGRADE WORK SHOWN ON THESE DRAWINGS, THE EXISTING VERIZON TRI-SECTOR ANTENNA MOUNTING FRAME LOCATED ON THE EXISTING MONOPOLE SHALL BE REINFORCED AS PER THE MOUNT MODIFICATION DRAWINGS PREPARED BY COLLIERS ENGINEERING & DESIGN (PROJECT #21777294).

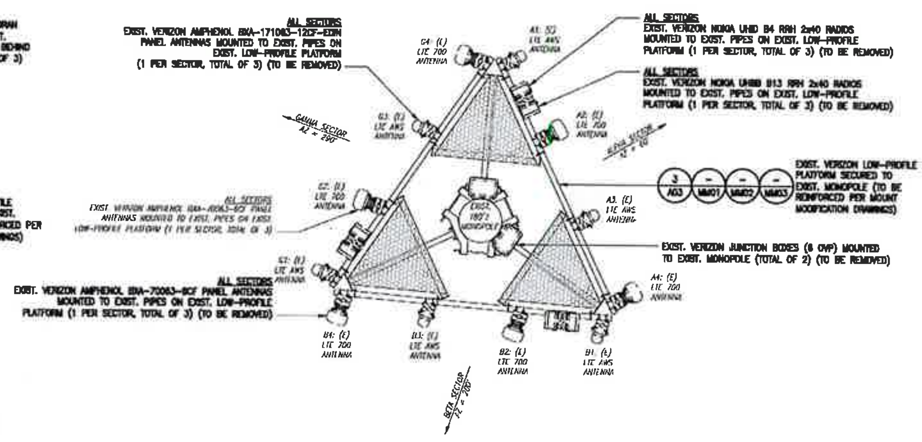
RAD CENTER NOTE:
VERIZON ANTENNA AND MOUNT RAD CENTER SHOWN IN ELEVATION ARE ACCORDING TO STRUCTURAL ANALYSIS DONE BY OTHERS AND MAY DIFFER FROM RAD CENTER ON RFDS PROVIDED BY VERIZON.



TOP OF EXIST. LIGHTNING ROD (HIGHEST APPURTENANCE) EL. = 185'± AGL
℄ EXIST. T-MOBILE DISH ANTENNA EL. = 178'± AGL
TOP OF VERIZON PANEL ANTENNAS EL. = 170'± AGL
℄ PROP. (9) VERIZON PANEL ANTENNAS EL. = 167'± AGL
℄ EXIST. AT&T PANEL ANTENNAS EL. = 160'± AGL
℄ EXIST. DISH WIRELESS PANEL ANTENNAS EL. = 150'± AGL
GROUND LEVEL EL. = 0' AGL
TOP OF EXIST. MONOPOLE EL. = 180'± AGL
℄ EXIST. T-MOBILE PANEL ANTENNAS EL. = 177'± AGL
PROP. VERIZON JUNCTION BOX (12 OVP) MOUNTED TO EXIST. MONOPOLE (TOTAL OF 1)
ALL SECTORS PROP. VERIZON SAMSUNG B2/B66A RRH ORAN (RF4439d-25A) RADIOS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM BEHIND PROP. ANTENNAS (1 PER SECTOR, TOTAL OF 3)
ALL SECTORS PROP. VERIZON JMA MX08FRO665-03 PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (2 PER SECTOR, TOTAL OF 6)
ALL SECTORS EXIST. VERIZON AMPHENOL BXA-70063-6CF PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3)
EXIST. VERIZON LOW-PROFILE PLATFORM SECURED TO EXIST. MONOPOLE (TO BE REINFORCED PER MOUNT MODIFICATION DRAWINGS)
ALL SECTORS PROP. VERIZON SAMSUNG B5/B13 RRH ORAN (RF4461d-13A) RADIOS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM BEHIND PROP. ANTENNAS (1 PER SECTOR, TOTAL OF 3)
ALL SECTORS PROP. VERIZON SAMSUNG MT6413-77A PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3)
EXIST. 180'± MONOPOLE
SEE FEEDLINE SCHEDULE A & B ON SHEET RF01

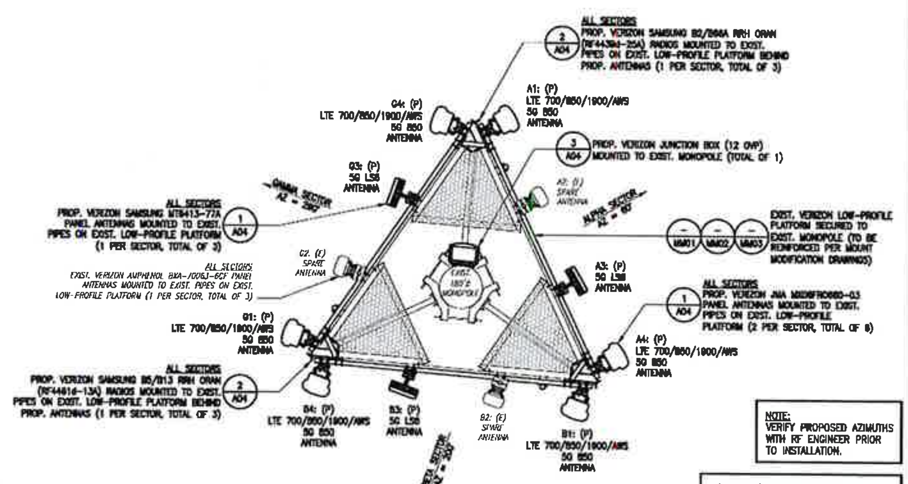
NOTE:
GROUND EQUIPMENT NOT SHOWN, FOR CLARITY.

TOWER ELEVATION (1/A03)
SCALE: 1" = 10'-0"
0 10'-0" 20'-0" 30'-0"



ALL SECTORS EXIST. VERIZON AMPHENOL BXA-171063-12CF-EDIN PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3) (TO BE REMOVED)
ALL SECTORS EXIST. VERIZON NOKIA UHID B4 RRH 2x40 RADIOS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3) (TO BE REMOVED)
ALL SECTORS EXIST. VERIZON NOKIA UHBB B13 RRH 2x40 RADIOS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3) (TO BE REMOVED)
EXIST. VERIZON LOW-PROFILE PLATFORM SECURED TO EXIST. MONOPOLE (TO BE REINFORCED PER MOUNT MODIFICATION DRAWINGS)
EXIST. VERIZON JUNCTION BOXES (6 OVP) MOUNTED TO EXIST. MONOPOLE (TOTAL OF 2) (TO BE REMOVED)
ALL SECTORS EXIST. VERIZON AMPHENOL BXA-70063-6CF PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3)
ALL SECTORS EXIST. VERIZON AMPHENOL BXA-70063-8CF PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3) (TO BE REMOVED)
GAMMA SECTOR AZ = 290°
ALPHA SECTOR AZ = 60°
BETA SECTOR AZ = 200°
EXIST. 180'± MONOPOLE

EXISTING ANTENNA PLAN (2/A03)
SCALE: N.T.S.



ALL SECTORS PROP. VERIZON SAMSUNG B2/B66A RRH ORAN (RF4439d-25A) RADIOS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM BEHIND PROP. ANTENNAS (1 PER SECTOR, TOTAL OF 3)
PROP. VERIZON JUNCTION BOX (12 OVP) MOUNTED TO EXIST. MONOPOLE (TOTAL OF 1)
EXIST. VERIZON LOW-PROFILE PLATFORM SECURED TO EXIST. MONOPOLE (TO BE REINFORCED PER MOUNT MODIFICATION DRAWINGS)
ALL SECTORS PROP. VERIZON JMA MX08FRO665-03 PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (2 PER SECTOR, TOTAL OF 6)
ALL SECTORS PROP. VERIZON SAMSUNG MT6413-77A PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3)
ALL SECTORS EXIST. VERIZON AMPHENOL BXA-70063-6CF PANEL ANTENNAS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3)
ALL SECTORS PROP. VERIZON SAMSUNG B5/B13 RRH ORAN (RF4461d-13A) RADIOS MOUNTED TO EXIST. PIPES ON EXIST. LOW-PROFILE PLATFORM BEHIND PROP. ANTENNAS (1 PER SECTOR, TOTAL OF 3)
A1: (P) LTE 700/850/1900/AWS 5G 850 ANTENNA
A3: (P) 5G L58 ANTENNA
A4: (P) LTE 700/850/1900/AWS 5G 850 ANTENNA
B1: (P) LTE 700/850/1900/AWS 5G 850 ANTENNA
B3: (P) 5G L58 ANTENNA
B4: (P) LTE 700/850/1900/AWS 5G 850 ANTENNA
G1: (P) LTE 700/850/1900/AWS 5G 850 ANTENNA
G3: (P) 5G L58 ANTENNA
G4: (P) LTE 700/850/1900/AWS 5G 850 ANTENNA
GAMMA SECTOR AZ = 290°
ALPHA SECTOR AZ = 60°
BETA SECTOR AZ = 200°

PROPOSED ANTENNA PLAN (3/A03)
SCALE: N.T.S.

NOTE:
VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.

ANTENNA STATUS LEGEND:
EMPTY – EMPTY PIPE
(E) – EXISTING
(P) – INSTALL
(F) – FUTURE

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STATE OF CONNECTICUT * JAMES M. FITZGERALD * No. 25997 LICENSED PROFESSIONAL CIVIL ENGINEER
4/5/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

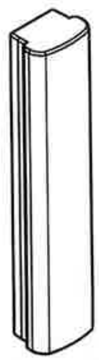
REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/28/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
COLCHESTER EAST CT
29 MAHONEY ROAD
COLCHESTER, CT 06415

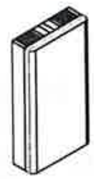
VZW LOCATION CODE: [illegible]
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: [illegible]

SHEET TITLE
TOWER ELEVATION & ANTENNA PLANS

SHEET NUMBER
A03



JMA MX08FRO880-03 ANTENNA
DIMENSIONS: 71.3"H x 15.4"W x 10.7"D
WEIGHT: 60.0 lbs
QUANTITY: 2 PER SECTOR, TOTAL OF 6
SECTORS: ALPHA, BETA, GAMMA



SAMSUNG MT6413-77A ANTENNA
DIMENSIONS: 28.9"H x 15.8"W x 5.5"D
WEIGHT: 57.3 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3
SECTORS: ALPHA, BETA, GAMMA

ANTENNA DETAILS
SCALE: N.T.S.
1 / A04

SAMSUNG RF4439d-25A B2/B66A RADIO
DIMENSIONS: 15.0"H x 15.0"W x 10.0"D
WEIGHT: 74.7 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3
SECTORS: ALPHA, BETA, GAMMA

SAMSUNG RF4461d-13A B5/B13 RADIO
DIMENSIONS: 15.0"H x 15.0"W x 10.2"D
WEIGHT: 78.1 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3
SECTORS: ALPHA, BETA, GAMMA

RADIO DETAILS
SCALE: N.T.S.
2 / A04

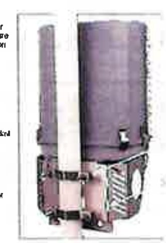
Procedure
Mounting Procedures

4.1 A mounting base is delivered with the unit. The base allows either wall/ladder or pole mounted installation. See picture to identify the holes for each installation method.

4.2 *Option 1: Pole Mount*
Using supplied hardware, mount Bracket to 2" to 4" diameter pole

4.3 *Option 2: Unistrut*

4.4 *Option 3: Monopole*
Use 1" stainless steel bands (not supplied) through slots on bracket to mount to Monopole



Gland/Insert Definitions

5.1 See picture to identify Base Gland Assembly Definitions

Assembled in unit as shipped

Qty	Connector Size	Pos	Insert P/N	Insert Hole	Cable Type
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Included in kit shipped with unit

Qty	Connector Size	Insert P/N	Insert Hole	Cable Type	Purpose	Pos
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	B
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FIBER JUNCTION BOX
DIMENSIONS: 28.58"H x 16.5"W x 12.6"D
WEIGHT: 32.0 lbs
QUANTITY: TOTAL OF 1

TYPICAL FIBER JUNCTION BOX (OVP) DETAILS
SCALE: N.T.S.
4 / A04

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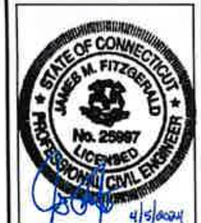

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CAC
0	03/28/24	ISSUED FOR REVIEW	CAC

PROJECT NAME & ADDRESS

COLCHESTER EAST CT

29 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE: 467265
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: 16272100

SHEET TITLE

SITE DETAILS

SHEET NUMBER

A04

EXISTING EQUIPMENT CONFIGURATION

SECTOR	EQUIPMENT MAKE & MODEL	QTY	AZIMUTH (TRUE NORTH)	ANTENNA RAD	BAND	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	EQUIPMENT STATUS	H (IN)	W (IN)	D (IN)	WEIGHT (LBS)	HYBRID CABLE SIZE & Q'TY
ALPHA	AMPHENOL BXA-171063-12CF-EDIN PANEL ANTENNA	1	60°	167'± AGL	LTE AWS	0°	2°	ETRE	72.5	6.1	4.1	12.8	EXIST. (12) 1-5/8" COAXIAL CABLES EXIST. (2) 6x12 HYBRID CABLES
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	60°	167'± AGL	LTE 700	2°	2°	ETR	71.0	11.3	6.0	17.0	
	AMPHENOL BXA-171063-12CF-EDIN PANEL ANTENNA	1	60°	167'± AGL	LTE AWS	0°	2°	ETRE	72.5	6.1	4.1	12.8	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	60°	167'± AGL	LTE 700	2°	2°	ETRE	71.0	11.3	6.0	17.0	
BETA	AMPHENOL BXA-171063-12CF-EDIN PANEL ANTENNA	1	200°	167'± AGL	LTE AWS	0°	2°	ETRE	72.5	6.1	4.1	12.8	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	200°	167'± AGL	LTE 700	0°	2°	ETR	71.0	11.3	6.0	17.0	
	AMPHENOL BXA-171063-12CF-EDIN PANEL ANTENNA	1	200°	167'± AGL	LTE AWS	0°	2°	ETRE	72.5	6.1	4.1	12.8	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	200°	167'± AGL	LTE 700	0°	2°	ETRE	71.0	11.3	6.0	17.0	
GAMMA	AMPHENOL BXA-171063-12CF-EDIN PANEL ANTENNA	1	290°	167'± AGL	LTE AWS	0°	2°	ETRE	72.5	6.1	4.1	12.8	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	290°	167'± AGL	LTE 700	0°	2°	ETR	71.0	11.3	6.0	17.0	
	AMPHENOL BXA-171063-12CF-EDIN PANEL ANTENNA	1	290°	167'± AGL	LTE AWS	0°	2°	ETRE	72.5	6.1	4.1	12.8	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	290°	167'± AGL	LTE 700	0°	2°	ETRE	71.0	11.3	6.0	17.0	
ALL	NOKIA UHDB B13 RRH 2x40 RADIOS	3	-	-	-	-	-	ETRE	15.4	15.0	8.7	50.0	
	NOKIA UHID B4 RRH 2x60 RADIOS	3	-	-	-	-	-	ETRE	24.4	10.6	8.7	44.0	
	6 OVP	2	-	-	-	-	-	ETRE	29.6	16.5	12.8	32.0	

NOTES:
1. "ETR" DENOTES "EXISTING TO REMAIN".
2. "ETRE" DENOTES "EXISTING TO BE REMOVED".
3. WEIGHTS LISTED ARE WITHOUT MOUNTING BRACKETS.
4. INFORMATION IS BASED ON RFDS DATED 02/28/24.

FINAL EQUIPMENT CONFIGURATION

SECTOR	EQUIPMENT MAKE & MODEL	QTY	AZIMUTH (TRUE NORTH)	ANTENNA RAD	BAND	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	EQUIPMENT STATUS	H (IN)	W (IN)	D (IN)	WEIGHT (LBS)	HYBRID CABLE SIZE & Q'TY
ALPHA	JMA MX06FRO660-03 PANEL ANTENNA	1	60°	167'± AGL	LTE 700/850/1900/AWS 5G 850	0°/0°/0°/0° 0°	2°/2°/2°/2° 2°	NEW	71.3	15.4	10.7	60.0	EXIST. (10) 1-5/8" COAXIAL CABLES EXIST. (2) 6x12 HYBRID CABLES
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	60°	167'± AGL	SPARE	2°	2°	ETR	71.0	11.3	6.0	17.0	
	SAMSUNG MT6413-77A PANEL ANTENNA	1	60°	167'± AGL	5G L58	0°	1°	NEW	28.9	15.8	5.5	57.3	
	JMA MX06FRO660-03 PANEL ANTENNA	1	60°	167'± AGL	LTE 700/850/1900/AWS 5G 850	0°/0°/0°/0° 0°	2°/2°/2°/2° 2°	NEW	71.3	15.4	10.7	60.0	
BETA	JMA MX06FRO660-03 PANEL ANTENNA	1	200°	167'± AGL	LTE 700/850/1900/AWS 5G 850	0°/0°/0°/0° 0°	2°/2°/2°/2° 2°	NEW	71.3	15.4	10.7	60.0	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	200°	167'± AGL	SPARE	0°	2°	ETR	71.0	11.3	6.0	17.0	
	SAMSUNG MT6413-77A PANEL ANTENNA	1	200°	167'± AGL	5G L58	0°	1°	NEW	28.9	15.8	5.5	57.3	
	JMA MX06FRO660-03 PANEL ANTENNA	1	200°	167'± AGL	LTE 700/850/1900/AWS 5G 850	0°/0°/0°/0° 0°	2°/2°/2°/2° 2°	NEW	71.3	15.4	10.7	60.0	
GAMMA	JMA MX06FRO660-03 PANEL ANTENNA	1	290°	167'± AGL	LTE 700/850/1900/AWS 5G 850	0°/0°/0°/0° 0°	2°/2°/2°/2° 2°	NEW	71.3	15.4	10.7	60.0	
	AMPHENOL BXA-70063-6CF PANEL ANTENNA	1	290°	167'± AGL	SPARE	0°	2°	ETR	71.0	11.3	6.0	17.0	
	SAMSUNG MT6413-77A PANEL ANTENNA	1	290°	167'± AGL	5G L58	0°	1°	NEW	28.9	15.8	5.5	57.3	
	JMA MX06FRO660-03 PANEL ANTENNA	1	290°	167'± AGL	LTE 700/850/1900/AWS 5G 850	0°/0°/0°/0° 0°	2°/2°/2°/2° 2°	NEW	71.3	15.4	10.7	60.0	
ALL	SAMSUNG B2/B66A RF4439d-25A RADIOS	3	-	-	-	-	-	NEW	15.0	15.0	10.0	74.7	
	SAMSUNG B5/B13 RF4461d-13A RADIOS	3	-	-	-	-	-	NEW	15.0	15.0	10.2	70.1	
	12 OVP	1	-	-	-	-	-	NEW	29.6	16.5	12.8	32.0	

NOTES:
1. "ETR" DENOTES "EXISTING TO REMAIN".
2. "ETRE" DENOTES "EXISTING TO BE REMOVED".
3. WEIGHTS LISTED ARE WITHOUT MOUNTING BRACKETS.
4. INFORMATION IS BASED ON RFDS DATED 02/28/24.

FEEDLINE SCHEDULE

SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO REMAIN: (1) 1/2" COAXIAL CABLE FOR GPS ANTENNA (10) 1-5/8" COAXIAL CABLES (2) 6x12 HYBRID CABLES EXISTING TO BE REMOVED: (2) 1-5/8" COAXIAL CABLES	ROUTED PER STRUCTURAL ANALYSIS
B	PROPOSED: NONE	

NOTE:
EXISTING VERIZON EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

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STATE OF CONNECTICUT ★ JAMES M. FITZGERALD ★ No. 25997 LICENSED PROFESSIONAL CIVIL ENGINEER
4/8/2024

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

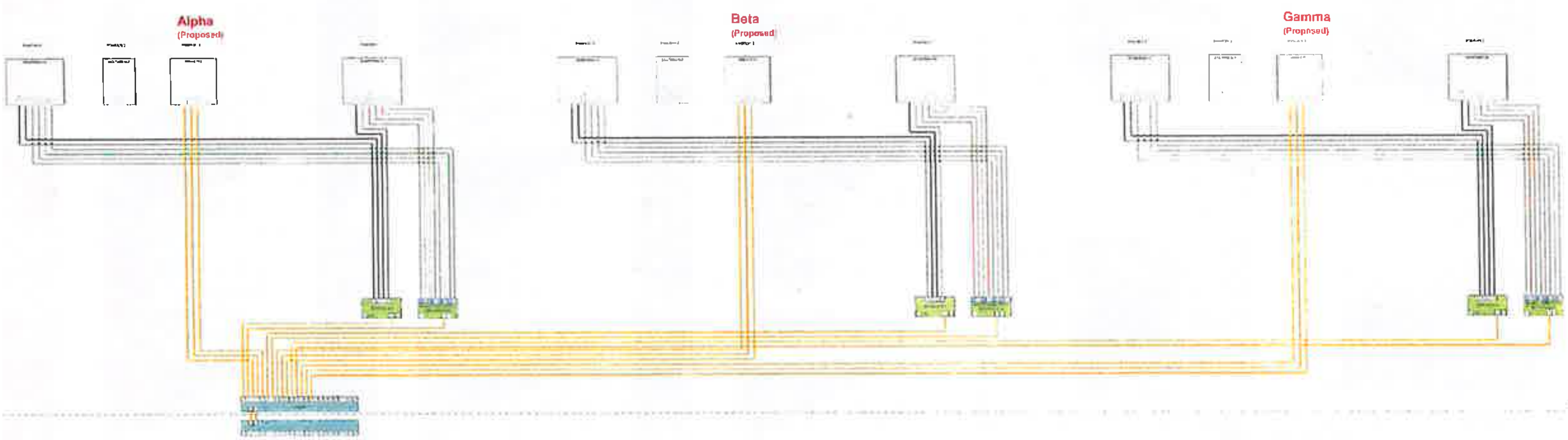
REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/28/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
COLCHESTER EAST CT
29 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE: [illegible]
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: [illegible]

SHEET TITLE
RF DATA

SHEET NUMBER
RF01



RF PLUMBING DIAGRAM
SCALE: N.T.S.

1
RF02

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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
4/5/2024

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CAC
0	03/28/24	ISSUED FOR REVIEW	CAC

PROJECT NAME & ADDRESS

COLCHESTER EAST CT

29 MAHONEY ROAD
COLCHESTER, CT 06415

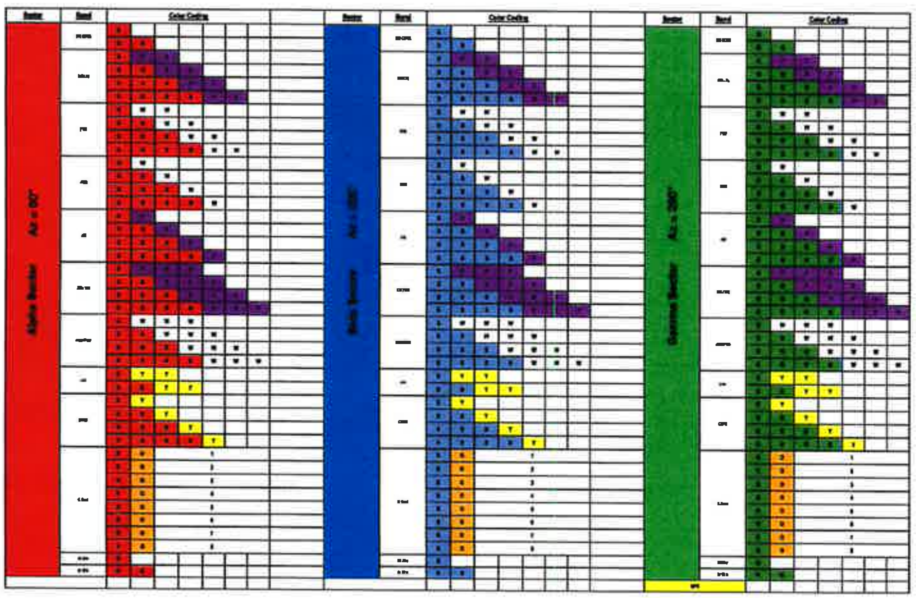
VZW LOCATION CODE:	[illegible]
MDG LOCATION ID:	[illegible]
FUZE PROJECT ID:	[illegible]

SHEET TITLE

RF PLUMBING DIAGRAM

SHEET NUMBER

RF02



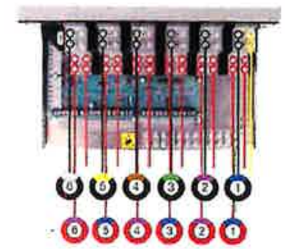
CABLE NOTE:
SEE FEEDLINE SCHEDULE A & B ON SHEET RFD1 FOR EXISTING & PROPOSED CABLE QUANTITIES.

LINE COLOR CODE SPECIFICATIONS (1/RF03)
SCALE: N.T.S.

Hybrid Cable on Towers

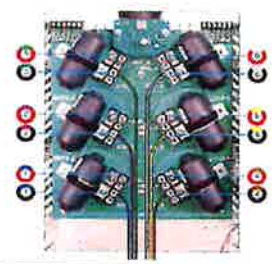
Hybrid Cable 1

Sector	Identification Color	-48V	RTN
700 Alpha	Blue		
AWS Alpha	Violet		
PCS Alpha	Green		
850 Alpha	Brown		
Spare	Yellow		
Spare	White		



Hybrid Cable 2

Sector	Identification Color	-48V	RTN
700 Beta	Blue		
AWS Beta	Violet		
PCS Beta	Green		
850 Beta	Brown		
Spare	Yellow		
Spare	White		



HYBRID CABLE COLOR CODE SPECIFICATIONS (2/RF03)
SCALE: N.T.S.

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STATE OF CONNECTICUT * JAMES M. FITZGERALD No. 25987 LICENSED PROFESSIONAL CIVIL ENGINEER
4/5/2024

CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/28/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
COLCHESTER EAST CT
29 MAHONEY ROAD
COLCHESTER, CT 06415

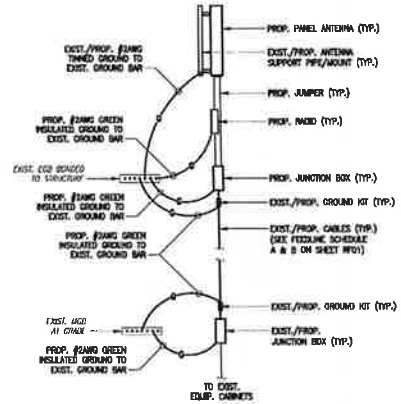
VZW LOCATION CODE: 467283
MDG LOCATION ID: 5000846787
FUZE PROJECT ID: 16272166

SHEET TITLE
RF COLOR CODE SPECIFICATIONS

SHEET NUMBER
RF03

GROUNDING GENERAL NOTES

1. ALL EXTERIOR CONDUCTORS SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. MINIMUM BEND RADIUS SHALL BE EIGHT (8) INCHES.
2. ALL WIRE-TO-WIRE CONNECTIONS SHALL BE THREE-CLAMP, C TAP COMPRESSION (T&B #54740 ORANGE OR EQUIVALENT). ALL GROUND BAR CONNECTIONS SHALL BE TWO-HOLE, LONG-BARREL TYPE COMPRESSION LUGS (T&B OR EQUIVALENT). ALL OTHER CONNECTIONS TO STEEL SURFACES SHALL USE LUG-TYPE CONNECTORS.
3. MECHANICALLY BOND ANTENNA MOUNTS WITH #2 AWG, BARE, STRANDED CONDUCTORS.
4. ALL GROUNDING WORK SHALL COMPLY WITH VERIZON WIRELESS STANDARDS.
5. CONNECT GROUND CONDUCTOR TO EXISTING GROUNDING SYSTEM. ATTACH TO WALLS, PARAPET, CABLE TRAY, ETC. WITH A CLAMPS AS NECESSARY. REMOVE PAINT, FIREPROOFING, MILL SCALE, ETC. TO ACHIEVE GOOD CAD WELD GROUND CONNECTION.
6. CONNECT TO HALO GROUND USING C-TAP (#54730).
7. CONNECT TO ENCLOSURES USING BLUE GROUND LUGS.
8. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC (CADWELD) CONNECTIONS.
9. ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD).
10. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
11. ALL EXOTHERMIC CONNECTIONS TO THE GROUND RODS SHALL START AT THE TOP & HAVE A VERTICAL SEPARATION OF 6" FOR EVERY ADDITIONAL CONNECTION.
12. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
13. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
14. MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED 5 OHMS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATION FOR FACILITY GROUNDING, USING FALL OF POTENTIAL METHOD.
15. ANTENNA GROUND KITS SHALL BE FURNISHED BY VERIZON & INSTALLED BY CONTRACTOR.



TYP. ANTENNA GROUNDING RISER (1/E01)
SCALE: N.T.S.

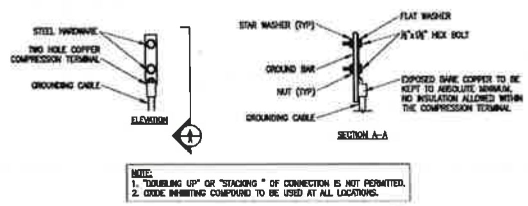
LEGEND

GROUNDING SYMBOLS

Symbol	Description
⊠	GROUND ROD/TEST (OBSERVATION) WELL
⊗	GROUND ROD
▲	CADWELD TYPE CONNECTION
●	COMPRESSION TYPE CONNECTION
-----	GROUNDING WIRE
(1/E01)	REPRESENTS DETAIL NUMBER

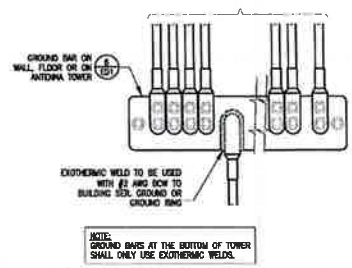
ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
GPS	GLOBAL POSITIONING SYSTEM
PCS	PERSONAL COMMUNICATION SYSTEM
RWY	RACEWAY
TYP.	TYPICAL
RGS	RIGID GALVANIZED STEEL
EMT	ELECTRICAL METALLIC TUBING
DWG	DRAWING
DMT	INTERIOR GROUND RING (HALO)
GEN	GENERATOR
GR	GROWTH
CGBE	COAX GROUND BAR EXTERNAL
CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MGB	MASTER GROUND BAR
PVC	RIGID (SCH. 40) POLYVINYL CHLORIDE CONDUIT
EBH	ETHERNET BACK HAUL



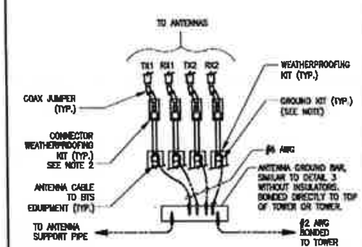
NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

TYP. GROUND BAR CONNECTION (2/E01)
SCALE: N.T.S.



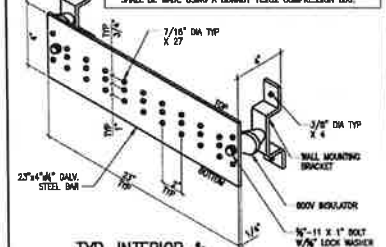
NOTE:
GROUND BARS AT THE BOTTOM OF TOWER SHALL ONLY USE EXOTHERMIC WELDS.

INSTALLATION OF GROUND WIRE TO GROUND BAR (3/E01)
SCALE: N.T.S.

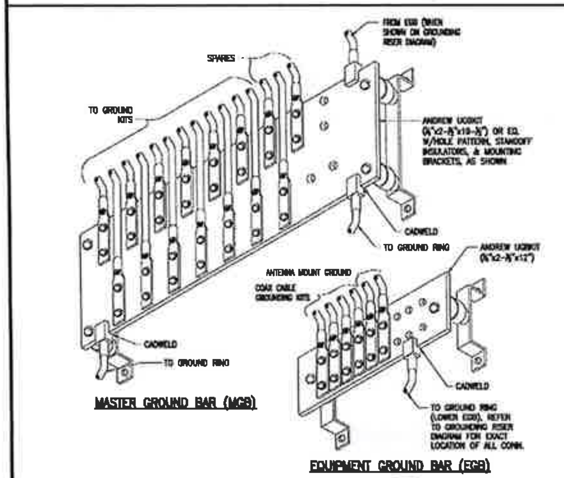


CONN. OF GROUND WIRE TO GROUND BAR (TOWER) (4/E01)
SCALE: N.T.S.

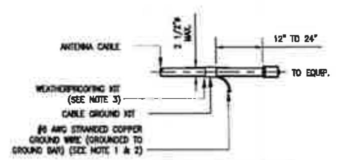
NOTES:
1. SURFACE PREPARATION: ALL CONNECTIONS MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE MADE BARE TO ENSURE PROPER CONTACT. NO WASHERS SHALL BE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS SHALL HAVE AN ANTI-OXIDANT AGENT APPLIED PRIOR TO INSTALLATION.
2. BUSS PREPARATION: ALL GALV. STEEL BUSSES SHALL BE CLEANED, POLISHED AND AN ANTI-OXIDANT APPLIED. NO FINGERPRINTS OR DISCOLORED STEEL WILL BE PERMITTED.
3. TERMINATIONS: ALL EQUIPMENT TERMINATIONS SHALL BE MADE WITH A BURNDY TWO HOLE COMPRESSION LUG WITH 10-24x3/4" LONG S.S. SCREWS, NUTS AND LOCK WASHERS. ALL BUSS TERMINATIONS SHALL BE MADE WITH A CAD-WELD OR BURNDY YC2C2 2 HOLE COMPRESSION LUG OR EQUAL. ALL INTERIOR HALO ATTACHMENTS SHALL BE MADE USING A BURNDY YC2C2 COMPRESSION LUG.



TYP. INTERIOR & EXTERIOR GROUND BAR (5/E01)
SCALE: N.T.S.

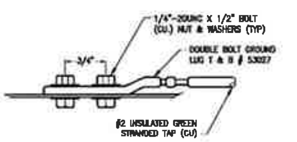


GROUND BAR DETAILS (6/E01)
SCALE: N.T.S.

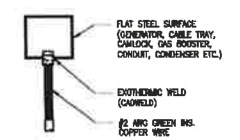


NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND & ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE & PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

CONN. OF CABLE GROUND KIT TO ANTENNA CABLE (7/E01)
SCALE: N.T.S.



TYP. EQUIPMENT GROUND CONNECTION (8/E01)
SCALE: N.T.S.



TYP. CADWELD #2 GREEN TO FLAT STEEL SURFACE (9/E01)
SCALE: N.T.S.

verizon
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
(203) 741-7336

SBA
SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
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(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT — JAMES M. FITZGERALD — No. 25997 — LICENSED PROFESSIONAL CIVIL ENGINEER
4/5/2024

CHECKED BY:	JMT
APPROVED BY:	JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/28/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS
COLCHESTER EAST CT
29 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE:	467283
MDG LOCATION ID:	[illegible]
FUZE PROJECT ID:	16272169

SHEET TITLE
GROUNDING NOTES & DETAILS

SHEET NUMBER
E01

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 13.00' PLATFORM

TOWER OWNER: SBA COMMUNICATIONS
TOWER OWNER SITE NUMBER: CT02652

CARRIER SITE NAME: COLCHESTER EAST CT
CARRIER SITE NUMBER: 5000245797
FUZE ID: 16272105

23 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

LATITUDE: 41.564533° N
LONGITUDE: 72.251697° W

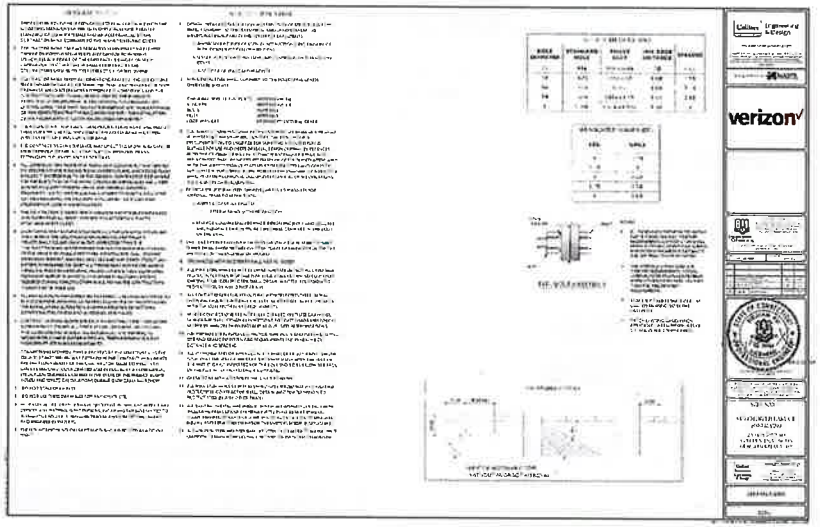
DESIGN CRITERIA

PROJECT INFORMATION

SHEET INDEX

BILL OF MATERIALS

VZW SMART KITS - APPROVED VENDORS



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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25987
LICENSED
PROFESSIONAL CIVIL ENGINEER
4/5/2024

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APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/28/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS

COLCHESTER EAST CT

23 MAHONEY ROAD
COLCHESTER, CT 06415

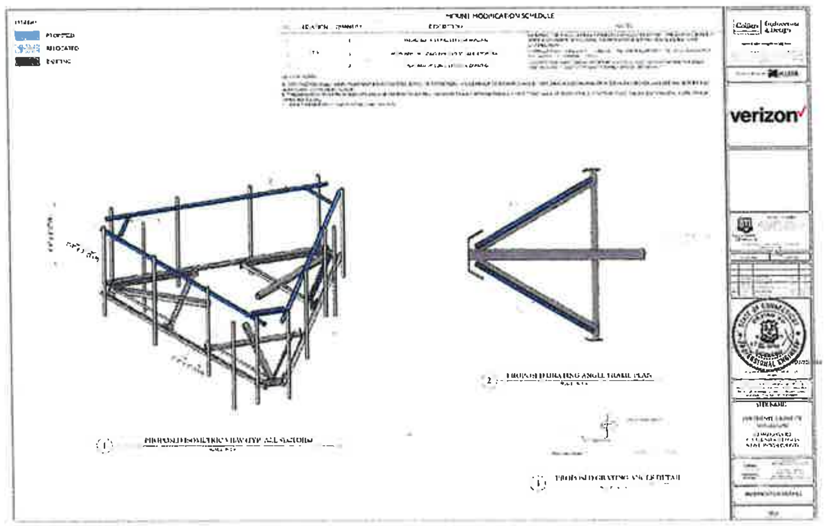
VZW LOCATION CODE: 467283
MDG LOCATION ID: 5000245797
FUZE PROJECT ID: 16272105

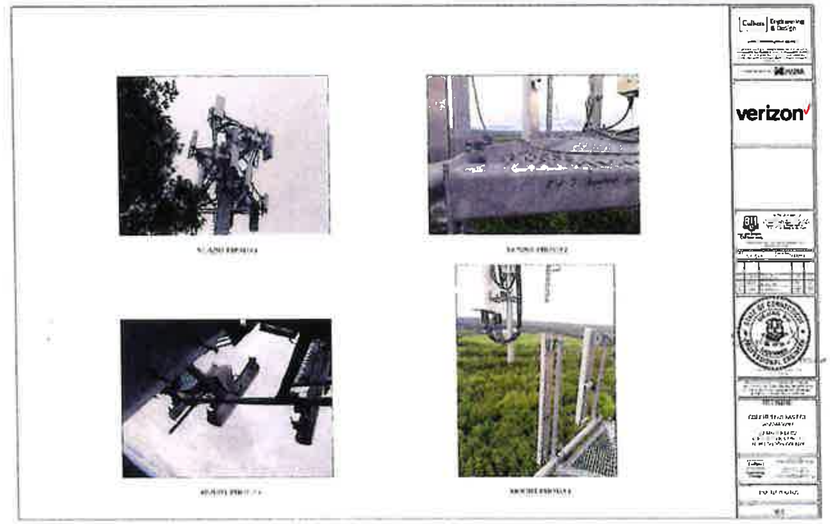
SHEET TITLE

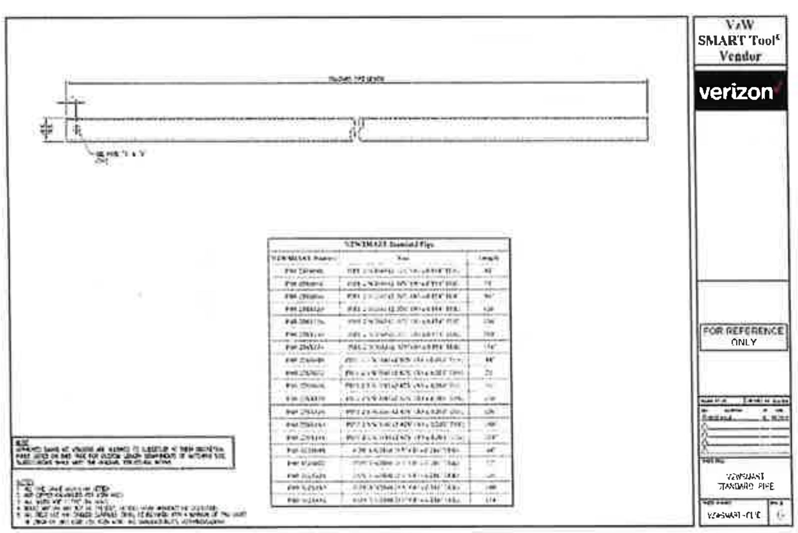
MOUNT MODIFICATION DRAWINGS I

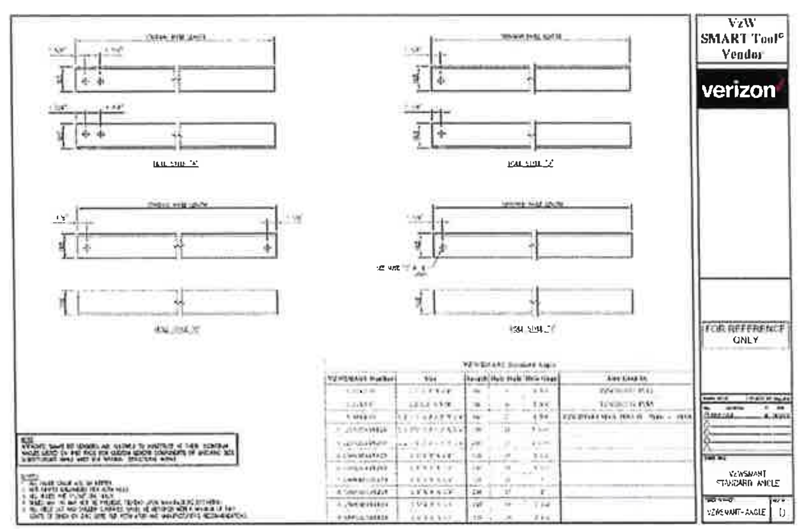
SHEET NUMBER

MM01









verizon

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(203) 741-7336

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STATE OF CONNECTICUT ★ JAMES M. FITZGERALD ★ No. 25997 LICENSED PROFESSIONAL CIVIL ENGINEER

4/8/2024

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/05/24	ISSUED FOR CONSTRUCTION	CMC
0	03/28/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS

COLCHESTER EAST CT

29 MAHONEY ROAD
COLCHESTER, CT 06415

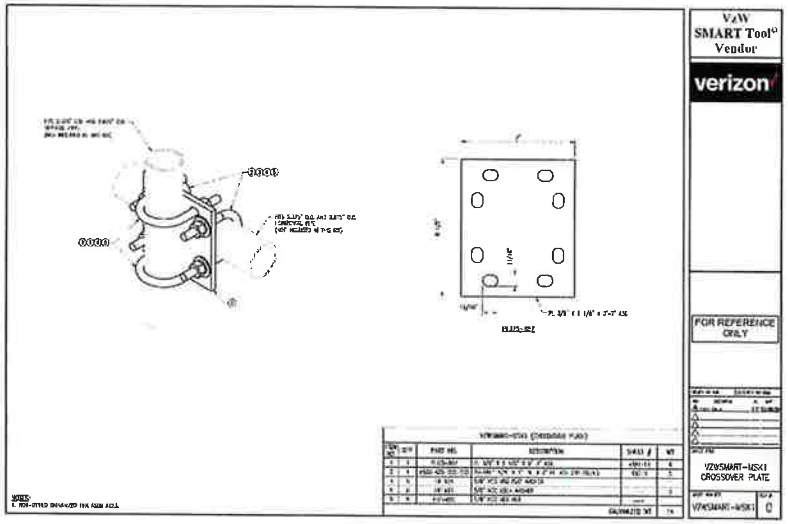
VZW LOCATION CODE:	467286
MDG LOCATION ID:	5000346797
FUZE PROJECT ID:	16272100

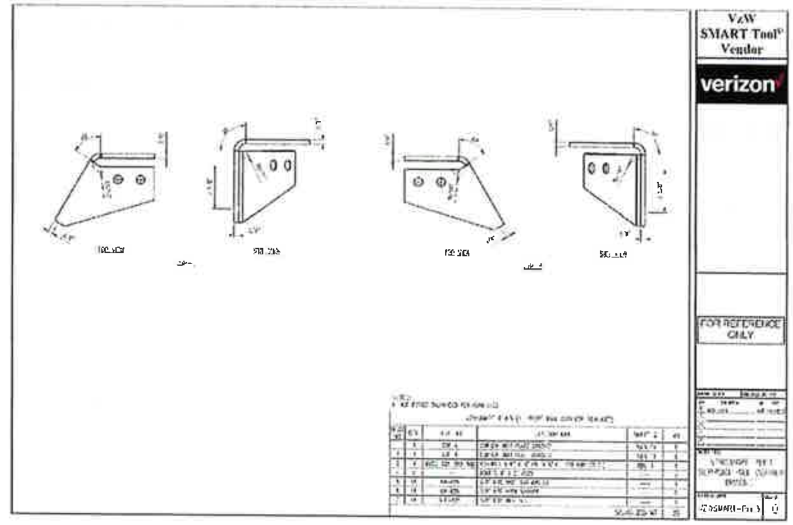
SHEET TITLE

MOUNT MODIFICATION DRAWINGS II

SHEET NUMBER

MM02





verizon

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WALLINGFORD, CT 06492
(203) 741-7336

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(508) 251-0720

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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED
PROFESSIONAL CIVIL ENGINEER

4/5/2024

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	04/[illegible]/24	ISSUED FOR CONSTRUCTION	CMC
0	03/[illegible]/24	ISSUED FOR REVIEW	CMC

PROJECT NAME & ADDRESS

COLCHESTER EAST CT

29 MAHONEY ROAD
COLCHESTER, CT 06415

VZW LOCATION CODE: [illegible]
MDG LOCATION ID: [illegible]
FUZE PROJECT ID: [illegible]

SHEET TITLE

MOUNT MODIFICATION DRAWINGS III

SHEET NUMBER

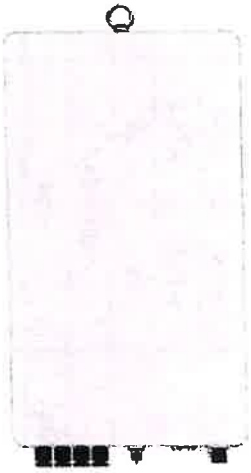
MM03

C-band 64T64R

SAMSUNG

Gen 2

Gen 2 : Higher conducted power radio with reduced size/volume/weight vs Gen 1 and also SOC embedded for flexibility to support new features



※ Preliminary Design: External appearance and mechanical design can be subject to change

Gen 2. 64T64R C-band MMU Dimensions	
Size (WxHxD)	400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)
Weight	26kg (57.3 lb)

Item	Gen 2 64T64R (MT6413-77A)
Air Technology	NR n77/TDD
Frequency	3700 – 3980 MHz
IBW	200 MHz
OBW	200 MHz
Carrier Bandwidth	20(HW ready)/40/60/80/100 MHz
# of Carriers	2 carriers
Layer	DL : 16L, UL : 16RX (8L)
RF Chain	64T64R
Antenna Configuration	4V16H with 192 AE
EIRP	80.5 dBm @320W (55 dBm + 25.5 dBi)
Conductive Power	320W
Spectrum Analyzer	TX/RX support
RX Sensitivity	Typical -97.8dBm @(1Rx, 18.36MHz with 30kHz,51RBs)
Modulation	DL 256QAM support, (DL 1024QAM with 1~2dB power back-off)
Function Split	DL/UL option 7-2x
Input Power	-48 VDC (-38 VDC to -57 VDC)
Power Consumption	1,287W (100% load, room temp.)
Size (WHD)	**400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)**
Volume	**41.1L**
Weight	**26kg (57.3 lb)**
Operating Temperature	-40°C - 55°C (w/o solar load)
Cooling	Natural convection
Unwanted Emission	3GPP 38.104 FCC 47 CFR 27.53 : < -13dBm/MHz < -40 dBm/MHz @ above 4 GHz <-50 dBm /MHz @ 4,040 – 4,050 MHz, <-60 dBm /MHz @ above 4,050 MHz
Optic Interface	15km, 4 ports (25Gbps x 4), SFP28, single mode, Bi-di (Option: Duplex)
Mounting Options	Pole, wall
NB-IoT	Not support
External Alarm	4RX
Fronthaul Interface	eCPRI

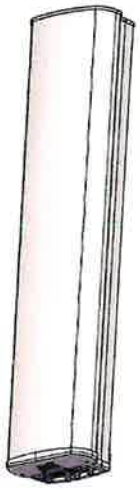
MX06FRO660-03

NWAV™ X-Pol Hex-Port Antenna

X-Pol Hex-Port 6 ft 60° Fast Roll Off antenna with independent tilt on 700 & 850 MHz:

2 ports 698-798, 824-894 MHz and 4 ports 1695-2180 MHz

- Fast Roll Off (FRO™) azimuth beam pattern improves Intra- and Inter-cell SINR
- Compatible with dual band 700/850 MHz radios with independent low band EDT without external diplexers
- Fully integrated (iRETs) with independent RET control for low and high bands for ease of network optimization
- SON-Ready array spacing supports beamforming capabilities
- Suitable for LTE/CDMA/PCS/UMTS/GSM air interface technologies
- Integrated Smart Bias-Ts reduce leasing costs

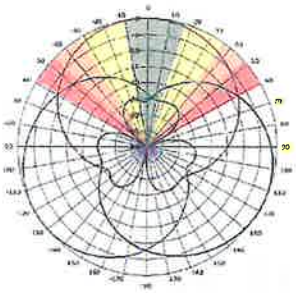


NWAV

Fast Roll-Off antennas increase data throughput without compromising coverage

The horizontal beam produced by Fast Roll-Off (FRO) technology increases the Signal to Interference & Noise Ratio (SINR) by eliminating overlap between sectors.

Non-FRO antenna



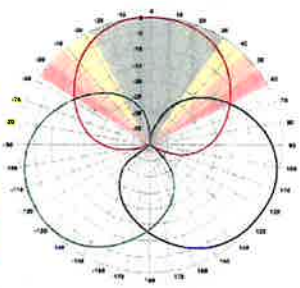
Large traditional antenna pattern overlap creates harmful interference.

JMA's FRO antenna pattern minimizes overlap, thereby minimizing interference.

LTE throughput	SINR	Speed (bps/Hz)	Speed increase	CQI
Excellent	>18	>4.5	333+%	8-10
Good	15-18	3.3-4.5	277%	6-7
Fair	10-15	2-3.3	160%	4-6
Poor	<10	<2	0%	1-3

The LTE radio automatically selects the best throughput based on measured SINR.

JMA FRO antenna



Electrical specification (minimum/maximum)	Ports 1, 2		Ports 3, 4, 5, 6		
Frequency bands, MHz	698-798	824-894	1695-1880	1850-1990	1920-2180
Polarization	± 45°		± 45°		
Average gain over all tilts, dBi	14.4	14.0	17.6	18.0	18.2
Horizontal beamwidth (HBW), degrees	60.5	53.0	55.0	55.0	55.5
Front-to-back ratio, co-polar power @180°± 30°, dB	>24	>24.0	>25.0	>25.0	>25.0
X-Pol discrimination (CPR) at boresight, dB	>15.0	>14.2	>18	>18	>15
Sector power ratio, percent	<3.5	<3.0	<3.7	<3.8	<3.6
Vertical beamwidth (VBW), degrees[1]	13.1	11.8	6.0	5.5	5.5
Electrical downtilt (EDT) range, degrees	2-14	2-14	0-9		
First upper side lobe (USLS) suppression, dB[1]	≤-15.0	≤-16.5	≤-16.0	≤-16.0	≤-16.0
Cross-polar isolation, port-to-port, dB[1]	25	25	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0		1.5:1 / -14.0		
Max passive intermodulation (PIM), 2x20W carrier, dBc	-153		-153		
Max input power per any port, watts	300		250		
Total composite power all ports, watts	1500				

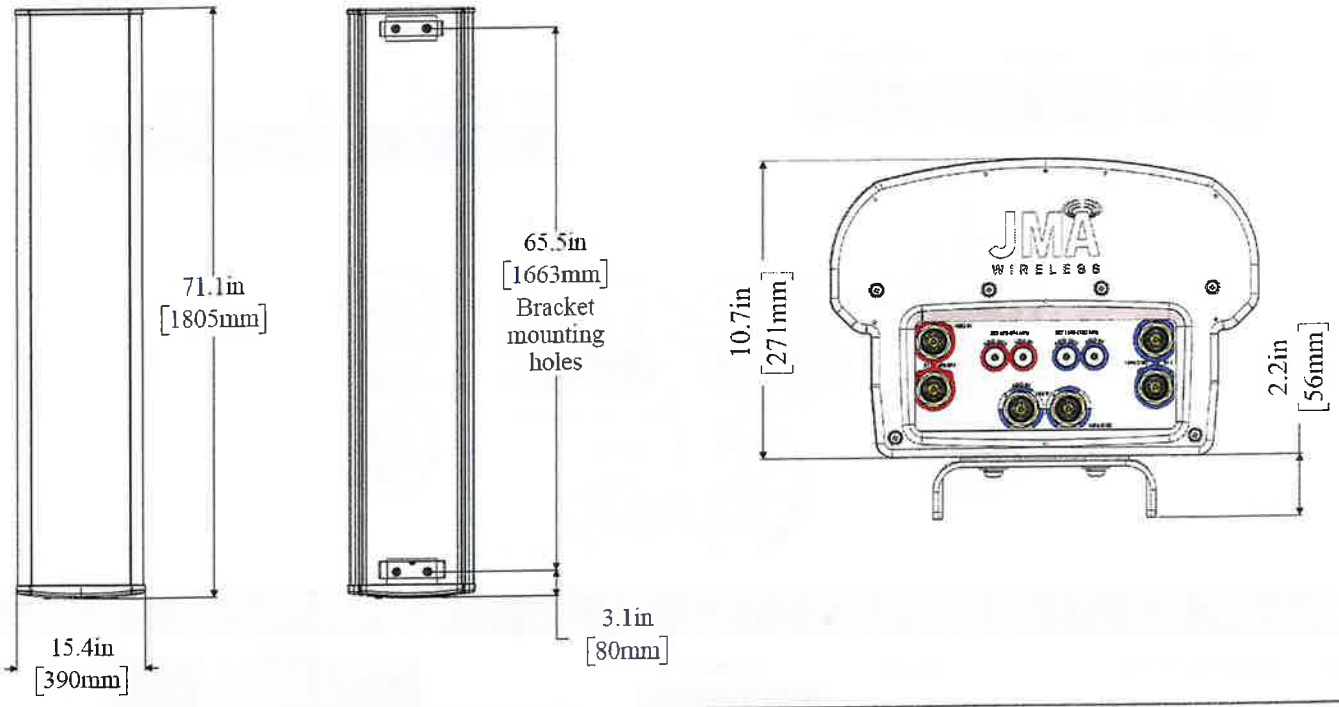
[1] Typical value over frequency and tilt

MX06FRO660-03

NWAV™ X-Pol Hex-Port Antenna

Mechanical specifications	
Dimensions height/width/depth, inches (mm)	71.3/ 15.4/ 10.7 (1811/ 392/ 273)
Shipping dimensions length/width/height, inches (mm)	82/ 20/ 15 (2083/ 508/ 381)
No. of RF input ports, connector type, and location	6 x 4.3-10 female, bottom
RF connector torque	96 lbf·in (10.85 N·m or 8 lbf·ft)
Net antenna weight, lb (kg)	60 (27.0)
Shipping weight, lb (kg)	90 (41.0)
Antenna mounting and downtilt kit included with antenna	91900318
Net weight of the mounting and downtilt kit, lb (kg)	18 (8.18)
Range of mechanical up/down tilt	-2° to 14°
Rated wind survival speed, mph (km/h)	150 (241)
Frontal, lateral, and rear wind loading @ 150 km/h, lbf (N)	154 (685), 73 (325), 158 (703)
Equivalent flat plate @ 100 mph and Cd=2, sq ft	2.6

Front view **Back view** **Bottom view**



Ordering information	
Antenna model	**Description**
MX06FRO660-03	6F X-Pol HEX FRO 60° independent tilt 700/850 RET, 4.3-10 & SBT
Optional accessories	
AISG cables	M/F cables for AISG connections
PCU-1000 RET controller	Stand-alone controller for RET control and configurations

MX06FRO660-03

NWAV™ X-Pol Hex-Port Antenna

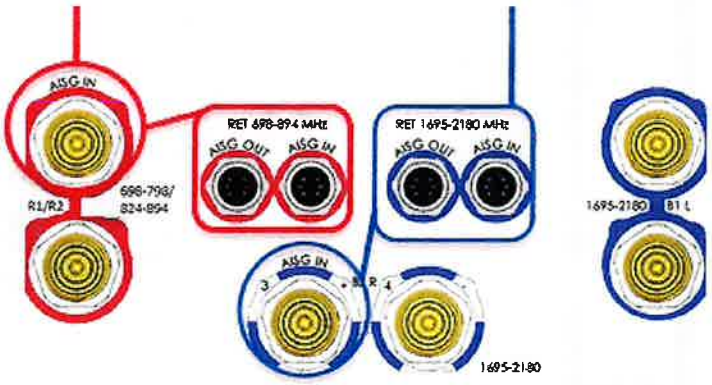
Remote electrical tilt (RET 1000) information	
RET location	Integrated into antenna
RET interface connector type	8-pin AISG connector per IEC 60130-9
RET connector torque	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
RET interface connector quantity	2 pairs of AISG male/female connectors
RET interface connector location	Bottom of the antenna
Total no. of internal RETs (low bands)	2
Total no. of internal RETs (high bands)	1
RET input operating voltage, vdc	10-30
RET max power consumption, idle state, W	≤ 2.0
RET max power consumption, normal operating conditions, W	≤ 13.0
RET communication protocol	AISG 2.0 / 3GPP

RET and RF connector topology

Each RET device can be controlled either via the designated external AISG connector or RF port as shown below:

RET device	Band	RF port
R1	698-798	1-2
R2	824-894	1-2

RET device	Band	RF port
B1/B2	1695-2180	3-6

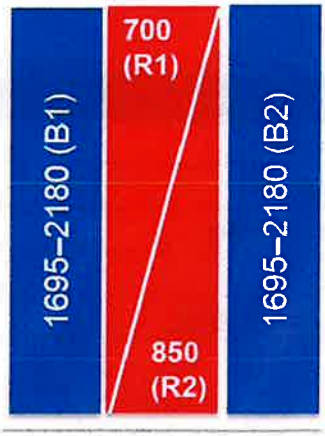


Array topology

3 sets of radiating arrays

R1/R2: 698-894 MHz
B1: 1695-2180 MHz
B2: 1695-2180 MHz

Band	RF port
1695-2180	3-4
698-894	1-2
1695-2180	5-6



SAMSUNG

AWS/PCS MACRO RADIO

DUAL-BAND AND HIGH POWER FOR MACRO COVERAGE

Samsung's future proof dual-band radio is designed to help effectively increase the coverage areas in wireless networks. This AWS/PCS 4T4R dual-band radio has 4Tx/4Rx to 2Tx/2Rx RF chains options and a total output power of 320W, making it ideal for macro sites.

Model Code RF4439d-25A

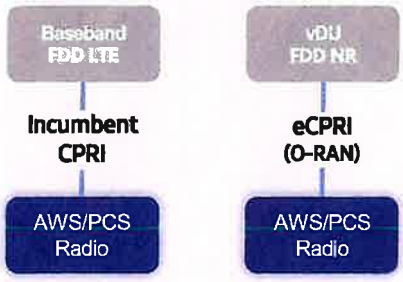
Homepage
samsungnetworks.com

Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

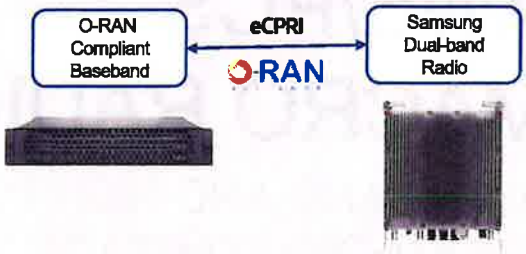
Samsung's AWS/PCS macro radio can support each incumbent CPRI interface as well as advanced eCPRI interfaces. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

A standardized O-RAN radio can help in implementing cost-effective networks, which are capable of sending more data without compromising additional investments.

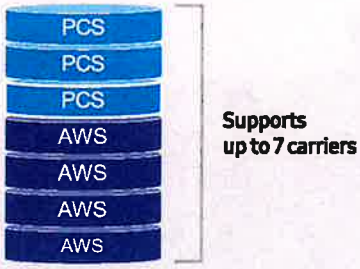
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

The number of required carriers varies according to site (region). Supporting many carriers is essential for using all frequencies that the operator has available.

The new AWS/PCS dual-band radio can support up to 3 carriers in the PCS (1.9GHz) band and 4 carriers in the AWS (2.1GHz) band, respectively.



Brand New Features in a Compact Size

Samsung's AWS/PCS macro radio offers several features, such as dual connectivity for baseband for both CDU and vDU, O-RAN capability, more carriers and an enlarged PCS spectrum, combined into an incumbent radio volume of 36.8L.

- **2 FH connectivity**
- **O-RAN capability**
- **More carriers and spectrum**

Same as an incumbent radio volume

Technical Specifications

Item	Specification
Tech	LTE / NR
Brand	B25(PCS), B66(AWS)
Frequency Band	DL: 1930 – 1995MHz, UL: 1850 – 1915MHz DL: 2110 – 2200MHz, UL: 1710 – 1780MHz
RF Power	(B25) 4 × 40W or 2 × 60W (B66) 4 × 60W or 2 × 80W
IBW/OBW	(B25) 65MHz / 30MHz (B66) DL 90MHz, UL 70MHz / 60MHz
Installation	Pole, Wall
Size/ Weight	14.96 x 14.96 x 10.04inch (36.8L) / 74.7lb

700/850 4T4R Macro 320W ORU - New Filter (RF4461d-13A)

SAMSUNG

Specifications

Item	Specification	
Air Interface	LTE, NR(HW resource ready)	
Band	Band13 (700MHz)	Band5 (850MHz)
Frequency	DL: 746~756MHz UL: 777~787MHz	DL: 869~894MHz UL: 824~849MHz
IBW	10MHz	25MHz
OBW	10MHz	25MHz
Carrier Bandwidth	LTE/NR 5*/10MHz	LTE 5/10MHz NR 5/10/15/20MHz
# of carriers	2C*	3C
Total # of carriers	4C + B13 (SDL) 1C	
RF Chain	4T4R/2T4R/2T2R/1T2R 2T2R+2T2R bi-sector	
RF Output Power	Total : 320W 4 x 40W or 2 x 60W	4 x 40W or 2 x 60W
Spectrum Analyzer	TX/RX Support	
RX Sensitivity	Typ. -104.5dBm @1Rx (25RBs 5MHz)	
Modulation	256QAM support, (1024QAM with 1~2dB power back-off)	
Input Power	-48VDC (-38VDC to -57VDC)	
Power Consumption	1,165 Watt @ 100% RF load, room temperature	
Size (WHD)	380 x 380 x 260 mm (14.96 x 14.96 x 10.23 inch)	
Volume	37.5 L	
Weight (W/o Solar Shield & finger guard)	35.9 kg (79.1 lb)	
Operating Temperature	-40°C (-40°F) ~ 55°C (131°F) (Without solar load)	
Cooling	Natural convection	
Unwanted Emission	3GPP 36.104 FCC 47 CFR 27.53 c), f) -	3GPP 36.104 FCC 47 CFR 22.917 -69 dBm/100 kHz per path @ 896 ~901MHz
CPRI Cascade	Not supported	
Optic Interface	20km, 2 ports (9.8Gbps x 2), SFP+, single mode, Duplex (Option: Bi-di)	
RET & TMA Interface	AISG 3.0	
Bias-T	4 ports (2 ports per band)	
Mounting Options	Pole, wall	
NB-IoT	2GB+2IB or 4IB	2SA+2GB or 2GB+2IB or 4GB
PIM Cancellation	Support	
# of antenna port	4	
External Alarm	4	
Fronthaul Interface	Opt. 8 CPRI / Opt. 7-2x selectable (not simultaneous support)	
CPRI compression	Not Support	

* 5MHz supporting in B13(700MHz) depends on 3GPP std. and UE capability. External filters in interferer and victim sides for Mexican boarder to support 5MHz service need to be considered
** Finger guard is not needed.

ATTACHMENT 3

C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800
support@csquaredsystems.com

Calculated Radio Frequency Emissions Report

verizon

Colchester East CT

29 Mahoney Road, Colchester, CT

May 16, 2024

Table of Contents

List of Figures

List of Tables

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modification of Verizon's antenna arrays to be mounted at 167' on an existing monopole tower located at 29 Mahoney Road in Colchester, CT. The coordinates of the tower are 41° 33' 52.32" N, 72° 15' 6.11" W.

Verizon is proposing the following:

1) Install nine (9) multi-band antennas, three (3) per sector to support its commercial LTE and 5G network.

This report considers the planned antenna configuration for Verizon[1] as well as existing antenna configuration for AT&T[2], DISH[3], and T-Mobile[4] to derive the resulting % MPE of its proposed modification.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. 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.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment C of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment C contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

---

[1] As referenced to Verizon's Radio Frequency Design Sheet updated 02/26/2024.

[2] As referenced to T-Mobile's Connecticut Siting Council Notice of Exempt Modification – 29 Mahoney Road, Colchester, Connecticut, dated 08/01/2023

[3] As referenced to DISH's Connecticut Siting Council Tower Share Application – 29 Mahoney Road, Colchester, Connecticut, dated 05/25/2022

[4] As referenced to T-Mobile's Connecticut Siting Council Notice of Exempt Modification – 29 Mahoney Road, Colchester, Connecticut, dated 08/01/2023

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{\text{GRF}^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2}\right) \text{X Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor (GRF) of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

4. Antenna Inventory

Table 1 below outlines Verizon's proposed antenna configuration for the site. The associated data sheets and antenna patterns for these specific antenna models are included in Attachments C.

Operator	Sector / Azimuth	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
Verizon	Alpha / 60°	700	160	14.4	4407	MX06FRO660-03	60.5	0	6	167
		850	160	14	4019		53			
		1900	160	18	10095		55			
		2100	240	18.2	15857		55.5			
		3700	320	25.5	113540	MT6413-77A	-	0	2.46	167
	Beta / 200°	700	160	14.4	4407	MX06FRO660-03	60.5	0	6	167
		850	160	14	4019		53			
		1900	160	18	10095		55			
		2100	240	18.2	15857		55.5			
		3700	320	25.5	113540	MT6413-77A	-	0	2.46	167
	Gamma / 290°	700	160	14.4	4407	MX06FRO660-03	60.5	0	6	167
		850	160	14	4019		53			
		1900	160	18	10095		55			
		2100	240	18.2	15857		55.5			
		3700	320	25.5	113540	MT6413-77A	-	0	2.46	167

Table 1: Proposed Antenna Inventory[5][6]

[5] Antenna heights are in reference to Verizon's Radio Frequency Design Sheet updated 02/26/2024.

[6] Transmit power assumes 0 dB of cable loss.

5. Calculation Results

The calculated power density results are shown in Figure 1 below. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.

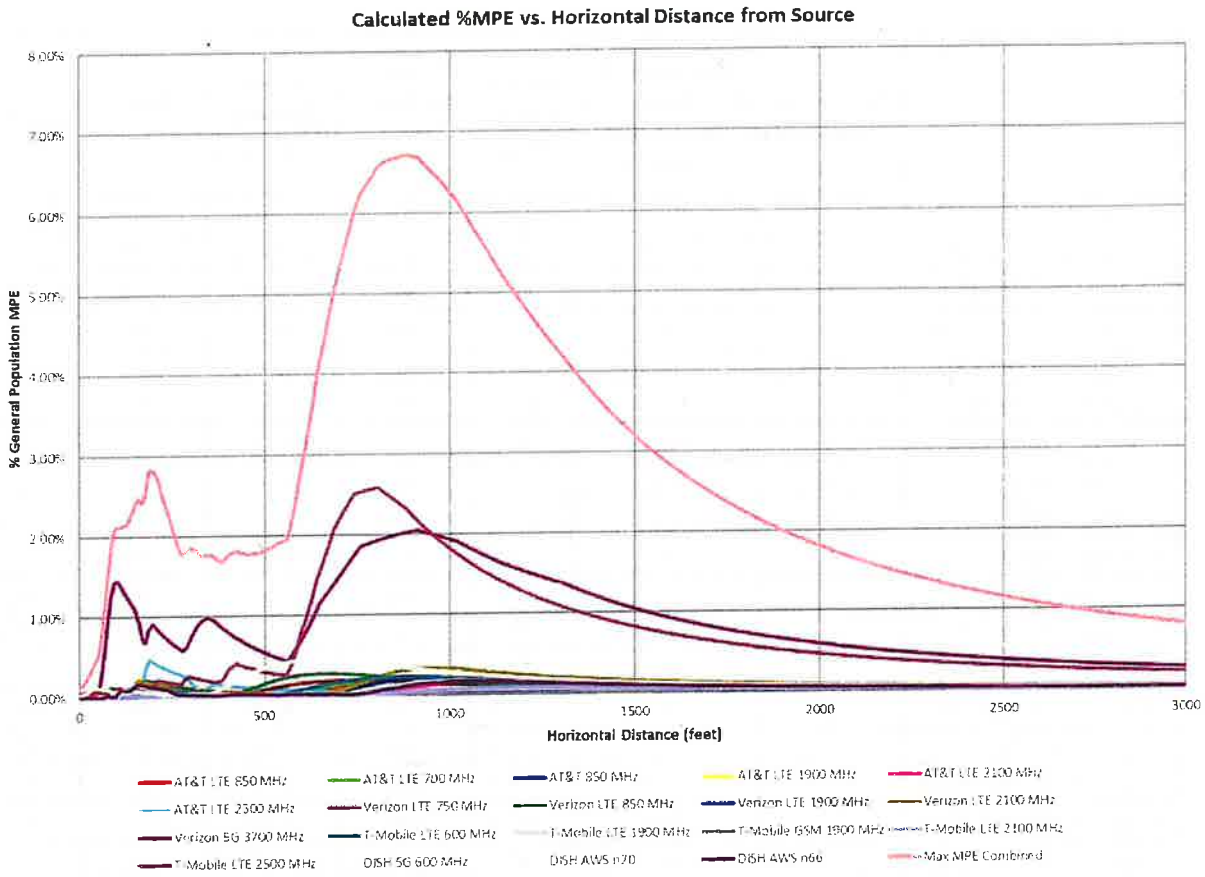


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (6.73% of the General Population limit) is calculated to occur at a horizontal distance of 880 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1500 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 880 feet from the site (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm^2)	Limit (mW/cm^2)	% MPE
AT&T 850 MHz	1	40.0	160.0	880	0.000119	0.567	0.02%
AT&T LTE 1900 MHz	1	160.0	160.0	880	0.000982	1.000	0.10%
AT&T LTE 2100 MHz	1	160.0	160.0	880	0.000858	1.000	0.09%
AT&T LTE 2300 MHz	1	100.0	160.0	880	0.000292	1.000	0.03%
AT&T LTE 700 MHz	1	160.0	160.0	880	0.000913	0.467	0.20%
AT&T LTE 850 MHz	1	160.0	160.0	880	0.001028	0.567	0.18%
DISH 5G 600 MHz	4	61.5	150.0	880	0.001366	0.400	0.34%
DISH AWS n66	4	40.0	150.0	880	0.001090	1.000	0.11%
DISH AWS n70	4	40.0	150.0	880	0.001363	1.000	0.14%
T-Mobile GSM 1900 MHz	1	15.0	177.0	880	0.000039	1.000	0.00%
T-Mobile LTE 1900 MHz	1	140.0	177.0	880	0.000365	1.000	0.04%
T-Mobile LTE 2100 MHz	1	140.0	177.0	880	0.000349	1.000	0.03%
T-Mobile LTE 2500 MHz	1	240.0	177.0	880	0.023235	1.000	2.32%
T-Mobile LTE 600 MHz	1	140.0	177.0	880	0.000921	0.400	0.23%
Verizon 5G 3700 MHz	1	320.0	167.0	880	0.020235	1.000	2.02%
Verizon LTE 1900 MHz	1	160.0	167.0	880	0.001992	1.000	0.20%
Verizon LTE 2100 MHz	1	240.0	167.0	880	0.003103	1.000	0.31%
Verizon LTE 750 MHz	1	160.0	167.0	880	0.000826	0.500	0.17%
Verizon LTE 850 MHz	1	160.0	167.0	880	0.001153	0.567	0.20%
						Total	**6.73%**

Table 2: Maximum Percent of General Population Exposure Values[7,8,9]

[7] Frequencies listed are representative of the operating band and are not the specific operating frequency.

[8] The total % MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

[9] In the case where antenna pattern data was unavailable from the manufacturer, generic antenna pattern was used based on the frequency, bandwidth and gain of the antenna.

6. Conclusion

The above analysis verifies that RF exposure levels from the site with Verizon's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **6.73%** of the FCC limit (General Population/Uncontrolled). This maximum cumulative percent of MPE value is calculated to occur 880 feet away from the site.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.

Report Prepared By: Ram Acharya
RF Engineer
C Squared Systems, LLC

May 15, 2024
Date

Reviewed/Approved By: Martin Lavin
Senior RF Engineer
C Squared Systems, LLC

May 16, 2024
Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2019, IEEE Standard Safety Levels With Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2021, IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure[10]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (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

(B) Limits for General Population/Uncontrolled Exposure[11]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (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 in MHz * Plane-wave equivalent power density

Table 3: FCC Limits for Maximum Permissible Exposure

[10] 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.

[11] 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.

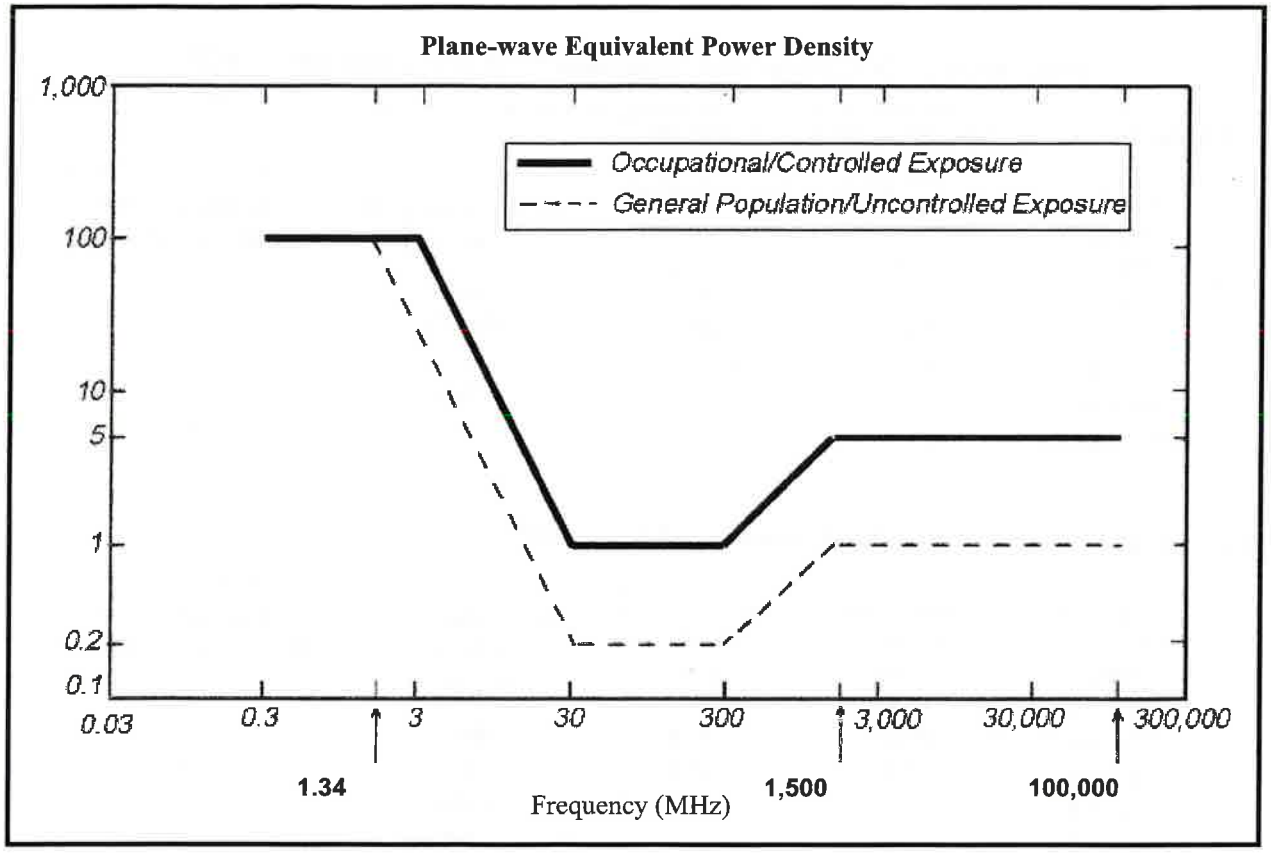
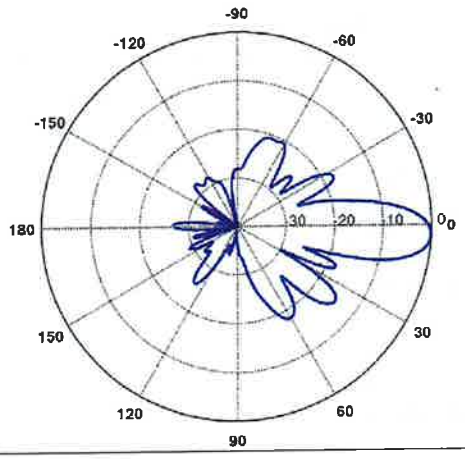


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: Verizon Antenna Model Data Sheets and Electrical Patterns

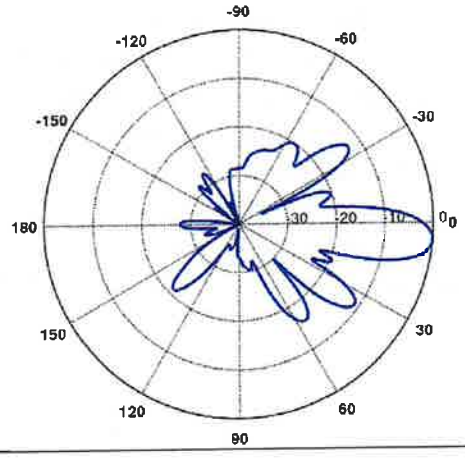
750 MHz

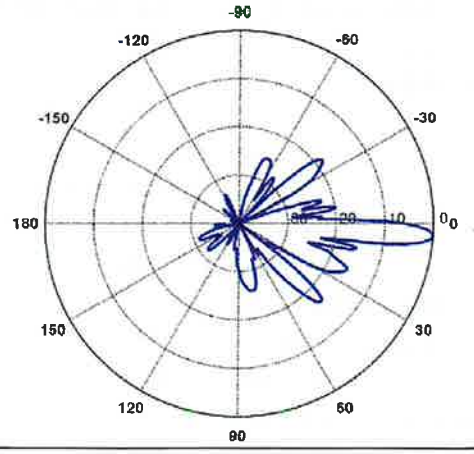
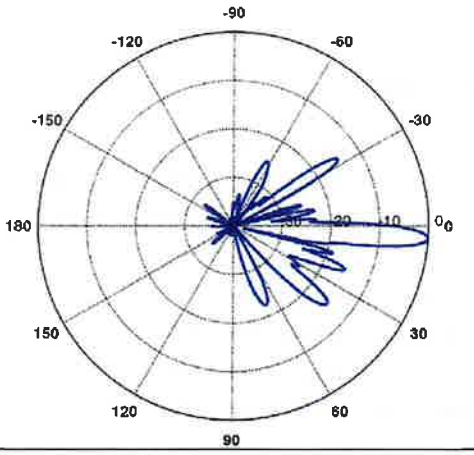
Manufacturer:	JMA
Model #:	MX06FRO660-03
Frequency Band:	698-798 MHz
Gain:	14.4 dBi
Vertical Beamwidth:	13.1°
Horizontal Beamwidth:	60.5°
Polarization:	±45°
Dimensions (L x W x D):	71.3" x 15.4" x 10.7"



885 MHz

Manufacturer:	JMA
Model #:	MX06FRO660-03
Frequency Band:	824-894 MHz
Gain:	14.0 dBi
Vertical Beamwidth:	11.8°
Horizontal Beamwidth:	53°
Polarization:	±45°
Dimensions (L x W x D):	71.3" x 15.4" x 10.7"



1900 MHz Manufacturer: JMA Model #: MX06FRO660-03 Frequency Band: 1850-1990 MHz Gain: 18.0 dBi Vertical Beamwidth: 5.5° Horizontal Beamwidth: 55.0° Polarization: ±45° Dimensions (L x W x D): 71.3" x 15.4" x 10.7"	
2100 MHz Manufacturer: JMA Model #: MX06FRO660-03 Frequency Band: 1920-2200 MHz Gain: 18.2 dBi Vertical Beamwidth: 5.5° Horizontal Beamwidth: 55.0° Polarization: ±45° Dimensions (L x W x D): 71.3" x 15.4" x 10.7"	

ATTACHMENT 4

SBA Communications Corporation
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Structural Analysis Report

Client: Verizon

Client Site ID / Name: 5000245797 / Colchester East_CT
Application #: 244213, v2

SBA Site ID / Name: CT02652-S / Colchester 3 CT

180 ft Monopole

29 Mahoney Road
Colchester, Connecticut 06415
Lat: 41.5645, Long: -72.2516

Project number: CT02652-VZW-031324

Analysis Results

Tower	89.8%	Pass
Foundation	76.0%	Pass

Change in tower stress due to mount modification	0.0%

Prepared by:

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March 13, 2024

STATE OF CONNECTICUT
ANANTHA B SHANUBHOGUE
33123
LICENSED
PROFESSIONAL ENGINEER

03/13/24

Table of Contents

Introduction

The purpose of this report is to summarize the analysis results on the 180 ft Monopole to support the proposed antennas and transmissions lines in addition to those currently installed.

Table 1 List of Documents Used

Item	Document
Tower design/drawings	Valmont, Order #11277-00, dated 11/03/1999
Foundation drawings	Valmont, Order #11277-00, dated 04/03/2000
Geotechnical report	FDH Engineering, Inc., Project # 1465721600, dated 05/22/2014
Modification drawings	N/A
Carrier MA	Colliers Engineering & Design, Project #: 21777294A (Rev 1), dated 01/30/2024
Latest SA	TES, Project # 140851 (redline), dated 05/22/2023

Analysis Criteria

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut/New London/Colchester
Governing Codes	ANSI/TIA/EIA 222-H, 2021 IBC, 2022 Connecticut State Building Code
Ultimate Wind Speed (3-Sec gust)	122.0 mph
Wind Speed with Ice (3-Sec gust)	50 mph
Service Wind Speed (3-Sec gust)	60 mph
Ice Thickness	1.00"
Risk Category	II
Exposure Category	C
Topographic Category	1
Crest Height	0 ft
Ground Elevation	374.47 ft.
Seismic Parameter S_s	0.202
Seismic Parameter S_1	0.055

This structural analysis is based upon the tower being classified as a risk category II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Appurtenance Loading

Existing Loading:

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	178.0	1	Ericsson ANT3 A 0.6 HPX - Dish	Low Profile Platform w/ Handrail	(3) 1-1/4" Fiber (1) 1 5/8" Fiber (1) 1" Conduit [Housing (1) 1/2"] (1) 1.99" Fiber	T-Mobile
2	177.0	3	EMS RR90-17-02VDPL2/R - Panel			
3		3	Ericsson KRY 112 489/2 - TMA			
4		3	Ericsson KRY 112 144/2 - TMA			
5		3	Ericsson Radio 4449 B71 B85- RRU			
6		3	Ericsson 4460 B25 + B66 - RRU			
7		3	RFS APXVAALL24-43-U-NA20 - Panel			
8		3	Ericsson - AIR6419 B41 - Panel			
9		3	Commscope VV-65A-R1 - Panel			
10		3	Ericsson Mini-Link 6365 - RRU			
11		3	Kathrein 782 11056 - Bias TMA			
-	167.0	6	Antel BXA-171063-12CF-EDIN-X - Panel	Low Profile Platform	(12) 1 5/8" Foam	Verizon
-		6	Antel BXA-70063-6CF - Panel			
-		3	Alcatel Lucent RRH2x40-07-U - RRU			
-		3	Alcatel Lucent RRH2x40-AWS - RRU			
-		1	RFS DB-T1-6Z-8AB-0Z - OVP			
18	160.0	1	Raycap DC6-48-60-0-8C-EV COVP	Low Profile Platform	(12) 1 5/8" (4) 3/4" DC (1) 3/8" Fiber	AT&T
19		3	CCI - CCI - DMP65R-BU8DA - Panel			
20		3	Ericsson RRUS 4449 B5/B12 - RRU			
21		3	CCI HPA-65R-BUU-H8 - Panel			
22		3	Ericsson RRUS-12 B2 - RRU			
23		3	Ericsson RRUS A2 Module - RRU			
24		6	Powerwave LGP21401 - TMA			
25		12	Powerwave 7020.00 RET			
26		6	Powerwave LGP21901 - Diplexers			
27		1	Raycap DC6-48-60-18-8F COVP			
28		3	Powerwave 7770 - Panel			
29	150.0	3	JJMA Wireless MX08FRO665-21 - Panel	Low Profile Platform w/ Handrails	(1) 1.6" Hybrid	Dish Wireless
30		3	Fujitsu TA08025-B605			
31		3	Fujitsu TA08025-B604			
32		1	Raycap RDIDC-9181-PF-48			

Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the Application #: 244213, v2 from Verizon and is listed in Table 4.

Table 4 Proposed Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
12	167.0	6	JMA Wireless MX06FRO660-03 - Panel	Modified Low Profile Platform w/ Handrails	(10) 1 5/8" Foam (2) 1-1/4" Hybriflex	Verizon
13		3	Samsung MT6413-77A - Panel			
14		3	Antel BXA-70063-6CF - Panel			
15		3	Samsung B2/B66A RRH ORAN (RF4439d-25A) - RRU			
16		3	Samsung RF4461d-13A - RRU			
17		1	Raycap RRFDC-3315-PF-48 - OVP			

Analysis Results

Tower

The results of the structural analysis are shown below in table 5. Additional information for the tower analysis is provided within the Appendix.

Table 5 Tower Analysis Summary

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	89.8%	81.6%	62.9%
Pass/Fail	Pass	Pass	Pass

Foundation

The results of the foundation analysis are shown below in table 6. Additional information for the foundation analysis is provided within the Appendix.

Table 6 Foundation Analysis Summary

Structural Component	Max Usage (%)	Analysis Result
Foundation	76.0%	Pass

Conclusions

Based on the analysis results, the existing tower and foundation were found to be ***sufficient*** to safely support the equipment listed in this analysis. No modification to the tower and foundation is needed at this time.

Installation Requirements

This analysis was performed under the assumption that the carrier will place the proposed equipment and feed lines at the installation height listed in Table 4 and in accordance with the coax layout shown. TMAs and RRUs are to be installed on existing mounts behind tenant's antennas unless otherwise noted. No equipment is to be installed directly in the climbing path. All equipment is to be installed per mount manufacturer specifications. In case site conditions do not allow for the required installation parameters to be met the carrier must notify SBA Communications Corporation engineers for approval of an alternative placement.

Assumptions and Limitations

Assumptions

This analysis was completed based on the following assumptions:

- Tower and foundation were built in accordance to manufacturer specifications.
- Tower and foundation has been properly maintained in accordance with the manufacturer's specifications
- All existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion
- Welds and bolts are assumed able to carry their intended original design loads.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Table 3 and 4.
- This analysis may be affected if any assumptions are not valid or have been made in error. SBA should be notified to determine the effect on the structural integrity of the tower.

Limitations

The computer generated analysis performed by the tower software is limited to theoretical capacities of the towers structural members and does not account for any missing or damaged members or connections. The tower and foundation are assumed to have been properly designed, fabricated, installed and maintained, barring any conflicting findings from the most recent inspection.

SBA Communications Corporation has used its due diligence to verify the information provided to perform this analysis. It is unreasonable to perform a more detailed inspection of a tower and its components. This report is not a condition assessment of the tower or foundation.

Appendix

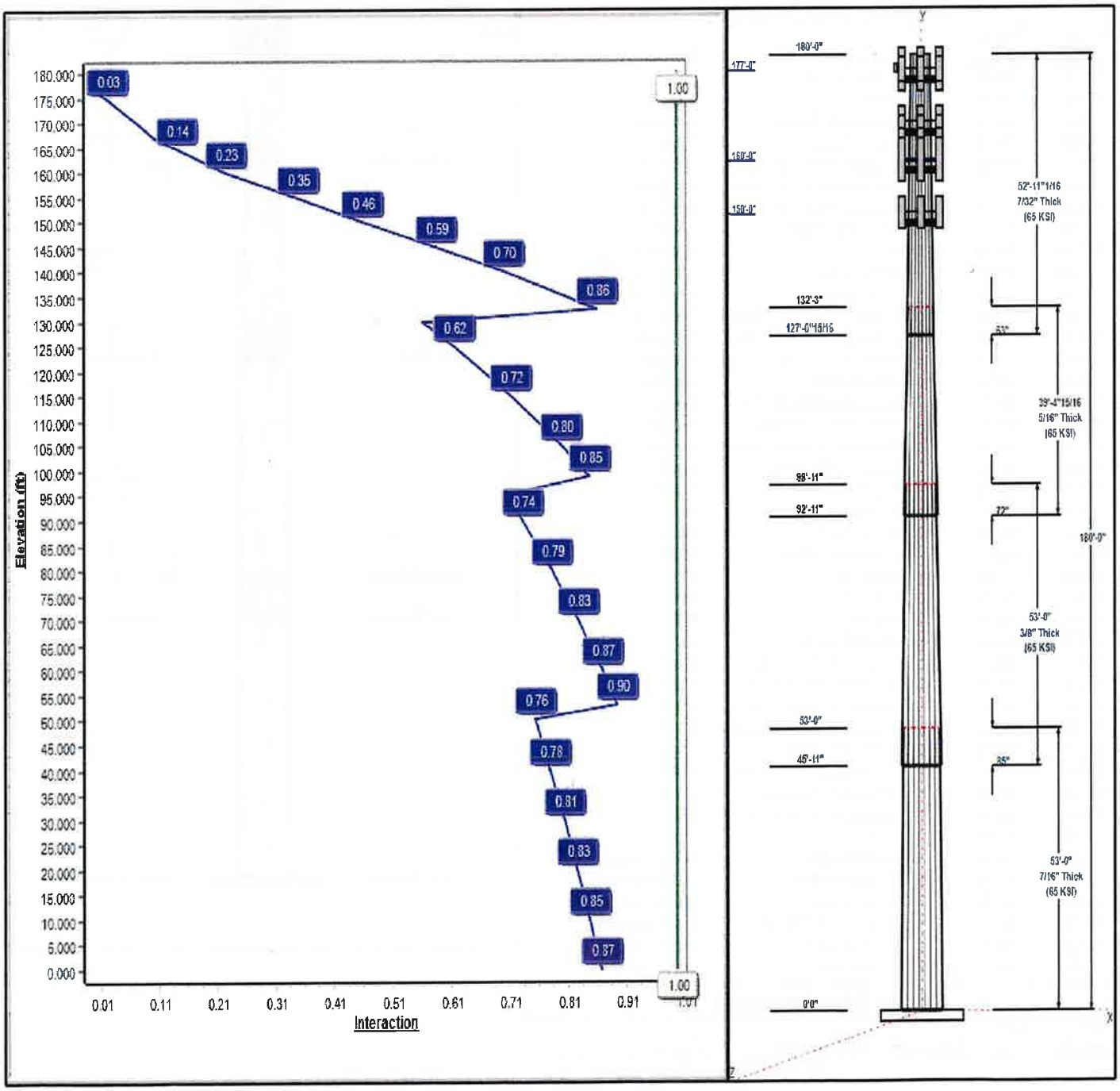
Usage Diagram - Max Ratio 89.82% at 53.0ft

Structure:	CT02652-S	**Code:**	EIA/TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT	**Exposure:**	C	
Height:	180.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

Dead Load Factor:	1.20
Wind Load Factor:	1.00

Load Case : 1.2D + 1.0W 122 mph Wind

Iterations: 26



Structure: CT02652-S

Type: Tapered
Site Name: Colchester 3 CT
Height: 180.00 (ft)
Base Elev: 0.00 (ft)
Base Shape: 16 Sided
Taper: 0.20502

3/13/2024

Shaft Properties

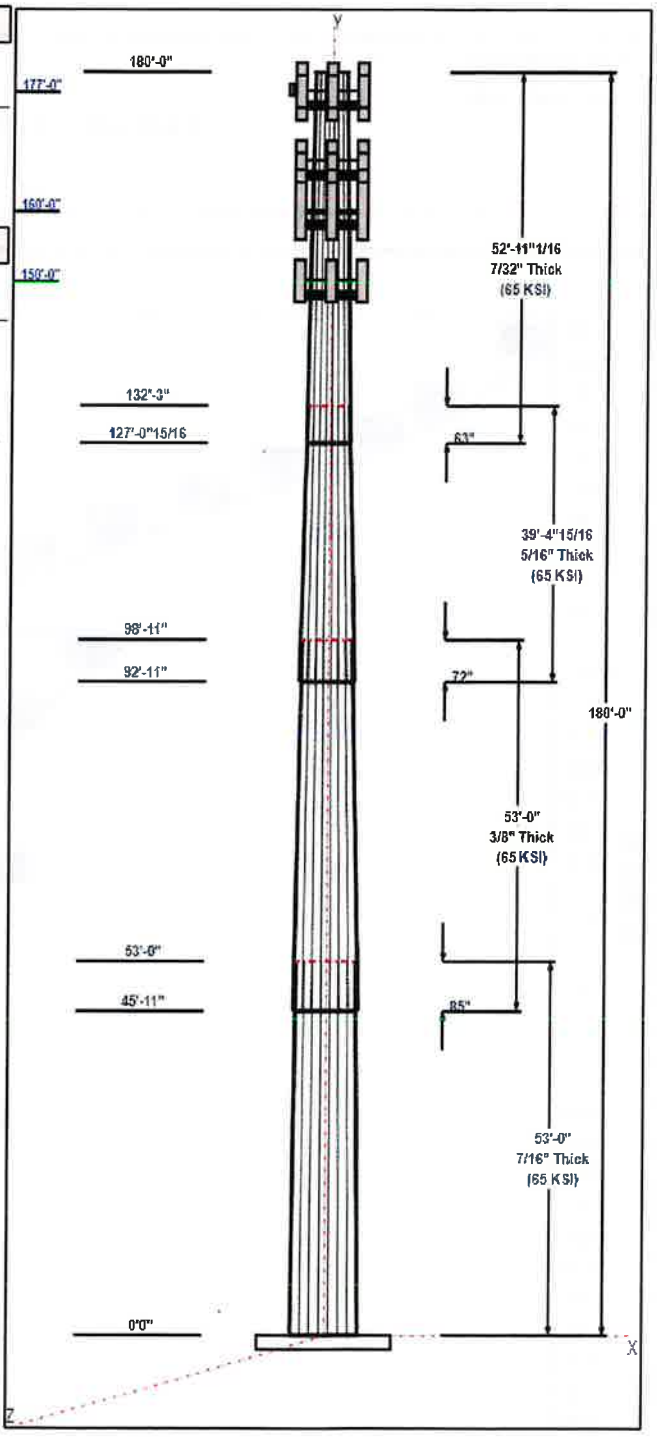
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.00	49.13	60.00	0.438		0.20502	65
2	53.00	40.47	51.34	0.375	Slip	0.20502	65
3	39.41	34.25	42.33	0.313	Slip	0.20502	65
4	52.92	24.91	35.76	0.219	Slip	0.20502	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
180.00	183.50	1	Lightning Rod	
177.00	177.00	3	EMS	T-Mobile
177.00	177.00	1	Low Profile Platform w/	T-Mobile
177.00	177.00	9	Mount Pipes	T-Mobile
177.00	177.00	3	Ericsson KRY 112 489/2	T-Mobile
177.00	177.00	3	Ericsson KRY 112 144/2	T-Mobile
177.00	177.00	3	Ericsson Radio 4449 B71	T-Mobile
177.00	177.00	3	4460 B25 + B66	T-Mobile
177.00	177.00	3	RFS	T-Mobile
177.00	177.00	3	AIR6419 B41	T-Mobile
177.00	177.00	3	VV-65A-R1	T-Mobile
177.00	178.00	1	Ericsson ANT3 A 0.6 HPX	T-Mobile
177.00	177.00	3	Ericsson Mini-Link 6365	T-Mobile
177.00	177.00	3	Kathrein 782 11056 - Bias	T-Mobile
167.00	167.00	6	JMA Wireless	Verizon
167.00	167.00	3	Samsung MT6413-77A	Verizon
167.00	167.00	3	Antel BXA-70063-6CF	Verizon
167.00	167.00	3	Samsung B2/B66A RRH	Verizon
167.00	167.00	3	Samsung RF4461d-13A	Verizon
167.00	167.00	1	Raycap	Verizon
167.00	167.00	1	Platform	Verizon
167.00	167.00	12	Mount Pipes	Verizon
160.00	160.00	1	Low Profile Platform	AT&T
160.00	160.00	12	Mount Pipes	AT&T
160.00	160.00	1	HRK-12	AT&T
160.00	160.00	1	Raycap	AT&T
160.00	160.00	3	DMP65R-BU8DA	AT&T
160.00	160.00	3	Ericsson RRUS4449	AT&T
160.00	160.00	3	CCI HPA-65R-BUU-H8	AT&T
160.00	160.00	3	Ericsson RRUS-12 B2	AT&T
160.00	160.00	3	Ericsson RRUS A2 Module	AT&T
160.00	160.00	6	LGP21401 TMA	AT&T
160.00	160.00	12	Powerwave 7020.00 RET	AT&T
160.00	160.00	6	LGP21901 Diplexers	AT&T
160.00	160.00	1	Raycap DC6-48-60-18-8F	AT&T
160.00	160.00	3	7770	AT&T
150.00	150.00	3	MX08FRO665-21	Dish Wireless
150.00	150.00	3	TA08025-B605	Dish Wireless
150.00	150.00	3	TA08025-B604	Dish Wireless
150.00	150.00	1	RDIDC-9181-OF-48	Dish Wireless
150.00	150.00	1	MC-PK8-DSH	Dish Wireless
150.00	150.00	9	Mount Pipes	Dish Wireless

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier



0.00	180.00	Outside	Safety Cable	
0.00	180.00	Outside	Step bolts (ladder)	
0.00	177.00	Inside	1 1/4" Fiber	T-Mobile
0.00	177.00	Inside	1 5/8" Fiber	T-Mobile
0.00	177.00	Inside	1" Conduit	T-Mobile
0.00	177.00	Inside	1.99" Fiber	T-Mobile
0.00	177.00	Inside	1/2" Coax	T-Mobile
0.00	167.00	Inside	1 5/8" Foam	Verizon
0.00	167.00	Inside	1-1/4" Hybriflex	Verizon
0.00	160.00	Inside	1 5/8" Coax	AT&T
0.00	160.00	Inside	3/4" DC	AT&T
0.00	160.00	Inside	3/8" Fiber	AT&T
0.00	150.00	Inside	1.6" Hybrid	Dish Wireless

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
20	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	74.6	60.0	Polygon

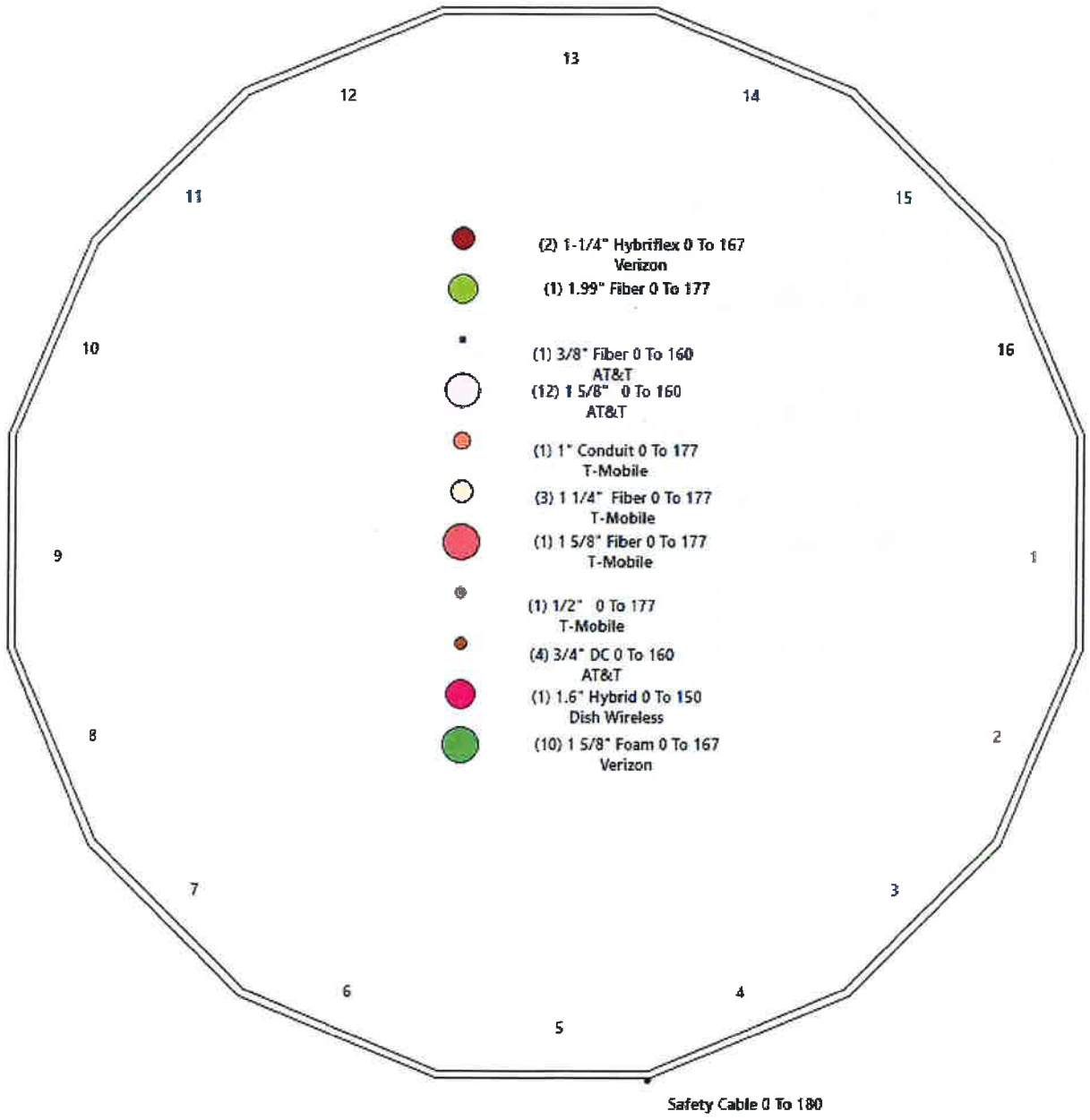
Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 122 mph Wind	5768.7	43.7	60.8
0.9D + 1.0W 122 mph Wind	5684.3	43.6	45.6
1.2D + 1.0Di + 1.0W 50 mph Wind	1449.0	10.9	89.0
1.2D + 1.0Ev + 1.0Eh	124.8	0.7	63.2
0.9D + 1.0Ev + 1.0Eh	123.3	0.7	47.9
1.0D + 1.0W 60 mph Wind	1239.6	9.4	50.8

Structure: CT02652-S - Coax Line Placement

Type: Monopole
Site Name: Colchester 3 CT
Height: 180.00 (ft)

3/13/2024



Shaft Properties

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	16	53.000	0.4380	65		0.00	13,640
2	16	53.000	0.3750	65	Slip	85.00	9,822
3	16	39.410	0.3130	65	Slip	72.00	5,085
4	16	52.923	0.2190	65	Slip	63.00	3,789
					Total Shaft Weight:		**32,335**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	60.00	0.00	83.22	37298.12	25.66	136.99	49.13	53.00	68.04	20382.3	20.72	112.1	0.205022
2	51.34	45.92	60.96	20001.00	25.64	136.90	40.47	98.92	47.96	9740.99	19.88	107.9	0.205022
3	42.33	92.92	41.95	9354.08	25.31	135.23	34.25	132.33	33.88	4928.56	20.17	109.4	0.205022
4	35.76	127.0	24.83	3962.37	30.89	163.29	24.91	180.00	17.25	1328.51	21.03	113.7	0.205022

Load Summary

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

SBA

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	180.00	Lightning Rod	1	35.00	1.05	1.00	56.33	2.661	1.00	0.00	3.50
2	177.00	EMS RR90-17-02VDPL2/R	3	18.00	4.36	0.73	81.80	5.004	0.75	0.00	0.00
3	177.00	Low Profile Platform w/ Handrail	1	1366.00	19.59	1.00	2529.40	30.713	1.00	0.00	0.00
4	177.00	Mount Pipes	9	30.00	1.33	1.00	51.29	1.959	1.00	0.00	0.00
5	177.00	Ericsson KRY 112 489/2	3	15.40	0.65	0.67	27.34	1.065	0.67	0.00	0.00
6	177.00	Ericsson KRY 112 144/2	3	9.70	0.41	0.67	16.14	0.732	0.67	0.00	0.00
7	177.00	Ericsson Radio 4449 B71 B85	3	74.00	1.63	0.67	104.53	1.976	0.67	0.00	0.00
8	177.00	4460 B25 + B66	3	84.50	1.88	0.67	119.24	2.254	0.67	0.00	0.00
9	177.00	RFS APXVAALL24-43-U-NA20	3	119.00	20.24	0.72	426.20	21.504	0.73	0.00	0.00
10	177.00	AIR6419 B41	3	103.00	5.65	0.71	195.94	6.294	0.71	0.00	0.00
11	177.00	VV-65A-R1	3	44.10	6.62	0.82	156.17	7.353	0.82	0.00	0.00
12	177.00	Ericsson ANT3 A 0.6 HPX	1	22.00	4.68	1.00	71.47	5.544	1.00	0.00	1.00
13	177.00	Ericsson Mini-Link 6365	3	5.50	1.07	0.67	16.82	1.829	0.67	0.00	0.00
14	177.00	Kathrein 782 11056 - Bias T	3	1.80	0.12	0.67	3.53	0.303	0.67	0.00	0.00
15	167.00	JMA Wireless MX06FRO660-03	6	60.00	9.87	0.87	228.62	10.771	0.88	0.00	0.00
16	167.00	Samsung MT6413-77A	3	57.30	3.79	0.69	118.49	4.323	0.71	0.00	0.00
17	167.00	Antel BXA-70063-6CF	3	17.00	7.57	0.77	130.48	8.393	0.79	0.00	0.00
18	167.00	Samsung B2/B66A RRH ORAN	3	70.30	1.87	0.84	104.36	2.236	0.85	0.00	0.00
19	167.00	Samsung RF4461d-13A	3	79.10	1.87	0.84	113.37	2.236	0.85	0.00	0.00
20	167.00	Raycap RRFDC-3315-PF-48	1	32.00	3.02	1.00	86.55	3.486	1.00	0.00	0.00
21	167.00	Platform	1	2389.00	20.90	1.00	4411.87	32.698	1.00	0.00	0.00
22	167.00	Mount Pipes	12	30.00	1.17	1.00	51.17	1.720	1.00	0.00	0.00
23	160.00	Low Profile Platform	1	1250.00	14.69	1.00	2303.91	22.947	1.00	0.00	0.00
24	160.00	Mount Pipes	12	30.00	1.28	1.00	51.08	1.880	1.00	0.00	0.00
25	160.00	HRK-12	1	150.00	8.10	1.00	255.39	11.894	1.00	0.00	0.00
26	160.00	Raycap DC6-48-60-0-8C-EV COVP	1	26.20	3.78	1.00	162.15	4.249	1.00	0.00	0.00
27	160.00	DMP65R-BU8DA	3	95.70	17.87	0.79	359.91	18.992	0.79	0.00	0.00
28	160.00	Ericsson RRUS4449 B5/B12	3	73.00	1.97	0.67	109.83	2.337	0.67	0.00	0.00
29	160.00	CCI HPA-65R-BUU-H8	3	68.00	12.98	0.79	261.31	14.038	0.79	0.00	0.00
30	160.00	Ericsson RRUS-12 B2	3	58.00	3.15	0.67	106.19	3.993	0.67	0.00	0.00
31	160.00	Ericsson RRUS A2 Module	3	21.20	1.86	0.67	45.43	2.513	0.67	0.00	0.00
32	160.00	LGP21401 TMA	6	17.50	1.29	0.67	38.32	1.851	0.67	0.00	0.00
33	160.00	Powerwave 7020.00 RET	12	2.20	0.40	0.67	9.07	0.725	0.67	0.00	0.00
34	160.00	LGP21901 Diplexers	6	31.00	0.63	0.67	60.08	1.306	0.67	0.00	0.00
35	160.00	Raycap DC6-48-60-18-8F COVP	1	32.80	1.47	1.00	75.59	1.940	1.00	0.00	0.00
36	160.00	7770	3	35.00	5.50	0.73	143.56	6.185	0.73	0.00	0.00
37	150.00	MX08FRO665-21	3	64.50	12.49	0.74	258.41	13.466	0.74	0.00	0.00
38	150.00	TA08025-B605	3	75.00	1.96	0.67	109.87	2.334	0.67	0.00	0.00
39	150.00	TA08025-B604	3	63.90	1.96	0.67	97.65	2.334	0.67	0.00	0.00
40	150.00	RDIDC-9181-OF-48	1	21.90	2.01	1.00	57.40	2.389	1.00	0.00	0.00
41	150.00	MC-PK8-DSH	1	1801.56	33.69	1.00	3310.73	52.505	1.00	0.00	0.00
42	150.00	Mount Pipes	9	30.00	1.64	1.00	50.94	2.403	1.00	0.00	0.00
		Totals:	**152**	**12,822.86**			**26,858.58**				

Linear Appurtenances

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
Bottom Elev. (ft)	**Top Elev. (ft)**	**Description**		**Exposed Width**	**Exposed**						
0.00	180.00	(1) Safety Cable		0.38	Outside						
0.00	180.00	(1) Step bolts (ladder)		0.63	Outside						
0.00	177.00	(3) 1 1/4" Fiber		0.00	Inside						
0.00	177.00	(1) 1 5/8" Fiber		0.00	Inside						
0.00	177.00	(1) 1" Conduit		0.00	Inside						
0.00	177.00	(1) 1.99" Fiber		0.00	Inside						
0.00	177.00	(1) 1/2" Coax		0.00	Inside						
0.00	167.00	(10) 1 5/8" Foam		0.00	Inside						
0.00	167.00	(2) 1-1/4" Hybriflex		0.00	Inside						
0.00	160.00	(12) 1 5/8" Coax		0.00	Inside						
0.00	160.00	(4) 3/4" DC		0.00	Inside						
0.00	160.00	(1) 3/8" Fiber		0.00	Inside						
0.00	150.00	(1) 1.6" Hybrid		0.00	Inside						

Shaft Section Properties

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4380	60.000	83.221	37298.1	25.66	136.99	73.5	1219.	0.0
5.00		0.4380	58.975	81.789	35405.3	25.19	134.65	74.1	1177.	1403.7
10.00		0.4380	57.950	80.357	33577.6	24.73	132.31	74.6	1136.	1379.4
15.00		0.4380	56.925	78.924	31813.9	24.26	129.96	75.1	1096.	1355.0
20.00		0.4380	55.900	77.492	30113.1	23.79	127.62	75.6	1056.	1330.6
25.00		0.4380	54.874	76.060	28474.0	23.33	125.28	76.2	1017.	1306.3
30.00		0.4380	53.849	74.627	26895.5	22.86	122.94	76.7	979.7	1281.9
35.00		0.4380	52.824	73.195	25376.4	22.40	120.60	77.2	942.3	1257.5
40.00		0.4380	51.799	71.763	23915.7	21.93	118.26	77.8	905.7	1233.1
45.00		0.4380	50.774	70.330	22512.1	21.47	115.92	78.3	869.7	1208.8
45.92	Bot - Section 2	0.4380	50.586	70.068	22260.8	21.38	115.49	78.4	863.2	219.0
50.00		0.4380	49.749	68.898	21164.5	21.00	113.58	78.8	834.5	1805.5
53.00	Top - Section 1	0.3750	49.884	59.225	18339.4	24.87	133.02	0.0	0.0	1307.3
55.00		0.3750	49.474	58.734	17887.4	24.65	131.93	74.7	709.2	401.4
60.00		0.3750	48.449	57.508	16790.3	24.11	129.20	75.3	679.8	988.9
65.00		0.3750	47.424	56.282	15738.9	23.56	126.46	75.9	651.0	968.0
70.00		0.3750	46.398	55.056	14732.4	23.02	123.73	76.5	622.8	947.1
75.00		0.3750	45.373	53.829	13769.7	22.48	121.00	77.1	595.3	926.3
80.00		0.3750	44.348	52.603	12849.9	21.93	118.26	77.8	568.4	905.4
85.00		0.3750	43.323	51.377	11972.0	21.39	115.53	78.4	542.1	884.5
90.00		0.3750	42.298	50.150	11135.1	20.84	112.79	79.0	516.4	863.7
92.92	Bot - Section 3	0.3750	41.700	49.435	10665.4	20.53	111.20	79.3	501.7	494.2
95.00		0.3750	41.273	48.924	10338.1	20.30	110.06	79.6	491.3	644.5
98.92	Top - Section 2	0.3130	41.096	40.720	8556.2	24.53	131.30	0.0	0.0	1193.7
100.00		0.3130	40.874	40.499	8417.2	24.38	130.59	75.0	403.9	149.7
105.00		0.3130	39.849	39.475	7795.0	23.73	127.31	75.7	383.7	680.3
110.00		0.3130	38.824	38.452	7204.2	23.08	124.04	76.5	364.0	662.9
115.00		0.3130	37.798	37.428	6644.1	22.43	120.76	77.2	344.8	645.5
120.00		0.3130	36.773	36.405	6113.8	21.78	117.49	77.9	326.1	628.1
125.00		0.3130	35.748	35.381	5612.5	21.13	114.21	78.7	308.0	610.7
127.08	Bot - Section 4	0.3130	35.322	34.956	5412.6	20.86	112.85	79.0	300.6	248.5
130.00		0.3130	34.723	34.357	5139.3	20.48	110.94	79.4	290.3	589.7
132.33	Top - Section 3	0.2190	34.684	24.078	3613.2	29.91	158.37	0.0	0.0	462.1
135.00		0.2190	34.136	23.695	3443.5	29.41	155.87	69.3	197.9	217.3
140.00		0.2190	33.111	22.979	3140.6	28.48	151.19	70.3	186.1	397.0
145.00		0.2190	32.086	22.262	2856.0	27.55	146.51	71.4	174.6	384.9
150.00		0.2190	31.061	21.546	2589.2	26.62	141.83	72.5	163.5	372.7
155.00		0.2190	30.036	20.830	2339.5	25.69	137.15	73.5	152.8	360.5
160.00		0.2190	29.010	20.114	2106.4	24.76	132.47	74.6	142.4	348.3
165.00		0.2190	27.985	19.398	1889.3	23.83	127.79	75.6	132.4	336.1
167.00		0.2190	27.575	19.111	1806.8	23.45	125.91	76.0	128.5	131.0
170.00		0.2190	26.960	18.682	1687.7	22.90	123.11	76.7	122.8	192.9
175.00		0.2190	25.935	17.966	1500.9	21.96	118.43	77.7	113.5	311.8
177.00		0.2190	25.525	17.679	1430.3	21.59	116.55	78.1	109.9	121.3
180.00		0.2190	24.910	17.249	1328.5	21.03	113.74	78.8	104.6	178.3
										32335.3

Wind Loading - Shaft

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 26

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	30.354	33.39	569.54	0.750	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	30.354	33.39	559.81	0.750	0.000	5.00	25.272	18.95	632.9	0.0	1684.5
10.00		1.00	0.85	30.354	33.39	550.08	0.750	0.000	5.00	24.837	18.63	622.0	0.0	1655.2
15.00		1.00	0.85	30.354	33.39	540.35	0.750	0.000	5.00	24.401	18.30	611.1	0.0	1626.0
20.00		1.00	0.90	32.207	35.43	546.57	0.750	0.000	5.00	23.966	17.97	636.8	0.0	1596.7
25.00		1.00	0.95	33.756	37.13	549.30	0.750	0.000	5.00	23.530	17.65	655.3	0.0	1567.5
30.00		1.00	0.98	35.077	38.58	549.48	0.750	0.000	5.00	23.095	17.32	668.3	0.0	1538.3
35.00		1.00	1.01	36.234	39.86	547.84	0.750	0.000	5.00	22.659	16.99	677.3	0.0	1509.0
40.00		1.00	1.04	37.267	40.99	544.81	0.750	0.000	5.00	22.224	16.67	683.3	0.0	1479.8
45.00		1.00	1.07	38.202	42.02	540.69	0.750	0.000	5.00	21.788	16.34	686.7	0.0	1450.5
45.92	Bot - Section 2	1.00	1.07	38.365	42.20	539.84	0.750	0.000	0.92	3.947	2.96	124.9	0.0	262.8
50.00		1.00	1.09	39.059	42.97	535.68	0.750	0.000	4.08	17.666	13.25	569.3	0.0	2166.6
53.00	Top - Section 1	1.00	1.11	39.541	43.50	532.32	0.750	0.000	3.00	12.794	9.60	417.4	0.0	1568.8
55.00		1.00	1.12	39.851	43.84	538.09	0.750	0.000	2.00	8.442	6.33	277.5	0.0	481.7
60.00		1.00	1.14	40.588	44.65	531.79	0.750	0.000	5.00	20.800	15.60	696.5	0.0	1186.6
65.00		1.00	1.16	41.277	45.41	524.94	0.750	0.000	5.00	20.365	15.27	693.5	0.0	1161.6
70.00		1.00	1.17	41.926	46.12	517.62	0.750	0.000	5.00	19.929	14.95	689.3	0.0	1136.6
75.00		1.00	1.19	42.540	46.79	509.87	0.750	0.000	5.00	19.494	14.62	684.1	0.0	1111.5
80.00		1.00	1.21	43.122	47.43	501.75	0.750	0.000	5.00	19.058	14.29	678.0	0.0	1086.5
85.00		1.00	1.22	43.676	48.04	493.29	0.750	0.000	5.00	18.623	13.97	671.0	0.0	1061.5
90.00		1.00	1.24	44.204	48.62	484.52	0.750	0.000	5.00	18.187	13.64	663.3	0.0	1036.4
92.92	Bot - Section 3	1.00	1.25	44.502	48.95	479.28	0.750	0.000	2.92	10.408	7.81	382.1	0.0	593.0
95.00		1.00	1.25	44.711	49.18	475.48	0.750	0.000	2.08	7.454	5.59	275.0	0.0	773.4
98.92	Top - Section 2	1.00	1.26	45.092	49.60	468.22	0.750	0.000	3.92	13.810	10.36	513.7	0.0	1432.4
100.00		1.00	1.27	45.196	49.72	473.43	0.750	0.000	1.08	3.773	2.83	140.7	0.0	179.6
105.00		1.00	1.28	45.663	50.23	463.93	0.750	0.000	5.00	17.147	12.86	645.9	0.0	816.4
110.00		1.00	1.29	46.112	50.72	454.22	0.750	0.000	5.00	16.711	12.53	635.7	0.0	795.5
115.00		1.00	1.30	46.546	51.20	444.30	0.750	0.000	5.00	16.276	12.21	625.0	0.0	774.6
120.00		1.00	1.32	46.964	51.66	434.19	0.750	0.000	5.00	15.840	11.88	613.7	0.0	753.7
125.00		1.00	1.33	47.370	52.11	423.90	0.750	0.000	5.00	15.405	11.55	602.0	0.0	732.8
127.08	Bot - Section 4	1.00	1.33	47.534	52.29	419.58	0.750	0.000	2.08	6.270	4.70	245.9	0.0	298.2
130.00		1.00	1.34	47.763	52.54	413.45	0.750	0.000	2.92	8.808	6.61	347.1	0.0	707.6
132.33	Top - Section 3	1.00	1.34	47.941	52.74	408.53	0.750	0.000	2.33	6.904	5.18	273.1	0.0	554.5
135.00		1.00	1.35	48.144	52.96	408.08	0.750	0.000	2.67	7.816	5.86	310.4	0.0	260.7
140.00		1.00	1.36	48.514	53.36	397.34	0.750	0.000	5.00	14.284	10.71	571.7	0.0	476.5
145.00		1.00	1.37	48.873	53.76	386.47	0.750	0.000	5.00	13.849	10.39	558.4	0.0	461.8
150.00	Appurtenance(s)	1.00	1.38	49.223	54.15	375.46	0.750	0.000	5.00	13.413	10.06	544.7	0.0	447.2
155.00		1.00	1.39	49.564	54.52	364.32	0.750	0.000	5.00	12.978	9.73	530.7	0.0	432.6
160.00	Appurtenance(s)	1.00	1.40	49.897	54.89	353.06	0.750	0.000	5.00	12.542	9.41	516.3	0.0	418.0
165.00		1.00	1.41	50.221	55.24	341.69	0.750	0.000	5.00	12.107	9.08	501.6	0.0	403.3
167.00	Appurtenance(s)	1.00	1.41	50.349	55.38	337.11	0.750	0.000	2.00	4.721	3.54	196.1	0.0	157.2
170.00		1.00	1.42	50.538	55.59	330.21	0.750	0.000	3.00	6.950	5.21	289.8	0.0	231.5
175.00		1.00	1.42	50.847	55.93	318.63	0.750	0.000	5.00	11.236	8.43	471.3	0.0	374.1
177.00	Appurtenance(s)	1.00	1.43	50.969	56.07	313.97	0.750	0.000	2.00	4.372	3.28	183.9	0.0	145.5
180.00	Appurtenance(s)	1.00	1.43	51.149	56.26	306.94	0.750	0.000	3.00	6.428	4.82	271.2	0.0	213.9
								Totals:	**180.00**			**22,284.4**		**38,802.4**

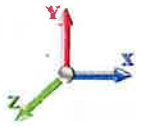
Discrete Appurtenance Forces

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 10	

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	180.00	Lightning Rod	1	51.357	56.493	1.00	1.00	1.05	42.00	0.000	3.500	59.32	0.00	207.61
2	177.00	4460 B25 + B66	3	50.969	56.066	0.50	0.75	2.83	304.20	0.000	0.000	158.90	0.00	0.00
3	177.00	EMS	3	50.969	56.066	0.55	0.75	7.16	64.80	0.000	0.000	401.50	0.00	0.00
4	177.00	Low Profile Platform w/	1	50.969	56.066	1.00	1.00	19.59	1639.20	0.000	0.000	1098.33	0.00	0.00
5	177.00	Mount Pipes	9	50.969	56.066	0.75	0.75	8.98	324.00	0.000	0.000	503.33	0.00	0.00
6	177.00	Ericsson KRY 112 144/2	3	50.969	56.066	0.50	0.75	0.62	34.92	0.000	0.000	34.65	0.00	0.00
7	177.00	Ericsson Radio 4449 B71	3	50.969	56.066	0.50	0.75	2.46	266.40	0.000	0.000	137.77	0.00	0.00
8	177.00	Ericsson KRY 112 489/2	3	50.969	56.066	0.50	0.75	0.98	55.44	0.000	0.000	54.94	0.00	0.00
9	177.00	AIR6419 B41	3	50.969	56.066	0.53	0.75	9.03	370.80	0.000	0.000	506.04	0.00	0.00
10	177.00	VV-65A-R1	3	50.969	56.066	0.61	0.75	12.21	158.76	0.000	0.000	684.78	0.00	0.00
11	177.00	Ericsson ANT3 A 0.6 HPX	1	51.029	56.132	1.00	1.00	4.68	26.40	0.000	1.000	262.70	0.00	262.70
12	177.00	Ericsson Mini-Link 6365	3	50.969	56.066	0.50	0.75	1.61	19.80	0.000	0.000	90.44	0.00	0.00
13	177.00	Kathrein 782 11056 - Bias	3	50.969	56.066	0.50	0.75	0.18	6.48	0.000	0.000	10.14	0.00	0.00
14	177.00	RFS	3	50.969	56.066	0.54	0.75	32.79	428.40	0.000	0.000	1838.33	0.00	0.00
15	167.00	Samsung B2/B66A RRH	3	50.349	55.383	0.63	0.75	3.53	253.08	0.000	0.000	195.74	0.00	0.00
16	167.00	Samsung MT6413-77A	3	50.349	55.383	0.52	0.75	5.88	206.28	0.000	0.000	325.87	0.00	0.00
17	167.00	Antel BXA-70063-6CF	3	50.349	55.383	0.58	0.75	13.12	61.20	0.000	0.000	726.36	0.00	0.00
18	167.00	Mount Pipes	12	50.349	55.383	0.75	0.75	10.53	432.00	0.000	0.000	583.19	0.00	0.00
19	167.00	Samsung RF4461d-13A	3	50.349	55.383	0.63	0.75	3.53	284.76	0.000	0.000	195.74	0.00	0.00
20	167.00	Raycap	1	50.349	55.383	1.00	1.00	3.02	38.40	0.000	0.000	167.26	0.00	0.00
21	167.00	Platform	1	50.349	55.383	1.00	1.00	20.90	2866.80	0.000	0.000	1157.51	0.00	0.00
22	167.00	JMA Wireless	6	50.349	55.383	0.65	0.75	38.64	432.00	0.000	0.000	2140.07	0.00	0.00
23	160.00	CCI HPA-65R-BUU-H8	3	49.897	54.886	0.59	0.75	23.07	244.80	0.000	0.000	1266.34	0.00	0.00
24	160.00	Low Profile Platform	1	49.897	54.886	1.00	1.00	14.69	1500.00	0.000	0.000	806.28	0.00	0.00
25	160.00	Mount Pipes	12	49.897	54.886	0.75	0.75	11.52	432.00	0.000	0.000	632.29	0.00	0.00
26	160.00	HRK-12	1	49.897	54.886	0.75	0.75	6.07	180.00	0.000	0.000	333.43	0.00	0.00
27	160.00	Raycap	1	49.897	54.886	1.00	1.00	3.78	31.44	0.000	0.000	207.47	0.00	0.00
28	160.00	DMP65R-BU8DA	3	49.897	54.886	0.59	0.75	31.76	344.52	0.000	0.000	1743.41	0.00	0.00
29	160.00	Ericsson RRUS4449	3	49.897	54.886	0.50	0.75	2.97	262.80	0.000	0.000	163.00	0.00	0.00
30	160.00	7770	3	49.897	54.886	0.55	0.75	9.03	126.00	0.000	0.000	495.83	0.00	0.00
31	160.00	Powerwave 7020.00 RET	12	49.897	54.886	0.50	0.75	2.41	31.68	0.000	0.000	132.39	0.00	0.00
32	160.00	Raycap DC6-48-60-18-8F	1	49.897	54.886	1.00	1.00	1.47	39.36	0.000	0.000	80.68	0.00	0.00
33	160.00	LGP21901 Diplexers	6	49.897	54.886	0.50	0.75	1.90	223.20	0.000	0.000	104.25	0.00	0.00
34	160.00	Ericsson RRUS-12 B2	3	49.897	54.886	0.50	0.75	4.75	208.80	0.000	0.000	260.63	0.00	0.00
35	160.00	LGP21401 TMA	6	49.897	54.886	0.50	0.75	3.89	126.00	0.000	0.000	213.47	0.00	0.00
36	160.00	Ericsson RRUS A2	3	49.897	54.886	0.50	0.75	2.80	76.32	0.000	0.000	153.90	0.00	0.00
37	150.00	Mount Pipes	9	49.223	54.146	0.75	0.75	11.07	324.00	0.000	0.000	599.39	0.00	0.00
38	150.00	MC-PK8-DSH	1	49.223	54.146	0.67	0.67	22.57	2161.87	0.000	0.000	1222.19	0.00	0.00
39	150.00	RDIDC-9181-OF-48	1	49.223	54.146	0.75	0.75	1.51	26.28	0.000	0.000	81.62	0.00	0.00
40	150.00	TA08025-B604	3	49.223	54.146	0.50	0.75	2.95	230.04	0.000	0.000	159.98	0.00	0.00
41	150.00	TA08025-B605	3	49.223	54.146	0.50	0.75	2.95	270.00	0.000	0.000	159.98	0.00	0.00
42	150.00	MX08FRO665-21	3	49.223	54.146	0.55	0.75	20.80	232.20	0.000	0.000	1126.01	0.00	0.00
							Totals:		**15,387.43**			**21,275.47**		

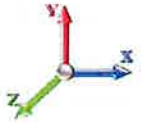
Total Applied Force Summary

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 11

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		632.86	1887.88	0.00	0.00
10.00		621.96	1858.64	0.00	0.00
15.00		611.05	1829.40	0.00	0.00
20.00		636.78	1800.16	0.00	0.00
25.00		655.28	1770.91	0.00	0.00
30.00		668.32	1741.67	0.00	0.00
35.00		677.34	1712.43	0.00	0.00
40.00		683.27	1683.18	0.00	0.00
45.00		686.70	1653.94	0.00	0.00
45.92		124.93	300.05	0.00	0.00
50.00		569.25	2332.76	0.00	0.00
53.00		417.35	1690.79	0.00	0.00
55.00		277.55	563.03	0.00	0.00
60.00		696.49	1390.05	0.00	0.00
65.00		693.50	1365.01	0.00	0.00
70.00		689.34	1339.98	0.00	0.00
75.00		684.14	1314.94	0.00	0.00
80.00		678.01	1289.90	0.00	0.00
85.00		671.02	1264.86	0.00	0.00
90.00		663.26	1239.83	0.00	0.00
92.92		382.13	711.67	0.00	0.00
95.00		274.97	858.16	0.00	0.00
98.92		513.74	1591.76	0.00	0.00
100.00		140.66	223.71	0.00	0.00
105.00		645.94	1019.81	0.00	0.00
110.00		635.73	998.91	0.00	0.00
115.00		624.99	978.01	0.00	0.00
120.00		613.74	957.11	0.00	0.00
125.00		602.02	936.22	0.00	0.00
127.08		245.89	382.70	0.00	0.00
130.00		347.07	826.51	0.00	0.00
132.33		273.05	649.14	0.00	0.00
135.00		310.44	369.50	0.00	0.00
140.00		571.71	679.86	0.00	0.00
145.00		558.39	665.24	0.00	0.00
150.00	(20) attachments	3893.89	3895.01	0.00	0.00
155.00		530.67	630.00	0.00	0.00
160.00	(58) attachments	7109.68	4442.30	0.00	0.00
165.00		501.61	515.92	0.00	0.00
167.00	(32) attachments	5687.84	4776.79	0.00	0.00
170.00		289.79	252.55	0.00	0.00
175.00		471.33	409.23	0.00	0.00
177.00	(41) attachments	5965.69	3859.20	0.00	262.70
180.00	(1) attachments	330.56	260.66	0.00	207.61
	Totals:	**43,559.90**	**60,919.38**	**0.00**	**470.31**

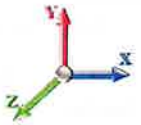
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	30.354	0.00	1.64
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	30.354	0.00	6.24
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	30.354	0.00	1.64
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	30.354	0.00	6.24
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	30.354	0.00	1.64
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	30.354	0.00	6.24
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	32.207	0.00	1.64
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	32.207	0.00	6.24
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	33.756	0.00	1.64
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	33.756	0.00	6.24
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	35.077	0.00	1.64
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	35.077	0.00	6.24
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	36.234	0.00	1.64
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	36.234	0.00	6.24
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	37.267	0.00	1.64
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	37.267	0.00	6.24
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	38.202	0.00	1.64
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	38.202	0.00	6.24
45.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.020	0.000	38.365	0.00	0.30
45.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.020	0.000	38.365	0.00	1.14
50.00	Safety Cable	Yes	4.08	0.000	0.38	0.13	0.00	0.020	0.000	39.059	0.00	1.34
50.00	Step bolts (ladder)	Yes	4.08	0.000	0.63	0.21	0.00	0.020	0.000	39.059	0.00	5.10
53.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.020	0.000	39.541	0.00	0.98
53.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.020	0.000	39.541	0.00	3.74
55.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	39.851	0.00	0.66
55.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	39.851	0.00	2.50
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	40.588	0.00	1.64
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	40.588	0.00	6.24
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	41.277	0.00	1.64
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	41.277	0.00	6.24
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	41.926	0.00	1.64
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	41.926	0.00	6.24
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	42.540	0.00	1.64
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	42.540	0.00	6.24
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	43.122	0.00	1.64
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	43.122	0.00	6.24
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	43.676	0.00	1.64
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	43.676	0.00	6.24
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	44.204	0.00	1.64
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	44.204	0.00	6.24
92.92	Safety Cable	Yes	2.92	0.000	0.38	0.09	0.00	0.024	0.000	44.502	0.00	0.96
92.92	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.15	0.00	0.024	0.000	44.502	0.00	3.64
95.00	Safety Cable	Yes	2.08	0.000	0.38	0.07	0.00	0.024	0.000	44.711	0.00	0.68
95.00	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.11	0.00	0.024	0.000	44.711	0.00	2.60
98.92	Safety Cable	Yes	3.92	0.000	0.38	0.12	0.00	0.024	0.000	45.092	0.00	1.28
98.92	Step bolts (ladder)	Yes	3.92	0.000	0.63	0.21	0.00	0.024	0.000	45.092	0.00	4.89
100.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.024	0.000	45.196	0.00	0.35

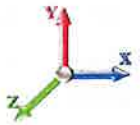
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.024	0.000	45.196	0.00	1.35
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	45.663	0.00	1.64
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	45.663	0.00	6.24
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	46.112	0.00	1.64
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	46.112	0.00	6.24
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.026	0.000	46.546	0.00	1.64
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.026	0.000	46.546	0.00	6.24
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	46.964	0.00	1.64
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	46.964	0.00	6.24
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	47.370	0.00	1.64
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	47.370	0.00	6.24
127.08	Safety Cable	Yes	2.08	0.000	0.38	0.07	0.00	0.028	0.000	47.534	0.00	0.68
127.08	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.11	0.00	0.028	0.000	47.534	0.00	2.59
130.00	Safety Cable	Yes	2.92	0.000	0.38	0.09	0.00	0.028	0.000	47.763	0.00	0.96
130.00	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.15	0.00	0.028	0.000	47.763	0.00	3.65
132.33	Safety Cable	Yes	2.33	0.000	0.38	0.07	0.00	0.029	0.000	47.941	0.00	0.76
132.33	Step bolts (ladder)	Yes	2.33	0.000	0.63	0.12	0.00	0.029	0.000	47.941	0.00	2.90
135.00	Safety Cable	Yes	2.67	0.000	0.38	0.08	0.00	0.029	0.000	48.144	0.00	0.88
135.00	Step bolts (ladder)	Yes	2.67	0.000	0.63	0.14	0.00	0.029	0.000	48.144	0.00	3.34
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	48.514	0.00	1.64
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	48.514	0.00	6.24
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.030	0.000	48.873	0.00	1.64
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.030	0.000	48.873	0.00	6.24
150.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	49.223	0.00	1.64
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	49.223	0.00	6.24
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.032	0.000	49.564	0.00	1.64
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.032	0.000	49.564	0.00	6.24
160.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.034	0.000	49.897	0.00	1.64
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.034	0.000	49.897	0.00	6.24
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.035	0.000	50.221	0.00	1.64
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.035	0.000	50.221	0.00	6.24
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	50.349	0.00	0.66
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	50.349	0.00	2.50
170.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.036	0.000	50.538	0.00	0.98
170.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.036	0.000	50.538	0.00	3.74
175.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	50.847	0.00	1.64
175.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	50.847	0.00	6.24
177.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	50.969	0.00	0.66
177.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	50.969	0.00	2.50
180.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.039	0.000	51.149	0.00	0.98
180.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.039	0.000	51.149	0.00	3.74
										Totals:	**0.0**	**283.6**

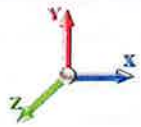
Calculated Forces

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-60.84	-43.68	0.00	-5768.7	0.00	5768.71	5508.12	1460.53	7226.63	6725.55	0.00	0.000	0.000	0.870
5.00	-58.78	-43.26	0.00	-5550.3	0.00	5550.33	5452.09	1435.40	6980.02	6541.73	0.12	-0.216	0.000	0.860
10.00	-56.77	-42.85	0.00	-5334.0	0.00	5334.02	5394.71	1410.26	6737.68	6358.68	0.46	-0.435	0.000	0.850
15.00	-54.78	-42.43	0.00	-5119.7	0.00	5119.77	5335.97	1385.12	6499.64	6176.49	1.03	-0.656	0.000	0.840
20.00	-52.82	-41.98	0.00	-4907.6	0.00	4907.61	5275.87	1359.98	6265.87	5995.24	1.84	-0.880	0.000	0.830
25.00	-50.90	-41.50	0.00	-4697.7	0.00	4697.70	5214.41	1334.85	6036.38	5815.02	2.88	-1.107	0.000	0.819
30.00	-49.01	-40.99	0.00	-4490.2	0.00	4490.21	5151.59	1309.71	5811.17	5635.92	4.17	-1.337	0.000	0.807
35.00	-47.15	-40.46	0.00	-4285.2	0.00	4285.26	5087.42	1284.57	5590.25	5458.02	5.69	-1.569	0.000	0.795
40.00	-45.32	-39.92	0.00	-4082.9	0.00	4082.95	5021.88	1259.44	5373.61	5281.41	7.46	-1.803	0.000	0.783
45.00	-43.59	-39.28	0.00	-3883.3	0.00	3883.37	4954.99	1234.30	5161.25	5106.18	9.47	-2.040	0.000	0.770
45.92	-43.22	-39.24	0.00	-3847.3	0.00	3847.36	4942.58	1229.69	5122.78	5074.21	9.87	-2.085	0.000	0.768
50.00	-40.79	-38.70	0.00	-3687.1	0.00	3687.14	4886.75	1209.16	4953.16	4932.41	11.74	-2.281	0.000	0.757
53.00	-39.04	-38.30	0.00	-3571.0	0.00	3571.04	3967.43	1039.40	4274.84	4025.79	13.22	-2.428	0.000	0.898
55.00	-38.36	-38.12	0.00	-3494.4	0.00	3494.44	3947.58	1030.79	4204.32	3972.23	14.26	-2.526	0.000	0.891
60.00	-36.83	-37.54	0.00	-3303.8	0.00	3303.84	3897.00	1009.27	4030.59	3838.84	17.05	-2.797	0.000	0.871
65.00	-35.33	-36.94	0.00	-3116.1	0.00	3116.16	3845.06	987.75	3860.53	3706.29	20.12	-3.069	0.000	0.851
70.00	-33.85	-36.34	0.00	-2931.4	0.00	2931.45	3791.77	966.22	3694.13	3574.65	23.48	-3.342	0.000	0.830
75.00	-32.41	-35.73	0.00	-2749.7	0.00	2749.75	3737.12	944.70	3531.40	3444.02	27.13	-3.616	0.000	0.809
80.00	-31.00	-35.12	0.00	-2571.0	0.00	2571.08	3681.11	923.18	3372.34	3314.49	31.06	-3.891	0.000	0.786
85.00	-29.62	-34.51	0.00	-2395.4	0.00	2395.47	3623.74	901.66	3216.94	3186.13	35.28	-4.166	0.000	0.761
90.00	-28.31	-33.86	0.00	-2222.9	0.00	2222.94	3565.02	880.14	3065.20	3059.03	39.78	-4.440	0.000	0.736
92.92	-27.55	-33.49	0.00	-2124.1	0.00	2124.19	3530.13	867.59	2978.38	2985.51	42.55	-4.602	0.000	0.721
95.00	-26.62	-33.22	0.00	-2054.4	0.00	2054.42	3504.93	858.62	2917.13	2933.28	44.58	-4.718	0.000	0.709
98.92	-25.00	-32.64	0.00	-1924.3	0.00	1924.30	2742.07	714.64	2421.16	2291.78	48.54	-4.933	0.000	0.851
100.00	-24.68	-32.56	0.00	-1888.9	0.00	1888.94	2732.96	710.75	2394.86	2271.63	49.66	-4.993	0.000	0.843
105.00	-23.55	-31.95	0.00	-1726.1	0.00	1726.16	2690.08	692.79	2275.34	2179.04	55.05	-5.299	0.000	0.803
110.00	-22.46	-31.34	0.00	-1566.4	0.00	1566.43	2645.83	674.83	2158.87	2087.20	60.75	-5.599	0.000	0.761
115.00	-21.39	-30.73	0.00	-1409.7	0.00	1409.75	2600.23	656.86	2045.47	1996.19	66.76	-5.893	0.000	0.717
120.00	-20.36	-30.11	0.00	-1256.1	0.00	1256.12	2553.28	638.90	1935.12	1906.09	73.08	-6.178	0.000	0.669
125.00	-19.40	-29.48	0.00	-1105.5	0.00	1105.56	2504.96	620.94	1827.84	1816.99	79.69	-6.453	0.000	0.618
127.08	-18.98	-29.23	0.00	-1044.3	0.00	1044.34	2484.49	613.48	1784.18	1780.31	82.51	-6.566	0.000	0.597
130.00	-18.13	-28.84	0.00	-958.88	0.00	958.88	2455.29	602.97	1723.61	1728.99	86.57	-6.720	0.000	0.564
132.33	-17.45	-28.53	0.00	-891.79	0.00	891.79	1489.30	422.56	1209.83	1053.29	89.87	-6.839	0.000	0.863
135.00	-17.01	-28.24	0.00	-815.52	0.00	815.52	1477.63	415.84	1171.66	1028.31	93.73	-6.971	0.000	0.809
140.00	-16.27	-27.67	0.00	-674.32	0.00	674.32	1454.76	403.27	1101.91	981.60	101.18	-7.279	0.000	0.703
145.00	-15.56	-27.10	0.00	-535.95	0.00	535.95	1430.53	390.71	1034.29	934.97	108.94	-7.553	0.000	0.589
150.00	-12.14	-22.77	0.00	-400.44	0.00	400.44	1404.94	378.14	968.82	888.50	116.95	-7.786	0.000	0.463
155.00	-11.52	-22.19	0.00	-286.60	0.00	286.60	1377.99	365.57	905.49	842.29	125.19	-7.975	0.000	0.352
160.00	-8.09	-14.54	0.00	-175.65	0.00	175.65	1349.68	353.00	844.29	796.42	133.60	-8.115	0.000	0.228
165.00	-7.64	-13.98	0.00	-102.94	0.00	102.94	1320.02	340.43	785.24	750.97	142.12	-8.209	0.000	0.145
167.00	-3.72	-7.67	0.00	-74.97	0.00	74.97	1307.77	335.40	762.22	732.93	145.56	-8.236	0.000	0.106
170.00	-3.51	-7.35	0.00	-51.96	0.00	51.96	1289.00	327.86	728.33	706.04	150.73	-8.266	0.000	0.077
175.00	-3.17	-6.82	0.00	-15.21	0.00	15.21	1256.62	315.30	673.56	661.70	159.37	-8.295	0.000	0.026
177.00	-0.21	-0.36	0.00	-1.30	0.00	1.30	1243.29	310.27	652.25	644.16	162.83	-8.298	0.000	0.002
180.00	0.00	-0.33	0.00	-0.21	0.00	0.21	1222.88	302.73	620.93	618.05	168.03	-8.298	0.000	0.000

Wind Loading - Shaft

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00

Iterations 26

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	30.354	33.39	569.54	0.750	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	30.354	33.39	559.81	0.750	0.000	5.00	25.272	18.95	632.9	0.0	1263.4
10.00		1.00	0.85	30.354	33.39	550.08	0.750	0.000	5.00	24.837	18.63	622.0	0.0	1241.4
15.00		1.00	0.85	30.354	33.39	540.35	0.750	0.000	5.00	24.401	18.30	611.1	0.0	1219.5
20.00		1.00	0.90	32.207	35.43	546.57	0.750	0.000	5.00	23.966	17.97	636.8	0.0	1197.6
25.00		1.00	0.95	33.756	37.13	549.30	0.750	0.000	5.00	23.530	17.65	655.3	0.0	1175.6
30.00		1.00	0.98	35.077	38.58	549.48	0.750	0.000	5.00	23.095	17.32	668.3	0.0	1153.7
35.00		1.00	1.01	36.234	39.86	547.84	0.750	0.000	5.00	22.659	16.99	677.3	0.0	1131.8
40.00		1.00	1.04	37.267	40.99	544.81	0.750	0.000	5.00	22.224	16.67	683.3	0.0	1109.8
45.00		1.00	1.07	38.202	42.02	540.69	0.750	0.000	5.00	21.788	16.34	686.7	0.0	1087.9
45.92	Bot - Section 2	1.00	1.07	38.365	42.20	539.84	0.750	0.000	0.92	3.947	2.96	124.9	0.0	197.1
50.00		1.00	1.09	39.059	42.97	535.68	0.750	0.000	4.08	17.666	13.25	569.3	0.0	1625.0
53.00	Top - Section 1	1.00	1.11	39.541	43.50	532.32	0.750	0.000	3.00	12.794	9.60	417.4	0.0	1176.6
55.00		1.00	1.12	39.851	43.84	538.09	0.750	0.000	2.00	8.442	6.33	277.5	0.0	361.3
60.00		1.00	1.14	40.588	44.65	531.79	0.750	0.000	5.00	20.800	15.60	696.5	0.0	890.0
65.00		1.00	1.16	41.277	45.41	524.94	0.750	0.000	5.00	20.365	15.27	693.5	0.0	871.2
70.00		1.00	1.17	41.926	46.12	517.62	0.750	0.000	5.00	19.929	14.95	689.3	0.0	852.4
75.00		1.00	1.19	42.540	46.79	509.87	0.750	0.000	5.00	19.494	14.62	684.1	0.0	833.6
80.00		1.00	1.21	43.122	47.43	501.75	0.750	0.000	5.00	19.058	14.29	678.0	0.0	814.9
85.00		1.00	1.22	43.676	48.04	493.29	0.750	0.000	5.00	18.623	13.97	671.0	0.0	796.1
90.00		1.00	1.24	44.204	48.62	484.52	0.750	0.000	5.00	18.187	13.64	663.3	0.0	777.3
92.92	Bot - Section 3	1.00	1.25	44.502	48.95	479.28	0.750	0.000	2.92	10.408	7.81	382.1	0.0	444.8
95.00		1.00	1.25	44.711	49.18	475.48	0.750	0.000	2.08	7.454	5.59	275.0	0.0	580.1
98.92	Top - Section 2	1.00	1.26	45.092	49.60	468.22	0.750	0.000	3.92	13.810	10.36	513.7	0.0	1074.3
100.00		1.00	1.27	45.196	49.72	473.43	0.750	0.000	1.08	3.773	2.83	140.7	0.0	134.7
105.00		1.00	1.28	45.663	50.23	463.93	0.750	0.000	5.00	17.147	12.86	645.9	0.0	612.3
110.00		1.00	1.29	46.112	50.72	454.22	0.750	0.000	5.00	16.711	12.53	635.7	0.0	596.6
115.00		1.00	1.30	46.546	51.20	444.30	0.750	0.000	5.00	16.276	12.21	625.0	0.0	581.0
120.00		1.00	1.32	46.964	51.66	434.19	0.750	0.000	5.00	15.840	11.88	613.7	0.0	565.3
125.00		1.00	1.33	47.370	52.11	423.90	0.750	0.000	5.00	15.405	11.55	602.0	0.0	549.6
127.08	Bot - Section 4	1.00	1.33	47.534	52.29	419.58	0.750	0.000	2.08	6.270	4.70	245.9	0.0	223.7
130.00		1.00	1.34	47.763	52.54	413.45	0.750	0.000	2.92	8.808	6.61	347.1	0.0	530.7
132.33	Top - Section 3	1.00	1.34	47.941	52.74	408.53	0.750	0.000	2.33	6.904	5.18	273.1	0.0	415.9
135.00		1.00	1.35	48.144	52.96	408.08	0.750	0.000	2.67	7.816	5.86	310.4	0.0	195.6
140.00		1.00	1.36	48.514	53.36	397.34	0.750	0.000	5.00	14.284	10.71	571.7	0.0	357.3
145.00		1.00	1.37	48.873	53.76	386.47	0.750	0.000	5.00	13.849	10.39	558.4	0.0	346.4
150.00	Appurtenance(s)	1.00	1.38	49.223	54.15	375.46	0.750	0.000	5.00	13.413	10.06	544.7	0.0	335.4
155.00		1.00	1.39	49.564	54.52	364.32	0.750	0.000	5.00	12.978	9.73	530.7	0.0	324.4
160.00	Appurtenance(s)	1.00	1.40	49.897	54.89	353.06	0.750	0.000	5.00	12.542	9.41	516.3	0.0	313.5
165.00		1.00	1.41	50.221	55.24	341.69	0.750	0.000	5.00	12.107	9.08	501.6	0.0	302.5
167.00	Appurtenance(s)	1.00	1.41	50.349	55.38	337.11	0.750	0.000	2.00	4.721	3.54	196.1	0.0	117.9
170.00		1.00	1.42	50.538	55.59	330.21	0.750	0.000	3.00	6.950	5.21	289.8	0.0	173.6
175.00		1.00	1.42	50.847	55.93	318.63	0.750	0.000	5.00	11.236	8.43	471.3	0.0	280.6
177.00	Appurtenance(s)	1.00	1.43	50.969	56.07	313.97	0.750	0.000	2.00	4.372	3.28	183.9	0.0	109.2
180.00	Appurtenance(s)	1.00	1.43	51.149	56.26	306.94	0.750	0.000	3.00	6.428	4.82	271.2	0.0	160.5
								Totals:	**180.00**			**22,284.4**		**29,101.8**

Discrete Appurtenance Forces

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00

Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	180.00	Lightning Rod	1	51.357	56.493	1.00	1.00	1.05	31.50	0.000	3.500	59.32	0.00	207.61
2	177.00	4460 B25 + B66	3	50.969	56.066	0.50	0.75	2.83	228.15	0.000	0.000	158.90	0.00	0.00
3	177.00	EMS	3	50.969	56.066	0.55	0.75	7.16	48.60	0.000	0.000	401.50	0.00	0.00
4	177.00	Low Profile Platform w/	1	50.969	56.066	1.00	1.00	19.59	1229.40	0.000	0.000	1098.33	0.00	0.00
5	177.00	Mount Pipes	9	50.969	56.066	0.75	0.75	8.98	243.00	0.000	0.000	503.33	0.00	0.00
6	177.00	Ericsson KRY 112 144/2	3	50.969	56.066	0.50	0.75	0.62	26.19	0.000	0.000	34.65	0.00	0.00
7	177.00	Ericsson Radio 4449 B71	3	50.969	56.066	0.50	0.75	2.46	199.80	0.000	0.000	137.77	0.00	0.00
8	177.00	Ericsson KRY 112 489/2	3	50.969	56.066	0.50	0.75	0.98	41.58	0.000	0.000	54.94	0.00	0.00
9	177.00	AIR6419 B41	3	50.969	56.066	0.53	0.75	9.03	278.10	0.000	0.000	506.04	0.00	0.00
10	177.00	VV-65A-R1	3	50.969	56.066	0.61	0.75	12.21	119.07	0.000	0.000	684.78	0.00	0.00
11	177.00	Ericsson ANT3 A 0.6 HPX	1	51.029	56.132	1.00	1.00	4.68	19.80	0.000	1.000	262.70	0.00	262.70
12	177.00	Ericsson Mini-Link 6365	3	50.969	56.066	0.50	0.75	1.61	14.85	0.000	0.000	90.44	0.00	0.00
13	177.00	Kathrein 782 11056 - Bias	3	50.969	56.066	0.50	0.75	0.18	4.86	0.000	0.000	10.14	0.00	0.00
14	177.00	RFS	3	50.969	56.066	0.54	0.75	32.79	321.30	0.000	0.000	1838.33	0.00	0.00
15	167.00	Samsung B2/B66A RRH	3	50.349	55.383	0.63	0.75	3.53	189.81	0.000	0.000	195.74	0.00	0.00
16	167.00	Samsung MT6413-77A	3	50.349	55.383	0.52	0.75	5.88	154.71	0.000	0.000	325.87	0.00	0.00
17	167.00	Antel BXA-70063-6CF	3	50.349	55.383	0.58	0.75	13.12	45.90	0.000	0.000	726.36	0.00	0.00
18	167.00	Mount Pipes	12	50.349	55.383	0.75	0.75	10.53	324.00	0.000	0.000	583.19	0.00	0.00
19	167.00	Samsung RF4461d-13A	3	50.349	55.383	0.63	0.75	3.53	213.57	0.000	0.000	195.74	0.00	0.00
20	167.00	Raycap	1	50.349	55.383	1.00	1.00	3.02	28.80	0.000	0.000	167.26	0.00	0.00
21	167.00	Platform	1	50.349	55.383	1.00	1.00	20.90	2150.10	0.000	0.000	1157.51	0.00	0.00
22	167.00	JMA Wireless	6	50.349	55.383	0.65	0.75	38.64	324.00	0.000	0.000	2140.07	0.00	0.00
23	160.00	CCI HPA-65R-BUU-H8	3	49.897	54.886	0.59	0.75	23.07	183.60	0.000	0.000	1266.34	0.00	0.00
24	160.00	Low Profile Platform	1	49.897	54.886	1.00	1.00	14.69	1125.00	0.000	0.000	806.28	0.00	0.00
25	160.00	Mount Pipes	12	49.897	54.886	0.75	0.75	11.52	324.00	0.000	0.000	632.29	0.00	0.00
26	160.00	HRK-12	1	49.897	54.886	0.75	0.75	6.07	135.00	0.000	0.000	333.43	0.00	0.00
27	160.00	Raycap	1	49.897	54.886	1.00	1.00	3.78	23.58	0.000	0.000	207.47	0.00	0.00
28	160.00	DMP65R-BU8DA	3	49.897	54.886	0.59	0.75	31.76	258.39	0.000	0.000	1743.41	0.00	0.00
29	160.00	Ericsson RRUS4449	3	49.897	54.886	0.50	0.75	2.97	197.10	0.000	0.000	163.00	0.00	0.00
30	160.00	7770	3	49.897	54.886	0.55	0.75	9.03	94.50	0.000	0.000	495.83	0.00	0.00
31	160.00	Powerwave 7020.00 RET	12	49.897	54.886	0.50	0.75	2.41	23.76	0.000	0.000	132.39	0.00	0.00
32	160.00	Raycap DC6-48-60-18-8F	1	49.897	54.886	1.00	1.00	1.47	29.52	0.000	0.000	80.68	0.00	0.00
33	160.00	LGP21901 Diplexers	6	49.897	54.886	0.50	0.75	1.90	167.40	0.000	0.000	104.25	0.00	0.00
34	160.00	Ericsson RRUS-12 B2	3	49.897	54.886	0.50	0.75	4.75	156.60	0.000	0.000	260.63	0.00	0.00
35	160.00	LGP21401 TMA	6	49.897	54.886	0.50	0.75	3.89	94.50	0.000	0.000	213.47	0.00	0.00
36	160.00	Ericsson RRUS A2	3	49.897	54.886	0.50	0.75	2.80	57.24	0.000	0.000	153.90	0.00	0.00
37	150.00	Mount Pipes	9	49.223	54.146	0.75	0.75	11.07	243.00	0.000	0.000	599.39	0.00	0.00
38	150.00	MC-PK8-DSH	1	49.223	54.146	0.67	0.67	22.57	1621.40	0.000	0.000	1222.19	0.00	0.00
39	150.00	RDIDC-9181-OF-48	1	49.223	54.146	0.75	0.75	1.51	19.71	0.000	0.000	81.62	0.00	0.00
40	150.00	TA08025-B604	3	49.223	54.146	0.50	0.75	2.95	172.53	0.000	0.000	159.98	0.00	0.00
41	150.00	TA08025-B605	3	49.223	54.146	0.50	0.75	2.95	202.50	0.000	0.000	159.98	0.00	0.00
42	150.00	MX08FRO665-21	3	49.223	54.146	0.55	0.75	20.80	174.15	0.000	0.000	1126.01	0.00	0.00
							Totals:		**11,540.57**			**21,275.47**		

Total Applied Force Summary

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 17

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00

Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		632.86	1415.91	0.00	0.00
10.00		621.96	1393.98	0.00	0.00
15.00		611.05	1372.05	0.00	0.00
20.00		636.78	1350.12	0.00	0.00
25.00		655.28	1328.18	0.00	0.00
30.00		668.32	1306.25	0.00	0.00
35.00		677.34	1284.32	0.00	0.00
40.00		683.27	1262.39	0.00	0.00
45.00		686.70	1240.46	0.00	0.00
45.92		124.93	225.04	0.00	0.00
50.00		569.25	1749.57	0.00	0.00
53.00		417.35	1268.10	0.00	0.00
55.00		277.55	422.27	0.00	0.00
60.00		696.49	1042.54	0.00	0.00
65.00		693.50	1023.76	0.00	0.00
70.00		689.34	1004.98	0.00	0.00
75.00		684.14	986.20	0.00	0.00
80.00		678.01	967.43	0.00	0.00
85.00		671.02	948.65	0.00	0.00
90.00		663.26	929.87	0.00	0.00
92.92		382.13	533.75	0.00	0.00
95.00		274.97	643.62	0.00	0.00
98.92		513.74	1193.82	0.00	0.00
100.00		140.66	167.78	0.00	0.00
105.00		645.94	764.85	0.00	0.00
110.00		635.73	749.18	0.00	0.00
115.00		624.99	733.51	0.00	0.00
120.00		613.74	717.84	0.00	0.00
125.00		602.02	702.16	0.00	0.00
127.08		245.89	287.02	0.00	0.00
130.00		347.07	619.88	0.00	0.00
132.33		273.05	486.85	0.00	0.00
135.00		310.44	277.12	0.00	0.00
140.00		571.71	509.90	0.00	0.00
145.00		558.39	498.93	0.00	0.00
150.00	(20) attachments	3893.89	2921.26	0.00	0.00
155.00		530.67	472.50	0.00	0.00
160.00	(58) attachments	7109.68	3331.72	0.00	0.00
165.00		501.61	386.94	0.00	0.00
167.00	(32) attachments	5687.84	3582.59	0.00	0.00
170.00		289.79	189.41	0.00	0.00
175.00		471.33	306.92	0.00	0.00
177.00	(41) attachments	5965.69	2894.40	0.00	262.70
180.00	(1) attachments	330.56	195.50	0.00	207.61
	Totals:	**43,559.90**	**45,689.54**	**0.00**	**470.31**

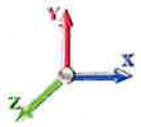
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	30.354	0.00	1.23
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	30.354	0.00	4.68
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	30.354	0.00	1.23
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	30.354	0.00	4.68
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	30.354	0.00	1.23
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	30.354	0.00	4.68
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	32.207	0.00	1.23
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	32.207	0.00	4.68
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	33.756	0.00	1.23
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	33.756	0.00	4.68
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	35.077	0.00	1.23
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	35.077	0.00	4.68
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	36.234	0.00	1.23
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	36.234	0.00	4.68
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	37.267	0.00	1.23
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	37.267	0.00	4.68
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	38.202	0.00	1.23
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	38.202	0.00	4.68
45.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.020	0.000	38.365	0.00	0.23
45.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.020	0.000	38.365	0.00	0.86
50.00	Safety Cable	Yes	4.08	0.000	0.38	0.13	0.00	0.020	0.000	39.059	0.00	1.00
50.00	Step bolts (ladder)	Yes	4.08	0.000	0.63	0.21	0.00	0.020	0.000	39.059	0.00	3.82
53.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.020	0.000	39.541	0.00	0.74
53.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.020	0.000	39.541	0.00	2.81
55.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	39.851	0.00	0.49
55.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	39.851	0.00	1.87
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	40.588	0.00	1.23
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	40.588	0.00	4.68
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	41.277	0.00	1.23
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	41.277	0.00	4.68
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	41.926	0.00	1.23
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	41.926	0.00	4.68
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	42.540	0.00	1.23
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	42.540	0.00	4.68
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	43.122	0.00	1.23
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	43.122	0.00	4.68
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	43.676	0.00	1.23
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	43.676	0.00	4.68
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	44.204	0.00	1.23
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	44.204	0.00	4.68
92.92	Safety Cable	Yes	2.92	0.000	0.38	0.09	0.00	0.024	0.000	44.502	0.00	0.72
92.92	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.15	0.00	0.024	0.000	44.502	0.00	2.73
95.00	Safety Cable	Yes	2.08	0.000	0.38	0.07	0.00	0.024	0.000	44.711	0.00	0.51
95.00	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.11	0.00	0.024	0.000	44.711	0.00	1.95
98.92	Safety Cable	Yes	3.92	0.000	0.38	0.12	0.00	0.024	0.000	45.092	0.00	0.96
98.92	Step bolts (ladder)	Yes	3.92	0.000	0.63	0.21	0.00	0.024	0.000	45.092	0.00	3.67
100.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.024	0.000	45.196	0.00	0.27

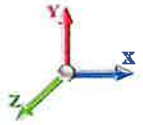
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.024	0.000	45.196	0.00	1.01
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	45.663	0.00	1.23
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	45.663	0.00	4.68
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	46.112	0.00	1.23
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	46.112	0.00	4.68
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.026	0.000	46.546	0.00	1.23
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.026	0.000	46.546	0.00	4.68
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	46.964	0.00	1.23
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	46.964	0.00	4.68
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	47.370	0.00	1.23
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	47.370	0.00	4.68
127.08	Safety Cable	Yes	2.08	0.000	0.38	0.07	0.00	0.028	0.000	47.534	0.00	0.51
127.08	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.11	0.00	0.028	0.000	47.534	0.00	1.94
130.00	Safety Cable	Yes	2.92	0.000	0.38	0.09	0.00	0.028	0.000	47.763	0.00	0.72
130.00	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.15	0.00	0.028	0.000	47.763	0.00	2.74
132.33	Safety Cable	Yes	2.33	0.000	0.38	0.07	0.00	0.029	0.000	47.941	0.00	0.57
132.33	Step bolts (ladder)	Yes	2.33	0.000	0.63	0.12	0.00	0.029	0.000	47.941	0.00	2.18
135.00	Safety Cable	Yes	2.67	0.000	0.38	0.08	0.00	0.029	0.000	48.144	0.00	0.66
135.00	Step bolts (ladder)	Yes	2.67	0.000	0.63	0.14	0.00	0.029	0.000	48.144	0.00	2.50
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	48.514	0.00	1.23
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	48.514	0.00	4.68
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.030	0.000	48.873	0.00	1.23
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.030	0.000	48.873	0.00	4.68
150.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	49.223	0.00	1.23
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	49.223	0.00	4.68
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.032	0.000	49.564	0.00	1.23
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.032	0.000	49.564	0.00	4.68
160.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.034	0.000	49.897	0.00	1.23
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.034	0.000	49.897	0.00	4.68
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.035	0.000	50.221	0.00	1.23
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.035	0.000	50.221	0.00	4.68
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	50.349	0.00	0.49
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	50.349	0.00	1.87
170.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.036	0.000	50.538	0.00	0.74
170.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.036	0.000	50.538	0.00	2.81
175.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	50.847	0.00	1.23
175.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	50.847	0.00	4.68
177.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	50.969	0.00	0.49
177.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	50.969	0.00	1.87
180.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.039	0.000	51.149	0.00	0.74
180.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.039	0.000	51.149	0.00	2.81
										Totals:	**0.0**	**212.7**

Calculated Forces

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00

Iterations 26

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.61	-43.65	0.00	-5684.3	0.00	5684.32	5508.12	1460.53	7226.63	6725.55	0.00	0.000	0.000	0.854
5.00	-44.03	-43.18	0.00	-5466.0	0.00	5466.09	5452.09	1435.40	6980.02	6541.73	0.11	-0.213	0.000	0.845
10.00	-42.48	-42.71	0.00	-5250.2	0.00	5250.22	5394.71	1410.26	6737.68	6358.68	0.45	-0.428	0.000	0.834
15.00	-40.95	-42.24	0.00	-5036.6	0.00	5036.69	5335.97	1385.12	6499.64	6176.49	1.02	-0.646	0.000	0.824
20.00	-39.45	-41.74	0.00	-4825.4	0.00	4825.49	5275.87	1359.98	6265.87	5995.24	1.81	-0.866	0.000	0.813
25.00	-37.97	-41.21	0.00	-4616.8	0.00	4616.80	5214.41	1334.85	6036.38	5815.02	2.84	-1.089	0.000	0.802
30.00	-36.52	-40.66	0.00	-4410.7	0.00	4410.76	5151.59	1309.71	5811.17	5635.92	4.10	-1.315	0.000	0.791
35.00	-35.09	-40.09	0.00	-4207.4	0.00	4207.47	5087.42	1284.57	5590.25	5458.02	5.60	-1.543	0.000	0.779
40.00	-33.69	-39.51	0.00	-4007.0	0.00	4007.03	5021.88	1259.44	5373.61	5281.41	7.34	-1.773	0.000	0.766
45.00	-32.38	-38.86	0.00	-3809.5	0.00	3809.50	4954.99	1234.30	5161.25	5106.18	9.32	-2.005	0.000	0.754
45.92	-32.08	-38.79	0.00	-3773.8	0.00	3773.88	4942.58	1229.69	5122.78	5074.21	9.71	-2.049	0.000	0.751
50.00	-30.24	-38.25	0.00	-3615.4	0.00	3615.48	4886.75	1209.16	4953.16	4932.41	11.55	-2.242	0.000	0.740
53.00	-28.91	-37.84	0.00	-3500.7	0.00	3500.75	3967.43	1039.40	4274.84	4025.79	13.00	-2.386	0.000	0.878
55.00	-28.38	-37.63	0.00	-3425.0	0.00	3425.08	3947.58	1030.79	4204.32	3972.23	14.02	-2.482	0.000	0.871
60.00	-27.20	-37.02	0.00	-3236.9	0.00	3236.91	3897.00	1009.27	4030.59	3838.84	16.76	-2.747	0.000	0.852
65.00	-26.04	-36.39	0.00	-3051.8	0.00	3051.84	3845.06	987.75	3860.53	3706.29	19.78	-3.014	0.000	0.832
70.00	-24.91	-35.77	0.00	-2869.8	0.00	2869.87	3791.77	966.22	3694.13	3574.65	23.08	-3.281	0.000	0.811
75.00	-23.80	-35.14	0.00	-2691.0	0.00	2691.04	3737.12	944.70	3531.40	3444.02	26.66	-3.550	0.000	0.789
80.00	-22.72	-34.51	0.00	-2515.3	0.00	2515.36	3681.11	923.18	3372.34	3314.49	30.52	-3.819	0.000	0.766
85.00	-21.66	-33.87	0.00	-2342.8	0.00	2342.83	3623.74	901.66	3216.94	3186.13	34.66	-4.088	0.000	0.743
90.00	-20.66	-33.22	0.00	-2173.4	0.00	2173.47	3565.02	880.14	3065.20	3059.03	39.08	-4.356	0.000	0.718
92.92	-20.08	-32.84	0.00	-2076.5	0.00	2076.58	3530.13	867.59	2978.38	2985.51	41.79	-4.514	0.000	0.703
95.00	-19.37	-32.57	0.00	-2008.1	0.00	2008.16	3504.93	858.62	2917.13	2933.28	43.78	-4.628	0.000	0.692
98.92	-18.14	-32.01	0.00	-1880.5	0.00	1880.58	2742.07	714.64	2421.16	2291.78	47.66	-4.837	0.000	0.829
100.00	-17.89	-31.91	0.00	-1845.9	0.00	1845.90	2732.96	710.75	2394.86	2271.63	48.77	-4.896	0.000	0.821
105.00	-17.02	-31.29	0.00	-1686.3	0.00	1686.36	2690.08	692.79	2275.34	2179.04	54.05	-5.195	0.000	0.782
110.00	-16.18	-30.67	0.00	-1529.9	0.00	1529.93	2645.83	674.83	2158.87	2087.20	59.64	-5.488	0.000	0.741
115.00	-15.36	-30.05	0.00	-1376.6	0.00	1376.61	2600.23	656.86	2045.47	1996.19	65.54	-5.775	0.000	0.698
120.00	-14.57	-29.43	0.00	-1226.3	0.00	1226.37	2553.28	638.90	1935.12	1906.09	71.72	-6.054	0.000	0.651
125.00	-13.85	-28.80	0.00	-1079.2	0.00	1079.21	2504.96	620.94	1827.84	1816.99	78.20	-6.322	0.000	0.602
127.08	-13.52	-28.56	0.00	-1019.3	0.00	1019.39	2484.49	613.48	1784.18	1780.31	80.97	-6.433	0.000	0.580
130.00	-12.88	-28.17	0.00	-935.90	0.00	935.90	2455.29	602.97	1723.61	1728.99	84.95	-6.583	0.000	0.549
132.33	-12.37	-27.87	0.00	-870.35	0.00	870.35	1489.30	422.56	1209.83	1053.29	88.18	-6.699	0.000	0.839
135.00	-12.02	-27.58	0.00	-795.84	0.00	795.84	1477.63	415.84	1171.66	1028.31	91.96	-6.828	0.000	0.786
140.00	-11.45	-27.01	0.00	-657.95	0.00	657.95	1454.76	403.27	1101.91	981.60	99.26	-7.128	0.000	0.683
145.00	-10.92	-26.44	0.00	-522.92	0.00	522.92	1430.53	390.71	1034.29	934.97	106.85	-7.395	0.000	0.572
150.00	-8.45	-22.22	0.00	-390.74	0.00	390.74	1404.94	378.14	968.82	888.50	114.70	-7.623	0.000	0.449
155.00	-7.99	-21.66	0.00	-279.62	0.00	279.62	1377.99	365.57	905.49	842.29	122.76	-7.807	0.000	0.341
160.00	-5.64	-14.17	0.00	-171.33	0.00	171.33	1349.68	353.00	844.29	796.42	131.00	-7.944	0.000	0.221
165.00	-5.31	-13.62	0.00	-100.49	0.00	100.49	1320.02	340.43	785.24	750.97	139.34	-8.036	0.000	0.139
167.00	-2.56	-7.49	0.00	-73.24	0.00	73.24	1307.77	335.40	762.22	732.93	142.70	-8.062	0.000	0.102
170.00	-2.41	-7.18	0.00	-50.77	0.00	50.77	1289.00	327.86	728.33	706.04	147.76	-8.091	0.000	0.074
175.00	-2.17	-6.67	0.00	-14.87	0.00	14.87	1256.62	315.30	673.56	661.70	156.23	-8.119	0.000	0.025
177.00	-0.15	-0.35	0.00	-1.27	0.00	1.27	1243.29	310.27	652.25	644.16	159.62	-8.122	0.000	0.002
180.00	0.00	-0.33	0.00	-0.21	0.00	0.21	1222.88	302.73	620.93	618.05	164.71	-8.123	0.000	0.000

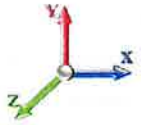
Wind Loading - Shaft

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Load Case: 1.2D + 1.0Di + 1.0W 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.098	5.61	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.098	5.61	0.00	1.200	0.828	5.00	25.962	31.15	174.7	313.1	1997.6
10.00		1.00	0.85	5.098	5.61	0.00	1.200	0.887	5.00	25.576	30.69	172.1	330.1	1985.4
15.00		1.00	0.85	5.098	5.61	0.00	1.200	0.924	5.00	25.171	30.21	169.4	338.0	1964.0
20.00		1.00	0.90	5.410	5.95	0.00	1.200	0.951	5.00	24.758	29.71	176.8	341.9	1938.6
25.00		1.00	0.95	5.670	6.24	0.00	1.200	0.973	5.00	24.341	29.21	182.2	343.4	1910.9
30.00		1.00	0.98	5.892	6.48	0.00	1.200	0.991	5.00	23.920	28.70	186.0	343.4	1881.7
35.00		1.00	1.01	6.086	6.69	0.00	1.200	1.006	5.00	23.497	28.20	188.8	342.3	1851.3
40.00		1.00	1.04	6.260	6.89	0.00	1.200	1.019	5.00	23.073	27.69	190.6	340.4	1820.2
45.00		1.00	1.07	6.417	7.06	0.00	1.200	1.032	5.00	22.648	27.18	191.8	337.8	1788.4
45.92	Bot - Section 2	1.00	1.07	6.444	7.09	0.00	1.200	1.034	0.92	4.105	4.93	34.9	61.8	324.6
50.00		1.00	1.09	6.561	7.22	0.00	1.200	1.042	4.08	18.375	22.05	159.1	277.4	2444.0
53.00	Top - Section 1	1.00	1.11	6.642	7.31	0.00	1.200	1.049	3.00	13.318	15.98	116.8	202.6	1771.3
55.00		1.00	1.12	6.694	7.36	0.00	1.200	1.052	2.00	8.793	10.55	77.7	134.5	616.1
60.00		1.00	1.14	6.817	7.50	0.00	1.200	1.062	5.00	21.685	26.02	195.1	332.3	1518.9
65.00		1.00	1.16	6.933	7.63	0.00	1.200	1.070	5.00	21.256	25.51	194.5	328.1	1489.7
70.00		1.00	1.17	7.042	7.75	0.00	1.200	1.078	5.00	20.828	24.99	193.6	323.6	1460.1
75.00		1.00	1.19	7.145	7.86	0.00	1.200	1.086	5.00	20.398	24.48	192.4	318.8	1430.3
80.00		1.00	1.21	7.243	7.97	0.00	1.200	1.093	5.00	19.969	23.96	190.9	313.8	1400.3
85.00		1.00	1.22	7.336	8.07	0.00	1.200	1.099	5.00	19.539	23.45	189.2	308.7	1370.1
90.00		1.00	1.24	7.425	8.17	0.00	1.200	1.106	5.00	19.108	22.93	187.3	303.3	1339.7
92.92	Bot - Section 3	1.00	1.25	7.475	8.22	0.00	1.200	1.109	2.92	10.947	13.14	108.0	175.1	768.1
95.00		1.00	1.25	7.510	8.26	0.00	1.200	1.112	2.08	7.840	9.41	77.7	125.9	899.3
98.92	Top - Section 2	1.00	1.26	7.574	8.33	0.00	1.200	1.116	3.92	14.538	17.45	145.3	233.3	1665.7
100.00		1.00	1.27	7.591	8.35	0.00	1.200	1.117	1.08	3.974	4.77	39.8	64.3	243.9
105.00		1.00	1.28	7.670	8.44	0.00	1.200	1.123	5.00	18.082	21.70	183.1	290.8	1107.2
110.00		1.00	1.29	7.745	8.52	0.00	1.200	1.128	5.00	17.651	21.18	180.5	284.8	1080.3
115.00		1.00	1.30	7.818	8.60	0.00	1.200	1.133	5.00	17.220	20.66	177.7	278.8	1053.4
120.00		1.00	1.32	7.888	8.68	0.00	1.200	1.138	5.00	16.788	20.15	174.8	272.6	1026.4
125.00		1.00	1.33	7.956	8.75	0.00	1.200	1.142	5.00	16.357	19.63	171.8	266.4	999.2
127.08	Bot - Section 4	1.00	1.33	7.984	8.78	0.00	1.200	1.144	2.08	6.666	8.00	70.3	109.5	407.8
130.00		1.00	1.34	8.022	8.82	0.00	1.200	1.147	2.92	9.367	11.24	99.2	153.9	861.5
132.33	Top - Section 3	1.00	1.34	8.052	8.86	0.00	1.200	1.149	2.33	7.349	8.82	78.1	121.1	675.6
135.00		1.00	1.35	8.086	8.90	0.00	1.200	1.151	2.67	8.329	9.99	88.9	137.3	398.0
140.00		1.00	1.36	8.149	8.96	0.00	1.200	1.155	5.00	15.247	18.30	164.0	250.2	726.7
145.00		1.00	1.37	8.209	9.03	0.00	1.200	1.160	5.00	14.815	17.78	160.5	243.6	705.5
150.00	Appurtenance(s)	1.00	1.38	8.268	9.09	0.00	1.200	1.163	5.00	14.383	17.26	157.0	236.9	684.2
155.00		1.00	1.39	8.325	9.16	0.00	1.200	1.167	5.00	13.950	16.74	153.3	230.2	662.8
160.00	Appurtenance(s)	1.00	1.40	8.381	9.22	0.00	1.200	1.171	5.00	13.518	16.22	149.5	223.4	641.3
165.00		1.00	1.41	8.435	9.28	0.00	1.200	1.175	5.00	13.086	15.70	145.7	216.5	619.8
167.00	Appurtenance(s)	1.00	1.41	8.457	9.30	0.00	1.200	1.176	2.00	5.113	6.14	57.1	85.5	242.7
170.00		1.00	1.42	8.489	9.34	0.00	1.200	1.178	3.00	7.540	9.05	84.5	125.7	357.2
175.00		1.00	1.42	8.541	9.39	0.00	1.200	1.182	5.00	12.220	14.66	137.8	202.5	576.6
177.00	Appurtenance(s)	1.00	1.43	8.561	9.42	0.00	1.200	1.183	2.00	4.767	5.72	53.9	79.9	225.4
180.00	Appurtenance(s)	1.00	1.43	8.591	9.45	0.00	1.200	1.185	3.00	7.020	8.42	79.6	117.2	331.2
								Totals:	**180.00**			**6,302.1**		**49,262.9**

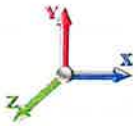
Discrete Appurtenance Forces

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

Load Case: 1.2D + 1.0Di + 1.0W 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	180.00	Lightning Rod	1	8.626	9.489	1.00	1.00	2.66	54.33	0.000	3.500	25.25	0.00	88.39
2	177.00	4460 B25 + B66	3	8.561	9.417	0.50	0.75	3.40	370.93	0.000	0.000	31.99	0.00	0.00
3	177.00	EMS	3	8.561	9.417	0.56	0.75	8.44	235.20	0.000	0.000	79.51	0.00	0.00
4	177.00	Low Profile Platform w/	1	8.561	9.417	1.00	1.00	30.71	1639.20	0.000	0.000	289.23	0.00	0.00
5	177.00	Mount Pipes	9	8.561	9.417	0.75	0.75	13.23	785.63	0.000	0.000	124.54	0.00	0.00
6	177.00	Ericsson KRY 112 144/2	3	8.561	9.417	0.50	0.75	1.10	41.05	0.000	0.000	10.39	0.00	0.00
7	177.00	Ericsson Radio 4449 B71	3	8.561	9.417	0.50	0.75	2.98	336.10	0.000	0.000	28.05	0.00	0.00
8	177.00	Ericsson KRY 112 489/2	3	8.561	9.417	0.50	0.75	1.61	76.27	0.000	0.000	15.12	0.00	0.00
9	177.00	AIR6419 B41	3	8.561	9.417	0.53	0.75	10.06	554.51	0.000	0.000	94.69	0.00	0.00
10	177.00	VV-65A-R1	3	8.561	9.417	0.61	0.75	13.57	374.08	0.000	0.000	127.75	0.00	0.00
11	177.00	Ericsson ANT3 A 0.6 HPX	1	8.571	9.428	1.00	1.00	5.54	40.37	0.000	1.000	52.27	0.00	52.27
12	177.00	Ericsson Mini-Link 6365	3	8.561	9.417	0.50	0.75	2.76	25.86	0.000	0.000	25.97	0.00	0.00
13	177.00	Kathrein 782 11056 - Bias	3	8.561	9.417	0.50	0.75	0.46	5.08	0.000	0.000	4.31	0.00	0.00
14	177.00	RFS	3	8.561	9.417	0.55	0.75	35.32	1019.11	0.000	0.000	332.62	0.00	0.00
15	167.00	Samsung B2/B66A RRH	3	8.457	9.303	0.64	0.75	4.28	253.08	0.000	0.000	39.78	0.00	0.00
16	167.00	Samsung MT6413-77A	3	8.457	9.303	0.53	0.75	6.91	561.74	0.000	0.000	64.24	0.00	0.00
17	167.00	Antel BXA-70063-6CF	3	8.457	9.303	0.59	0.75	14.92	452.63	0.000	0.000	138.77	0.00	0.00
18	167.00	Mount Pipes	12	8.457	9.303	0.75	0.75	15.48	1046.02	0.000	0.000	144.04	0.00	0.00
19	167.00	Samsung RF4461d-13A	3	8.457	9.303	0.64	0.75	4.28	624.87	0.000	0.000	39.78	0.00	0.00
20	167.00	Raycap	1	8.457	9.303	1.00	1.00	3.49	124.95	0.000	0.000	32.43	0.00	0.00
21	167.00	Platform	1	8.457	9.303	1.00	1.00	32.70	7278.67	0.000	0.000	304.17	0.00	0.00
22	167.00	JMA Wireless	6	8.457	9.303	0.66	0.75	42.65	1803.69	0.000	0.000	396.77	0.00	0.00
23	160.00	CCI HPA-65R-BUU-H8	3	8.381	9.219	0.59	0.75	24.95	617.72	0.000	0.000	230.04	0.00	0.00
24	160.00	Low Profile Platform	1	8.381	9.219	1.00	1.00	22.95	3803.91	0.000	0.000	211.55	0.00	0.00
25	160.00	Mount Pipes	12	8.381	9.219	0.75	0.75	16.92	1044.94	0.000	0.000	155.95	0.00	0.00
26	160.00	HRK-12	1	8.381	9.219	0.75	0.75	8.92	435.39	0.000	0.000	82.24	0.00	0.00
27	160.00	Raycap	1	8.381	9.219	1.00	1.00	4.25	147.79	0.000	0.000	39.17	0.00	0.00
28	160.00	DMP65R-BU8DA	3	8.381	9.219	0.59	0.75	33.76	938.24	0.000	0.000	311.21	0.00	0.00
29	160.00	Ericsson RRUS4449	3	8.381	9.219	0.50	0.75	3.52	338.48	0.000	0.000	32.48	0.00	0.00
30	160.00	7770	3	8.381	9.219	0.55	0.75	10.16	556.69	0.000	0.000	93.66	0.00	0.00
31	160.00	Powerwave 7020.00 RET	12	8.381	9.219	0.50	0.75	4.37	79.30	0.000	0.000	40.29	0.00	0.00
32	160.00	Raycap DC6-48-60-18-8F	1	8.381	9.219	1.00	1.00	1.94	65.45	0.000	0.000	17.88	0.00	0.00
33	160.00	LGP21901 Diplexers	6	8.381	9.219	0.50	0.75	3.94	537.51	0.000	0.000	36.31	0.00	0.00
34	160.00	Ericsson RRUS-12 B2	3	8.381	9.219	0.50	0.75	6.02	283.79	0.000	0.000	55.49	0.00	0.00
35	160.00	LGP21401 TMA	6	8.381	9.219	0.50	0.75	5.58	228.72	0.000	0.000	51.44	0.00	0.00
36	160.00	Ericsson RRUS A2	3	8.381	9.219	0.50	0.75	3.79	118.41	0.000	0.000	34.93	0.00	0.00
37	150.00	Mount Pipes	9	8.268	9.095	0.75	0.75	16.22	782.48	0.000	0.000	147.53	0.00	0.00
38	150.00	MC-PK8-DSH	1	8.268	9.095	0.67	0.67	35.18	3372.60	0.000	0.000	319.93	0.00	0.00
39	150.00	RDIDC-9181-OF-48	1	8.268	9.095	0.75	0.75	1.79	49.08	0.000	0.000	16.29	0.00	0.00
40	150.00	TA08025-B604	3	8.268	9.095	0.50	0.75	3.52	295.00	0.000	0.000	32.00	0.00	0.00
41	150.00	TA08025-B605	3	8.268	9.095	0.50	0.75	3.52	336.81	0.000	0.000	32.00	0.00	0.00
42	150.00	MX08FRO665-21	3	8.268	9.095	0.55	0.75	22.42	612.34	0.000	0.000	203.92	0.00	0.00
							Totals:		**32,348.02**			**4,545.99**		

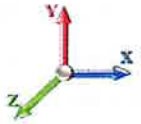
Total Applied Force Summary

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 23

Load Case: 1.2D + 1.0Di + 1.0W 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		174.72	2212.79	0.00	0.00
10.00		172.12	2202.07	0.00	0.00
15.00		169.40	2181.66	0.00	0.00
20.00		176.79	2157.00	0.00	0.00
25.00		182.17	2129.88	0.00	0.00
30.00		186.03	2101.14	0.00	0.00
35.00		188.77	2071.25	0.00	0.00
40.00		190.64	2040.47	0.00	0.00
45.00		191.83	2009.00	0.00	0.00
45.92		34.92	365.06	0.00	0.00
50.00		159.13	2624.48	0.00	0.00
53.00		116.76	1904.00	0.00	0.00
55.00		77.69	704.63	0.00	0.00
60.00		195.14	1740.44	0.00	0.00
65.00		194.54	1711.45	0.00	0.00
70.00		193.61	1682.15	0.00	0.00
75.00		192.39	1652.60	0.00	0.00
80.00		190.92	1622.80	0.00	0.00
85.00		189.20	1592.80	0.00	0.00
90.00		187.28	1562.60	0.00	0.00
92.92		108.01	898.15	0.00	0.00
95.00		77.72	992.26	0.00	0.00
98.92		145.35	1840.51	0.00	0.00
100.00		39.82	292.26	0.00	0.00
105.00		183.07	1330.55	0.00	0.00
110.00		180.46	1303.90	0.00	0.00
115.00		177.71	1277.12	0.00	0.00
120.00		174.81	1250.22	0.00	0.00
125.00		171.79	1223.21	0.00	0.00
127.08		70.25	500.83	0.00	0.00
130.00		99.19	992.53	0.00	0.00
132.33		78.12	779.92	0.00	0.00
135.00		88.90	517.95	0.00	0.00
140.00		164.00	951.13	0.00	0.00
145.00		160.53	930.03	0.00	0.00
150.00	(20) attachments	908.64	6357.17	0.00	0.00
155.00		153.30	881.59	0.00	0.00
160.00	(58) attachments	1542.19	10056.58	0.00	0.00
165.00		145.70	754.01	0.00	0.00
167.00	(32) attachments	1217.06	12442.09	0.00	0.00
170.00		84.48	391.30	0.00	0.00
175.00		137.77	633.56	0.00	0.00
177.00	(41) attachments	1270.31	5751.60	0.00	52.27
180.00	(1) attachments	104.87	403.40	0.00	88.39
	Totals:	**10,848.09**	**89,020.14**	**0.00**	**140.66**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Load Case: 1.2D + 1.0Di + 1.0W 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.85	0.00	0.017	0.000	5.098	0.00	7.09
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.95	0.00	0.017	0.000	5.098	0.00	12.60
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.90	0.00	0.017	0.000	5.098	0.00	7.80
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.00	0.00	0.017	0.000	5.098	0.00	13.37
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.93	0.00	0.017	0.000	5.098	0.00	8.26
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.03	0.00	0.017	0.000	5.098	0.00	13.87
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.95	0.00	0.018	0.000	5.410	0.00	8.61
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.06	0.00	0.018	0.000	5.410	0.00	14.24
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.97	0.00	0.018	0.000	5.670	0.00	8.89
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.07	0.00	0.018	0.000	5.670	0.00	14.55
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.98	0.00	0.018	0.000	5.892	0.00	9.13
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.09	0.00	0.018	0.000	5.892	0.00	14.80
35.00	Safety Cable	Yes	5.00	0.000	0.38	1.00	0.00	0.019	0.000	6.086	0.00	9.34
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.10	0.00	0.019	0.000	6.086	0.00	15.03
40.00	Safety Cable	Yes	5.00	0.000	0.38	1.01	0.00	0.019	0.000	6.260	0.00	9.53
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.11	0.00	0.019	0.000	6.260	0.00	15.23
45.00	Safety Cable	Yes	5.00	0.000	0.38	1.02	0.00	0.019	0.000	6.417	0.00	9.70
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.12	0.00	0.019	0.000	6.417	0.00	15.41
45.92	Safety Cable	Yes	0.92	0.000	0.38	0.19	0.00	0.020	0.000	6.444	0.00	1.78
45.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.21	0.00	0.020	0.000	6.444	0.00	2.83
50.00	Safety Cable	Yes	4.08	0.000	0.38	0.84	0.00	0.020	0.000	6.561	0.00	8.05
50.00	Step bolts (ladder)	Yes	4.08	0.000	0.63	0.92	0.00	0.020	0.000	6.561	0.00	12.72
53.00	Safety Cable	Yes	3.00	0.000	0.38	0.62	0.00	0.020	0.000	6.642	0.00	5.96
53.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.68	0.00	0.020	0.000	6.642	0.00	9.40
55.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.020	0.000	6.694	0.00	4.00
55.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.020	0.000	6.694	0.00	6.29
60.00	Safety Cable	Yes	5.00	0.000	0.38	1.04	0.00	0.020	0.000	6.817	0.00	10.13
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.15	0.00	0.020	0.000	6.817	0.00	15.87
65.00	Safety Cable	Yes	5.00	0.000	0.38	1.05	0.00	0.021	0.000	6.933	0.00	10.25
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.15	0.00	0.021	0.000	6.933	0.00	16.00
70.00	Safety Cable	Yes	5.00	0.000	0.38	1.06	0.00	0.021	0.000	7.042	0.00	10.37
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.16	0.00	0.021	0.000	7.042	0.00	16.12
75.00	Safety Cable	Yes	5.00	0.000	0.38	1.06	0.00	0.022	0.000	7.145	0.00	10.48
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.17	0.00	0.022	0.000	7.145	0.00	16.24
80.00	Safety Cable	Yes	5.00	0.000	0.38	1.07	0.00	0.022	0.000	7.243	0.00	10.58
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.17	0.00	0.022	0.000	7.243	0.00	16.35
85.00	Safety Cable	Yes	5.00	0.000	0.38	1.07	0.00	0.023	0.000	7.336	0.00	10.68
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.18	0.00	0.023	0.000	7.336	0.00	16.46
90.00	Safety Cable	Yes	5.00	0.000	0.38	1.08	0.00	0.023	0.000	7.425	0.00	10.77
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.18	0.00	0.023	0.000	7.425	0.00	16.56
92.92	Safety Cable	Yes	2.92	0.000	0.38	0.63	0.00	0.024	0.000	7.475	0.00	6.32
92.92	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.69	0.00	0.024	0.000	7.475	0.00	9.69
95.00	Safety Cable	Yes	2.08	0.000	0.38	0.45	0.00	0.024	0.000	7.510	0.00	4.53
95.00	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.50	0.00	0.024	0.000	7.510	0.00	6.94
98.92	Safety Cable	Yes	3.92	0.000	0.38	0.85	0.00	0.024	0.000	7.574	0.00	8.56
98.92	Step bolts (ladder)	Yes	3.92	0.000	0.63	0.93	0.00	0.024	0.000	7.574	0.00	13.10
100.00	Safety Cable	Yes	1.08	0.000	0.38	0.24	0.00	0.024	0.000	7.591	0.00	2.37

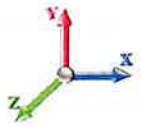
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Load Case: 1.2D + 1.0Di + 1.0W 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.26	0.00	0.024	0.000	7.591	0.00	3.63
105.00	Safety Cable	Yes	5.00	0.000	0.38	1.09	0.00	0.025	0.000	7.670	0.00	11.03
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.20	0.00	0.025	0.000	7.670	0.00	16.83
110.00	Safety Cable	Yes	5.00	0.000	0.38	1.10	0.00	0.025	0.000	7.745	0.00	11.11
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.20	0.00	0.025	0.000	7.745	0.00	16.92
115.00	Safety Cable	Yes	5.00	0.000	0.38	1.10	0.00	0.026	0.000	7.818	0.00	11.19
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.21	0.00	0.026	0.000	7.818	0.00	17.00
120.00	Safety Cable	Yes	5.00	0.000	0.38	1.11	0.00	0.027	0.000	7.888	0.00	11.26
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.21	0.00	0.027	0.000	7.888	0.00	17.08
125.00	Safety Cable	Yes	5.00	0.000	0.38	1.11	0.00	0.027	0.000	7.956	0.00	11.34
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.21	0.00	0.027	0.000	7.956	0.00	17.15
127.08	Safety Cable	Yes	2.08	0.000	0.38	0.46	0.00	0.028	0.000	7.984	0.00	4.72
127.08	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.51	0.00	0.028	0.000	7.984	0.00	7.14
130.00	Safety Cable	Yes	2.92	0.000	0.38	0.65	0.00	0.028	0.000	8.022	0.00	6.67
130.00	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.71	0.00	0.028	0.000	8.022	0.00	10.07
132.33	Safety Cable	Yes	2.33	0.000	0.38	0.52	0.00	0.029	0.000	8.052	0.00	5.32
132.33	Step bolts (ladder)	Yes	2.33	0.000	0.63	0.57	0.00	0.029	0.000	8.052	0.00	8.03
135.00	Safety Cable	Yes	2.67	0.000	0.38	0.60	0.00	0.029	0.000	8.086	0.00	6.13
135.00	Step bolts (ladder)	Yes	2.67	0.000	0.63	0.65	0.00	0.029	0.000	8.086	0.00	9.25
140.00	Safety Cable	Yes	5.00	0.000	0.38	1.12	0.00	0.029	0.000	8.149	0.00	11.54
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.23	0.00	0.029	0.000	8.149	0.00	17.37
145.00	Safety Cable	Yes	5.00	0.000	0.38	1.12	0.00	0.030	0.000	8.209	0.00	11.60
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.23	0.00	0.030	0.000	8.209	0.00	17.43
150.00	Safety Cable	Yes	5.00	0.000	0.38	1.13	0.00	0.031	0.000	8.268	0.00	11.66
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.23	0.00	0.031	0.000	8.268	0.00	17.50
155.00	Safety Cable	Yes	5.00	0.000	0.38	1.13	0.00	0.032	0.000	8.325	0.00	11.72
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.24	0.00	0.032	0.000	8.325	0.00	17.56
160.00	Safety Cable	Yes	5.00	0.000	0.38	1.13	0.00	0.034	0.000	8.381	0.00	11.78
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.24	0.00	0.034	0.000	8.381	0.00	17.63
165.00	Safety Cable	Yes	5.00	0.000	0.38	1.14	0.00	0.035	0.000	8.435	0.00	11.84
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.24	0.00	0.035	0.000	8.435	0.00	17.69
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.46	0.00	0.036	0.000	8.457	0.00	4.74
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.50	0.00	0.036	0.000	8.457	0.00	7.08
170.00	Safety Cable	Yes	3.00	0.000	0.38	0.68	0.00	0.036	0.000	8.489	0.00	7.14
170.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.75	0.00	0.036	0.000	8.489	0.00	10.65
175.00	Safety Cable	Yes	5.00	0.000	0.38	1.14	0.00	0.037	0.000	8.541	0.00	11.95
175.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.25	0.00	0.037	0.000	8.541	0.00	17.80
177.00	Safety Cable	Yes	2.00	0.000	0.38	0.46	0.00	0.038	0.000	8.561	0.00	4.79
177.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.50	0.00	0.038	0.000	8.561	0.00	7.13
180.00	Safety Cable	Yes	3.00	0.000	0.38	0.69	0.00	0.039	0.000	8.591	0.00	7.20
180.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.75	0.00	0.039	0.000	8.591	0.00	10.72
										Totals:	**0.0**	**963.3**

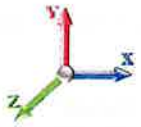
Calculated Forces

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 26

Load Case: 1.2D + 1.0Di + 1.0W 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-89.01	-10.89	0.00	-1449.0	0.00	1449.01	5508.12	1460.53	7226.63	6725.55	0.00	0.000	0.000	0.232
5.00	-86.79	-10.80	0.00	-1394.5	0.00	1394.56	5452.09	1435.40	6980.02	6541.73	0.03	-0.054	0.000	0.229
10.00	-84.58	-10.70	0.00	-1340.5	0.00	1340.58	5394.71	1410.26	6737.68	6358.68	0.12	-0.109	0.000	0.227
15.00	-82.39	-10.61	0.00	-1287.0	0.00	1287.06	5335.97	1385.12	6499.64	6176.49	0.26	-0.165	0.000	0.224
20.00	-80.22	-10.51	0.00	-1234.0	0.00	1234.01	5275.87	1359.98	6265.87	5995.24	0.46	-0.221	0.000	0.221
25.00	-78.08	-10.39	0.00	-1181.4	0.00	1181.49	5214.41	1334.85	6036.38	5815.02	0.72	-0.278	0.000	0.218
30.00	-75.97	-10.27	0.00	-1129.5	0.00	1129.53	5151.59	1309.71	5811.17	5635.92	1.05	-0.336	0.000	0.215
35.00	-73.89	-10.15	0.00	-1078.1	0.00	1078.17	5087.42	1284.57	5590.25	5458.02	1.43	-0.394	0.000	0.212
40.00	-71.84	-10.01	0.00	-1027.4	0.00	1027.45	5021.88	1259.44	5373.61	5281.41	1.88	-0.453	0.000	0.209
45.00	-69.83	-9.85	0.00	-977.38	0.00	977.38	4954.99	1234.30	5161.25	5106.18	2.38	-0.513	0.000	0.206
45.92	-69.46	-9.85	0.00	-968.35	0.00	968.35	4942.58	1229.69	5122.78	5074.21	2.48	-0.524	0.000	0.205
50.00	-66.83	-9.71	0.00	-928.15	0.00	928.15	4886.75	1209.16	4953.16	4932.41	2.95	-0.574	0.000	0.202
53.00	-64.92	-9.61	0.00	-899.01	0.00	899.01	3967.43	1039.40	4274.84	4025.79	3.32	-0.611	0.000	0.240
55.00	-64.21	-9.58	0.00	-879.79	0.00	879.79	3947.58	1030.79	4204.32	3972.23	3.59	-0.635	0.000	0.238
60.00	-62.46	-9.44	0.00	-831.90	0.00	831.90	3897.00	1009.27	4030.59	3838.84	4.29	-0.703	0.000	0.233
65.00	-60.74	-9.29	0.00	-784.71	0.00	784.71	3845.06	987.75	3860.53	3706.29	5.06	-0.772	0.000	0.228
70.00	-59.05	-9.15	0.00	-738.24	0.00	738.24	3791.77	966.22	3694.13	3574.65	5.91	-0.841	0.000	0.222
75.00	-57.39	-9.00	0.00	-692.51	0.00	692.51	3737.12	944.70	3531.40	3444.02	6.82	-0.910	0.000	0.217
80.00	-55.76	-8.85	0.00	-647.51	0.00	647.51	3681.11	923.18	3372.34	3314.49	7.81	-0.979	0.000	0.211
85.00	-54.16	-8.70	0.00	-603.27	0.00	603.27	3623.74	901.66	3216.94	3186.13	8.88	-1.048	0.000	0.204
90.00	-52.59	-8.53	0.00	-559.79	0.00	559.79	3565.02	880.14	3065.20	3059.03	10.01	-1.117	0.000	0.198
92.92	-51.69	-8.44	0.00	-534.91	0.00	534.91	3530.13	867.59	2978.38	2985.51	10.71	-1.158	0.000	0.194
95.00	-50.70	-8.38	0.00	-517.34	0.00	517.34	3504.93	858.62	2917.13	2933.28	11.22	-1.187	0.000	0.191
98.92	-48.85	-8.22	0.00	-484.54	0.00	484.54	2742.07	714.64	2421.16	2291.78	12.22	-1.241	0.000	0.229
100.00	-48.56	-8.21	0.00	-475.63	0.00	475.63	2732.96	710.75	2394.86	2271.63	12.50	-1.257	0.000	0.227
105.00	-47.22	-8.06	0.00	-434.57	0.00	434.57	2690.08	692.79	2275.34	2179.04	13.86	-1.334	0.000	0.217
110.00	-45.91	-7.91	0.00	-394.25	0.00	394.25	2645.83	674.83	2158.87	2087.20	15.29	-1.409	0.000	0.206
115.00	-44.63	-7.76	0.00	-354.70	0.00	354.70	2600.23	656.86	2045.47	1996.19	16.81	-1.483	0.000	0.195
120.00	-43.37	-7.60	0.00	-315.91	0.00	315.91	2553.28	638.90	1935.12	1906.09	18.40	-1.555	0.000	0.183
125.00	-42.15	-7.43	0.00	-277.89	0.00	277.89	2504.96	620.94	1827.84	1816.99	20.07	-1.624	0.000	0.170
127.08	-41.65	-7.37	0.00	-262.45	0.00	262.45	2484.49	613.48	1784.18	1780.31	20.78	-1.652	0.000	0.164
130.00	-40.65	-7.27	0.00	-240.90	0.00	240.90	2455.29	602.97	1723.61	1728.99	21.80	-1.691	0.000	0.156
132.33	-39.87	-7.19	0.00	-223.99	0.00	223.99	1489.30	422.56	1209.83	1053.29	22.64	-1.721	0.000	0.240
135.00	-39.35	-7.12	0.00	-204.76	0.00	204.76	1477.63	415.84	1171.66	1028.31	23.61	-1.754	0.000	0.226
140.00	-38.39	-6.98	0.00	-169.14	0.00	169.14	1454.76	403.27	1101.91	981.60	25.49	-1.831	0.000	0.199
145.00	-37.46	-6.83	0.00	-134.25	0.00	134.25	1430.53	390.71	1034.29	934.97	27.45	-1.900	0.000	0.170
150.00	-31.13	-5.74	0.00	-100.09	0.00	100.09	1404.94	378.14	968.82	888.50	29.47	-1.958	0.000	0.135
155.00	-30.25	-5.57	0.00	-71.41	0.00	71.41	1377.99	365.57	905.49	842.29	31.55	-2.006	0.000	0.107
160.00	-20.26	-3.69	0.00	-43.54	0.00	43.54	1349.68	353.00	844.29	796.42	33.67	-2.040	0.000	0.070
165.00	-19.51	-3.52	0.00	-25.10	0.00	25.10	1320.02	340.43	785.24	750.97	35.82	-2.064	0.000	0.048
167.00	-7.12	-1.86	0.00	-18.06	0.00	18.06	1307.77	335.40	762.22	732.93	36.68	-2.070	0.000	0.030
170.00	-6.73	-1.76	0.00	-12.49	0.00	12.49	1289.00	327.86	728.33	706.04	37.98	-2.077	0.000	0.023
175.00	-6.10	-1.60	0.00	-3.70	0.00	3.70	1256.62	315.30	673.56	661.70	40.16	-2.084	0.000	0.010
177.00	-0.40	-0.12	0.00	-0.45	0.00	0.45	1243.29	310.27	652.25	644.16	41.04	-2.085	0.000	0.001
180.00	0.00	-0.10	0.00	-0.09	0.00	0.09	1222.88	302.73	620.93	618.05	42.35	-2.085	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

SBA

Load Case: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.22			**Iterations**	22
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.28	**SA**	0.02	**Seismic Importance Factor**	1.00	**S1**	0.06

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
5.00		1607.1	2.50	69.26	0.01	
10.00		1582.7	7.50	68.21	0.07	
15.00		1558.4	12.50	67.16	0.18	
20.00		1534.0	17.50	66.11	0.35	
25.00		1509.6	22.50	65.06	0.56	
30.00		1485.2	27.50	64.01	0.81	
35.00		1460.9	32.50	62.96	1.10	
40.00		1436.5	37.50	61.91	1.41	
45.00		1412.1	42.50	60.86	1.76	
45.92	Bot - Section 2	256.26	45.46	11.04	0.07	
50.00		1971.6	47.96	84.97	4.36	
53.00	Top - Section 1	1429.3	51.50	61.59	2.64	
55.00		482.75	54.00	20.80	0.33	
60.00		1192.2	57.50	51.38	2.29	
65.00		1171.4	62.50	50.48	2.61	
70.00		1150.5	67.50	49.58	2.94	
75.00		1129.6	72.50	48.68	3.27	
80.00		1108.8	77.50	47.78	3.60	
85.00		1087.9	82.50	46.88	3.93	
90.00		1067.0	87.50	45.98	4.25	
92.92	Bot - Section 3	612.83	91.46	26.41	1.53	
95.00		729.26	93.96	31.43	2.29	
98.92	Top - Section 2	1353.0	96.96	58.31	8.39	
100.00		193.77	99.46	8.35	0.18	
105.00		883.74	102.50	38.08	4.00	
110.00		866.33	107.50	37.33	4.23	
115.00		848.91	112.50	36.58	4.44	
120.00		831.50	117.50	35.83	4.65	
125.00		814.08	122.50	35.08	4.85	
127.08	Bot - Section 4	333.00	126.04	14.35	0.86	
130.00		708.58	128.54	30.54	4.04	
132.33	Top - Section 3	556.72	131.16	23.99	2.60	
135.00		326.04	133.66	14.05	0.93	
140.00		600.45	137.50	25.88	3.32	
145.00		588.27	142.50	25.35	3.42	
150.00	Appurtenance(s)	3279.7	147.50	141.34	114.03	
155.00		557.90	152.50	24.04	3.53	
160.00	Appurtenance(s)	3734.8	157.50	160.95	168.60	
165.00		448.69	162.50	19.34	2.59	
167.00	Appurtenance(s)	3988.1	166.00	171.86	213.56	
170.00		213.97	168.50	9.22	0.63	
175.00		346.87	172.50	14.95	1.74	
177.00	Appurtenance(s)	3218.3	176.00	138.69	156.33	
180.00	Appurtenance(s)	218.01	178.50	9.39	0.74	
	Totals:	**51,887.7**		**2,236.0**	**748.0**	**Total Wind:** **43,559.9**

Seismic Segment Forces (Factored)

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 28

Calculated Forces

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 29	

SBA

Load Case: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.22			**Iterations**	22
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.28	**SA**	0.02	**Seismic Importance Factor**	1.00	**S1**	0.06

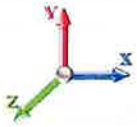
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-63.16	-0.75	0.00	-124.81	0.00	124.81	5508.12	1460.53	7226.63	6725.55		0.00	0.00	0.030
5.00	-61.20	-0.75	0.00	-121.06	0.00	121.06	5452.09	1435.40	6980.02	6541.73		0.00	0.00	0.030
10.00	-59.27	-0.76	0.00	-117.29	0.00	117.29	5394.71	1410.26	6737.68	6358.68		0.01	-0.01	0.029
15.00	-57.37	-0.76	0.00	-113.49	0.00	113.49	5335.97	1385.12	6499.64	6176.49		0.02	-0.01	0.029
20.00	-55.51	-0.77	0.00	-109.67	0.00	109.67	5275.87	1359.98	6265.87	5995.24		0.04	-0.02	0.029
25.00	-53.67	-0.77	0.00	-105.84	0.00	105.84	5214.41	1334.85	6036.38	5815.02		0.06	-0.02	0.028
30.00	-51.87	-0.77	0.00	-101.98	0.00	101.98	5151.59	1309.71	5811.17	5635.92		0.09	-0.03	0.028
35.00	-50.09	-0.78	0.00	-98.11	0.00	98.11	5087.42	1284.57	5590.25	5458.02		0.13	-0.03	0.028
40.00	-48.35	-0.78	0.00	-94.23	0.00	94.23	5021.88	1259.44	5373.61	5281.41		0.16	-0.04	0.027
45.00	-46.63	-0.78	0.00	-90.33	0.00	90.33	4954.99	1234.30	5161.25	5106.18		0.21	-0.05	0.027
45.92	-46.32	-0.78	0.00	-89.62	0.00	89.62	4942.58	1229.69	5122.78	5074.21		0.22	-0.05	0.027
50.00	-43.90	-0.78	0.00	-86.44	0.00	86.44	4886.75	1209.16	4953.16	4932.41		0.26	-0.05	0.027
53.00	-42.15	-0.77	0.00	-84.10	0.00	84.10	3967.43	1039.40	4274.84	4025.79		0.29	-0.05	0.032
55.00	-41.57	-0.78	0.00	-82.56	0.00	82.56	3947.58	1030.79	4204.32	3972.23		0.32	-0.06	0.031
60.00	-40.12	-0.78	0.00	-78.67	0.00	78.67	3897.00	1009.27	4030.59	3838.84		0.38	-0.06	0.031
65.00	-38.71	-0.78	0.00	-74.78	0.00	74.78	3845.06	987.75	3860.53	3706.29		0.45	-0.07	0.030
70.00	-37.32	-0.78	0.00	-70.89	0.00	70.89	3791.77	966.22	3694.13	3574.65		0.53	-0.08	0.030
75.00	-35.96	-0.78	0.00	-67.00	0.00	67.00	3737.12	944.70	3531.40	3444.02		0.61	-0.08	0.029
80.00	-34.62	-0.78	0.00	-63.12	0.00	63.12	3681.11	923.18	3372.34	3314.49		0.70	-0.09	0.028
85.00	-33.31	-0.77	0.00	-59.25	0.00	59.25	3623.74	901.66	3216.94	3186.13		0.80	-0.10	0.028
90.00	-32.02	-0.77	0.00	-55.38	0.00	55.38	3565.02	880.14	3065.20	3059.03		0.91	-0.10	0.027
92.92	-31.28	-0.77	0.00	-53.14	0.00	53.14	3530.13	867.59	2978.38	2985.51		0.97	-0.11	0.027
95.00	-30.39	-0.77	0.00	-51.54	0.00	51.54	3504.93	858.62	2917.13	2933.28		1.02	-0.11	0.026
98.92	-28.74	-0.76	0.00	-48.53	0.00	48.53	2742.07	714.64	2421.16	2291.78		1.11	-0.12	0.032
100.00	-28.51	-0.76	0.00	-47.71	0.00	47.71	2732.96	710.75	2394.86	2271.63		1.14	-0.12	0.031
105.00	-27.45	-0.76	0.00	-43.92	0.00	43.92	2690.08	692.79	2275.34	2179.04		1.27	-0.13	0.030
110.00	-26.42	-0.75	0.00	-40.14	0.00	40.14	2645.83	674.83	2158.87	2087.20		1.40	-0.13	0.029
115.00	-25.40	-0.75	0.00	-36.37	0.00	36.37	2600.23	656.86	2045.47	1996.19		1.54	-0.14	0.028
120.00	-24.41	-0.75	0.00	-32.63	0.00	32.63	2553.28	638.90	1935.12	1906.09		1.70	-0.15	0.027
125.00	-23.44	-0.74	0.00	-28.90	0.00	28.90	2504.96	620.94	1827.84	1816.99		1.85	-0.16	0.025
127.08	-23.04	-0.74	0.00	-27.36	0.00	27.36	2484.49	613.48	1784.18	1780.31		1.92	-0.16	0.025
130.00	-22.18	-0.73	0.00	-25.20	0.00	25.20	2455.29	602.97	1723.61	1728.99		2.02	-0.16	0.024
132.33	-21.51	-0.73	0.00	-23.49	0.00	23.49	1489.30	422.56	1209.83	1053.29		2.10	-0.17	0.037
135.00	-21.13	-0.73	0.00	-21.54	0.00	21.54	1477.63	415.84	1171.66	1028.31		2.19	-0.17	0.035
140.00	-20.42	-0.73	0.00	-17.88	0.00	17.88	1454.76	403.27	1101.91	981.60		2.37	-0.18	0.032
145.00	-19.73	-0.73	0.00	-14.23	0.00	14.23	1430.53	390.71	1034.29	934.97		2.56	-0.18	0.029
150.00	-15.69	-0.60	0.00	-10.61	0.00	10.61	1404.94	378.14	968.82	888.50		2.76	-0.19	0.023
155.00	-15.04	-0.60	0.00	-7.61	0.00	7.61	1377.99	365.57	905.49	842.29		2.96	-0.20	0.020
160.00	-10.44	-0.41	0.00	-4.63	0.00	4.63	1349.68	353.00	844.29	796.42		3.17	-0.20	0.014
165.00	-9.90	-0.41	0.00	-2.57	0.00	2.57	1320.02	340.43	785.24	750.97		3.38	-0.20	0.011
167.00	-4.95	-0.18	0.00	-1.76	0.00	1.76	1307.77	335.40	762.22	732.93		3.46	-0.20	0.006
170.00	-4.69	-0.18	0.00	-1.23	0.00	1.23	1289.00	327.86	728.33	706.04		3.59	-0.20	0.005
175.00	-4.27	-0.17	0.00	-0.35	0.00	0.35	1256.62	315.30	673.56	661.70		3.80	-0.20	0.004
177.00	-0.27	0.00	0.00	0.00	0.00	0.00	1243.29	310.27	652.25	644.16		3.89	-0.20	0.000
180.00	0.00	0.00	0.00	0.00	0.00	0.00	1222.88	302.73	620.93	618.05		4.02	-0.20	0.000

Seismic Segment Forces (Factored)

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 30

SBA

Load Case: 0.9D + 1.0Ev + 1.0Eh



Gust Response Factor	1.10			**Sds**	0.22	**Iterations**	22
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.28	**SA**	0.02	**S1**	0.06
						Seismic Importance Factor	1.00

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
5.00		1556.2	2.50	67.07	0.01	
10.00		1531.9	7.50	66.02	0.07	
15.00		1507.5	12.50	64.97	0.18	
20.00		1483.1	17.50	63.92	0.34	
25.00		1458.8	22.50	62.86	0.54	
30.00		1434.4	27.50	61.81	0.78	
35.00		1410.0	32.50	60.76	1.05	
40.00		1385.7	37.50	59.71	1.35	
45.00		1361.3	42.50	58.66	1.67	
45.92	Bot - Section 2	246.93	45.46	10.64	0.06	
50.00		1930.1	47.96	83.18	4.28	
53.00	Top - Section 1	1398.8	51.50	60.28	2.59	
55.00		462.41	54.00	19.93	0.31	
60.00		1141.4	57.50	49.19	2.15	
65.00		1120.5	62.50	48.29	2.45	
70.00		1099.7	67.50	47.39	2.75	
75.00		1078.8	72.50	46.49	3.06	
80.00		1057.9	77.50	45.59	3.36	
85.00		1037.1	82.50	44.69	3.66	
90.00		1016.2	87.50	43.79	3.95	
92.92	Bot - Section 3	583.17	91.46	25.13	1.42	
95.00		708.07	93.96	30.51	2.21	
98.92	Top - Section 2	1313.1	96.96	56.59	8.10	
100.00		182.75	99.46	7.88	0.17	
105.00		832.89	102.50	35.89	3.64	
110.00		815.47	107.50	35.14	3.84	
115.00		798.06	112.50	34.39	4.03	
120.00		780.64	117.50	33.64	4.20	
125.00		763.23	122.50	32.89	4.37	
127.08	Bot - Section 4	311.88	126.04	13.44	0.77	
130.00		678.85	128.54	29.25	3.80	
132.33	Top - Section 3	533.06	131.16	22.97	2.44	
135.00		298.85	133.66	12.88	0.80	
140.00		549.60	137.50	23.68	2.85	
145.00		537.42	142.50	23.16	2.93	
150.00	Appurtenance(s)	3228.8	147.50	139.14	113.34	
155.00		508.55	152.50	21.92	3.01	
160.00	Appurtenance(s)	3685.4	157.50	158.82	168.36	
165.00		420.55	162.50	18.12	2.33	
167.00	Appurtenance(s)	3976.9	166.00	171.38	217.77	
170.00		208.71	168.50	8.99	0.62	
175.00		338.09	172.50	14.57	1.70	
177.00	Appurtenance(s)	3214.8	176.00	138.54	159.96	
180.00	Appurtenance(s)	216.83	178.50	9.34	0.75	
	Totals:	**50,205.4**		**2,163.5**	**748.0**	**Total Wind:** **43,559.9**

Seismic Segment Forces (Factored)

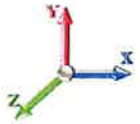
Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 31	

Calculated Forces

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 32

SBA

Load Case: 0.9D + 1.0Ev + 1.0Eh



Gust Response Factor	1.10			**Sds**	0.22			**Iterations**	22
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.28	**SA**	0.02	**Seismic Importance Factor**	1.00	**S1**	0.06

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-47.85	-0.75	0.00	-123.27	0.00	123.27	5508.12	1460.53	7226.63	6725.55		0.00	0.00	0.027
5.00	-46.37	-0.75	0.00	-119.53	0.00	119.53	5452.09	1435.40	6980.02	6541.73		0.00	0.00	0.027
10.00	-44.91	-0.76	0.00	-115.76	0.00	115.76	5394.71	1410.26	6737.68	6358.68		0.01	-0.01	0.027
15.00	-43.47	-0.76	0.00	-111.98	0.00	111.98	5335.97	1385.12	6499.64	6176.49		0.02	-0.01	0.026
20.00	-42.06	-0.76	0.00	-108.19	0.00	108.19	5275.87	1359.98	6265.87	5995.24		0.04	-0.02	0.026
25.00	-40.67	-0.76	0.00	-104.38	0.00	104.38	5214.41	1334.85	6036.38	5815.02		0.06	-0.02	0.026
30.00	-39.30	-0.77	0.00	-100.55	0.00	100.55	5151.59	1309.71	5811.17	5635.92		0.09	-0.03	0.025
35.00	-37.95	-0.77	0.00	-96.72	0.00	96.72	5087.42	1284.57	5590.25	5458.02		0.12	-0.03	0.025
40.00	-36.63	-0.77	0.00	-92.88	0.00	92.88	5021.88	1259.44	5373.61	5281.41		0.16	-0.04	0.025
45.00	-35.33	-0.77	0.00	-89.03	0.00	89.03	4954.99	1234.30	5161.25	5106.18		0.21	-0.05	0.025
45.92	-35.10	-0.77	0.00	-88.32	0.00	88.32	4942.58	1229.69	5122.78	5074.21		0.22	-0.05	0.025
50.00	-33.26	-0.77	0.00	-85.18	0.00	85.18	4886.75	1209.16	4953.16	4932.41		0.26	-0.05	0.024
53.00	-31.94	-0.76	0.00	-82.87	0.00	82.87	3967.43	1039.40	4274.84	4025.79		0.29	-0.05	0.029
55.00	-31.49	-0.77	0.00	-81.34	0.00	81.34	3947.58	1030.79	4204.32	3972.23		0.31	-0.06	0.028
60.00	-30.40	-0.77	0.00	-77.51	0.00	77.51	3897.00	1009.27	4030.59	3838.84		0.38	-0.06	0.028
65.00	-29.33	-0.77	0.00	-73.68	0.00	73.68	3845.06	987.75	3860.53	3706.29		0.45	-0.07	0.028
70.00	-28.28	-0.77	0.00	-69.85	0.00	69.85	3791.77	966.22	3694.13	3574.65		0.52	-0.08	0.027
75.00	-27.24	-0.76	0.00	-66.02	0.00	66.02	3737.12	944.70	3531.40	3444.02		0.60	-0.08	0.026
80.00	-26.23	-0.76	0.00	-62.20	0.00	62.20	3681.11	923.18	3372.34	3314.49		0.69	-0.09	0.026
85.00	-25.24	-0.76	0.00	-58.39	0.00	58.39	3623.74	901.66	3216.94	3186.13		0.79	-0.10	0.025
90.00	-24.26	-0.76	0.00	-54.59	0.00	54.59	3565.02	880.14	3065.20	3059.03		0.89	-0.10	0.025
92.92	-23.71	-0.76	0.00	-52.38	0.00	52.38	3530.13	867.59	2978.38	2985.51		0.96	-0.11	0.024
95.00	-23.03	-0.75	0.00	-50.81	0.00	50.81	3504.93	858.62	2917.13	2933.28		1.00	-0.11	0.024
98.92	-21.78	-0.74	0.00	-47.86	0.00	47.86	2742.07	714.64	2421.16	2291.78		1.10	-0.11	0.029
100.00	-21.61	-0.75	0.00	-47.05	0.00	47.05	2732.96	710.75	2394.86	2271.63		1.12	-0.12	0.029
105.00	-20.80	-0.74	0.00	-43.32	0.00	43.32	2690.08	692.79	2275.34	2179.04		1.25	-0.12	0.028
110.00	-20.02	-0.74	0.00	-39.61	0.00	39.61	2645.83	674.83	2158.87	2087.20		1.38	-0.13	0.027
115.00	-19.25	-0.74	0.00	-35.90	0.00	35.90	2600.23	656.86	2045.47	1996.19		1.52	-0.14	0.025
120.00	-18.50	-0.73	0.00	-32.22	0.00	32.22	2553.28	638.90	1935.12	1906.09		1.67	-0.15	0.024
125.00	-17.77	-0.73	0.00	-28.55	0.00	28.55	2504.96	620.94	1827.84	1816.99		1.83	-0.15	0.023
127.08	-17.46	-0.73	0.00	-27.04	0.00	27.04	2484.49	613.48	1784.18	1780.31		1.90	-0.16	0.022
130.00	-16.82	-0.72	0.00	-24.91	0.00	24.91	2455.29	602.97	1723.61	1728.99		1.99	-0.16	0.021
132.33	-16.31	-0.72	0.00	-23.23	0.00	23.23	1489.30	422.56	1209.83	1053.29		2.07	-0.16	0.033
135.00	-16.02	-0.72	0.00	-21.30	0.00	21.30	1477.63	415.84	1171.66	1028.31		2.16	-0.17	0.032
140.00	-15.48	-0.72	0.00	-17.70	0.00	17.70	1454.76	403.27	1101.91	981.60		2.34	-0.17	0.029
145.00	-14.96	-0.72	0.00	-14.11	0.00	14.11	1430.53	390.71	1034.29	934.97		2.53	-0.18	0.026
150.00	-11.90	-0.59	0.00	-10.53	0.00	10.53	1404.94	378.14	968.82	888.50		2.72	-0.19	0.020
155.00	-11.41	-0.59	0.00	-7.56	0.00	7.56	1377.99	365.57	905.49	842.29		2.92	-0.19	0.017
160.00	-7.92	-0.41	0.00	-4.61	0.00	4.61	1349.68	353.00	844.29	796.42		3.13	-0.20	0.012
165.00	-7.51	-0.41	0.00	-2.56	0.00	2.56	1320.02	340.43	785.24	750.97		3.33	-0.20	0.009
167.00	-3.76	-0.18	0.00	-1.75	0.00	1.75	1307.77	335.40	762.22	732.93		3.42	-0.20	0.005
170.00	-3.56	-0.17	0.00	-1.22	0.00	1.22	1289.00	327.86	728.33	706.04		3.54	-0.20	0.004
175.00	-3.24	-0.17	0.00	-0.35	0.00	0.35	1256.62	315.30	673.56	661.70		3.75	-0.20	0.003
177.00	-0.20	0.00	0.00	0.00	0.00	0.00	1243.29	310.27	652.25	644.16		3.84	-0.20	0.000
180.00	0.00	0.00	0.00	0.00	0.00	0.00	1222.88	302.73	620.93	618.05		3.96	-0.20	0.000

Wind Loading - Shaft

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 33	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	6.569	7.23	280.10	0.750	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	6.569	7.23	275.31	0.750	0.000	5.00	25.272	18.95	137.0	0.0	1403.7
10.00		1.00	0.85	6.569	7.23	270.53	0.750	0.000	5.00	24.837	18.63	134.6	0.0	1379.4
15.00		1.00	0.85	6.569	7.23	265.74	0.750	0.000	5.00	24.401	18.30	132.2	0.0	1355.0
20.00		1.00	0.90	6.970	7.67	268.80	0.750	0.000	5.00	23.966	17.97	137.8	0.0	1330.6
25.00		1.00	0.95	7.305	8.04	270.15	0.750	0.000	5.00	23.530	17.65	141.8	0.0	1306.3
30.00		1.00	0.98	7.591	8.35	270.24	0.750	0.000	5.00	23.095	17.32	144.6	0.0	1281.9
35.00		1.00	1.01	7.841	8.63	269.43	0.750	0.000	5.00	22.659	16.99	146.6	0.0	1257.5
40.00		1.00	1.04	8.065	8.87	267.94	0.750	0.000	5.00	22.224	16.67	147.9	0.0	1233.1
45.00		1.00	1.07	8.267	9.09	265.91	0.750	0.000	5.00	21.788	16.34	148.6	0.0	1208.8
45.92	Bot - Section 2	1.00	1.07	8.303	9.13	265.49	0.750	0.000	0.92	3.947	2.96	27.0	0.0	219.0
50.00		1.00	1.09	8.453	9.30	263.45	0.750	0.000	4.08	17.666	13.25	123.2	0.0	1805.5
53.00	Top - Section 1	1.00	1.11	8.557	9.41	261.79	0.750	0.000	3.00	12.794	9.60	90.3	0.0	1307.3
55.00		1.00	1.12	8.624	9.49	264.64	0.750	0.000	2.00	8.442	6.33	60.1	0.0	401.4
60.00		1.00	1.14	8.784	9.66	261.54	0.750	0.000	5.00	20.800	15.60	150.7	0.0	988.9
65.00		1.00	1.16	8.933	9.83	258.17	0.750	0.000	5.00	20.365	15.27	150.1	0.0	968.0
70.00		1.00	1.17	9.073	9.98	254.57	0.750	0.000	5.00	19.929	14.95	149.2	0.0	947.1
75.00		1.00	1.19	9.206	10.13	250.76	0.750	0.000	5.00	19.494	14.62	148.1	0.0	926.3
80.00		1.00	1.21	9.332	10.27	246.76	0.750	0.000	5.00	19.058	14.29	146.7	0.0	905.4
85.00		1.00	1.22	9.452	10.40	242.60	0.750	0.000	5.00	18.623	13.97	145.2	0.0	884.5
90.00		1.00	1.24	9.566	10.52	238.29	0.750	0.000	5.00	18.187	13.64	143.5	0.0	863.7
92.92	Bot - Section 3	1.00	1.25	9.631	10.59	235.71	0.750	0.000	2.92	10.408	7.81	82.7	0.0	494.2
95.00		1.00	1.25	9.676	10.64	233.84	0.750	0.000	2.08	7.454	5.59	59.5	0.0	644.5
98.92	Top - Section 2	1.00	1.26	9.758	10.73	230.27	0.750	0.000	3.92	13.810	10.36	111.2	0.0	1193.7
100.00		1.00	1.27	9.781	10.76	232.84	0.750	0.000	1.08	3.773	2.83	30.4	0.0	149.7
105.00		1.00	1.28	9.882	10.87	228.16	0.750	0.000	5.00	17.147	12.86	139.8	0.0	680.3
110.00		1.00	1.29	9.979	10.98	223.39	0.750	0.000	5.00	16.711	12.53	137.6	0.0	662.9
115.00		1.00	1.30	10.073	11.08	218.51	0.750	0.000	5.00	16.276	12.21	135.3	0.0	645.5
120.00		1.00	1.32	10.164	11.18	213.54	0.750	0.000	5.00	15.840	11.88	132.8	0.0	628.1
125.00		1.00	1.33	10.251	11.28	208.48	0.750	0.000	5.00	15.405	11.55	130.3	0.0	610.7
127.08	Bot - Section 4	1.00	1.33	10.287	11.32	206.35	0.750	0.000	2.08	6.270	4.70	53.2	0.0	248.5
130.00		1.00	1.34	10.336	11.37	203.34	0.750	0.000	2.92	8.808	6.61	75.1	0.0	589.7
132.33	Top - Section 3	1.00	1.34	10.375	11.41	200.92	0.750	0.000	2.33	6.904	5.18	59.1	0.0	462.1
135.00		1.00	1.35	10.419	11.46	200.69	0.750	0.000	2.67	7.816	5.86	67.2	0.0	217.3
140.00		1.00	1.36	10.499	11.55	195.41	0.750	0.000	5.00	14.284	10.71	123.7	0.0	397.0
145.00		1.00	1.37	10.577	11.63	190.07	0.750	0.000	5.00	13.849	10.39	120.8	0.0	384.9
150.00	Appurtenance(s)	1.00	1.38	10.652	11.72	184.65	0.750	0.000	5.00	13.413	10.06	117.9	0.0	372.7
155.00		1.00	1.39	10.726	11.80	179.17	0.750	0.000	5.00	12.978	9.73	114.8	0.0	360.5
160.00	Appurtenance(s)	1.00	1.40	10.798	11.88	173.64	0.750	0.000	5.00	12.542	9.41	111.7	0.0	348.3
165.00		1.00	1.41	10.868	11.96	168.05	0.750	0.000	5.00	12.107	9.08	108.6	0.0	336.1
167.00	Appurtenance(s)	1.00	1.41	10.896	11.99	165.79	0.750	0.000	2.00	4.721	3.54	42.4	0.0	131.0
170.00		1.00	1.42	10.937	12.03	162.40	0.750	0.000	3.00	6.950	5.21	62.7	0.0	192.9
175.00		1.00	1.42	11.004	12.10	156.70	0.750	0.000	5.00	11.236	8.43	102.0	0.0	311.8
177.00	Appurtenance(s)	1.00	1.43	11.030	12.13	154.41	0.750	0.000	2.00	4.372	3.28	39.8	0.0	121.3
180.00	Appurtenance(s)	1.00	1.43	11.069	12.18	150.96	0.750	0.000	3.00	6.428	4.82	58.7	0.0	178.3
								Totals:	**180.00**			**4,822.6**		**32,335.3**

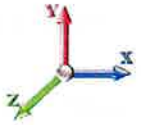
Discrete Appurtenance Forces

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 34	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	180.00	Lightning Rod	1	11.114	12.226	1.00	1.00	1.05	35.00	0.000	3.500	12.84	0.00	44.93
2	177.00	4460 B25 + B66	3	11.030	12.133	0.50	0.75	2.83	253.50	0.000	0.000	34.39	0.00	0.00
3	177.00	EMS	3	11.030	12.133	0.55	0.75	7.16	54.00	0.000	0.000	86.89	0.00	0.00
4	177.00	Low Profile Platform w/	1	11.030	12.133	1.00	1.00	19.59	1366.00	0.000	0.000	237.69	0.00	0.00
5	177.00	Mount Pipes	9	11.030	12.133	0.75	0.75	8.98	270.00	0.000	0.000	108.93	0.00	0.00
6	177.00	Ericsson KRY 112 144/2	3	11.030	12.133	0.50	0.75	0.62	29.10	0.000	0.000	7.50	0.00	0.00
7	177.00	Ericsson Radio 4449 B71	3	11.030	12.133	0.50	0.75	2.46	222.00	0.000	0.000	29.81	0.00	0.00
8	177.00	Ericsson KRY 112 489/2	3	11.030	12.133	0.50	0.75	0.98	46.20	0.000	0.000	11.89	0.00	0.00
9	177.00	AIR6419 B41	3	11.030	12.133	0.53	0.75	9.03	309.00	0.000	0.000	109.51	0.00	0.00
10	177.00	VV-65A-R1	3	11.030	12.133	0.61	0.75	12.21	132.30	0.000	0.000	148.19	0.00	0.00
11	177.00	Ericsson ANT3 A 0.6 HPX	1	11.043	12.148	1.00	1.00	4.68	22.00	0.000	1.000	56.85	0.00	56.85
12	177.00	Ericsson Mini-Link 6365	3	11.030	12.133	0.50	0.75	1.61	16.50	0.000	0.000	19.57	0.00	0.00
13	177.00	Kathrein 782 11056 - Bias	3	11.030	12.133	0.50	0.75	0.18	5.40	0.000	0.000	2.19	0.00	0.00
14	177.00	RFS	3	11.030	12.133	0.54	0.75	32.79	357.00	0.000	0.000	397.83	0.00	0.00
15	167.00	Samsung B2/B66A RRH	3	10.896	11.986	0.63	0.75	3.53	210.90	0.000	0.000	42.36	0.00	0.00
16	167.00	Samsung MT6413-77A	3	10.896	11.986	0.52	0.75	5.88	171.90	0.000	0.000	70.52	0.00	0.00
17	167.00	Antel BXA-70063-6CF	3	10.896	11.986	0.58	0.75	13.12	51.00	0.000	0.000	157.19	0.00	0.00
18	167.00	Mount Pipes	12	10.896	11.986	0.75	0.75	10.53	360.00	0.000	0.000	126.21	0.00	0.00
19	167.00	Samsung RF4461d-13A	3	10.896	11.986	0.63	0.75	3.53	237.30	0.000	0.000	42.36	0.00	0.00
20	167.00	Raycap	1	10.896	11.986	1.00	1.00	3.02	32.00	0.000	0.000	36.20	0.00	0.00
21	167.00	Platform	1	10.896	11.986	1.00	1.00	20.90	2389.00	0.000	0.000	250.50	0.00	0.00
22	167.00	JMA Wireless	6	10.896	11.986	0.65	0.75	38.64	360.00	0.000	0.000	463.13	0.00	0.00
23	160.00	CCI HPA-65R-BUU-H8	3	10.798	11.878	0.59	0.75	23.07	204.00	0.000	0.000	274.05	0.00	0.00
24	160.00	Low Profile Platform	1	10.798	11.878	1.00	1.00	14.69	1250.00	0.000	0.000	174.49	0.00	0.00
25	160.00	Mount Pipes	12	10.798	11.878	0.75	0.75	11.52	360.00	0.000	0.000	136.83	0.00	0.00
26	160.00	HRK-12	1	10.798	11.878	0.75	0.75	6.07	150.00	0.000	0.000	72.16	0.00	0.00
27	160.00	Raycap	1	10.798	11.878	1.00	1.00	3.78	26.20	0.000	0.000	44.90	0.00	0.00
28	160.00	DMP65R-BU8DA	3	10.798	11.878	0.59	0.75	31.76	287.10	0.000	0.000	377.29	0.00	0.00
29	160.00	Ericsson RRUS4449	3	10.798	11.878	0.50	0.75	2.97	219.00	0.000	0.000	35.27	0.00	0.00
30	160.00	7770	3	10.798	11.878	0.55	0.75	9.03	105.00	0.000	0.000	107.30	0.00	0.00
31	160.00	Powerwave 7020.00 RET	12	10.798	11.878	0.50	0.75	2.41	26.40	0.000	0.000	28.65	0.00	0.00
32	160.00	Raycap DC6-48-60-18-8F	1	10.798	11.878	1.00	1.00	1.47	32.80	0.000	0.000	17.46	0.00	0.00
33	160.00	LGP21901 Diplexers	6	10.798	11.878	0.50	0.75	1.90	186.00	0.000	0.000	22.56	0.00	0.00
34	160.00	Ericsson RRUS-12 B2	3	10.798	11.878	0.50	0.75	4.75	174.00	0.000	0.000	56.40	0.00	0.00
35	160.00	LGP21401 TMA	6	10.798	11.878	0.50	0.75	3.89	105.00	0.000	0.000	46.20	0.00	0.00
36	160.00	Ericsson RRUS A2	3	10.798	11.878	0.50	0.75	2.80	63.60	0.000	0.000	33.31	0.00	0.00
37	150.00	Mount Pipes	9	10.652	11.718	0.75	0.75	11.07	270.00	0.000	0.000	129.71	0.00	0.00
38	150.00	MC-PK8-DSH	1	10.652	11.718	0.67	0.67	22.57	1801.56	0.000	0.000	264.50	0.00	0.00
39	150.00	RDIDC-9181-OF-48	1	10.652	11.718	0.75	0.75	1.51	21.90	0.000	0.000	17.66	0.00	0.00
40	150.00	TA08025-B604	3	10.652	11.718	0.50	0.75	2.95	191.70	0.000	0.000	34.62	0.00	0.00
41	150.00	TA08025-B605	3	10.652	11.718	0.50	0.75	2.95	225.00	0.000	0.000	34.62	0.00	0.00
42	150.00	MX08FRO665-21	3	10.652	11.718	0.55	0.75	20.80	193.50	0.000	0.000	243.68	0.00	0.00
							Totals:		**12,822.86**			**4,604.23**		

Total Applied Force Summary

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 35	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		136.96	1573.24	0.00	0.00
10.00		134.60	1548.87	0.00	0.00
15.00		132.24	1524.50	0.00	0.00
20.00		137.81	1500.13	0.00	0.00
25.00		141.81	1475.76	0.00	0.00
30.00		144.63	1451.39	0.00	0.00
35.00		146.58	1427.02	0.00	0.00
40.00		147.87	1402.65	0.00	0.00
45.00		148.61	1378.28	0.00	0.00
45.92		27.04	250.04	0.00	0.00
50.00		123.19	1943.97	0.00	0.00
53.00		90.32	1409.00	0.00	0.00
55.00		60.06	469.19	0.00	0.00
60.00		150.73	1158.37	0.00	0.00
65.00		150.08	1137.51	0.00	0.00
70.00		149.18	1116.65	0.00	0.00
75.00		148.05	1095.78	0.00	0.00
80.00		146.73	1074.92	0.00	0.00
85.00		145.22	1054.05	0.00	0.00
90.00		143.54	1033.19	0.00	0.00
92.92		82.70	593.06	0.00	0.00
95.00		59.51	715.14	0.00	0.00
98.92		111.18	1326.46	0.00	0.00
100.00		30.44	186.43	0.00	0.00
105.00		139.79	849.84	0.00	0.00
110.00		137.58	832.42	0.00	0.00
115.00		135.25	815.01	0.00	0.00
120.00		132.82	797.60	0.00	0.00
125.00		130.28	780.18	0.00	0.00
127.08		53.21	318.92	0.00	0.00
130.00		75.11	688.76	0.00	0.00
132.33		59.09	540.95	0.00	0.00
135.00		67.18	307.92	0.00	0.00
140.00		123.72	566.55	0.00	0.00
145.00		120.84	554.37	0.00	0.00
150.00	(20) attachments	842.68	3245.84	0.00	0.00
155.00		114.84	525.00	0.00	0.00
160.00	(58) attachments	1538.61	3701.91	0.00	0.00
165.00		108.55	429.93	0.00	0.00
167.00	(32) attachments	1230.91	3980.66	0.00	0.00
170.00		62.71	210.46	0.00	0.00
175.00		102.00	341.02	0.00	0.00
177.00	(41) attachments	1291.04	3216.00	0.00	56.85
180.00	(1) attachments	71.54	217.22	0.00	44.93
	Totals:	**9,426.82**	**50,766.15**	**0.00**	**101.78**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 36	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	6.569	0.00	1.37
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	6.569	0.00	5.20
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	6.569	0.00	1.37
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	6.569	0.00	5.20
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	6.569	0.00	1.37
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	6.569	0.00	5.20
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	6.970	0.00	1.37
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	6.970	0.00	5.20
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	7.305	0.00	1.37
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	7.305	0.00	5.20
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	7.591	0.00	1.37
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	7.591	0.00	5.20
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	7.841	0.00	1.37
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	7.841	0.00	5.20
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	8.065	0.00	1.37
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	8.065	0.00	5.20
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	8.267	0.00	1.37
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	8.267	0.00	5.20
45.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.020	0.000	8.303	0.00	0.25
45.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.020	0.000	8.303	0.00	0.95
50.00	Safety Cable	Yes	4.08	0.000	0.38	0.13	0.00	0.020	0.000	8.453	0.00	1.11
50.00	Step bolts (ladder)	Yes	4.08	0.000	0.63	0.21	0.00	0.020	0.000	8.453	0.00	4.25
53.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.020	0.000	8.557	0.00	0.82
53.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.020	0.000	8.557	0.00	3.12
55.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	8.624	0.00	0.55
55.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	8.624	0.00	2.08
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	8.784	0.00	1.37
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	8.784	0.00	5.20
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	8.933	0.00	1.37
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	8.933	0.00	5.20
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	9.073	0.00	1.37
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.021	0.000	9.073	0.00	5.20
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	9.206	0.00	1.37
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	9.206	0.00	5.20
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	9.332	0.00	1.37
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	9.332	0.00	5.20
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	9.452	0.00	1.37
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	9.452	0.00	5.20
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	9.566	0.00	1.37
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	9.566	0.00	5.20
92.92	Safety Cable	Yes	2.92	0.000	0.38	0.09	0.00	0.024	0.000	9.631	0.00	0.80
92.92	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.15	0.00	0.024	0.000	9.631	0.00	3.03
95.00	Safety Cable	Yes	2.08	0.000	0.38	0.07	0.00	0.024	0.000	9.676	0.00	0.57
95.00	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.11	0.00	0.024	0.000	9.676	0.00	2.17
98.92	Safety Cable	Yes	3.92	0.000	0.38	0.12	0.00	0.024	0.000	9.758	0.00	1.07
98.92	Step bolts (ladder)	Yes	3.92	0.000	0.63	0.21	0.00	0.024	0.000	9.758	0.00	4.07
100.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.024	0.000	9.781	0.00	0.30

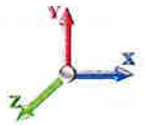
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02652-S	**Code:**	TIA-222-H	3/13/2024	
Site Name:	Colchester 3 CT	**Exposure:**	C		
Height:	180.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 37	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
100.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.024	0.000	9.781	0.00	1.13
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	9.882	0.00	1.37
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	9.882	0.00	5.20
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	9.979	0.00	1.37
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	9.979	0.00	5.20
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.026	0.000	10.073	0.00	1.37
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.026	0.000	10.073	0.00	5.20
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	10.164	0.00	1.37
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	10.164	0.00	5.20
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	10.251	0.00	1.37
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	10.251	0.00	5.20
127.08	Safety Cable	Yes	2.08	0.000	0.38	0.07	0.00	0.028	0.000	10.287	0.00	0.57
127.08	Step bolts (ladder)	Yes	2.08	0.000	0.63	0.11	0.00	0.028	0.000	10.287	0.00	2.16
130.00	Safety Cable	Yes	2.92	0.000	0.38	0.09	0.00	0.028	0.000	10.336	0.00	0.80
130.00	Step bolts (ladder)	Yes	2.92	0.000	0.63	0.15	0.00	0.028	0.000	10.336	0.00	3.04
132.33	Safety Cable	Yes	2.33	0.000	0.38	0.07	0.00	0.029	0.000	10.375	0.00	0.64
132.33	Step bolts (ladder)	Yes	2.33	0.000	0.63	0.12	0.00	0.029	0.000	10.375	0.00	2.42
135.00	Safety Cable	Yes	2.67	0.000	0.38	0.08	0.00	0.029	0.000	10.419	0.00	0.73
135.00	Step bolts (ladder)	Yes	2.67	0.000	0.63	0.14	0.00	0.029	0.000	10.419	0.00	2.78
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	10.499	0.00	1.37
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	10.499	0.00	5.20
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.030	0.000	10.577	0.00	1.37
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.030	0.000	10.577	0.00	5.20
150.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	10.652	0.00	1.37
150.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	10.652	0.00	5.20
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.032	0.000	10.726	0.00	1.37
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.032	0.000	10.726	0.00	5.20
160.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.034	0.000	10.798	0.00	1.37
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.034	0.000	10.798	0.00	5.20
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.035	0.000	10.868	0.00	1.37
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.035	0.000	10.868	0.00	5.20
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	10.896	0.00	0.55
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	10.896	0.00	2.08
170.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.036	0.000	10.937	0.00	0.82
170.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.036	0.000	10.937	0.00	3.12
175.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	11.004	0.00	1.37
175.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	11.004	0.00	5.20
177.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	11.030	0.00	0.55
177.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	11.030	0.00	2.08
180.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.039	0.000	11.069	0.00	0.82
180.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.039	0.000	11.069	0.00	3.12
										Totals:	**0.0**	**236.3**

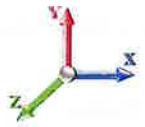
Calculated Forces

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 38

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-50.76	-9.45	0.00	-1239.6	0.00	1239.60	5508.12	1460.53	7226.63	6725.55	0.00	0.000	0.000	0.194
5.00	-49.18	-9.35	0.00	-1192.3	0.00	1192.37	5452.09	1435.40	6980.02	6541.73	0.02	-0.046	0.000	0.191
10.00	-47.63	-9.25	0.00	-1145.6	0.00	1145.63	5394.71	1410.26	6737.68	6358.68	0.10	-0.093	0.000	0.189
15.00	-46.09	-9.16	0.00	-1099.3	0.00	1099.37	5335.97	1385.12	6499.64	6176.49	0.22	-0.141	0.000	0.187
20.00	-44.59	-9.05	0.00	-1053.5	0.00	1053.59	5275.87	1359.98	6265.87	5995.24	0.40	-0.189	0.000	0.184
25.00	-43.10	-8.94	0.00	-1008.3	0.00	1008.34	5214.41	1334.85	6036.38	5815.02	0.62	-0.238	0.000	0.182
30.00	-41.64	-8.82	0.00	-963.64	0.00	963.64	5151.59	1309.71	5811.17	5635.92	0.89	-0.287	0.000	0.179
35.00	-40.21	-8.71	0.00	-919.52	0.00	919.52	5087.42	1284.57	5590.25	5458.02	1.22	-0.337	0.000	0.176
40.00	-38.80	-8.58	0.00	-875.99	0.00	875.99	5021.88	1259.44	5373.61	5281.41	1.60	-0.387	0.000	0.174
45.00	-37.42	-8.44	0.00	-833.07	0.00	833.07	4954.99	1234.30	5161.25	5106.18	2.03	-0.438	0.000	0.171
45.92	-37.17	-8.43	0.00	-825.33	0.00	825.33	4942.58	1229.69	5122.78	5074.21	2.12	-0.448	0.000	0.170
50.00	-35.22	-8.32	0.00	-790.90	0.00	790.90	4886.75	1209.16	4953.16	4932.41	2.52	-0.490	0.000	0.168
53.00	-33.81	-8.23	0.00	-765.96	0.00	765.96	3967.43	1039.40	4274.84	4025.79	2.84	-0.521	0.000	0.199
55.00	-33.33	-8.19	0.00	-749.50	0.00	749.50	3947.58	1030.79	4204.32	3972.23	3.06	-0.542	0.000	0.197
60.00	-32.17	-8.06	0.00	-708.56	0.00	708.56	3897.00	1009.27	4030.59	3838.84	3.66	-0.600	0.000	0.193
65.00	-31.02	-7.93	0.00	-668.28	0.00	668.28	3845.06	987.75	3860.53	3706.29	4.32	-0.659	0.000	0.188
70.00	-29.90	-7.79	0.00	-628.64	0.00	628.64	3791.77	966.22	3694.13	3574.65	5.04	-0.717	0.000	0.184
75.00	-28.80	-7.66	0.00	-589.67	0.00	589.67	3737.12	944.70	3531.40	3444.02	5.82	-0.776	0.000	0.179
80.00	-27.72	-7.53	0.00	-551.36	0.00	551.36	3681.11	923.18	3372.34	3314.49	6.67	-0.835	0.000	0.174
85.00	-26.66	-7.40	0.00	-513.72	0.00	513.72	3623.74	901.66	3216.94	3186.13	7.58	-0.894	0.000	0.169
90.00	-25.62	-7.26	0.00	-476.74	0.00	476.74	3565.02	880.14	3065.20	3059.03	8.54	-0.953	0.000	0.163
92.92	-25.03	-7.18	0.00	-455.58	0.00	455.58	3530.13	867.59	2978.38	2985.51	9.14	-0.987	0.000	0.160
95.00	-24.31	-7.12	0.00	-440.63	0.00	440.63	3504.93	858.62	2917.13	2933.28	9.57	-1.012	0.000	0.157
98.92	-22.98	-7.00	0.00	-412.75	0.00	412.75	2742.07	714.64	2421.16	2291.78	10.42	-1.058	0.000	0.189
100.00	-22.79	-6.98	0.00	-405.17	0.00	405.17	2732.96	710.75	2394.86	2271.63	10.66	-1.071	0.000	0.187
105.00	-21.94	-6.85	0.00	-370.28	0.00	370.28	2690.08	692.79	2275.34	2179.04	11.82	-1.137	0.000	0.178
110.00	-21.10	-6.72	0.00	-336.05	0.00	336.05	2645.83	674.83	2158.87	2087.20	13.05	-1.201	0.000	0.169
115.00	-20.28	-6.58	0.00	-302.48	0.00	302.48	2600.23	656.86	2045.47	1996.19	14.34	-1.264	0.000	0.159
120.00	-19.48	-6.45	0.00	-269.55	0.00	269.55	2553.28	638.90	1935.12	1906.09	15.70	-1.326	0.000	0.149
125.00	-18.70	-6.32	0.00	-237.28	0.00	237.28	2504.96	620.94	1827.84	1816.99	17.12	-1.385	0.000	0.138
127.08	-18.38	-6.27	0.00	-224.16	0.00	224.16	2484.49	613.48	1784.18	1780.31	17.72	-1.409	0.000	0.133
130.00	-17.69	-6.18	0.00	-205.84	0.00	205.84	2455.29	602.97	1723.61	1728.99	18.60	-1.442	0.000	0.126
132.33	-17.14	-6.12	0.00	-191.45	0.00	191.45	1489.30	422.56	1209.83	1053.29	19.31	-1.467	0.000	0.193
135.00	-16.83	-6.06	0.00	-175.09	0.00	175.09	1477.63	415.84	1171.66	1028.31	20.14	-1.496	0.000	0.182
140.00	-16.26	-5.94	0.00	-144.80	0.00	144.80	1454.76	403.27	1101.91	981.60	21.74	-1.562	0.000	0.159
145.00	-15.71	-5.82	0.00	-115.11	0.00	115.11	1430.53	390.71	1034.29	934.97	23.41	-1.621	0.000	0.134
150.00	-12.48	-4.89	0.00	-86.03	0.00	86.03	1404.94	378.14	968.82	888.50	25.13	-1.671	0.000	0.106
155.00	-11.96	-4.77	0.00	-61.58	0.00	61.58	1377.99	365.57	905.49	842.29	26.91	-1.711	0.000	0.082
160.00	-8.30	-3.12	0.00	-37.74	0.00	37.74	1349.68	353.00	844.29	796.42	28.72	-1.741	0.000	0.054
165.00	-7.88	-3.00	0.00	-22.13	0.00	22.13	1320.02	340.43	785.24	750.97	30.55	-1.762	0.000	0.036
167.00	-3.94	-1.65	0.00	-16.13	0.00	16.13	1307.77	335.40	762.22	732.93	31.29	-1.767	0.000	0.025
170.00	-3.73	-1.58	0.00	-11.18	0.00	11.18	1289.00	327.86	728.33	706.04	32.40	-1.774	0.000	0.019
175.00	-3.39	-1.47	0.00	-3.27	0.00	3.27	1256.62	315.30	673.56	661.70	34.26	-1.780	0.000	0.008
177.00	-0.21	-0.08	0.00	-0.28	0.00	0.28	1243.29	310.27	652.25	644.16	35.01	-1.781	0.000	0.001
180.00	0.00	-0.07	0.00	-0.04	0.00	0.04	1222.88	302.73	620.93	618.05	36.13	-1.781	0.000	0.000

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.0W 122 mph Wind	43.7	0.00	60.84	0.00	0.00	5768.71
0.9D + 1.0W 122 mph Wind	43.6	0.00	45.61	0.00	0.00	5684.32
1.2D + 1.0Di + 1.0W 50 mph Wind	10.9	0.00	89.01	0.00	0.00	1449.01
1.2D + 1.0Ev + 1.0Eh	0.7	0.00	63.16	0.00	0.00	124.81
0.9D + 1.0Ev + 1.0Eh	0.7	0.00	47.85	0.00	0.00	123.27
1.0D + 1.0W 60 mph Wind	9.4	0.00	50.76	0.00	0.00	1239.60

Max Stresses

Load Case	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)	Elev (ft)	Stress Ratio
1.2D + 1.0W 122 mph Wind	-39.04	-38.30	0.00	-3571.0	0.00	-3571.0	3967.43	1039.4	4274.84	4025.79	53.00	0.898
0.9D + 1.0W 122 mph Wind	-28.91	-37.84	0.00	-3500.7	0.00	-3500.7	3967.43	1039.4	4274.84	4025.79	53.00	0.878
1.2D + 1.0Di + 1.0W 50 mph Wind	-64.92	-9.61	0.00	-899.01	0.00	-899.01	3967.43	1039.4	4274.84	4025.79	53.00	0.240
1.2D + 1.0Ev + 1.0Eh	-21.51	-0.73	0.00	-23.49	0.00	-23.49	1489.30	422.56	1209.83	1053.29	132.33	0.037
0.9D + 1.0Ev + 1.0Eh	-16.31	-0.72	0.00	-23.23	0.00	-23.23	1489.30	422.56	1209.83	1053.29	132.33	0.033
1.0D + 1.0W 60 mph Wind	-33.81	-8.23	0.00	-765.96	0.00	-765.96	3967.43	1039.4	4274.84	4025.79	53.00	0.199

Base Plate Summary

Structure:	CT02652-S		**Code:**	TIA-222-H	3/13/2024
Site Name:	Colchester 3 CT		**Exposure:**	C	
Height:	180.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 40

SBA

Reactions		Base Plate		Anchor Bolts	
Original Design		**Yield (ksi):**	60.00	**Bolt Circle:**	68.62
Moment (kip-ft):	5045.00	**Width (in):**	74.62	**Number Bolts:**	20.00
Axial (kip):	56.10	**Style:**	Polygon	**Bolt Type:**	2.25" 18J
Shear (kip):	39.50	**Polygon Sides:**	18.00	**Bolt Diameter (in):**	2.25
		Clip Length (in):	14.84	**Yield (ksi):**	75.00
Analysis (1.2D + 1.0W)				**Ultimate (ksi):**	100.00
Moment (kip-ft):	5768.71	**Effective Len (in):**	13.76	**Arrangement:**	Radial
Axial (kip):	60.84	**Moment (kip-in):**	882.70	**Cluster Dist (in):**	0.00
Shear (kip):	43.68	**Allow Stress (ksi):**	81.00	**Start Angle (deg):**	0.00
		Applied Stress (ksi):	51.03	Compression	
		Stress Ratio:	0.63	**Force (kip):**	204.80
				Allowable (kip):	268.39
				Ratio:	0.76
				Tension	
				Force (kip):	198.72
				Allowable (kip):	243.75
				Ratio:	0.82

Monopole Mat Foundation Design

Customer Name:	Verizon	TIA Standard:	TIA-222-H
Site Name:		Structure Height (Ft.):	180
Site Number:	CT02652-S	Engineer Name:	SBA Engineer
Engr. Number:		Engineer Login ID:	

Date: 3/13/2024

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

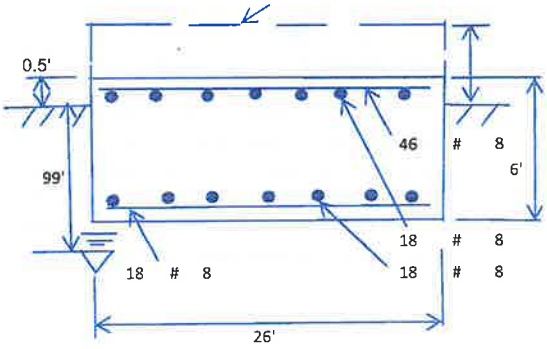
Analysis or Design? Analysis

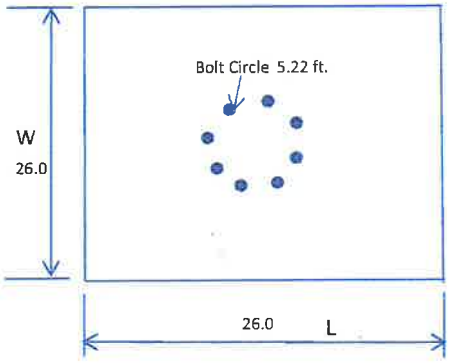
Base Reactions (Factored):

Axial Load (Kips):	60.8	Shear Force (Kips):	43.7
Uplift Force (Kips):	0.0	Moment (Kips-ft):	5768.7

Foundation Geometries:

		Mods required -Yes/No ?:	No
Anchor Bolt Circle (ft.):	5.22	Depth of Base BG (ft.):	5.50
Thickness of Pad (ft):	6.00		
Length of Pad (ft.):	26	Width of Pad (ft.):	26
Final Length of pad (ft)	26.0	Final width of pad (ft):	26.0





Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Pad Rebar Yield (Ksi):	60	Tie Spacing (in):	12.0	
Pad Steel Rebar Size (#):	8			
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	46	Qty. of Rebar in Pad (W):	46	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	18	Qty. of Rebar in Pad (W):	18	

Soil Design Parameters:

Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:		30
Ultimate Bearing Pressure (psf):	30000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:		25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:		25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:				1.00	

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	0.00	Total Dry Soil Weight (Kips):	0.00
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	0.00	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	4056.00	Total Dry Concrete Weight (Kips):	608.40
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	608.40	Total Vertical Load on Base (Kips):	669.24

Check Soil Capacities:

				Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	4525	<	Allowable Factored Soil Bearing (psf): 22500	0.20	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7909.2	>	Design Factored Momont (kips-ft): 6033	0.76	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.31	OK!			

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compresion):	0.65	Wind Load Factor on Concrete Design:	1.00

Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	1755.9	>	One-Way Factored Shear (L-D. Kips):	319.4	0.18	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1755.9	>	One-Way Factored Shear (W-D., Kips)	319.4	0.18	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	2096.9	>	One-Way Factored Shear (C-C, Kips):	888.5	0.42	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0017	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0017		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	10977.7	>	Moment at Bottom (L-Direct. K-Ft):	707.7	0.06	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	10977.7	>	Moment at Bottom (W-Direct. K-Ft):	707.7	0.06	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	15466.5	>	Moment at Bottom (C-C Dir. K-Ft):	1000.8	0.06	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0007	OK!	Upper Steel Reinf. Ratio (W-Direct.):	0.0007		
Upper Steel Pad Moment Capacity (L-Direction. Kips-ft):	4349.0	>	Moment at the top (L-Dir Kips-Ft):	242.0	0.06	OK!
Upper Steel Pad Moment Capacity (W-Direction. Kips-ft):	4349.0	>	Moment at the top (W-Dir Kips-Ft):	242.0	0.06	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	6141.5	>	Moment at the top (C-C Direc. K-Ft):	856.4	0.14	OK!

verizon

Colliers Engineering & Design

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Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10235773
Colliers Engineering & Design Project #: 21777294 (Rev. 2)

May 28, 2024

Site Information	*Site ID:*	*5000245797-VZW / COLCHESTER EAST CT*
	Site Name:	*COLCHESTER EAST CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*29 Mahoney Rd* *Colchester, Connecticut 06415* *New London County*
	Latitude:	*41.564533°*
	Longitude:	*-72.251697°*
Structure Information	*Tower Type:*	*180-Ft Monopole*
	Mount Type:	*13.00-Ft Platform*

FUZE ID # 16272105

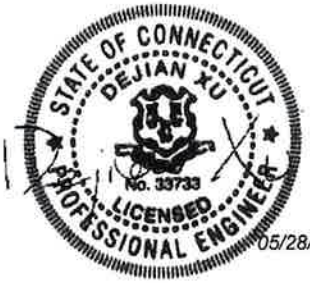
Analysis Results

Platform: **77.5% 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: Frank Centone



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: 1930192, dated April 22, 2024*
Mount Mapping Report	*Hudson Design Group, LLC., Site ID: 467283, dated July 19, 2021*
Previous Mount Analysis Report	*Colliers Engineering & Design, Project #: 21777294 (Rev 2), Dated May 8, 2024*
Mount Modification Drawings	*Colliers Engineering & Design, Project #: 21777294 (Rev 2), Dated May 28, 2024*

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}:	125 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.987
Seismic Parameters:	S_S:	0.205 g
	S_1:	0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

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
165.00	167.00	3	Samsung	MT6413-77A	Added
		6	Commscope	NHH-65B-R2B	
		1	Raycap	RVZDC-6627-PF-48	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4461d-13A	
		3	Amphenol	BXA-70063-6CF	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
Standoff Horizontal	38.3%	Pass
Standoff Plate	28.1%	Pass
Mount Pipe	61.9%	Pass
Face Horizontal	17.9%	Pass
Crossmember	27.0%	Pass
Corner Plate	28.6%	Pass
Mod Support Rail	21.4%	Pass
Mod Support Rail Corner	43.5%	Pass
Grating Angle	22.6%	Pass
Mount Connection	77.5%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**77.5%**

BASELINE mount weight per SBA agreement: 1839 lbs

Increase in mount weight due to Verizon loading change per SBA agreement: 600 lbs

The weights listed above include 3 sectors.

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 A Standoff	167.0	N219B	2024	2532	7.297	2.057	2400	960	7.090	0.509
Sector C Standoff	1670	N241C	2199	2978	8.147	1.995	2595	1049	7.418	0.517
Sector B Standoff	167.0	N275	2024	2523	7.292	2.147	2397	960	7.069	0.520

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	26.2	26.2	43.3	43.3
0.5	34.8	34.8	59.1	59.1
1	42.2	42.2	73.7	73.7

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 mount 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

MDG #: 5000245797 SMART Project #: 10235773 Fuze Project ID: 16272105

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:

OVP to be installed 12" from the top of the proposed 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:

Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos:

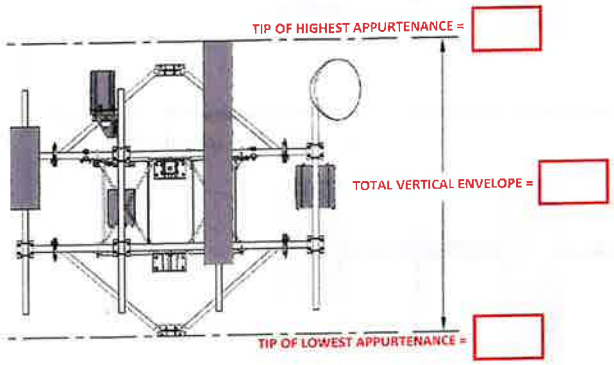


Illustration #1

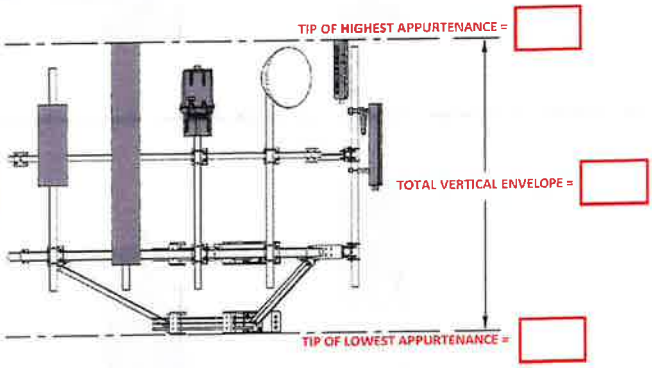


Illustration #2

Certifying Individual:

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

Structure: 5000245797-VZW - COLCHESTER EAST CT

Sector: A

Structure Type: Monopole

Mount Elev: 165.00

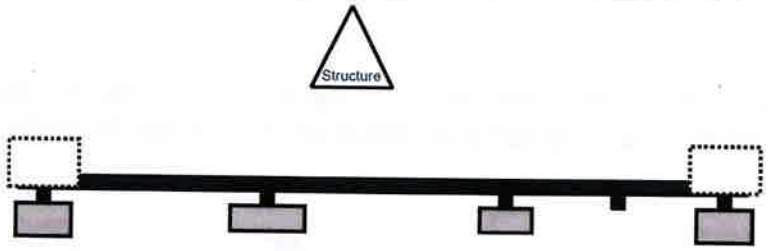
10235773

5/23/2024

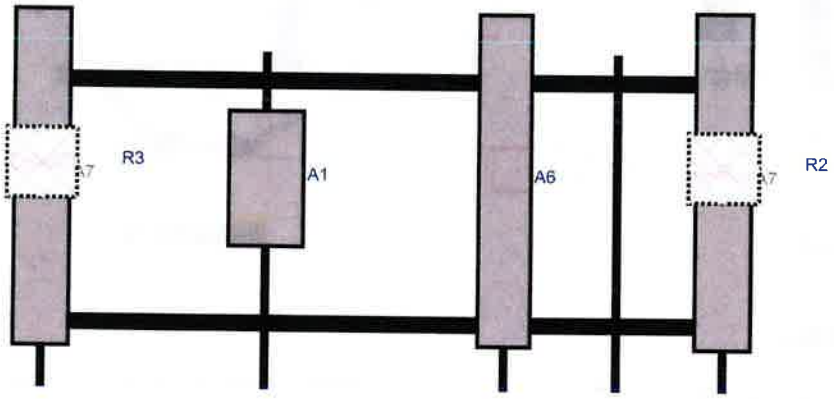
Page: 1

Colliers Engineering & Design

Plan View

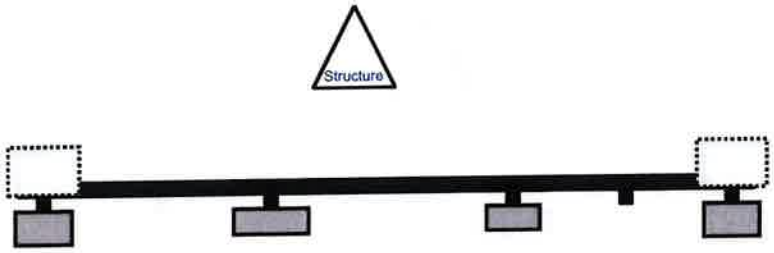


Front View - Looking at Structure

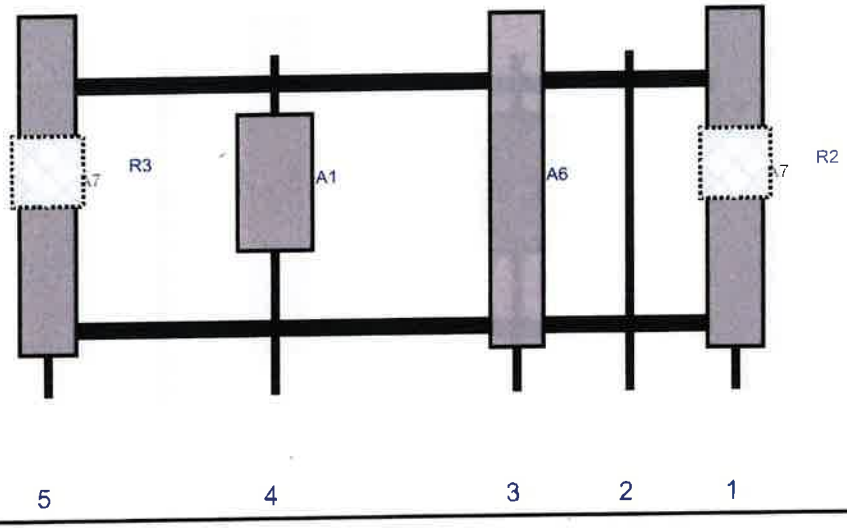


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A7	NHH-65B-R2B	72	11.9	151	1	a	Front	27	0	Added	
R2	RF4439d-25A	15	15	151	1	a	Behind	24	0	Added	
A6	BXA-70063-6CF	71	11.2	104.5	3	a	Front	27	0	Retained	07/19/2021
A1	MT6413-77A	28.9	15.8	53.5	4	a	Front	27	0	Added	
A7	NHH-65B-R2B	72	11.9	5.5	5	a	Front	27	0	Added	
R3	RF4461d-13A	15	15	5.5	5	a	Behind	24	0	Added	
OVP	RVZDC-6627-PF-48	29.5	16.5		Member					Added	

Plan View



Front View - Looking at Structure



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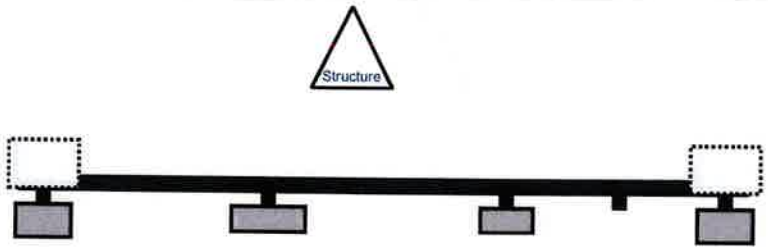
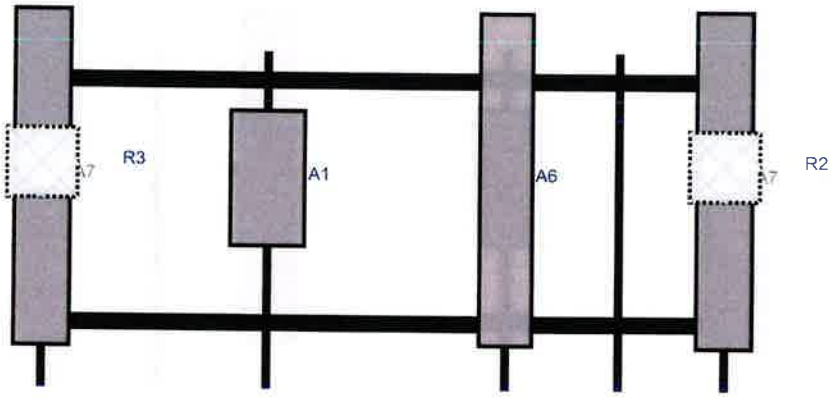
A7	NHH-65B-R2B	72	11.9	151	1	a	Front	27	0	Added	
R2	RF4439d-25A	15	15	151	1	a	Behind	24	0	Added	
A6	BXA-70063-6CF	71	11.2	104.5	3	a	Front	27	0	Retained	07/19/2021
A1	MT6413-77A	28.9	15.8	53.5	4	a	Front	27	0	Added	
A7	NHH-65B-R2B	72	11.9	5.5	5	a	Front	27	0	Added	
R3	RF4461d-13A	15	15	5.5	5	a	Behind	24	0	Added	

Colliers Engineering & Design

Plan View



Front View - Looking at Structure



5 4 3 2 1

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A7	NHH-65B-R2B	72	11.9	151	1	a	Front	27	0	Added	
R2	RF4439d-25A	15	15	151	1	a	Behind	24	0	Added	
A6	BXA-70063-6CF	71	11.2	104.5	3	a	Front	27	0	Retained	07/19/2021
A1	MT6413-77A	28.9	15.8	53.5	4	a	Front	27	0	Added	
A7	NHH-65B-R2B	72	11.9	5.5	5	a	Front	27	0	Added	
R3	RF4461d-13A	15	15	5.5	5	a	Behind	24	0	Added	

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MOUNT MODIFICATION DRAWINGS
EXISTING 13.00' PLATFORM

TOWER OWNER: SBA COMMUNICATIONS
TOWER OWNER SITE NUMBER: CT02652

CARRIER SITE NAME: COLCHESTER EAST CT
CARRIER SITE NUMBER: 5000245797
FUZE ID: 16272105

29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

LATITUDE: 41.564533° N
LONGITUDE: 72.251697° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 125 MPH
EXPOSURE CATEGORY C
TOPOGRAPHIC CATEGORY: 1
TOPOGRAPHIC CONSIDERED: N/A
TOPOGRAPHIC METHOD: N/A
MEAN BASE ELEVATION (AMSL) = 373.09'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .205
LONG TERM MCER GROUND MOTION, S_1 = .055

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: COLLIERS ENGINEERING & DESIGN
CONTACT: PETER ALBANO
PHONE: 856.797.0412
E-MAIL: PETER.ALBANO@COLLIERSENG.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10235773
VZW MDG #: 5000245797
ANALYSIS DATE: 5/28/2024

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

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REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
2	05/30/24	ISSUED FOR CONSTRUCTION	BAE	BA
1	01/30/24	ISSUED FOR CONSTRUCTION	BAE	BA
0	09/06/23	ISSUED FOR CONSTRUCTION	MC	BA

COLLIERS ENGINEERING & DESIGN CT, P.C.
C.T. #C-0001111

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:
COLCHESTER EAST CT
5000245797
29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

TITLE SHEET

ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-PLK3	SUPPORT RAIL CORNER BRACKET		30	90
12		VZWSMART-MSK1	CROSSOVER PLATE		14	168
1		VZWSMART-P40-238X048	48" LONG, PIPE 2 SCH40 (2.375"OD X 0.154" THK)		15	15
1		VZWSMART-MSK6	BACK TO BACK CROSSOVER PLATE		34	34

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	-	-	PROPOSED 24" LONG, L3X3x1/4	GALVANIZED	10	30
3	-	-	PROPOSED 156" LONG, PIPE 2 1/2 SCH40	GALVANIZED	75	225
2	-	-	PROPOSED 54" LONG, L2X2x3/16	GALVANIZED	11	22
8	-	-	5/8" DIA. BOLTS		-	

SECTION 3 - REQUIRED SAFETY CLIMB PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
					TOTAL:	584

*FOR ACTUAL INSTALL WEIGHT PLEASE CHECK THE MA REPORT

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. 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

Colliers Engineering & Design
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SITE NAME:

COLCHESTER EAST CT
5000245797

29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

BILL OF MATERIALS

SBOM-1

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.

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

      PETER.ALBANO@COLLIERSENG.COM

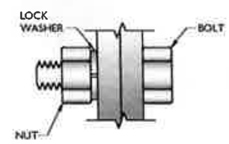
   b. PROVIDE COLLIERS ENGINEERING & DESIGN PROJECT # AND COLLIERS ENGINEERING & DESIGN PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED 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 (ZINC COTE, OR EOR APPROVED EQUAL), 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.

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

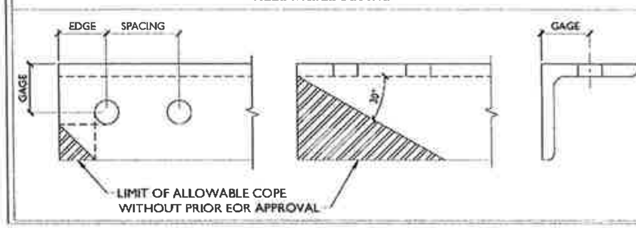


TYP. BOLT ASSEMBLY

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.

ALLOWABLE COPING



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SITE NAME:

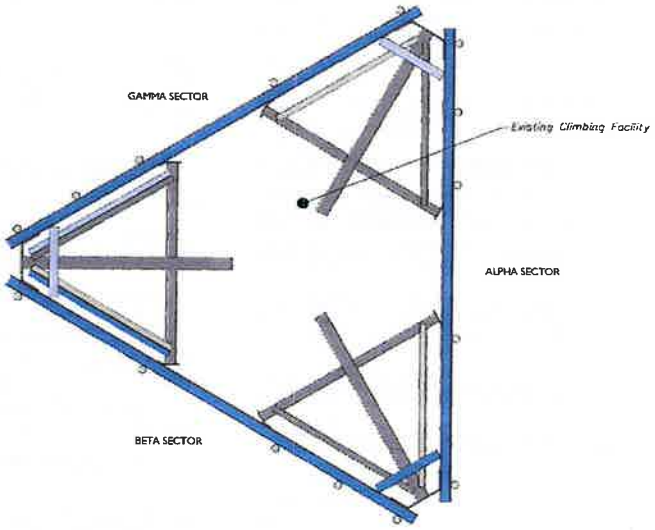
COLCHESTER EAST CT
5000245797

29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

GENERAL NOTES

SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



1 CLIMBING FACILITY LOCATION
SCALE: N.T.S.

CLIMBING FACILITY PHOTO

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC ON 7/19/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (165'-0") ARE IN GOOD CONDITION. COLLIERS ENGINEERING & DESIGN 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.

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2	09/09/21	SUBMITTAL	MC	DH
1	07/19/21	FINAL CONSTRUCTION	MC	DH
0	06/18/21	PRELIMINARY CONSTRUCTION	MC	DH
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY

SITE NAME:
COLCHESTER EAST CT
5000245797
29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

Colliers Engineering & Design
MT. LAUREL, NJ
CLIMBING FACILITY DETAIL
SCF-1

LEGEND:

PROPOSED

RELOCATED

EXISTING

TOTAL VERTICAL ENVELOPE:

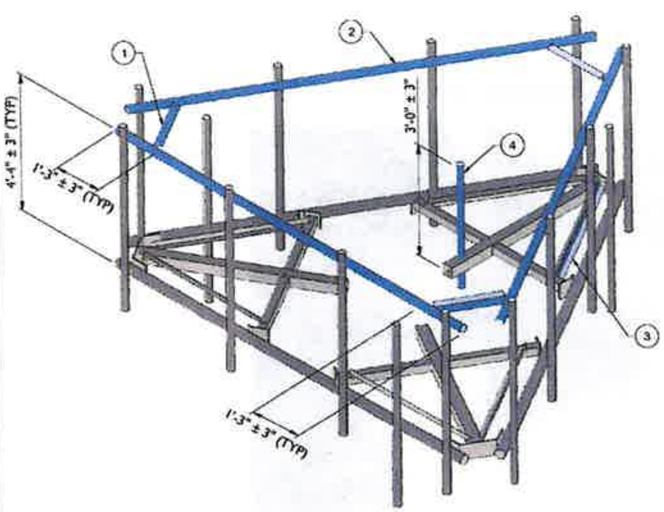
CONTRACTOR SHALL VERIFY AND CONFIRM IN FIELD THAT VERIZON'S OVERALL TIP TO TIP VERTICAL SPACE CONFIGURATION (EQUIPMENT AND STEEL COMBINED) DOES NOT EXCEED THE VERTICAL ENVELOPE LISTED IN THESE DRAWINGS. IF THE SITE'S EXISTING OR PROPOSED CONFIGURATION EXCEEDS THE ALLOWED VERTICAL ENVELOPE LISTED IN THESE DRAWINGS, CONTRACTOR SHALL CONTACT EOR IMMEDIATELY FOR A SOLUTION ON HOW TO CORRECT THE ISSUE PRIOR TO LEAVING THE SITE.

MOUNT MODIFICATION SCHEDULE

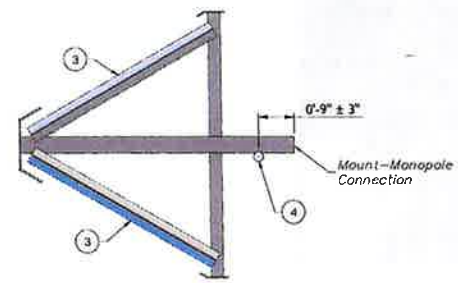
NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	165'-0"	3	PROPOSED 24" LONG, L3X3x1/4 BRACING	CONTRACTOR SHALL CONNECT PROPOSED ANGLES TO SUPPORT RAIL CORNER BRACKET (PART # VZWSMART-PLK3) USING THE PROVIDED (8) 5/8" DIA. BOLTS, (4) BOLTS PER CONNECTION.
2		3	PROPOSED 156" LONG, PIPE 2 1/2 SCH40 SUPPORT RAIL	CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART # VZWSMART-MSK1).
3		2	PROPOSED 54" LONG, L2X2X3/16 BRACING	CONTRACTOR SHALL INSTALL PROPOSED ANGLES ALONG THE EXISTING BENT GRATING ANGLES WITH (4) 0.625" A325N BOLTS EVENLY SPACED. SEE DETAIL 3.
4		1	PROPOSED 48" LONG, PIPE 2 SCH40 (PART # VZWSMART-P40-238X048) OVP PIPE	CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (PART # VZWSMART-MSK6), BETWEEN BETA & GAMMA SECTOR ONLY.

GENERAL NOTES:

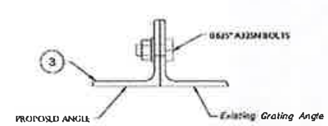
A. CONTRACTOR SHALL VERIFY THAT NEW & EXISTING STEEL IS FREE OF CORROSION. VISIBLE MINOR CORROSION SHALL BE WIRE BRUSHED CLEAN AND TREATED WITH COLD GALVANIZATION. REPORT ANY SIGNIFICANT CORROSION TO EOR
B. THREADED ROD FROM PROPOSED KITS SHALL BE TRIMMED TO EXTEND NO MORE THAN 3" BEYOND THE LOCK NUT. TREAT ALL CUT ENDS WITH (2) COATS OF COLD GALVANIZATION (ZINC KOTE OR EOR APPROVED EQUAL).
C. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.



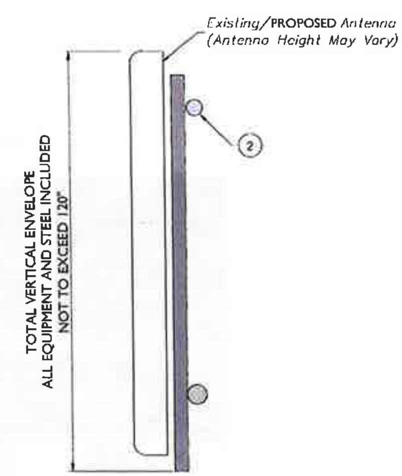
1 PROPOSED ISOMETRIC VIEW (TYP. ALL SECTORS)
SCALE: N.T.S.



2 PROPOSED GRATING ANGLE FRAME PLAN
SCALE: N.T.S.



3 PROPOSED GRATING ANGLE DETAIL
SCALE: N.T.S.



4 PROPOSED SIDE ELEVATION VIEW
SCALE: N.T.S.

Colliers Engineering & Design
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811 Know what's below. Call before you dig.

SITE NAME:

COLCHESTER EAST CT
5000245797
29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

MODIFICATION DETAILS

SS-1

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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PROTECT YOURSELF

AS SHOWN | 21777254

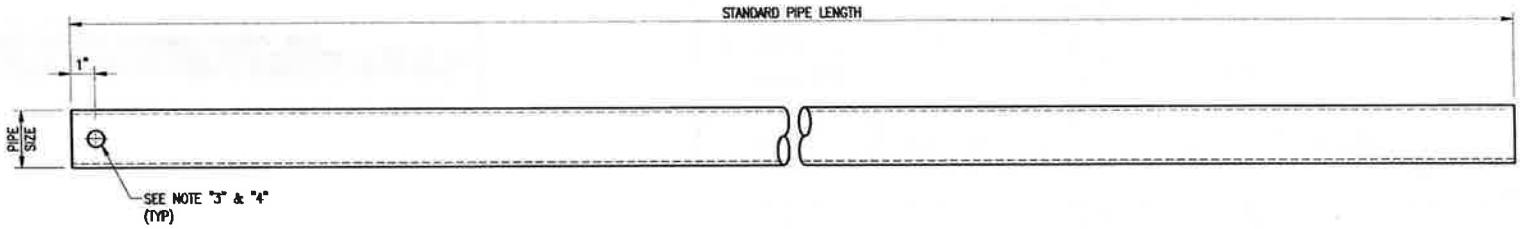
SITE NAME:

COLCHESTER EAST CT
5000245797

29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

MOUNT PHOTOS

SS-2



VZWSMART Standard Pipe		
VZWSMART Number	Size	Length
P40-238X048	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	48"
P40-238X072	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	72"
P40-238X096	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	96"
P40-238X120	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	120"
P40-238X126	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	126"
P40-238X150	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	150"
P40-238X174	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	174"
P40-278X048	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	48"
P40-278X072	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	72"
P40-278X096	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	96"
P40-278X120	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	120"
P40-278X126	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	126"
P40-278X150	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	150"
P40-278X174	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	174"
P40-312X048	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	48"
P40-312X072	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	72"
P40-312X126	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	126"
P40-312X150	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	150"
P40-312X174	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	174"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL PIPE GRADE A53-B OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

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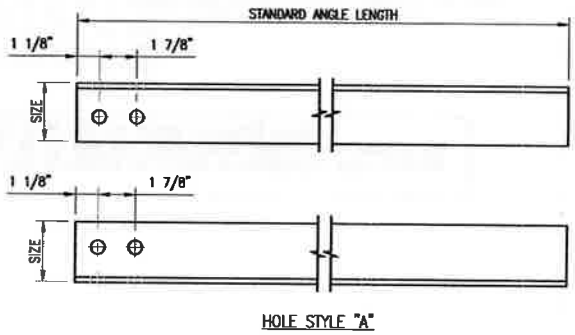
FOR REFERENCE ONLY

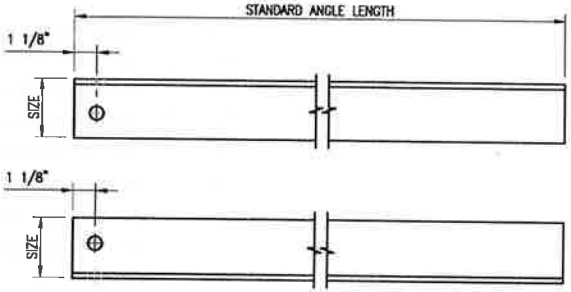
DRAWN BY: BT	CHECKED BY: HMA/KH
REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BT	08/04/21

SHEET TITLE:
VZWSMART STANDARD PIPE

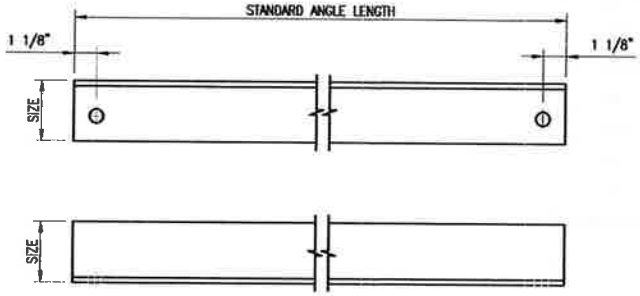
SHEET NUMBER:	REV #:
VZWSMART-PIPE	0



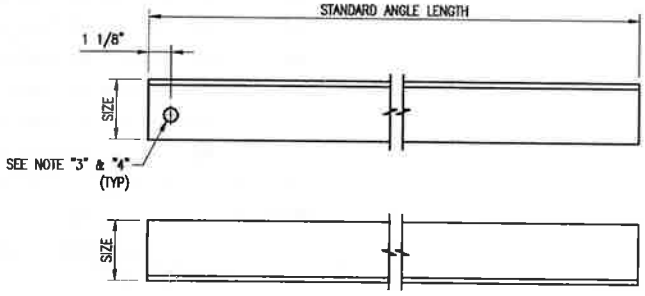
HOLE STYLE "A"



HOLE STYLE "B"



HOLE STYLE "C"



HOLE STYLE "D"

VZWSMART Standard Angle					
VZWSMART Number	Size	Length	Hole Style	Hole Gage	Also Used In:
A-PLK2-01	L 3" X 3" X 1/4"	96"	A	1-3/4"	VZWSMART-PLK2
A-PLK5-01	L 3"X 3" X 3/16"	96"	B	1-3/4"	VZWSMART-PLK5
A-SFK3-01	L 2-1/2" X 2-1/2" X 1/4"	96"	C	1-3/8"	VZWSMART-SFK3,-SFK3-SL, -PLK6, & -PLK8
A-L25X25X4X120	L 2-1/2" X 2-1/2" X 1/4"	120"	D	1-5/16"	
A-L25X25X4X240	L 2-1/2" X 2-1/2" X 1/4"	240"	D	1-5/16"	
A-L30X30X4X120	L 3" X 3" X 1/4"	120"	D	1-1/2"	
A-L30X30X4X240	L 3" X 3" X 1/4"	240"	D	1-1/2"	
A-L40X40X4X120	L 4" X 4" X 1/4"	120"	D	2"	
A-L40X40X4X240	L 4" X 4" X 1/4"	240"	D	2"	
A-L50X30X6X120	L 5" X 3" X 3/8"	120"	D	2-1/2"	
A-L50X50X6X120	L 5" X 5" X 3/8"	120"	D	2-1/2"	

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION ANGLES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL ANGLE GRADE A36 OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

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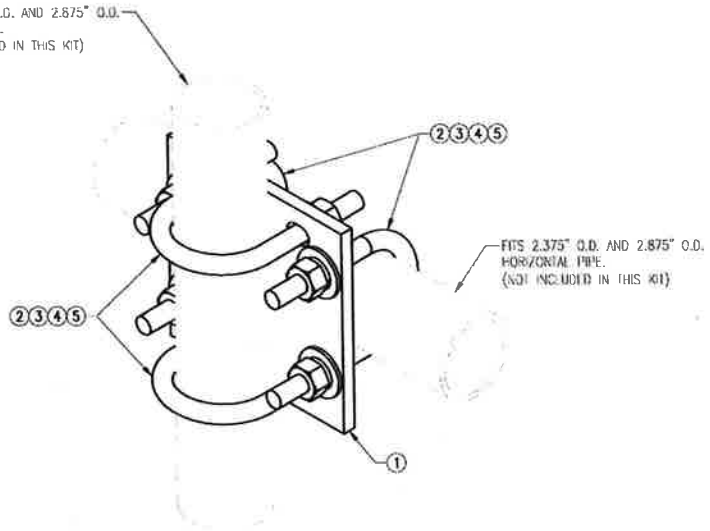
DRAWN BY: BT | CHECKED BY: MMA/KW

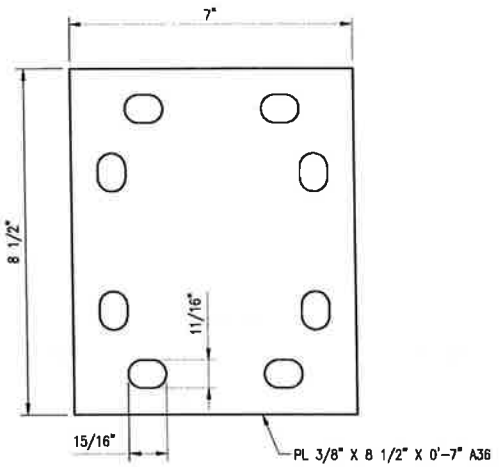
REV	DESCRIPTION	BY	DATE
1	[illegible]	BT	08/04/21
2			
3			
4			

SHEET TITLE:
VZWSMART STANDARD ANGLE

SHEET NUMBER: VZWSMART-ANGLE

REV #: 0





PL375-857

VZWSMART-MSK1 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1	5
2	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
3	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	8	LW-625	5/8" HDG LOCK WASHER	---	0
5	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	14

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

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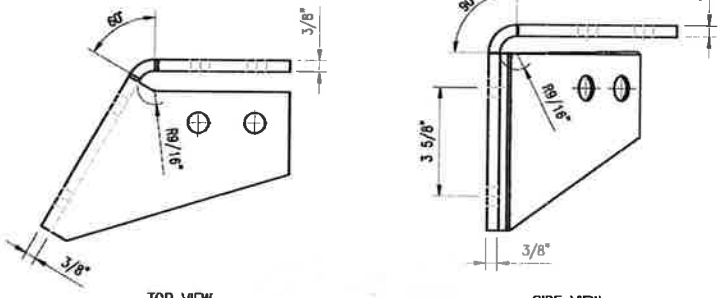
FOR REFERENCE ONLY

DRAWN BY: HLR | CHECKED BY: HMA

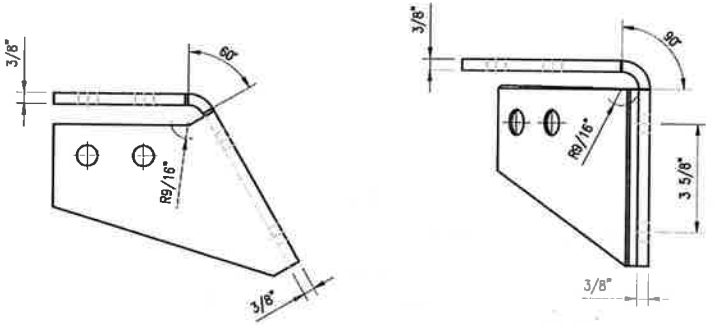
REV	DESCRIPTION	BY	DATE
1	UPDATE ISSUE	HLR	05/08/20

SHEET TITLE:
VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1 | REV #: 0



CBP-L



CBP-R

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK3 (SUPPORT RAIL CORNER BRACKET)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	CBP-L	CORNER BENT PLATE BRACKET	PLK3-F1	9
2	1	CBP-R	CORNER BENT PLATE BRACKET	PLK3-F1	9
3	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" L., A36 (OR EQUIV.)	RBC-1	5
4	8	---	BOLT 5/8" X 2" A325	---	3
5	16	FW-625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW-625	5/8" HDG LOCK WASHER	---	0
7	16	NUT-625	5/8" HDG HEX NUT	---	2
				GALVANIZED WT	30

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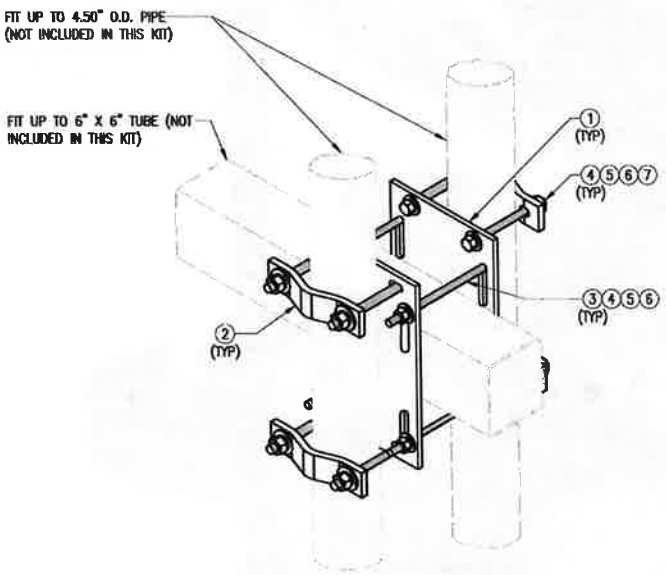
DRAWN BY: M.R | CHECKED BY: HMA

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

SHEET TITLE:
VZWSMART-PLK3
SUPPORT RAIL CORNER BRACKET

SHEET NUMBER: VZWSMART-PLK3

REV #: 0



ISOMETRIC VIEW
BACK TO BACK CROSSOVER

VZWSMART-MSK6 (VZWSMART-MSK6 - BACK TO BACK CROSSOVER)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	2	PL375-8512	PL 3/8" X 8 1/2" X 1'-0" A36	MSK6-F2	20.7
2	4	VCP	PL 1/2" X 2" X 8 5/8" A36 BENT PLATE	MSK6-F1	9.6
3	4	---	THREADED ROD 5/8" DIA. X 10" F1554-36 HDG	---	---
4	16	NUT-625	5/8" HDG HEX NUT	---	2
5	16	FW-625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW-625	5/8" HDG LOCK WASHER	---	0
7	8	---	BOLT 5/8" X 6" SAE GRADE 5 ALL THREAD	---	1
				GALVANIZED WT	34

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

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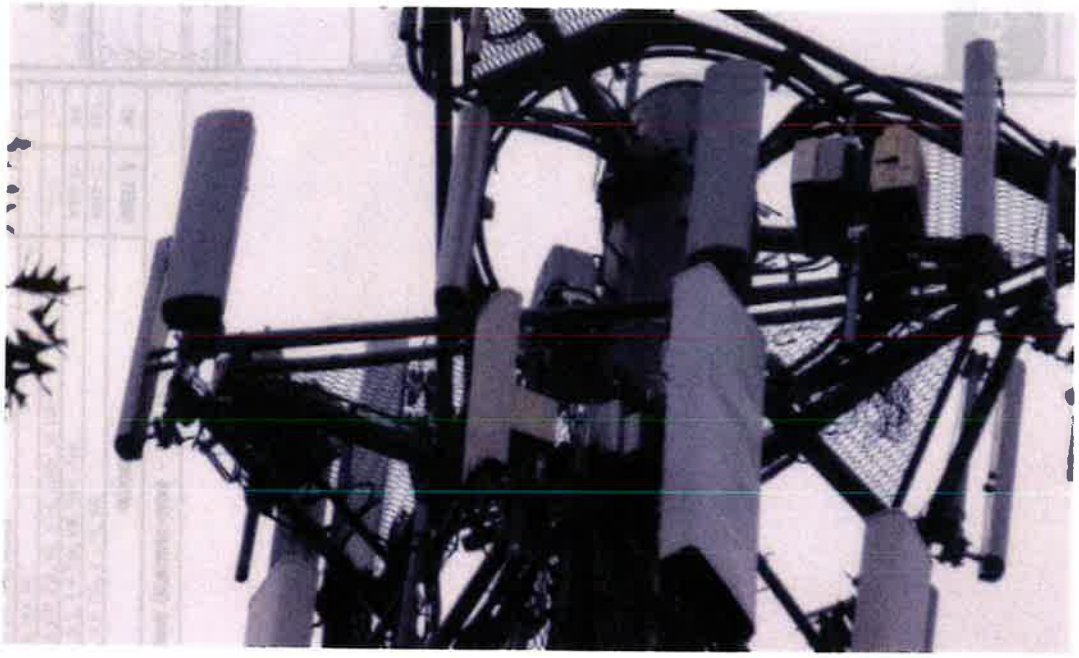
DRAWN BY: SK | CHECKED BY: BT/KW

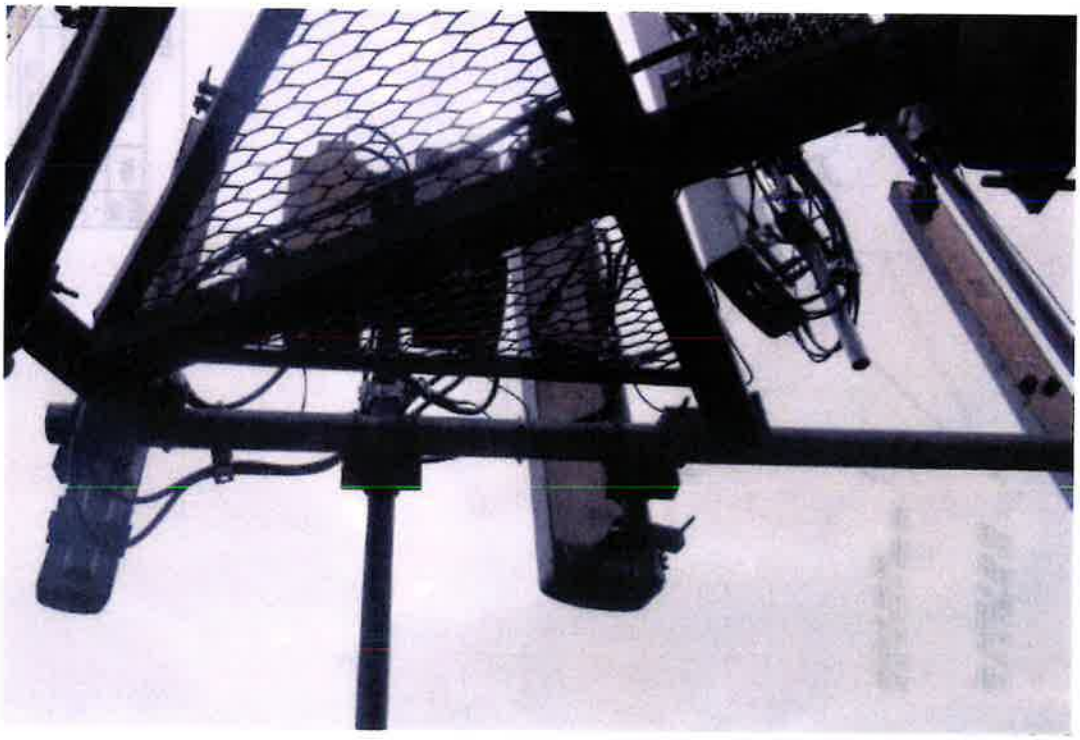
REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	SK	05/08/20

SHEET TITLE:
VZWSMART-MSK6
BACK TO BACK
CROSSOVER

SHEET NUMBER: VZWSMART-MSK6

REV #: 0





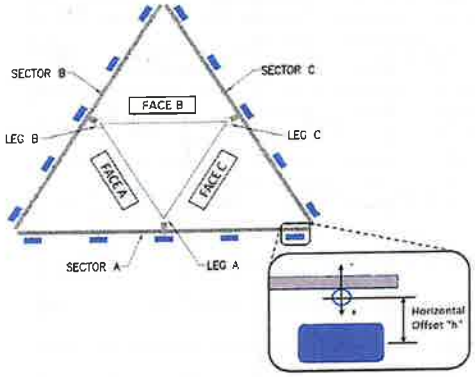
V4.0 Updated on 3-31-2021

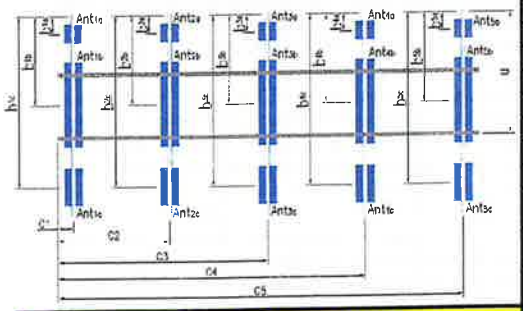
Antenna Mount Mapping Form (PATENT PENDING)

MASER CONSULTING P.A.

FCC #			1228267
Tower Owner:	SBA TOWERS	**Mapping Date:**	7/19/2021
Site Name:	COLCHESTER EAST CT	**Tower Type:**	Monopole
Site Number or ID:	467283	**Tower Height (FL):**	180
Mapping Contractor:	HUDSON DESIGN GROUP, LLC.	**Mount Elevation (Ft.):**	168.58

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





Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "v"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "v"	Horizontal Offset "C1, C2, C3, etc."
A1	2" STD. PIPE X 72" LONG	58.00	5.00	C1	2" STD. PIPE X 72" LONG	58.00	5.00
A2	2" STD. PIPE X 72" LONG	42.00	27.50	C2	2" STD. PIPE X 72" LONG	42.00	27.50
A3	2" STD. PIPE X 72" LONG	58.00	51.50	C3	2" STD. PIPE X 72" LONG	58.00	51.50
A4	2" STD. PIPE X 72" LONG	58.00	102.50	C4	2" STD. PIPE X 72" LONG	58.00	102.50
A5	2" STD. PIPE X 72" LONG	58.00	150.50	C5	2" STD. PIPE X 72" LONG	58.00	150.50
A6				C6			
B1	2" STD. PIPE X 72" LONG	58.00	5.00	D1			
B2	2" STD. PIPE X 72" LONG	42.00	27.50	D2			
B3	2" STD. PIPE X 72" LONG	58.00	51.50	D3			
B4	2" STD. PIPE X 72" LONG	58.00	102.50	D4			
B5	2" STD. PIPE X 72" LONG	58.00	150.50	D5			
B6				D6			

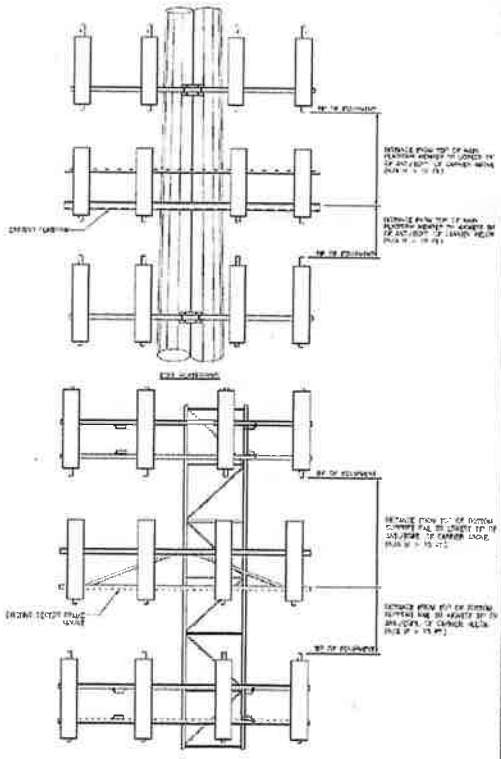
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	8.83
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	5.33
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.):	27
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.	0.375

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	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}	BXA-17106312CF	6.00	4.00	72.00		170.497	35.00	8.00	325.00	9,64,70
Ant_{1c}										
Ant_{2a}	9442 RRH 2X40	12.00	8.00	25.00		170.83	15.00	-7.00		10,65,70
Ant_{2b}										
Ant_{2c}	700MRRH	16.00	10.00	16.00		170.83	15.00	-7.00		10,66,70
Ant_{3a}										
Ant_{3b}	BXA-70063/6CF	11.00	5.00	71.00		170.497	35.00	9.00	339.00	10,67,71
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-17106312CF	6.00	4.00	72.00		170.497	35.00	8.00	339.00	11,68,72
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	BXA-70063/6CF	11.00	5.00	71.00		170.497	35.00	9.00	339.00	12,69,77
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

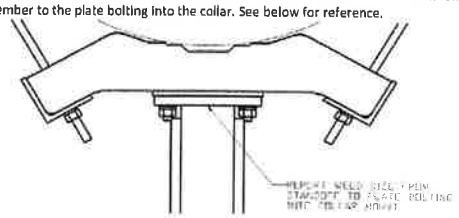
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	339.00	Deg	Leg A:		Deg
Sector B:	99.00	Deg	Leg B:		Deg
Sector C:	219.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	318.00	Deg	N/A
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.

Please insert a photo of the mount centerline measurement here.



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Sector B											
Ant_{1a}											
Ant_{1b}	BXA-17106312CF	6.00	4.00	72.00		170.497	35.00	8.00	99.00	16,64,78
Ant_{1c}										
Ant_{2a}	9442 RRH 2X40	12.00	8.00	25.00		170.83	15.00	-7.00		17,65,78
Ant_{2b}										
Ant_{2c}	700MRRH	16.00	10.00	16.00		170.83	15.00	-7.00		17,66,78
Ant_{3a}										
Ant_{3b}	BXA-70063/6CF	11.00	5.00	71.00		170.497	35.00	9.00	99.00	17,67,79
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-17106312CF	6.00	4.00	72.00		170.497	35.00	8.00	99.00	18,68,80
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	BXA-70063/6CF	11.00	5.00	71.00		170.497	35.00	9.00	99.00	19,69,83
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C											
Ant_{1a}											
Ant_{1b}	BXA-17106312CF	6.00	4.00	72.00		170.497	35.00	8.00	219.00	64,84
Ant_{1c}										
Ant_{2a}	9442 RRH 2X40	12.00	8.00	25.00		170.83	15.00	-7.00		65,85
Ant_{2b}										
Ant_{2c}	700MRRH	16.00	10.00	16.00		170.83	15.00	-7.00		66,85
Ant_{3a}										
Ant_{3b}	BXA-70063/6CF	11.00	5.00	71.00		170.497	35.00	9.00	219.00	67,85
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-17106312CF	6.00	4.00	72.00		170.497	35.00	8.00	219.00	68,86
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	BXA-70063/6CF	11.00	5.00	71.00		170.497	35.00	9.00	219.00	69,89
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D											
Ant_{1a}											
Ant_{1b}											
Ant_{1c}											
Ant_{2a}											
Ant_{2b}											
Ant_{2c}											
Ant_{3a}											
Ant_{3b}											
Ant_{3c}											
Ant_{4a}											
Ant_{4b}											
Ant_{4c}											
Ant_{5a}											
Ant_{5b}											
Ant_{5c}											
Ant on Standoff											
Ant on Standoff											
Ant on Tower											
Ant on Tower											

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	MONOPOLE PLATFORM IS BENT IN 2 LOCATIONS	39,40,43
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System					
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.					Photo #
Description of Obstruction:					
Type of Light:		Photo #		Additional Comments:	
Lighting Technology:		Photo #			
Elevation (AGL) at base of light (Ft.):		Photo #			
Is a service loop available?		Photo #			
Is beacon installed on an extension?		Photo #			

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.

V4.0 Updated on 3-31-2021

MASER CONSULTING P.A.

Antenna Mount Mapping Form (PATENT PENDING)

FCC #: 1228267

Tower Owner:	SBA TOWERS	Mapping Date:	7/19/2021
Site Name:	COLCHESTER EAST CT	Tower Type:	Monopole
Site Number or ID:	467283	Tower Height (Ft.):	180
Mapping Contractor:	HUDSON DESIGN GROUP, LLC,	Mount Elevation (Ft.):	168.58

Please Insert Sketches of the Antenna Mount

7/27/2021

HDG HUDSON Design Group LLC
43 SECONDWOOD DRIVE NORTH ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 557-5566

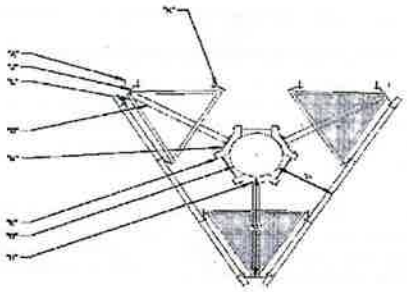
MOUNT MAPPING CHECKLIST

CARRIER:	COLLIER	SITE #:		SITE NAME:	Colchester East CT
DATE:	7/19/2021	MAPPED BY:	JC	SITE OWNER:	SBA TOWERS

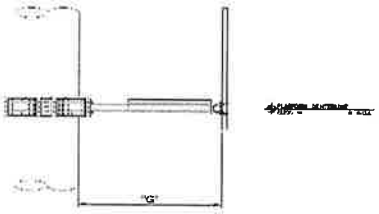
DESCRIPTION	STATUS	Value
A: FACE PIPE CONFIG.	☐	ROUND MAST
SIZE		3-1/2"
LENGTH		156"
B: STAND OFF SIZE	☐	4x4
C: ANTENNA PIPE MAST	☐	1/8"
DIA.		2-3/8"
LENGTH		72"
D: MONOPOLE DIA.	☐	27"
E: RINGMOUNT	☐	10"x 3/8"
F: TOWER TO FACE	☐	37"
G: TOWER TO APEX	☐	69.5"
H: HARDWARE	☐	5/8"Ø
I: U-BOLTS	☐	1/2"Ø
J: A PLATE	☐	6"x 12"x 3.5"x 1/2"
K: B PLATE	☐	6"x 5.5"x 3"x 3/8"
L: ANGLE	☐	2"X2"X3/16"
M: MOUNTING PLATE	☐	10"x 10"x 5/8"
N: ALPHA POS 1	☐	BXA-17106312CF
ALPHA POS 2	☐	9442 RRH 2x40 & 700MR
ALPHA POS 3	☐	BXA-70063/6CF
ALPHA POS 4	☐	BXA-17106312CF
ALPHA POS 5		BXA-70063/6CF
O: BETA POS 1	☐	
BETA POS 2	☐	
BETA POS 3	☐	
BETA POS 4	☐	
BETA POS 5		
P: GAMMA POS 1	☐	
GAMMA POS 2	☐	
GAMMA POS 3	☐	
GAMMA POS 4	☐	
GAMMA POS 5		
Q: TMA	☐	0
R: RADIOS	☐	6
S: SURGE	☐	2
T: SECOND MOUNT	☐	

COMMENTS:

Legend



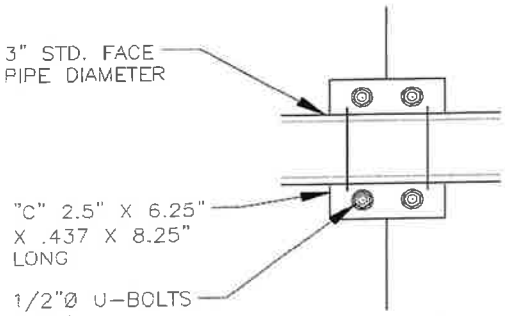
PLAN



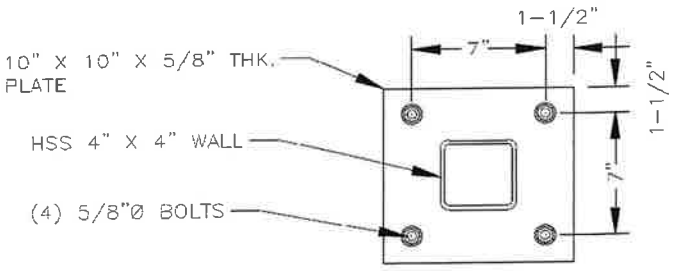
ELEVATION

FACE SKETCH

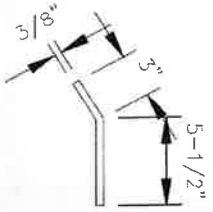
Please Insert Sketches of the Antenna Mount, cont'd



CROSSOVER PLATE DETAIL

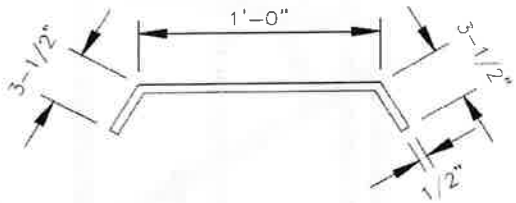


STANDOFF TO RING MOUNT CONNECTION



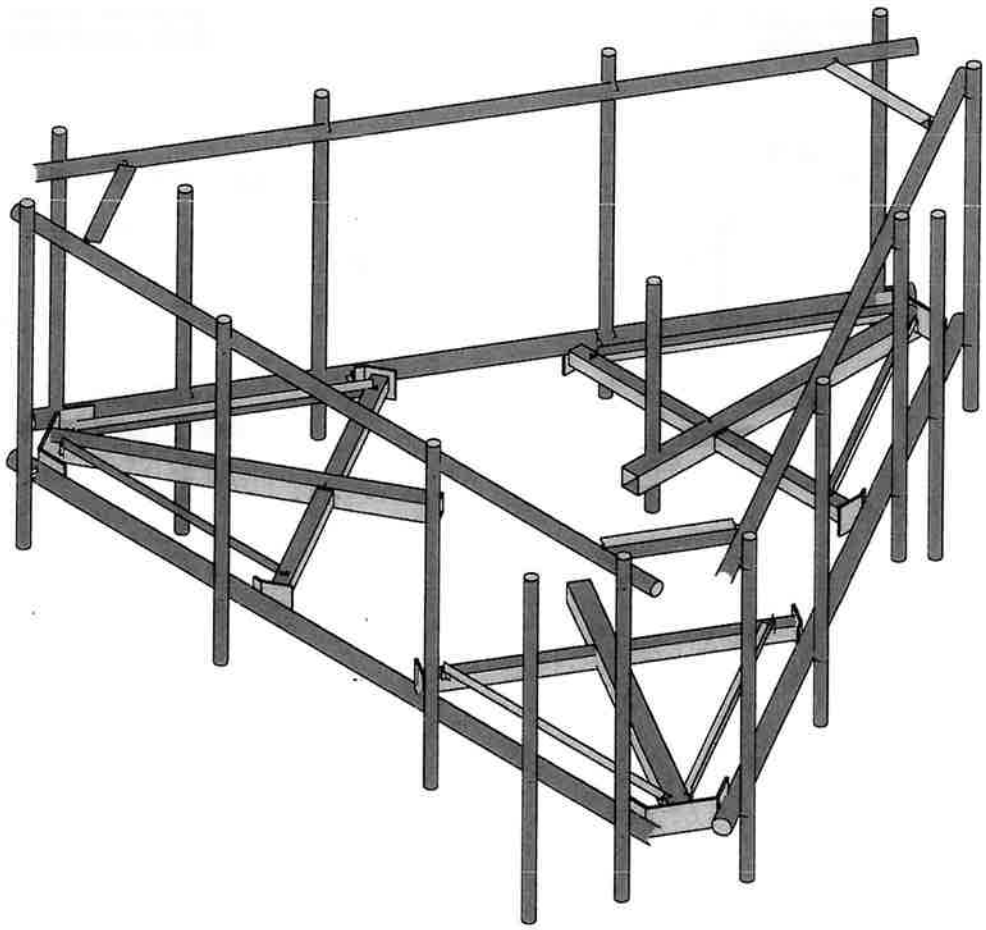
DETAIL K

'B' PLATE DETAIL

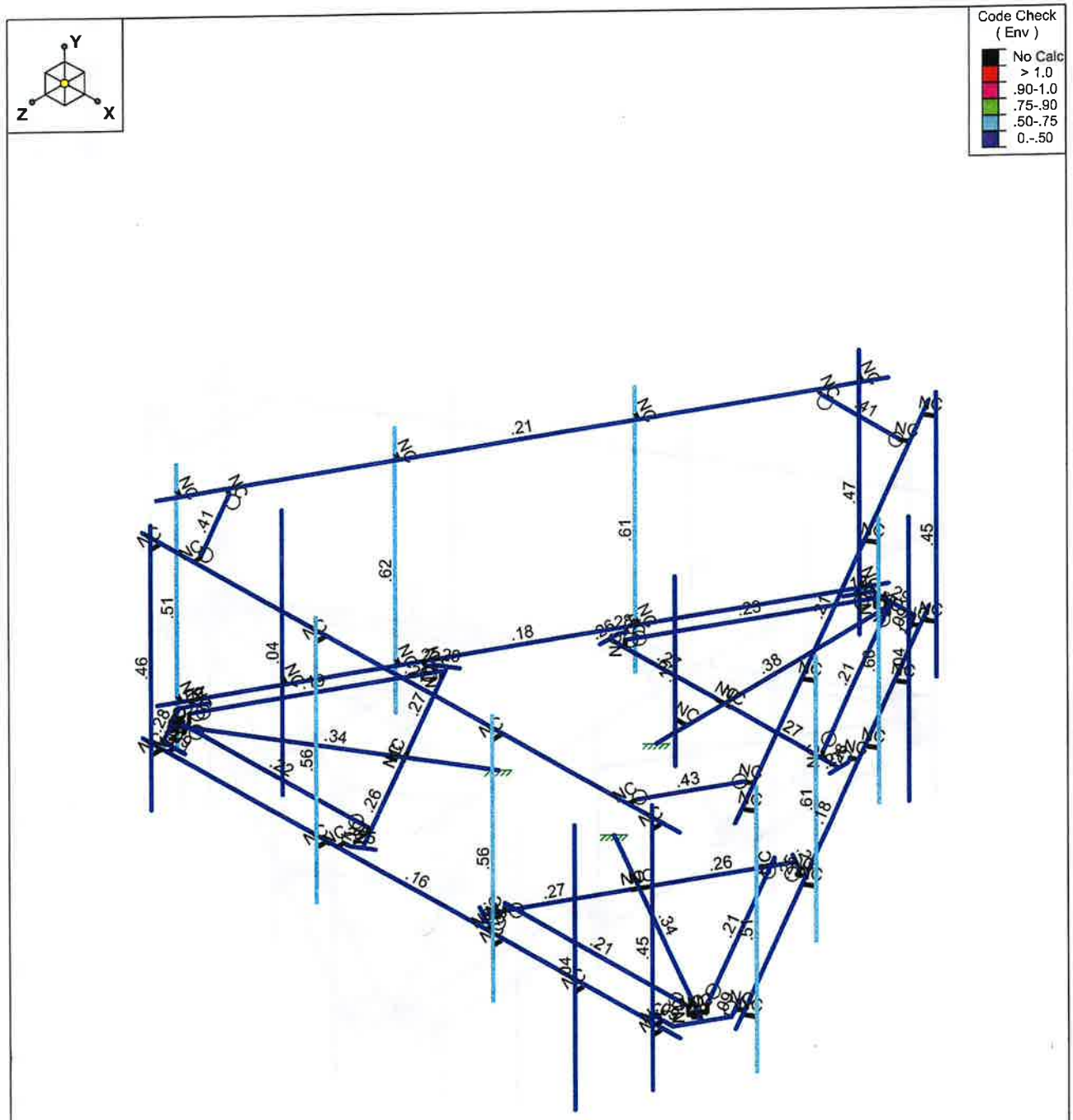


DETAIL J

APEX "A" PLATE DETAIL

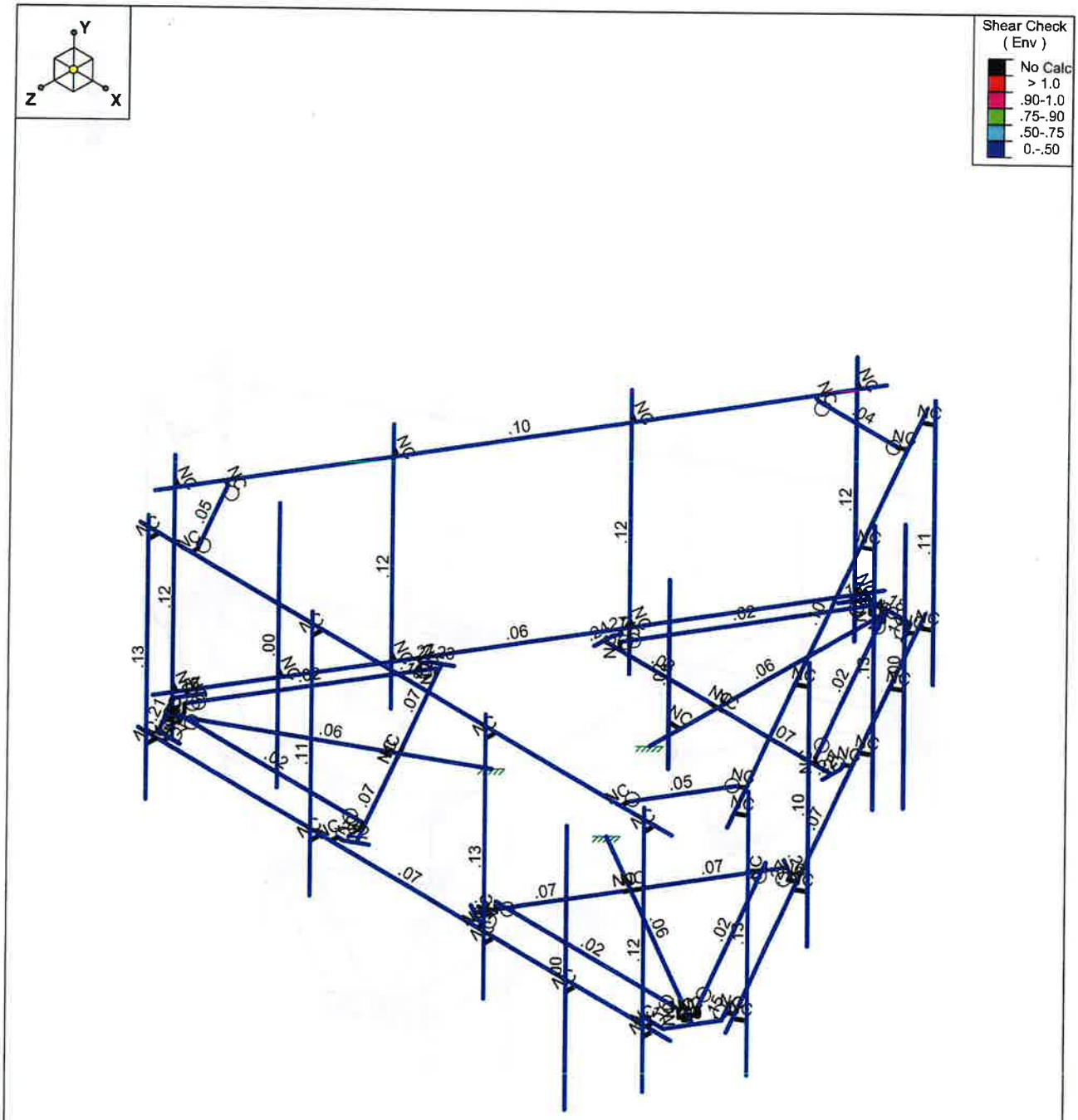


		SK - 1
		May 23, 2024 at 4:03 PM
		5000245797-VZW_MT_LO_H.r3d



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

		SK - 2
		May 23, 2024 at 4:03 PM
		5000245797-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

		SK - 3
		May 23, 2024 at 4:03 PM
		5000245797-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Antenna D	None					93			
2	Antenna Di	None					93			
3	Antenna Wo (0 Deg)	None					93			
4	Antenna Wo (30 Deg)	None					93			
5	Antenna Wo (60 Deg)	None					93			
6	Antenna Wo (90 Deg)	None					93			
7	Antenna Wo (120 Deg)	None					93			
8	Antenna Wo (150 Deg)	None					93			
9	Antenna Wo (180 Deg)	None					93			
10	Antenna Wo (210 Deg)	None					93			
11	Antenna Wo (240 Deg)	None					93			
12	Antenna Wo (270 Deg)	None					93			
13	Antenna Wo (300 Deg)	None					93			
14	Antenna Wo (330 Deg)	None					93			
15	Antenna Wi (0 Deg)	None					93			
16	Antenna Wi (30 Deg)	None					93			
17	Antenna Wi (60 Deg)	None					93			
18	Antenna Wi (90 Deg)	None					93			
19	Antenna Wi (120 Deg)	None					93			
20	Antenna Wi (150 Deg)	None					93			
21	Antenna Wi (180 Deg)	None					93			
22	Antenna Wi (210 Deg)	None					93			
23	Antenna Wi (240 Deg)	None					93			
24	Antenna Wi (270 Deg)	None					93			
25	Antenna Wi (300 Deg)	None					93			
26	Antenna Wi (330 Deg)	None					93			
27	Antenna Wm (0 Deg)	None					93			
28	Antenna Wm (30 Deg)	None					93			
29	Antenna Wm (60 Deg)	None					93			
30	Antenna Wm (90 Deg)	None					93			
31	Antenna Wm (120 Deg)	None					93			
32	Antenna Wm (150 Deg)	None					93			
33	Antenna Wm (180 Deg)	None					93			
34	Antenna Wm (210 Deg)	None					93			
35	Antenna Wm (240 Deg)	None					93			
36	Antenna Wm (270 Deg)	None					93			
37	Antenna Wm (300 Deg)	None					93			
38	Antenna Wm (330 Deg)	None					93			
39	Structure D	None		-1					3	
40	Structure Di	None						61	3	
41	Structure Wo (0 Deg)	None						122		
42	Structure Wo (30 Deg)	None						122		
43	Structure Wo (60 Deg)	None						122		
44	Structure Wo (90 Deg)	None						122		
45	Structure Wo (120 Deg)	None						122		
46	Structure Wo (150 Deg)	None						122		
47	Structure Wo (180 Deg)	None						122		
48	Structure Wo (210 Deg)	None						122		
49	Structure Wo (240 Deg)	None						122		
50	Structure Wo (270 Deg)	None						122		
51	Structure Wo (300 Deg)	None						122		
52	Structure Wo (330 Deg)	None						122		
53	Structure Wi (0 Deg)	None						122		
54	Structure Wi (30 Deg)	None						122		
55	Structure Wi (60 Deg)	None						122		
56	Structure Wi (90 Deg)	None						122		
57	Structure Wi (120 Deg)	None						122		
58	Structure Wi (150 Deg)	None						122		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
59	Structure Wi (180 Deg)	None						122		
60	Structure Wi (210 Deg)	None						122		
61	Structure Wi (240 Deg)	None						122		
62	Structure Wi (270 Deg)	None						122		
63	Structure Wi (300 Deg)	None						122		
64	Structure Wi (330 Deg)	None						122		
65	Structure Wm (0 Deg)	None						122		
66	Structure Wm (30 Deg)	None						122		
67	Structure Wm (60 Deg)	None						122		
68	Structure Wm (90 Deg)	None						122		
69	Structure Wm (120 Deg)	None						122		
70	Structure Wm (150 Deg)	None						122		
71	Structure Wm (180 Deg)	None						122		
72	Structure Wm (210 Deg)	None						122		
73	Structure Wm (240 Deg)	None						122		
74	Structure Wm (270 Deg)	None						122		
75	Structure Wm (300 Deg)	None						122		
76	Structure Wm (330 Deg)	None						122		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					93			
82	Antenna Eh (0 Deg)	None					62			
83	Antenna Eh (90 Deg)	None					62			
84	Structure Ev	ELY		-.044					3	
85	Structure Eh (0 Deg)	ELZ			-.109				3	
86	Structure Eh (90 Deg)	ELX	.109						3	
87	BLC 39 Transient Area Loads	None						30		
88	BLC 40 Transient Area Loads	None						30		
89	BLC 84 Transient Area Loads	None						30		
90	BLC 85 Transient Area Loads	None						30		
91	BLC 86 Transient Area Loads	None						30		

Load Combinations

	Description	Sol...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
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 D...	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 D...	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 D...	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 ...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 ...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 ...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 ...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 ...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 ...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 ...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 ...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								

Load Combinations (Continued)

	Description	Sol...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
22	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX					
53	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX	.5				
54	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX	.866				
55	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1				
56	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
57	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
58	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX					
59	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
60	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
61	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1				
62	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
63	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX	-.5				
64	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX					
65	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5				
66	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX	.866				
67	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1				
68	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
69	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
70	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX					
71	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
72	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
73	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1				
74	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
75	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5				

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horizontal	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Crossmember	HSS3X3X4	Beam	Tube	A500 Gr.B Rect	Typical	2.44	3.02	3.02	5.08
3	Standoff Horizontal	HSS4X4X6	Beam	Tube	A500 Gr.B Rect	Typical	4.78	10.3	10.3	17.5
4	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
5	Corner Plate	PL1/2x6	Beam	RECT	A36 Gr.36	Typical	3	.063	9	.237
6	Standoff Plate	PL3/8x6	Beam	RECT	A36 Gr.36	Typical	2.25	.026	6.75	.101
7	Mod Support Rail	PIPE 2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
8	Mod Support Rail Corner	L3X3X4	Beam	RECT	A36 Gr.36	Typical	1.44	1.23	1.23	.031
9	Grating Angle	L2x2x3	Beam	Single A...	A36 Gr.36	Typical	.722	.271	.271	.009

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M128A	N218	N219B			Standoff Horiz...	Beam	Tube	A500 Gr.B..	Typical
2	M139B	N240B	N241C			Standoff Horiz...	Beam	Tube	A500 Gr.B..	Typical
3	M161A	N274	N275			Standoff Horiz...	Beam	Tube	A500 Gr.B..	Typical
4	M141A	N239A	N247A			RIGID	None	None	RIGID	Typical
5	M142A	N237A	N245A			RIGID	None	None	RIGID	Typical
6	M143A	N235A	N243A			RIGID	None	None	RIGID	Typical
7	M144A	N233B	N241A			RIGID	None	None	RIGID	Typical
8	M117B	N195B	N196B			RIGID	None	None	RIGID	Typical
9	M120B	N205B	N209			RIGID	None	None	RIGID	Typical
10	M121B	N204	N208			RIGID	None	None	RIGID	Typical
11	M122B	N203B	N207B			RIGID	None	None	RIGID	Typical
12	M123B	N202C	N206B			RIGID	None	None	RIGID	Typical
13	M144	N241B	N240A			RIGID	None	None	RIGID	Typical
14	M146A	N245B	N244A			RIGID	None	None	RIGID	Typical
15	M148A	N248	N249B			RIGID	None	None	RIGID	Typical
16	M131A	N227B	N231B			RIGID	None	None	RIGID	Typical
17	M132A	N226B	N230B			RIGID	None	None	RIGID	Typical
18	M133A	N225B	N229B			RIGID	None	None	RIGID	Typical
19	M134B	N224B	N228B			RIGID	None	None	RIGID	Typical
20	M141C	N242B	N250C			RIGID	None	None	RIGID	Typical
21	M155	N263A	N262			RIGID	None	None	RIGID	Typical
22	M157A	N267A	N266			RIGID	None	None	RIGID	Typical
23	M159A	N270	N271A			RIGID	None	None	RIGID	Typical
24	M177	N297	N296			RIGID	None	None	RIGID	Typical
25	M179	N301	N300			RIGID	None	None	RIGID	Typical
26	M189	N326	N327			RIGID	None	None	RIGID	Typical
27	M157B	N279	N281B			RIGID	None	None	RIGID	Typical
28	M164A	N289B	N290A			RIGID	None	None	RIGID	Typical
29	M173A	N303	N304A			RIGID	None	None	RIGID	Typical
30	M180	N310A	N311A			RIGID	None	None	RIGID	Typical
31	M181A	N303	N301B			RIGID	None	None	RIGID	Typical
32	M188A	N307B	N308B			RIGID	None	None	RIGID	Typical
33	M197	N242B	N309B			RIGID	None	None	RIGID	Typical
34	M204	N315A	N316A			RIGID	None	None	RIGID	Typical
35	M229	N279	N329			RIGID	None	None	RIGID	Typical
36	M236	N335	N336			RIGID	None	None	RIGID	Typical
37	M187	N323	N324			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
38	M188	N326	N323			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
39	M162B	N286B	N287B			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
40	M163A	N289B	N286B			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
41	M178	N307A	N308A			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
42	M179B	N310A	N307A			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
43	M186A	N304B	N305B			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
44	M187A	N307B	N304B			Standoff Plate	Beam	RECT	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
45	M202	N312A	N313A			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
46	M203	N315A	N312A			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
47	M234	N332	N333			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
48	M235	N335	N332			Standoff Plate	Beam	RECT	A36 Gr.36	Typical
49	MP1A	N252	N256			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
50	MP2A	N251	N255			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
51	MP3A	N250	N254			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
52	MP4A	N249	N253			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
53	MP5A	N197B	N198B			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
54	MP1C	N213	N217			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
55	MP2C	N212	N216B			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
56	MP3C	N211B	N215B			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
57	MP4C	N210B	N214B			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
58	MP5C	N250B	N251B			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
59	MP1B	N235C	N239C			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
60	MP2B	N234B	N238B			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
61	MP3B	N233C	N237C			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
62	MP4B	N232B	N236B			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
63	MP5B	N272	N273A			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
64	F	N202A	N203A			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
65	M119B	N199B	N200B			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
66	M130B	N222A	N223A			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
67	M145B	N250C	N321			Crossmember	Beam	Tube	A500 Gr.B..	Typical
68	M159B	N281B	N284A			Crossmember	Beam	Tube	A500 Gr.B..	Typical
69	M175	N304A	N305A			Crossmember	Beam	Tube	A500 Gr.B..	Typical
70	M183A	N301B	N302			Crossmember	Beam	Tube	A500 Gr.B..	Typical
71	M199	N309B	N310B			Crossmember	Beam	Tube	A500 Gr.B..	Typical
72	M231	N329	N330			Crossmember	Beam	Tube	A500 Gr.B..	Typical
73	M129B	N222B	N221			Corner Plate	Beam	RECT	A36 Gr.36	Typical
74	M138A	N232A	N221			Corner Plate	Beam	RECT	A36 Gr.36	Typical
75	M139A	N222B	N233A			Corner Plate	Beam	RECT	A36 Gr.36	Typical
76	M140B	N244B	N243C			Corner Plate	Beam	RECT	A36 Gr.36	Typical
77	M149B	N254B	N243C			Corner Plate	Beam	RECT	A36 Gr.36	Typical
78	M150A	N244B	N255B			Corner Plate	Beam	RECT	A36 Gr.36	Typical
79	M162A	N278	N277			Corner Plate	Beam	RECT	A36 Gr.36	Typical
80	M171A	N288A	N277			Corner Plate	Beam	RECT	A36 Gr.36	Typical
81	M172A	N278	N289			Corner Plate	Beam	RECT	A36 Gr.36	Typical
82	M61	N101	N100		180	Mod Support ...	Beam	Pipe	A53 Gr. B	Typical
83	M64	N131	N132			RIGID	None	None	RIGID	Typical
84	M65	N133	N134			RIGID	None	None	RIGID	Typical
85	M99	N174	N178			RIGID	None	None	RIGID	Typical
86	M101	N172	N176			RIGID	None	None	RIGID	Typical
87	M102	N171	N175			RIGID	None	None	RIGID	Typical
88	M103	N179	N180			RIGID	None	None	RIGID	Typical
89	M104	N182	N181		180	Mod Support ...	Beam	Pipe	A53 Gr. B	Typical
90	M105	N183	N184			RIGID	None	None	RIGID	Typical
91	M106	N185	N186			RIGID	None	None	RIGID	Typical
92	M107	N190	N194			RIGID	None	None	RIGID	Typical
93	M109	N188	N192			RIGID	None	None	RIGID	Typical
94	M110	N187	N191			RIGID	None	None	RIGID	Typical
95	M111	N195	N196			RIGID	None	None	RIGID	Typical
96	M120	N214	N213A		180	Mod Support ...	Beam	Pipe	A53 Gr. B	Typical
97	M121	N215	N216			RIGID	None	None	RIGID	Typical
98	M122	N217A	N218A			RIGID	None	None	RIGID	Typical
99	M123	N222	N226			RIGID	None	None	RIGID	Typical
100	M125	N220	N224			RIGID	None	None	RIGID	Typical
101	M126	N219	N223			RIGID	None	None	RIGID	Typical
102	M127	N227	N228			RIGID	None	None	RIGID	Typical
103	M128	N184	N134		90	Mod Support ...	Beam	RECT	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
104	M129	N216	N186		90	Mod Support ...	Beam	RECT	A36 Gr.36	Typical
105	M130	N218A	N132		180	Mod Support ...	Beam	RECT	A36 Gr.36	Typical
106	M124	N230	N199			RIGID	None	None	RIGID	Typical
107	M131	N229	N197			RIGID	None	None	RIGID	Typical
108	M132	N201	N229		270	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
109	M133	N207	N230			Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
110	M134	N225	N231			Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
111	M135	N206	N232		270	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
112	M136	N202	N233			Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
113	M137	N211	N234		270	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
114	M138	N232	N235			RIGID	None	None	RIGID	Typical
115	M139	N231	N236			RIGID	None	None	RIGID	Typical
116	M140	N234	N237			RIGID	None	None	RIGID	Typical
117	M141	N233	N238			RIGID	None	None	RIGID	Typical
118	M142	N193	N239			RIGID	None	None	RIGID	Typical
119	M143	N193	N240			RIGID	None	None	RIGID	Typical
120	M145	N202	N240			RIGID	None	None	RIGID	Typical
121	M146	N201	N239			RIGID	None	None	RIGID	Typical
122	M147	N198	N241			RIGID	None	None	RIGID	Typical
123	M148	N198	N242			RIGID	None	None	RIGID	Typical
124	M149	N207	N242			RIGID	None	None	RIGID	Typical
125	M150	N206	N241			RIGID	None	None	RIGID	Typical
126	M151	N189	N243			RIGID	None	None	RIGID	Typical
127	M152	N189	N244			RIGID	None	None	RIGID	Typical
128	M153	N225	N244			RIGID	None	None	RIGID	Typical
129	M154	N211	N243			RIGID	None	None	RIGID	Typical
130	M130A	N210	N209A			RIGID	None	None	RIGID	Typical
131	OVP	N212A	N211A			Mount Pipe	Column	Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M128A						Yes				None
2	M139B						Yes				None
3	M161A						Yes				None
4	M141A						Yes	** NA **			None
5	M142A						Yes	** NA **			None
6	M143A						Yes	** NA **			None
7	M144A						Yes	** NA **			None
8	M117B						Yes	** NA **			None
9	M120B						Yes	** NA **			None
10	M121B						Yes	** NA **			None
11	M122B						Yes	** NA **			None
12	M123B						Yes	** NA **			None
13	M144	BenPIN					Yes	** NA **			None
14	M146A	BenPIN					Yes	** NA **			None
15	M148A						Yes	** NA **			None
16	M131A						Yes	** NA **			None
17	M132A						Yes	** NA **			None
18	M133A						Yes	** NA **			None
19	M134B						Yes	** NA **			None
20	M141C						Yes	** NA **			None
21	M155	BenPIN					Yes	** NA **			None
22	M157A	BenPIN					Yes	** NA **			None
23	M159A						Yes	** NA **			None
24	M177	BenPIN					Yes	** NA **			None
25	M179	BenPIN					Yes	** NA **			None
26	M189		BenPIN				Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
27	M157B						Yes	** NA **			None
28	M164A		BenPIN				Yes	** NA **			None
29	M173A						Yes	** NA **			None
30	M180		BenPIN				Yes	** NA **			None
31	M181A						Yes	** NA **			None
32	M188A		BenPIN				Yes	** NA **			None
33	M197						Yes	** NA **			None
34	M204		BenPIN				Yes	** NA **			None
35	M229						Yes	** NA **			None
36	M236		BenPIN				Yes	** NA **			None
37	M187						Yes				None
38	M188						Yes				None
39	M162B						Yes				None
40	M163A						Yes				None
41	M178						Yes				None
42	M179B						Yes				None
43	M186A						Yes				None
44	M187A						Yes				None
45	M202						Yes				None
46	M203						Yes				None
47	M234						Yes				None
48	M235						Yes				None
49	MP1A						Yes	** NA **			None
50	MP2A						Yes	** NA **			None
51	MP3A						Yes	** NA **			None
52	MP4A						Yes	** NA **			None
53	MP5A						Yes	** NA **			None
54	MP1C						Yes	** NA **			None
55	MP2C						Yes	** NA **			None
56	MP3C						Yes	** NA **			None
57	MP4C						Yes	** NA **			None
58	MP5C						Yes	** NA **			None
59	MP1B						Yes	** NA **			None
60	MP2B						Yes	** NA **			None
61	MP3B						Yes	** NA **			None
62	MP4B						Yes	** NA **			None
63	MP5B						Yes	** NA **			None
64	F						Yes	Default			None
65	M119B						Yes				None
66	M130B						Yes				None
67	M145B						Yes	Default			None
68	M159B						Yes	Default			None
69	M175						Yes	Default			None
70	M183A						Yes	Default			None
71	M199						Yes	Default			None
72	M231						Yes	Default			None
73	M129B						Yes	Default			None
74	M138A						Yes				None
75	M139A						Yes				None
76	M140B						Yes	Default			None
77	M149B						Yes				None
78	M150A						Yes				None
79	M162A						Yes	Default			None
80	M171A						Yes				None
81	M172A						Yes				None
82	M61						Yes				None
83	M64	OOOOOX					Yes	** NA **			None
84	M65	OOOOOX					Yes	** NA **			None
85	M99						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic...
86	M101						Yes	** NA **			None
87	M102						Yes	** NA **			None
88	M103						Yes	** NA **			None
89	M104						Yes				None
90	M105	OOOOOX					Yes	** NA **			None
91	M106	OOOOOX					Yes	** NA **			None
92	M107						Yes	** NA **			None
93	M109						Yes	** NA **			None
94	M110						Yes	** NA **			None
95	M111						Yes	** NA **			None
96	M120						Yes				None
97	M121	OOOOOX					Yes	** NA **			None
98	M122	OOOOOX					Yes	** NA **			None
99	M123						Yes	** NA **			None
100	M125						Yes	** NA **			None
101	M126						Yes	** NA **			None
102	M127						Yes	** NA **			None
103	M128						Yes				None
104	M129						Yes				None
105	M130						Yes				None
106	M124						Yes	** NA **			None
107	M131						Yes	** NA **			None
108	M132	OOOOXO	OOOOXO				Yes	Default			None
109	M133	OOOOOX	OOOOOX				Yes	Default			None
110	M134	OOOOOX	OOOOOX				Yes	Default			None
111	M135	OOOOXO	OOOOXO				Yes	Default			None
112	M136	OOOOOX	OOOOOX				Yes	Default			None
113	M137	OOOOXO	OOOOXO				Yes	Default			None
114	M138						Yes	** NA **			None
115	M139						Yes	** NA **			None
116	M140						Yes	** NA **			None
117	M141						Yes	** NA **			None
118	M142						Yes	** NA **			None
119	M143						Yes	** NA **			None
120	M145						Yes	** NA **			None
121	M146						Yes	** NA **			None
122	M147						Yes	** NA **			None
123	M148						Yes	** NA **			None
124	M149						Yes	** NA **			None
125	M150						Yes	** NA **			None
126	M151						Yes	** NA **			None
127	M152						Yes	** NA **			None
128	M153						Yes	** NA **			None
129	M154						Yes	** NA **			None
130	M130A						Yes	** NA **			None
131	OVP						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-28.65	1.25
2	MP4A	My	-.019	1.25
3	MP4A	Mz	0	1.25
4	MP4A	Y	-28.65	3.25
5	MP4A	My	-.019	3.25
6	MP4A	Mz	0	3.25
7	MP4B	Y	-28.65	1.25
8	MP4B	My	.015	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP4B	Mz	-.012	1.25
10	MP4B	Y	-28.65	3.25
11	MP4B	My	.015	3.25
12	MP4B	Mz	-.012	3.25
13	MP4C	Y	-28.65	1.25
14	MP4C	My	.012	1.25
15	MP4C	Mz	.015	1.25
16	MP4C	Y	-28.65	3.25
17	MP4C	My	.012	3.25
18	MP4C	Mz	.015	3.25
19	MP1A	Y	-74.7	2
20	MP1A	My	.037	2
21	MP1A	Mz	0	2
22	MP1B	Y	-74.7	2
23	MP1B	My	-.029	2
24	MP1B	Mz	.024	2
25	MP1C	Y	-74.7	2
26	MP1C	My	-.024	2
27	MP1C	Mz	-.029	2
28	MP5A	Y	-79.1	2
29	MP5A	My	.04	2
30	MP5A	Mz	0	2
31	MP5B	Y	-79.1	2
32	MP5B	My	-.03	2
33	MP5B	Mz	.025	2
34	MP5C	Y	-79.1	2
35	MP5C	My	-.025	2
36	MP5C	Mz	-.03	2
37	OVP	Y	-32	1
38	OVP	My	0	1
39	OVP	Mz	0	1
40	MP3A	Y	-8.5	.25
41	MP3A	My	-.003	.25
42	MP3A	Mz	0	.25
43	MP3A	Y	-8.5	4.25
44	MP3A	My	-.003	4.25
45	MP3A	Mz	0	4.25
46	MP3B	Y	-8.5	.25
47	MP3B	My	.002	.25
48	MP3B	Mz	-.002	.25
49	MP3B	Y	-8.5	4.25
50	MP3B	My	.002	4.25
51	MP3B	Mz	-.002	4.25
52	MP3C	Y	-8.5	.25
53	MP3C	My	.002	.25
54	MP3C	Mz	.002	.25
55	MP3C	Y	-8.5	4.25
56	MP3C	My	.002	4.25
57	MP3C	Mz	.002	4.25
58	MP1A	Y	-21.85	.25
59	MP1A	My	-.015	.25
60	MP1A	Mz	0	.25
61	MP1A	Y	-21.85	4.25
62	MP1A	My	-.015	4.25
63	MP1A	Mz	0	4.25
64	MP1B	Y	-21.85	.25
65	MP1B	My	.011	.25
66	MP1B	Mz	-.009	.25
67	MP1B	Y	-21.85	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP1B	My	.011	4.25
69	MP1B	Mz	-.009	4.25
70	MP1C	Y	-21.85	.25
71	MP1C	My	.009	.25
72	MP1C	Mz	.011	.25
73	MP1C	Y	-21.85	4.25
74	MP1C	My	.009	4.25
75	MP1C	Mz	.011	4.25
76	MP5A	Y	-21.85	.25
77	MP5A	My	-.015	.25
78	MP5A	Mz	0	.25
79	MP5A	Y	-21.85	4.25
80	MP5A	My	-.015	4.25
81	MP5A	Mz	0	4.25
82	MP5B	Y	-21.85	.25
83	MP5B	My	.011	.25
84	MP5B	Mz	-.009	.25
85	MP5B	Y	-21.85	4.25
86	MP5B	My	.011	4.25
87	MP5B	Mz	-.009	4.25
88	MP5C	Y	-21.85	.25
89	MP5C	My	.009	.25
90	MP5C	Mz	.011	.25
91	MP5C	Y	-21.85	4.25
92	MP5C	My	.009	4.25
93	MP5C	Mz	.011	4.25

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-30.376	1.25
2	MP4A	My	-.02	1.25
3	MP4A	Mz	0	1.25
4	MP4A	Y	-30.376	3.25
5	MP4A	My	-.02	3.25
6	MP4A	Mz	0	3.25
7	MP4B	Y	-30.376	1.25
8	MP4B	My	.016	1.25
9	MP4B	Mz	-.013	1.25
10	MP4B	Y	-30.376	3.25
11	MP4B	My	.016	3.25
12	MP4B	Mz	-.013	3.25
13	MP4C	Y	-30.376	1.25
14	MP4C	My	.013	1.25
15	MP4C	Mz	.016	1.25
16	MP4C	Y	-30.376	3.25
17	MP4C	My	.013	3.25
18	MP4C	Mz	.016	3.25
19	MP1A	Y	-45.809	2
20	MP1A	My	.023	2
21	MP1A	Mz	0	2
22	MP1B	Y	-45.809	2
23	MP1B	My	-.018	2
24	MP1B	Mz	.015	2
25	MP1C	Y	-45.809	2
26	MP1C	My	-.015	2
27	MP1C	Mz	-.018	2
28	MP5A	Y	-46.293	2
29	MP5A	My	.023	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP5A	Mz	0	2
31	MP5B	Y	-46.293	2
32	MP5B	My	-.018	2
33	MP5B	Mz	.015	2
34	MP5C	Y	-46.293	2
35	MP5C	My	-.015	2
36	MP5C	Mz	-.018	2
37	OVP	Y	-89.636	1
38	OVP	My	0	1
39	OVP	Mz	0	1
40	MP3A	Y	-52.79	.25
41	MP3A	My	-.018	.25
42	MP3A	Mz	0	.25
43	MP3A	Y	-52.79	4.25
44	MP3A	My	-.018	4.25
45	MP3A	Mz	0	4.25
46	MP3B	Y	-52.79	.25
47	MP3B	My	.013	.25
48	MP3B	Mz	-.011	.25
49	MP3B	Y	-52.79	4.25
50	MP3B	My	.013	4.25
51	MP3B	Mz	-.011	4.25
52	MP3C	Y	-52.79	.25
53	MP3C	My	.011	.25
54	MP3C	Mz	.013	.25
55	MP3C	Y	-52.79	4.25
56	MP3C	My	.011	4.25
57	MP3C	Mz	.013	4.25
58	MP1A	Y	-61.792	.25
59	MP1A	My	-.041	.25
60	MP1A	Mz	0	.25
61	MP1A	Y	-61.792	4.25
62	MP1A	My	-.041	4.25
63	MP1A	Mz	0	4.25
64	MP1B	Y	-61.792	.25
65	MP1B	My	.032	.25
66	MP1B	Mz	-.026	.25
67	MP1B	Y	-61.792	4.25
68	MP1B	My	.032	4.25
69	MP1B	Mz	-.026	4.25
70	MP1C	Y	-61.792	.25
71	MP1C	My	.026	.25
72	MP1C	Mz	.032	.25
73	MP1C	Y	-61.792	4.25
74	MP1C	My	.026	4.25
75	MP1C	Mz	.032	4.25
76	MP5A	Y	-61.792	.25
77	MP5A	My	-.041	.25
78	MP5A	Mz	0	.25
79	MP5A	Y	-61.792	4.25
80	MP5A	My	-.041	4.25
81	MP5A	Mz	0	4.25
82	MP5B	Y	-61.792	.25
83	MP5B	My	.032	.25
84	MP5B	Mz	-.026	.25
85	MP5B	Y	-61.792	4.25
86	MP5B	My	.032	4.25
87	MP5B	Mz	-.026	4.25
88	MP5C	Y	-61.792	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	MP5C	My	.026	.25
90	MP5C	Mz	.032	.25
91	MP5C	Y	-61.792	4.25
92	MP5C	My	.026	4.25
93	MP5C	Mz	.032	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1.25
2	MP4A	Z	-74.973	1.25
3	MP4A	Mx	0	1.25
4	MP4A	X	0	3.25
5	MP4A	Z	-74.973	3.25
6	MP4A	Mx	0	3.25
7	MP4B	X	0	1.25
8	MP4B	Z	-54.877	1.25
9	MP4B	Mx	.024	1.25
10	MP4B	X	0	3.25
11	MP4B	Z	-54.877	3.25
12	MP4B	Mx	.024	3.25
13	MP4C	X	0	1.25
14	MP4C	Z	-46.432	1.25
15	MP4C	Mx	-.024	1.25
16	MP4C	X	0	3.25
17	MP4C	Z	-46.432	3.25
18	MP4C	Mx	-.024	3.25
19	MP1A	X	0	2
20	MP1A	Z	-73.55	2
21	MP1A	Mx	0	2
22	MP1B	X	0	2
23	MP1B	Z	-63.551	2
24	MP1B	Mx	-.02	2
25	MP1C	X	0	2
26	MP1C	Z	-59.348	2
27	MP1C	Mx	.023	2
28	MP5A	X	0	2
29	MP5A	Z	-88.734	2
30	MP5A	Mx	0	2
31	MP5B	X	0	2
32	MP5B	Z	-77.069	2
33	MP5B	Mx	-.025	2
34	MP5C	X	0	2
35	MP5C	Z	-72.166	2
36	MP5C	Mx	.028	2
37	OVP	X	0	1
38	OVP	Z	-123.374	1
39	OVP	Mx	0	1
40	MP3A	X	0	.25
41	MP3A	Z	-179.604	.25
42	MP3A	Mx	0	.25
43	MP3A	X	0	4.25
44	MP3A	Z	-179.604	4.25
45	MP3A	Mx	0	4.25
46	MP3B	X	0	.25
47	MP3B	Z	-146.157	.25
48	MP3B	Mx	.031	.25
49	MP3B	X	0	4.25
50	MP3B	Z	-146.157	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
51	MP3B	Mx	.031	4.25
52	MP3C	X	0	.25
53	MP3C	Z	-132.1	.25
54	MP3C	Mx	-.034	.25
55	MP3C	X	0	4.25
56	MP3C	Z	-132.1	4.25
57	MP3C	Mx	-.034	4.25
58	MP1A	X	0	.25
59	MP1A	Z	-128.831	.25
60	MP1A	Mx	0	.25
61	MP1A	X	0	4.25
62	MP1A	Z	-128.831	4.25
63	MP1A	Mx	0	4.25
64	MP1B	X	0	.25
65	MP1B	Z	-98.442	.25
66	MP1B	Mx	.042	.25
67	MP1B	X	0	4.25
68	MP1B	Z	-98.442	4.25
69	MP1B	Mx	.042	4.25
70	MP1C	X	0	.25
71	MP1C	Z	-85.67	.25
72	MP1C	Mx	-.044	.25
73	MP1C	X	0	4.25
74	MP1C	Z	-85.67	4.25
75	MP1C	Mx	-.044	4.25
76	MP5A	X	0	.25
77	MP5A	Z	-128.831	.25
78	MP5A	Mx	0	.25
79	MP5A	X	0	4.25
80	MP5A	Z	-128.831	4.25
81	MP5A	Mx	0	4.25
82	MP5B	X	0	.25
83	MP5B	Z	-98.442	.25
84	MP5B	Mx	.042	.25
85	MP5B	X	0	4.25
86	MP5B	Z	-98.442	4.25
87	MP5B	Mx	.042	4.25
88	MP5C	X	0	.25
89	MP5C	Z	-85.67	.25
90	MP5C	Mx	-.044	.25
91	MP5C	X	0	4.25
92	MP5C	Z	-85.67	4.25
93	MP5C	Mx	-.044	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	31.407	1.25
2	MP4A	Z	-54.398	1.25
3	MP4A	Mx	-.021	1.25
4	MP4A	X	31.407	3.25
5	MP4A	Z	-54.398	3.25
6	MP4A	Mx	-.021	3.25
7	MP4B	X	16.013	1.25
8	MP4B	Z	-27.735	1.25
9	MP4B	Mx	.02	1.25
10	MP4B	X	16.013	3.25
11	MP4B	Z	-27.735	3.25
12	MP4B	Mx	.02	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP4C	X	34.642	1.25
14	MP4C	Z	-60.002	1.25
15	MP4C	Mx	-.016	1.25
16	MP4C	X	34.642	3.25
17	MP4C	Z	-60.002	3.25
18	MP4C	Mx	-.016	3.25
19	MP1A	X	33.75	2
20	MP1A	Z	-58.456	2
21	MP1A	Mx	.017	2
22	MP1B	X	26.09	2
23	MP1B	Z	-45.19	2
24	MP1B	Mx	-.025	2
25	MP1C	X	35.359	2
26	MP1C	Z	-61.244	2
27	MP1C	Mx	.012	2
28	MP5A	X	40.838	2
29	MP5A	Z	-70.733	2
30	MP5A	Mx	.02	2
31	MP5B	X	31.902	2
32	MP5B	Z	-55.255	2
33	MP5B	Mx	-.03	2
34	MP5C	X	42.716	2
35	MP5C	Z	-73.986	2
36	MP5C	Mx	.015	2
37	OVP	X	57.179	1
38	OVP	Z	-99.037	1
39	OVP	Mx	0	1
40	MP3A	X	79.683	.25
41	MP3A	Z	-138.015	.25
42	MP3A	Mx	-.027	.25
43	MP3A	X	79.683	4.25
44	MP3A	Z	-138.015	4.25
45	MP3A	Mx	-.027	4.25
46	MP3B	X	54.062	.25
47	MP3B	Z	-93.638	.25
48	MP3B	Mx	.034	.25
49	MP3B	X	54.062	4.25
50	MP3B	Z	-93.638	4.25
51	MP3B	Mx	.034	4.25
52	MP3C	X	85.067	.25
53	MP3C	Z	-147.341	.25
54	MP3C	Mx	-.019	.25
55	MP3C	X	85.067	4.25
56	MP3C	Z	-147.341	4.25
57	MP3C	Mx	-.019	4.25
58	MP1A	X	55.222	.25
59	MP1A	Z	-95.647	.25
60	MP1A	Mx	-.037	.25
61	MP1A	X	55.222	4.25
62	MP1A	Z	-95.647	4.25
63	MP1A	Mx	-.037	4.25
64	MP1B	X	31.942	.25
65	MP1B	Z	-55.326	.25
66	MP1B	Mx	.04	.25
67	MP1B	X	31.942	4.25
68	MP1B	Z	-55.326	4.25
69	MP1B	Mx	.04	4.25
70	MP1C	X	60.114	.25
71	MP1C	Z	-104.12	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP1C	Mx	-.027	.25
73	MP1C	X	60.114	4.25
74	MP1C	Z	-104.12	4.25
75	MP1C	Mx	-.027	4.25
76	MP5A	X	55.222	.25
77	MP5A	Z	-95.647	.25
78	MP5A	Mx	-.037	.25
79	MP5A	X	55.222	4.25
80	MP5A	Z	-95.647	4.25
81	MP5A	Mx	-.037	4.25
82	MP5B	X	31.942	.25
83	MP5B	Z	-55.326	.25
84	MP5B	Mx	.04	.25
85	MP5B	X	31.942	4.25
86	MP5B	Z	-55.326	4.25
87	MP5B	Mx	.04	4.25
88	MP5C	X	60.114	.25
89	MP5C	Z	-104.12	.25
90	MP5C	Mx	-.027	.25
91	MP5C	X	60.114	4.25
92	MP5C	Z	-104.12	4.25
93	MP5C	Mx	-.027	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	33.338	1.25
2	MP4A	Z	-19.247	1.25
3	MP4A	Mx	-.022	1.25
4	MP4A	X	33.338	3.25
5	MP4A	Z	-19.247	3.25
6	MP4A	Mx	-.022	3.25
7	MP4B	X	24.077	1.25
8	MP4B	Z	-13.901	1.25
9	MP4B	Mx	.018	1.25
10	MP4B	X	24.077	3.25
11	MP4B	Z	-13.901	3.25
12	MP4B	Mx	.018	3.25
13	MP4C	X	63.659	1.25
14	MP4C	Z	-36.753	1.25
15	MP4C	Mx	.009	1.25
16	MP4C	X	63.659	3.25
17	MP4C	Z	-36.753	3.25
18	MP4C	Mx	.009	3.25
19	MP1A	X	47.977	2
20	MP1A	Z	-27.7	2
21	MP1A	Mx	.024	2
22	MP1B	X	43.37	2
23	MP1B	Z	-25.04	2
24	MP1B	Mx	-.025	2
25	MP1C	X	63.064	2
26	MP1C	Z	-36.41	2
27	MP1C	Mx	-.006	2
28	MP5A	X	58.508	2
29	MP5A	Z	-33.78	2
30	MP5A	Mx	.029	2
31	MP5B	X	53.132	2
32	MP5B	Z	-30.676	2
33	MP5B	Mx	-.03	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5C	X	76.109	2
35	MP5C	Z	-43.941	2
36	MP5C	Mx	-.008	2
37	OVP	X	106.845	1
38	OVP	Z	-61.687	1
39	OVP	Mx	0	1
40	MP3A	X	102.963	.25
41	MP3A	Z	-59.446	.25
42	MP3A	Mx	-.034	.25
43	MP3A	X	102.963	4.25
44	MP3A	Z	-59.446	4.25
45	MP3A	Mx	-.034	4.25
46	MP3B	X	87.551	.25
47	MP3B	Z	-50.547	.25
48	MP3B	Mx	.033	.25
49	MP3B	X	87.551	4.25
50	MP3B	Z	-50.547	4.25
51	MP3B	Mx	.033	4.25
52	MP3C	X	153.428	.25
53	MP3C	Z	-88.581	.25
54	MP3C	Mx	.01	.25
55	MP3C	X	153.428	4.25
56	MP3C	Z	-88.581	4.25
57	MP3C	Mx	.01	4.25
58	MP1A	X	63.799	.25
59	MP1A	Z	-36.834	.25
60	MP1A	Mx	-.043	.25
61	MP1A	X	63.799	4.25
62	MP1A	Z	-36.834	4.25
63	MP1A	Mx	-.043	4.25
64	MP1B	X	49.795	.25
65	MP1B	Z	-28.749	.25
66	MP1B	Mx	.038	.25
67	MP1B	X	49.795	4.25
68	MP1B	Z	-28.749	4.25
69	MP1B	Mx	.038	4.25
70	MP1C	X	109.65	.25
71	MP1C	Z	-63.306	.25
72	MP1C	Mx	.015	.25
73	MP1C	X	109.65	4.25
74	MP1C	Z	-63.306	4.25
75	MP1C	Mx	.015	4.25
76	MP5A	X	63.799	.25
77	MP5A	Z	-36.834	.25
78	MP5A	Mx	-.043	.25
79	MP5A	X	63.799	4.25
80	MP5A	Z	-36.834	4.25
81	MP5A	Mx	-.043	4.25
82	MP5B	X	49.795	.25
83	MP5B	Z	-28.749	.25
84	MP5B	Mx	.038	.25
85	MP5B	X	49.795	4.25
86	MP5B	Z	-28.749	4.25
87	MP5B	Mx	.038	4.25
88	MP5C	X	109.65	.25
89	MP5C	Z	-63.306	.25
90	MP5C	Mx	.015	.25
91	MP5C	X	109.65	4.25
92	MP5C	Z	-63.306	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
93	MP5C	Mx	.015	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	26.336	1.25
2	MP4A	Z	0	1.25
3	MP4A	Mx	-.018	1.25
4	MP4A	X	26.336	3.25
5	MP4A	Z	0	3.25
6	MP4A	Mx	-.018	3.25
7	MP4B	X	46.432	1.25
8	MP4B	Z	0	1.25
9	MP4B	Mx	.024	1.25
10	MP4B	X	46.432	3.25
11	MP4B	Z	0	3.25
12	MP4B	Mx	.024	3.25
13	MP4C	X	54.877	1.25
14	MP4C	Z	0	1.25
15	MP4C	Mx	.024	1.25
16	MP4C	X	54.877	3.25
17	MP4C	Z	0	3.25
18	MP4C	Mx	.024	3.25
19	MP1A	X	49.35	2
20	MP1A	Z	0	2
21	MP1A	Mx	.025	2
22	MP1B	X	59.348	2
23	MP1B	Z	0	2
24	MP1B	Mx	-.023	2
25	MP1C	X	63.551	2
26	MP1C	Z	0	2
27	MP1C	Mx	-.02	2
28	MP5A	X	60.501	2
29	MP5A	Z	0	2
30	MP5A	Mx	.03	2
31	MP5B	X	72.166	2
32	MP5B	Z	0	2
33	MP5B	Mx	-.028	2
34	MP5C	X	77.069	2
35	MP5C	Z	0	2
36	MP5C	Mx	-.025	2
37	OVP	X	141.405	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	MP3A	X	98.654	.25
41	MP3A	Z	0	.25
42	MP3A	Mx	-.033	.25
43	MP3A	X	98.654	4.25
44	MP3A	Z	0	4.25
45	MP3A	Mx	-.033	4.25
46	MP3B	X	132.1	.25
47	MP3B	Z	0	.25
48	MP3B	Mx	.034	.25
49	MP3B	X	132.1	4.25
50	MP3B	Z	0	4.25
51	MP3B	Mx	.034	4.25
52	MP3C	X	146.157	.25
53	MP3C	Z	0	.25
54	MP3C	Mx	.031	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	MP3C	X	146.157	4.25
56	MP3C	Z	0	4.25
57	MP3C	Mx	.031	4.25
58	MP1A	X	55.281	.25
59	MP1A	Z	0	.25
60	MP1A	Mx	-.037	.25
61	MP1A	X	55.281	4.25
62	MP1A	Z	0	4.25
63	MP1A	Mx	-.037	4.25
64	MP1B	X	85.67	.25
65	MP1B	Z	0	.25
66	MP1B	Mx	.044	.25
67	MP1B	X	85.67	4.25
68	MP1B	Z	0	4.25
69	MP1B	Mx	.044	4.25
70	MP1C	X	98.442	.25
71	MP1C	Z	0	.25
72	MP1C	Mx	.042	.25
73	MP1C	X	98.442	4.25
74	MP1C	Z	0	4.25
75	MP1C	Mx	.042	4.25
76	MP5A	X	55.281	.25
77	MP5A	Z	0	.25
78	MP5A	Mx	-.037	.25
79	MP5A	X	55.281	4.25
80	MP5A	Z	0	4.25
81	MP5A	Mx	-.037	4.25
82	MP5B	X	85.67	.25
83	MP5B	Z	0	.25
84	MP5B	Mx	.044	.25
85	MP5B	X	85.67	4.25
86	MP5B	Z	0	4.25
87	MP5B	Mx	.044	4.25
88	MP5C	X	98.442	.25
89	MP5C	Z	0	.25
90	MP5C	Mx	.042	.25
91	MP5C	X	98.442	4.25
92	MP5C	Z	0	4.25
93	MP5C	Mx	.042	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	33.338	1.25
2	MP4A	Z	19.247	1.25
3	MP4A	Mx	-.022	1.25
4	MP4A	X	33.338	3.25
5	MP4A	Z	19.247	3.25
6	MP4A	Mx	-.022	3.25
7	MP4B	X	60.002	1.25
8	MP4B	Z	34.642	1.25
9	MP4B	Mx	.016	1.25
10	MP4B	X	60.002	3.25
11	MP4B	Z	34.642	3.25
12	MP4B	Mx	.016	3.25
13	MP4C	X	27.735	1.25
14	MP4C	Z	16.013	1.25
15	MP4C	Mx	.02	1.25
16	MP4C	X	27.735	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4C	Z	16.013	3.25
18	MP4C	Mx	.02	3.25
19	MP1A	X	47.977	2
20	MP1A	Z	27.7	2
21	MP1A	Mx	.024	2
22	MP1B	X	61.244	2
23	MP1B	Z	35.359	2
24	MP1B	Mx	-.012	2
25	MP1C	X	45.19	2
26	MP1C	Z	26.09	2
27	MP1C	Mx	-.025	2
28	MP5A	X	58.508	2
29	MP5A	Z	33.78	2
30	MP5A	Mx	.029	2
31	MP5B	X	73.986	2
32	MP5B	Z	42.716	2
33	MP5B	Mx	-.015	2
34	MP5C	X	55.255	2
35	MP5C	Z	31.902	2
36	MP5C	Mx	-.03	2
37	OVP	X	130.269	1
38	OVP	Z	75.211	1
39	OVP	Mx	0	1
40	MP3A	X	102.963	.25
41	MP3A	Z	59.446	.25
42	MP3A	Mx	-.034	.25
43	MP3A	X	102.963	4.25
44	MP3A	Z	59.446	4.25
45	MP3A	Mx	-.034	4.25
46	MP3B	X	147.341	.25
47	MP3B	Z	85.067	.25
48	MP3B	Mx	.019	.25
49	MP3B	X	147.341	4.25
50	MP3B	Z	85.067	4.25
51	MP3B	Mx	.019	4.25
52	MP3C	X	93.638	.25
53	MP3C	Z	54.062	.25
54	MP3C	Mx	.034	.25
55	MP3C	X	93.638	4.25
56	MP3C	Z	54.062	4.25
57	MP3C	Mx	.034	4.25
58	MP1A	X	63.799	.25
59	MP1A	Z	36.834	.25
60	MP1A	Mx	-.043	.25
61	MP1A	X	63.799	4.25
62	MP1A	Z	36.834	4.25
63	MP1A	Mx	-.043	4.25
64	MP1B	X	104.12	.25
65	MP1B	Z	60.114	.25
66	MP1B	Mx	.027	.25
67	MP1B	X	104.12	4.25
68	MP1B	Z	60.114	4.25
69	MP1B	Mx	.027	4.25
70	MP1C	X	55.326	.25
71	MP1C	Z	31.942	.25
72	MP1C	Mx	.04	.25
73	MP1C	X	55.326	4.25
74	MP1C	Z	31.942	4.25
75	MP1C	Mx	.04	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
76	MP5A	X	63.799	.25
77	MP5A	Z	36.834	.25
78	MP5A	Mx	-.043	.25
79	MP5A	X	63.799	4.25
80	MP5A	Z	36.834	4.25
81	MP5A	Mx	-.043	4.25
82	MP5B	X	104.12	.25
83	MP5B	Z	60.114	.25
84	MP5B	Mx	.027	.25
85	MP5B	X	104.12	4.25
86	MP5B	Z	60.114	4.25
87	MP5B	Mx	.027	4.25
88	MP5C	X	55.326	.25
89	MP5C	Z	31.942	.25
90	MP5C	Mx	.04	.25
91	MP5C	X	55.326	4.25
92	MP5C	Z	31.942	4.25
93	MP5C	Mx	.04	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	31.407	1.25
2	MP4A	Z	54.398	1.25
3	MP4A	Mx	-.021	1.25
4	MP4A	X	31.407	3.25
5	MP4A	Z	54.398	3.25
6	MP4A	Mx	-.021	3.25
7	MP4B	X	36.753	1.25
8	MP4B	Z	63.659	1.25
9	MP4B	Mx	-.009	1.25
10	MP4B	X	36.753	3.25
11	MP4B	Z	63.659	3.25
12	MP4B	Mx	-.009	3.25
13	MP4C	X	13.901	1.25
14	MP4C	Z	24.077	1.25
15	MP4C	Mx	.018	1.25
16	MP4C	X	13.901	3.25
17	MP4C	Z	24.077	3.25
18	MP4C	Mx	.018	3.25
19	MP1A	X	33.75	2
20	MP1A	Z	58.456	2
21	MP1A	Mx	.017	2
22	MP1B	X	36.41	2
23	MP1B	Z	63.064	2
24	MP1B	Mx	.006	2
25	MP1C	X	25.04	2
26	MP1C	Z	43.37	2
27	MP1C	Mx	-.025	2
28	MP5A	X	40.838	2
29	MP5A	Z	70.733	2
30	MP5A	Mx	.02	2
31	MP5B	X	43.941	2
32	MP5B	Z	76.109	2
33	MP5B	Mx	.008	2
34	MP5C	X	30.676	2
35	MP5C	Z	53.132	2
36	MP5C	Mx	-.03	2
37	OVP	X	70.703	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	OVP	Z	122.461	1
39	OVP	Mx	0	1
40	MP3A	X	79.683	.25
41	MP3A	Z	138.015	.25
42	MP3A	Mx	-.027	.25
43	MP3A	X	79.683	4.25
44	MP3A	Z	138.015	4.25
45	MP3A	Mx	-.027	4.25
46	MP3B	X	88.581	.25
47	MP3B	Z	153.428	.25
48	MP3B	Mx	-.01	.25
49	MP3B	X	88.581	4.25
50	MP3B	Z	153.428	4.25
51	MP3B	Mx	-.01	4.25
52	MP3C	X	50.547	.25
53	MP3C	Z	87.551	.25
54	MP3C	Mx	.033	.25
55	MP3C	X	50.547	4.25
56	MP3C	Z	87.551	4.25
57	MP3C	Mx	.033	4.25
58	MP1A	X	55.222	.25
59	MP1A	Z	95.647	.25
60	MP1A	Mx	-.037	.25
61	MP1A	X	55.222	4.25
62	MP1A	Z	95.647	4.25
63	MP1A	Mx	-.037	4.25
64	MP1B	X	63.306	.25
65	MP1B	Z	109.65	.25
66	MP1B	Mx	-.015	.25
67	MP1B	X	63.306	4.25
68	MP1B	Z	109.65	4.25
69	MP1B	Mx	-.015	4.25
70	MP1C	X	28.749	.25
71	MP1C	Z	49.795	.25
72	MP1C	Mx	.038	.25
73	MP1C	X	28.749	4.25
74	MP1C	Z	49.795	4.25
75	MP1C	Mx	.038	4.25
76	MP5A	X	55.222	.25
77	MP5A	Z	95.647	.25
78	MP5A	Mx	-.037	.25
79	MP5A	X	55.222	4.25
80	MP5A	Z	95.647	4.25
81	MP5A	Mx	-.037	4.25
82	MP5B	X	63.306	.25
83	MP5B	Z	109.65	.25
84	MP5B	Mx	-.015	.25
85	MP5B	X	63.306	4.25
86	MP5B	Z	109.65	4.25
87	MP5B	Mx	-.015	4.25
88	MP5C	X	28.749	.25
89	MP5C	Z	49.795	.25
90	MP5C	Mx	.038	.25
91	MP5C	X	28.749	4.25
92	MP5C	Z	49.795	4.25
93	MP5C	Mx	.038	4.25

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1.25
2	MP4A	Z	74.973	1.25
3	MP4A	Mx	0	1.25
4	MP4A	X	0	3.25
5	MP4A	Z	74.973	3.25
6	MP4A	Mx	0	3.25
7	MP4B	X	0	1.25
8	MP4B	Z	54.877	1.25
9	MP4B	Mx	-.024	1.25
10	MP4B	X	0	3.25
11	MP4B	Z	54.877	3.25
12	MP4B	Mx	-.024	3.25
13	MP4C	X	0	1.25
14	MP4C	Z	46.432	1.25
15	MP4C	Mx	.024	1.25
16	MP4C	X	0	3.25
17	MP4C	Z	46.432	3.25
18	MP4C	Mx	.024	3.25
19	MP1A	X	0	2
20	MP1A	Z	73.55	2
21	MP1A	Mx	0	2
22	MP1B	X	0	2
23	MP1B	Z	63.551	2
24	MP1B	Mx	.02	2
25	MP1C	X	0	2
26	MP1C	Z	59.348	2
27	MP1C	Mx	-.023	2
28	MP5A	X	0	2
29	MP5A	Z	88.734	2
30	MP5A	Mx	0	2
31	MP5B	X	0	2
32	MP5B	Z	77.069	2
33	MP5B	Mx	.025	2
34	MP5C	X	0	2
35	MP5C	Z	72.166	2
36	MP5C	Mx	-.028	2
37	OVP	X	0	1
38	OVP	Z	123.374	1
39	OVP	Mx	0	1
40	MP3A	X	0	.25
41	MP3A	Z	179.604	.25
42	MP3A	Mx	0	.25
43	MP3A	X	0	4.25
44	MP3A	Z	179.604	4.25
45	MP3A	Mx	0	4.25
46	MP3B	X	0	.25
47	MP3B	Z	146.157	.25
48	MP3B	Mx	-.031	.25
49	MP3B	X	0	4.25
50	MP3B	Z	146.157	4.25
51	MP3B	Mx	-.031	4.25
52	MP3C	X	0	.25
53	MP3C	Z	132.1	.25
54	MP3C	Mx	.034	.25
55	MP3C	X	0	4.25
56	MP3C	Z	132.1	4.25
57	MP3C	Mx	.034	4.25
58	MP1A	X	0	.25
59	MP1A	Z	128.831	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP1A	Mx	0	.25
61	MP1A	X	0	4.25
62	MP1A	Z	128.831	4.25
63	MP1A	Mx	0	4.25
64	MP1B	X	0	.25
65	MP1B	Z	98.442	.25
66	MP1B	Mx	-.042	.25
67	MP1B	X	0	4.25
68	MP1B	Z	98.442	4.25
69	MP1B	Mx	-.042	4.25
70	MP1C	X	0	.25
71	MP1C	Z	85.67	.25
72	MP1C	Mx	.044	.25
73	MP1C	X	0	4.25
74	MP1C	Z	85.67	4.25
75	MP1C	Mx	.044	4.25
76	MP5A	X	0	.25
77	MP5A	Z	128.831	.25
78	MP5A	Mx	0	.25
79	MP5A	X	0	4.25
80	MP5A	Z	128.831	4.25
81	MP5A	Mx	0	4.25
82	MP5B	X	0	.25
83	MP5B	Z	98.442	.25
84	MP5B	Mx	-.042	.25
85	MP5B	X	0	4.25
86	MP5B	Z	98.442	4.25
87	MP5B	Mx	-.042	4.25
88	MP5C	X	0	.25
89	MP5C	Z	85.67	.25
90	MP5C	Mx	.044	.25
91	MP5C	X	0	4.25
92	MP5C	Z	85.67	4.25
93	MP5C	Mx	.044	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-31.407	1.25
2	MP4A	Z	54.398	1.25
3	MP4A	Mx	.021	1.25
4	MP4A	X	-31.407	3.25
5	MP4A	Z	54.398	3.25
6	MP4A	Mx	.021	3.25
7	MP4B	X	-16.013	1.25
8	MP4B	Z	27.735	1.25
9	MP4B	Mx	-.02	1.25
10	MP4B	X	-16.013	3.25
11	MP4B	Z	27.735	3.25
12	MP4B	Mx	-.02	3.25
13	MP4C	X	-34.642	1.25
14	MP4C	Z	60.002	1.25
15	MP4C	Mx	.016	1.25
16	MP4C	X	-34.642	3.25
17	MP4C	Z	60.002	3.25
18	MP4C	Mx	.016	3.25
19	MP1A	X	-33.75	2
20	MP1A	Z	58.456	2
21	MP1A	Mx	-.017	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP1B	X	-26.09	2
23	MP1B	Z	45.19	2
24	MP1B	Mx	.025	2
25	MP1C	X	-35.359	2
26	MP1C	Z	61.244	2
27	MP1C	Mx	-.012	2
28	MP5A	X	-40.838	2
29	MP5A	Z	70.733	2
30	MP5A	Mx	-.02	2
31	MP5B	X	-31.902	2
32	MP5B	Z	55.255	2
33	MP5B	Mx	.03	2
34	MP5C	X	-42.716	2
35	MP5C	Z	73.986	2
36	MP5C	Mx	-.015	2
37	OVP	X	-57.179	1
38	OVP	Z	99.037	1
39	OVP	Mx	0	1
40	MP3A	X	-79.683	.25
41	MP3A	Z	138.015	.25
42	MP3A	Mx	.027	.25
43	MP3A	X	-79.683	4.25
44	MP3A	Z	138.015	4.25
45	MP3A	Mx	.027	4.25
46	MP3B	X	-54.062	.25
47	MP3B	Z	93.638	.25
48	MP3B	Mx	-.034	.25
49	MP3B	X	-54.062	4.25
50	MP3B	Z	93.638	4.25
51	MP3B	Mx	-.034	4.25
52	MP3C	X	-85.067	.25
53	MP3C	Z	147.341	.25
54	MP3C	Mx	.019	.25
55	MP3C	X	-85.067	4.25
56	MP3C	Z	147.341	4.25
57	MP3C	Mx	.019	4.25
58	MP1A	X	-55.222	.25
59	MP1A	Z	95.647	.25
60	MP1A	Mx	.037	.25
61	MP1A	X	-55.222	4.25
62	MP1A	Z	95.647	4.25
63	MP1A	Mx	.037	4.25
64	MP1B	X	-31.942	.25
65	MP1B	Z	55.326	.25
66	MP1B	Mx	-.04	.25
67	MP1B	X	-31.942	4.25
68	MP1B	Z	55.326	4.25
69	MP1B	Mx	-.04	4.25
70	MP1C	X	-60.114	.25
71	MP1C	Z	104.12	.25
72	MP1C	Mx	.027	.25
73	MP1C	X	-60.114	4.25
74	MP1C	Z	104.12	4.25
75	MP1C	Mx	.027	4.25
76	MP5A	X	-55.222	.25
77	MP5A	Z	95.647	.25
78	MP5A	Mx	.037	.25
79	MP5A	X	-55.222	4.25
80	MP5A	Z	95.647	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP5A	Mx	.037	4.25
82	MP5B	X	-31.942	.25
83	MP5B	Z	55.326	.25
84	MP5B	Mx	-.04	.25
85	MP5B	X	-31.942	4.25
86	MP5B	Z	55.326	4.25
87	MP5B	Mx	-.04	4.25
88	MP5C	X	-60.114	.25
89	MP5C	Z	104.12	.25
90	MP5C	Mx	.027	.25
91	MP5C	X	-60.114	4.25
92	MP5C	Z	104.12	4.25
93	MP5C	Mx	.027	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-33.338	1.25
2	MP4A	Z	19.247	1.25
3	MP4A	Mx	.022	1.25
4	MP4A	X	-33.338	3.25
5	MP4A	Z	19.247	3.25
6	MP4A	Mx	.022	3.25
7	MP4B	X	-24.077	1.25
8	MP4B	Z	13.901	1.25
9	MP4B	Mx	-.018	1.25
10	MP4B	X	-24.077	3.25
11	MP4B	Z	13.901	3.25
12	MP4B	Mx	-.018	3.25
13	MP4C	X	-63.659	1.25
14	MP4C	Z	36.753	1.25
15	MP4C	Mx	-.009	1.25
16	MP4C	X	-63.659	3.25
17	MP4C	Z	36.753	3.25
18	MP4C	Mx	-.009	3.25
19	MP1A	X	-47.977	2
20	MP1A	Z	27.7	2
21	MP1A	Mx	-.024	2
22	MP1B	X	-43.37	2
23	MP1B	Z	25.04	2
24	MP1B	Mx	.025	2
25	MP1C	X	-63.064	2
26	MP1C	Z	36.41	2
27	MP1C	Mx	.006	2
28	MP5A	X	-58.508	2
29	MP5A	Z	33.78	2
30	MP5A	Mx	-.029	2
31	MP5B	X	-53.132	2
32	MP5B	Z	30.676	2
33	MP5B	Mx	.03	2
34	MP5C	X	-76.109	2
35	MP5C	Z	43.941	2
36	MP5C	Mx	.008	2
37	OVP	X	-106.845	1
38	OVP	Z	61.687	1
39	OVP	Mx	0	1
40	MP3A	X	-102.963	.25
41	MP3A	Z	59.446	.25
42	MP3A	Mx	.034	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP3A	X	-102.963	4.25
44	MP3A	Z	59.446	4.25
45	MP3A	Mx	.034	4.25
46	MP3B	X	-87.551	.25
47	MP3B	Z	50.547	.25
48	MP3B	Mx	-.033	.25
49	MP3B	X	-87.551	4.25
50	MP3B	Z	50.547	4.25
51	MP3B	Mx	-.033	4.25
52	MP3C	X	-153.428	.25
53	MP3C	Z	88.581	.25
54	MP3C	Mx	-.01	.25
55	MP3C	X	-153.428	4.25
56	MP3C	Z	88.581	4.25
57	MP3C	Mx	-.01	4.25
58	MP1A	X	-63.799	.25
59	MP1A	Z	36.834	.25
60	MP1A	Mx	.043	.25
61	MP1A	X	-63.799	4.25
62	MP1A	Z	36.834	4.25
63	MP1A	Mx	.043	4.25
64	MP1B	X	-49.795	.25
65	MP1B	Z	28.749	.25
66	MP1B	Mx	-.038	.25
67	MP1B	X	-49.795	4.25
68	MP1B	Z	28.749	4.25
69	MP1B	Mx	-.038	4.25
70	MP1C	X	-109.65	.25
71	MP1C	Z	63.306	.25
72	MP1C	Mx	-.015	.25
73	MP1C	X	-109.65	4.25
74	MP1C	Z	63.306	4.25
75	MP1C	Mx	-.015	4.25
76	MP5A	X	-63.799	.25
77	MP5A	Z	36.834	.25
78	MP5A	Mx	.043	.25
79	MP5A	X	-63.799	4.25
80	MP5A	Z	36.834	4.25
81	MP5A	Mx	.043	4.25
82	MP5B	X	-49.795	.25
83	MP5B	Z	28.749	.25
84	MP5B	Mx	-.038	.25
85	MP5B	X	-49.795	4.25
86	MP5B	Z	28.749	4.25
87	MP5B	Mx	-.038	4.25
88	MP5C	X	-109.65	.25
89	MP5C	Z	63.306	.25
90	MP5C	Mx	-.015	.25
91	MP5C	X	-109.65	4.25
92	MP5C	Z	63.306	4.25
93	MP5C	Mx	-.015	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-26.336	1.25
2	MP4A	Z	0	1.25
3	MP4A	Mx	.018	1.25
4	MP4A	X	-26.336	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP4A	Z	0	3.25
6	MP4A	Mx	.018	3.25
7	MP4B	X	-46.432	1.25
8	MP4B	Z	0	1.25
9	MP4B	Mx	-.024	1.25
10	MP4B	X	-46.432	3.25
11	MP4B	Z	0	3.25
12	MP4B	Mx	-.024	3.25
13	MP4C	X	-54.877	1.25
14	MP4C	Z	0	1.25
15	MP4C	Mx	-.024	1.25
16	MP4C	X	-54.877	3.25
17	MP4C	Z	0	3.25
18	MP4C	Mx	-.024	3.25
19	MP1A	X	-49.35	2
20	MP1A	Z	0	2
21	MP1A	Mx	-.025	2
22	MP1B	X	-59.348	2
23	MP1B	Z	0	2
24	MP1B	Mx	.023	2
25	MP1C	X	-63.551	2
26	MP1C	Z	0	2
27	MP1C	Mx	.02	2
28	MP5A	X	-60.501	2
29	MP5A	Z	0	2
30	MP5A	Mx	-.03	2
31	MP5B	X	-72.166	2
32	MP5B	Z	0	2
33	MP5B	Mx	.028	2
34	MP5C	X	-77.069	2
35	MP5C	Z	0	2
36	MP5C	Mx	.025	2
37	OVP	X	-141.405	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	MP3A	X	-98.654	.25
41	MP3A	Z	0	.25
42	MP3A	Mx	.033	.25
43	MP3A	X	-98.654	4.25
44	MP3A	Z	0	4.25
45	MP3A	Mx	.033	4.25
46	MP3B	X	-132.1	.25
47	MP3B	Z	0	.25
48	MP3B	Mx	-.034	.25
49	MP3B	X	-132.1	4.25
50	MP3B	Z	0	4.25
51	MP3B	Mx	-.034	4.25
52	MP3C	X	-146.157	.25
53	MP3C	Z	0	.25
54	MP3C	Mx	-.031	.25
55	MP3C	X	-146.157	4.25
56	MP3C	Z	0	4.25
57	MP3C	Mx	-.031	4.25
58	MP1A	X	-55.281	.25
59	MP1A	Z	0	.25
60	MP1A	Mx	.037	.25
61	MP1A	X	-55.281	4.25
62	MP1A	Z	0	4.25
63	MP1A	Mx	.037	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP1B	X	-85.67	.25
65	MP1B	Z	0	.25
66	MP1B	Mx	-.044	.25
67	MP1B	X	-85.67	4.25
68	MP1B	Z	0	4.25
69	MP1B	Mx	-.044	4.25
70	MP1C	X	-98.442	.25
71	MP1C	Z	0	.25
72	MP1C	Mx	-.042	.25
73	MP1C	X	-98.442	4.25
74	MP1C	Z	0	4.25
75	MP1C	Mx	-.042	4.25
76	MP5A	X	-55.281	.25
77	MP5A	Z	0	.25
78	MP5A	Mx	.037	.25
79	MP5A	X	-55.281	4.25
80	MP5A	Z	0	4.25
81	MP5A	Mx	.037	4.25
82	MP5B	X	-85.67	.25
83	MP5B	Z	0	.25
84	MP5B	Mx	-.044	.25
85	MP5B	X	-85.67	4.25
86	MP5B	Z	0	4.25
87	MP5B	Mx	-.044	4.25
88	MP5C	X	-98.442	.25
89	MP5C	Z	0	.25
90	MP5C	Mx	-.042	.25
91	MP5C	X	-98.442	4.25
92	MP5C	Z	0	4.25
93	MP5C	Mx	-.042	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-33.338	1.25
2	MP4A	Z	-19.247	1.25
3	MP4A	Mx	.022	1.25
4	MP4A	X	-33.338	3.25
5	MP4A	Z	-19.247	3.25
6	MP4A	Mx	.022	3.25
7	MP4B	X	-60.002	1.25
8	MP4B	Z	-34.642	1.25
9	MP4B	Mx	-.016	1.25
10	MP4B	X	-60.002	3.25
11	MP4B	Z	-34.642	3.25
12	MP4B	Mx	-.016	3.25
13	MP4C	X	-27.735	1.25
14	MP4C	Z	-16.013	1.25
15	MP4C	Mx	-.02	1.25
16	MP4C	X	-27.735	3.25
17	MP4C	Z	-16.013	3.25
18	MP4C	Mx	-.02	3.25
19	MP1A	X	-47.977	2
20	MP1A	Z	-27.7	2
21	MP1A	Mx	-.024	2
22	MP1B	X	-61.244	2
23	MP1B	Z	-35.359	2
24	MP1B	Mx	.012	2
25	MP1C	X	-45.19	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP1C	Z	-26.09	2
27	MP1C	Mx	.025	2
28	MP5A	X	-58.508	2
29	MP5A	Z	-33.78	2
30	MP5A	Mx	-.029	2
31	MP5B	X	-73.986	2
32	MP5B	Z	-42.716	2
33	MP5B	Mx	.015	2
34	MP5C	X	-55.255	2
35	MP5C	Z	-31.902	2
36	MP5C	Mx	.03	2
37	OVP	X	-130.269	1
38	OVP	Z	-75.211	1
39	OVP	Mx	0	1
40	MP3A	X	-102.963	.25
41	MP3A	Z	-59.446	.25
42	MP3A	Mx	.034	.25
43	MP3A	X	-102.963	4.25
44	MP3A	Z	-59.446	4.25
45	MP3A	Mx	.034	4.25
46	MP3B	X	-147.341	.25
47	MP3B	Z	-85.067	.25
48	MP3B	Mx	-.019	.25
49	MP3B	X	-147.341	4.25
50	MP3B	Z	-85.067	4.25
51	MP3B	Mx	-.019	4.25
52	MP3C	X	-93.638	.25
53	MP3C	Z	-54.062	.25
54	MP3C	Mx	-.034	.25
55	MP3C	X	-93.638	4.25
56	MP3C	Z	-54.062	4.25
57	MP3C	Mx	-.034	4.25
58	MP1A	X	-63.799	.25
59	MP1A	Z	-36.834	.25
60	MP1A	Mx	.043	.25
61	MP1A	X	-63.799	4.25
62	MP1A	Z	-36.834	4.25
63	MP1A	Mx	.043	4.25
64	MP1B	X	-104.12	.25
65	MP1B	Z	-60.114	.25
66	MP1B	Mx	-.027	.25
67	MP1B	X	-104.12	4.25
68	MP1B	Z	-60.114	4.25
69	MP1B	Mx	-.027	4.25
70	MP1C	X	-55.326	.25
71	MP1C	Z	-31.942	.25
72	MP1C	Mx	-.04	.25
73	MP1C	X	-55.326	4.25
74	MP1C	Z	-31.942	4.25
75	MP1C	Mx	-.04	4.25
76	MP5A	X	-63.799	.25
77	MP5A	Z	-36.834	.25
78	MP5A	Mx	.043	.25
79	MP5A	X	-63.799	4.25
80	MP5A	Z	-36.834	4.25
81	MP5A	Mx	.043	4.25
82	MP5B	X	-104.12	.25
83	MP5B	Z	-60.114	.25
84	MP5B	Mx	-.027	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP5B	X	-104.12	4.25
86	MP5B	Z	-60.114	4.25
87	MP5B	Mx	-.027	4.25
88	MP5C	X	-55.326	.25
89	MP5C	Z	-31.942	.25
90	MP5C	Mx	-.04	.25
91	MP5C	X	-55.326	4.25
92	MP5C	Z	-31.942	4.25
93	MP5C	Mx	-.04	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-31.407	1.25
2	MP4A	Z	-54.398	1.25
3	MP4A	Mx	.021	1.25
4	MP4A	X	-31.407	3.25
5	MP4A	Z	-54.398	3.25
6	MP4A	Mx	.021	3.25
7	MP4B	X	-36.753	1.25
8	MP4B	Z	-63.659	1.25
9	MP4B	Mx	.009	1.25
10	MP4B	X	-36.753	3.25
11	MP4B	Z	-63.659	3.25
12	MP4B	Mx	.009	3.25
13	MP4C	X	-13.901	1.25
14	MP4C	Z	-24.077	1.25
15	MP4C	Mx	-.018	1.25
16	MP4C	X	-13.901	3.25
17	MP4C	Z	-24.077	3.25
18	MP4C	Mx	-.018	3.25
19	MP1A	X	-33.75	2
20	MP1A	Z	-58.456	2
21	MP1A	Mx	-.017	2
22	MP1B	X	-36.41	2
23	MP1B	Z	-63.064	2
24	MP1B	Mx	-.006	2
25	MP1C	X	-25.04	2
26	MP1C	Z	-43.37	2
27	MP1C	Mx	.025	2
28	MP5A	X	-40.838	2
29	MP5A	Z	-70.733	2
30	MP5A	Mx	-.02	2
31	MP5B	X	-43.941	2
32	MP5B	Z	-76.109	2
33	MP5B	Mx	-.008	2
34	MP5C	X	-30.676	2
35	MP5C	Z	-53.132	2
36	MP5C	Mx	.03	2
37	OVP	X	-70.703	1
38	OVP	Z	-122.461	1
39	OVP	Mx	0	1
40	MP3A	X	-79.683	.25
41	MP3A	Z	-138.015	.25
42	MP3A	Mx	.027	.25
43	MP3A	X	-79.683	4.25
44	MP3A	Z	-138.015	4.25
45	MP3A	Mx	.027	4.25
46	MP3B	X	-88.581	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
47	MP3B	Z	-153.428	.25
48	MP3B	Mx	.01	.25
49	MP3B	X	-88.581	4.25
50	MP3B	Z	-153.428	4.25
51	MP3B	Mx	.01	4.25
52	MP3C	X	-50.547	.25
53	MP3C	Z	-87.551	.25
54	MP3C	Mx	-.033	.25
55	MP3C	X	-50.547	4.25
56	MP3C	Z	-87.551	4.25
57	MP3C	Mx	-.033	4.25
58	MP1A	X	-55.222	.25
59	MP1A	Z	-95.647	.25
60	MP1A	Mx	.037	.25
61	MP1A	X	-55.222	4.25
62	MP1A	Z	-95.647	4.25
63	MP1A	Mx	.037	4.25
64	MP1B	X	-63.306	.25
65	MP1B	Z	-109.65	.25
66	MP1B	Mx	.015	.25
67	MP1B	X	-63.306	4.25
68	MP1B	Z	-109.65	4.25
69	MP1B	Mx	.015	4.25
70	MP1C	X	-28.749	.25
71	MP1C	Z	-49.795	.25
72	MP1C	Mx	-.038	.25
73	MP1C	X	-28.749	4.25
74	MP1C	Z	-49.795	4.25
75	MP1C	Mx	-.038	4.25
76	MP5A	X	-55.222	.25
77	MP5A	Z	-95.647	.25
78	MP5A	Mx	.037	.25
79	MP5A	X	-55.222	4.25
80	MP5A	Z	-95.647	4.25
81	MP5A	Mx	.037	4.25
82	MP5B	X	-63.306	.25
83	MP5B	Z	-109.65	.25
84	MP5B	Mx	.015	.25
85	MP5B	X	-63.306	4.25
86	MP5B	Z	-109.65	4.25
87	MP5B	Mx	.015	4.25
88	MP5C	X	-28.749	.25
89	MP5C	Z	-49.795	.25
90	MP5C	Mx	-.038	.25
91	MP5C	X	-28.749	4.25
92	MP5C	Z	-49.795	4.25
93	MP5C	Mx	-.038	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1.25
2	MP4A	Z	-16.485	1.25
3	MP4A	Mx	0	1.25
4	MP4A	X	0	3.25
5	MP4A	Z	-16.485	3.25
6	MP4A	Mx	0	3.25
7	MP4B	X	0	1.25
8	MP4B	Z	-12.554	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP4B	Mx	.005	1.25
10	MP4B	X	0	3.25
11	MP4B	Z	-12.554	3.25
12	MP4B	Mx	.005	3.25
13	MP4C	X	0	1.25
14	MP4C	Z	-10.902	1.25
15	MP4C	Mx	-.006	1.25
16	MP4C	X	0	3.25
17	MP4C	Z	-10.902	3.25
18	MP4C	Mx	-.006	3.25
19	MP1A	X	0	2
20	MP1A	Z	-17.04	2
21	MP1A	Mx	0	2
22	MP1B	X	0	2
23	MP1B	Z	-14.901	2
24	MP1B	Mx	-.005	2
25	MP1C	X	0	2
26	MP1C	Z	-14.001	2
27	MP1C	Mx	.005	2
28	MP5A	X	0	2
29	MP5A	Z	-17.04	2
30	MP5A	Mx	0	2
31	MP5B	X	0	2
32	MP5B	Z	-14.986	2
33	MP5B	Mx	-.005	2
34	MP5C	X	0	2
35	MP5C	Z	-14.123	2
36	MP5C	Mx	.005	2
37	OVP	X	0	1
38	OVP	Z	-29.275	1
39	OVP	Mx	0	1
40	MP3A	X	0	.25
41	MP3A	Z	-31.874	.25
42	MP3A	Mx	0	.25
43	MP3A	X	0	4.25
44	MP3A	Z	-31.874	4.25
45	MP3A	Mx	0	4.25
46	MP3B	X	0	.25
47	MP3B	Z	-26.428	.25
48	MP3B	Mx	.006	.25
49	MP3B	X	0	4.25
50	MP3B	Z	-26.428	4.25
51	MP3B	Mx	.006	4.25
52	MP3C	X	0	.25
53	MP3C	Z	-24.139	.25
54	MP3C	Mx	-.006	.25
55	MP3C	X	0	4.25
56	MP3C	Z	-24.139	4.25
57	MP3C	Mx	-.006	4.25
58	MP1A	X	0	.25
59	MP1A	Z	-33.894	.25
60	MP1A	Mx	0	.25
61	MP1A	X	0	4.25
62	MP1A	Z	-33.894	4.25
63	MP1A	Mx	0	4.25
64	MP1B	X	0	.25
65	MP1B	Z	-29.554	.25
66	MP1B	Mx	.013	.25
67	MP1B	X	0	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP1B	Z	-29.554	4.25
69	MP1B	Mx	.013	4.25
70	MP1C	X	0	.25
71	MP1C	Z	-27.73	.25
72	MP1C	Mx	-.014	.25
73	MP1C	X	0	4.25
74	MP1C	Z	-27.73	4.25
75	MP1C	Mx	-.014	4.25
76	MP5A	X	0	.25
77	MP5A	Z	-33.894	.25
78	MP5A	Mx	0	.25
79	MP5A	X	0	4.25
80	MP5A	Z	-33.894	4.25
81	MP5A	Mx	0	4.25
82	MP5B	X	0	.25
83	MP5B	Z	-29.554	.25
84	MP5B	Mx	.013	.25
85	MP5B	X	0	4.25
86	MP5B	Z	-29.554	4.25
87	MP5B	Mx	.013	4.25
88	MP5C	X	0	.25
89	MP5C	Z	-27.73	.25
90	MP5C	Mx	-.014	.25
91	MP5C	X	0	4.25
92	MP5C	Z	-27.73	4.25
93	MP5C	Mx	-.014	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	7.053	1.25
2	MP4A	Z	-12.217	1.25
3	MP4A	Mx	-.005	1.25
4	MP4A	X	7.053	3.25
5	MP4A	Z	-12.217	3.25
6	MP4A	Mx	-.005	3.25
7	MP4B	X	4.042	1.25
8	MP4B	Z	-7.002	1.25
9	MP4B	Mx	.005	1.25
10	MP4B	X	4.042	3.25
11	MP4B	Z	-7.002	3.25
12	MP4B	Mx	.005	3.25
13	MP4C	X	7.686	1.25
14	MP4C	Z	-13.312	1.25
15	MP4C	Mx	-.004	1.25
16	MP4C	X	7.686	3.25
17	MP4C	Z	-13.312	3.25
18	MP4C	Mx	-.004	3.25
19	MP1A	X	7.873	2
20	MP1A	Z	-13.636	2
21	MP1A	Mx	.004	2
22	MP1B	X	6.234	2
23	MP1B	Z	-10.797	2
24	MP1B	Mx	-.006	2
25	MP1C	X	8.217	2
26	MP1C	Z	-14.233	2
27	MP1C	Mx	.003	2
28	MP5A	X	7.899	2
29	MP5A	Z	-13.681	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP5A	Mx	.004	2
31	MP5B	X	6.325	2
32	MP5B	Z	-10.955	2
33	MP5B	Mx	-.006	2
34	MP5C	X	8.229	2
35	MP5C	Z	-14.254	2
36	MP5C	Mx	.003	2
37	OVP	X	13.685	1
38	OVP	Z	-23.704	1
39	OVP	Mx	0	1
40	MP3A	X	14.289	.25
41	MP3A	Z	-24.75	.25
42	MP3A	Mx	-.005	.25
43	MP3A	X	14.289	4.25
44	MP3A	Z	-24.75	4.25
45	MP3A	Mx	-.005	4.25
46	MP3B	X	10.117	.25
47	MP3B	Z	-17.524	.25
48	MP3B	Mx	.006	.25
49	MP3B	X	10.117	4.25
50	MP3B	Z	-17.524	4.25
51	MP3B	Mx	.006	4.25
52	MP3C	X	15.166	.25
53	MP3C	Z	-26.269	.25
54	MP3C	Mx	-.003	.25
55	MP3C	X	15.166	4.25
56	MP3C	Z	-26.269	4.25
57	MP3C	Mx	-.003	4.25
58	MP1A	X	15.634	.25
59	MP1A	Z	-27.079	.25
60	MP1A	Mx	-.01	.25
61	MP1A	X	15.634	4.25
62	MP1A	Z	-27.079	4.25
63	MP1A	Mx	-.01	4.25
64	MP1B	X	12.309	.25
65	MP1B	Z	-21.32	.25
66	MP1B	Mx	.015	.25
67	MP1B	X	12.309	4.25
68	MP1B	Z	-21.32	4.25
69	MP1B	Mx	.015	4.25
70	MP1C	X	16.333	.25
71	MP1C	Z	-28.289	.25
72	MP1C	Mx	-.007	.25
73	MP1C	X	16.333	4.25
74	MP1C	Z	-28.289	4.25
75	MP1C	Mx	-.007	4.25
76	MP5A	X	15.634	.25
77	MP5A	Z	-27.079	.25
78	MP5A	Mx	-.01	.25
79	MP5A	X	15.634	4.25
80	MP5A	Z	-27.079	4.25
81	MP5A	Mx	-.01	4.25
82	MP5B	X	12.309	.25
83	MP5B	Z	-21.32	.25
84	MP5B	Mx	.015	.25
85	MP5B	X	12.309	4.25
86	MP5B	Z	-21.32	4.25
87	MP5B	Mx	.015	4.25
88	MP5C	X	16.333	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	MP5C	Z	-28.289	.25
90	MP5C	Mx	-.007	.25
91	MP5C	X	16.333	4.25
92	MP5C	Z	-28.289	4.25
93	MP5C	Mx	-.007	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.098	1.25
2	MP4A	Z	-4.675	1.25
3	MP4A	Mx	-.005	1.25
4	MP4A	X	8.098	3.25
5	MP4A	Z	-4.675	3.25
6	MP4A	Mx	-.005	3.25
7	MP4B	X	6.286	1.25
8	MP4B	Z	-3.629	1.25
9	MP4B	Mx	.005	1.25
10	MP4B	X	6.286	3.25
11	MP4B	Z	-3.629	3.25
12	MP4B	Mx	.005	3.25
13	MP4C	X	14.028	1.25
14	MP4C	Z	-8.099	1.25
15	MP4C	Mx	.002	1.25
16	MP4C	X	14.028	3.25
17	MP4C	Z	-8.099	3.25
18	MP4C	Mx	.002	3.25
19	MP1A	X	11.394	2
20	MP1A	Z	-6.578	2
21	MP1A	Mx	.006	2
22	MP1B	X	10.408	2
23	MP1B	Z	-6.009	2
24	MP1B	Mx	-.006	2
25	MP1C	X	14.622	2
26	MP1C	Z	-8.442	2
27	MP1C	Mx	-.001	2
28	MP5A	X	11.528	2
29	MP5A	Z	-6.656	2
30	MP5A	Mx	.006	2
31	MP5B	X	10.582	2
32	MP5B	Z	-6.109	2
33	MP5B	Mx	-.006	2
34	MP5C	X	14.627	2
35	MP5C	Z	-8.445	2
36	MP5C	Mx	-.001	2
37	OVP	X	25.353	1
38	OVP	Z	-14.638	1
39	OVP	Mx	0	1
40	MP3A	X	19.042	.25
41	MP3A	Z	-10.994	.25
42	MP3A	Mx	-.006	.25
43	MP3A	X	19.042	4.25
44	MP3A	Z	-10.994	4.25
45	MP3A	Mx	-.006	4.25
46	MP3B	X	16.532	.25
47	MP3B	Z	-9.545	.25
48	MP3B	Mx	.006	.25
49	MP3B	X	16.532	4.25
50	MP3B	Z	-9.545	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
51	MP3B	Mx	.006	4.25
52	MP3C	X	27.26	.25
53	MP3C	Z	-15.738	.25
54	MP3C	Mx	.002	.25
55	MP3C	X	27.26	4.25
56	MP3C	Z	-15.738	4.25
57	MP3C	Mx	.002	4.25
58	MP1A	X	22.53	.25
59	MP1A	Z	-13.008	.25
60	MP1A	Mx	-.015	.25
61	MP1A	X	22.53	4.25
62	MP1A	Z	-13.008	4.25
63	MP1A	Mx	-.015	4.25
64	MP1B	X	20.53	.25
65	MP1B	Z	-11.853	.25
66	MP1B	Mx	.016	.25
67	MP1B	X	20.53	4.25
68	MP1B	Z	-11.853	4.25
69	MP1B	Mx	.016	4.25
70	MP1C	X	29.079	.25
71	MP1C	Z	-16.789	.25
72	MP1C	Mx	.004	.25
73	MP1C	X	29.079	4.25
74	MP1C	Z	-16.789	4.25
75	MP1C	Mx	.004	4.25
76	MP5A	X	22.53	.25
77	MP5A	Z	-13.008	.25
78	MP5A	Mx	-.015	.25
79	MP5A	X	22.53	4.25
80	MP5A	Z	-13.008	4.25
81	MP5A	Mx	-.015	4.25
82	MP5B	X	20.53	.25
83	MP5B	Z	-11.853	.25
84	MP5B	Mx	.016	.25
85	MP5B	X	20.53	4.25
86	MP5B	Z	-11.853	4.25
87	MP5B	Mx	.016	4.25
88	MP5C	X	29.079	.25
89	MP5C	Z	-16.789	.25
90	MP5C	Mx	.004	.25
91	MP5C	X	29.079	4.25
92	MP5C	Z	-16.789	4.25
93	MP5C	Mx	.004	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.972	1.25
2	MP4A	Z	0	1.25
3	MP4A	Mx	-.005	1.25
4	MP4A	X	6.972	3.25
5	MP4A	Z	0	3.25
6	MP4A	Mx	-.005	3.25
7	MP4B	X	10.902	1.25
8	MP4B	Z	0	1.25
9	MP4B	Mx	.006	1.25
10	MP4B	X	10.902	3.25
11	MP4B	Z	0	3.25
12	MP4B	Mx	.006	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP4C	X	12.554	1.25
14	MP4C	Z	0	1.25
15	MP4C	Mx	.005	1.25
16	MP4C	X	12.554	3.25
17	MP4C	Z	0	3.25
18	MP4C	Mx	.005	3.25
19	MP1A	X	11.862	2
20	MP1A	Z	0	2
21	MP1A	Mx	.006	2
22	MP1B	X	14.001	2
23	MP1B	Z	0	2
24	MP1B	Mx	-.005	2
25	MP1C	X	14.901	2
26	MP1C	Z	0	2
27	MP1C	Mx	-.005	2
28	MP5A	X	12.069	2
29	MP5A	Z	0	2
30	MP5A	Mx	.006	2
31	MP5B	X	14.123	2
32	MP5B	Z	0	2
33	MP5B	Mx	-.005	2
34	MP5C	X	14.986	2
35	MP5C	Z	0	2
36	MP5C	Mx	-.005	2
37	OVP	X	33.084	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	MP3A	X	18.692	.25
41	MP3A	Z	0	.25
42	MP3A	Mx	-.006	.25
43	MP3A	X	18.692	4.25
44	MP3A	Z	0	4.25
45	MP3A	Mx	-.006	4.25
46	MP3B	X	24.139	.25
47	MP3B	Z	0	.25
48	MP3B	Mx	.006	.25
49	MP3B	X	24.139	4.25
50	MP3B	Z	0	4.25
51	MP3B	Mx	.006	4.25
52	MP3C	X	26.428	.25
53	MP3C	Z	0	.25
54	MP3C	Mx	.006	.25
55	MP3C	X	26.428	4.25
56	MP3C	Z	0	4.25
57	MP3C	Mx	.006	4.25
58	MP1A	X	23.389	.25
59	MP1A	Z	0	.25
60	MP1A	Mx	-.016	.25
61	MP1A	X	23.389	4.25
62	MP1A	Z	0	4.25
63	MP1A	Mx	-.016	4.25
64	MP1B	X	27.73	.25
65	MP1B	Z	0	.25
66	MP1B	Mx	.014	.25
67	MP1B	X	27.73	4.25
68	MP1B	Z	0	4.25
69	MP1B	Mx	.014	4.25
70	MP1C	X	29.554	.25
71	MP1C	Z	0	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP1C	Mx	.013	.25
73	MP1C	X	29.554	4.25
74	MP1C	Z	0	4.25
75	MP1C	Mx	.013	4.25
76	MP5A	X	23.389	.25
77	MP5A	Z	0	.25
78	MP5A	Mx	-.016	.25
79	MP5A	X	23.389	4.25
80	MP5A	Z	0	4.25
81	MP5A	Mx	-.016	4.25
82	MP5B	X	27.73	.25
83	MP5B	Z	0	.25
84	MP5B	Mx	.014	.25
85	MP5B	X	27.73	4.25
86	MP5B	Z	0	4.25
87	MP5B	Mx	.014	4.25
88	MP5C	X	29.554	.25
89	MP5C	Z	0	.25
90	MP5C	Mx	.013	.25
91	MP5C	X	29.554	4.25
92	MP5C	Z	0	4.25
93	MP5C	Mx	.013	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.098	1.25
2	MP4A	Z	4.675	1.25
3	MP4A	Mx	-.005	1.25
4	MP4A	X	8.098	3.25
5	MP4A	Z	4.675	3.25
6	MP4A	Mx	-.005	3.25
7	MP4B	X	13.312	1.25
8	MP4B	Z	7.686	1.25
9	MP4B	Mx	.004	1.25
10	MP4B	X	13.312	3.25
11	MP4B	Z	7.686	3.25
12	MP4B	Mx	.004	3.25
13	MP4C	X	7.002	1.25
14	MP4C	Z	4.042	1.25
15	MP4C	Mx	.005	1.25
16	MP4C	X	7.002	3.25
17	MP4C	Z	4.042	3.25
18	MP4C	Mx	.005	3.25
19	MP1A	X	11.394	2
20	MP1A	Z	6.578	2
21	MP1A	Mx	.006	2
22	MP1B	X	14.233	2
23	MP1B	Z	8.217	2
24	MP1B	Mx	-.003	2
25	MP1C	X	10.797	2
26	MP1C	Z	6.234	2
27	MP1C	Mx	-.006	2
28	MP5A	X	11.528	2
29	MP5A	Z	6.656	2
30	MP5A	Mx	.006	2
31	MP5B	X	14.254	2
32	MP5B	Z	8.229	2
33	MP5B	Mx	-.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5C	X	10.955	2
35	MP5C	Z	6.325	2
36	MP5C	Mx	-.006	2
37	OVP	X	30.3	1
38	OVP	Z	17.494	1
39	OVP	Mx	0	1
40	MP3A	X	19.042	.25
41	MP3A	Z	10.994	.25
42	MP3A	Mx	-.006	.25
43	MP3A	X	19.042	4.25
44	MP3A	Z	10.994	4.25
45	MP3A	Mx	-.006	4.25
46	MP3B	X	26.269	.25
47	MP3B	Z	15.166	.25
48	MP3B	Mx	.003	.25
49	MP3B	X	26.269	4.25
50	MP3B	Z	15.166	4.25
51	MP3B	Mx	.003	4.25
52	MP3C	X	17.524	.25
53	MP3C	Z	10.117	.25
54	MP3C	Mx	.006	.25
55	MP3C	X	17.524	4.25
56	MP3C	Z	10.117	4.25
57	MP3C	Mx	.006	4.25
58	MP1A	X	22.53	.25
59	MP1A	Z	13.008	.25
60	MP1A	Mx	-.015	.25
61	MP1A	X	22.53	4.25
62	MP1A	Z	13.008	4.25
63	MP1A	Mx	-.015	4.25
64	MP1B	X	28.289	.25
65	MP1B	Z	16.333	.25
66	MP1B	Mx	.007	.25
67	MP1B	X	28.289	4.25
68	MP1B	Z	16.333	4.25
69	MP1B	Mx	.007	4.25
70	MP1C	X	21.32	.25
71	MP1C	Z	12.309	.25
72	MP1C	Mx	.015	.25
73	MP1C	X	21.32	4.25
74	MP1C	Z	12.309	4.25
75	MP1C	Mx	.015	4.25
76	MP5A	X	22.53	.25
77	MP5A	Z	13.008	.25
78	MP5A	Mx	-.015	.25
79	MP5A	X	22.53	4.25
80	MP5A	Z	13.008	4.25
81	MP5A	Mx	-.015	4.25
82	MP5B	X	28.289	.25
83	MP5B	Z	16.333	.25
84	MP5B	Mx	.007	.25
85	MP5B	X	28.289	4.25
86	MP5B	Z	16.333	4.25
87	MP5B	Mx	.007	4.25
88	MP5C	X	21.32	.25
89	MP5C	Z	12.309	.25
90	MP5C	Mx	.015	.25
91	MP5C	X	21.32	4.25
92	MP5C	Z	12.309	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
93	MP5C	Mx	.015	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	7.053	1.25
2	MP4A	Z	12.217	1.25
3	MP4A	Mx	-.005	1.25
4	MP4A	X	7.053	3.25
5	MP4A	Z	12.217	3.25
6	MP4A	Mx	-.005	3.25
7	MP4B	X	8.099	1.25
8	MP4B	Z	14.028	1.25
9	MP4B	Mx	-.002	1.25
10	MP4B	X	8.099	3.25
11	MP4B	Z	14.028	3.25
12	MP4B	Mx	-.002	3.25
13	MP4C	X	3.629	1.25
14	MP4C	Z	6.286	1.25
15	MP4C	Mx	.005	1.25
16	MP4C	X	3.629	3.25
17	MP4C	Z	6.286	3.25
18	MP4C	Mx	.005	3.25
19	MP1A	X	7.873	2
20	MP1A	Z	13.636	2
21	MP1A	Mx	.004	2
22	MP1B	X	8.442	2
23	MP1B	Z	14.622	2
24	MP1B	Mx	.001	2
25	MP1C	X	6.009	2
26	MP1C	Z	10.408	2
27	MP1C	Mx	-.006	2
28	MP5A	X	7.899	2
29	MP5A	Z	13.681	2
30	MP5A	Mx	.004	2
31	MP5B	X	8.445	2
32	MP5B	Z	14.627	2
33	MP5B	Mx	.001	2
34	MP5C	X	6.109	2
35	MP5C	Z	10.582	2
36	MP5C	Mx	-.006	2
37	OVP	X	16.542	1
38	OVP	Z	28.651	1
39	OVP	Mx	0	1
40	MP3A	X	14.289	.25
41	MP3A	Z	24.75	.25
42	MP3A	Mx	-.005	.25
43	MP3A	X	14.289	4.25
44	MP3A	Z	24.75	4.25
45	MP3A	Mx	-.005	4.25
46	MP3B	X	15.738	.25
47	MP3B	Z	27.26	.25
48	MP3B	Mx	-.002	.25
49	MP3B	X	15.738	4.25
50	MP3B	Z	27.26	4.25
51	MP3B	Mx	-.002	4.25
52	MP3C	X	9.545	.25
53	MP3C	Z	16.532	.25
54	MP3C	Mx	.006	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	MP3C	X	9.545	4.25
56	MP3C	Z	16.532	4.25
57	MP3C	Mx	.006	4.25
58	MP1A	X	15.634	.25
59	MP1A	Z	27.079	.25
60	MP1A	Mx	-.01	.25
61	MP1A	X	15.634	4.25
62	MP1A	Z	27.079	4.25
63	MP1A	Mx	-.01	4.25
64	MP1B	X	16.789	.25
65	MP1B	Z	29.079	.25
66	MP1B	Mx	-.004	.25
67	MP1B	X	16.789	4.25
68	MP1B	Z	29.079	4.25
69	MP1B	Mx	-.004	4.25
70	MP1C	X	11.853	.25
71	MP1C	Z	20.53	.25
72	MP1C	Mx	.016	.25
73	MP1C	X	11.853	4.25
74	MP1C	Z	20.53	4.25
75	MP1C	Mx	.016	4.25
76	MP5A	X	15.634	.25
77	MP5A	Z	27.079	.25
78	MP5A	Mx	-.01	.25
79	MP5A	X	15.634	4.25
80	MP5A	Z	27.079	4.25
81	MP5A	Mx	-.01	4.25
82	MP5B	X	16.789	.25
83	MP5B	Z	29.079	.25
84	MP5B	Mx	-.004	.25
85	MP5B	X	16.789	4.25
86	MP5B	Z	29.079	4.25
87	MP5B	Mx	-.004	4.25
88	MP5C	X	11.853	.25
89	MP5C	Z	20.53	.25
90	MP5C	Mx	.016	.25
91	MP5C	X	11.853	4.25
92	MP5C	Z	20.53	4.25
93	MP5C	Mx	.016	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1.25
2	MP4A	Z	16.485	1.25
3	MP4A	Mx	0	1.25
4	MP4A	X	0	3.25
5	MP4A	Z	16.485	3.25
6	MP4A	Mx	0	3.25
7	MP4B	X	0	1.25
8	MP4B	Z	12.554	1.25
9	MP4B	Mx	-.005	1.25
10	MP4B	X	0	3.25
11	MP4B	Z	12.554	3.25
12	MP4B	Mx	-.005	3.25
13	MP4C	X	0	1.25
14	MP4C	Z	10.902	1.25
15	MP4C	Mx	.006	1.25
16	MP4C	X	0	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4C	Z	10.902	3.25
18	MP4C	Mx	.006	3.25
19	MP1A	X	0	2
20	MP1A	Z	17.04	2
21	MP1A	Mx	0	2
22	MP1B	X	0	2
23	MP1B	Z	14.901	2
24	MP1B	Mx	.005	2
25	MP1C	X	0	2
26	MP1C	Z	14.001	2
27	MP1C	Mx	-.005	2
28	MP5A	X	0	2
29	MP5A	Z	17.04	2
30	MP5A	Mx	0	2
31	MP5B	X	0	2
32	MP5B	Z	14.986	2
33	MP5B	Mx	.005	2
34	MP5C	X	0	2
35	MP5C	Z	14.123	2
36	MP5C	Mx	-.005	2
37	OVP	X	0	1
38	OVP	Z	29.275	1
39	OVP	Mx	0	1
40	MP3A	X	0	.25
41	MP3A	Z	31.874	.25
42	MP3A	Mx	0	.25
43	MP3A	X	0	4.25
44	MP3A	Z	31.874	4.25
45	MP3A	Mx	0	4.25
46	MP3B	X	0	.25
47	MP3B	Z	26.428	.25
48	MP3B	Mx	-.006	.25
49	MP3B	X	0	4.25
50	MP3B	Z	26.428	4.25
51	MP3B	Mx	-.006	4.25
52	MP3C	X	0	.25
53	MP3C	Z	24.139	.25
54	MP3C	Mx	.006	.25
55	MP3C	X	0	4.25
56	MP3C	Z	24.139	4.25
57	MP3C	Mx	.006	4.25
58	MP1A	X	0	.25
59	MP1A	Z	33.894	.25
60	MP1A	Mx	0	.25
61	MP1A	X	0	4.25
62	MP1A	Z	33.894	4.25
63	MP1A	Mx	0	4.25
64	MP1B	X	0	.25
65	MP1B	Z	29.554	.25
66	MP1B	Mx	-.013	.25
67	MP1B	X	0	4.25
68	MP1B	Z	29.554	4.25
69	MP1B	Mx	-.013	4.25
70	MP1C	X	0	.25
71	MP1C	Z	27.73	.25
72	MP1C	Mx	.014	.25
73	MP1C	X	0	4.25
74	MP1C	Z	27.73	4.25
75	MP1C	Mx	.014	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
76	MP5A	X	0	.25
77	MP5A	Z	33.894	.25
78	MP5A	Mx	0	.25
79	MP5A	X	0	4.25
80	MP5A	Z	33.894	4.25
81	MP5A	Mx	0	4.25
82	MP5B	X	0	.25
83	MP5B	Z	29.554	.25
84	MP5B	Mx	-.013	.25
85	MP5B	X	0	4.25
86	MP5B	Z	29.554	4.25
87	MP5B	Mx	-.013	4.25
88	MP5C	X	0	.25
89	MP5C	Z	27.73	.25
90	MP5C	Mx	.014	.25
91	MP5C	X	0	4.25
92	MP5C	Z	27.73	4.25
93	MP5C	Mx	.014	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.053	1.25
2	MP4A	Z	12.217	1.25
3	MP4A	Mx	.005	1.25
4	MP4A	X	-7.053	3.25
5	MP4A	Z	12.217	3.25
6	MP4A	Mx	.005	3.25
7	MP4B	X	-4.042	1.25
8	MP4B	Z	7.002	1.25
9	MP4B	Mx	-.005	1.25
10	MP4B	X	-4.042	3.25
11	MP4B	Z	7.002	3.25
12	MP4B	Mx	-.005	3.25
13	MP4C	X	-7.686	1.25
14	MP4C	Z	13.312	1.25
15	MP4C	Mx	.004	1.25
16	MP4C	X	-7.686	3.25
17	MP4C	Z	13.312	3.25
18	MP4C	Mx	.004	3.25
19	MP1A	X	-7.873	2
20	MP1A	Z	13.636	2
21	MP1A	Mx	-.004	2
22	MP1B	X	-6.234	2
23	MP1B	Z	10.797	2
24	MP1B	Mx	.006	2
25	MP1C	X	-8.217	2
26	MP1C	Z	14.233	2
27	MP1C	Mx	-.003	2
28	MP5A	X	-7.899	2
29	MP5A	Z	13.681	2
30	MP5A	Mx	-.004	2
31	MP5B	X	-6.325	2
32	MP5B	Z	10.955	2
33	MP5B	Mx	.006	2
34	MP5C	X	-8.229	2
35	MP5C	Z	14.254	2
36	MP5C	Mx	-.003	2
37	OVP	X	-13.685	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	OVP	Z	23.704	1
39	OVP	Mx	0	1
40	MP3A	X	-14.289	.25
41	MP3A	Z	24.75	.25
42	MP3A	Mx	.005	.25
43	MP3A	X	-14.289	4.25
44	MP3A	Z	24.75	4.25
45	MP3A	Mx	.005	4.25
46	MP3B	X	-10.117	.25
47	MP3B	Z	17.524	.25
48	MP3B	Mx	-.006	.25
49	MP3B	X	-10.117	4.25
50	MP3B	Z	17.524	4.25
51	MP3B	Mx	-.006	4.25
52	MP3C	X	-15.166	.25
53	MP3C	Z	26.269	.25
54	MP3C	Mx	.003	.25
55	MP3C	X	-15.166	4.25
56	MP3C	Z	26.269	4.25
57	MP3C	Mx	.003	4.25
58	MP1A	X	-15.634	.25
59	MP1A	Z	27.079	.25
60	MP1A	Mx	.01	.25
61	MP1A	X	-15.634	4.25
62	MP1A	Z	27.079	4.25
63	MP1A	Mx	.01	4.25
64	MP1B	X	-12.309	.25
65	MP1B	Z	21.32	.25
66	MP1B	Mx	-.015	.25
67	MP1B	X	-12.309	4.25
68	MP1B	Z	21.32	4.25
69	MP1B	Mx	-.015	4.25
70	MP1C	X	-16.333	.25
71	MP1C	Z	28.289	.25
72	MP1C	Mx	.007	.25
73	MP1C	X	-16.333	4.25
74	MP1C	Z	28.289	4.25
75	MP1C	Mx	.007	4.25
76	MP5A	X	-15.634	.25
77	MP5A	Z	27.079	.25
78	MP5A	Mx	.01	.25
79	MP5A	X	-15.634	4.25
80	MP5A	Z	27.079	4.25
81	MP5A	Mx	.01	4.25
82	MP5B	X	-12.309	.25
83	MP5B	Z	21.32	.25
84	MP5B	Mx	-.015	.25
85	MP5B	X	-12.309	4.25
86	MP5B	Z	21.32	4.25
87	MP5B	Mx	-.015	4.25
88	MP5C	X	-16.333	.25
89	MP5C	Z	28.289	.25
90	MP5C	Mx	.007	.25
91	MP5C	X	-16.333	4.25
92	MP5C	Z	28.289	4.25
93	MP5C	Mx	.007	4.25

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.098	1.25
2	MP4A	Z	4.675	1.25
3	MP4A	Mx	.005	1.25
4	MP4A	X	-8.098	3.25
5	MP4A	Z	4.675	3.25
6	MP4A	Mx	.005	3.25
7	MP4B	X	-6.286	1.25
8	MP4B	Z	3.629	1.25
9	MP4B	Mx	-.005	1.25
10	MP4B	X	-6.286	3.25
11	MP4B	Z	3.629	3.25
12	MP4B	Mx	-.005	3.25
13	MP4C	X	-14.028	1.25
14	MP4C	Z	8.099	1.25
15	MP4C	Mx	-.002	1.25
16	MP4C	X	-14.028	3.25
17	MP4C	Z	8.099	3.25
18	MP4C	Mx	-.002	3.25
19	MP1A	X	-11.394	2
20	MP1A	Z	6.578	2
21	MP1A	Mx	-.006	2
22	MP1B	X	-10.408	2
23	MP1B	Z	6.009	2
24	MP1B	Mx	.006	2
25	MP1C	X	-14.622	2
26	MP1C	Z	8.442	2
27	MP1C	Mx	.001	2
28	MP5A	X	-11.528	2
29	MP5A	Z	6.656	2
30	MP5A	Mx	-.006	2
31	MP5B	X	-10.582	2
32	MP5B	Z	6.109	2
33	MP5B	Mx	.006	2
34	MP5C	X	-14.627	2
35	MP5C	Z	8.445	2
36	MP5C	Mx	.001	2
37	OVP	X	-25.353	1
38	OVP	Z	14.638	1
39	OVP	Mx	0	1
40	MP3A	X	-19.042	.25
41	MP3A	Z	10.994	.25
42	MP3A	Mx	.006	.25
43	MP3A	X	-19.042	4.25
44	MP3A	Z	10.994	4.25
45	MP3A	Mx	.006	4.25
46	MP3B	X	-16.532	.25
47	MP3B	Z	9.545	.25
48	MP3B	Mx	-.006	.25
49	MP3B	X	-16.532	4.25
50	MP3B	Z	9.545	4.25
51	MP3B	Mx	-.006	4.25
52	MP3C	X	-27.26	.25
53	MP3C	Z	15.738	.25
54	MP3C	Mx	-.002	.25
55	MP3C	X	-27.26	4.25
56	MP3C	Z	15.738	4.25
57	MP3C	Mx	-.002	4.25
58	MP1A	X	-22.53	.25
59	MP1A	Z	13.008	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP1A	Mx	.015	.25
61	MP1A	X	-22.53	4.25
62	MP1A	Z	13.008	4.25
63	MP1A	Mx	.015	4.25
64	MP1B	X	-20.53	.25
65	MP1B	Z	11.853	.25
66	MP1B	Mx	-.016	.25
67	MP1B	X	-20.53	4.25
68	MP1B	Z	11.853	4.25
69	MP1B	Mx	-.016	4.25
70	MP1C	X	-29.079	.25
71	MP1C	Z	16.789	.25
72	MP1C	Mx	-.004	.25
73	MP1C	X	-29.079	4.25
74	MP1C	Z	16.789	4.25
75	MP1C	Mx	-.004	4.25
76	MP5A	X	-22.53	.25
77	MP5A	Z	13.008	.25
78	MP5A	Mx	.015	.25
79	MP5A	X	-22.53	4.25
80	MP5A	Z	13.008	4.25
81	MP5A	Mx	.015	4.25
82	MP5B	X	-20.53	.25
83	MP5B	Z	11.853	.25
84	MP5B	Mx	-.016	.25
85	MP5B	X	-20.53	4.25
86	MP5B	Z	11.853	4.25
87	MP5B	Mx	-.016	4.25
88	MP5C	X	-29.079	.25
89	MP5C	Z	16.789	.25
90	MP5C	Mx	-.004	.25
91	MP5C	X	-29.079	4.25
92	MP5C	Z	16.789	4.25
93	MP5C	Mx	-.004	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.972	1.25
2	MP4A	Z	0	1.25
3	MP4A	Mx	.005	1.25
4	MP4A	X	-6.972	3.25
5	MP4A	Z	0	3.25
6	MP4A	Mx	.005	3.25
7	MP4B	X	-10.902	1.25
8	MP4B	Z	0	1.25
9	MP4B	Mx	-.006	1.25
10	MP4B	X	-10.902	3.25
11	MP4B	Z	0	3.25
12	MP4B	Mx	-.006	3.25
13	MP4C	X	-12.554	1.25
14	MP4C	Z	0	1.25
15	MP4C	Mx	-.005	1.25
16	MP4C	X	-12.554	3.25
17	MP4C	Z	0	3.25
18	MP4C	Mx	-.005	3.25
19	MP1A	X	-11.862	2
20	MP1A	Z	0	2
21	MP1A	Mx	-.006	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP1B	X	-14.001	2
23	MP1B	Z	0	2
24	MP1B	Mx	.005	2
25	MP1C	X	-14.901	2
26	MP1C	Z	0	2
27	MP1C	Mx	.005	2
28	MP5A	X	-12.069	2
29	MP5A	Z	0	2
30	MP5A	Mx	-.006	2
31	MP5B	X	-14.123	2
32	MP5B	Z	0	2
33	MP5B	Mx	.005	2
34	MP5C	X	-14.986	2
35	MP5C	Z	0	2
36	MP5C	Mx	.005	2
37	OVP	X	-33.084	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	MP3A	X	-18.692	.25
41	MP3A	Z	0	.25
42	MP3A	Mx	.006	.25
43	MP3A	X	-18.692	4.25
44	MP3A	Z	0	4.25
45	MP3A	Mx	.006	4.25
46	MP3B	X	-24.139	.25
47	MP3B	Z	0	.25
48	MP3B	Mx	-.006	.25
49	MP3B	X	-24.139	4.25
50	MP3B	Z	0	4.25
51	MP3B	Mx	-.006	4.25
52	MP3C	X	-26.428	.25
53	MP3C	Z	0	.25
54	MP3C	Mx	-.006	.25
55	MP3C	X	-26.428	4.25
56	MP3C	Z	0	4.25
57	MP3C	Mx	-.006	4.25
58	MP1A	X	-23.389	.25
59	MP1A	Z	0	.25
60	MP1A	Mx	.016	.25
61	MP1A	X	-23.389	4.25
62	MP1A	Z	0	4.25
63	MP1A	Mx	.016	4.25
64	MP1B	X	-27.73	.25
65	MP1B	Z	0	.25
66	MP1B	Mx	-.014	.25
67	MP1B	X	-27.73	4.25
68	MP1B	Z	0	4.25
69	MP1B	Mx	-.014	4.25
70	MP1C	X	-29.554	.25
71	MP1C	Z	0	.25
72	MP1C	Mx	-.013	.25
73	MP1C	X	-29.554	4.25
74	MP1C	Z	0	4.25
75	MP1C	Mx	-.013	4.25
76	MP5A	X	-23.389	.25
77	MP5A	Z	0	.25
78	MP5A	Mx	.016	.25
79	MP5A	X	-23.389	4.25
80	MP5A	Z	0	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP5A	Mx	.016	4.25
82	MP5B	X	-27.73	.25
83	MP5B	Z	0	.25
84	MP5B	Mx	-.014	.25
85	MP5B	X	-27.73	4.25
86	MP5B	Z	0	4.25
87	MP5B	Mx	-.014	4.25
88	MP5C	X	-29.554	.25
89	MP5C	Z	0	.25
90	MP5C	Mx	-.013	.25
91	MP5C	X	-29.554	4.25
92	MP5C	Z	0	4.25
93	MP5C	Mx	-.013	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.098	1.25
2	MP4A	Z	-4.675	1.25
3	MP4A	Mx	.005	1.25
4	MP4A	X	-8.098	3.25
5	MP4A	Z	-4.675	3.25
6	MP4A	Mx	.005	3.25
7	MP4B	X	-13.312	1.25
8	MP4B	Z	-7.686	1.25
9	MP4B	Mx	-.004	1.25
10	MP4B	X	-13.312	3.25
11	MP4B	Z	-7.686	3.25
12	MP4B	Mx	-.004	3.25
13	MP4C	X	-7.002	1.25
14	MP4C	Z	-4.042	1.25
15	MP4C	Mx	-.005	1.25
16	MP4C	X	-7.002	3.25
17	MP4C	Z	-4.042	3.25
18	MP4C	Mx	-.005	3.25
19	MP1A	X	-11.394	2
20	MP1A	Z	-6.578	2
21	MP1A	Mx	-.006	2
22	MP1B	X	-14.233	2
23	MP1B	Z	-8.217	2
24	MP1B	Mx	.003	2
25	MP1C	X	-10.797	2
26	MP1C	Z	-6.234	2
27	MP1C	Mx	.006	2
28	MP5A	X	-11.528	2
29	MP5A	Z	-6.656	2
30	MP5A	Mx	-.006	2
31	MP5B	X	-14.254	2
32	MP5B	Z	-8.229	2
33	MP5B	Mx	.003	2
34	MP5C	X	-10.955	2
35	MP5C	Z	-6.325	2
36	MP5C	Mx	.006	2
37	OVP	X	-30.3	1
38	OVP	Z	-17.494	1
39	OVP	Mx	0	1
40	MP3A	X	-19.042	.25
41	MP3A	Z	-10.994	.25
42	MP3A	Mx	.006	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP3A	X	-19.042	4.25
44	MP3A	Z	-10.994	4.25
45	MP3A	Mx	.006	4.25
46	MP3B	X	-26.269	.25
47	MP3B	Z	-15.166	.25
48	MP3B	Mx	-.003	.25
49	MP3B	X	-26.269	4.25
50	MP3B	Z	-15.166	4.25
51	MP3B	Mx	-.003	4.25
52	MP3C	X	-17.524	.25
53	MP3C	Z	-10.117	.25
54	MP3C	Mx	-.006	.25
55	MP3C	X	-17.524	4.25
56	MP3C	Z	-10.117	4.25
57	MP3C	Mx	-.006	4.25
58	MP1A	X	-22.53	.25
59	MP1A	Z	-13.008	.25
60	MP1A	Mx	.015	.25
61	MP1A	X	-22.53	4.25
62	MP1A	Z	-13.008	4.25
63	MP1A	Mx	.015	4.25
64	MP1B	X	-28.289	.25
65	MP1B	Z	-16.333	.25
66	MP1B	Mx	-.007	.25
67	MP1B	X	-28.289	4.25
68	MP1B	Z	-16.333	4.25
69	MP1B	Mx	-.007	4.25
70	MP1C	X	-21.32	.25
71	MP1C	Z	-12.309	.25
72	MP1C	Mx	-.015	.25
73	MP1C	X	-21.32	4.25
74	MP1C	Z	-12.309	4.25
75	MP1C	Mx	-.015	4.25
76	MP5A	X	-22.53	.25
77	MP5A	Z	-13.008	.25
78	MP5A	Mx	.015	.25
79	MP5A	X	-22.53	4.25
80	MP5A	Z	-13.008	4.25
81	MP5A	Mx	.015	4.25
82	MP5B	X	-28.289	.25
83	MP5B	Z	-16.333	.25
84	MP5B	Mx	-.007	.25
85	MP5B	X	-28.289	4.25
86	MP5B	Z	-16.333	4.25
87	MP5B	Mx	-.007	4.25
88	MP5C	X	-21.32	.25
89	MP5C	Z	-12.309	.25
90	MP5C	Mx	-.015	.25
91	MP5C	X	-21.32	4.25
92	MP5C	Z	-12.309	4.25
93	MP5C	Mx	-.015	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.053	1.25
2	MP4A	Z	-12.217	1.25
3	MP4A	Mx	.005	1.25
4	MP4A	X	-7.053	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP4A	Z	-12.217	3.25
6	MP4A	Mx	.005	3.25
7	MP4B	X	-8.099	1.25
8	MP4B	Z	-14.028	1.25
9	MP4B	Mx	.002	1.25
10	MP4B	X	-8.099	3.25
11	MP4B	Z	-14.028	3.25
12	MP4B	Mx	.002	3.25
13	MP4C	X	-3.629	1.25
14	MP4C	Z	-6.286	1.25
15	MP4C	Mx	-.005	1.25
16	MP4C	X	-3.629	3.25
17	MP4C	Z	-6.286	3.25
18	MP4C	Mx	-.005	3.25
19	MP1A	X	-7.873	2
20	MP1A	Z	-13.636	2
21	MP1A	Mx	-.004	2
22	MP1B	X	-8.442	2
23	MP1B	Z	-14.622	2
24	MP1B	Mx	-.001	2
25	MP1C	X	-6.009	2
26	MP1C	Z	-10.408	2
27	MP1C	Mx	.006	2
28	MP5A	X	-7.899	2
29	MP5A	Z	-13.681	2
30	MP5A	Mx	-.004	2
31	MP5B	X	-8.445	2
32	MP5B	Z	-14.627	2
33	MP5B	Mx	-.001	2
34	MP5C	X	-6.109	2
35	MP5C	Z	-10.582	2
36	MP5C	Mx	.006	2
37	OVP	X	-16.542	1
38	OVP	Z	-28.651	1
39	OVP	Mx	0	1
40	MP3A	X	-14.289	.25
41	MP3A	Z	-24.75	.25
42	MP3A	Mx	.005	.25
43	MP3A	X	-14.289	4.25
44	MP3A	Z	-24.75	4.25
45	MP3A	Mx	.005	4.25
46	MP3B	X	-15.738	.25
47	MP3B	Z	-27.26	.25
48	MP3B	Mx	.002	.25
49	MP3B	X	-15.738	4.25
50	MP3B	Z	-27.26	4.25
51	MP3B	Mx	.002	4.25
52	MP3C	X	-9.545	.25
53	MP3C	Z	-16.532	.25
54	MP3C	Mx	-.006	.25
55	MP3C	X	-9.545	4.25
56	MP3C	Z	-16.532	4.25
57	MP3C	Mx	-.006	4.25
58	MP1A	X	-15.634	.25
59	MP1A	Z	-27.079	.25
60	MP1A	Mx	.01	.25
61	MP1A	X	-15.634	4.25
62	MP1A	Z	-27.079	4.25
63	MP1A	Mx	.01	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP1B	X	-16.789	.25
65	MP1B	Z	-29.079	.25
66	MP1B	Mx	.004	.25
67	MP1B	X	-16.789	4.25
68	MP1B	Z	-29.079	4.25
69	MP1B	Mx	.004	4.25
70	MP1C	X	-11.853	.25
71	MP1C	Z	-20.53	.25
72	MP1C	Mx	-.016	.25
73	MP1C	X	-11.853	4.25
74	MP1C	Z	-20.53	4.25
75	MP1C	Mx	-.016	4.25
76	MP5A	X	-15.634	.25
77	MP5A	Z	-27.079	.25
78	MP5A	Mx	.01	.25
79	MP5A	X	-15.634	4.25
80	MP5A	Z	-27.079	4.25
81	MP5A	Mx	.01	4.25
82	MP5B	X	-16.789	.25
83	MP5B	Z	-29.079	.25
84	MP5B	Mx	.004	.25
85	MP5B	X	-16.789	4.25
86	MP5B	Z	-29.079	4.25
87	MP5B	Mx	.004	4.25
88	MP5C	X	-11.853	.25
89	MP5C	Z	-20.53	.25
90	MP5C	Mx	-.016	.25
91	MP5C	X	-11.853	4.25
92	MP5C	Z	-20.53	4.25
93	MP5C	Mx	-.016	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1.25
2	MP4A	Z	-4.318	1.25
3	MP4A	Mx	0	1.25
4	MP4A	X	0	3.25
5	MP4A	Z	-4.318	3.25
6	MP4A	Mx	0	3.25
7	MP4B	X	0	1.25
8	MP4B	Z	-3.161	1.25
9	MP4B	Mx	.001	1.25
10	MP4B	X	0	3.25
11	MP4B	Z	-3.161	3.25
12	MP4B	Mx	.001	3.25
13	MP4C	X	0	1.25
14	MP4C	Z	-2.674	1.25
15	MP4C	Mx	-.001	1.25
16	MP4C	X	0	3.25
17	MP4C	Z	-2.674	3.25
18	MP4C	Mx	-.001	3.25
19	MP1A	X	0	2
20	MP1A	Z	-4.236	2
21	MP1A	Mx	0	2
22	MP1B	X	0	2
23	MP1B	Z	-3.661	2
24	MP1B	Mx	-.001	2
25	MP1C	X	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP1C	Z	-3.418	2
27	MP1C	Mx	.001	2
28	MP5A	X	0	2
29	MP5A	Z	-5.111	2
30	MP5A	Mx	0	2
31	MP5B	X	0	2
32	MP5B	Z	-4.439	2
33	MP5B	Mx	-.001	2
34	MP5C	X	0	2
35	MP5C	Z	-4.157	2
36	MP5C	Mx	.002	2
37	OVP	X	0	1
38	OVP	Z	-7.106	1
39	OVP	Mx	0	1
40	MP3A	X	0	.25
41	MP3A	Z	-10.345	.25
42	MP3A	Mx	0	.25
43	MP3A	X	0	4.25
44	MP3A	Z	-10.345	4.25
45	MP3A	Mx	0	4.25
46	MP3B	X	0	.25
47	MP3B	Z	-8.419	.25
48	MP3B	Mx	.002	.25
49	MP3B	X	0	4.25
50	MP3B	Z	-8.419	4.25
51	MP3B	Mx	.002	4.25
52	MP3C	X	0	.25
53	MP3C	Z	-7.609	.25
54	MP3C	Mx	-.002	.25
55	MP3C	X	0	4.25
56	MP3C	Z	-7.609	4.25
57	MP3C	Mx	-.002	4.25
58	MP1A	X	0	.25
59	MP1A	Z	-7.421	.25
60	MP1A	Mx	0	.25
61	MP1A	X	0	4.25
62	MP1A	Z	-7.421	4.25
63	MP1A	Mx	0	4.25
64	MP1B	X	0	.25
65	MP1B	Z	-5.67	.25
66	MP1B	Mx	.002	.25
67	MP1B	X	0	4.25
68	MP1B	Z	-5.67	4.25
69	MP1B	Mx	.002	4.25
70	MP1C	X	0	.25
71	MP1C	Z	-4.935	.25
72	MP1C	Mx	-.003	.25
73	MP1C	X	0	4.25
74	MP1C	Z	-4.935	4.25
75	MP1C	Mx	-.003	4.25
76	MP5A	X	0	.25
77	MP5A	Z	-7.421	.25
78	MP5A	Mx	0	.25
79	MP5A	X	0	4.25
80	MP5A	Z	-7.421	4.25
81	MP5A	Mx	0	4.25
82	MP5B	X	0	.25
83	MP5B	Z	-5.67	.25
84	MP5B	Mx	.002	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP5B	X	0	4.25
86	MP5B	Z	-5.67	4.25
87	MP5B	Mx	.002	4.25
88	MP5C	X	0	.25
89	MP5C	Z	-4.935	.25
90	MP5C	Mx	-.003	.25
91	MP5C	X	0	4.25
92	MP5C	Z	-4.935	4.25
93	MP5C	Mx	-.003	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.809	1.25
2	MP4A	Z	-3.133	1.25
3	MP4A	Mx	-.001	1.25
4	MP4A	X	1.809	3.25
5	MP4A	Z	-3.133	3.25
6	MP4A	Mx	-.001	3.25
7	MP4B	X	.922	1.25
8	MP4B	Z	-1.598	1.25
9	MP4B	Mx	.001	1.25
10	MP4B	X	.922	3.25
11	MP4B	Z	-1.598	3.25
12	MP4B	Mx	.001	3.25
13	MP4C	X	1.995	1.25
14	MP4C	Z	-3.456	1.25
15	MP4C	Mx	-.00091	1.25
16	MP4C	X	1.995	3.25
17	MP4C	Z	-3.456	3.25
18	MP4C	Mx	-.00091	3.25
19	MP1A	X	1.944	2
20	MP1A	Z	-3.367	2
21	MP1A	Mx	.000972	2
22	MP1B	X	1.503	2
23	MP1B	Z	-2.603	2
24	MP1B	Mx	-.001	2
25	MP1C	X	2.037	2
26	MP1C	Z	-3.528	2
27	MP1C	Mx	.000697	2
28	MP5A	X	2.352	2
29	MP5A	Z	-4.074	2
30	MP5A	Mx	.001	2
31	MP5B	X	1.838	2
32	MP5B	Z	-3.183	2
33	MP5B	Mx	-.002	2
34	MP5C	X	2.46	2
35	MP5C	Z	-4.262	2
36	MP5C	Mx	.000842	2
37	OVP	X	3.294	1
38	OVP	Z	-5.705	1
39	OVP	Mx	0	1
40	MP3A	X	4.59	.25
41	MP3A	Z	-7.95	.25
42	MP3A	Mx	-.002	.25
43	MP3A	X	4.59	4.25
44	MP3A	Z	-7.95	4.25
45	MP3A	Mx	-.002	4.25
46	MP3B	X	3.114	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
47	MP3B	Z	-5.394	.25
48	MP3B	Mx	.002	.25
49	MP3B	X	3.114	4.25
50	MP3B	Z	-5.394	4.25
51	MP3B	Mx	.002	4.25
52	MP3C	X	4.9	.25
53	MP3C	Z	-8.487	.25
54	MP3C	Mx	-.001	.25
55	MP3C	X	4.9	4.25
56	MP3C	Z	-8.487	4.25
57	MP3C	Mx	-.001	4.25
58	MP1A	X	3.181	.25
59	MP1A	Z	-5.509	.25
60	MP1A	Mx	-.002	.25
61	MP1A	X	3.181	4.25
62	MP1A	Z	-5.509	4.25
63	MP1A	Mx	-.002	4.25
64	MP1B	X	1.84	.25
65	MP1B	Z	-3.187	.25
66	MP1B	Mx	.002	.25
67	MP1B	X	1.84	4.25
68	MP1B	Z	-3.187	4.25
69	MP1B	Mx	.002	4.25
70	MP1C	X	3.463	.25
71	MP1C	Z	-5.997	.25
72	MP1C	Mx	-.002	.25
73	MP1C	X	3.463	4.25
74	MP1C	Z	-5.997	4.25
75	MP1C	Mx	-.002	4.25
76	MP5A	X	3.181	.25
77	MP5A	Z	-5.509	.25
78	MP5A	Mx	-.002	.25
79	MP5A	X	3.181	4.25
80	MP5A	Z	-5.509	4.25
81	MP5A	Mx	-.002	4.25
82	MP5B	X	1.84	.25
83	MP5B	Z	-3.187	.25
84	MP5B	Mx	.002	.25
85	MP5B	X	1.84	4.25
86	MP5B	Z	-3.187	4.25
87	MP5B	Mx	.002	4.25
88	MP5C	X	3.463	.25
89	MP5C	Z	-5.997	.25
90	MP5C	Mx	-.002	.25
91	MP5C	X	3.463	4.25
92	MP5C	Z	-5.997	4.25
93	MP5C	Mx	-.002	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.92	1.25
2	MP4A	Z	-1.109	1.25
3	MP4A	Mx	-.001	1.25
4	MP4A	X	1.92	3.25
5	MP4A	Z	-1.109	3.25
6	MP4A	Mx	-.001	3.25
7	MP4B	X	1.387	1.25
8	MP4B	Z	-.801	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP4B	Mx	.001	1.25
10	MP4B	X	1.387	3.25
11	MP4B	Z	-.801	3.25
12	MP4B	Mx	.001	3.25
13	MP4C	X	3.667	1.25
14	MP4C	Z	-2.117	1.25
15	MP4C	Mx	.00049	1.25
16	MP4C	X	3.667	3.25
17	MP4C	Z	-2.117	3.25
18	MP4C	Mx	.00049	3.25
19	MP1A	X	2.764	2
20	MP1A	Z	-1.596	2
21	MP1A	Mx	.001	2
22	MP1B	X	2.498	2
23	MP1B	Z	-1.442	2
24	MP1B	Mx	-.001	2
25	MP1C	X	3.632	2
26	MP1C	Z	-2.097	2
27	MP1C	Mx	-.000364	2
28	MP5A	X	3.37	2
29	MP5A	Z	-1.946	2
30	MP5A	Mx	.002	2
31	MP5B	X	3.06	2
32	MP5B	Z	-1.767	2
33	MP5B	Mx	-.002	2
34	MP5C	X	4.384	2
35	MP5C	Z	-2.531	2
36	MP5C	Mx	-.00044	2
37	OVP	X	6.154	1
38	OVP	Z	-3.553	1
39	OVP	Mx	0	1
40	MP3A	X	5.931	.25
41	MP3A	Z	-3.424	.25
42	MP3A	Mx	-.002	.25
43	MP3A	X	5.931	4.25
44	MP3A	Z	-3.424	4.25
45	MP3A	Mx	-.002	4.25
46	MP3B	X	5.043	.25
47	MP3B	Z	-2.912	.25
48	MP3B	Mx	.002	.25
49	MP3B	X	5.043	4.25
50	MP3B	Z	-2.912	4.25
51	MP3B	Mx	.002	4.25
52	MP3C	X	8.837	.25
53	MP3C	Z	-5.102	.25
54	MP3C	Mx	.000591	.25
55	MP3C	X	8.837	4.25
56	MP3C	Z	-5.102	4.25
57	MP3C	Mx	.000591	4.25
58	MP1A	X	3.675	.25
59	MP1A	Z	-2.122	.25
60	MP1A	Mx	-.002	.25
61	MP1A	X	3.675	4.25
62	MP1A	Z	-2.122	4.25
63	MP1A	Mx	-.002	4.25
64	MP1B	X	2.868	.25
65	MP1B	Z	-1.656	.25
66	MP1B	Mx	.002	.25
67	MP1B	X	2.868	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP1B	Z	-1.656	4.25
69	MP1B	Mx	.002	4.25
70	MP1C	X	6.316	.25
71	MP1C	Z	-3.646	.25
72	MP1C	Mx	.000845	.25
73	MP1C	X	6.316	4.25
74	MP1C	Z	-3.646	4.25
75	MP1C	Mx	.000845	4.25
76	MP5A	X	3.675	.25
77	MP5A	Z	-2.122	.25
78	MP5A	Mx	-.002	.25
79	MP5A	X	3.675	4.25
80	MP5A	Z	-2.122	4.25
81	MP5A	Mx	-.002	4.25
82	MP5B	X	2.868	.25
83	MP5B	Z	-1.656	.25
84	MP5B	Mx	.002	.25
85	MP5B	X	2.868	4.25
86	MP5B	Z	-1.656	4.25
87	MP5B	Mx	.002	4.25
88	MP5C	X	6.316	.25
89	MP5C	Z	-3.646	.25
90	MP5C	Mx	.000845	.25
91	MP5C	X	6.316	4.25
92	MP5C	Z	-3.646	4.25
93	MP5C	Mx	.000845	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.517	1.25
2	MP4A	Z	0	1.25
3	MP4A	Mx	-.001	1.25
4	MP4A	X	1.517	3.25
5	MP4A	Z	0	3.25
6	MP4A	Mx	-.001	3.25
7	MP4B	X	2.674	1.25
8	MP4B	Z	0	1.25
9	MP4B	Mx	.001	1.25
10	MP4B	X	2.674	3.25
11	MP4B	Z	0	3.25
12	MP4B	Mx	.001	3.25
13	MP4C	X	3.161	1.25
14	MP4C	Z	0	1.25
15	MP4C	Mx	.001	1.25
16	MP4C	X	3.161	3.25
17	MP4C	Z	0	3.25
18	MP4C	Mx	.001	3.25
19	MP1A	X	2.843	2
20	MP1A	Z	0	2
21	MP1A	Mx	.001	2
22	MP1B	X	3.418	2
23	MP1B	Z	0	2
24	MP1B	Mx	-.001	2
25	MP1C	X	3.661	2
26	MP1C	Z	0	2
27	MP1C	Mx	-.001	2
28	MP5A	X	3.485	2
29	MP5A	Z	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP5A	Mx	.002	2
31	MP5B	X	4.157	2
32	MP5B	Z	0	2
33	MP5B	Mx	-.002	2
34	MP5C	X	4.439	2
35	MP5C	Z	0	2
36	MP5C	Mx	-.001	2
37	OVP	X	8.145	1
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	MP3A	X	5.682	.25
41	MP3A	Z	0	.25
42	MP3A	Mx	-.002	.25
43	MP3A	X	5.682	4.25
44	MP3A	Z	0	4.25
45	MP3A	Mx	-.002	4.25
46	MP3B	X	7.609	.25
47	MP3B	Z	0	.25
48	MP3B	Mx	.002	.25
49	MP3B	X	7.609	4.25
50	MP3B	Z	0	4.25
51	MP3B	Mx	.002	4.25
52	MP3C	X	8.419	.25
53	MP3C	Z	0	.25
54	MP3C	Mx	.002	.25
55	MP3C	X	8.419	4.25
56	MP3C	Z	0	4.25
57	MP3C	Mx	.002	4.25
58	MP1A	X	3.184	.25
59	MP1A	Z	0	.25
60	MP1A	Mx	-.002	.25
61	MP1A	X	3.184	4.25
62	MP1A	Z	0	4.25
63	MP1A	Mx	-.002	4.25
64	MP1B	X	4.935	.25
65	MP1B	Z	0	.25
66	MP1B	Mx	.003	.25
67	MP1B	X	4.935	4.25
68	MP1B	Z	0	4.25
69	MP1B	Mx	.003	4.25
70	MP1C	X	5.67	.25
71	MP1C	Z	0	.25
72	MP1C	Mx	.002	.25
73	MP1C	X	5.67	4.25
74	MP1C	Z	0	4.25
75	MP1C	Mx	.002	4.25
76	MP5A	X	3.184	.25
77	MP5A	Z	0	.25
78	MP5A	Mx	-.002	.25
79	MP5A	X	3.184	4.25
80	MP5A	Z	0	4.25
81	MP5A	Mx	-.002	4.25
82	MP5B	X	4.935	.25
83	MP5B	Z	0	.25
84	MP5B	Mx	.003	.25
85	MP5B	X	4.935	4.25
86	MP5B	Z	0	4.25
87	MP5B	Mx	.003	4.25
88	MP5C	X	5.67	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	MP5C	Z	0	.25
90	MP5C	Mx	.002	.25
91	MP5C	X	5.67	4.25
92	MP5C	Z	0	4.25
93	MP5C	Mx	.002	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.92	1.25
2	MP4A	Z	1.109	1.25
3	MP4A	Mx	-.001	1.25
4	MP4A	X	1.92	3.25
5	MP4A	Z	1.109	3.25
6	MP4A	Mx	-.001	3.25
7	MP4B	X	3.456	1.25
8	MP4B	Z	1.995	1.25
9	MP4B	Mx	.00091	1.25
10	MP4B	X	3.456	3.25
11	MP4B	Z	1.995	3.25
12	MP4B	Mx	.00091	3.25
13	MP4C	X	1.598	1.25
14	MP4C	Z	.922	1.25
15	MP4C	Mx	.001	1.25
16	MP4C	X	1.598	3.25
17	MP4C	Z	.922	3.25
18	MP4C	Mx	.001	3.25
19	MP1A	X	2.764	2
20	MP1A	Z	1.596	2
21	MP1A	Mx	.001	2
22	MP1B	X	3.528	2
23	MP1B	Z	2.037	2
24	MP1B	Mx	-.000697	2
25	MP1C	X	2.603	2
26	MP1C	Z	1.503	2
27	MP1C	Mx	-.001	2
28	MP5A	X	3.37	2
29	MP5A	Z	1.946	2
30	MP5A	Mx	.002	2
31	MP5B	X	4.262	2
32	MP5B	Z	2.46	2
33	MP5B	Mx	-.000842	2
34	MP5C	X	3.183	2
35	MP5C	Z	1.838	2
36	MP5C	Mx	-.002	2
37	OVP	X	7.503	1
38	OVP	Z	4.332	1
39	OVP	Mx	0	1
40	MP3A	X	5.931	.25
41	MP3A	Z	3.424	.25
42	MP3A	Mx	-.002	.25
43	MP3A	X	5.931	4.25
44	MP3A	Z	3.424	4.25
45	MP3A	Mx	-.002	4.25
46	MP3B	X	8.487	.25
47	MP3B	Z	4.9	.25
48	MP3B	Mx	.001	.25
49	MP3B	X	8.487	4.25
50	MP3B	Z	4.9	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
51	MP3B	Mx	.001	4.25
52	MP3C	X	5.394	.25
53	MP3C	Z	3.114	.25
54	MP3C	Mx	.002	.25
55	MP3C	X	5.394	4.25
56	MP3C	Z	3.114	4.25
57	MP3C	Mx	.002	4.25
58	MP1A	X	3.675	.25
59	MP1A	Z	2.122	.25
60	MP1A	Mx	-.002	.25
61	MP1A	X	3.675	4.25
62	MP1A	Z	2.122	4.25
63	MP1A	Mx	-.002	4.25
64	MP1B	X	5.997	.25
65	MP1B	Z	3.463	.25
66	MP1B	Mx	.002	.25
67	MP1B	X	5.997	4.25
68	MP1B	Z	3.463	4.25
69	MP1B	Mx	.002	4.25
70	MP1C	X	3.187	.25
71	MP1C	Z	1.84	.25
72	MP1C	Mx	.002	.25
73	MP1C	X	3.187	4.25
74	MP1C	Z	1.84	4.25
75	MP1C	Mx	.002	4.25
76	MP5A	X	3.675	.25
77	MP5A	Z	2.122	.25
78	MP5A	Mx	-.002	.25
79	MP5A	X	3.675	4.25
80	MP5A	Z	2.122	4.25
81	MP5A	Mx	-.002	4.25
82	MP5B	X	5.997	.25
83	MP5B	Z	3.463	.25
84	MP5B	Mx	.002	.25
85	MP5B	X	5.997	4.25
86	MP5B	Z	3.463	4.25
87	MP5B	Mx	.002	4.25
88	MP5C	X	3.187	.25
89	MP5C	Z	1.84	.25
90	MP5C	Mx	.002	.25
91	MP5C	X	3.187	4.25
92	MP5C	Z	1.84	4.25
93	MP5C	Mx	.002	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.809	1.25
2	MP4A	Z	3.133	1.25
3	MP4A	Mx	-.001	1.25
4	MP4A	X	1.809	3.25
5	MP4A	Z	3.133	3.25
6	MP4A	Mx	-.001	3.25
7	MP4B	X	2.117	1.25
8	MP4B	Z	3.667	1.25
9	MP4B	Mx	-.00049	1.25
10	MP4B	X	2.117	3.25
11	MP4B	Z	3.667	3.25
12	MP4B	Mx	-.00049	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP4C	X	.801	1.25
14	MP4C	Z	1.387	1.25
15	MP4C	Mx	.001	1.25
16	MP4C	X	.801	3.25
17	MP4C	Z	1.387	3.25
18	MP4C	Mx	.001	3.25
19	MP1A	X	1.944	2
20	MP1A	Z	3.367	2
21	MP1A	Mx	.000972	2
22	MP1B	X	2.097	2
23	MP1B	Z	3.632	2
24	MP1B	Mx	.000364	2
25	MP1C	X	1.442	2
26	MP1C	Z	2.498	2
27	MP1C	Mx	-.001	2
28	MP5A	X	2.352	2
29	MP5A	Z	4.074	2
30	MP5A	Mx	.001	2
31	MP5B	X	2.531	2
32	MP5B	Z	4.384	2
33	MP5B	Mx	.00044	2
34	MP5C	X	1.767	2
35	MP5C	Z	3.06	2
36	MP5C	Mx	-.002	2
37	OVP	X	4.072	1
38	OVP	Z	7.054	1
39	OVP	Mx	0	1
40	MP3A	X	4.59	.25
41	MP3A	Z	7.95	.25
42	MP3A	Mx	-.002	.25
43	MP3A	X	4.59	4.25
44	MP3A	Z	7.95	4.25
45	MP3A	Mx	-.002	4.25
46	MP3B	X	5.102	.25
47	MP3B	Z	8.837	.25
48	MP3B	Mx	-.000591	.25
49	MP3B	X	5.102	4.25
50	MP3B	Z	8.837	4.25
51	MP3B	Mx	-.000591	4.25
52	MP3C	X	2.912	.25
53	MP3C	Z	5.043	.25
54	MP3C	Mx	.002	.25
55	MP3C	X	2.912	4.25
56	MP3C	Z	5.043	4.25
57	MP3C	Mx	.002	4.25
58	MP1A	X	3.181	.25
59	MP1A	Z	5.509	.25
60	MP1A	Mx	-.002	.25
61	MP1A	X	3.181	4.25
62	MP1A	Z	5.509	4.25
63	MP1A	Mx	-.002	4.25
64	MP1B	X	3.646	.25
65	MP1B	Z	6.316	.25
66	MP1B	Mx	-.000845	.25
67	MP1B	X	3.646	4.25
68	MP1B	Z	6.316	4.25
69	MP1B	Mx	-.000845	4.25
70	MP1C	X	1.656	.25
71	MP1C	Z	2.868	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP1C	Mx	.002	.25
73	MP1C	X	1.656	4.25
74	MP1C	Z	2.868	4.25
75	MP1C	Mx	.002	4.25
76	MP5A	X	3.181	.25
77	MP5A	Z	5.509	.25
78	MP5A	Mx	-.002	.25
79	MP5A	X	3.181	4.25
80	MP5A	Z	5.509	4.25
81	MP5A	Mx	-.002	4.25
82	MP5B	X	3.646	.25
83	MP5B	Z	6.316	.25
84	MP5B	Mx	-.000845	.25
85	MP5B	X	3.646	4.25
86	MP5B	Z	6.316	4.25
87	MP5B	Mx	-.000845	4.25
88	MP5C	X	1.656	.25
89	MP5C	Z	2.868	.25
90	MP5C	Mx	.002	.25
91	MP5C	X	1.656	4.25
92	MP5C	Z	2.868	4.25
93	MP5C	Mx	.002	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1.25
2	MP4A	Z	4.318	1.25
3	MP4A	Mx	0	1.25
4	MP4A	X	0	3.25
5	MP4A	Z	4.318	3.25
6	MP4A	Mx	0	3.25
7	MP4B	X	0	1.25
8	MP4B	Z	3.161	1.25
9	MP4B	Mx	-.001	1.25
10	MP4B	X	0	3.25
11	MP4B	Z	3.161	3.25
12	MP4B	Mx	-.001	3.25
13	MP4C	X	0	1.25
14	MP4C	Z	2.674	1.25
15	MP4C	Mx	.001	1.25
16	MP4C	X	0	3.25
17	MP4C	Z	2.674	3.25
18	MP4C	Mx	.001	3.25
19	MP1A	X	0	2
20	MP1A	Z	4.236	2
21	MP1A	Mx	0	2
22	MP1B	X	0	2
23	MP1B	Z	3.661	2
24	MP1B	Mx	.001	2
25	MP1C	X	0	2
26	MP1C	Z	3.418	2
27	MP1C	Mx	-.001	2
28	MP5A	X	0	2
29	MP5A	Z	5.111	2
30	MP5A	Mx	0	2
31	MP5B	X	0	2
32	MP5B	Z	4.439	2
33	MP5B	Mx	.001	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5C	X	0	2
35	MP5C	Z	4.157	2
36	MP5C	Mx	-.002	2
37	OVP	X	0	1
38	OVP	Z	7.106	1
39	OVP	Mx	0	1
40	MP3A	X	0	.25
41	MP3A	Z	10.345	.25
42	MP3A	Mx	0	.25
43	MP3A	X	0	4.25
44	MP3A	Z	10.345	4.25
45	MP3A	Mx	0	4.25
46	MP3B	X	0	.25
47	MP3B	Z	8.419	.25
48	MP3B	Mx	-.002	.25
49	MP3B	X	0	4.25
50	MP3B	Z	8.419	4.25
51	MP3B	Mx	-.002	4.25
52	MP3C	X	0	.25
53	MP3C	Z	7.609	.25
54	MP3C	Mx	.002	.25
55	MP3C	X	0	4.25
56	MP3C	Z	7.609	4.25
57	MP3C	Mx	.002	4.25
58	MP1A	X	0	.25
59	MP1A	Z	7.421	.25
60	MP1A	Mx	0	.25
61	MP1A	X	0	4.25
62	MP1A	Z	7.421	4.25
63	MP1A	Mx	0	4.25
64	MP1B	X	0	.25
65	MP1B	Z	5.67	.25
66	MP1B	Mx	-.002	.25
67	MP1B	X	0	4.25
68	MP1B	Z	5.67	4.25
69	MP1B	Mx	-.002	4.25
70	MP1C	X	0	.25
71	MP1C	Z	4.935	.25
72	MP1C	Mx	.003	.25
73	MP1C	X	0	4.25
74	MP1C	Z	4.935	4.25
75	MP1C	Mx	.003	4.25
76	MP5A	X	0	.25
77	MP5A	Z	7.421	.25
78	MP5A	Mx	0	.25
79	MP5A	X	0	4.25
80	MP5A	Z	7.421	4.25
81	MP5A	Mx	0	4.25
82	MP5B	X	0	.25
83	MP5B	Z	5.67	.25
84	MP5B	Mx	-.002	.25
85	MP5B	X	0	4.25
86	MP5B	Z	5.67	4.25
87	MP5B	Mx	-.002	4.25
88	MP5C	X	0	.25
89	MP5C	Z	4.935	.25
90	MP5C	Mx	.003	.25
91	MP5C	X	0	4.25
92	MP5C	Z	4.935	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
93	MP5C	Mx	.003	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.809	1.25
2	MP4A	Z	3.133	1.25
3	MP4A	Mx	.001	1.25
4	MP4A	X	-1.809	3.25
5	MP4A	Z	3.133	3.25
6	MP4A	Mx	.001	3.25
7	MP4B	X	-.922	1.25
8	MP4B	Z	1.598	1.25
9	MP4B	Mx	-.001	1.25
10	MP4B	X	-.922	3.25
11	MP4B	Z	1.598	3.25
12	MP4B	Mx	-.001	3.25
13	MP4C	X	-1.995	1.25
14	MP4C	Z	3.456	1.25
15	MP4C	Mx	.00091	1.25
16	MP4C	X	-1.995	3.25
17	MP4C	Z	3.456	3.25
18	MP4C	Mx	.00091	3.25
19	MP1A	X	-1.944	2
20	MP1A	Z	3.367	2
21	MP1A	Mx	-.000972	2
22	MP1B	X	-1.503	2
23	MP1B	Z	2.603	2
24	MP1B	Mx	.001	2
25	MP1C	X	-2.037	2
26	MP1C	Z	3.528	2
27	MP1C	Mx	-.000697	2
28	MP5A	X	-2.352	2
29	MP5A	Z	4.074	2
30	MP5A	Mx	-.001	2
31	MP5B	X	-1.838	2
32	MP5B	Z	3.183	2
33	MP5B	Mx	.002	2
34	MP5C	X	-2.46	2
35	MP5C	Z	4.262	2
36	MP5C	Mx	-.000842	2
37	OVP	X	-3.294	1
38	OVP	Z	5.705	1
39	OVP	Mx	0	1
40	MP3A	X	-4.59	.25
41	MP3A	Z	7.95	.25
42	MP3A	Mx	.002	.25
43	MP3A	X	-4.59	4.25
44	MP3A	Z	7.95	4.25
45	MP3A	Mx	.002	4.25
46	MP3B	X	-3.114	.25
47	MP3B	Z	5.394	.25
48	MP3B	Mx	-.002	.25
49	MP3B	X	-3.114	4.25
50	MP3B	Z	5.394	4.25
51	MP3B	Mx	-.002	4.25
52	MP3C	X	-4.9	.25
53	MP3C	Z	8.487	.25
54	MP3C	Mx	.001	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	MP3C	X	-4.9	4.25
56	MP3C	Z	8.487	4.25
57	MP3C	Mx	.001	4.25
58	MP1A	X	-3.181	.25
59	MP1A	Z	5.509	.25
60	MP1A	Mx	.002	.25
61	MP1A	X	-3.181	4.25
62	MP1A	Z	5.509	4.25
63	MP1A	Mx	.002	4.25
64	MP1B	X	-1.84	.25
65	MP1B	Z	3.187	.25
66	MP1B	Mx	-.002	.25
67	MP1B	X	-1.84	4.25
68	MP1B	Z	3.187	4.25
69	MP1B	Mx	-.002	4.25
70	MP1C	X	-3.463	.25
71	MP1C	Z	5.997	.25
72	MP1C	Mx	.002	.25
73	MP1C	X	-3.463	4.25
74	MP1C	Z	5.997	4.25
75	MP1C	Mx	.002	4.25
76	MP5A	X	-3.181	.25
77	MP5A	Z	5.509	.25
78	MP5A	Mx	.002	.25
79	MP5A	X	-3.181	4.25
80	MP5A	Z	5.509	4.25
81	MP5A	Mx	.002	4.25
82	MP5B	X	-1.84	.25
83	MP5B	Z	3.187	.25
84	MP5B	Mx	-.002	.25
85	MP5B	X	-1.84	4.25
86	MP5B	Z	3.187	4.25
87	MP5B	Mx	-.002	4.25
88	MP5C	X	-3.463	.25
89	MP5C	Z	5.997	.25
90	MP5C	Mx	.002	.25
91	MP5C	X	-3.463	4.25
92	MP5C	Z	5.997	4.25
93	MP5C	Mx	.002	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.92	1.25
2	MP4A	Z	1.109	1.25
3	MP4A	Mx	.001	1.25
4	MP4A	X	-1.92	3.25
5	MP4A	Z	1.109	3.25
6	MP4A	Mx	.001	3.25
7	MP4B	X	-1.387	1.25
8	MP4B	Z	.801	1.25
9	MP4B	Mx	-.001	1.25
10	MP4B	X	-1.387	3.25
11	MP4B	Z	.801	3.25
12	MP4B	Mx	-.001	3.25
13	MP4C	X	-3.667	1.25
14	MP4C	Z	2.117	1.25
15	MP4C	Mx	-.00049	1.25
16	MP4C	X	-3.667	3.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4C	Z	2.117	3.25
18	MP4C	Mx	-.00049	3.25
19	MP1A	X	-2.764	2
20	MP1A	Z	1.596	2
21	MP1A	Mx	-.001	2
22	MP1B	X	-2.498	2
23	MP1B	Z	1.442	2
24	MP1B	Mx	.001	2
25	MP1C	X	-3.632	2
26	MP1C	Z	2.097	2
27	MP1C	Mx	.000364	2
28	MP5A	X	-3.37	2
29	MP5A	Z	1.946	2
30	MP5A	Mx	-.002	2
31	MP5B	X	-3.06	2
32	MP5B	Z	1.767	2
33	MP5B	Mx	.002	2
34	MP5C	X	-4.384	2
35	MP5C	Z	2.531	2
36	MP5C	Mx	.00044	2
37	OVP	X	-6.154	1
38	OVP	Z	3.553	1
39	OVP	Mx	0	1
40	MP3A	X	-5.931	.25
41	MP3A	Z	3.424	.25
42	MP3A	Mx	.002	.25
43	MP3A	X	-5.931	4.25
44	MP3A	Z	3.424	4.25
45	MP3A	Mx	.002	4.25
46	MP3B	X	-5.043	.25
47	MP3B	Z	2.912	.25
48	MP3B	Mx	-.002	.25
49	MP3B	X	-5.043	4.25
50	MP3B	Z	2.912	4.25
51	MP3B	Mx	-.002	4.25
52	MP3C	X	-8.837	.25
53	MP3C	Z	5.102	.25
54	MP3C	Mx	-.000591	.25
55	MP3C	X	-8.837	4.25
56	MP3C	Z	5.102	4.25
57	MP3C	Mx	-.000591	4.25
58	MP1A	X	-3.675	.25
59	MP1A	Z	2.122	.25
60	MP1A	Mx	.002	.25
61	MP1A	X	-3.675	4.25
62	MP1A	Z	2.122	4.25
63	MP1A	Mx	.002	4.25
64	MP1B	X	-2.868	.25
65	MP1B	Z	1.656	.25
66	MP1B	Mx	-.002	.25
67	MP1B	X	-2.868	4.25
68	MP1B	Z	1.656	4.25
69	MP1B	Mx	-.002	4.25
70	MP1C	X	-6.316	.25
71	MP1C	Z	3.646	.25
72	MP1C	Mx	-.000845	.25
73	MP1C	X	-6.316	4.25
74	MP1C	Z	3.646	4.25
75	MP1C	Mx	-.000845	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
76	MP5A	X	-3.675	.25
77	MP5A	Z	2.122	.25
78	MP5A	Mx	.002	.25
79	MP5A	X	-3.675	4.25
80	MP5A	Z	2.122	4.25
81	MP5A	Mx	.002	4.25
82	MP5B	X	-2.868	.25
83	MP5B	Z	1.656	.25
84	MP5B	Mx	-.002	.25
85	MP5B	X	-2.868	4.25
86	MP5B	Z	1.656	4.25
87	MP5B	Mx	-.002	4.25
88	MP5C	X	-6.316	.25
89	MP5C	Z	3.646	.25
90	MP5C	Mx	-.000845	.25
91	MP5C	X	-6.316	4.25
92	MP5C	Z	3.646	4.25
93	MP5C	Mx	-.000845	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.517	1.25
2	MP4A	Z	0	1.25
3	MP4A	Mx	.001	1.25
4	MP4A	X	-1.517	3.25
5	MP4A	Z	0	3.25
6	MP4A	Mx	.001	3.25
7	MP4B	X	-2.674	1.25
8	MP4B	Z	0	1.25
9	MP4B	Mx	-.001	1.25
10	MP4B	X	-2.674	3.25
11	MP4B	Z	0	3.25
12	MP4B	Mx	-.001	3.25
13	MP4C	X	-3.161	1.25
14	MP4C	Z	0	1.25
15	MP4C	Mx	-.001	1.25
16	MP4C	X	-3.161	3.25
17	MP4C	Z	0	3.25
18	MP4C	Mx	-.001	3.25
19	MP1A	X	-2.843	2
20	MP1A	Z	0	2
21	MP1A	Mx	-.001	2
22	MP1B	X	-3.418	2
23	MP1B	Z	0	2
24	MP1B	Mx	.001	2
25	MP1C	X	-3.661	2
26	MP1C	Z	0	2
27	MP1C	Mx	.001	2
28	MP5A	X	-3.485	2
29	MP5A	Z	0	2
30	MP5A	Mx	-.002	2
31	MP5B	X	-4.157	2
32	MP5B	Z	0	2
33	MP5B	Mx	.002	2
34	MP5C	X	-4.439	2
35	MP5C	Z	0	2
36	MP5C	Mx	.001	2
37	OVP	X	-8.145	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	OVP	Z	0	1
39	OVP	Mx	0	1
40	MP3A	X	-5.682	.25
41	MP3A	Z	0	.25
42	MP3A	Mx	.002	.25
43	MP3A	X	-5.682	4.25
44	MP3A	Z	0	4.25
45	MP3A	Mx	.002	4.25
46	MP3B	X	-7.609	.25
47	MP3B	Z	0	.25
48	MP3B	Mx	-.002	.25
49	MP3B	X	-7.609	4.25
50	MP3B	Z	0	4.25
51	MP3B	Mx	-.002	4.25
52	MP3C	X	-8.419	.25
53	MP3C	Z	0	.25
54	MP3C	Mx	-.002	.25
55	MP3C	X	-8.419	4.25
56	MP3C	Z	0	4.25
57	MP3C	Mx	-.002	4.25
58	MP1A	X	-3.184	.25
59	MP1A	Z	0	.25
60	MP1A	Mx	.002	.25
61	MP1A	X	-3.184	4.25
62	MP1A	Z	0	4.25
63	MP1A	Mx	.002	4.25
64	MP1B	X	-4.935	.25
65	MP1B	Z	0	.25
66	MP1B	Mx	-.003	.25
67	MP1B	X	-4.935	4.25
68	MP1B	Z	0	4.25
69	MP1B	Mx	-.003	4.25
70	MP1C	X	-5.67	.25
71	MP1C	Z	0	.25
72	MP1C	Mx	-.002	.25
73	MP1C	X	-5.67	4.25
74	MP1C	Z	0	4.25
75	MP1C	Mx	-.002	4.25
76	MP5A	X	-3.184	.25
77	MP5A	Z	0	.25
78	MP5A	Mx	.002	.25
79	MP5A	X	-3.184	4.25
80	MP5A	Z	0	4.25
81	MP5A	Mx	.002	4.25
82	MP5B	X	-4.935	.25
83	MP5B	Z	0	.25
84	MP5B	Mx	-.003	.25
85	MP5B	X	-4.935	4.25
86	MP5B	Z	0	4.25
87	MP5B	Mx	-.003	4.25
88	MP5C	X	-5.67	.25
89	MP5C	Z	0	.25
90	MP5C	Mx	-.002	.25
91	MP5C	X	-5.67	4.25
92	MP5C	Z	0	4.25
93	MP5C	Mx	-.002	4.25

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.92	1.25
2	MP4A	Z	-1.109	1.25
3	MP4A	Mx	.001	1.25
4	MP4A	X	-1.92	3.25
5	MP4A	Z	-1.109	3.25
6	MP4A	Mx	.001	3.25
7	MP4B	X	-3.456	1.25
8	MP4B	Z	-1.995	1.25
9	MP4B	Mx	-.00091	1.25
10	MP4B	X	-3.456	3.25
11	MP4B	Z	-1.995	3.25
12	MP4B	Mx	-.00091	3.25
13	MP4C	X	-1.598	1.25
14	MP4C	Z	-.922	1.25
15	MP4C	Mx	-.001	1.25
16	MP4C	X	-1.598	3.25
17	MP4C	Z	-.922	3.25
18	MP4C	Mx	-.001	3.25
19	MP1A	X	-2.764	2
20	MP1A	Z	-1.596	2
21	MP1A	Mx	-.001	2
22	MP1B	X	-3.528	2
23	MP1B	Z	-2.037	2
24	MP1B	Mx	.000697	2
25	MP1C	X	-2.603	2
26	MP1C	Z	-1.503	2
27	MP1C	Mx	.001	2
28	MP5A	X	-3.37	2
29	MP5A	Z	-1.946	2
30	MP5A	Mx	-.002	2
31	MP5B	X	-4.262	2
32	MP5B	Z	-2.46	2
33	MP5B	Mx	.000842	2
34	MP5C	X	-3.183	2
35	MP5C	Z	-1.838	2
36	MP5C	Mx	.002	2
37	OVP	X	-7.503	1
38	OVP	Z	-4.332	1
39	OVP	Mx	0	1
40	MP3A	X	-5.931	.25
41	MP3A	Z	-3.424	.25
42	MP3A	Mx	.002	.25
43	MP3A	X	-5.931	4.25
44	MP3A	Z	-3.424	4.25
45	MP3A	Mx	.002	4.25
46	MP3B	X	-8.487	.25
47	MP3B	Z	-4.9	.25
48	MP3B	Mx	-.001	.25
49	MP3B	X	-8.487	4.25
50	MP3B	Z	-4.9	4.25
51	MP3B	Mx	-.001	4.25
52	MP3C	X	-5.394	.25
53	MP3C	Z	-3.114	.25
54	MP3C	Mx	-.002	.25
55	MP3C	X	-5.394	4.25
56	MP3C	Z	-3.114	4.25
57	MP3C	Mx	-.002	4.25
58	MP1A	X	-3.675	.25
59	MP1A	Z	-2.122	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP1A	Mx	.002	.25
61	MP1A	X	-3.675	4.25
62	MP1A	Z	-2.122	4.25
63	MP1A	Mx	.002	4.25
64	MP1B	X	-5.997	.25
65	MP1B	Z	-3.463	.25
66	MP1B	Mx	-.002	.25
67	MP1B	X	-5.997	4.25
68	MP1B	Z	-3.463	4.25
69	MP1B	Mx	-.002	4.25
70	MP1C	X	-3.187	.25
71	MP1C	Z	-1.84	.25
72	MP1C	Mx	-.002	.25
73	MP1C	X	-3.187	4.25
74	MP1C	Z	-1.84	4.25
75	MP1C	Mx	-.002	4.25
76	MP5A	X	-3.675	.25
77	MP5A	Z	-2.122	.25
78	MP5A	Mx	.002	.25
79	MP5A	X	-3.675	4.25
80	MP5A	Z	-2.122	4.25
81	MP5A	Mx	.002	4.25
82	MP5B	X	-5.997	.25
83	MP5B	Z	-3.463	.25
84	MP5B	Mx	-.002	.25
85	MP5B	X	-5.997	4.25
86	MP5B	Z	-3.463	4.25
87	MP5B	Mx	-.002	4.25
88	MP5C	X	-3.187	.25
89	MP5C	Z	-1.84	.25
90	MP5C	Mx	-.002	.25
91	MP5C	X	-3.187	4.25
92	MP5C	Z	-1.84	4.25
93	MP5C	Mx	-.002	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.809	1.25
2	MP4A	Z	-3.133	1.25
3	MP4A	Mx	.001	1.25
4	MP4A	X	-1.809	3.25
5	MP4A	Z	-3.133	3.25
6	MP4A	Mx	.001	3.25
7	MP4B	X	-2.117	1.25
8	MP4B	Z	-3.667	1.25
9	MP4B	Mx	.00049	1.25
10	MP4B	X	-2.117	3.25
11	MP4B	Z	-3.667	3.25
12	MP4B	Mx	.00049	3.25
13	MP4C	X	-.801	1.25
14	MP4C	Z	-1.387	1.25
15	MP4C	Mx	-.001	1.25
16	MP4C	X	-.801	3.25
17	MP4C	Z	-1.387	3.25
18	MP4C	Mx	-.001	3.25
19	MP1A	X	-1.944	2
20	MP1A	Z	-3.367	2
21	MP1A	Mx	-.000972	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP1B	X	-2.097	2
23	MP1B	Z	-3.632	2
24	MP1B	Mx	-.000364	2
25	MP1C	X	-1.442	2
26	MP1C	Z	-2.498	2
27	MP1C	Mx	.001	2
28	MP5A	X	-2.352	2
29	MP5A	Z	-4.074	2
30	MP5A	Mx	-.001	2
31	MP5B	X	-2.531	2
32	MP5B	Z	-4.384	2
33	MP5B	Mx	-.00044	2
34	MP5C	X	-1.767	2
35	MP5C	Z	-3.06	2
36	MP5C	Mx	.002	2
37	OVP	X	-4.072	1
38	OVP	Z	-7.054	1
39	OVP	Mx	0	1
40	MP3A	X	-4.59	.25
41	MP3A	Z	-7.95	.25
42	MP3A	Mx	.002	.25
43	MP3A	X	-4.59	4.25
44	MP3A	Z	-7.95	4.25
45	MP3A	Mx	.002	4.25
46	MP3B	X	-5.102	.25
47	MP3B	Z	-8.837	.25
48	MP3B	Mx	.000591	.25
49	MP3B	X	-5.102	4.25
50	MP3B	Z	-8.837	4.25
51	MP3B	Mx	.000591	4.25
52	MP3C	X	-2.912	.25
53	MP3C	Z	-5.043	.25
54	MP3C	Mx	-.002	.25
55	MP3C	X	-2.912	4.25
56	MP3C	Z	-5.043	4.25
57	MP3C	Mx	-.002	4.25
58	MP1A	X	-3.181	.25
59	MP1A	Z	-5.509	.25
60	MP1A	Mx	.002	.25
61	MP1A	X	-3.181	4.25
62	MP1A	Z	-5.509	4.25
63	MP1A	Mx	.002	4.25
64	MP1B	X	-3.646	.25
65	MP1B	Z	-6.316	.25
66	MP1B	Mx	.000845	.25
67	MP1B	X	-3.646	4.25
68	MP1B	Z	-6.316	4.25
69	MP1B	Mx	.000845	4.25
70	MP1C	X	-1.656	.25
71	MP1C	Z	-2.868	.25
72	MP1C	Mx	-.002	.25
73	MP1C	X	-1.656	4.25
74	MP1C	Z	-2.868	4.25
75	MP1C	Mx	-.002	4.25
76	MP5A	X	-3.181	.25
77	MP5A	Z	-5.509	.25
78	MP5A	Mx	.002	.25
79	MP5A	X	-3.181	4.25
80	MP5A	Z	-5.509	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP5A	Mx	.002	4.25
82	MP5B	X	-3.646	.25
83	MP5B	Z	-6.316	.25
84	MP5B	Mx	.000845	.25
85	MP5B	X	-3.646	4.25
86	MP5B	Z	-6.316	4.25
87	MP5B	Mx	.000845	4.25
88	MP5C	X	-1.656	.25
89	MP5C	Z	-2.868	.25
90	MP5C	Mx	-.002	.25
91	MP5C	X	-1.656	4.25
92	MP5C	Z	-2.868	4.25
93	MP5C	Mx	-.002	4.25

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M141A	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M117B	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	F	Y	-250	%100

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-1.253	1.25
2	MP4A	My	-.000835	1.25
3	MP4A	Mz	0	1.25
4	MP4A	Y	-1.253	3.25
5	MP4A	My	-.000835	3.25
6	MP4A	Mz	0	3.25
7	MP4B	Y	-1.253	1.25
8	MP4B	My	.00064	1.25
9	MP4B	Mz	-.000537	1.25
10	MP4B	Y	-1.253	3.25
11	MP4B	My	.00064	3.25
12	MP4B	Mz	-.000537	3.25
13	MP4C	Y	-1.253	1.25
14	MP4C	My	.000537	1.25
15	MP4C	Mz	.00064	1.25
16	MP4C	Y	-1.253	3.25
17	MP4C	My	.000537	3.25
18	MP4C	Mz	.00064	3.25
19	MP1A	Y	-3.267	2
20	MP1A	My	.002	2
21	MP1A	Mz	0	2
22	MP1B	Y	-3.267	2
23	MP1B	My	-.001	2
24	MP1B	Mz	.001	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP1C	Y	-3.267	2
26	MP1C	My	-.001	2
27	MP1C	Mz	-.001	2
28	MP5A	Y	-3.459	2
29	MP5A	My	.002	2
30	MP5A	Mz	0	2
31	MP5B	Y	-3.459	2
32	MP5B	My	-.001	2
33	MP5B	Mz	.001	2
34	MP5C	Y	-3.459	2
35	MP5C	My	-.001	2
36	MP5C	Mz	-.001	2
37	OVP	Y	-1.399	1
38	OVP	My	0	1
39	OVP	Mz	0	1
40	MP3A	Y	-.372	.25
41	MP3A	My	-.000124	.25
42	MP3A	Mz	0	.25
43	MP3A	Y	-.372	4.25
44	MP3A	My	-.000124	4.25
45	MP3A	Mz	0	4.25
46	MP3B	Y	-.372	.25
47	MP3B	My	9.5e-5	.25
48	MP3B	Mz	-8e-5	.25
49	MP3B	Y	-.372	4.25
50	MP3B	My	9.5e-5	4.25
51	MP3B	Mz	-8e-5	4.25
52	MP3C	Y	-.372	.25
53	MP3C	My	8e-5	.25
54	MP3C	Mz	9.5e-5	.25
55	MP3C	Y	-.372	4.25
56	MP3C	My	8e-5	4.25
57	MP3C	Mz	9.5e-5	4.25
58	MP1A	Y	-.956	.25
59	MP1A	My	-.000637	.25
60	MP1A	Mz	0	.25
61	MP1A	Y	-.956	4.25
62	MP1A	My	-.000637	4.25
63	MP1A	Mz	0	4.25
64	MP1B	Y	-.956	.25
65	MP1B	My	.000488	.25
66	MP1B	Mz	-.000409	.25
67	MP1B	Y	-.956	4.25
68	MP1B	My	.000488	4.25
69	MP1B	Mz	-.000409	4.25
70	MP1C	Y	-.956	.25
71	MP1C	My	.000409	.25
72	MP1C	Mz	.000488	.25
73	MP1C	Y	-.956	4.25
74	MP1C	My	.000409	4.25
75	MP1C	Mz	.000488	4.25
76	MP5A	Y	-.956	.25
77	MP5A	My	-.000637	.25
78	MP5A	Mz	0	.25
79	MP5A	Y	-.956	4.25
80	MP5A	My	-.000637	4.25
81	MP5A	Mz	0	4.25
82	MP5B	Y	-.956	.25
83	MP5B	My	.000488	.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
84	MP5B	Mz	-.000409	.25
85	MP5B	Y	-.956	4.25
86	MP5B	My	.000488	4.25
87	MP5B	Mz	-.000409	4.25
88	MP5C	Y	-.956	.25
89	MP5C	My	.000409	.25
90	MP5C	Mz	.000488	.25
91	MP5C	Y	-.956	4.25
92	MP5C	My	.000409	4.25
93	MP5C	Mz	.000488	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Z	-3.132	1.25
2	MP4A	Mx	0	1.25
3	MP4A	Z	-3.132	3.25
4	MP4A	Mx	0	3.25
5	MP4B	Z	-3.132	1.25
6	MP4B	Mx	.001	1.25
7	MP4B	Z	-3.132	3.25
8	MP4B	Mx	.001	3.25
9	MP4C	Z	-3.132	1.25
10	MP4C	Mx	-.002	1.25
11	MP4C	Z	-3.132	3.25
12	MP4C	Mx	-.002	3.25
13	MP1A	Z	-8.167	2
14	MP1A	Mx	0	2
15	MP1B	Z	-8.167	2
16	MP1B	Mx	-.003	2
17	MP1C	Z	-8.167	2
18	MP1C	Mx	.003	2
19	MP5A	Z	-8.648	2
20	MP5A	Mx	0	2
21	MP5B	Z	-8.648	2
22	MP5B	Mx	-.003	2
23	MP5C	Z	-8.648	2
24	MP5C	Mx	.003	2
25	OVP	Z	-3.499	1
26	OVP	Mx	0	1
27	MP3A	Z	-.929	.25
28	MP3A	Mx	0	.25
29	MP3A	Z	-.929	4.25
30	MP3A	Mx	0	4.25
31	MP3B	Z	-.929	.25
32	MP3B	Mx	.000199	.25
33	MP3B	Z	-.929	4.25
34	MP3B	Mx	.000199	4.25
35	MP3C	Z	-.929	.25
36	MP3C	Mx	-.000237	.25
37	MP3C	Z	-.929	4.25
38	MP3C	Mx	-.000237	4.25
39	MP1A	Z	-2.389	.25
40	MP1A	Mx	0	.25
41	MP1A	Z	-2.389	4.25
42	MP1A	Mx	0	4.25
43	MP1B	Z	-2.389	.25
44	MP1B	Mx	.001	.25
45	MP1B	Z	-2.389	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP1B	Mx	.001	4.25
47	MP1C	Z	-2.389	.25
48	MP1C	Mx	-.001	.25
49	MP1C	Z	-2.389	4.25
50	MP1C	Mx	-.001	4.25
51	MP5A	Z	-2.389	.25
52	MP5A	Mx	0	.25
53	MP5A	Z	-2.389	4.25
54	MP5A	Mx	0	4.25
55	MP5B	Z	-2.389	.25
56	MP5B	Mx	.001	.25
57	MP5B	Z	-2.389	4.25
58	MP5B	Mx	.001	4.25
59	MP5C	Z	-2.389	.25
60	MP5C	Mx	-.001	.25
61	MP5C	Z	-2.389	4.25
62	MP5C	Mx	-.001	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	3.132	1.25
2	MP4A	Mx	-.002	1.25
3	MP4A	X	3.132	3.25
4	MP4A	Mx	-.002	3.25
5	MP4B	X	3.132	1.25
6	MP4B	Mx	.002	1.25
7	MP4B	X	3.132	3.25
8	MP4B	Mx	.002	3.25
9	MP4C	X	3.132	1.25
10	MP4C	Mx	.001	1.25
11	MP4C	X	3.132	3.25
12	MP4C	Mx	.001	3.25
13	MP1A	X	8.167	2
14	MP1A	Mx	.004	2
15	MP1B	X	8.167	2
16	MP1B	Mx	-.003	2
17	MP1C	X	8.167	2
18	MP1C	Mx	-.003	2
19	MP5A	X	8.648	2
20	MP5A	Mx	.004	2
21	MP5B	X	8.648	2
22	MP5B	Mx	-.003	2
23	MP5C	X	8.648	2
24	MP5C	Mx	-.003	2
25	OVP	X	3.499	1
26	OVP	Mx	0	1
27	MP3A	X	.929	.25
28	MP3A	Mx	-.00031	.25
29	MP3A	X	.929	4.25
30	MP3A	Mx	-.00031	4.25
31	MP3B	X	.929	.25
32	MP3B	Mx	.000237	.25
33	MP3B	X	.929	4.25
34	MP3B	Mx	.000237	4.25
35	MP3C	X	.929	.25
36	MP3C	Mx	.000199	.25
37	MP3C	X	.929	4.25
38	MP3C	Mx	.000199	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP1A	X	2.389	.25
40	MP1A	Mx	-.002	.25
41	MP1A	X	2.389	4.25
42	MP1A	Mx	-.002	4.25
43	MP1B	X	2.389	.25
44	MP1B	Mx	.001	.25
45	MP1B	X	2.389	4.25
46	MP1B	Mx	.001	4.25
47	MP1C	X	2.389	.25
48	MP1C	Mx	.001	.25
49	MP1C	X	2.389	4.25
50	MP1C	Mx	.001	4.25
51	MP5A	X	2.389	.25
52	MP5A	Mx	-.002	.25
53	MP5A	X	2.389	4.25
54	MP5A	Mx	-.002	4.25
55	MP5B	X	2.389	.25
56	MP5B	Mx	.001	.25
57	MP5B	X	2.389	4.25
58	MP5B	Mx	.001	4.25
59	MP5C	X	2.389	.25
60	MP5C	Mx	.001	.25
61	MP5C	X	2.389	4.25
62	MP5C	Mx	.001	4.25

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N232	N230	N207	N206	Y	Two Way	-.005
2	N231	N234	N211	N225	Y	Two Way	-.005
3	N229	N201	N202	N233	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N232	N230	N207	N206	Y	Two Way	-.01
2	N231	N234	N211	N225	Y	Two Way	-.01
3	N229	N201	N202	N233	Y	Two Way	-.01

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N232	N230	N207	N206	Y	Two Way	-.000227
2	N231	N234	N211	N225	Y	Two Way	-.000227
3	N229	N201	N202	N233	Y	Two Way	-.000227

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N232	N230	N207	N206	Z	Two Way	-.000569
2	N231	N234	N211	N225	Z	Two Way	-.000569
3	N229	N201	N202	N233	Z	Two Way	-.000569

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N232	N230	N207	N206	X	Two Way	.000569
2	N231	N234	N211	N225	X	Two Way	.000569
3	N229	N201	N202	N233	X	Two Way	.000569

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N219B	max	2167.027	11	2399.944	17	1353.465	1	.877	11	2.054	8	6.344	5
2		min	-1915.959	5	7.637	11	-1212.495	7	-3.605	5	-2.057	2	-1.57	11
3	N241C	max	1061.719	10	2595.457	13	2687.785	1	8.147	1	1.991	4	.459	4
4		min	-1065.286	4	-53.198	7	-2976.787	7	-2.564	7	-1.995	10	-.506	10
5	N275	max	1971.12	9	2397.296	21	1295.267	1	.917	3	2.143	12	1.545	3
6		min	-2219.126	3	8.754	3	-1147.233	7	-3.678	9	-2.147	6	-6.296	9
7	Totals:	max	4748.647	10	6561.998	13	5336.517	1						
8		min	-4748.651	4	2207.194	69	-5336.514	7						

Joint Reactions (By Combination)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N219B	1109.54	446.941	1353.465	.082	-1.035	.311
2	1	N241C	-79.917	2199.073	2687.785	8.147	.157	-.061
3	1	N275	-1029.64	447.275	1295.267	.127	1.156	-.261
4	1	Totals:	-.017	3093.289	5336.517			
5	1	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
6	2	N219B	-295.72	1011.246	930.618	-1.175	-2.057	2.551
7	2	N241C	-236.295	2010.137	2321.944	7.245	-.082	.19
8	2	N275	-2056.017	71.885	1230.014	.903	-.247	1.246
9	2	Totals:	-2588.032	3093.268	4482.575			
10	2	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
11	3	N219B	-1267.595	1516.235	-60.663	-2.327	-1.08	4.496
12	3	N241C	-741.307	1568.246	1302.1	5.177	1.064	.366
13	3	N275	-2219.126	8.754	1199.644	.917	-.123	1.545
14	3	Totals:	-4228.027	3093.235	2441.082			
15	3	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
16	4	N219B	-1671.541	1851.837	-917.19	-3.125	.211	5.746
17	4	N241C	-1065.286	1065.731	-82.274	2.773	1.991	.459
18	4	N275	-2011.824	175.634	999.499	.412	.136	.93
19	4	Totals:	-4748.651	3093.202	.035			
20	4	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
21	5	N219B	-1915.959	2023.981	-1168.627	-3.605	-.006	6.344
22	5	N241C	-695.991	565.487	-1489.75	.347	1.02	.439
23	5	N275	-1639.488	503.705	203.785	-.427	-1.102	-.34
24	5	Totals:	-4251.439	3093.172	-2454.592			
25	5	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
26	6	N219B	-1809.111	1957.519	-1186.958	-3.582	-.249	6.013
27	6	N241C	-123.604	130.717	-2560.873	-1.728	-.291	.275
28	6	N275	-668.805	1004.915	-758.194	-1.618	-2.147	-2.293
29	6	Totals:	-2601.52	3093.152	-4506.026			
30	6	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
31	7	N219B	-866.299	1573.464	-1212.495	-2.814	1.025	4.47
32	7	N241C	76.498	-53.198	-2976.787	-2.564	-.163	.013
33	7	N275	789.814	1572.885	-1147.233	-2.89	-1.154	-4.496
34	7	Totals:	.013	3093.15	-5336.514			
35	7	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
36	8	N219B	538.234	1005.475	-795.675	-1.563	2.054	2.236
37	8	N241C	238.979	131.001	-2609.435	-1.655	.073	-.239
38	8	N275	1810.816	1956.695	-1077.463	-3.662	.247	-5.995
39	8	Totals:	2588.028	3093.172	-4482.573			
40	8	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
41	9	N219B	1515.252	504.111	194.992	-.408	1.081	.286
42	9	N241C	741.652	565.563	-1584.138	.429	-1.073	-.415
43	9	N275	1971.12	2023.531	-1051.933	-3.678	.119	-6.296
44	9	Totals:	4228.023	3093.205	-2441.079			
45	9	COG (ft):	X: -.005	Y: 1.635	Z: -.042			

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
46	10	N219B	1924.418	175.179	1053.596	.395	-.212	-.97
47	10	N241C	1061.719	1065.445	-196.872	2.841	-1.995	-.506
48	10	N275	1762.51	1852.615	-856.757	-3.175	-.145	-5.684
49	10	Totals:	4748.647	3093.239	-.033			
50	10	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
51	11	N219B	2167.027	7.637	1309.481	.877	.001	-1.57
52	11	N241C	688.977	1567.872	1207.452	5.258	-1.02	-.486
53	11	N275	1395.43	1517.759	-62.339	-2.339	1.093	-4.42
54	11	Totals:	4251.435	3093.268	2454.595			
55	11	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
56	12	N219B	2056.978	71.175	1332.772	.854	.239	-1.24
57	12	N241C	114.472	2009.896	2272.268	7.318	.29	-.322
58	12	N275	430.066	1012.217	900.988	-1.15	2.143	-2.472
59	12	Totals:	2601.516	3093.288	4506.028			
60	12	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
61	13	N219B	523.944	1984.462	483.184	-2.582	-.286	4.546
62	13	N241C	-17.145	2595.457	439.084	7.418	.03	-.027
63	13	N275	-506.807	1982.079	469.753	-2.514	.297	-4.543
64	13	Totals:	-.008	6561.998	1392.022			
65	13	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
66	14	N219B	159.886	2129.663	359.181	-2.901	-.509	5.119
67	14	N241C	-68.12	2550.765	350.084	7.203	.018	.037
68	14	N275	-774.63	1881.564	473.49	-2.308	-.022	-4.145
69	14	Totals:	-682.864	6561.992	1182.756			
70	14	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
71	15	N219B	-113.001	2264.82	103.064	-3.209	-.285	5.641
72	15	N241C	-191.76	2440.426	87.578	6.683	.299	.083
73	15	N275	-837.387	1856.738	468.79	-2.285	-.021	-4.036
74	15	Totals:	-1142.148	6561.984	659.432			
75	15	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
76	16	N219B	-241.672	2358.006	-117.567	-3.432	.019	5.991
77	16	N241C	-267.814	2305.792	-290.719	6.042	.51	.107
78	16	N275	-788.763	1898.178	408.299	-2.411	.001	-4.186
79	16	Totals:	-1298.249	6561.975	.012			
80	16	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
81	17	N219B	-298.683	2399.944	-189.931	-3.552	.005	6.136
82	17	N241C	-181.745	2171.337	-674.825	5.397	.286	.1
83	17	N275	-666.663	1990.686	202.481	-2.644	-.29	-4.539
84	17	Totals:	-1147.092	6561.967	-662.274			
85	17	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
86	18	N219B	-248.674	2374.875	-193.753	-3.527	-.015	6.019
87	18	N241C	-43.549	2061.472	-949.25	4.879	-.028	.057
88	18	N275	-393.49	2125.615	-44.697	-2.96	-.52	-5.061
89	18	Totals:	-685.713	6561.962	-1187.7			
90	18	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
91	19	N219B	1.793	2273.745	-181.906	-3.323	.28	5.611
92	19	N241C	15.807	2017.08	-1048.984	4.68	-.036	-.009
93	19	N275	-17.599	2271.137	-161.125	-3.285	-.297	-5.627
94	19	Totals:	0	6561.962	-1392.015			
95	19	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
96	20	N219B	365.797	2128.283	-58.305	-3.004	.504	5.038
97	20	N241C	67.18	2061.477	-959.868	4.896	-.025	-.073
98	20	N275	249.88	2372.208	-164.576	-3.491	.021	-6.025
99	20	Totals:	682.856	6561.967	-1182.749			
100	20	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
101	21	N219B	639.043	1993.372	197.742	-2.696	.28	4.516
102	21	N241C	190.69	2171.308	-696.984	5.417	-.306	-.119
103	21	N275	312.408	2397.296	-160.182	-3.514	.02	-6.134
104	21	Totals:	1142.141	6561.976	-659.424			

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
105	21	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
106	22	N219B	768.081	1900.668	418.511	-2.472	-.024	4.165
107	22	N241C	266.461	2305.728	-318.471	6.059	-.517	-.142
108	22	N275	263.7	2355.589	-100.045	-3.388	-.002	-5.984
109	22	Totals:	1298.241	6561.985	-.005			
110	22	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
111	23	N219B	824.981	1859.031	491.205	-2.352	-.011	4.02
112	23	N241C	180.136	2440.367	65.404	6.703	-.291	-.135
113	23	N275	141.968	2262.595	105.673	-3.155	.289	-5.631
114	23	Totals:	1147.084	6561.993	662.282			
115	23	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
116	24	N219B	774.717	1883.882	495.333	-2.377	.008	4.137
117	24	N241C	41.827	2550.737	339.414	7.22	.022	-.092
118	24	N275	-130.839	2127.378	352.96	-2.839	.519	-5.11
119	24	Totals:	685.705	6561.998	1187.707			
120	24	COG (ft):	X: -.007	Y: 1.709	Z: -.06			
121	25	N219B	232.539	1839.78	174.351	-3.302	-.059	5.01
122	25	N241C	-16.64	1055.77	-19.813	2.687	.038	.111
123	25	N275	-215.901	947.676	152.847	-1.301	.033	-1.817
124	25	Totals:	-.002	3843.226	307.385			
125	25	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
126	26	N219B	151.658	1872.423	150.171	-3.374	-.118	5.138
127	26	N241C	-25.818	1044.982	-40.965	2.635	.025	.126
128	26	N275	-274.915	925.82	148.994	-1.257	-.048	-1.73
129	26	Totals:	-149.075	3843.224	258.2			
130	26	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
131	27	N219B	95.56	1901.452	93.127	-3.44	-.062	5.25
132	27	N241C	-54.845	1019.73	-99.91	2.515	.091	.136
133	27	N275	-284.251	922.041	147.393	-1.256	-.04	-1.713
134	27	Totals:	-243.536	3843.222	140.61			
135	27	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
136	28	N219B	72.153	1920.647	43.772	-3.486	.012	5.322
137	28	N241C	-73.407	990.87	-179.772	2.377	.144	.141
138	28	N275	-272.27	931.703	136.004	-1.285	-.025	-1.748
139	28	Totals:	-273.524	3843.221	.004			
140	28	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
141	29	N219B	58.112	1930.471	29.191	-3.514	0	5.357
142	29	N241C	-52.051	962.014	-260.789	2.237	.088	.14
143	29	N275	-250.948	950.734	90.211	-1.333	-.097	-1.821
144	29	Totals:	-244.888	3843.219	-141.387			
145	29	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
146	30	N219B	64.337	1926.717	28.017	-3.512	-.014	5.338
147	30	N241C	-19.037	936.817	-322.327	2.118	.012	.131
148	30	N275	-195.149	979.684	34.766	-1.401	-.157	-1.933
149	30	Totals:	-149.849	3843.218	-259.543			
150	30	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
151	31	N219B	118.731	1904.789	26.686	-3.468	.06	5.249
152	31	N241C	-7.669	926.138	-346.265	2.07	.02	.116
153	31	N275	-111.062	1012.291	12.198	-1.475	-.1	-2.061
154	31	Totals:	0	3843.218	-307.381			
155	31	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
156	32	N219B	199.609	1872.134	50.846	-3.396	.119	5.12
157	32	N241C	1.53	936.91	-325.108	2.122	.034	.101
158	32	N275	-52.066	1034.175	16.066	-1.519	-.019	-2.147
159	32	Totals:	149.072	3843.219	-258.196			
160	32	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
161	33	N219B	255.724	1843.117	107.887	-3.33	.062	5.009
162	33	N241C	30.548	962.138	-266.145	2.242	-.033	.091
163	33	N275	-42.739	1037.966	17.651	-1.52	-.027	-2.164

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
164	33	Totals:	243.533	3843.221	-140.606			
165	33	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
166	34	N219B	279.148	1823.943	157.25	-3.284	-.012	4.937
167	34	N241C	49.097	990.989	-186.273	2.381	-.086	.086
168	34	N275	-54.726	1028.291	29.023	-1.492	-.042	-2.129
169	34	Totals:	273.52	3843.223	0			
170	34	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
171	35	N219B	293.183	1814.135	171.845	-3.256	0	4.902
172	35	N241C	27.731	1019.852	-105.266	2.52	-.03	.087
173	35	N275	-76.029	1009.238	74.812	-1.443	.03	-2.056
174	35	Totals:	244.885	3843.224	141.391			
175	35	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
176	36	N219B	286.947	1817.88	173.035	-3.258	.014	4.921
177	36	N241C	-5.291	1045.072	-43.75	2.639	.046	.096
178	36	N275	-131.81	980.274	130.261	-1.375	.09	-1.944
179	36	Totals:	149.846	3843.226	259.547			
180	36	COG (ft):	X: 1.183	Y: 1.316	Z: .809			
181	37	N219B	222.276	949.904	154.034	-1.295	-.031	1.836
182	37	N241C	5.351	1055.885	-20.944	2.689	-.026	-.162
183	37	N275	-227.626	1837.451	174.287	-3.31	.064	-4.979
184	37	Totals:	.001	3843.241	307.376			
185	37	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
186	38	N219B	141.311	982.491	129.823	-1.368	-.09	1.964
187	38	N241C	-3.82	1045.189	-42.051	2.637	-.04	-.147
188	38	N275	-286.563	1815.56	170.419	-3.266	-.017	-4.892
189	38	Totals:	-149.072	3843.24	258.191			
190	38	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
191	39	N219B	85.163	1011.448	72.744	-1.434	-.033	2.077
192	39	N241C	-32.83	1019.979	-100.961	2.518	.026	-.137
193	39	N275	-295.865	1811.811	168.818	-3.265	-.009	-4.875
194	39	Totals:	-243.532	3843.238	140.601			
195	39	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
196	40	N219B	61.741	1030.551	23.359	-1.48	.041	2.149
197	40	N241C	-51.376	991.128	-180.81	2.379	.079	-.132
198	40	N275	-283.885	1821.556	157.446	-3.294	.006	-4.911
199	40	Totals:	-273.52	3843.236	-.005			
200	40	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
201	41	N219B	47.705	1040.283	8.762	-1.508	.029	2.183
202	41	N241C	-30.003	962.273	-261.842	2.239	.023	-.133
203	41	N275	-262.586	1840.678	111.684	-3.342	-.066	-4.983
204	41	Totals:	-244.884	3843.234	-141.396			
205	41	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
206	42	N219B	53.969	1036.485	7.589	-1.506	.015	2.164
207	42	N241C	3.026	937.043	-323.416	2.12	-.052	-.143
208	42	N275	-206.84	1869.705	56.275	-3.41	-.126	-5.095
209	42	Totals:	-149.845	3843.233	-259.552			
210	42	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
211	43	N219B	108.441	1014.577	6.276	-1.462	.088	2.075
212	43	N241C	14.399	926.277	-347.401	2.072	-.045	-.158
213	43	N275	-122.837	1902.379	33.735	-3.483	-.069	-5.222
214	43	Totals:	.003	3843.233	-307.39			
215	43	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
216	44	N219B	189.403	981.979	30.467	-1.389	.147	1.946
217	44	N241C	23.591	936.958	-326.289	2.124	-.031	-.172
218	44	N275	-63.918	1924.297	37.618	-3.528	.012	-5.308
219	44	Totals:	149.076	3843.234	-258.205			
220	44	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
221	45	N219B	245.568	953.034	87.544	-1.323	.091	1.834
222	45	N241C	52.594	962.143	-267.361	2.244	-.097	-.182

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
223	45	N275	-54.625	1928.059	39.203	-3.529	.005	-5.325
224	45	Totals:	243.537	3843.236	-140.615			
225	45	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
226	46	N219B	269.008	933.953	136.936	-1.277	.017	1.762
227	46	N241C	71.126	990.985	-187.503	2.383	-.15	-.187
228	46	N275	-66.609	1918.3	50.558	-3.5	-.011	-5.29
229	46	Totals:	273.524	3843.238	-.009			
230	46	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
231	47	N219B	283.037	924.236	151.548	-1.249	.029	1.727
232	47	N241C	49.742	1019.848	-106.481	2.522	-.094	-.186
233	47	N275	-87.891	1899.156	96.315	-3.452	.061	-5.217
234	47	Totals:	244.888	3843.24	141.382			
235	47	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
236	48	N219B	276.763	928.025	152.737	-1.251	.043	1.746
237	48	N241C	16.706	1045.101	-44.928	2.641	-.019	-.177
238	48	N275	-143.619	1870.115	151.729	-3.383	.121	-5.105
239	48	Totals:	149.849	3843.241	259.538			
240	48	COG (ft):	X: -1.183	Y: 1.316	Z: .809			
241	49	N219B	135.754	1223.01	74.062	-1.9	.001	2.638
242	49	N241C	-1.103	1021.822	-151.456	2.665	-.004	-.024
243	49	N275	-134.652	1223.393	77.394	-1.916	-.005	-2.627
244	49	Totals:	-.001	3468.225	0			
245	49	COG (ft):	X: -.005	Y: 1.458	Z: .429			
246	50	N219B	146.887	983.768	75.172	-1.346	.015	2.144
247	50	N241C	4.718	1030.351	-165.569	2.59	-.021	-.099
248	50	N275	-151.605	1454.111	90.394	-2.416	-.003	-3.838
249	50	Totals:	0	3468.229	-.003			
250	50	COG (ft):	X: -.708	Y: 1.458	Z: .429			
251	51	N219B	144.899	1180.892	81.326	-1.602	-.003	2.801
252	51	N241C	-1.676	1246.697	-166.329	3.283	-.003	-.028
253	51	N275	-143.226	1181.169	85.004	-1.62	-.003	-2.788
254	51	Totals:	-.002	3608.757	.001			
255	51	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
256	52	N219B	174.206	1025.418	138.199	-1.361	-.065	2.401
257	52	N241C	-1.409	1154.843	2.075	3.137	-.001	-.025
258	52	N275	-172.8	1025.68	141.562	-1.376	.059	-2.389
259	52	Totals:	-.003	3205.941	281.836			
260	52	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
261	53	N219B	108.83	1049.149	106.551	-1.413	-.074	2.495
262	53	N241C	-23.861	1148.507	-17.997	3.107	.036	-.016
263	53	N275	-225.887	1008.285	155.517	-1.34	.033	-2.319
264	53	Totals:	-140.919	3205.94	244.071			
265	53	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
266	54	N219B	48.791	1072.863	65.716	-1.467	-.064	2.587
267	54	N241C	-40.321	1131.192	-72.829	3.026	.063	-.009
268	54	N275	-252.539	1001.884	148.032	-1.331	-.003	-2.292
269	54	Totals:	-244.069	3205.939	140.919			
270	54	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
271	55	N219B	10.162	1090.21	26.632	-1.51	-.037	2.653
272	55	N241C	-46.38	1107.54	-147.744	2.915	.072	-.006
273	55	N275	-245.617	1008.187	121.114	-1.351	-.039	-2.314
274	55	Totals:	-281.834	3205.938	.002			
275	55	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
276	56	N219B	3.304	1096.53	-.226	-1.529	-.002	2.674
277	56	N241C	-40.407	1083.894	-222.666	2.804	.061	-.008
278	56	N275	-206.965	1025.512	81.976	-1.394	-.065	-2.38
279	56	Totals:	-244.068	3205.936	-140.916			
280	56	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
281	57	N219B	30.043	1090.131	-7.667	-1.52	.034	2.646

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
282	57	N241C	-24.005	1066.587	-277.513	2.724	.033	-.014
283	57	N275	-146.955	1049.218	41.113	-1.45	-.074	-2.472
284	57	Totals:	-140.917	3205.935	-244.068			
285	57	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
286	58	N219B	83.223	1072.729	6.299	-1.484	.059	2.575
287	58	N241C	-1.565	1060.247	-297.597	2.694	-.005	-.024
288	58	N275	-81.659	1072.959	9.464	-1.502	-.064	-2.565
289	58	Totals:	0	3205.935	-281.834			
290	58	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
291	59	N219B	148.599	1048.991	37.937	-1.433	.068	2.482
292	59	N241C	20.896	1066.576	-277.52	2.725	-.042	-.033
293	59	N275	-28.581	1090.369	-4.485	-1.538	-.038	-2.634
294	59	Totals:	140.915	3205.936	-244.068			
295	59	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
296	60	N219B	208.647	1025.284	78.767	-1.378	.058	2.39
297	60	N241C	37.356	1083.876	-222.678	2.806	-.069	-.04
298	60	N275	-1.938	1096.777	2.994	-1.547	-.002	-2.662
299	60	Totals:	244.065	3205.938	-140.917			
300	60	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
301	61	N219B	247.284	1007.953	117.856	-1.336	.032	2.324
302	61	N241C	43.406	1107.52	-147.758	2.917	-.078	-.043
303	61	N275	-8.86	1090.466	29.903	-1.527	.033	-2.64
304	61	Totals:	281.83	3205.939	0			
305	61	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
306	62	N219B	254.142	1001.64	144.724	-1.317	-.004	2.303
307	62	N241C	37.425	1131.174	-72.841	3.028	-.067	-.041
308	62	N275	-47.504	1073.126	69.036	-1.483	.059	-2.574
309	62	Totals:	244.064	3205.941	140.918			
310	62	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
311	63	N219B	227.395	1008.032	152.17	-1.326	-.039	2.331
312	63	N241C	21.023	1148.497	-18.004	3.108	-.039	-.035
313	63	N275	-107.504	1049.413	109.904	-1.428	.069	-2.482
314	63	Totals:	140.913	3205.941	244.07			
315	63	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
316	64	N219B	134.053	698.646	115.716	-.918	-.064	1.626
317	64	N241C	-.941	809.724	48.061	2.229	0	-.018
318	64	N275	-133.114	698.831	118.059	-.927	.06	-1.617
319	64	Totals:	-.002	2207.2	281.836			
320	64	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
321	65	N219B	68.695	722.331	84.087	-.969	-.073	1.72
322	65	N241C	-23.42	803.399	27.995	2.199	.037	-.008
323	65	N275	-186.193	681.469	131.988	-.892	.034	-1.547
324	65	Totals:	-140.918	2207.2	244.07			
325	65	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
326	66	N219B	8.682	746.001	43.26	-1.024	-.063	1.812
327	66	N241C	-39.899	786.117	-26.819	2.117	.064	0
328	66	N275	-212.852	675.08	124.478	-.883	-.002	-1.52
329	66	Totals:	-244.068	2207.198	140.919			
330	66	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
331	67	N219B	-29.92	763.314	4.169	-1.066	-.037	1.877
332	67	N241C	-45.965	762.511	-101.708	2.006	.073	.002
333	67	N275	-205.948	681.371	97.54	-.903	-.038	-1.542
334	67	Totals:	-281.833	2207.197	.001			
335	67	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
336	68	N219B	-36.759	769.622	-22.708	-1.085	0	1.899
337	68	N241C	-39.987	738.91	-176.603	1.896	.062	0
338	68	N275	-167.322	698.663	58.395	-.946	-.064	-1.608
339	68	Totals:	-244.067	2207.195	-140.916			
340	68	COG (ft):	X: -.005	Y: 1.635	Z: -.042			

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
341	69	N219B	-10.011	763.235	-30.174	-1.076	.035	1.87
342	69	N241C	-23.566	721.636	-231.431	1.815	.034	-.007
343	69	N275	-107.339	722.324	17.538	-1.001	-.073	-1.7
344	69	Totals:	-140.916	2207.194	-244.068			
345	69	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
346	70	N219B	43.163	745.865	-16.234	-1.041	.06	1.8
347	70	N241C	-1.1	715.309	-251.508	1.786	-.004	-.016
348	70	N275	-42.063	746.02	-14.093	-1.054	-.063	-1.793
349	70	Totals:	0	2207.195	-281.834			
350	70	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
351	71	N219B	108.521	722.173	15.385	-.989	.069	1.706
352	71	N241C	21.387	721.626	-231.437	1.816	-.041	-.026
353	71	N275	11.007	763.396	-28.017	-1.089	-.037	-1.862
354	71	Totals:	140.915	2207.195	-244.069			
355	71	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
356	72	N219B	168.542	698.511	56.207	-.935	.059	1.614
357	72	N241C	37.866	738.893	-176.613	1.897	-.068	-.033
358	72	N275	37.657	769.793	-20.511	-1.098	-.002	-1.89
359	72	Totals:	244.066	2207.197	-140.917			
360	72	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
361	73	N219B	207.153	681.213	95.303	-.893	.033	1.549
362	73	N241C	43.924	762.491	-101.719	2.008	-.077	-.036
363	73	N275	30.753	763.494	6.416	-1.078	.034	-1.868
364	73	Totals:	281.831	2207.198	0			
365	73	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
366	74	N219B	213.992	674.912	122.189	-.873	-.003	1.527
367	74	N241C	37.937	786.1	-26.828	2.119	-.066	-.034
368	74	N275	-7.864	746.187	45.557	-1.035	.06	-1.802
369	74	Totals:	244.065	2207.2	140.918			
370	74	COG (ft):	X: -.005	Y: 1.635	Z: -.042			
371	75	N219B	187.236	681.292	129.661	-.882	-.038	1.556
372	75	N241C	21.516	803.389	27.99	2.199	-.038	-.027
373	75	N275	-67.838	722.519	86.419	-.98	.07	-1.71
374	75	Totals:	140.914	2207.2	244.07			
375	75	COG (ft):	X: -.005	Y: 1.635	Z: -.042			

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	M128A	HSS4X4X6	.337	5.792	5	.057	5.792	y	30	170192.9...	197892	22.046	22.046	2....	H1-1b
2	M139B	HSS4X4X6	.383	5.792	1	.056	5.792	y	12	170192.9...	197892	22.046	22.046	2....	H1-1b
3	M161A	HSS4X4X6	.342	5.792	9	.058	5.792	y	44	170192.9...	197892	22.046	22.046	2....	H1-1b
4	M187	PL3/8x6	.258	.225	6	.235	.225	y	8	63799.794	72900	.57	9.113	1....	H1-1b
5	M188	PL3/8x6	.278	0	7	.274	.151	y	24	71814.106	72900	.57	9.113	1....	H1-1b
6	M162B	PL3/8x6	.251	.225	2	.221	.225	y	4	63799.794	72900	.57	9.113	1....	H1-1b
7	M163A	PL3/8x6	.265	0	2	.273	.151	y	20	71814.106	72900	.57	9.113	1....	H1-1b
8	M178	PL3/8x6	.226	.225	10	.239	.225	y	12	63799.794	72900	.57	9.113	1....	H1-1b
9	M179B	PL3/8x6	.246	0	11	.273	.151	y	16	71814.106	72900	.57	9.113	1....	H1-1b
10	M186A	PL3/8x6	.212	.225	12	.209	.225	y	10	63799.794	72900	.57	9.113	1....	H1-1b
11	M187A	PL3/8x6	.277	0	12	.272	.151	y	18	71814.106	72900	.57	9.113	1....	H1-1b
12	M202	PL3/8x6	.210	.225	7	.220	.225	y	6	63799.794	72900	.57	9.113	1....	H1-1b
13	M203	PL3/8x6	.281	0	8	.274	.151	y	14	71814.106	72900	.57	9.113	1....	H1-1b
14	M234	PL3/8x6	.204	.225	12	.225	.225	y	2	63799.794	72900	.57	9.113	1....	H1-1b
15	M235	PL3/8x6	.252	0	4	.273	.151	y	22	71814.106	72900	.57	9.113	1....	H1-1b
16	MP1A	PIPE 2.0	.454	4.813	9	.123	.5		7	20866.733	32130	1.872	1.872	1....	H1-1b
17	MP2A	PIPE 2.0	.038	3.5	7	.004	3.5		7	20866.733	32130	1.872	1.872	1....	H1-1b
18	MP3A	PIPE 2.0	.557	4.813	9	.126	4.813		12	20866.733	32130	1.872	1.872	1....	H1-1b
19	MP4A	PIPE 2.0	.557	4.813	5	.112	4.813		2	20866.733	32130	1.872	1.872	1....	H1-1b

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
20	MP5A	PIPE 2.0	.464	4.813	5	.128	4.188		6	20866.733	32130	1.872	1.872	1...	H1-1b
21	MP1C	PIPE 2.0	.453	4.813	6	.114	.5		3	20866.733	32130	1.872	1.872	1...	H1-1b
22	MP2C	PIPE 2.0	.037	3.5	3	.004	3.5		3	20866.733	32130	1.872	1.872	1...	H1-1b
23	MP3C	PIPE 2.0	.600	4.813	6	.127	4.813		7	20866.733	32130	1.872	1.872	1...	H1-1b
24	MP4C	PIPE 2.0	.612	4.813	1	.102	4.813		10	20866.733	32130	1.872	1.872	1...	H1-1b
25	MP5C	PIPE 2.0	.509	4.813	1	.126	4.188		2	20866.733	32130	1.872	1.872	1...	H1-1b
26	MP1B	PIPE 2.0	.505	4.813	1	.121	4.188		12	20866.733	32130	1.872	1.872	1...	H1-1b
27	MP2B	PIPE 2.0	.037	3.5	11	.004	3.5		11	20866.733	32130	1.872	1.872	1...	H1-1b
28	MP3B	PIPE 2.0	.619	4.813	1	.115	4.813		3	20866.733	32130	1.872	1.872	1...	H1-1b
29	MP4B	PIPE 2.0	.607	4.813	8	.115	4.813		7	20866.733	32130	1.872	1.872	1...	H1-1b
30	MP5B	PIPE 2.0	.466	4.813	8	.116	4.188		10	20866.733	32130	1.872	1.872	1...	H1-1b
31	F	PIPE 3.0	.163	4.604	5	.067	2.167		7	26386.722	65205	5.749	5.749	2...	H1-1b
32	M119B	PIPE 3.0	.179	4.604	1	.066	.542		2	26386.528	65205	5.749	5.749	2...	H1-1b
33	M130B	PIPE 3.0	.178	.542	1	.063	12.458		12	26386.528	65205	5.749	5.749	2...	H1-1b
34	M145B	HSS3X3X4	.265	0	24	.077	2.235	z	1	95747.557	101016	8.556	8.556	1...	H1-1b
35	M159B	HSS3X3X4	.264	0	20	.071	2.235	z	8	95747.557	101016	8.556	8.556	1...	H1-1b
36	M175	HSS3X3X4	.264	0	16	.069	2.235	z	5	95747.557	101016	8.556	8.556	1...	H1-1b
37	M183A	HSS3X3X4	.268	0	18	.072	2.235	z	6	95747.557	101016	8.556	8.556	1...	H1-1b
38	M199	HSS3X3X4	.270	0	14	.075	2.235	z	1	95747.557	101016	8.556	8.556	1...	H1-1b
39	M231	HSS3X3X4	.268	0	22	.069	0	y	21	95747.557	101016	8.556	8.556	1...	H1-1b
40	M129B	PL1/2x6	.266	.515	6	.203	.515	y	8	66112.418	97200	1.012	12.15	1...	H1-1b
41	M138A	PL1/2x6	.089	.262	11	.150	.524	y	7	87952.323	97200	1.012	12.15	1...	H1-1b
42	M139A	PL1/2x6	.086	.262	11	.166	0	y	27	87952.323	97200	1.012	12.15	1...	H1-1b
43	M140B	PL1/2x6	.286	.515	1	.185	.515	y	4	66112.418	97200	1.012	12.15	1...	H1-1b
44	M149B	PL1/2x6	.100	.262	7	.134	.524	y	3	87952.323	97200	1.012	12.15	1...	H1-1b
45	M150A	PL1/2x6	.095	.262	7	.139	0	y	11	87952.323	97200	1.012	12.15	1...	H1-1b
46	M162A	PL1/2x6	.280	.515	8	.206	.515	y	12	66112.418	97200	1.012	12.15	1...	H1-1b
47	M171A	PL1/2x6	.090	.262	3	.165	.524	y	47	87952.323	97200	1.012	12.15	1...	H1-1b
48	M172A	PL1/2x6	.086	.262	3	.157	0	y	7	87952.323	97200	1.012	12.15	1...	H1-1b
49	M61	PIPE 2.5	.206	8.802	8	.099	11.781		12	38510.435	50715	3.596	3.596	1	H1-1b
50	M104	PIPE 2.5	.214	.542	1	.099	11.781		8	38510.435	50715	3.596	3.596	3...	H1-1b
51	M120	PIPE 2.5	.210	12.458	1	.096	1.219		6	38510.435	50715	3.596	3.596	2...	H1-1b
52	M128	L3X3X4	.435	0	7	.048	0	y	2	42905.959	46656	1.688	3.756	2...	H2-1
53	M129	L3X3X4	.414	0	3	.042	0	y	10	42905.959	46656	1.688	3.756	2...	H2-1
54	M130	L3X3X4	.414	0	7	.048	0	z	6	42905.959	46656	1.688	3.756	2...	H2-1
55	M132	L2x2x3	.226	1.488	12	.017	0	z	22	8601.36	23392.8	.558	1.165	1...	H2-1
56	M133	L2x2x3	.190	4.464	10	.016	4.464	y	24	8601.36	23392.8	.558	1.123	1...	H2-1
57	M134	L2x2x3	.207	4.464	6	.016	0	y	20	8601.36	23392.8	.558	1.11	1...	H2-1
58	M135	L2x2x3	.225	1.488	8	.017	0	z	18	8601.36	23392.8	.558	1.164	1...	H2-1
59	M136	L2x2x3	.210	4.464	2	.016	0	y	17	8601.36	23392.8	.558	1.11	1...	H2-1
60	M137	L2x2x3	.210	1.534	4	.017	0	z	14	8601.36	23392.8	.558	1.164	1...	H2-1
61	OVP	PIPE 2.0	.187	3	11	.019	3		11	26521.424	32130	1.872	1.872	1...	H1-1b

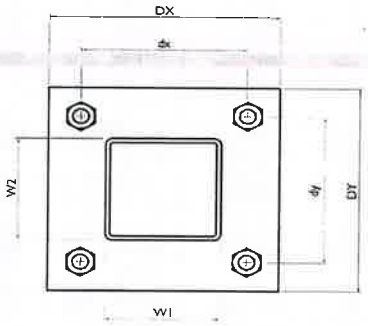
VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	5/23/2024
Site Name:	COLCHESTER EAST CT		
MDG #:	5000245797		
Fuze ID #:	16272105	Page:	1

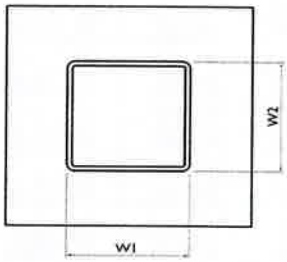
Version 2.00

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)*:	7
d_y (in) *(Delta Y of typ. bolt config. sketch)*:	7
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	7.8
Required Shear Strength / bolt (kips):	0.6
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	37.6%



Tower Connection Baseplate Checks	Yes
Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D_x (in):	10
Plate Height, D_y (in):	10
W1(in):	4
W2 (in):	4
Member Thickness (in):	0.375
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):	0.625
Length of Yield Line, L_y (in):	7.85
Bolt Eccentricity, e (in):	2.47
M_u (kip-in):	19.25
Phi*M_n (kip-in):	24.82
Plate Bending Utilization:	77.5%



VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	5/23/2024
Site Name:	COLCHESTER EAST CT		
MDG #:	5000245797		
Fuze ID #:	16272105	Page:	2
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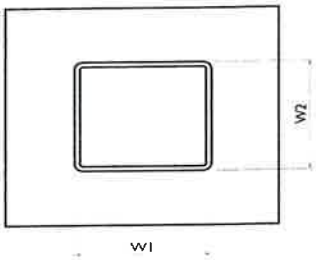
Tower Connection Weld Checks

	Yes
Weld Shape:	**Rectangle**
Weld Stiffener Configuration:	**None**
Stiffener Notch Length, n (in):	**None**
Weld Size (1/16 in):	**4**
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)	2.375
c_y (in)	2.375
Required combined strength (kip/in):	3.23
Weld Capacity (kip/in):	5.57
Weld Utilization:	**58.0%**



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MOUNT MODIFICATION DRAWINGS
EXISTING 13.00' PLATFORM

TOWER OWNER: SBA COMMUNICATIONS
TOWER OWNER SITE NUMBER: CT02652

CARRIER SITE NAME: COLCHESTER EAST CT
CARRIER SITE NUMBER: 5000245797
FUZE ID: 16272105

29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

LATITUDE: 41.564533° N
LONGITUDE: 72.251697° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 125 MPH
EXPOSURE CATEGORY C
TOPOGRAPHIC CATEGORY: 1
TOPOGRAPHIC CONSIDERED: N/A
TOPOGRAPHIC METHOD: N/A
MEAN BASE ELEVATION (AMSL) = 373.09'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .205
LONG TERM MCER GROUND MOTION, S_1 = .055

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: COLLIERS ENGINEERING & DESIGN
CONTACT: PETER ALBANO
PHONE: 856.797.0412
E-MAIL: PETER.ALBANO@COLLIERSENG.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10235773
VZW MDG #:	5000245797
ANALYSIS DATE:	5/28/2024

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

SHEET	DESCRIPTION
ST-1	TITLE SHEET
SBOM-1	BILL OF MATERIALS
SGN-1	GENERAL NOTES
SCF-1	CLIMBING FACILITY DETAIL
SS-1	MODIFICATION DETAILS
SS-2	MOUNT PHOTOS
	SPECIFICATION SHEETS

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STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED PROFESSIONAL ENGINEER
05/28/2024

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:
COLCHESTER EAST CT
5000245797
29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

Colliers Engineering & Design

TITLE SHEET

ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-PLK3	SUPPORT RAIL CORNER BRACKET		30	90
12		VZWSMART-MSK1	CROSSOVER PLATE		14	168
1		VZWSMART-P40-238X048	48" LONG, PIPE 2 SCH40 (2.375"OD X 0.154" THK)		15	15
1		VZWSMART-MSK6	BACK TO BACK CROSSOVER PLATE		34	34

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	-	-	PROPOSED 24" LONG, L3X3x1/4	GALVANIZED	10	30
3	-	-	PROPOSED 156" LONG, PIPE 2 1/2 SCH40	GALVANIZED	75	225
2	-	-	PROPOSED 54" LONG, L2X2x3/16	GALVANIZED	11	22
8	-	-	5/8" DIA. BOLTS		-	

SECTION 3 - REQUIRED SAFETY CLIMB PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
					TOTAL:	584

*FOR ACTUAL INSTALL WEIGHT PLEASE CHECK THE MA REPORT

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. 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

PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM

SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM

SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM

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STATE OF CONNECTICUT DEJIAN XU No. 33733 LICENSED PROFESSIONAL ENGINEER 05/28/2024

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:

COLCHESTER EAST CT
5000245797
29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

BILL OF MATERIALS

SBOM-1

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.

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

      PETER.ALBANO@COLLIERSENG.COM

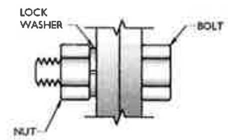
   b. PROVIDE COLLIERS ENGINEERING & DESIGN PROJECT # AND COLLIERS ENGINEERING & DESIGN PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED 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 (ZINC COTE, OR EOR APPROVED EQUAL), 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.

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

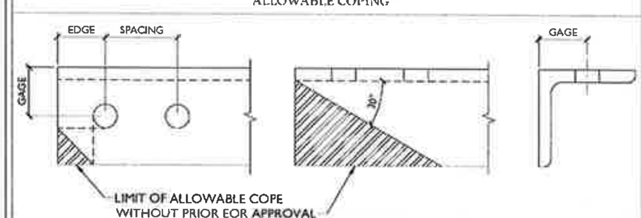


TYP. BOLT ASSEMBLY

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.

ALLOWABLE COPING



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AS SHOWN

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED PROFESSIONAL ENGINEER
05/28/2024

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SITE NAME:

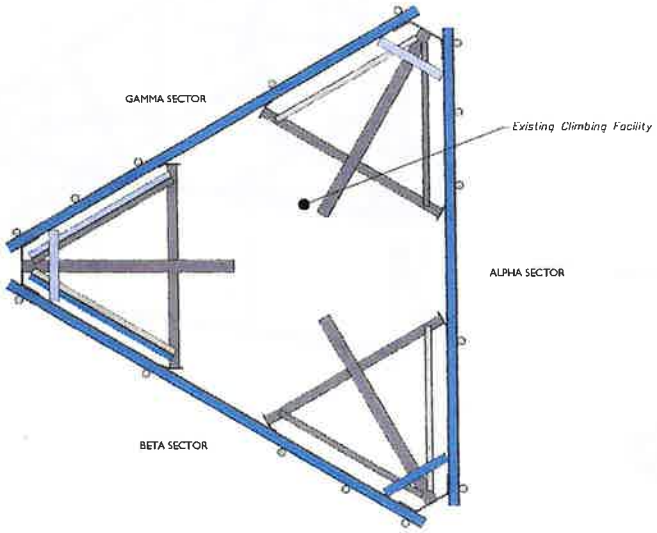
COLCHESTER EAST CT
5000245797

29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

GENERAL NOTES

SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 CLIMBING FACILITY LOCATION
SCALE: N.T.S.

CLIMBING FACILITY PHOTO

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC ON 7/19/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (165'-0") ARE IN GOOD CONDITION. COLLIERS ENGINEERING & DESIGN 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.

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AS SHOWN	21772294

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	04/08/24	PROJECT CONFIGURATION	DM	BA
0	03/19/24	ISSUED FOR CONSTRUCTION	MD	DH
B	03/18/24	PRELIMINARY CONFIGURATION	MZ	DH

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
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05/28/2024

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COLCHESTER EAST CT
5000245797

29 MAHONEY RD
COLCHESTER, CT 06415
NEW LONDON COUNTY

Colliers Engineering & Design

CLIMBING FACILITY DETAIL

SCF-1

LEGEND:

- PROPOSED
- RELOCATED
- EXISTING

TOTAL VERTICAL ENVELOPE:

CONTRACTOR SHALL VERIFY AND CONFIRM IN FIELD THAT VERIZON'S OVERALL TIP TO TIP VERTICAL SPACE CONFIGURATION (EQUIPMENT AND STEEL COMBINED) DOES NOT EXCEED THE VERTICAL ENVELOPE LISTED IN THESE DRAWINGS. IF THE SITE'S EXISTING OR PROPOSED CONFIGURATION EXCEEDS THE ALLOWED VERTICAL ENVELOPE LISTED IN THESE DRAWINGS, CONTRACTOR SHALL CONTACT EOR IMMEDIATELY FOR A SOLUTION ON HOW TO CORRECT THE ISSUE PRIOR TO LEAVING THE SITE.

MOUNT MODIFICATION SCHEDULE

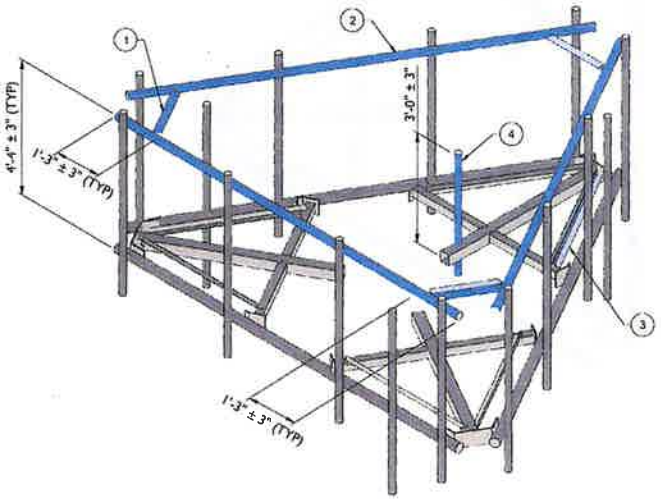
NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	165'-0"	3	PROPOSED 24" LONG, L3X3x1/4 BRACING	CONTRACTOR SHALL CONNECT PROPOSED ANGLES TO SUPPORT RAIL CORNER BRACKET (PART #: VZWSMART-PLK3) USING THE PROVIDED (8) 5/8" DIA. BOLTS, (4) BOLTS PER CONNECTION.
2		3	PROPOSED 156" LONG, PIPE 2 1/2 SCH40 SUPPORT RAIL	CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
3		2	PROPOSED 54" LONG, L2X2X3/16 BRACING	CONTRACTOR SHALL INSTALL PROPOSED ANGLES ALONG THE EXISTING BENT GRATING ANGLES WITH (4) 0.625" A325N BOLTS EVENLY SPACED. SEE DETAIL 3.
4		1	PROPOSED 48" LONG, PIPE 2 SCH40 (PART #: VZWSMART-P40-238X048) OVP PIPE	CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK6), BETWEEN BETA & GAMMA SECTOR ONLY.

GENERAL NOTES:

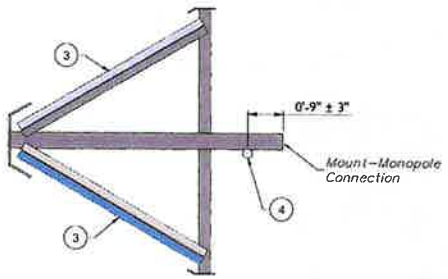
A. CONTRACTOR SHALL VERIFY THAT NEW & EXISTING STEEL IS FREE OF CORROSION. VISIBLE MINOR CORROSION SHALL BE WIRE BRUSHED CLEAN AND TREATED WITH COLD GALVANIZATION. REPORT ANY SIGNIFICANT CORROSION TO EOR

B. THREADED ROD FROM PROPOSED KITS SHALL BE TRIMMED TO EXTEND NO MORE THAN 3" BEYOND THE LOCK NUT. TREAT ALL CUT ENDS WITH (2) COATS OF COLD GALVANIZATION (ZINC KOTE, OR EOR APPROVED EQUAL).

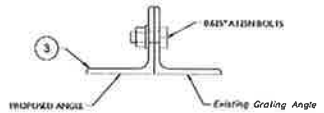
C. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.



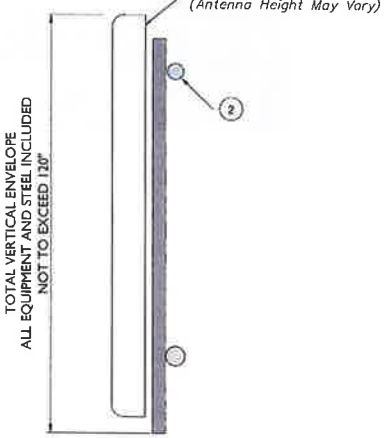
1 PROPOSED ISOMETRIC VIEW (TYP. ALL SECTORS)
SCALE: N.T.S.



2 PROPOSED GRATING ANGLE FRAME PLAN
SCALE: N.T.S.



3 PROPOSED GRATING ANGLE DETAIL
SCALE: N.T.S.



4 PROPOSED SIDE ELEVATION VIEW
SCALE: N.T.S.

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REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
2				
1				
0	05/14/24		MC	AS

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED PROFESSIONAL ENGINEER
05/28/2024

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SITE NAME:

COLCHESTER EAST CT
5000245797

29 MAHONEY RD
COLCHESTER, CT 06415
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MODIFICATION DETAILS

SS-1

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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STATE OF CONNECTICUT DEJIAN XU No. 33733 LICENSED PROFESSIONAL ENGINEER 05/28/2024

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SITE NAME:

COLCHESTER EAST CT
5000245797

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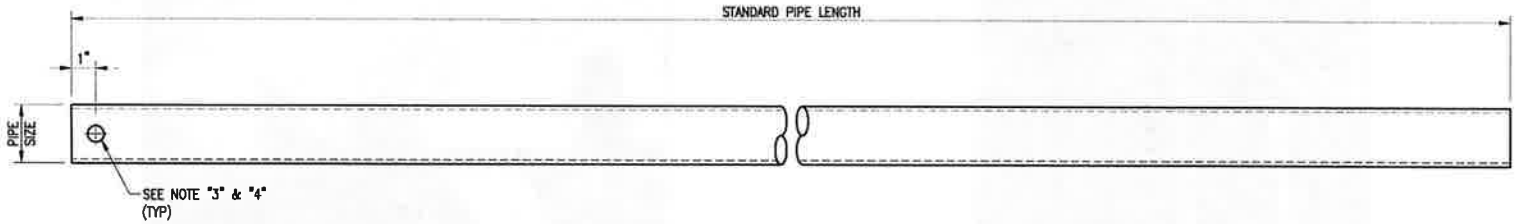
MT. LAUREL

MOUNT PHOTOS

SS-2



VZWSMART Standard Pipe		
VZWSMART Number	Size	Length
P40-238X048	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	48"
P40-238X072	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	72"
P40-238X096	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	96"
P40-238X120	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	120"
P40-238X126	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	126"
P40-238X150	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	150"
P40-238X174	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	174"
P40-278X048	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	48"
P40-278X072	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	72"
P40-278X096	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	96"
P40-278X120	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	120"
P40-278X126	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	126"
P40-278X150	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	150"
P40-278X174	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	174"
P40-312X048	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	48"
P40-312X072	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	72"
P40-312X126	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	126"
P40-312X150	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	150"
P40-312X174	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	174"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL PIPE GRADE A53-B OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

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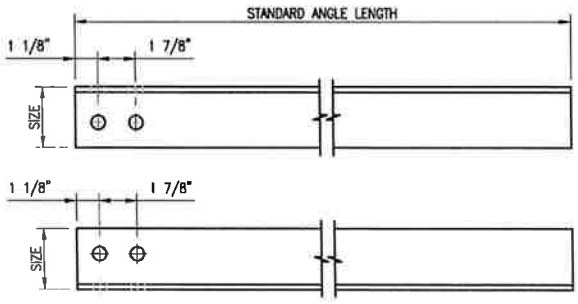
DRAWN BY: BT | CHECKED BY: HMA/KW

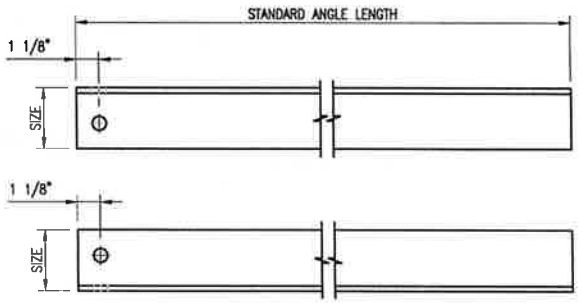
REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BT	08/04/21
2			
3			
4			
5			

SHEET TITLE:
VZWSMART STANDARD PIPE

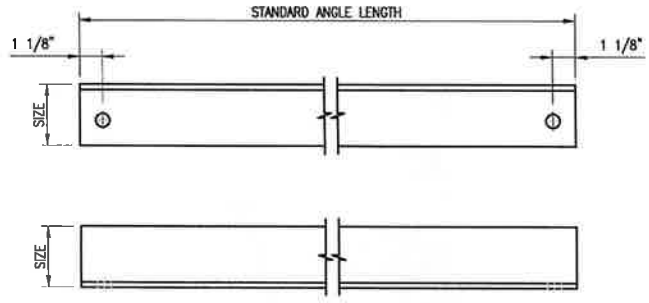
SHEET NUMBER: VZWSMART-PIPE | REV #: 0



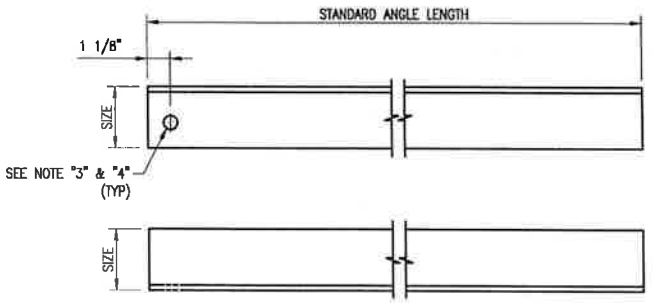
HOLE STYLE "A"



HOLE STYLE "B"



HOLE STYLE "C"



HOLE STYLE "D"

VZWSMART Standard Angle					
VZWSMART Number	Size	Length	Hole Style	Hole Gage	Also Used In:
A-PLK2-01	L 3" X 3" X 1/4"	96"	A	1-3/4"	VZWSMART-PLK2
A-PLK5-01	L 3"X 3" X 3/16"	96"	B	1-3/4"	VZWSMART-PLK5
A-SFK3-01	L 2-1/2" X 2-1/2" X 1/4"	96"	C	1-3/8"	VZWSMART-SFK3,-SFK3-SL, -PLK6, & -PLK8
A-L25X25X4X120	L 2-1/2" X 2-1/2" X 1/4"	120"	D	1-5/16"	
A-L25X25X4X240	L 2-1/2" X 2-1/2" X 1/4"	240"	D	1-5/16"	
A-L30X30X4X120	L 3" X 3" X 1/4"	120"	D	1-1/2"	
A-L30X30X4X240	L 3" X 3" X 1/4"	240"	D	1-1/2"	
A-L40X40X4X120	L 4" X 4" X 1/4"	120"	D	2"	
A-L40X40X4X240	L 4" X 4" X 1/4"	240"	D	2"	
A-L50X30X6X120	L 5" X 3" X 3/8"	120"	D	2-1/2"	
A-L50X50X6X120	L 5" X 5" X 3/8"	120"	D	2-1/2"	

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION ANGLES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL ANGLE GRADE A36 OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

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DRAWN BY: BT | CHECKED BY: HMA/KW

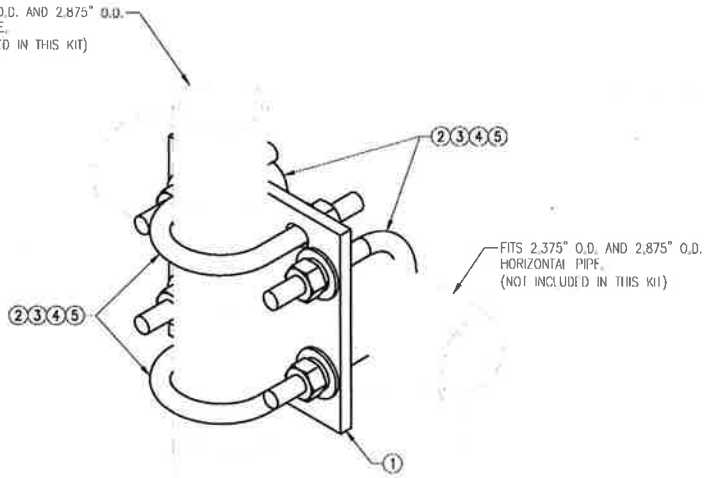
REV	DESCRIPTION	BY	DATE
1	INITIAL ISSUE	BT	08/04/21

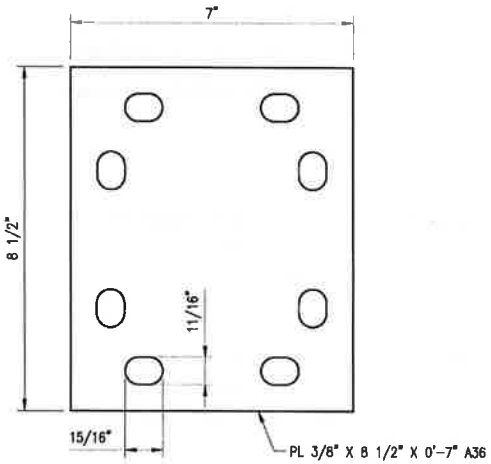
SHEET TITLE:

VZWSMART STANDARD ANGLE

SHEET NUMBER: VZWSMART-ANGLE

REV #: 0





PL375-857

VZWSMART-MSK1 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1	6
2	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
3	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	8	LW-625	5/8" HDG LOCK WASHER	---	0
5	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	14

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

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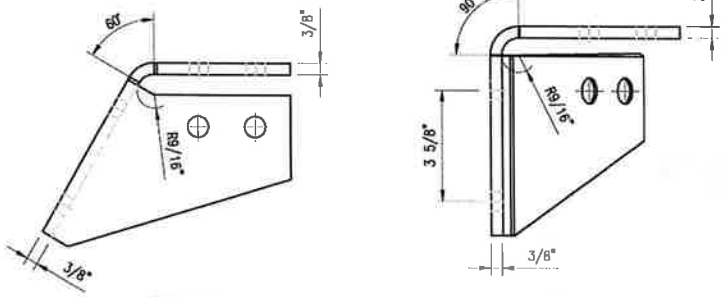
DRAWN BY: HLR	CHECKED BY: HMA

REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	HLR	05/08/20

SHEET TITLE:
VZWSMART-MSK1
CROSSOVER PLATE

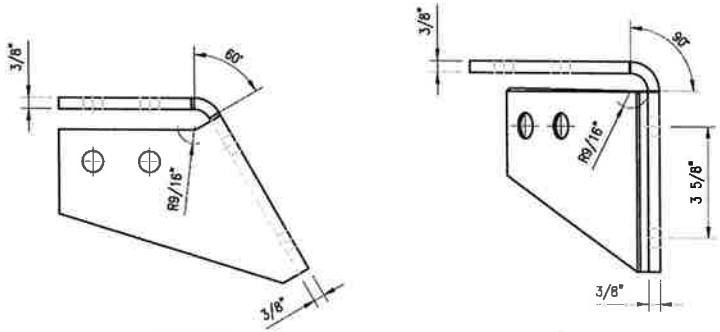
SHEET NUMBER: VZWSMART-MSK1

REV #: 0



TOP VIEW SIDE VIEW

CBP-L



TOP VIEW SIDE VIEW

CBP-R

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK3 (SUPPORT RAIL CORNER BRACKET)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	CBP-L	CORNER BENT PLATE BRACKET	PLK3-F1	9
2	1	CBP-R	CORNER BENT PLATE BRACKET	PLK3-F1	9
3	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" L.L. A36 (OR EQUIV.)	RBC-1	5
4	8		BOLT 5/8" X 2" A325		3
5	16	FW-625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW-625	5/8" HDG LOCK WASHER		0
7	16	NUT-625	5/8" HDG HEX NUT	---	2
				GALVANIZED WT	30

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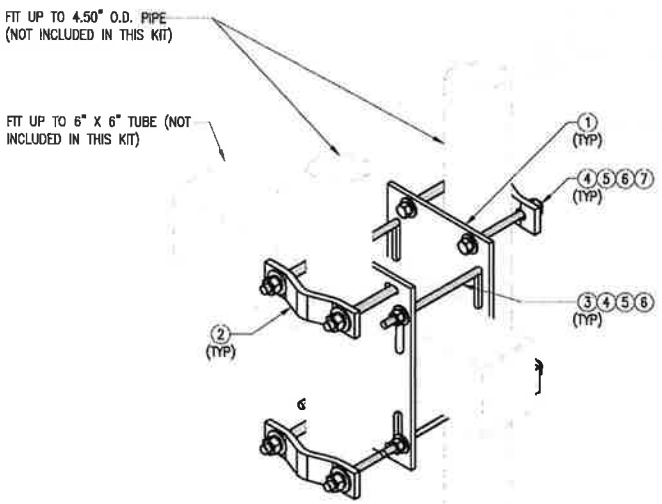
DRAWN BY: HJR | CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	HJR	05/06/20

SHEET TITLE:
VZWSMART-PLK3
SUPPORT RAIL CORNER BRACKET

SHEET NUMBER: VZWSMART-PLK3

REV #: 0



ISOMETRIC VIEW
BACK TO BACK CROSSOVER

VZWSMART–MSK6 (VZWSMART–MSK6 – BACK TO BACK CROSSOVER)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	2	PL375–8512	PL 3/8" X 8 1/2" X 1'-0" A36	MSK6–F2	20.7
2	4	VCP	PL 1/2" X 2" X 8 5/8" A36 BENT PLATE	MSK6–F1	9.6
3	4	---	THREADED ROD 5/8" DIA. X 10" F1554–36 HDG	---	---
4	16	NUT–625	5/8" HDG HEX NUT	---	2
5	16	FW–625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW–625	5/8" HDG LOCK WASHER	---	0
7	8	---	BOLT 5/8" X 6" SAE GRADE 5 ALL THREAD	---	1
				GALVANIZED WT	34

NOTES:
1. HOT–DIPPED GALVANIZED PER ASTM A123.

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DRAWN BY: SK | CHECKED BY: BT/KW

REV	DESCRIPTION	BY	DATE
1	FIRST ISSUE	SK	05/08/20

SHEET TITLE:
VZWSMART–MSK6
BACK TO BACK
CROSSOVER

SHEET NUMBER: VZWSMART–MSK6
REV #: 0

ATTACHMENT 5

Town of Colchester, Connecticut - Assessment Parcel Map

Parcel: 03-03-002-000

Address:

Approximate Scale: 1 inch = 500 feet

0 260 520 780 1,040 Feet

Map Produced: April 2023 / Grand List: 2022

Town of Colchester, CT

Property Report | Map Block Lot 03-03/002-000 | PID 924 | Building # 1 | Section # 1 | Account C0061900

Property Information

Property Location	29 MAHONEY RD
Owner	COLCHESTER FISH + GAME CLUB IN
Co-Owner	na
Mailing Address	PO BOX 257 COLCHESTER CT 06415
Land Use	1060 Vacant w Improvmts
Land Class	R
Zoning Code	RU
Census Tract	

Neighborhood	
Acreage	90
Utilities	UNKNOWN
Lot Setting/Desc	UNKNOWN UNKNOWN
Additional Info	

Photo

Sketch

Primary Construction Details

Year Built	0
Stories	
Building Style	UNKNOWN
Building Use	Vacant
Building Condition	
Interior Floors 1	
Interior Floors 2	NA
Total Rooms	0
Basement Garages	
Occupancy	
Building Grade	

Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	
AC Type	
Fireplaces	0

Exterior Walls	
Exterior Walls 2	NA
Interior Walls	
Interior Walls 2	NA
Heating Type	
Heating Fuel	
Sq. Ft. Basement	
Fin BSMT Quality	
Extra Kitchens	

Report Created On 5/7/2024

Town of Colchester, CT

Property Report | Map Block Lot 03-03/002-000 | PID 924 | Building # 1 | Section # 1 | Account C0061900

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

Item	Appraised	Assessed
Buildings	0	0
Extras	0	0
Improvements		
Outbuildings	6600	4600
Land	454000	255090
Total	460600	259690

Outbuilding and Extra Features

Type	Description
Canopy Ave	377 S.F.
Canopy Ave	720 S.F.

Sub Areas

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

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
COLCHESTER FISH + GAME CLUB IN	0086/0409	6/15/1965	0

Report Created On 5/7/2024

ATTACHMENT 6

Verizon/Colchester East

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	3	3	
	Postmaster, per *(name of receiving employee)*		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Bernie Dennler, First Selectman Town of Colchester 127 Norwich Avenue Colchester, CT 06415				
2.	Demian Sorrentino, Planning Director Town of Colchester 127 Norwich Avenue Colchester, CT 06415				
3.	Colchester Fish and Game Club, Inc. P.O. Box 257 Colchester, CT 06415-0257				
4.					
5.					
6.