



**BUSINESS UNIT #:** 846219  
**SITE ADDRESS:** 682 SOUTHWEST COMMERCE DRIVE  
 LAKE CITY, FL 32025  
**COUNTY:** COLUMBIA  
**JURISDICTION:** FL - COLUMBIA COUNTY



BU #: 846219

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

**ISSUED FOR:**

| REV | DATE     | DRWN | DESCRIPTION  | DES./QA |
|-----|----------|------|--------------|---------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|     |          |      |              |         |
|     |          |      |              |         |
|     |          |      |              |         |
|     |          |      |              |         |

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

| CODE TYPE  | CODE                                         |
|------------|----------------------------------------------|
| BUILDING   | 2023 FL BUILDING CODE 8TH EDITION (IBC 2021) |
| MECHANICAL | 2023 FL MECHANICAL CODE (IMC 2021)           |
| ELECTRICAL | 2020 NATIONAL ELECTRICAL CODE                |

STRUCTURAL ANALYSIS: B+T GRP  
DATED: 08/18/2025  
MOUNT ANALYSIS: TOWER ENGINEERING SOLUTIONS, LLC  
DATED: 07/23/2025  
RFDS REVISION: ---  
DATED: 06/30/2025  
ORDER ID: 708674  
REVISION: 0

|                       |                                      |
|-----------------------|--------------------------------------|
| APPLICABLE CODES:     | TIA-222-H / ASCE 7-22                |
| WIND SPEED:           | V = 119 MPH (ULTIMATE 3 SECOND GUST) |
| EXPOSURE CATEGORY:    | C                                    |
| RISK CATEGORY:        | II                                   |
| TOPOGRAPHIC CATEGORY: | 1                                    |
| CREST HEIGHT:         | 0                                    |
|                       | K <sub>z</sub> = 1.0                 |
| SEISMIC RESPONSE:     | NA                                   |

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND  
CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE  
WIRELESS FACILITY.

**TOWER SCOPE OF WORK:**

- REMOVE (3) ERICSSON - AIR6449 ANTENNAS
- REMOVE (6) JMA WIRELESS - MX06GFT665-02 ANTENNAS
- REMOVE (3) JMA WIRELESS - X7CQAP-86-865-V ANTENNAS
- REMOVE (3) ERICSSON - 4449 RADIOS
- REMOVE (3) ERICSSON - 8843 RADIOS
- INSTALL MOUNT MODIFICATION PER MOUNT ANALYSIS BY TOWER ENGINEERING SOLUTIONS, LLC DATED 07/23/2025
- INSTALL (4) COMMSCOPE - NNSS-65C-HG-R2B ANTENNAS
- INSTALL (4) ERICSSON - AIR 3283 ANTENNAS
- INSTALL (4) ERICSSON - AIR6419 ANTENNAS
- INSTALL (4) ERICSSON - 4490 RADIOS

- REMOVE (2) CDMA CABINETS.
- REMOVE (2) +24V STRINGS HT170ET
- INSTALL NEW 19" RACK
- INSTALL ROUTER, BASEBAND, SITEBOSS IN NEW 19" RACK

NO PROPOSED LOADING TO BE ADDED  
UNTIL MOUNT MODIFICATIONS ARE  
INSTALLED PER MOUNT ANALYSIS BY  
TOWER ENGINEERING SOLUTIONS, LLC  
DATED 07/23/2025.

[illegible]

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17.  
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS  
AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY  
THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE  
PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CALL FLORIDA ONE CALL  
(800) 432-4770  
CALL 3 WORKING DAYS  
BEFORE YOU DIG!



|                                                                 |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| PMI ACCESSED AT                                                 | <a href="https://pmi.vzwsmart.com">https://pmi.vzwsmart.com</a> |
| SMART TOOL VENDOR                                               |                                                                 |
| PROJECT NUMBER                                                  | 23                                                              |
| VzW LOCATION CODE (PSLC)                                        | 228807                                                          |
| *** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT |                                                                 |

**Y**

REFER TO MOUNT MODIFICATION DRAWINGS  
PAGE FOR VzW SMART KIT APPROVED VENDORS

|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| CROWN CASTLE USA INC.     |                                                                              |
| SITE NAME:                | FAIRGROUNDS                                                                  |
| BU NUMBER:                | 846219                                                                       |
| TOWER OWNER:              | CROWN CASTLE<br>2000 CORPORATE DRIVE<br>CANONSBURG, PA 15317                 |
| CARRIER/APPLICANT:        | VERIZON WIRELESS<br>7701 E. TELECOM PARKWAY<br>TEMPLE TERRACE, FL 33637      |
| SITE ADDRESS:             | 682 SOUTHWEST COMMERCE DRIVE<br>LAKE CITY, FL 32025                          |
| COUNTY:                   | COLUMBIA                                                                     |
| LATITUDE:                 | 30° 10' 26.43" / 30.174008°                                                  |
| LONGITUDE:                | -82° 40' 49.87" / -82.680519°                                                |
| LAT/LONG TYPE:            | NAD83                                                                        |
| GROUND ELEVATION:         | 155' SE                                                                      |
| AREA OF CONSTRUCTION:     | EXISTING                                                                     |
| CURRENT ZONING:           | ----                                                                         |
| MAP/PARCEL #:             | 002-4S-16-02717-000                                                          |
| OCCUPANCY CLASSIFICATION: | U                                                                            |
| TYPE OF CONSTRUCTION:     | IIB                                                                          |
| A.D.A. COMPLIANCE:        | FACILITY IS UNMANNED AND<br>NOT FOR HUMAN HABITATION                         |
| PROPERTY OWNER:           | COLUMBIA COUNTY RESOURCES<br>164 SW MARY ETHEL LANE<br>LAKE CITY, FL 32025   |
| JURISDICTION:             | FL - COLUMBIA COUNTY<br>135 NE HERNANDO AVE. SUITE-21<br>LAKE CITY, FL 32055 |
| ELECTRIC PROVIDER:        | FLORIDA POWER AND LIGHT (F&P&L)<br>(800) 375-2434                            |

A&E FIRM: NEXTEDGE  
1355 WINDWARD CONCOURSE, SUITE 410  
ALPHARETTA, GA 30005  
(678) 990-2338

CROWN CASTLE 2000 CORPORATE DRIVE  
CANONSBURG, PA 15317

CONTACTS: DEREK SMITH - PROJECT MANAGER  
DEREK.SMITH1@CROWNCastle.COM

SUSAN PALM - AES  
SUSAN.PALM@CROWNCastle.COM

NOTE:  
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE  
CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

- NOTICE TO PROCEED– NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- "LOOK UP" – CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:  
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- 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/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED–STD–10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED–STD–10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 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 CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR 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 AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 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 CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- 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 ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR 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.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR 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.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- 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.

GREENFIELD GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS THROUGH EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRIC METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAILS AS WELL.)
- BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION  
CARRIER: VERIZON  
TOWER OWNER: CROWN CASTLE USA INC.
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR 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 CROWN CASTLE.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
- CONTRACTOR 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.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- 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.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:  
#4 BARS AND SMALLER.....40 ksi  
#5 BARS AND LARGER.....60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
#6 BARS AND LARGER.....2"  
#5 BARS AND SMALLER.....1-1/2"  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:  
SLAB AND WALLS.....3/4"  
BEAMS AND COLUMNS.....1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
  - ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
  - ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PER THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 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 NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC ON STRAIGHTS AND SCHEDULE 80 PVC UNDER ALL TRAFFIC EASEMENTS AND ALL ELBOWS/90s. ABOVE GRADE CONDUIT TO BE SCH 80 PVC OR IMC/RMC CONDUIT. EMT IS ALLOWED AT STUB UP LOCATIONS AND INDOORS ONLY.
- LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOULD SPECIMATE WIREWAY).
- SLOTTED WIRING TUB SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
- 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 BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "VERIZON".
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

| CONDUCTOR COLOR CODE |           |         |
|----------------------|-----------|---------|
| SYSTEM               | CONDUCTOR | COLOR   |
| 120/240V, 1Ø         | A PHASE   | BLACK   |
|                      | B PHASE   | RED     |
|                      | NEUTRAL   | WHITE   |
|                      | GROUND    | GREEN   |
| 120/208V, 3Ø         | A PHASE   | BLACK   |
|                      | B PHASE   | RED     |
|                      | C PHASE   | BLUE    |
|                      | NEUTRAL   | WHITE   |
| 277/480V, 3Ø         | A PHASE   | BLACK   |
|                      | B PHASE   | RED     |
|                      | C PHASE   | YELLOW  |
|                      | NEUTRAL   | GREY    |
| DC VOLTAGE           | GROUND    | GREEN   |
|                      | POS (+)   | RED**   |
|                      | NEG (–)   | BLACK** |
|                      |           |         |

\* SEE NEC 210.5(C)(1) AND (2)  
\*\* POLARITY MARKED AT TERMINATION

ABBREVIATIONS:

|      |                                            |
|------|--------------------------------------------|
| ANT  | ANTENNA                                    |
| (E)  | EXISTING                                   |
| FIF  | FACILITY INTERFACE FRAME                   |
| GEN  | GENERATOR                                  |
| GPS  | GLOBAL POSITIONING SYSTEM                  |
| GSM  | GLOBAL SYSTEM FOR MOBILE                   |
| LTE  | LONG TERM EVOLUTION                        |
| MGB  | MASTER GROUND BAR                          |
| MW   | MICROWAVE                                  |
| (N)  | NEW                                        |
| NEC  | NATIONAL ELECTRIC CODE                     |
| (P)  | PROPOSED                                   |
| PPY  | POWER PLANT                                |
| QTY  | QUANTITY                                   |
| RECT | RECTIFIER                                  |
| RBS  | RADIO BASE STATION                         |
| RET  | REMOTE ELECTRIC TILT                       |
| RFDS | RADIO FREQUENCY DATA SHEET                 |
| RRH  | REMOTE RADIO HEAD                          |
| RRU  | REMOTE RADIO UNIT                          |
| SIAD | SMART INTEGRATED DEVICE                    |
| TMA  | TOWER MOUNTED AMPLIFIER                    |
| Typ  | TYPICAL                                    |
| UMTS | UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM |
| W.P. | WORK POINT                                 |

APWA UNIFORM COLOR CODE:

|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| WHITE  | PROPOSED EXCAVATION                                                        |
| PINK   | TEMPORARY SURVEY MARKINGS                                                  |
| RED    | ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES                 |
| YELLOW | GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS                           |
| ORANGE | COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS |
| BLUE   | POTABLE WATER                                                              |
| PURPLE | RECLAIMED WATER, IRRIGATION, AND SLURRY LINES                              |
| GREEN  | SEWERS AND DRAIN LINES                                                     |



1355 WINDWARD  
CONCOURSE, SUITE 410  
ALPHARETTA, GA 30005  
TEL: 678-990-2338  
FL COA #38599

VERIZON SITE NUMBER:  
**5000078561**

BU #: **846219**

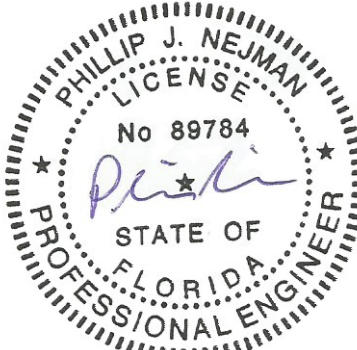
CROWN CASTLE SITE NAME  
**FAIRGROUNDS**

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

| REV | DATE     | DRWN | DESCRIPTION  | DES/QA |
|-----|----------|------|--------------|--------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT    |
|     |          |      |              |        |
|     |          |      |              |        |
|     |          |      |              |        |
|     |          |      |              |        |



10/15/25

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SHEET NUMBER:

**T-2**

REVISION:

**0**

EQUIPMENT LEGEND:

EXISTING

TO BE RELOCATED/REMOVED

NEW/RELOCATED



**NextEdge**

1355 WINDWARD  
CONCOURSE, SUITE 410  
ALPHARETTA, GA 30005  
TEL: 678-990-2338  
FL COA #38599

VERIZON SITE NUMBER:  
**5000078561**

BU #: **846219**

CROWN CASTLE SITE NAME  
**FAIRGROUNDS**

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

| ISSUED FOR: |          |      |              |         |
|-------------|----------|------|--------------|---------|
| REV         | DATE     | DRWN | DESCRIPTION  | DES./QA |
| 0           | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|             |          |      |              |         |
|             |          |      |              |         |
|             |          |      |              |         |

PHILLIP J. NEJMAN  
LICENSE  
No 89784  
*Phillip J. Nejman*  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

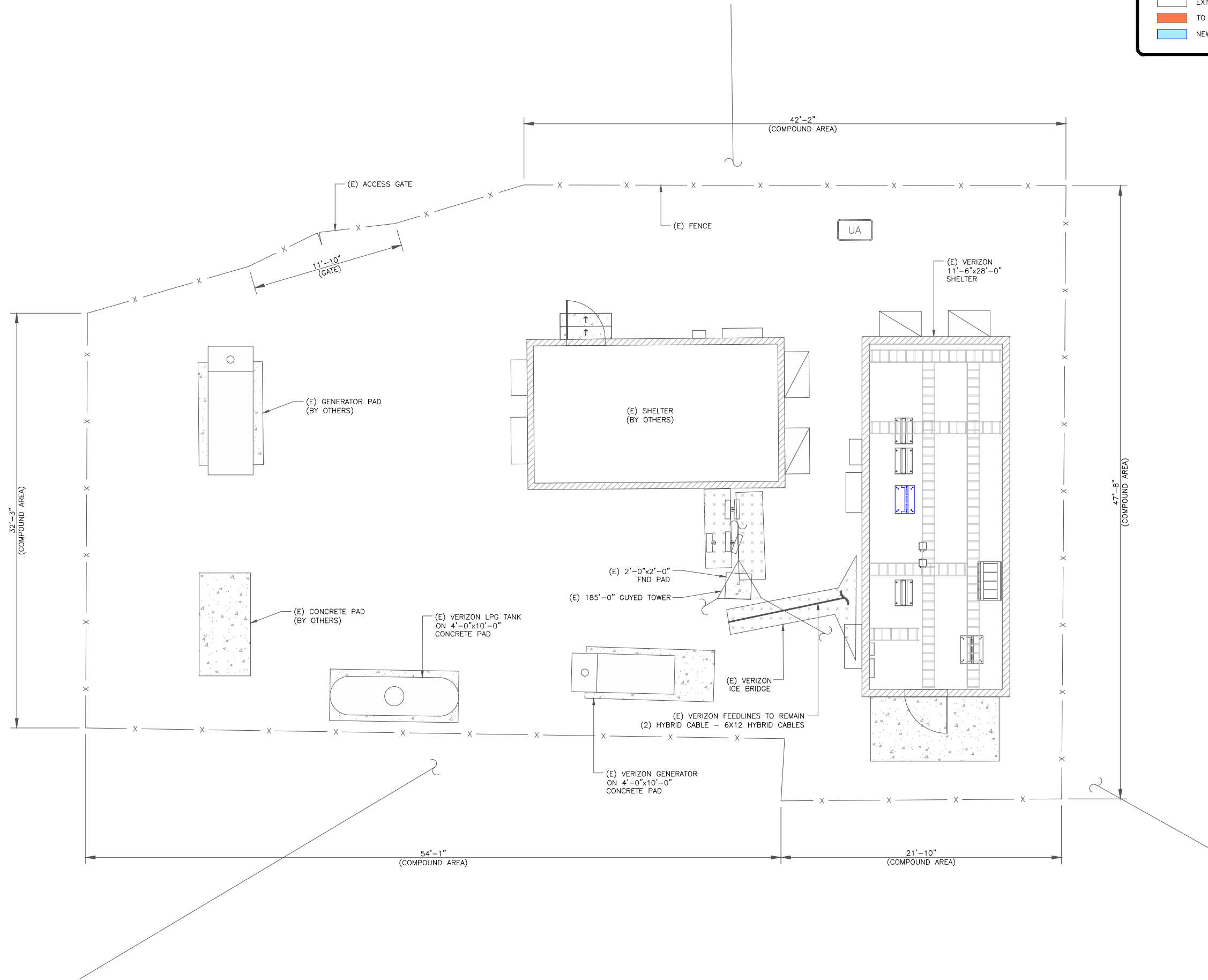
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**C-1.1**

REVISION:  
**0**

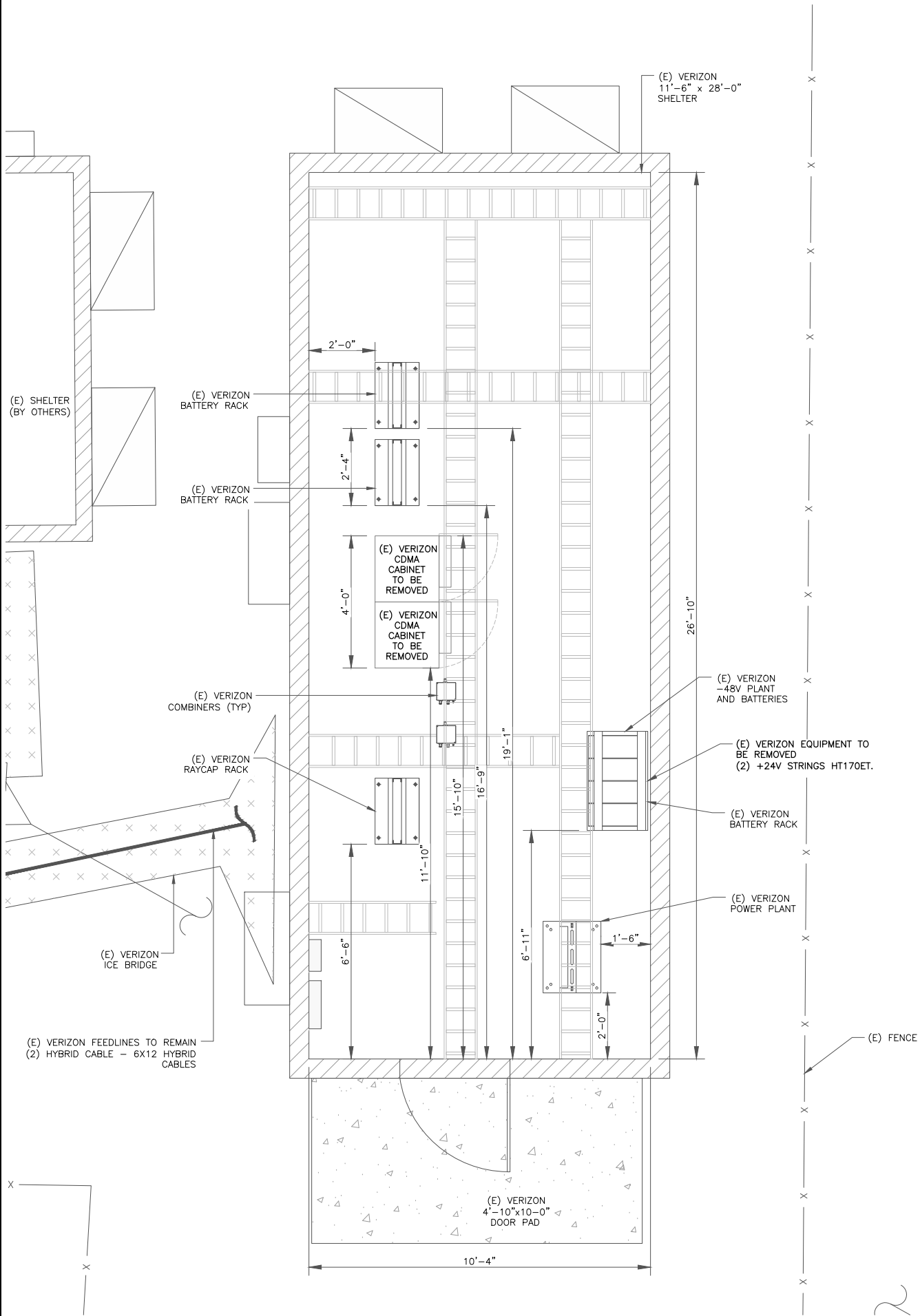


1 SITE PLAN

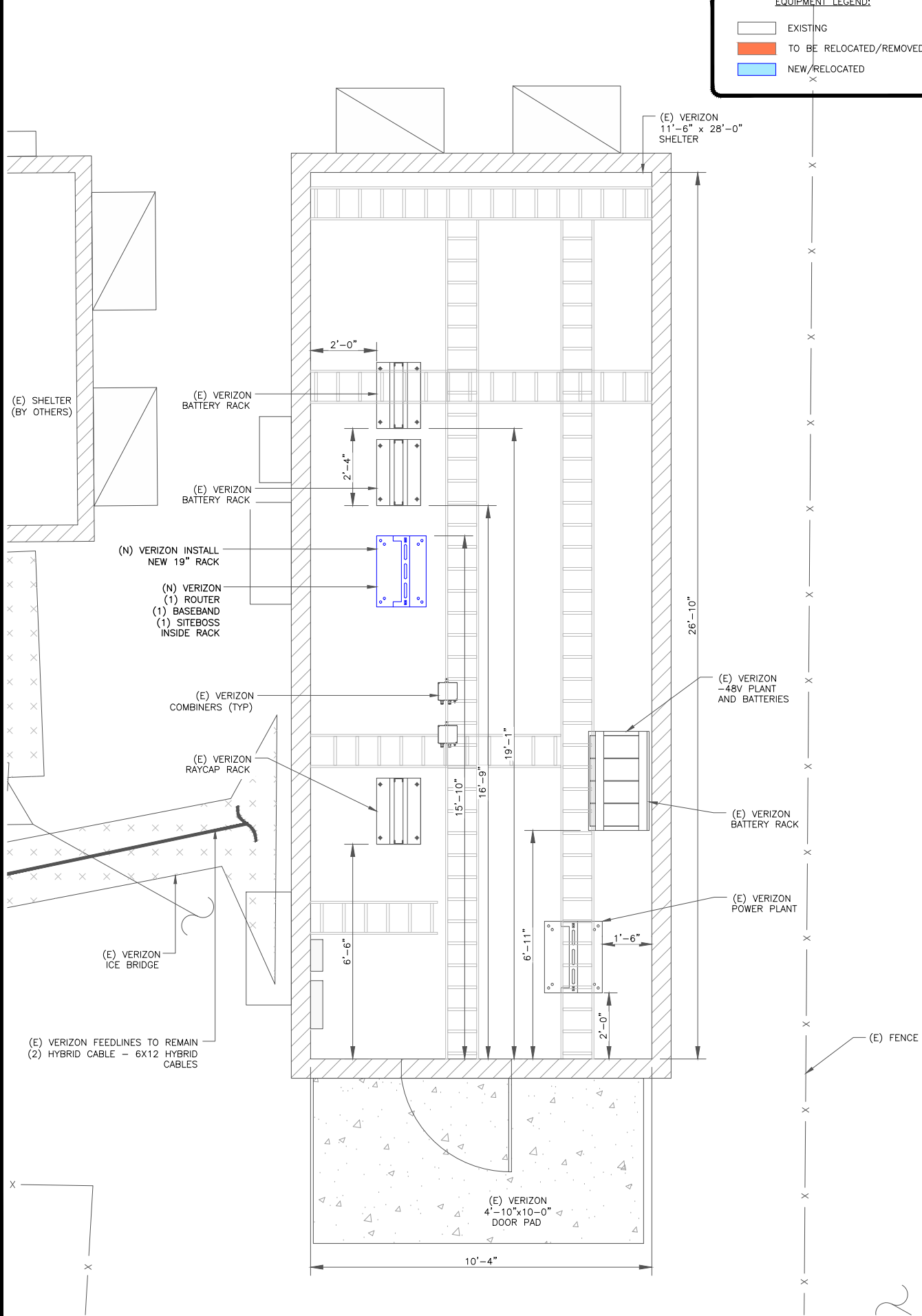
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1/8"=1'-0" (11x17)

CC VERIZON NATIONAL ANTENNA AMENDMENT\_2025-08-08

CC VERIZON NATIONAL ANTENNA AMENDMENT\_2025-08-08



1 EXISTING EQUIPMENT PLAN  
SCALE: 1/2"=1'-0" (FULL SIZE)  
1/4"=1'-0" (11x17)



2 PROPOSED EQUIPMENT PLAN  
SCALE: 1/2"=1'-0" (FULL SIZE)  
1/4"=1'-0" (11x17)



| EQUIPMENT LEGEND: |                         |
|-------------------|-------------------------|
|                   | EXISTING                |
|                   | TO BE RELOCATED/REMOVED |
|                   | NEW/RELOCATED           |

**verizon**

**CROWN CASTLE**

**NextEdge**  
1355 WINDWARD  
CONCOURSE, SUITE 410  
ALPHARETTA, GA 30005  
TEL: 678-990-2338  
FL COA #38599

VERIZON SITE NUMBER:  
**5000078561**

BU #: **846219**

CROWN CASTLE SITE NAME  
**FAIRGROUNDS**

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

| ISSUED FOR: |          |      |              |        |
|-------------|----------|------|--------------|--------|
| REV         | DATE     | DRWN | DESCRIPTION  | DES/QA |
| 0           | 10/15/25 | MAT  | CONSTRUCTION | MAT    |
|             |          |      |              |        |
|             |          |      |              |        |
|             |          |      |              |        |

PHILLIP J. NEJMAN  
LICENSE  
No 89784  
*Phillip J. Nejman*  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

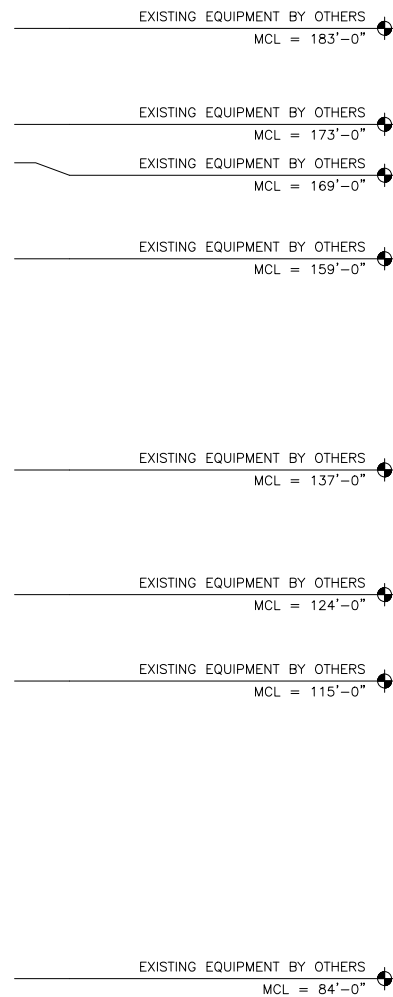
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**C-1.2**

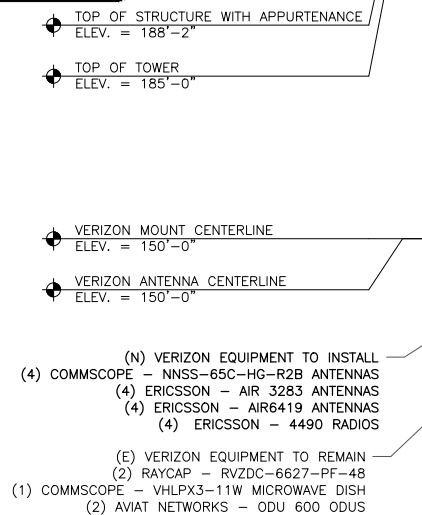
REVISION:  
**0**



VERIZON EQUIPMENT  
ANTENNA CL: 150'-0"  
MOUNT CL: 150'-0"

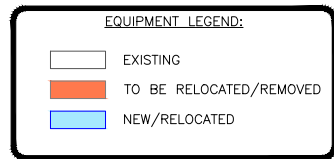
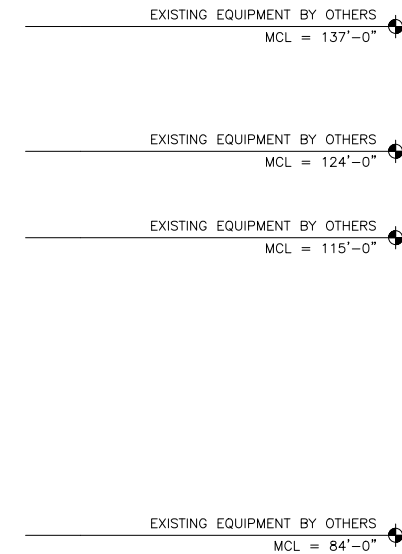
FAA APPROVED HEIGHT  
196'-0"

ASR HEIGHT FOR FUTURE USE  
196'-0" PER REGISTRATION #1281312



(E) VERIZON FEEDLINES TO REMAIN  
(2) HYBRID CABLE - 6X12 HYBRID CABLES

INSTALL MOUNT MODIFICATION PER MOUNT ANALYSIS  
BY TOWER ENGINEERING SOLUTIONS, LLC DATED  
07/23/2025



VERIZON SITE NUMBER:  
**5000078561**

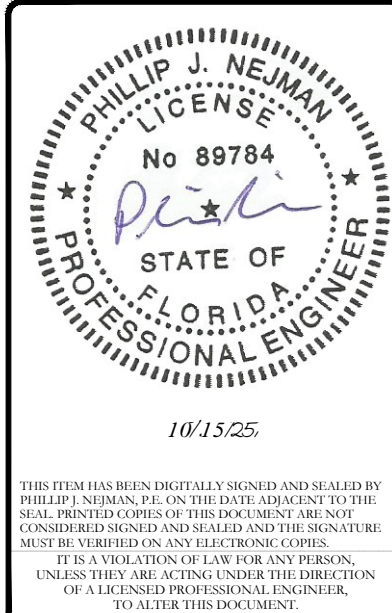
BU #: **846219**

CROWN CASTLE SITE NAME  
**FAIRGROUNDS**

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

| ISSUED FOR: |          |      |              |         |
|-------------|----------|------|--------------|---------|
| REV         | DATE     | DRWN | DESCRIPTION  | DES./QA |
| 0           | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|             |          |      |              |         |
|             |          |      |              |         |
|             |          |      |              |         |



SHEET NUMBER:  
**C-2**

REVISION:  
**0**

STRUCTURAL ANALYSIS NOTES:

- THE DESIGN DEPICTED IN THESE DRAWINGS IS VALID WHEN ACCOMPANIED BY A CORRESPONDING PASSING STRUCTURAL ANALYSIS.
- CONSTRUCTION MANAGER / GENERAL CONTRACTOR SHALL REVIEW THE STRUCTURAL ANALYSIS FOR ANY CONDITIONS PRIOR TO INSTALLATION.
- ANY REQUIRED STRUCTURAL MODIFICATION DESIGN OR MOUNT REPLACEMENT SHALL BE APPROVED BY EOR.

1 EXISTING TOWER ELEVATION  
SCALE: 1"=10'-0" (FULL SIZE)  
1"=20'-0" (11x17)

2 FINAL TOWER ELEVATION  
SCALE: 1"=10'-0" (FULL SIZE)  
1"=20'-0" (11x17)

EQUIPMENT LEGEND:

EXISTING

TO BE RELOCATED/REMOVED

NEW/RELOCATED



1355 WINDWARD CONCOURSE, SUITE 410 ALPHARETTA, GA 30005 TEL: 678-990-2338 FL COA #38599

NextEdge

VERIZON SITE NUMBER:  
5000078561

BU #: 846219

CROWN CASTLE SITE NAME  
FAIRGROUNDS

682 SOUTHWEST COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

| REV | DATE     | DRWN | DESCRIPTION  | DES./QA |
|-----|----------|------|--------------|---------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|     |          |      |              |         |
|     |          |      |              |         |
|     |          |      |              |         |

PHILLIP J. NEJMAN  
LICENSE  
No 89784  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

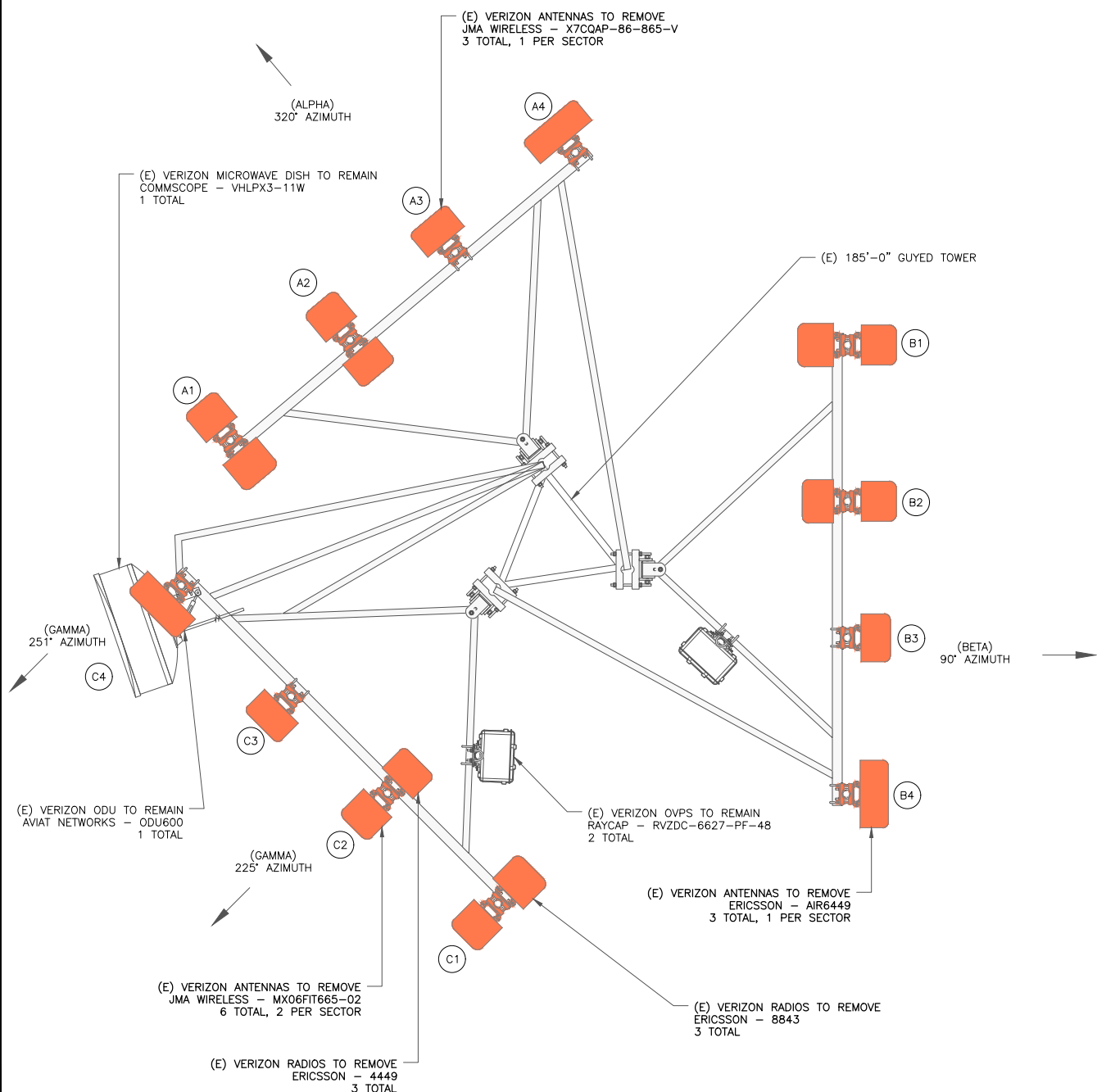
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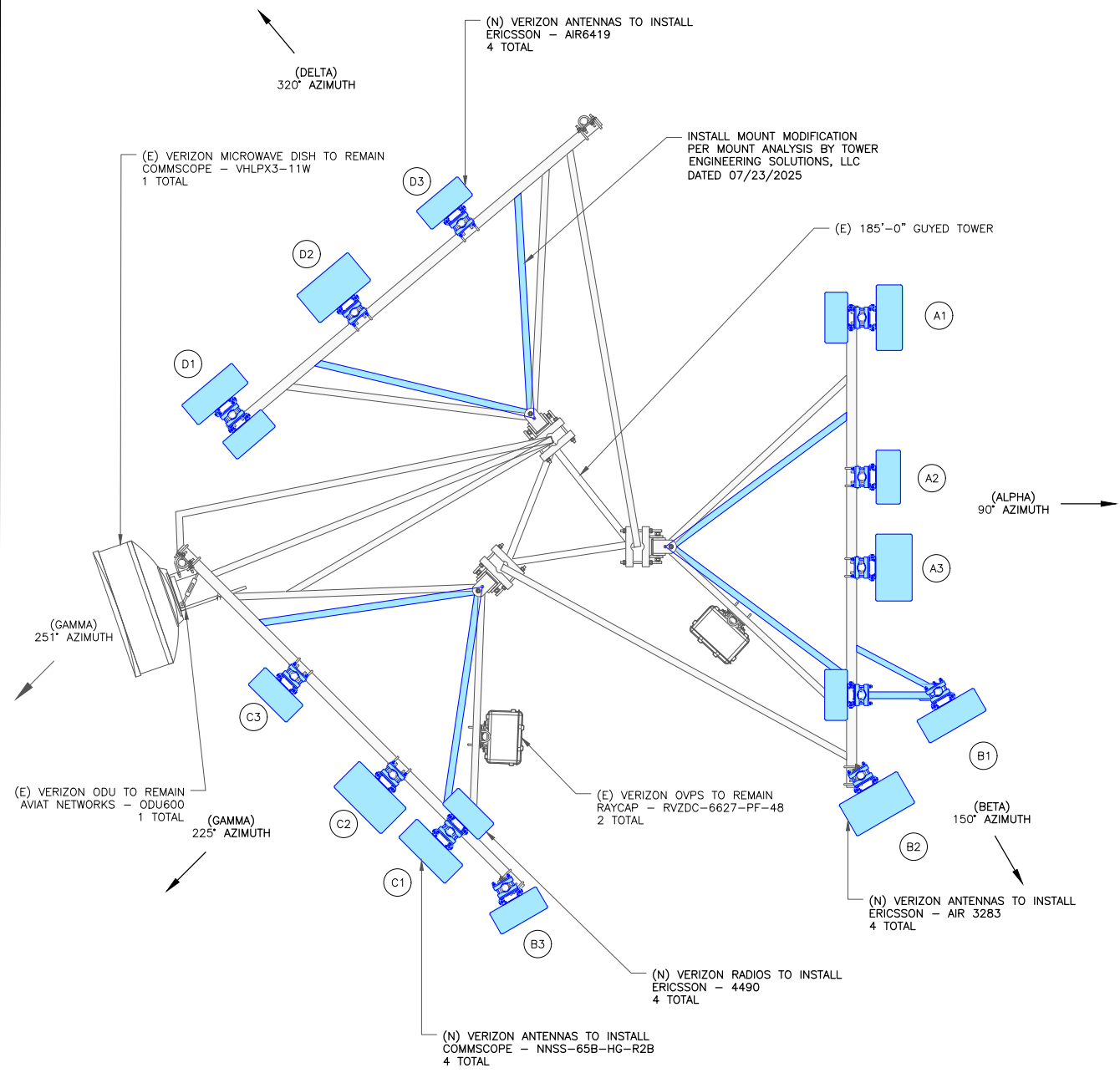
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SHEET NUMBER:  
C-3

REVISION:  
0



1 EXISTING ANTENNA PLAN @ 150'-0"  
SCALE: 1/2"=1'-0" (FULL SIZE)  
1/4"=1'-0" (11x17)



2 FINAL ANTENNA PLAN @ 150'-0"  
SCALE: 1/2"=1'-0" (FULL SIZE)  
1/4"=1'-0" (11x17)

CC VERIZON NATIONAL ANTENNA AMENDMENT\_2025-08-08

CC VERIZON NATIONAL ANTENNA AMENDMENT\_2025-08-08

| FINAL EQUIPMENT SCHEDULE<br>(GC TO VERIFY WITH CURRENT RFDS) |                 |                                 |         |            |       |                             |          |          |        |          |      |        |                  |                         |        |                  |      |        |
|--------------------------------------------------------------|-----------------|---------------------------------|---------|------------|-------|-----------------------------|----------|----------|--------|----------|------|--------|------------------|-------------------------|--------|------------------|------|--------|
| POSITION                                                     | ANTENNA         |                                 |         |            | RADIO |                             |          | DIPLEXER |        |          | TMA  |        | SURGE PROTECTION |                         | CABLES |                  |      |        |
|                                                              | TECH            | STATUS/MANUFACTURER MODEL       | AZIMUTH | RAD CENTER | QTY.  | STATUS/MODEL                | LOCATION | QTY.     | STATUS | LOCATION | QTY. | STATUS | QTY.             | STATUS/MODEL            | QTY.   | STATUS/TYPE      | SIZE | LENGTH |
| A1                                                           | 700, 850        | (N) COMMSCOPE – NNSS–65B–HG–R2B | 90°     | 150'–0"    | 1     | (N) ERICSSON – 4490         | TOWER    | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| A2                                                           | L–SUB6          | (N) ERICSSON – AIR6419          | 90°     | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| A3                                                           | AWS3, 1900, AWS | (N) ERICSSON – AIR 3283         | 90°     | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| B1                                                           | 700, 850        | (N) COMMSCOPE – NNSS–65B–HG–R2B | 150°    | 150'–0"    | 1     | (N) ERICSSON – 4490         | TOWER    | –        | –      | –        | –    | –      | 1                | RAYCAP–RVZDC–6627–PF–48 | 1      | (E) HYBRID CABLE | 6x12 | 200'   |
| B2                                                           | AWS3, 1900, AWS | (N) ERICSSON – AIR 3283         | 150°    | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| B3                                                           | L–SUB6          | (N) ERICSSON – AIR6419          | 150°    | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| C1                                                           | 700, 850        | (N) COMMSCOPE – NNSS–65B–HG–R2B | 225°    | 150'–0"    | 1     | (N) ERICSSON – 4490         | TOWER    | –        | –      | –        | –    | –      | 1                | RAYCAP–RVZDC–6627–PF–48 | 1      | (E) HYBRID CABLE | 6x12 | 200'   |
| C2                                                           | AWS3, 1900, AWS | (N) ERICSSON – AIR 3283         | 225°    | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| C3                                                           | L–SUB6          | (N) ERICSSON – AIR6419          | 225°    | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
|                                                              | –               | (E) COMMSCOPE – VHLPX3–11W      | 251°    | 150'–0"    | 2     | (E) AVIAT NETWORKS – ODU600 | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| D1                                                           | 700, 850        | (N) COMMSCOPE – NNSS–65B–HG–R2B | 320°    | 150'–0"    | 1     | (N) ERICSSON – 4490         | TOWER    | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| D2                                                           | AWS3, 1900, AWS | (N) ERICSSON – AIR 3283         | 320°    | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |
| D3                                                           | L–SUB6          | (N) ERICSSON – AIR6419          | 320°    | 150'–0"    | –     | –                           | –        | –        | –      | –        | –    | –      | –                | –                       | –      | –                | –    | –      |

\* REFER TO THE RFDS FOR MECHANICAL AND ELECTRICAL DOWNTILT INFORMATION

| UNUSED FEEDLINES |   |   |   |
|------------------|---|---|---|
| –                | – | – | – |
| –                | – | – | – |

1355 WINDWARD  
CONCOURSE, SUITE 410  
ALPHARETTA, GA 30005  
TEL: 678-990-2338  
FL COA #38599

VERIZON SITE NUMBER:  
5000078561

BU #: 846219

CROWN CASTLE SITE NAME  
FAIRGROUNDS

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

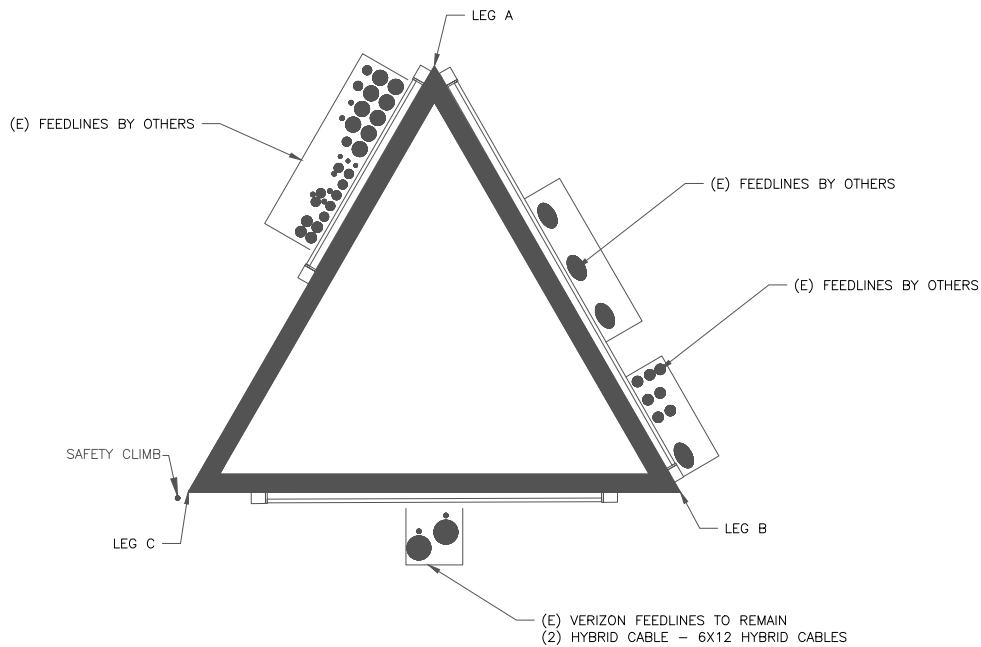
| REV | DATE     | DRWN | DESCRIPTION  | DES./QA |
|-----|----------|------|--------------|---------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|     |          |      |              |         |
|     |          |      |              |         |
|     |          |      |              |         |

10/15/25

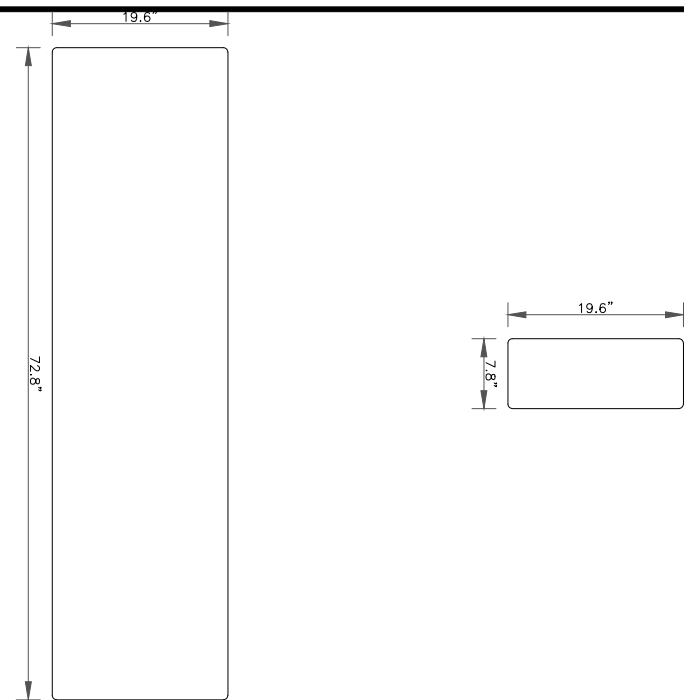
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1 BASE LEVEL DETAIL  
SCALE: NOT TO SCALE

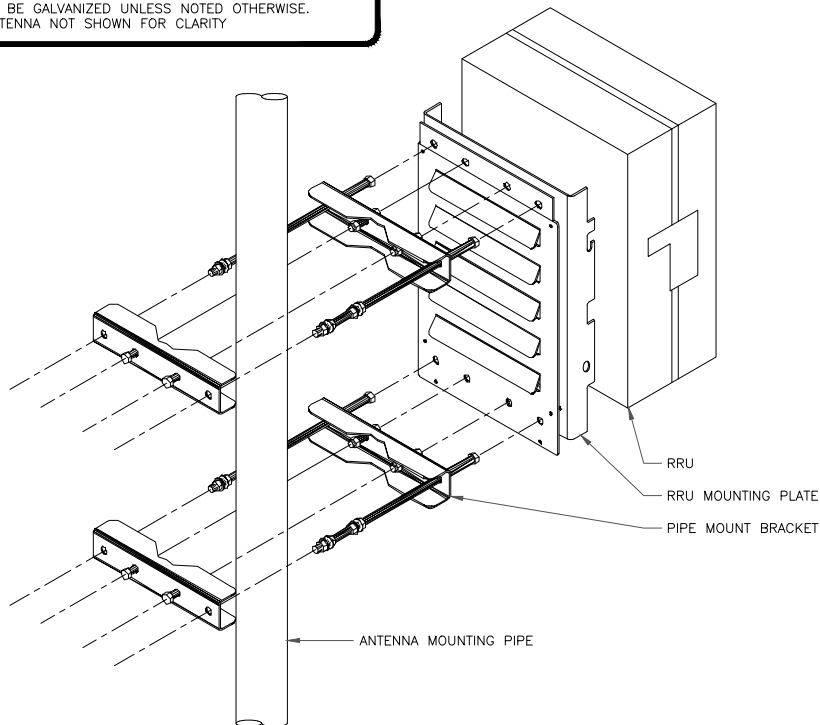


| ANTENNA SPECS |                      |
|---------------|----------------------|
| MANUFACTURER  | COMMSCOPE            |
| MODEL #       | NNSS-65B-HG-R2B      |
| HxWxD         | 72.8" x 19.6" x 7.8" |
| WEIGHT        | 67.2 LBS             |

2 COMMSCOPE - NNSS-65B-HG-R2B DETAIL  
SCALE: NOT TO SCALE

INSTALLER NOTES:

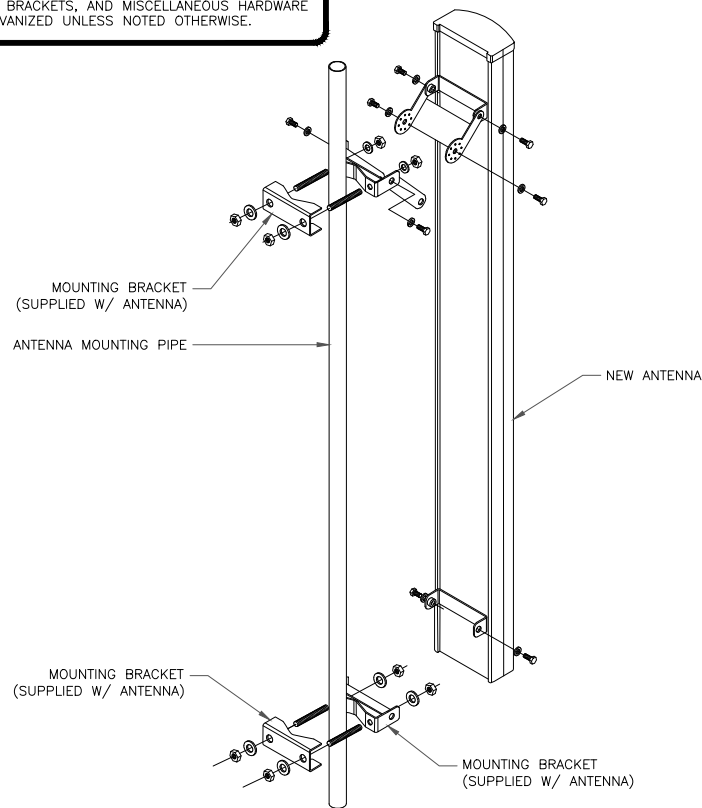
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRU's RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRU PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.
4. ANTENNA NOT SHOWN FOR CLARITY



3 RRH MOUNTING DETAIL  
SCALE: NOT TO SCALE

INSTALLER NOTE:

1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



4 ANTENNA MOUNTING DETAIL  
SCALE: NOT TO SCALE



| RADIO SPECS  |                      |
|--------------|----------------------|
| MANUFACTURER | ERICSSON             |
| MODEL #      | 4490                 |
| HxWxD        | 17.5" x 15.2" x 6.8" |
| WEIGHT       | 68.4 LBS             |

5 ERICSSON - 4490 DETAIL  
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:  
5000078561

BU #: 846219

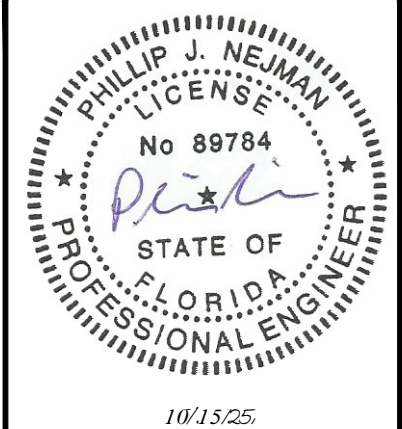
CROWN CASTLE SITE NAME  
FAIRGROUNDS

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

| REV | DATE     | DRWN | DESCRIPTION  | DES./QA |
|-----|----------|------|--------------|---------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|     |          |      |              |         |
|     |          |      |              |         |
|     |          |      |              |         |



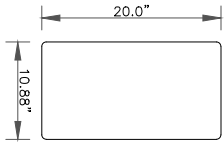
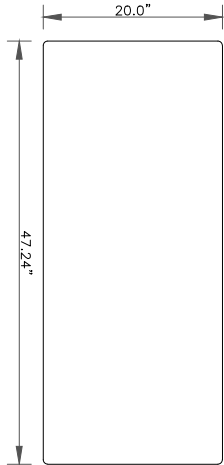
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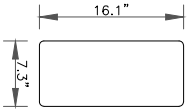
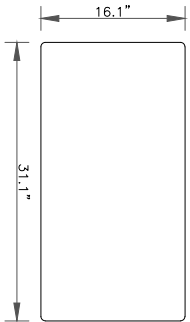
REVISION:

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| ANTENNA SPECS |                         |
|---------------|-------------------------|
| MANUFACTURER  | ERICSSON                |
| MODEL #       | AIR 3283                |
| HxWxD         | 47.24" x 20.0" x 10.88" |
| WEIGHT        | 103.64 LBS              |

1 ERICSSON – AIR 3283 DETAIL  
SCALE: NOT TO SCALE



| ANTENNA SPECS |                      |
|---------------|----------------------|
| MANUFACTURER  | ERICSSON             |
| MODEL #       | AIR6419              |
| HxWxD         | 31.1" x 16.1" x 7.3" |
| WEIGHT        | 55.4 LBS             |

2 ERICSSON – AIR6419 DETAIL  
SCALE: NOT TO SCALE

3 NOT USED  
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:  
5000078561

BU #: 846219

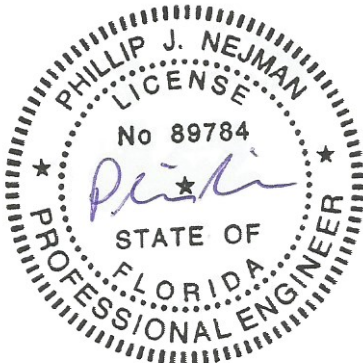
CROWN CASTLE SITE NAME  
FAIRGROUNDS

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

| REV | DATE     | DRWN | DESCRIPTION  | DES./QA |
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|     |          |      |              |         |
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SHEET NUMBER:

C-5.2

REVISION:

0

4 NOT USED  
SCALE: NOT TO SCALE

5 NOT USED  
SCALE: NOT TO SCALE

6 NOT USED  
SCALE: NOT TO SCALE

| Azimuth (1) Alpha                  |           |           |           |           |        |
|------------------------------------|-----------|-----------|-----------|-----------|--------|
| Cell (850 CDMA)                    | Red       |           |           |           |        |
| PCS2 (1900 LTE)                    | Pink      | Red       | Pink      |           |        |
| 700 LTE                            | Lt. Green | Red       | Lt. Green |           |        |
| 850 LTE                            | Purple    | Red       | Purple    |           |        |
| 2100 LTE                           | Orange    | Red       | Orange    |           |        |
| High Band Dual Band (Shared Lines) | Orange    | Pink      | Red       | Pink      | Orange |
| Low Band Dual Band (Shared Lines)  | Purple    | Lt. Green | Red       | Lt. Green | Purple |
| 5G 28GHz                           | Brown     | Red       | Brown     |           |        |
| 5G 39GHz                           | Blue      | Red       | Blue      |           |        |
| LAA                                | Gray      | Red       | Gray      |           |        |
| CBRS                               | White     | Red       | White     |           |        |
| L-Sub6 (C-Band)                    | Red       | Red       | Red       |           |        |

| Azimuth (2) Beta                   |           |           |           |           |        |
|------------------------------------|-----------|-----------|-----------|-----------|--------|
| Cell (850 CDMA)                    | Blue      |           |           |           |        |
| PCS2 (1900 LTE)                    | Pink      | Blue      | Pink      |           |        |
| 700 LTE                            | Lt. Green | Blue      | Lt. Green |           |        |
| 850 LTE                            | Purple    | Blue      | Purple    |           |        |
| 2100 LTE                           | Orange    | Blue      | Orange    |           |        |
| High Band Dual Band (Shared Lines) | Orange    | Pink      | Blue      | Pink      | Orange |
| Low Band Dual Band (Shared Lines)  | Purple    | Lt. Green | Blue      | Lt. Green | Purple |
| 5G 28GHz                           | Brown     | Blue      | Brown     |           |        |
| 5G 39GHz                           | Blue      | Blue      | Blue      |           |        |
| LAA                                | Gray      | Blue      | Gray      |           |        |
| CBRS                               | White     | Blue      | White     |           |        |
| L-Sub6 (C-Band)                    | Red       | Blue      | Red       |           |        |

| Azimuth (3) Gamma                  |           |           |           |           |        |
|------------------------------------|-----------|-----------|-----------|-----------|--------|
| Cell (850 CDMA)                    | Yellow    |           |           |           |        |
| PCS2 (1900 LTE)                    | Pink      | Yellow    | Pink      |           |        |
| 700 LTE                            | Lt. Green | Yellow    | Lt. Green |           |        |
| 850 LTE                            | Purple    | Yellow    | Purple    |           |        |
| 2100 LTE                           | Orange    | Yellow    | Orange    |           |        |
| High Band Dual Band (Shared Lines) | Orange    | Pink      | Yellow    | Pink      | Orange |
| Low Band Dual Band (Shared Lines)  | Purple    | Lt. Green | Yellow    | Lt. Green | Purple |
| 5G 28GHz                           | Brown     | Yellow    | Brown     |           |        |
| 5G 39GHz                           | Blue      | Yellow    | Blue      |           |        |
| LAA                                | Gray      | Yellow    | Gray      |           |        |
| CBRS                               | White     | Yellow    | White     |           |        |
| L-Sub6 (C-Band)                    | Red       | Yellow    | Red       |           |        |

| Azimuth (4) Delta                  |           |           |           |           |        |
|------------------------------------|-----------|-----------|-----------|-----------|--------|
| Cell (850 CDMA)                    | Orange    |           |           |           |        |
| PCS2 (1900 LTE)                    | Pink      | Orange    | Pink      |           |        |
| 700 LTE                            | Lt. Green | Orange    | Lt. Green |           |        |
| 850 LTE                            | Purple    | Orange    | Purple    |           |        |
| 2100 LTE                           | Orange    | Orange    | Orange    |           |        |
| High Band Dual Band (Shared Lines) | Orange    | Pink      | Orange    | Pink      | Orange |
| Low Band Dual Band (Shared Lines)  | Purple    | Lt. Green | Orange    | Lt. Green | Purple |
| 5G 28GHz                           | Brown     | Orange    | Brown     |           |        |
| 5G 39GHz                           | Blue      | Orange    | Blue      |           |        |
| LAA                                | Gray      | Orange    | Gray      |           |        |
| CBRS                               | White     | Orange    | White     |           |        |
| L-Sub6 (C-Band)                    | Red       | Orange    | Red       |           |        |

| Azimuth (5) Epsilon                |           |           |           |           |        |
|------------------------------------|-----------|-----------|-----------|-----------|--------|
| Cell (850 CDMA)                    | White     |           |           |           |        |
| PCS2 (1900 LTE)                    | Pink      | White     | Pink      |           |        |
| 700 LTE                            | Lt. Green | White     | Lt. Green |           |        |
| 850 LTE                            | Purple    | White     | Purple    |           |        |
| 2100 LTE                           | Orange    | White     | Orange    |           |        |
| High Band Dual Band (Shared Lines) | Orange    | Pink      | White     | Pink      | Orange |
| Low Band Dual Band (Shared Lines)  | Purple    | Lt. Green | White     | Lt. Green | Purple |
| 5G 28GHz                           | Brown     | White     | Brown     |           |        |
| 5G 39GHz                           | Blue      | White     | Blue      |           |        |
| LAA                                | Gray      | White     | Gray      |           |        |
| CBRS                               | White     | White     | White     |           |        |
| L-Sub6 (C-Band)                    | Red       | White     | Red       |           |        |

| Azimuth (6) Zeta                   |           |           |           |           |        |
|------------------------------------|-----------|-----------|-----------|-----------|--------|
| Cell (850 CDMA)                    | Gray      |           |           |           |        |
| PCS2 (1900 LTE)                    | Pink      | Gray      | Pink      |           |        |
| 700 LTE                            | Lt. Green | Gray      | Lt. Green |           |        |
| 850 LTE                            | Purple    | Gray      | Purple    |           |        |
| 2100 LTE                           | Orange    | Gray      | Orange    |           |        |
| High Band Dual Band (Shared Lines) | Orange    | Pink      | Gray      | Pink      | Orange |
| Low Band Dual Band (Shared Lines)  | Purple    | Lt. Green | Gray      | Lt. Green | Purple |
| 5G 28GHz                           | Brown     | Gray      | Brown     |           |        |
| 5G 39GHz                           | Blue      | Gray      | Blue      |           |        |
| LAA                                | Gray      | Gray      | Gray      |           |        |
| CBRS                               | White     | Gray      | White     |           |        |
| L-Sub6 (C-Band)                    | Red       | Gray      | Red       |           |        |



VERIZON SITE NUMBER:  
5000078561

BU #: 846219

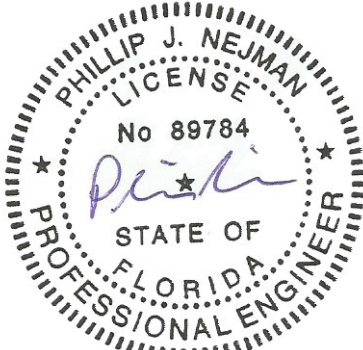
CROWN CASTLE SITE NAME  
FAIRGROUNDS

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

| REV | DATE     | DRWN | DESCRIPTION  | DES./QA |
|-----|----------|------|--------------|---------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|     |          |      |              |         |
|     |          |      |              |         |
|     |          |      |              |         |



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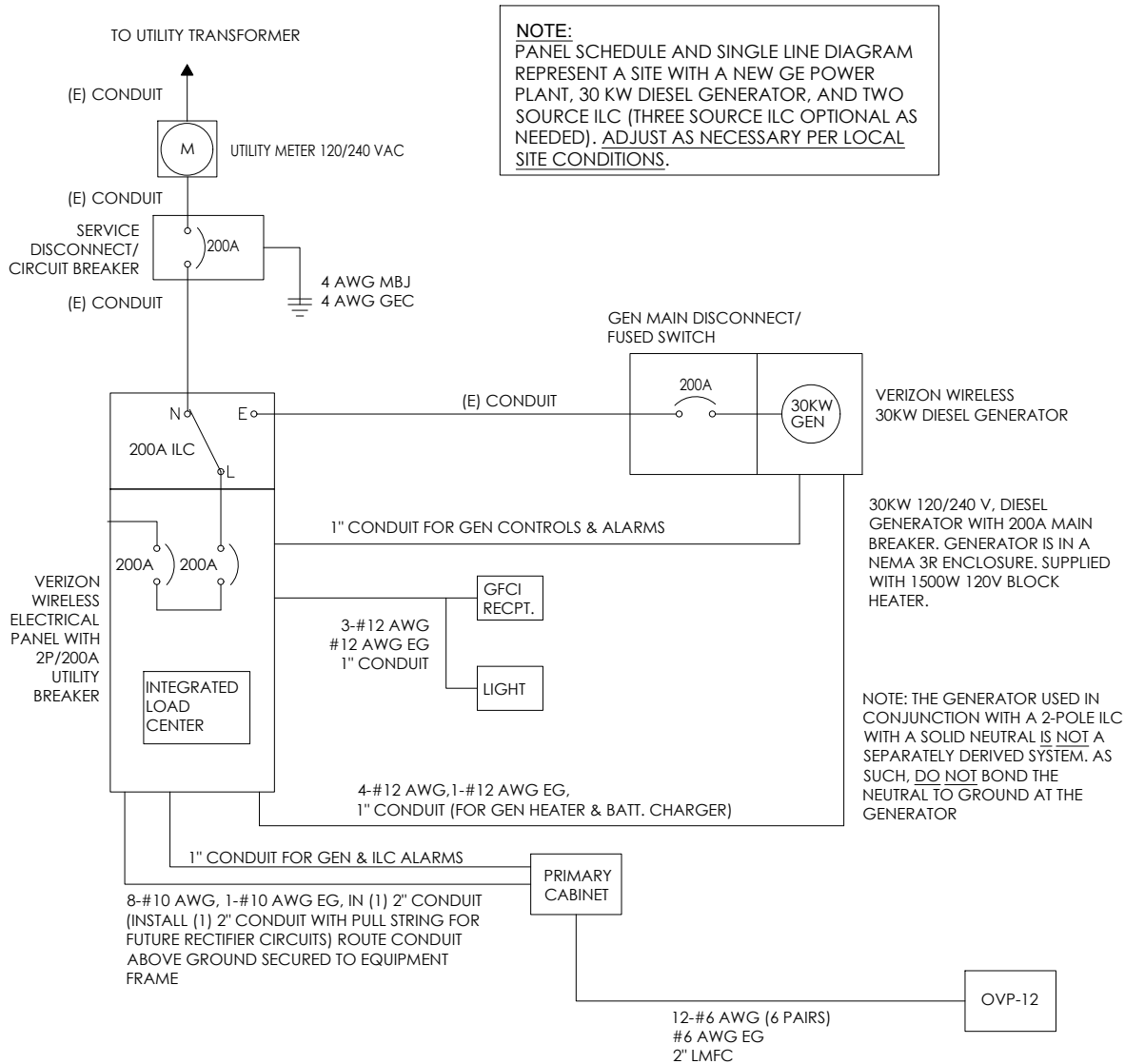
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SHEET NUMBER:

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REVISION:

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1 ONE-LINE DIAGRAM  
SCALE: NOT TO SCALE

UTILITY NOTES:

- CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT.
- CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS.
- ONE-LINE DIAGRAM IS FOR SCHEMATIC PURPOSES ONLY AND IS NOT INDICATIVE OF THE ACTUAL EQUIPMENT LAYOUT.
- ALL EQUIPMENT WILL HAVE A MINIMUM AIC OF 10 KA. CONTRACTOR TO DETERMINE AVAILABLE FAULT CURRENT BEFORE ENERGIZING EQUIPMENT. THE AMOUNT OF AVAILABLE FAULT CURRENT SHALL BE MARKED ON THE SERVICE EQUIPMENT PER NEC 110.24.
- CONTRACTOR SHALL NOTIFY UTILITY COMPANY OF CHANGES IN ELECTRICAL LOAD.
- CONTRACTOR TO VERIFY EXISTING CONDUIT(S) SIZE(S) PRIOR TO CONSTRUCTION AND MAY REUSE EXISTING CONDUIT(S) IF THEY MEET THE MINIMUM REQUIREMENTS PER NEC CODE.
- GROUNDING ELECTRODE CONDUCTOR IS SIZED FOR SINGLE 200A SERVICE ONLY. IF METER BANK SHARES A COMMON NEUTRAL/GROUND POINT, CONTRACTOR WILL INSTALL (1) 3/0 COPPER GEC INSTEAD.

GENERAL NOTES:

- ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 UNLESS NOTED OTHERWISE.
- CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- ALL GROUNDING AND BONDING PER THE NEC.

UL NOTE:

- ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E.: LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY

CONDUIT NOTES:

- ALL CONDUIT TO BE SCH40 PVC OR LTC (WITH PRIOR FSA CONSTRUCTION MANAGER APPROVAL), AS NOTED. INSTALL WEATHERPROOF FITTINGS.
- ABOVE GRADE CONDUIT RUNS TO BE MARKED WITH HAZARD TAPE TO PREVENT TRIPPING HAZARD.
- ALL ABOVE GROUND CONDUIT MUST BE RIGID METALLIC. RIGID METALLIC CONDUIT MAY ONLY BE INSTALLED ACROSS PAD WITH PRIOR FSA CM APPROVAL.

ONE-LINE DIAGRAM NOTES:

- ELECTRICAL SERVICE SHALL BE 200A, 120/240V, 1ø, 3W.
- FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.

| 200A., 120/240V, 1Ø VOLTAGE DROP TABLE (<3% VOLTAGE DROP)                                                                                                                                                                                                                                                                                                     |                                   |                                   |                                   |                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|
| ≤175FT                                                                                                                                                                                                                                                                                                                                                        | 175FT - 200FT                     | 200FT - 255FT                     | 255FT - 275FT                     | 275FT - 320FT                   |
| (2) #3/0 AWG + (1) #6 AWG GND                                                                                                                                                                                                                                                                                                                                 | (2) #3/0 AWG + (1) #6 AWG GND     | (2) #250 KCMIL + (1) #2 AWG GND   | (2) #250 KCMIL + (1) #2 AWG GND   | (2) #250 KCMIL + (1) #2 AWG GND |
| 320FT - 400FT                                                                                                                                                                                                                                                                                                                                                 | 400FT - 440FT                     | 440FT - 510FT                     | 510FT - 635FT                     |                                 |
| (2) #500 KCMIL + (1) #1/0 AWG GND                                                                                                                                                                                                                                                                                                                             | (2) #500 KCMIL + (1) #1/0 AWG GND | (2) #500 KCMIL + (1) #1/0 AWG GND | (2) #500 KCMIL + (1) #1/0 AWG GND |                                 |
| <b>VOLTAGE DROP TABLE NOTES</b><br>1. CONTRACTORS SHALL BE RESPONSIBLE FOR DE-RATING CONDUCTORS WHEN 4 OR MORE CURRENT CARRYING CONDUCTORS ARE CARRIED IN THE SAME CONDUIT PER THE NEC.<br>2. THE DISTANCES IN THIS TABLE ARE TOTAL DISTANCES, NOT HORIZONTAL DISTANCES. INCLUDE VERTICAL RUNS AND JUNCTIONS BOX COIL LENGTH IN THE TOTAL CONDUCTOR DISTANCE. |                                   |                                   |                                   |                                 |

|                      |                         |           |      |         |      |                      |       |        |      |                     |         |     |                        |
|----------------------|-------------------------|-----------|------|---------|------|----------------------|-------|--------|------|---------------------|---------|-----|------------------------|
| PANELBOARD NAME:     | VZW PANEL               | VOLTS:    |      | 240     |      | INTERRUPTING RATING: |       | 65kA   |      |                     |         |     |                        |
| MODEL NUMBER         | INTERSECT AA-G-3S-3R-CL | PHASE:    |      | 1 PHASE |      | MOUNTING LOCATION:   |       | WALL   |      |                     |         |     |                        |
| PANEL LOCATION:      | SHELTER                 | WIRE:     |      | 3       |      | FEED LOCATION:       |       | BOTTOM |      |                     |         |     |                        |
| SUPPLIED FROM:       | SERVICE                 | AMP MAIN: |      | 200     |      | NEMA RATING:         |       | 3R     |      |                     |         |     |                        |
|                      |                         |           |      |         |      |                      |       |        |      |                     |         |     |                        |
|                      | BREAKER                 |           |      | PHASE   |      |                      | PHASE |        |      |                     | BREAKER |     |                        |
| LOAD DESCRIPTION     | AMP                     | POLE      | WIRE | A       | B    | POS.                 | POS.  | A      | B    | WIRE                | POLE    | AMP | LOAD DESCRIPTION       |
| HVAC1                | 60                      | 2         | (E)  | 1.8     |      | 1                    | 2     | 2.4    |      | (E)                 | 2       | 40  | RECTIFIER 3            |
|                      |                         |           |      |         | 1.8  | 3                    | 4     |        | 2.4  |                     |         |     |                        |
| HVAC2                | 60                      | 2         | (E)  | 1.8     |      | 5                    | 6     | 2.4    |      | (E)                 | 2       | 40  | RECTIFIER 4            |
|                      |                         |           |      |         | 1.8  | 7                    | 8     |        | 2.4  |                     |         |     |                        |
| LIGHTS               | 20                      | 1         | (E)  | 2.4     |      | 9                    | 10    |        |      | (E)                 | 1       | 20  | LTE (OFF)              |
| RECEPTACLES          | 20                      | 1         | (E)  |         | 2.4  | 11                   | 12    |        |      | (E)                 | 1       | 20  | LTE (OFF)              |
| RECEPTACLES          | 20                      | 1         | (E)  | 2.4     |      | 13                   | 14    |        |      | (E)                 | 1       | 20  | LTE (OFF)              |
| GEN OUTLET           | 20                      | 1         | (E)  |         | 0.0  | 15                   | 16    |        |      | (E)                 | 1       | 20  | LTE (OFF)              |
| RECEPTACLE           | 20                      | 1         | (E)  | 2.4     |      | 17                   | 18    | 2.4    |      | (E)                 | 2       | 40  | RECTIFIER 5            |
| RECEPTACLE           | 20                      | 1         | (E)  |         | 2.4  | 19                   | 20    |        | 2.4  |                     |         |     |                        |
| RECEPTACLE           | 20                      | 1         | (E)  | 2.4     |      | 21                   | 22    | 1.8    |      | (E)                 | 2       | 30  | RECTIFIER 6            |
| LIGHTS               | 20                      | 1         | (E)  |         | 2.4  | 23                   | 24    |        | 1.8  |                     |         |     |                        |
| MICROWAVE A          | 30                      | 2         | (E)  | 1.8     |      | 25                   | 26    | 1.8    |      | (E)                 | 2       | 30  | VZW-RECT# 2, 4, 6      |
|                      |                         |           |      |         | 1.8  | 27                   | 28    |        | 1.8  |                     |         |     |                        |
| MICROWAVE B          | 30                      | 2         | (E)  | 1.8     |      | 29                   | 30    | 2.4    |      | (E)                 | 1       | 20  | SMOKE DETECTS<br>SPARE |
|                      |                         |           |      |         | 1.8  | 31                   | 32    |        | 0.0  | (E)                 | 1       | 20  |                        |
| RECTIFIER 1          | 30                      | 2         | (E)  | 1.8     |      | 33                   | 34    | 1.8    |      | (E)                 | 2       | 30  | TLC                    |
|                      |                         |           |      |         | 1.8  | 35                   | 36    |        | 1.8  |                     |         |     |                        |
| RECTIFIER 2          | 30                      | 2         | (E)  | 1.8     |      | 37                   | 38    | 0.0    |      | (E)                 | 2       | 40  | SURGE                  |
|                      |                         |           |      |         | 1.8  | 39                   | 40    |        | 0.0  |                     |         |     |                        |
|                      | TOTAL KVA PER PHASE     |           |      | 20.4    | 18.0 |                      |       | 15.0   | 12.6 | TOTAL KVA PER PHASE |         |     |                        |
| CONNECTED KVA (NEW)  |                         |           |      |         |      | 66.0                 |       |        |      |                     |         |     | CONNECTED KVA (NEW)    |
| CONNECTED AMPS (NEW) |                         |           |      |         |      | 158.8                |       |        |      |                     |         |     | CONNECTED AMPS (NEW)   |
| DEMAND KVA (NEW)     |                         |           |      |         |      | 82.5                 |       |        |      |                     |         |     | DEMAND KVA (NEW)       |
| DEMAND AMPS (NEW)    |                         |           |      |         |      | 198.5                |       |        |      |                     |         |     | DEMAND AMPS (NEW)      |

NOTES:

- ALL CONDUCTORS ARE TYPE THWN (75°) COPPER
- MAXIMUM LENGTH OF RUN FOR RECTIFIER CIRCUITS IS 50 FT.
- INTERSECT/GENERAC INTEGRATED LOAD CENTER INCLUDES 200A. MAIN DISCONNECT AND TRANSFER SWITCH FOR PORTABLE OR PERMANENT GENERATOR.
- RECTIFIER LOADS ARE CONSIDERED TO BE NON-CONTINUOUS.
- IF ADDITIONAL FUTURE LOADS ARE ADDED WHICH CAUSE TOTAL DEMAND TO EXCEED GENERATOR BREAKER SIZE, BACKUP POWER SYSTEM SHALL BE EVALUATED AND UPGRADED AS NECESSARY.

2 PROPOSED PANEL SCHEDULE  
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

NextEdge

1355 WINDWARD CONCOURSE, SUITE 410 ALPHARETTA, GA 30005 TEL: 678-990-2338 FL COA #38599

VERIZON SITE NUMBER:  
5000078561

BU #: 846219

CROWN CASTLE SITE NAME  
FAIRGROUNDS

682 SOUTHWEST  
COMMERCE DRIVE  
LAKE CITY, FL 32025

EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

| REV | DATE     | DRWN | DESCRIPTION  | DES./QA |
|-----|----------|------|--------------|---------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT     |
|     |          |      |              |         |
|     |          |      |              |         |
|     |          |      |              |         |

PHILLIP J. NEJMAN  
LICENSE  
No 89784  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

10/15/25

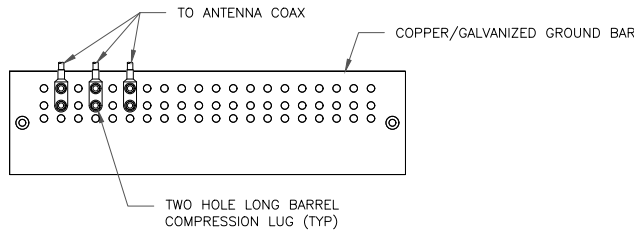
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY PHILLIP J. NEJMAN, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.  
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SHEET NUMBER:

E-1

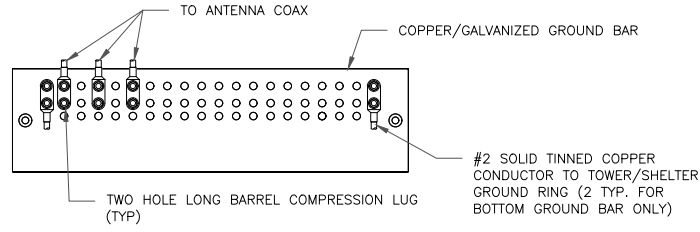
REVISION:

0



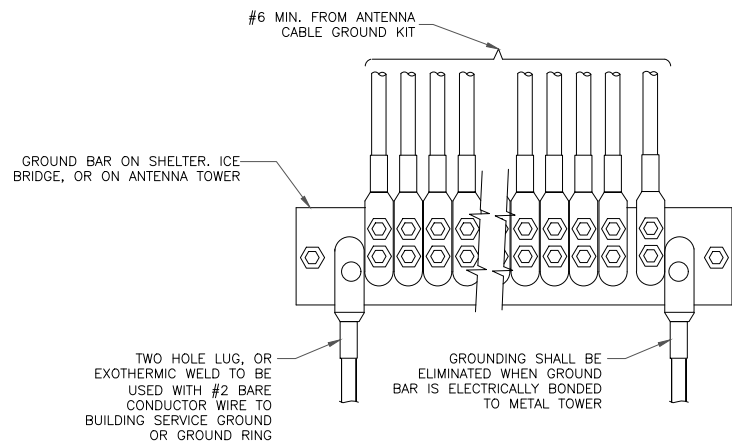
- NOTES:
1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
  2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
  3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

1 ANTENNA SECTOR GROUND BAR DETAIL  
SCALE: NOT TO SCALE

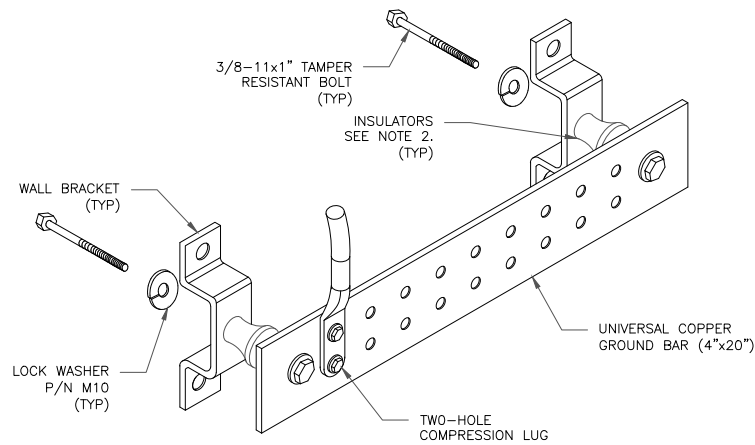


- NOTES:
1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
  2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
  3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL  
SCALE: NOT TO SCALE

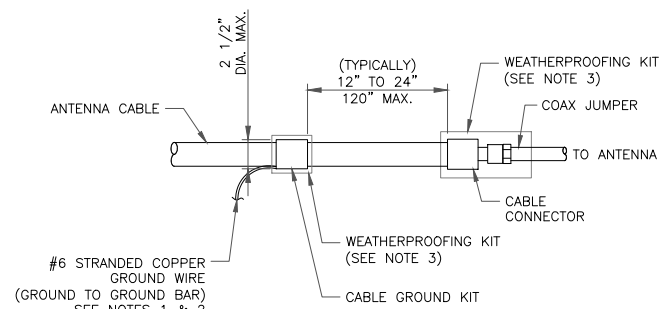


4 GROUNDWIRE INSTALLATION  
SCALE: NOT TO SCALE



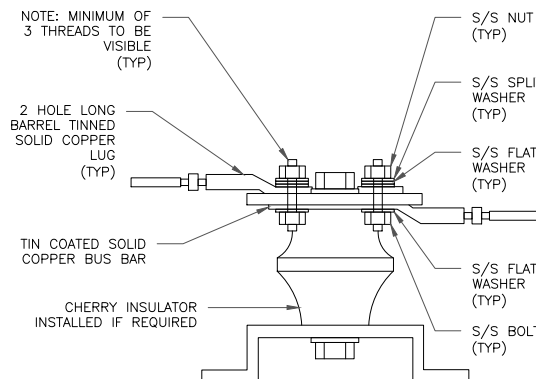
- NOTES:
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
  2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

5 GROUND BAR DETAIL  
SCALE: NOT TO SCALE



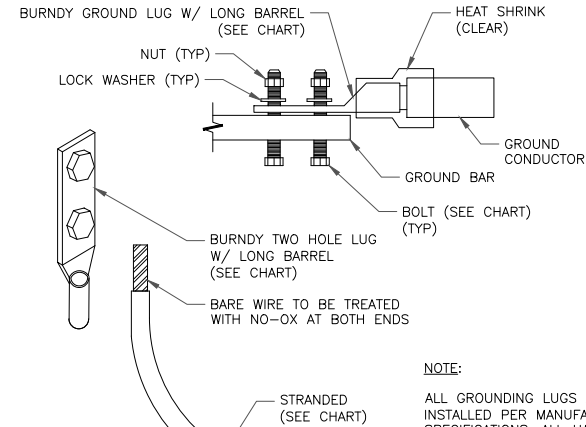
- NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
  2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
  3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION  
SCALE: NOT TO SCALE



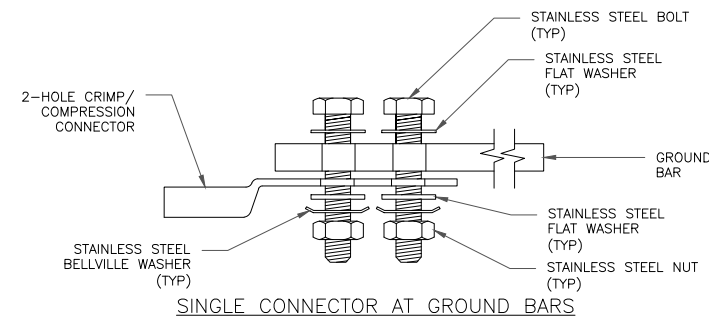
7 LUG DETAIL  
SCALE: NOT TO SCALE

| WIRE SIZE          | BURNDY LUG | BOLT SIZE              |
|--------------------|------------|------------------------|
| #6 GREEN INSULATED | YA6C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2 SOLID TINNED    | YA3C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2 STRANDED        | YA2C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2/0 STRANDED      | YA26-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #4/0 STRANDED      | YA28-2N    | 1/2" - 16 NC SS 2 BOLT |

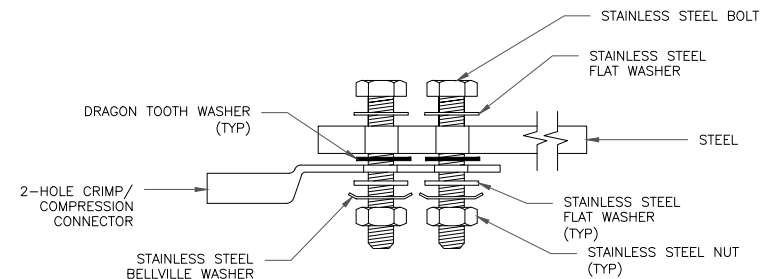


- NOTE:
- ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

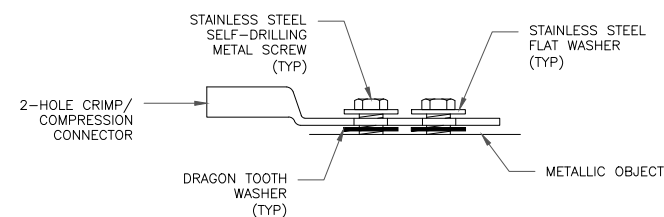
3 MECHANICAL LUG CONNECTION  
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS  
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

NextEdge  
1355 WINDWARD CONCOURSE, SUITE 410  
ALPHARETTA, GA 30005  
TEL: 678-990-2338  
FL COA #38599

VERIZON SITE NUMBER:  
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CROWN CASTLE SITE NAME  
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682 SOUTHWEST  
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EXISTING 185'-0"  
GUYED TOWER

ISSUED FOR:

| REV | DATE     | DRWN | DESCRIPTION  | DES/QA |
|-----|----------|------|--------------|--------|
| 0   | 10/15/25 | MAT  | CONSTRUCTION | MAT    |
|     |          |      |              |        |
|     |          |      |              |        |
|     |          |      |              |        |



10/15/25

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SHEET NUMBER:

G-1

REVISION:

0



Tower Engineering Solutions, LLC  
1320 Greenway Dr. Suite 600  
Irving, TX 75038  
972.483.0607  
TESOrders@testtower.us

## Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10311542

July 23, 2025

### Site Information

Site ID: 5000078561-VZW  
Site Name: COMMERCE  
Carrier Name: Verizon Wireless  
Address: 682 SW Commerce Dr.  
Lake City, Florida 32025, Columbia County  
Latitude: 30.174008°  
Longitude: -82.680519°

### Structure Information

Tower Type: Guyed  
Mount Type: Sector Frames

FUZE ID # 17500725

### Analysis Results

(3) Sector Frames: 63.6% [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@testtower.us](mailto:pmisupport@testtower.us)

Report Prepared By: Sandesh K Bhujel



## **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 Project Id 17500725; dated 06/30/2025    |
| Structural analysis report           | Provided by Verizon BT group; dated 06/07/2021   |
| Post-Modification Inspection Report  | Smart Tool Project #: 10100956, dated 04/06/2023 |
| Previous Mount Analysis Report       | Smart Tool Project #: 10300365, dated 9/9/2025   |
| Proposed Mount Modification Drawings | Smart Tool Project #: 10311542                   |

## **Analysis Criteria:**

|                         |                                                                                                                                                                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Codes and Standards:    | ANSI/TIA-222-H                                                                                                                                                                                                                                                                                                                 |
| Wind Parameters:        | Basic Wind Speed (Ultimate 3-sec. Gust), $V_{ULT}$ : 119 mph<br>Ice Wind Speed (3-sec. Gust): 30 mph<br>Design Ice Thickness: 0.00 in<br>Risk Category: II<br>Exposure Category: C<br>Topographic Category: 1<br>Topographic Feature Considered: N/A<br>Topographic Method: Method 1<br>Ground Elevation Factor, $K_e$ : 0.994 |
| Seismic Parameters:     | $S_s$ : 0.130 g<br>$S_1$ : 0.059 g                                                                                                                                                                                                                                                                                             |
| Maintenance Parameters: | Wind Speed (3-sec. Gust): 30 mph<br>Maintenance Live Load, $L_v$ : 250 lbs.<br>Maintenance Live Load, $L_m$ : 500 lbs.                                                                                                                                                                                                         |
| Analysis Software:      | RISA-3D (V20)                                                                                                                                                                                                                                                                                                                  |

### **Final Loading Configuration:**

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

| Mount Elevation (ft) | Equipment Elevation (ft) | Quantity | Manufacturer | Model           | Status   |
|----------------------|--------------------------|----------|--------------|-----------------|----------|
| 150.50               |                          | 1        |              | Dish            | Retained |
| 150.50               | 150.00                   | 4        | Ericsson     | AIR3283         | Added    |
| 150.50               | 150.00                   | 4        | Ericsson     | AIR6419         | Added    |
| 150.50               | 150.00                   | 4        | Commscope    | NNSS-65C-HG-R2B | Added    |
| 150.50               |                          | 4        | Ericsson     | 4490            | Added    |
| 150.50               |                          | 2        |              | OVP 12*         | Retained |

\* Equipment to be flush mounted directly to the mount members and are not shown in the placement diagram.

**It is acceptable to install up to three (3) OVPs with dimensions not to exceed 30" x 17" x 13" and 40 lbs. 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.**

### **Standard Conditions:**

1. All engineering services are performed on the basis that the information provided to Tower Engineering Solutions, LLC 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 Tower Engineering Solutions, LLC 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. Tower Engineering Solutions, LLC 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 Tower Engineering Solutions, LLC.**

### **Analysis Results:**

| Component                  | Utilization % | Pass/Fail |
|----------------------------|---------------|-----------|
| PIPE_2.0                   | 38.8 %        | Pass      |
| PIPE_1.25                  | 22.5 %        | Pass      |
| PL3/8X3.5                  | 55.7 %        | Pass      |
| A-Framing                  | 4.9 %         | Pass      |
| C-Framing                  | 38.5 %        | Pass      |
| Pipe to pipe               | 7.9 %         | Pass      |
| V-Brace                    | 11.2 %        | Pass      |
| Tieback                    | 5.5 %         | Pass      |
| Dish Tieback               | 6.4 %         | Pass      |
| Connection Check           | 63.6 %        | Pass      |
| Mount to Tower Interaction | 27.8 %        | Pass      |

|                                                                       |              |
|-----------------------------------------------------------------------|--------------|
| <b>Structure Rating – (Controlling Utilization of all Components)</b> | <b>63.6%</b> |
|-----------------------------------------------------------------------|--------------|

### **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                  | 50.0                   | 48.8                  | 70.6                   | 69.4                  |
| 0.5                | 72.4                   | 70.4                  | 101.7                  | 99.7                  |
| 1                  | 93.3                   | 90.5                  | 131.4                  | 128.6                 |

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(s) 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. 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@testtower.us](mailto:pmisupport@testtower.us)

---

MDG #: 5000078561

SMART Project #: 10311542

Fuze Project ID: 17500725

**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:**

None

**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:**

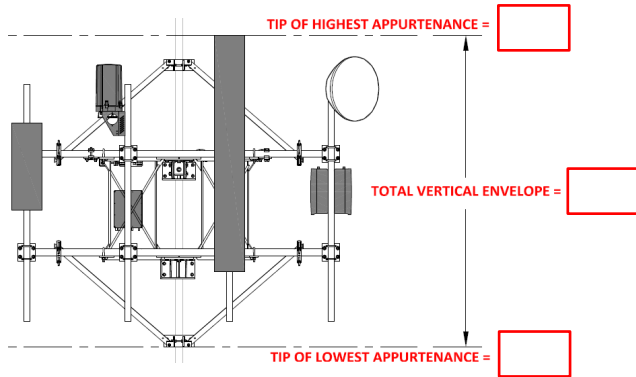
- ☐ Yes      ☐ No

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

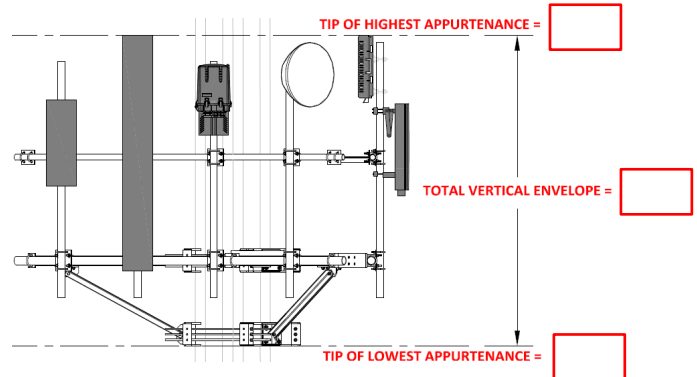
- ☐ Safety Climb in Good Condition      ☐ Safety Climb Damaged

**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 (highest and lowest measurement across all sectors):**



**Illustration #1**



**Illustration #2**

**Certifying Individual:**

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

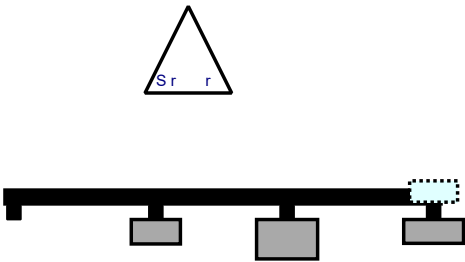
S r: A  
S r r T :G d  
M E : 150.00

7/23/2025

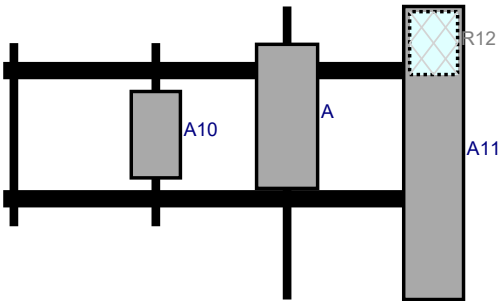


P : 1

Plan View



Front View - L S r r



4 3 2 1

| R # | M d             | H<br>( ) | Wd<br>( ) | H D<br>Fr L. | P<br># | P<br>P V | A<br>P | C. A<br>Fr T. | A<br>H O | S     | V d        |
|-----|-----------------|----------|-----------|--------------|--------|----------|--------|---------------|----------|-------|------------|
| A11 | NNSS-65C-HG-R2B | 6        | 1.6       | 141          | 1      |          | Fr     | 4             | 0        | Add d |            |
| R12 | 44 0            | 20.6     | 15.7      | 141          | 1      |          | B d    | 12            | 0        | Add d | 07/0 /2025 |
| A   | AIR32 3         | 47.2     | 20        | 3            | 2      |          | Fr     | 36            | 0        | Add d |            |
| A10 | AIR641          | 2.3      | 16.1      | 50           | 3      |          | Fr     | 30            | 0        | Add d |            |

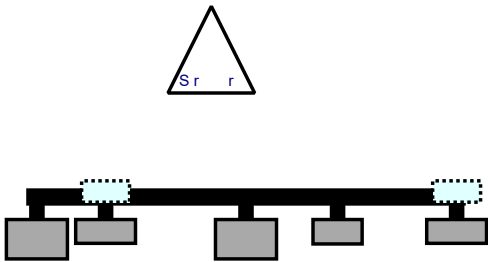
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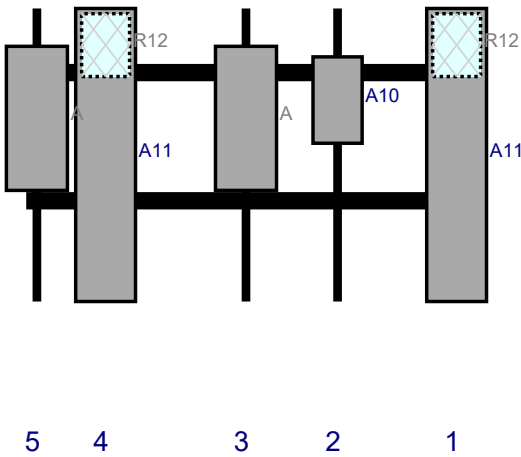


P : 2

Plan View



Front View - L S r r



| R # | M d             | H<br>( ) | Wd<br>( ) | H D<br>Fr L. | P<br># | P<br>P | A<br>V P | C. A<br>Fr T. | A<br>H O | S     | V d        |
|-----|-----------------|----------|-----------|--------------|--------|--------|----------|---------------|----------|-------|------------|
| A11 | NNSS-65C-HG-R2B | 6        | 1 .6      | 141          | 1      |        | Fr       | 4             | 0        | Add d |            |
| R12 | 44 0            | 20.6     | 15.7      | 141          | 1      |        | B d      | 12            | 0        | Add d | 07/0 /2025 |
| A10 | AIR641          | 2 .3     | 16.1      | 102          | 2      |        | Fr       | 30            | 0        | Add d |            |
| A   | AIR32 3         | 47.2     | 20        | 72           | 3      |        | Fr       | 36            | 0        | Add d |            |
| A11 | NNSS-65C-HG-R2B | 6        | 1 .6      | 26           | 4      |        | Fr       | 4             | 0        | Add d |            |
| R12 | 44 0            | 20.6     | 15.7      | 26           | 4      |        | B d      | 12            | 0        | Add d | 07/0 /2025 |
| A   | AIR32 3         | 47.2     | 20        | 3.5          | 5      |        | Fr       | 36            | 0        | Add d |            |

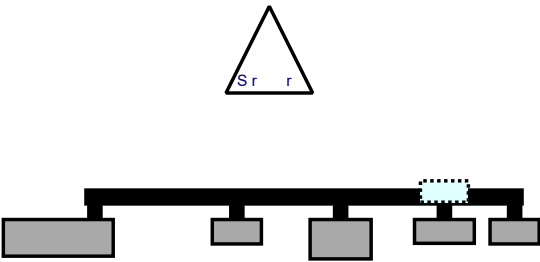
S r: C  
S r r T :G d  
M E : 150.00

7/23/2025

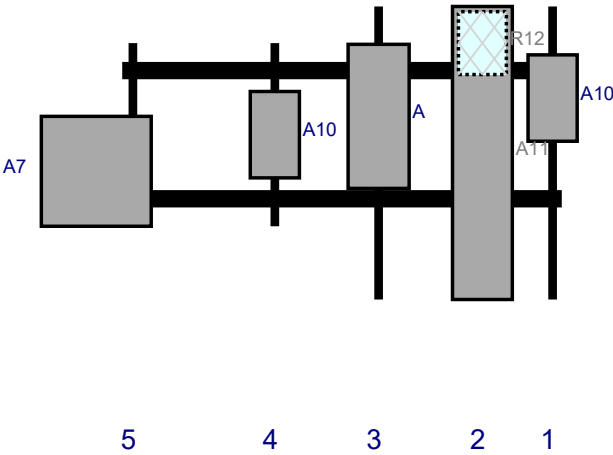


P : 3

Plan View



Front View - L S r r



| R # | M d             | H<br>( ) | Wd<br>( ) | HD<br>Fr L. | P<br># | P<br>P | A<br>V P | C.A<br>Fr T. | A<br>H O | S     | V d        |
|-----|-----------------|----------|-----------|-------------|--------|--------|----------|--------------|----------|-------|------------|
| A10 | AIR641          | 2 .3     | 16.1      | 141         | 1      |        | Fr       | 30           | 0        | Add d |            |
| A11 | NNSS-65C-HG-R2B | 6        | 1 .6      | 11          | 2      |        | Fr       | 4            | 0        | Add d |            |
| R12 | 44 0            | 20.6     | 15.7      | 11          | 2      |        | B d      | 12           | 0        | Add d | 07/0 /2025 |
| A   | AIR32 3         | 47.2     | 20        | 4           | 3      |        | Fr       | 36           | 0        | Add d |            |
| A10 | AIR641          | 2 .3     | 16.1      | 50          | 4      |        | Fr       | 30           | 0        | Add d |            |
| A7  | D               | 36       | 36        | 3.5         | 5      |        | Fr       | 42           | -12      | R d   | 07/0 /2025 |

# MOUNT MODIFICATION DRAWINGS

PROPOSED CARRIER: VERIZON

TOWER OWNER: CROWN CASTLE

TOWER OWNER SITE #: 846219

CARRIER SITE NUMBER: 5000078561-VZW

CARRIER SITE NAME: COMMERCE

COORDINATES (LATITUDE: 30.174008°, LONGITUDE: -82.680519°)

FUZE ID # 17500725

| Contractor PMI Requirements                                                  |            |                                                                 |           |
|------------------------------------------------------------------------------|------------|-----------------------------------------------------------------|-----------|
| PMI Accessed At                                                              |            | <a href="https://pmi.vzwsmart.com">https://pmi.vzwsmart.com</a> |           |
| Smart Tool Vendor Project Number                                             | 10311542   | Post MOD Analysis Report Project Number                         | 10311542  |
| VzW Location Code (PSLC)                                                     | 5000078561 | Report Dated                                                    | 7/23/2025 |
| *** PMI and Requirements embedded in Mount Analysis Report                   |            |                                                                 |           |
| VzW APPROVED SMART KIT VENDORS                                               |            |                                                                 |           |
| Refer to Mount Modification Drawings Page for VzW SMART KIT Approved Vendors |            |                                                                 |           |

| SHEET | SHEET TITLE                        | REV |
|-------|------------------------------------|-----|
| ST-1  | TITLE SHEET                        | 0   |
| SBOM  | BILL OF MATERIALS                  | 0   |
| SGN-1 | GENERAL NOTES                      | 0   |
| SCF-1 | CLIMBING FACILITY DETAILS          | 0   |
| SS-1  | ANTENNA MOUNT MODIFICATION DETAILS | 0   |
| SS-1A | ANTENNA MOUNT MODIFICATION DETAILS | 0   |
| SS-1B | ANTENNA MOUNT MODIFICATION DETAILS | 0   |
| SS-2  | STANDARD DETAILS                   | 0   |
| SS-3  | MOUNT PHOTOS                       | 0   |
| -     | SPECIFICATION SHEETS               |     |
|       |                                    |     |
|       |                                    |     |
|       |                                    |     |
|       |                                    |     |



TES JOB NO:  
10311542

CUSTOMER SITE NO:  
5000078561-VZW

CUSTOMER SITE NAME:  
COMMERCE

682 SW COMMERCE DR.  
LAKE CITY, FL 32025

JARRYD COLE TIBBETTS, P.E.  
TOWER ENGINEERING SOLUTIONS  
1320 GREENWAY DRIVE SUITE 600  
IRVING, TX 75038  
FL ENG. NO. 85109



|              |                    |
|--------------|--------------------|
| DRAWN BY: AW | CHECKED BY: SKB/FL |
|--------------|--------------------|

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SHEET TITLE:

TITLE SHEET

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ST-1

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| VzW Mount Modification Kits - Approved Vendors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>PerfectVision</b><br><b>Contact:</b> Wireless Sales<br><b>Email:</b> <a href="mailto:wirelessssales@perfect-vision.com">wirelessssales@perfect-vision.com</a><br><b>Phone Number:</b> 844.887.6723<br><br><b>Website:</b> <a href="http://www.perfect-vision.com">www.perfect-vision.com</a>                                                                                                                                                                                                                                                                                                                                          |  | <b>Metrosite Fabricators, LLC</b><br><b>Contact:</b> Kent Ramey<br><b>Email:</b> <a href="mailto:kent@metrositellc.com">kent@metrositellc.com</a><br><b>Phone Number:</b> (O) 706.335.7045<br>(M) 706.982.9788<br><br><b>Website:</b> <a href="http://metrositefabricators.com">metrositefabricators.com</a> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | <b>Sabre Industries Inc</b><br><b>Contact:</b> Angie Welch<br><b>Email:</b> <a href="mailto:akwelch@sabreindustries.com">akwelch@sabreindustries.com</a><br><b>Phone Number:</b> 866.428.6937<br><br><b>Website:</b> <a href="http://www.sabresitesolutions.com">www.sabresitesolutions.com</a>              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | <b>SitePro1</b><br><b>Contact:</b> Paula Boswell<br><b>Email:</b> <a href="mailto:paula.boswell@valmont.com">paula.boswell@valmont.com</a><br><b>Phone Number:</b> 972.236.9843<br><br><b>Website:</b> <a href="http://www.sitepro1.com">www.sitepro1.com</a>                                                |  |
| <b>CommScope</b><br><b>Contact:</b> Salvador Anguiano<br><b>Email:</b> <a href="mailto:Salvador.Anguiano@commscope.com">Salvador.Anguiano@commscope.com</a><br><b>Phone Number:</b> 817.304.7492<br><b>Website:</b> <a href="http://www.commscope.com">www.commscope.com</a>                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                              |  |
| <p>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 modification. All materials required for the designed modifications but not listed in this sheet are assumed to be provided by the contractor. All parts are galvanized unless noted otherwise.</p> |  |                                                                                                                                                                                                                                                                                                              |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |       |                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------|-------------------------------|
| <br><b>A CONGRUEX<sup>®</sup> COMPANY</b><br>1320 GREENWAY DRIVE, SUITE 600<br>IRVING, TX 75038<br>PH: (972) 483-0607                                                                                                                                                                                                                                                                                                                                                                                                           |                           |       |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |       |                               |
| TES JOB NO:<br><b>10311542</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |       |                               |
| CUSTOMER SITE NO:<br><b>5000078561-VZW</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |       |                               |
| CUSTOMER SITE NAME:<br><b>COMMERCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |       |                               |
| <b>682 SW COMMERCE DR.</b><br><b>LAKE CITY, FL 32025</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |       |                               |
| JARRYD COLE TIBBETTS, P.E.<br>TOWER ENGINEERING SOLUTIONS<br>1320 GREENWAY DRIVE SUITE 600<br>IRVING, TX 75038<br>FL ENG. NO. 95109                                                                                                                                                                                                                                                                                                                                                                                             |                           |       |                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |       |                               |
| DRAWN BY: <b>AW</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CHECKED BY: <b>SKB/FL</b> |       |                               |
| REV.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DESCRIPTION               | BY    | DATE                          |
| ①                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FIRST ISSUE               | AW    | 07/24/25                      |
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| SHEET TITLE:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |       |                               |
| <h1 style="margin: 0;">BILL OF MATERIALS</h1>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |       |                               |
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| <h1 style="margin: 0;">SBOM</h1>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |       | <h1 style="margin: 0;">0</h1> |

GENERAL NOTES

- ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-H, ANSI/ASSP A10.48, AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
- ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
- CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
- THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
- GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.
- TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
- IT IS THE RESPONSIBILITY OF THE GC TO VERIFY THAT THERE IS NO INTERFERENCES (WITH SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
- PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-**PMISUPPORT@TESTOWER.US**

FABRICATION

- ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
- ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINC KOTE GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

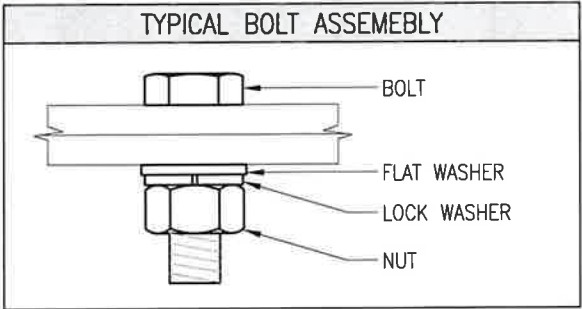
- ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
- PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
- ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
- WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINC KOTE GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

- ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
- FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
- SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
- THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
- FOR THREADED ROD CONNECTIONS, TRIM EXCESS THREADED ROD TO NO MORE THAN 3" PAST THE NUT AND COAT WITH ZINC KOTE GALVANIZING COMPOUND.

VERIFICATION AND INSPECTION

- IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2021 SECTION 1705.2 FOR STEEL CONSTRUCTION AND TABLE 1705.3 FOR CONCRETE CONSTRUCTION.



NOTES

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

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT  
CONDITION FOR TURN-OF-NUT PRETENSIONING<sup>a,b</sup>

| BOLT LENGTH <sup>f</sup>                                     | DISPOSITION OF OUTER FACE OF BOLTED PARTS |                                                                            |                                                                            |
|--------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
|                                                              | BOTH FACES NORMAL TO BOLT AXIS            | ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 <sup>d</sup> | BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS <sup>d</sup> |
| NOT MORE THAN 4d <sub>b</sub>                                | 1/3 TURN                                  | 1/2 TURN                                                                   | 2/3 TURN                                                                   |
| MORE THAN 4d <sub>b</sub> BUT NOT MORE THAN 8d <sub>b</sub>  | 1/2 TURN                                  | 2/3 TURN                                                                   | 5/6 TURN                                                                   |
| MORE THAN 8d <sub>b</sub> BUT NOT MORE THAN 12d <sub>b</sub> | 2/3 TURN                                  | 5/6 TURN                                                                   | 1 TURN                                                                     |

<sup>a</sup> NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

<sup>b</sup> APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

<sup>c</sup> WHEN THE BOLT LENGTH EXCEEDS 12d<sub>b</sub>, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

<sup>d</sup> BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004  
RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

| NOMINAL HOLE DIMENSIONS |               |                   |
|-------------------------|---------------|-------------------|
| BOLT DIAMETER           | STANDARD HOLE | SHORT SLOT        |
| 1/2"                    | 9/16"         | 9/16" X 11/16"    |
| 5/8"                    | 11/16"        | 11/16 X 7/8"      |
| 3/4"                    | 13/16"        | 13/16" X 1"       |
| 7/8"                    | 15/16"        | 15/16" X 1 1/8"   |
| 1"                      | 1 1/16"       | 1 1/16" X 1 5/16" |

| BOLT EDGE AND SPACING |          |         |
|-----------------------|----------|---------|
| BOLT DIAMETER         | MIN EDGE | SPACING |
| 1/2"                  | 7/8"     | 1 1/2"  |
| 5/8"                  | 1 1/8"   | 1 7/8"  |
| 3/4"                  | 1 1/4"   | 2 1/4"  |
| 7/8"                  | 1 1/2"   | 2 5/8"  |
| 1"                    | 1 3/4"   | 3"      |

The diagram shows a cross-section of a plate with two bolts. The minimum edge distance is labeled 'MIN. EDGE' and the spacing between bolts is labeled 'SPACING'.

| WORKABLE GAGES |        |
|----------------|--------|
| ANGLE SIZE     | GAGE   |
| 1 3/4"         | 1"     |
| 2"             | 1 1/8" |
| 2 1/2"         | 1 3/8" |
| 3"             | 1 3/4" |
| 3 1/2"         | 2"     |
| 4"             | 2 1/2" |

The diagram shows a gage being used to measure the angle size. The gage is labeled 'GAGE'.

| ALLOWABLE COPING |                                                                                    |
|------------------|------------------------------------------------------------------------------------|
| 1.5 X L (MAX)    | LIMIT OF ALLOWABLE COPED PORTION OF ANGLE WITHOUT ENGINEERS PRIOR WRITTEN APPROVAL |

The diagram shows the allowable coping for an angle. The maximum length of the coping is labeled '1.5 X L (MAX)'.

**TES**  
A **CONGRUEX** COMPANY  
1320 GREENWAY DRIVE, SUITE 600  
IRVING, TX 75038  
PH: (972) 483-0607

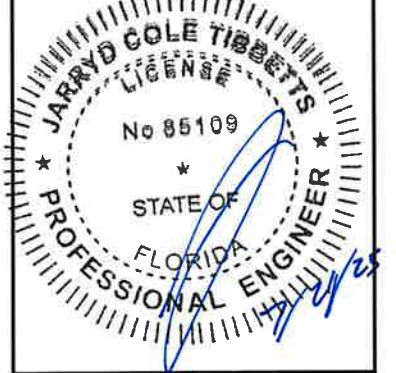
**verizon**

TES JOB NO:  
10311542

CUSTOMER SITE NO:  
5000078561-VZW  
CUSTOMER SITE NAME:  
COMMERCE

682 SW COMMERCE DR.  
LAKE CITY, FL 32025

JARRYD COLE TIBBETTS, P.E.  
TOWER ENGINEERING SOLUTIONS  
1320 GREENWAY DRIVE SUITE 600  
IRVING, TX 75038  
FL ENG NO. 85109



DRAWN BY: AW CHECKED BY: SKB/FL

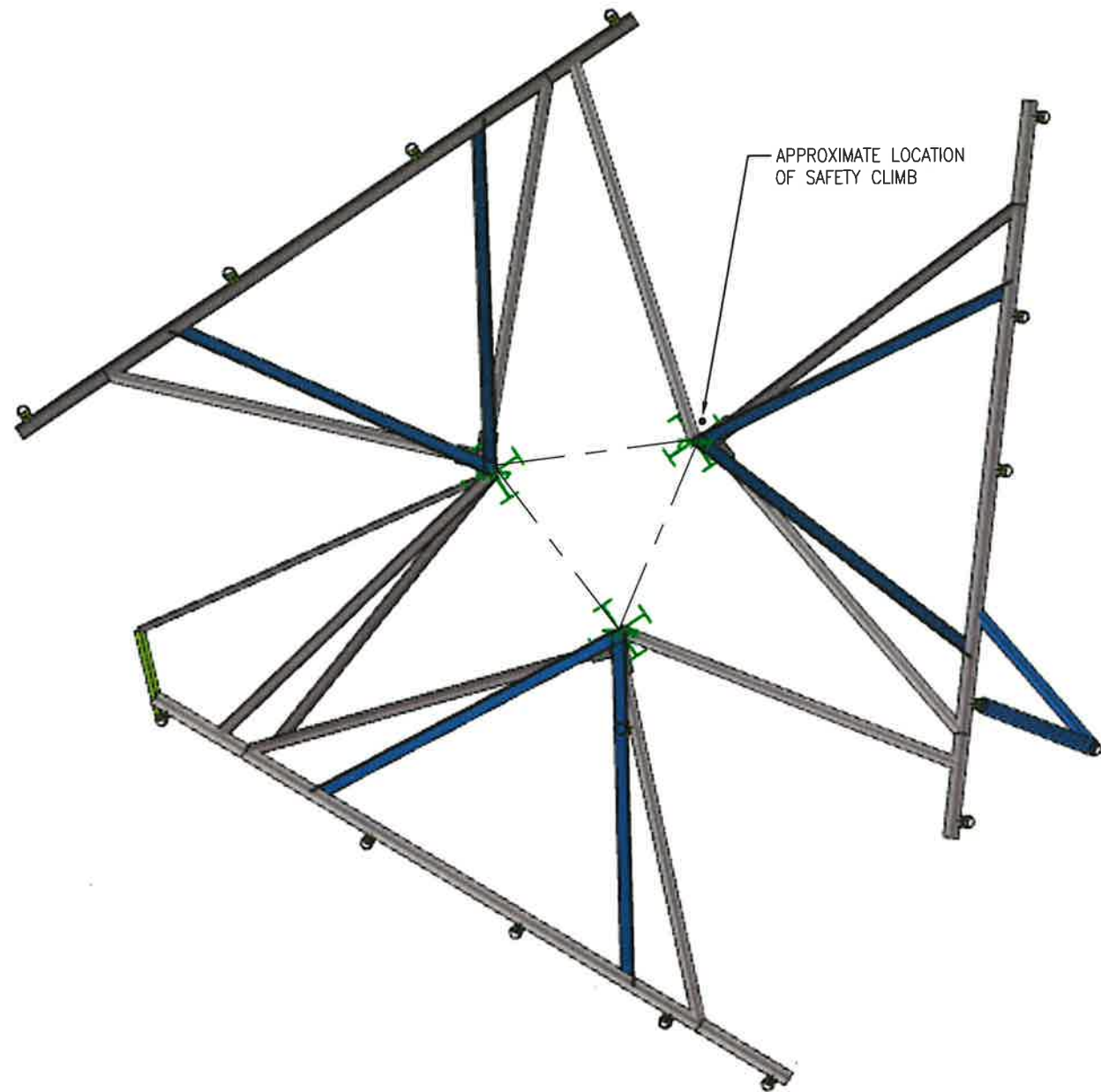
| REV. | DESCRIPTION | BY | DATE     |
|------|-------------|----|----------|
| 1    | FIRST ISSUE | AW | 07/24/25 |
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SHEET TITLE:

GENERAL NOTES

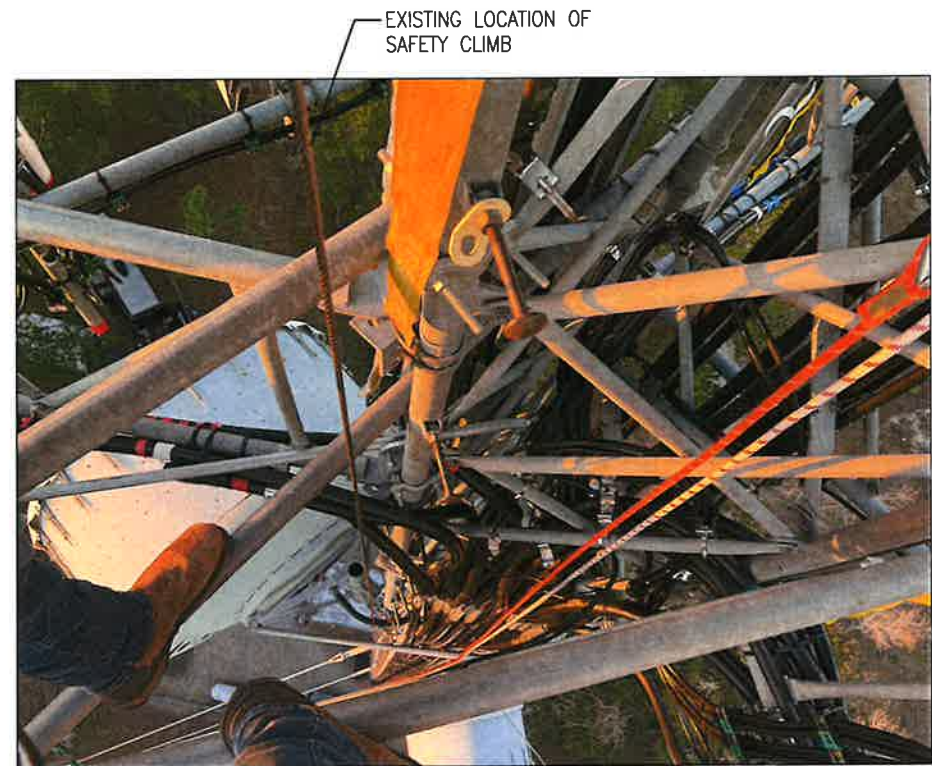
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SHEET NUMBER: SGN-1 REV #: 0



1 LOCATION OF SAFETY CLIMB  
SCF-1

NOTE:  
1. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB OR ANY SYSTEM INSTALLED ON THE STRUCTURE.

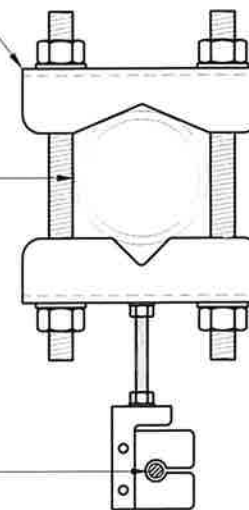


PICTURE OF SAFETY CLIMB

NEW VZSMART UNIVERSAL LEG CLAMP. SEE SHEETS SS-1 AND VZSMART-MSK9 FOR DETAILS

EXISTING TOWER LEG

EXISTING SAFETY CLIMB CABLE



2 DETAIL  
SCF-1

**TES**  
A CONGRUEX COMPANY  
1320 GREENWAY DRIVE, SUITE 600  
IRVING, TX 75038  
PH: (972) 483-0607

**verizon**

TES JOB NO:  
10311542

CUSTOMER SITE NO:  
5000078561-VZW  
CUSTOMER SITE NAME:  
COMMERCE

682 SW COMMERCE DR.  
LAKE CITY, FL 32025

JARRYD COLE TIBBETTS, P.E.  
TOWER ENGINEERING SOLUTIONS  
1320 GREENWAY DRIVE SUITE 600  
IRVING, TX 75038



DRAWN BY: AW CHECKED BY: SKB/FL

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SHEET TITLE:

CLIMBING FACILITY  
DETAILS

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SHEET NUMBER: SCF-1  
REV #: 0

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**IMPORTANT NOTE:**  
CONTRACTOR TO VERIFY AND CONFIRM THAT VERIZON'S OVERALL TIP TO TIP VERTICAL SPACE CONFIGURATION (EQUIPMENT AND STEEL COMBINED) DOES NOT EXCEED A MAXIMUM OF 10'-0". IF A SITE'S EXISTING, OR PROPOSED, CONFIGURATION EXCEEDS AND VIOLATES THE ALLOWED 10'-0" VERTICAL SPACE, CONTRACTOR MUST REACH OUT TO EOR IMMEDIATELY FOR A SOLUTION ON HOW TO CORRECT THE ISSUE BEFORE LEAVING THE SITE.



ISOMETRIC VIEW  
1  
SS-1 EXISTING ANTENNA MOUNT @ 150.50' ELEV.  
(MODIFICATION IS TYPICAL FOR ALPHA SECTOR ONLY)

| MOUNT MODIFICATION SCHEDULE |                                                   |                      |
|-----------------------------|---------------------------------------------------|----------------------|
| SL. NO.                     | MOUNT MODIFICATION DESCRIPTION                    | REFERENCE SHEET NO.  |
| 1                           | INSTALL NEW VZWSMART V-BRACING KIT FOR SMALL LEGS | VZWSMART-SFK3-SL     |
| 2                           | INSTALL NEW VZWSMART UNIVERSAL LEG CLAMP          | VZWSMART-MSK9, SCF-1 |

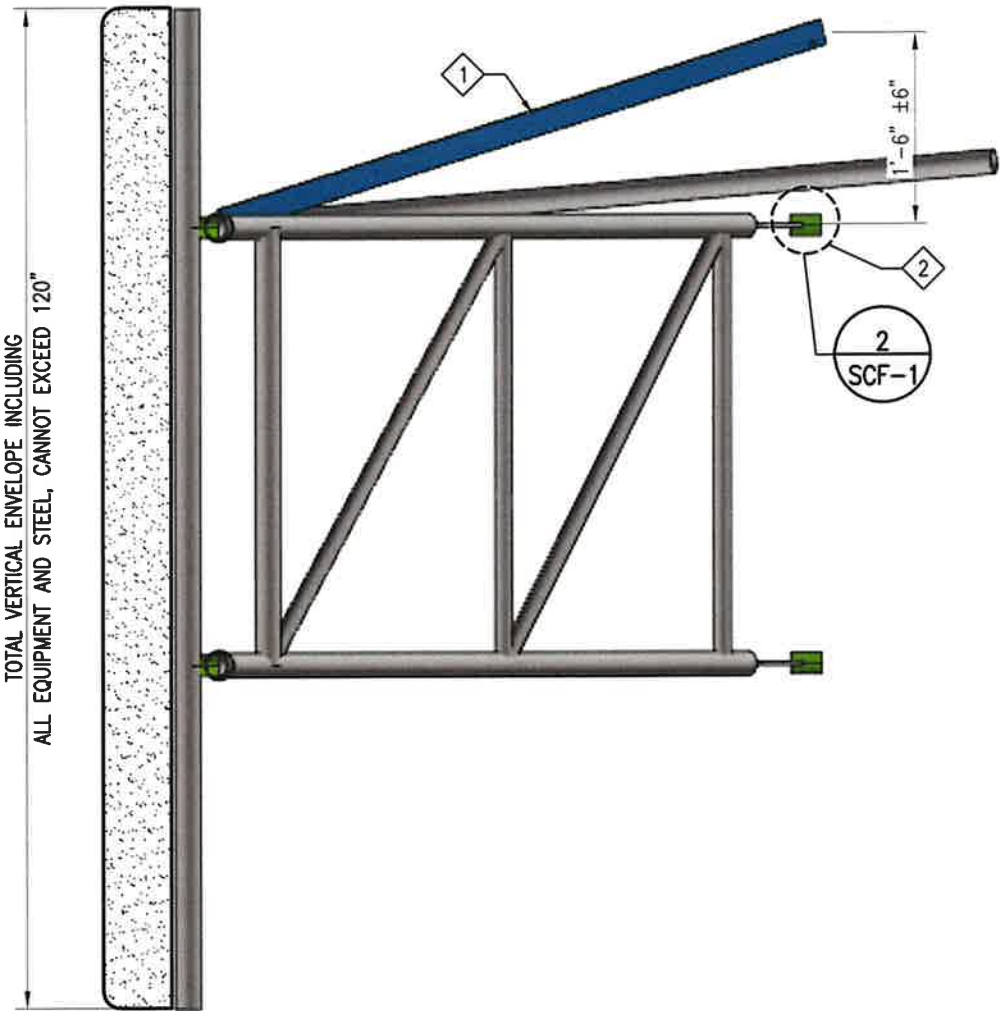
FIELD CUTTING AND FIELD DRILLING MAY BE NECESSARY TO ACHIEVE THE REQUIRED DIMENSIONS

FOR THREADED ROD CONNECTIONS, TRIM EXCESS THREADED ROD TO NO MORE THAN 3" PAST THE NUT AND COAT WITH ZINC KOTE GALVANIZING COMPOUND.

IF EXISTING TOWER IS PAINTED, CONTRACTOR TO VERIFY WITH TOWER OWNER IF NEW MODIFICATION MEMBERS ARE TO BE PAINTED TO MATCH EXISTING TOWER COLOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.

MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS AND MEMBERS IN AQUA COLOR (IF SHOWN) ARE RELOCATED MEMBERS



2  
SS-1 SIDE VIEW

**TES**  
A CONGRUEX COMPANY  
1320 GREENWAY DRIVE, SUITE 600  
IRVING, TX 75038  
PH: (972) 483-0607

**verizon**

TES JOB NO:  
10311542  
CUSTOMER SITE NO:  
5000078561-VZW  
CUSTOMER SITE NAME:  
COMMERCE  
682 SW COMMERCE DR.  
LAKE CITY, FL 32025



DRAWN BY: AW CHECKED BY: SKB/FL

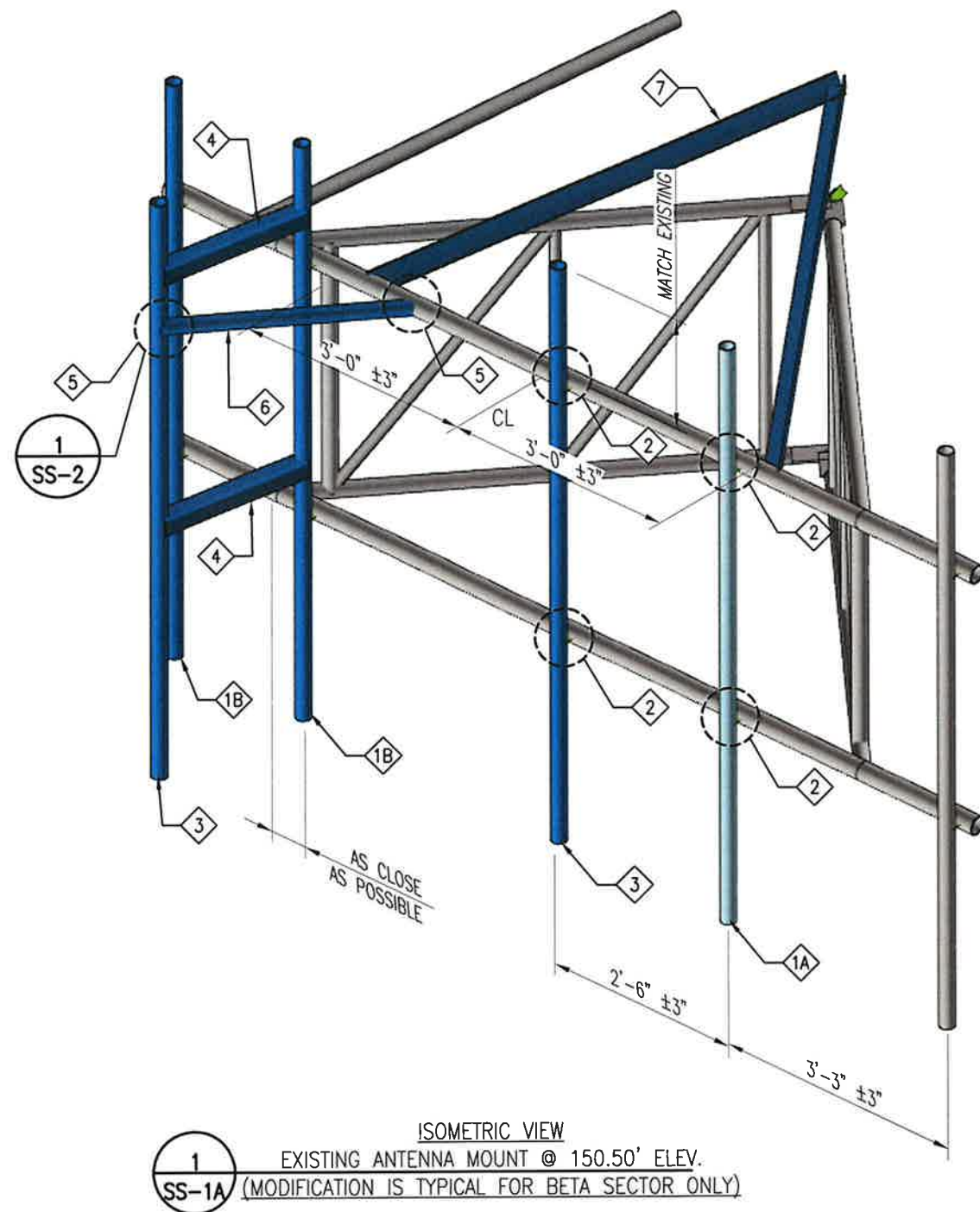
| REV. | DESCRIPTION | BY | DATE     |
|------|-------------|----|----------|
| 0    | FIRST ISSUE | AW | 07/24/25 |
| 1    |             |    |          |
| 2    |             |    |          |
| 3    |             |    |          |
| 4    |             |    |          |
| 5    |             |    |          |
| 6    |             |    |          |

SHEET TITLE:  
  
ANTENNA MOUNT  
MODIFICATION DETAILS

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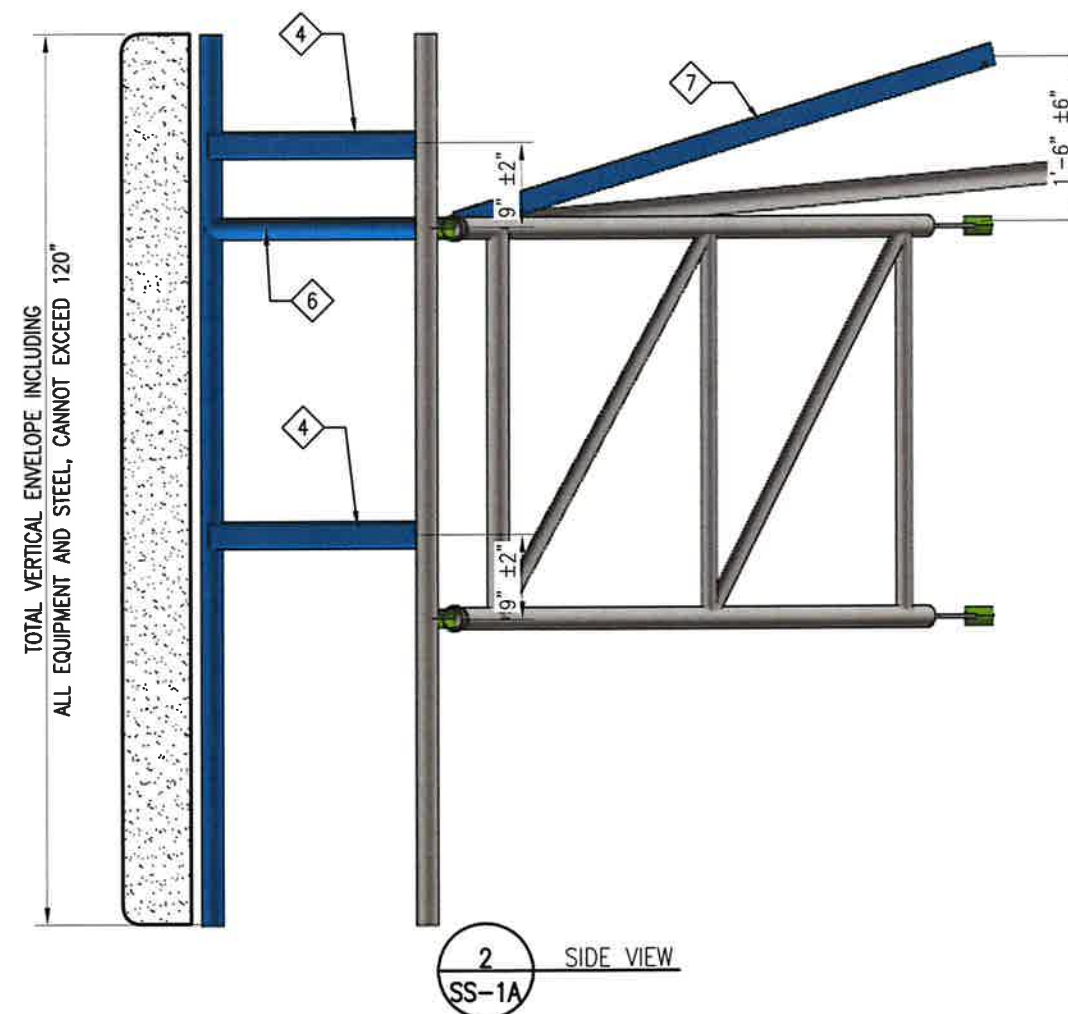
SHEET NUMBER:  
SS-1  
REV #:  
0

CONTRACTOR TO VERIFY AND CONFIRM THAT VERIZON'S OVERALL TIP TO TIP VERTICAL SPACE CONFIGURATION (EQUIPMENT AND STEEL COMBINED) DOES NOT EXCEED A MAXIMUM OF 10'-0". IF A SITE'S EXISTING, OR PROPOSED, CONFIGURATION EXCEEDS AND VIOLATES THE ALLOWED 10'-0" VERTICAL SPACE, CONTRACTOR MUST REACH OUT TO EOR IMMEDIATELY FOR A SOLUTION ON HOW TO CORRECT THE ISSUE BEFORE LEAVING THE SITE.



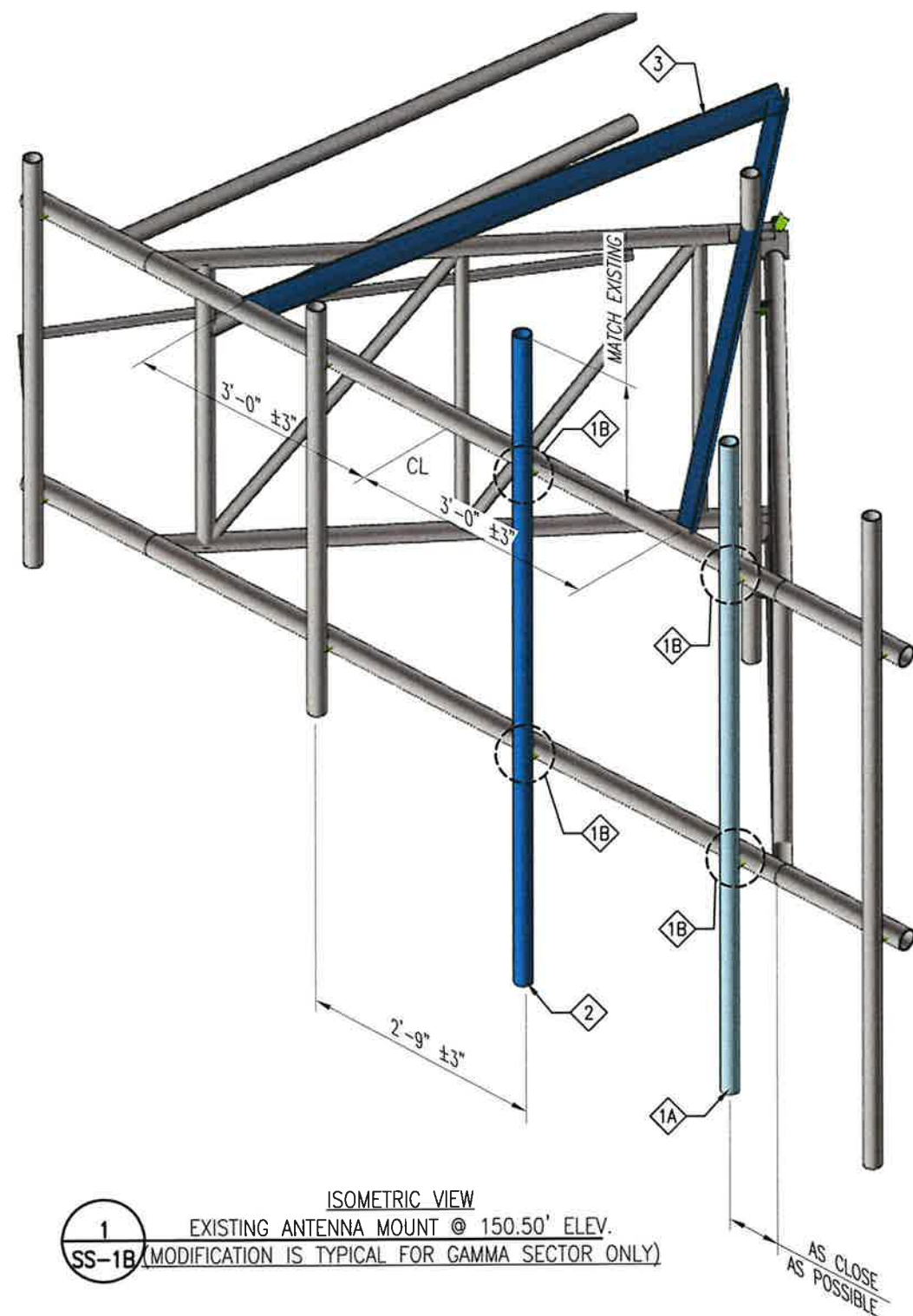
| SL. NO. | MOUNT MODIFICATION DESCRIPTION                                                                                                                                                  | REFERENCE SHEET NO. |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1       | A. RELOCATE EXISTING ANTENNA MOUNT (AQUA COLOR) AS SHOWN<br><br>B. REPLACE EXISTING ANTENNA MOUNT PIPE WITH NEW ANTENNA MOUNT PIPE 2 SCHE40 (2.375" OD X 0.154" THK) x 96" LONG | VZWSMART-PIPE       |
| 2       | INSTALL NEW VZWSMART CROSSOVER PLATE KIT                                                                                                                                        | VZWSMART-MSK1       |
| 3       | INSTALL NEW ANTENNA MOUNT PIPE 2 SCHE40 (2.375" OD X 0.154" THK) x 96" LONG                                                                                                     | VZWSMART-PIPE       |
| 4       | INSTALL NEW SITE PRO 24" UNIVERSAL STANDOFF PIPE-TO-PIPE KIT                                                                                                                    | SOPTP24-U           |
| 5       | INSTALL NEW VZWSMART UNIVERSAL ADJUSTABLE CROSSOVER                                                                                                                             | VZWSMART-MSK14      |
| 6       | INSTALL NEW TIE BACK PIPE 2 SCHE40 (2.375" OD X 0.154" THK) x 72" LONG                                                                                                          | VZWSMART-PIPE       |
| 7       | INSTALL NEW VZWSMART V-BRACING KIT FOR SMALL LEGS                                                                                                                               | VZWSMART-SFK3-SL    |

MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS AND MEMBERS IN AQUA COLOR (IF SHOWN) ARE RELOCATED MEMBERS



|       |   |
|-------|---|
| SS-1A | 0 |
|-------|---|

CONTRACTOR TO VERIFY AND CONFIRM THAT VERIZON'S OVERALL TIP TO TIP VERTICAL SPACE CONFIGURATION (EQUIPMENT AND STEEL COMBINED) DOES NOT EXCEED A MAXIMUM OF 10'-0". IF A SITE'S EXISTING, OR PROPOSED, CONFIGURATION EXCEEDS AND VIOLATES THE ALLOWED 10'-0" VERTICAL SPACE, CONTRACTOR MUST REACH OUT TO EOR IMMEDIATELY FOR A SOLUTION ON HOW TO CORRECT THE ISSUE BEFORE LEAVING THE SITE.



ISOMETRIC VIEW  
EXISTING ANTENNA MOUNT @ 150.50' ELEV.  
SS-1B (MODIFICATION IS TYPICAL FOR GAMMA SECTOR ONLY)

| <b><u>MOUNT MODIFICATION SCHEDULE</u></b> |                                                                             |                            |
|-------------------------------------------|-----------------------------------------------------------------------------|----------------------------|
| <b>SL. NO.</b>                            | <b>MOUNT MODIFICATION DESCRIPTION</b>                                       | <b>REFERENCE SHEET NO.</b> |
| <b>1</b>                                  | A. RELOCATE EXISTING ANTENNA MOUNT (AQUA COLOR) AS SHOWN                    | <b>VZWSMART-MSK1</b>       |
|                                           | B. INSTALL NEW VZWSMART CROSSOVER PLATE KIT                                 |                            |
| <b>2</b>                                  | INSTALL NEW ANTENNA MOUNT PIPE 2 SCHE40 (2.375" OD X 0.154" THK) x 96" LONG | <b>VZWSMART-PIPE</b>       |
| <b>3</b>                                  | INSTALL NEW VZWSMART V-BRACING KIT FOR SMALL LEGS                           | <b>VZWSMART-SFK3-SL</b>    |

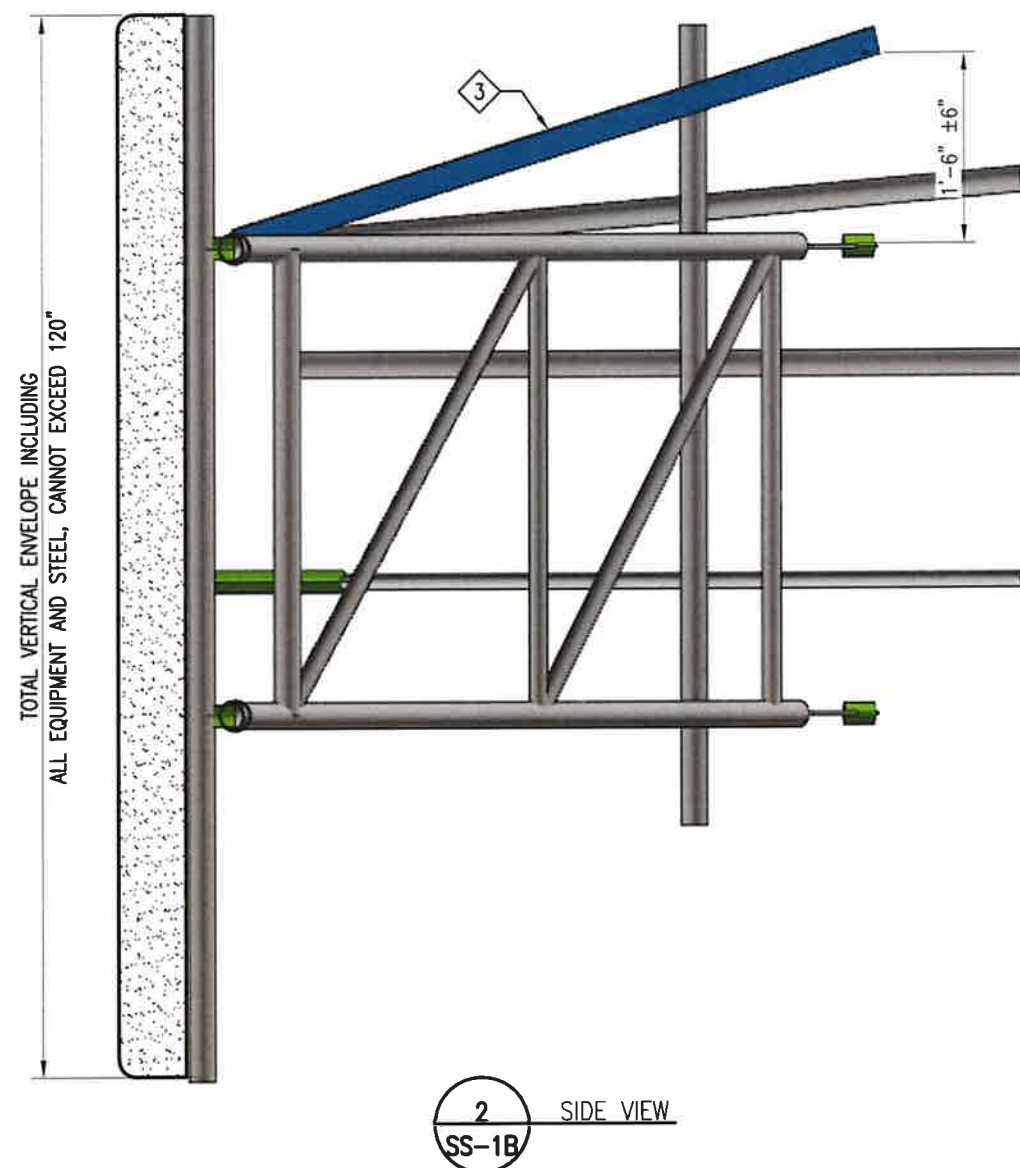
FIELD CUTTING AND FIELD DRILLING MAY BE NECESSARY TO ACHIEVE THE REQUIRED DIMENSIONS

FOR THREADED ROD CONNECTIONS, TRIM EXCESS THREADED ROD TO NO MORE THAN 3" PAST THE NUT AND COAT WITH ZINC KOTE GALVANIZING COMPOUND.

IF EXISTING TOWER IS PAINTED, CONTRACTOR TO VERIFY WITH TOWER OWNER IF NEW MODIFICATION MEMBERS ARE TO BE PAINTED TO MATCH EXISTING TOWER COLOR.

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**MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS AND MEMBERS IN AQUA COLOR (IF SHOWN) ARE RELOCATED MEMBERS**

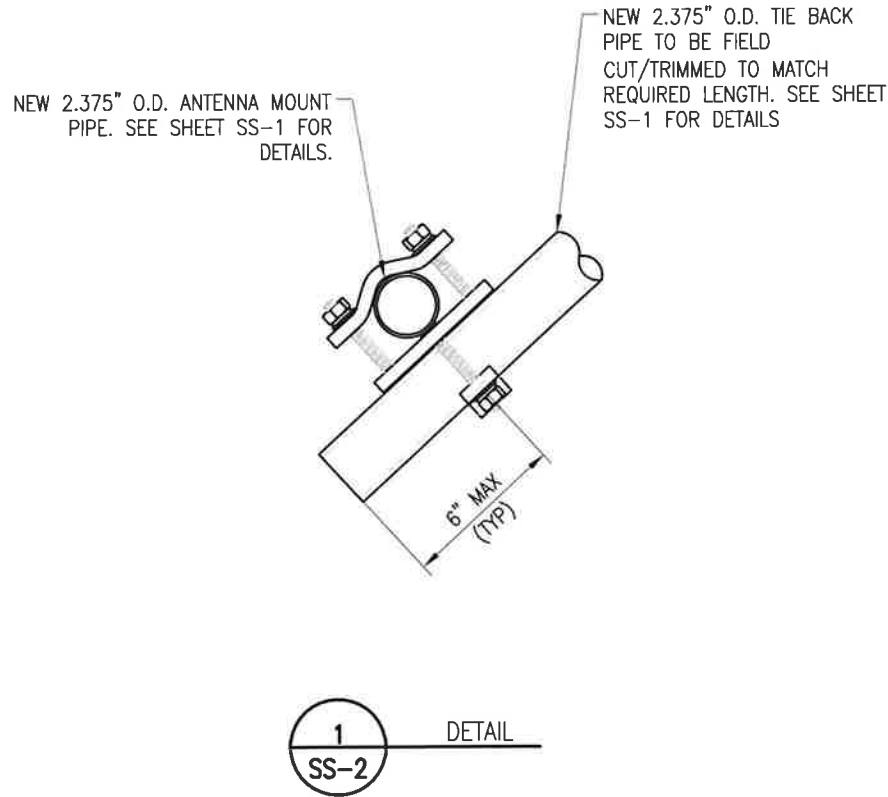


2 SIDE VIEW  
SS-1B



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- NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
  2. ALL HOLES ARE 11/16" DIA. U.N.O



**TES**  
A **CONGRUEX** COMPANY  
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IRVING, TX 75038  
PH: (972) 483-0607

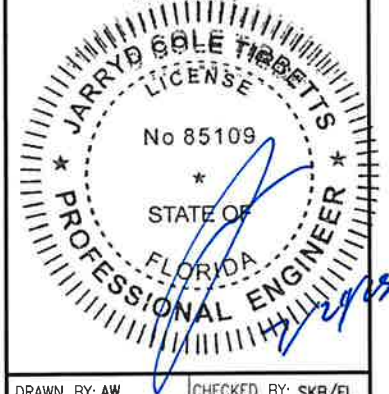
**verizon**

TES JOB NO:  
10311542

CUSTOMER SITE NO:  
5000078561-VZW  
CUSTOMER SITE NAME:  
COMMERCE

682 SW COMMERCE DR.  
LAKE CITY, FL 32025

JARRYD COLE TIBBETTS, P.E.  
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1320 GREENWAY DRIVE SUITE 600  
IRVING, TX 75038  
FL ENG. NO. 85109



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SHEET NUMBER: SS-2 REV #: 0

NOTE:  
EXISTING RRUS/EQUIPMENT MAY BE RELOCATED  
ALONG THE MEMBER TO ACCOMMODATE THE  
INSTALLATION OF NEW MOUNT MODIFICATION

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A CONGRUEX COMPANY  
1320 GREENWAY DRIVE, SUITE 600  
IRVING, TX 75038  
PH: (972) 483-0607

**verizon**

TES JOB NO:  
10311542

CUSTOMER SITE NO:  
5000078561-VZW  
CUSTOMER SITE NAME:  
COMMERCE

682 SW COMMERCE DR.  
LAKE CITY, FL 32025

JARRYD COLE TIBBETTS, P.E.  
TOWER ENGINEERING SOLUTIONS  
1320 GREENWAY DRIVE SUITE 600  
IRVING, TX 75038  
FL ENG. NO. 85109



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SHEET TITLE:

MOUNT PHOTOS

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SHEET NUMBER: SS-3 REV #: 0



EXISTING ANTENNA MOUNT  
@ 150.50' ELEV

PHOTO 1

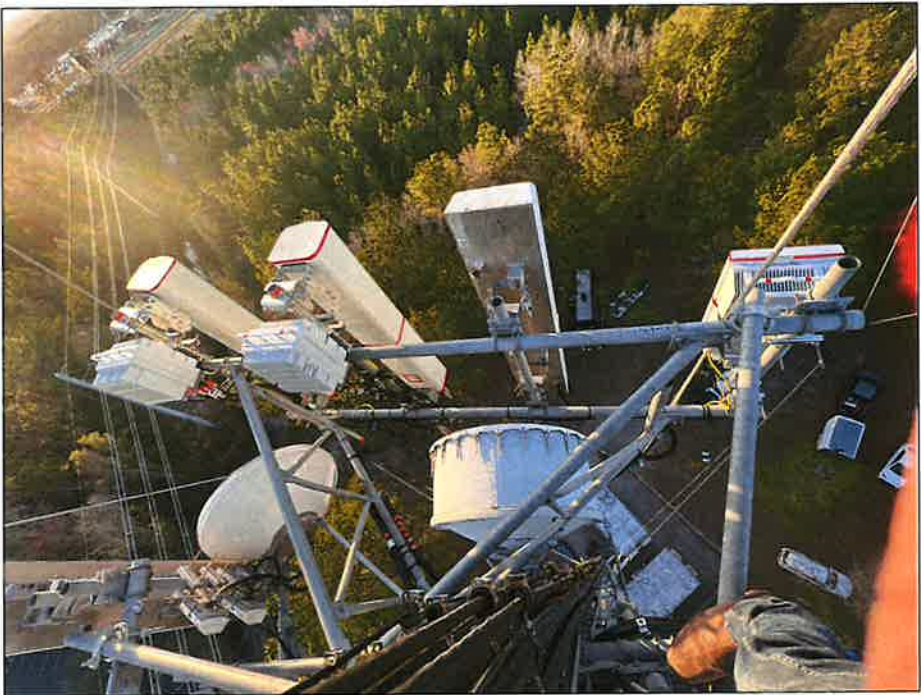


PHOTO 2



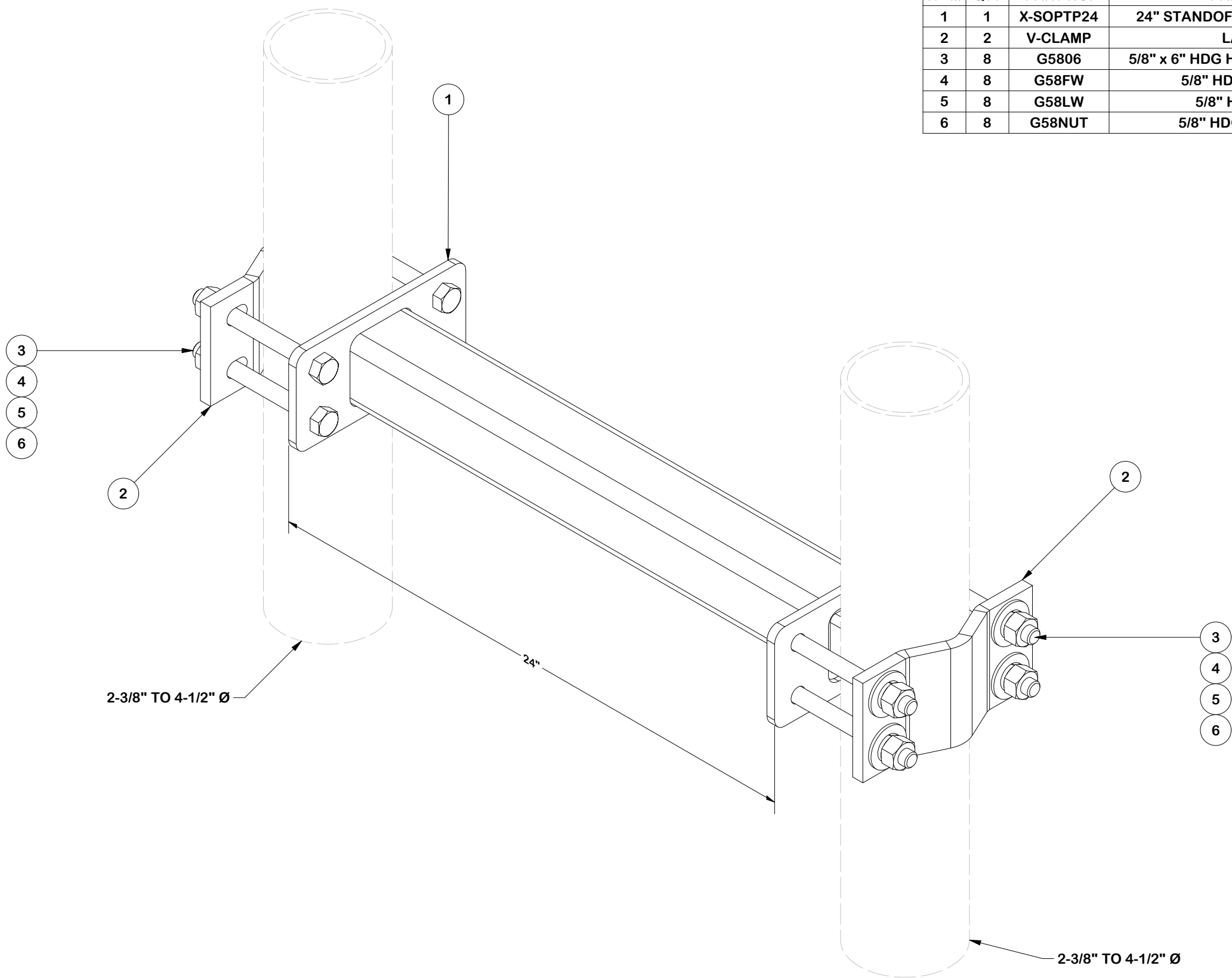
PHOTO 3



PHOTO 4

THE FOLLOWING DRAWINGS ARE INCLUDED FOR REFERENCE ONLY  
PLEASE REFER TO THE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION DETAILS

| PARTS LIST |     |           |                                        |            |             |         |
|------------|-----|-----------|----------------------------------------|------------|-------------|---------|
| ITEM       | QTY | PART NO.  | PART DESCRIPTION                       | LENGTH     | UNIT WT.    | NET WT. |
| 1          | 1   | X-SOFTP24 | 24" STANDOFF PIPE-TO-PIPE WELDMENT     |            | 23.99       | 23.99   |
| 2          | 2   | V-CLAMP   | LARGE V-CLAMP                          | 8 21/32 in | 5.55        | 11.09   |
| 3          | 8   | G5806     | 5/8" x 6" HDG HEX BOLT GR5 FULL THREAD | 6 in       | 0.62        | 4.94    |
| 4          | 8   | G58FW     | 5/8" HDG USS FLATWASHER                | 1/8 in     | 0.07        | 0.56    |
| 5          | 8   | G58LW     | 5/8" HDG LOCKWASHER                    |            | 0.03        | 0.21    |
| 6          | 8   | G58NUT    | 5/8" HDG HEAVY 2H HEX NUT              |            | 0.13        | 1.04    |
|            |     |           |                                        |            | TOTAL WT. # | 44.35   |



FINISH:  
HOT DIP GALVANIZED.

TOLERANCE NOTES

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

PROPRIETARY NOTE:  
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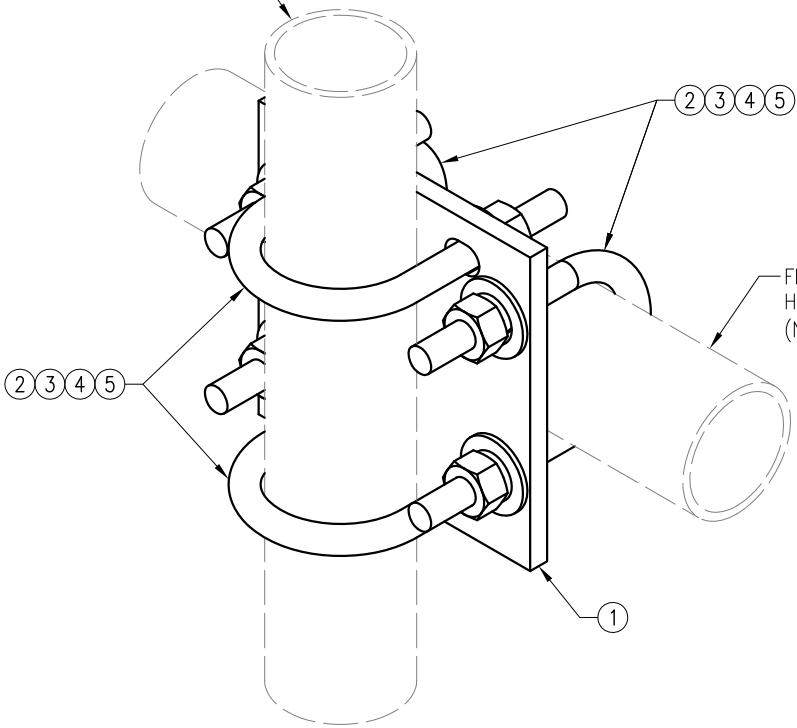
|                                         |  |  |
|-----------------------------------------|--|--|
| DESCRIPTION                             |  |  |
| 24" UNIVERSAL STANDOFF PIPE-TO-PIPE KIT |  |  |

|                |           |                           |  |                             |  |
|----------------|-----------|---------------------------|--|-----------------------------|--|
| CPD NO.<br>NCS |           | DRAWN BY<br>SDR 8/20/2024 |  | ENG. APPROVAL<br>11/5/2024  |  |
| CLASS<br>87    | SUB<br>02 | DRAWING USAGE<br>CUSTOMER |  | CHECKED BY<br>JET 11/5/2024 |  |

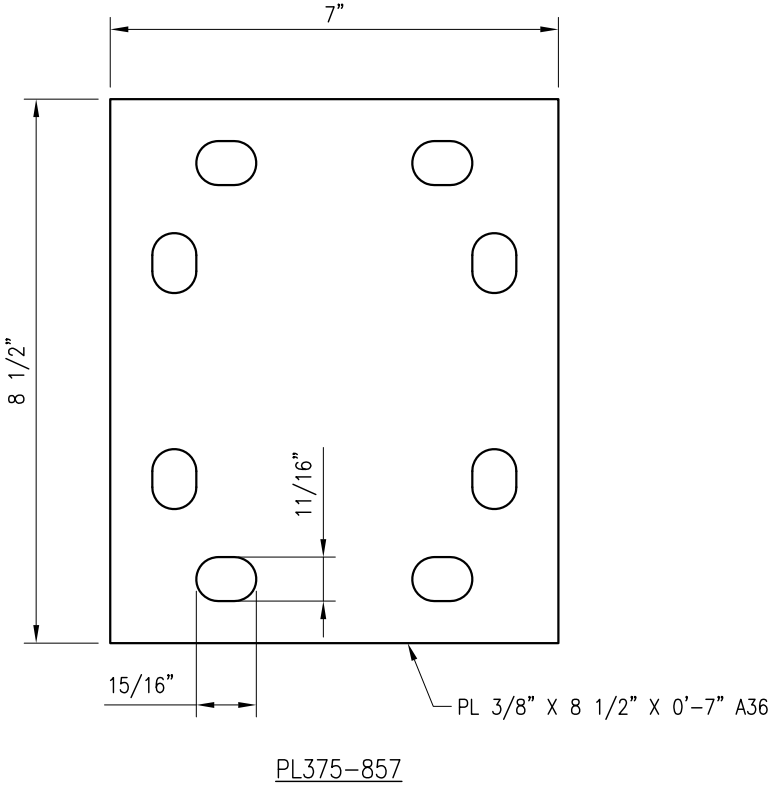
|                                                              |  |                                             |  |
|--------------------------------------------------------------|--|---------------------------------------------|--|
| <div><div>SITE PRO 1</div><div>A valmont COMPANY</div></div> |  | Engineering Support Team:<br>1-888-753-7446 |  |
| PART NO.<br>SOFTP24-U                                        |  |                                             |  |
| DWG. NO.<br>SOFTP24-U                                        |  |                                             |  |



FITS 2.375" O.D. AND 2.875" O.D.  
VERTICAL PIPE.  
(NOT INCLUDED IN THIS KIT)



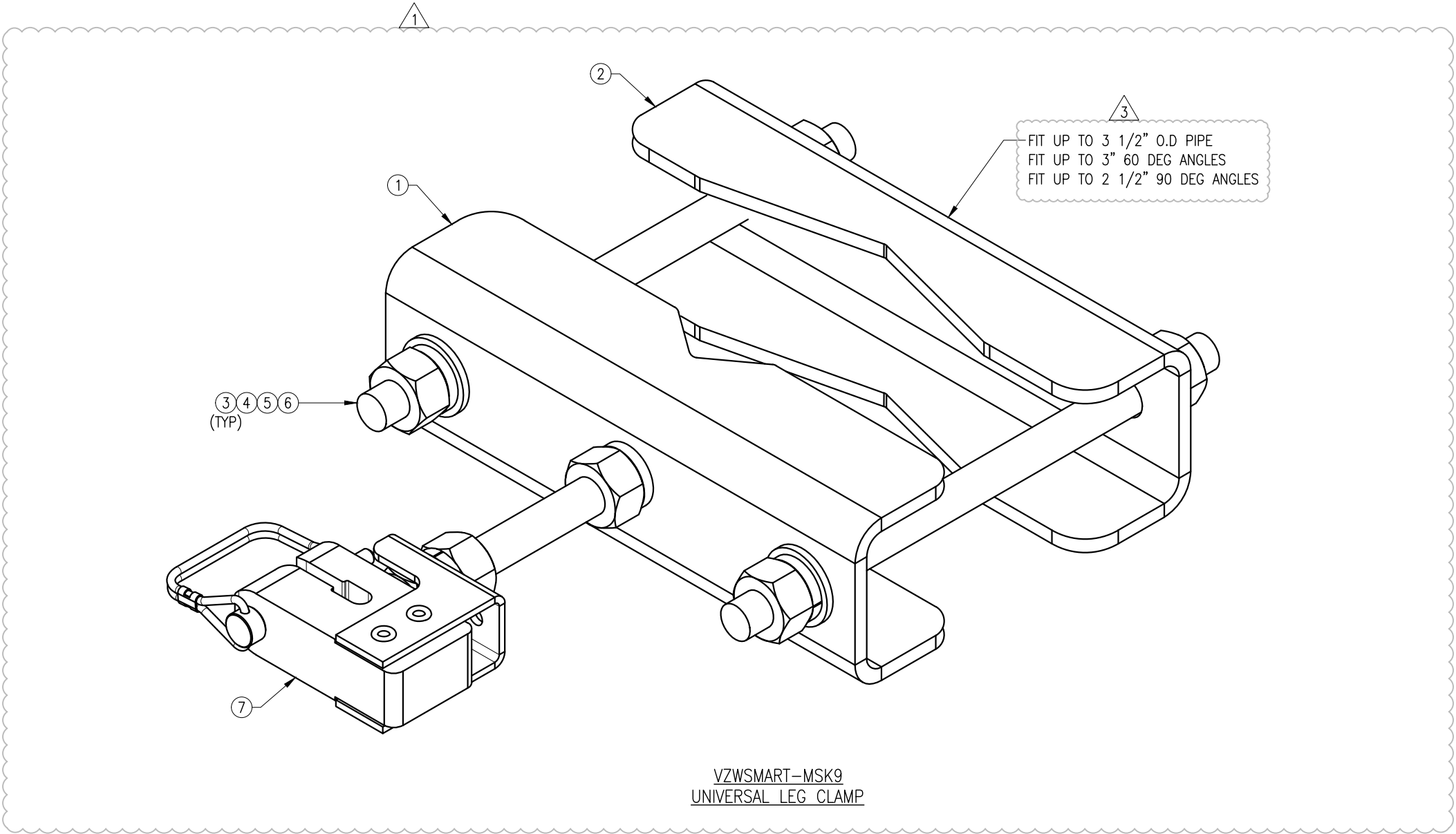
FITS 2.375" O.D. AND 2.875" O.D.  
HORIZONTAL PIPE.  
(NOT INCLUDED IN THIS KIT)



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

| 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 |

|                                  |             |                 |          |
|----------------------------------|-------------|-----------------|----------|
| DRAWN BY: H.R                    |             | CHECKED BY: HMA |          |
| REV.                             | DESCRIPTION | BY              | DATE     |
| 0                                | FIRST ISSUE | H.R             | 05/08/20 |
| 1                                |             |                 |          |
| 2                                |             |                 |          |
| 3                                |             |                 |          |
| 4                                |             |                 |          |
| SHEET TITLE:                     |             |                 |          |
| VZWSMART-MSK1<br>CROSSOVER PLATE |             |                 |          |
| SHEET NUMBER:                    |             | REV #:          |          |
| VZWSMART-MSK1                    |             | 0               |          |

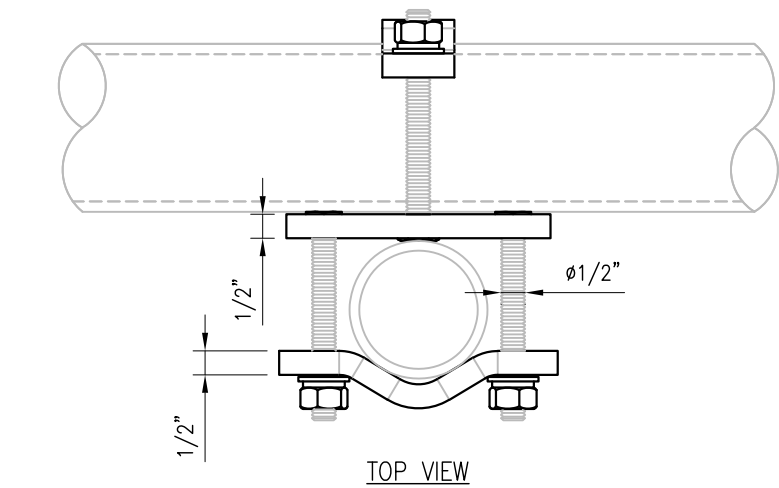


VZWSMART-MSK9  
UNIVERSAL LEG CLAMP

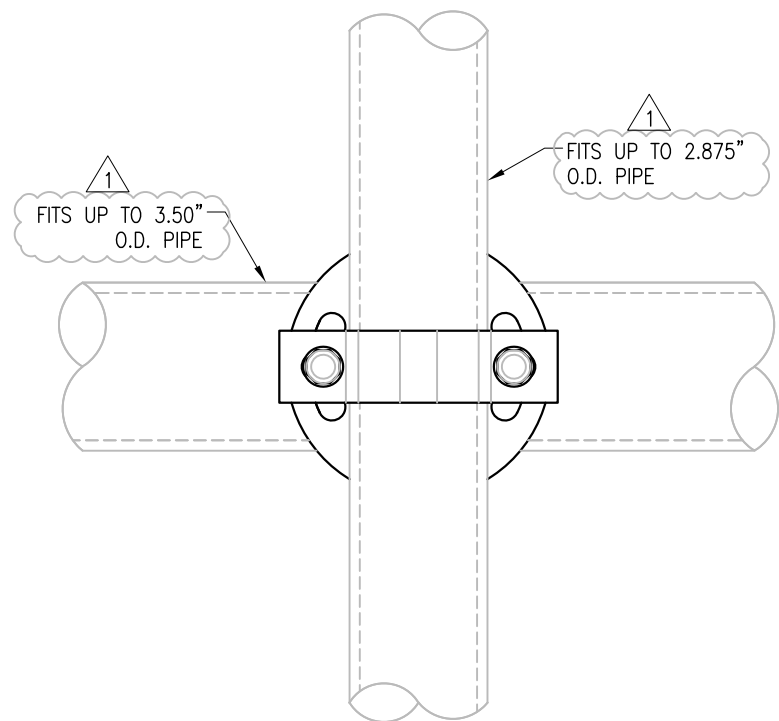
| VZWSMART-MSK9 (UNIVERSAL LEG CLAMP) |      |                |                                                         |               |    |
|-------------------------------------|------|----------------|---------------------------------------------------------|---------------|----|
| ITEM NO.                            | QTY. | PART NO.       | DESCRIPTION                                             | SHEET #       | WT |
| 1                                   | 1    | BP51875-625    | PL 3/16" X 5 3/16" X 6 1/4" A36 BENT PLATE              | MSK9-F1       | 2  |
| 2                                   | 1    | BP56875-625    | PL 3/16" X 5 11/16" X 6 1/4" A36 BENT PLATE             | MSK9-F2       | 2  |
| 3                                   | 2    | ---            | THREADED ROD 5/8" DIA. X 10" $F_y = 36\text{KSI HDG}$ 3 | ---           | -- |
| 4                                   | 4    | FW-625         | 5/8" HDG USS FLAT WASHER                                | ---           | 0  |
| 5                                   | 4    | LW-625         | 5/8" HDG LOCK WASHER                                    | ---           | 0  |
| 6                                   | 4    | NUT-625        | 5/8" HDG HEX NUT                                        | ---           | 2  |
| 7                                   | 1    | VZWSMART-CG-SM | VZWSMART WIRE ROPE GUIDE - STUD MOUNT                   | ---           | 1  |
|                                     |      |                |                                                         | GALVANIZED WT | 7  |

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

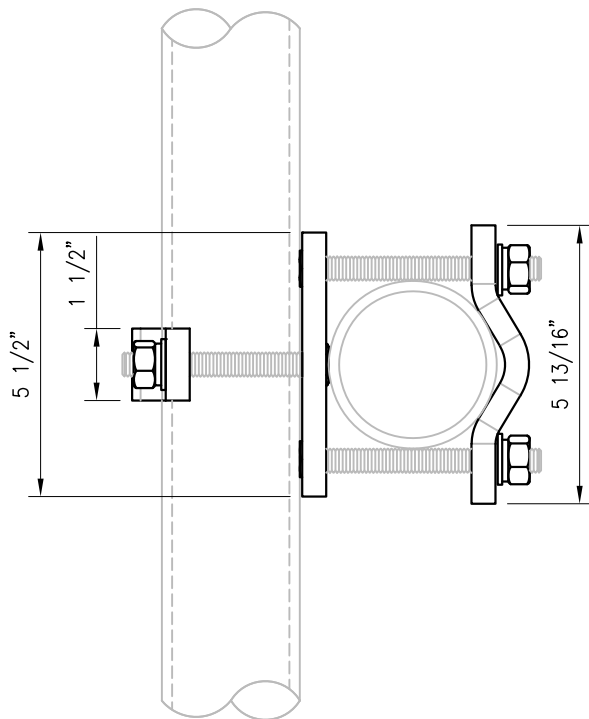
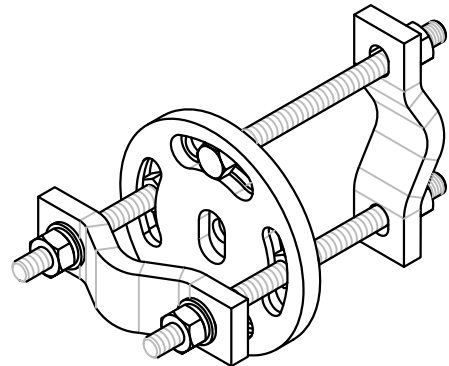
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| REV.                                 | DESCRIPTION | BY                | DATE     |
| 1                                    | FIRST ISSUE | FL                | 04/13/21 |
| 1                                    | REVISED     | BT                | 02/16/23 |
| 2                                    | REVISED     | SK                | 07/12/23 |
| 3                                    | REVISED     | RI                | 08/23/23 |
| SHEET TITLE:                         |             |                   |          |
| VZWSMART-MSK9<br>UNIVERSAL LEG CLAMP |             |                   |          |
| SHEET NUMBER:                        |             | REV #:            |          |
| VZWSMART-MSK9                        |             | 3                 |          |



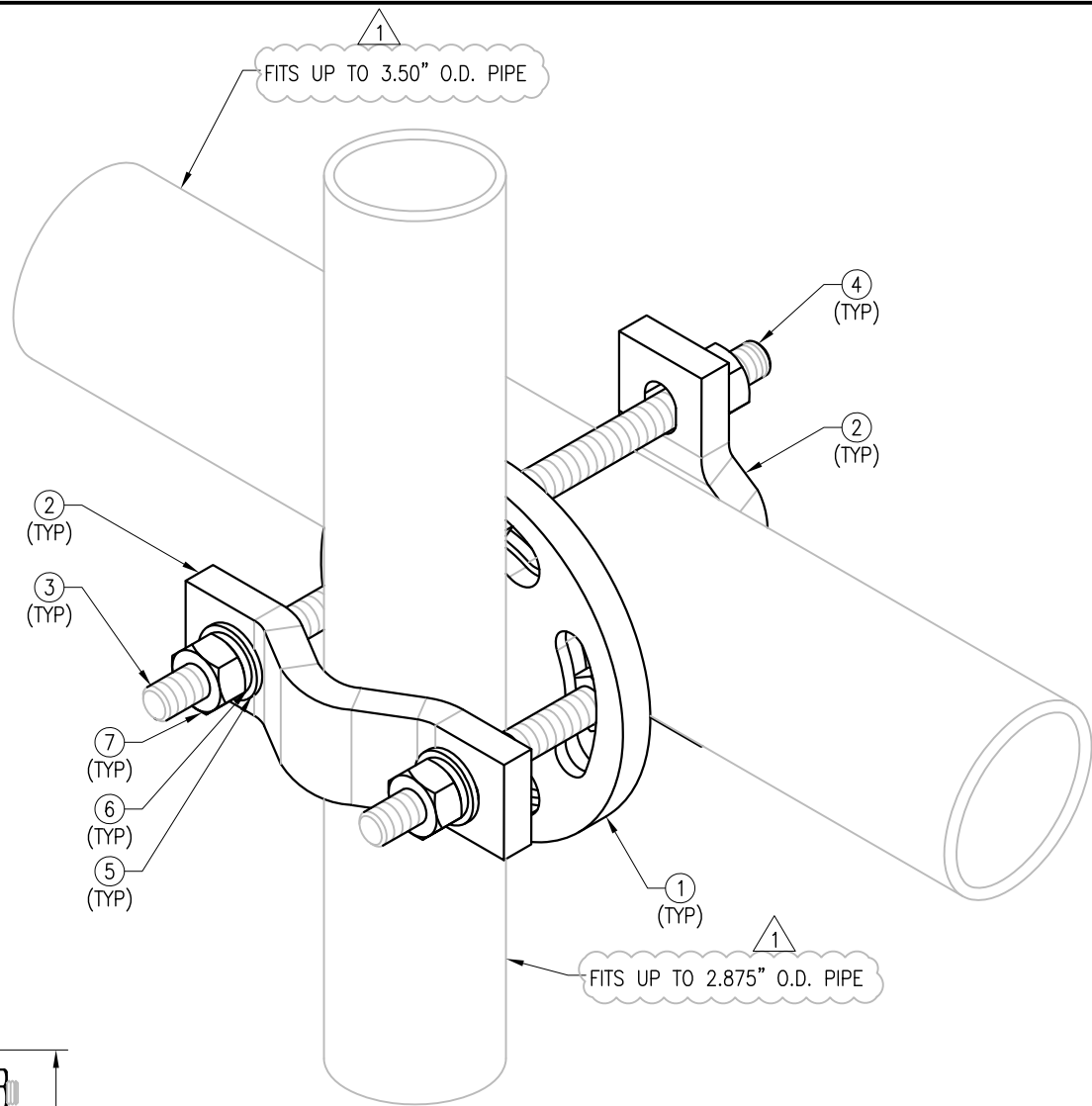
TOP VIEW



FRONT VIEW



SIDE VIEW



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

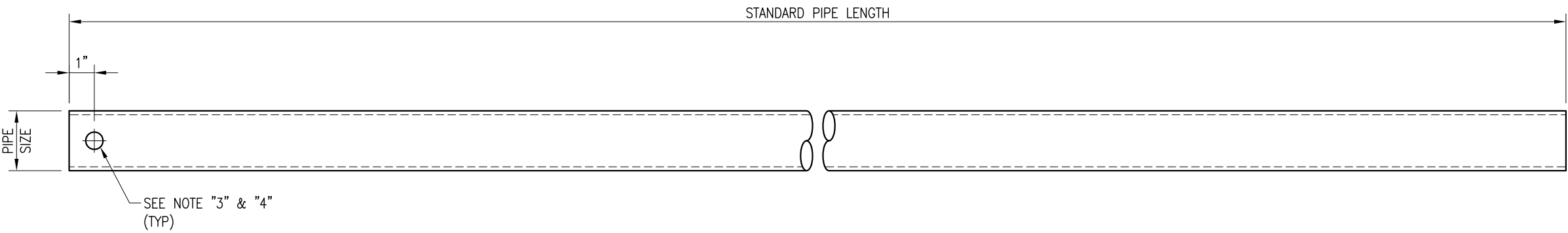
| VZWSMART-MSK14 (UNIVERSAL ADJUSTABLE CROSSOVER) |      |          |                                         |          |      |
|-------------------------------------------------|------|----------|-----------------------------------------|----------|------|
| ITEM NO.                                        | QTY. | PART NO. | DESCRIPTION                             | SHEET #  | WT   |
| 1                                               | 1    | CCC512   | CIRCULAR CROSSOVER CLAMP                | MSK14-F1 | 2.20 |
| 2                                               | 2    | SCP10    | SMALL DISH CLAMP HALF                   | MSK14-F2 | 2.40 |
| 3                                               | 2    | ---      | BOLT 1/2" X 4" FULL THREAD SAE GR-5     | ---      | 0.48 |
| 4                                               | 2    | ---      | BOLT 1/2" X 6 1/2" FULL THREAD SAE GR-5 | ---      | 0.72 |
| 5                                               | 4    | FW-500   | 1/2" HDG USS FLAT WASHER                | ---      | 0.08 |
| 6                                               | 4    | LW-500   | 1/2" HDG LOCK WASHER                    | ---      | 0.04 |
| 7                                               | 4    | NUT-500  | 1/2" HDG HEX NUT                        | ---      | 0.28 |
| GALVANIZED WT                                   |      |          |                                         |          | 6.19 |

DRAWN BY: JBM      CHECKED BY: HMA/KW

| REV. | DESCRIPTION | BY  | DATE     |
|------|-------------|-----|----------|
| 1    | FIRST ISSUE | JBM | 06/13/22 |
| 1    | REVISED     | RI  | 08/23/23 |
|      |             |     |          |
|      |             |     |          |
|      |             |     |          |

SHEET TITLE:  
VZWSMART-MSK14  
UNIVERSAL ADJUSTABLE  
CROSSOVER

|                                 |             |
|---------------------------------|-------------|
| SHEET NUMBER:<br>VZWSMART-MSK14 | REV #:<br>1 |
|---------------------------------|-------------|



| 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"    |
| P40-312X060            | 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.

VzW  
SMART Tool<sup>©</sup>  
Vendor



DRAWN BY: BT      CHECKED BY: HMA/KW

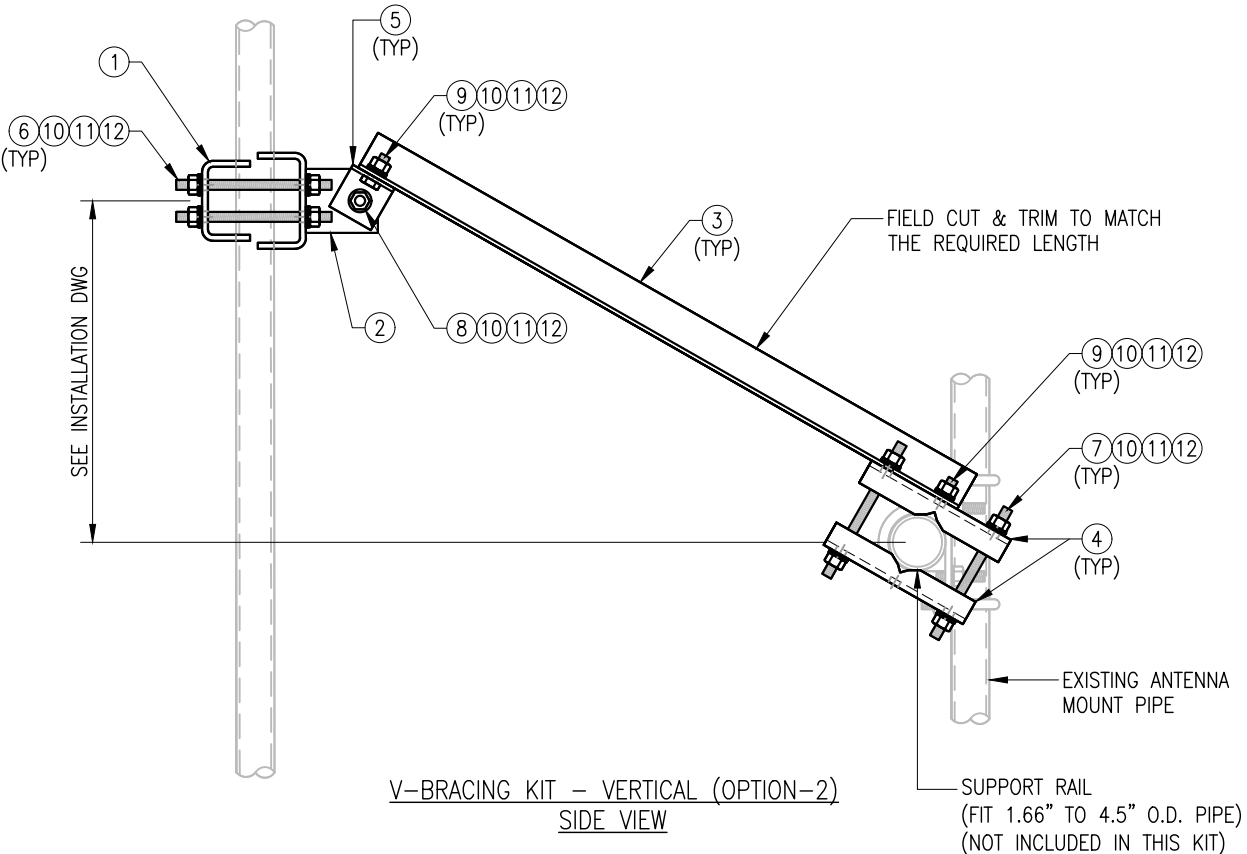
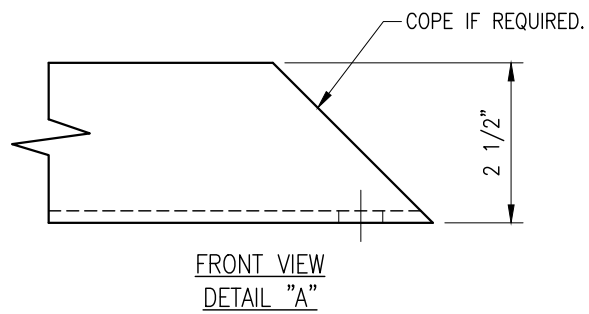
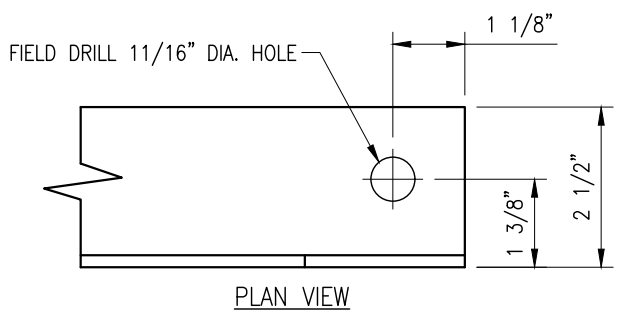
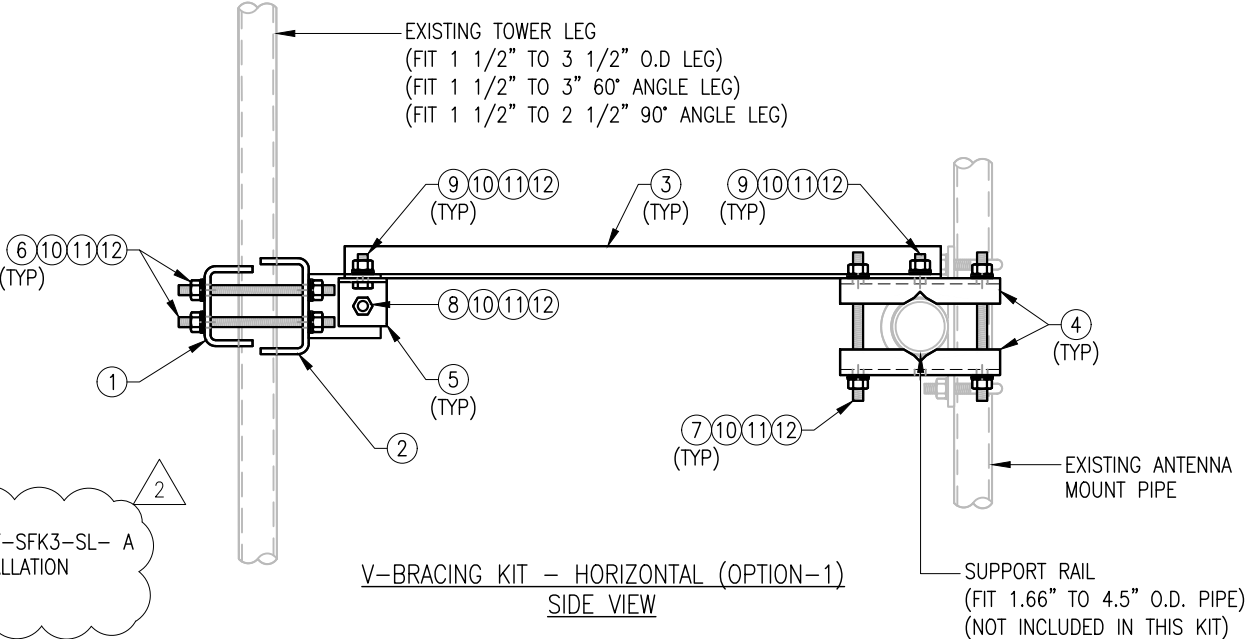
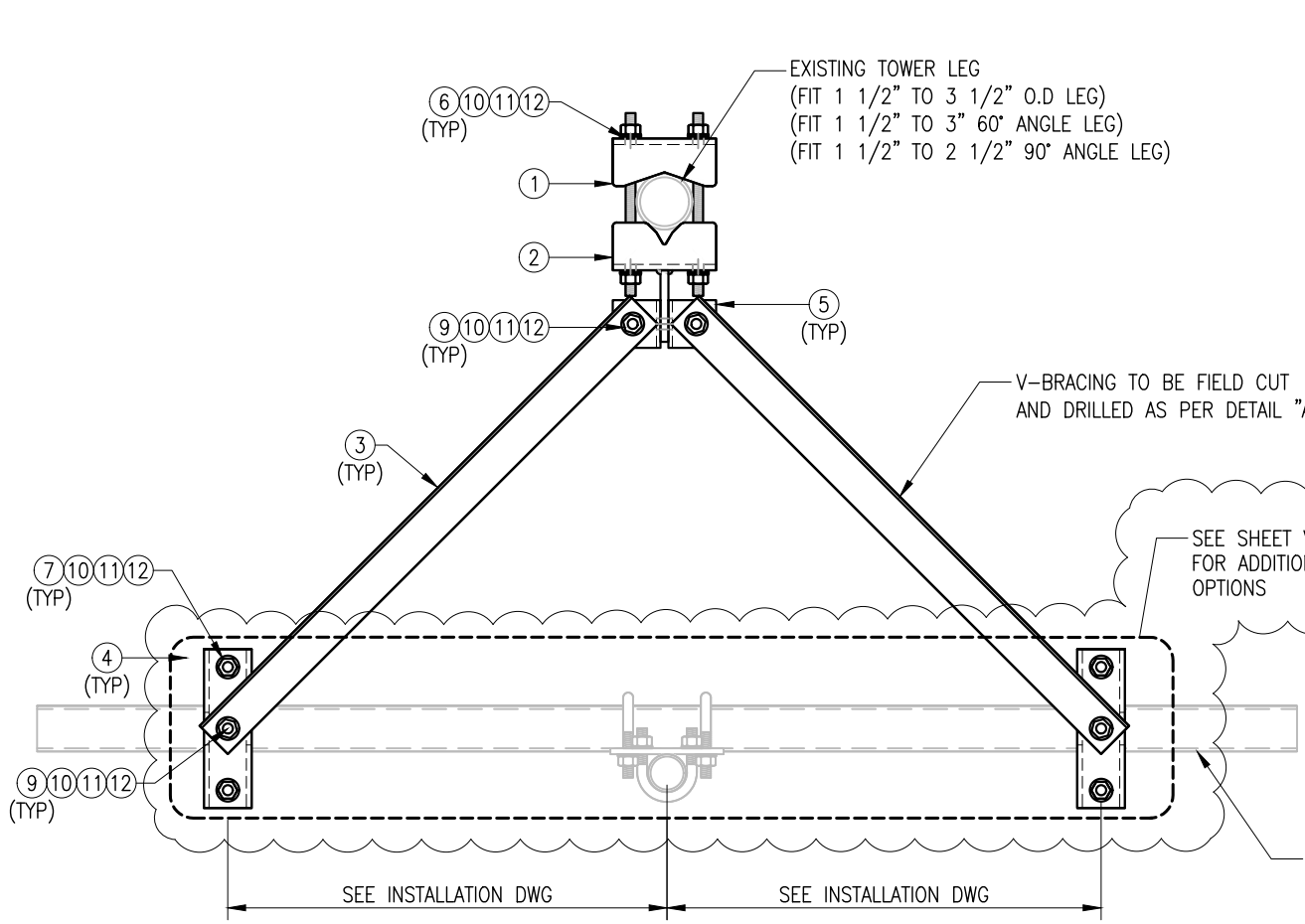
| REV. | DESCRIPTION | BY | DATE     |
|------|-------------|----|----------|
| △ 1  | FIRST ISSUE | BT | 08/04/21 |
| △    |             |    |          |
| △    |             |    |          |
| △    |             |    |          |
| △    |             |    |          |

SHEET TITLE:

VZWSMART  
STANDARD PIPE

SHEET NUMBER:      REV #:

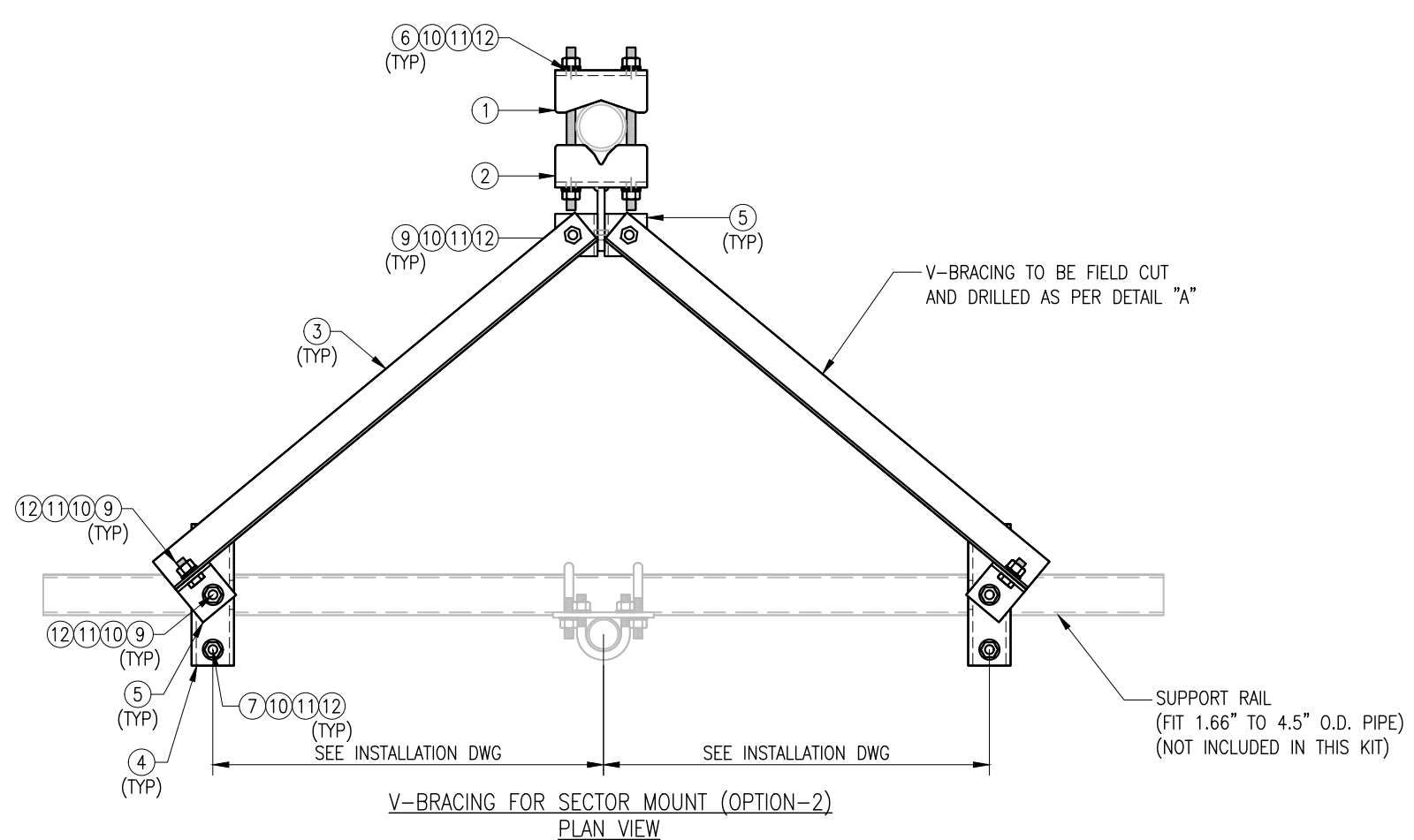
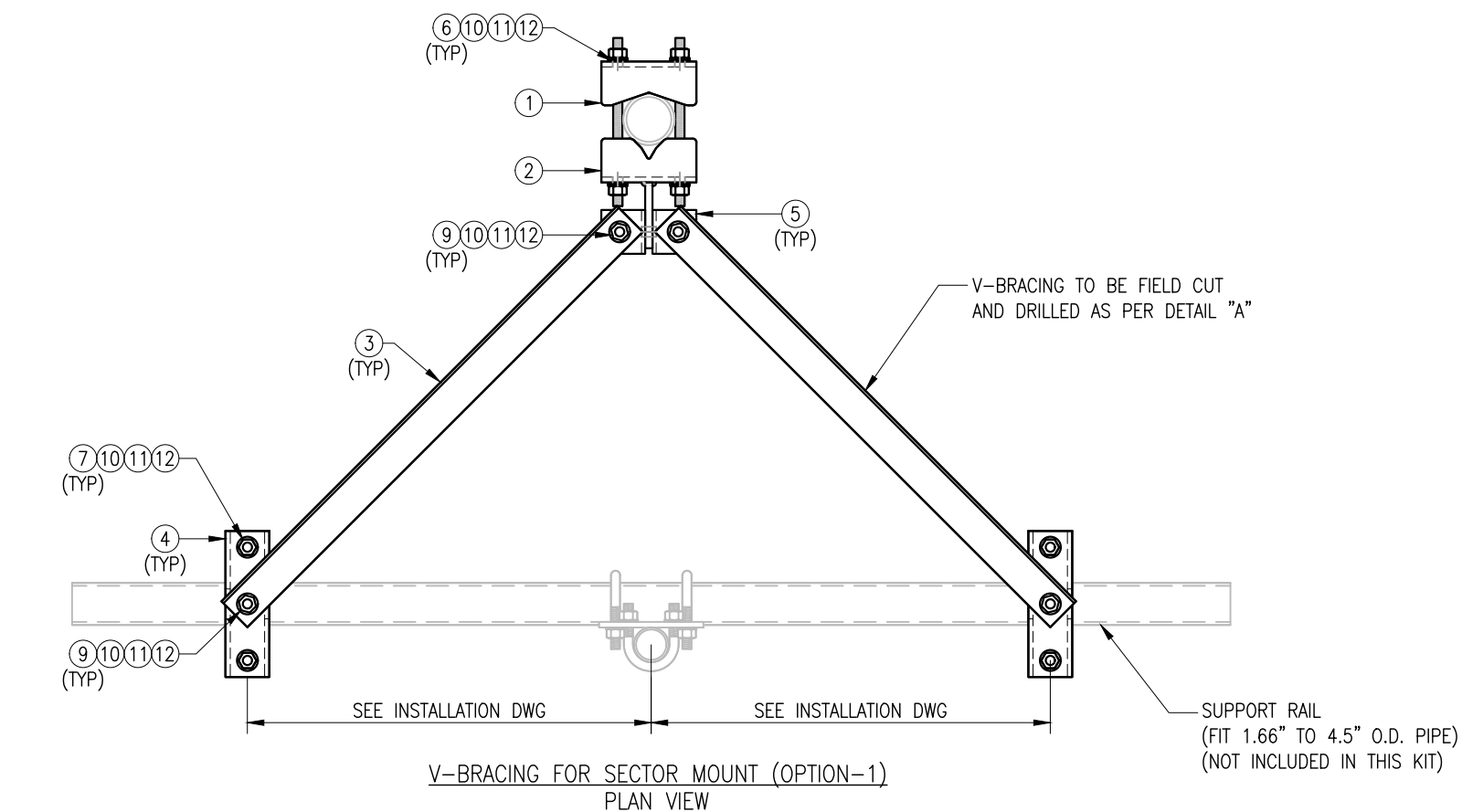
VZWSMART-PIPE      0



| VZWSMART-SFK3-SL (V-BRACING KIT FOR SMALL LEGS) |      |              |                                              |            |     |
|-------------------------------------------------|------|--------------|----------------------------------------------|------------|-----|
| ITEM NO.                                        | QTY. | PART NO.     | DESCRIPTION                                  | SHEET #    | WT  |
| 1                                               | 1    | BP9625-65    | PL 3/8" X 9 5/8" X 6 1/2" A36 BENT PLATE     | VBSM-SL-F1 | 12  |
| 2                                               | 1    | BRKW-VBSM-SL | WELDMENT BRACKET                             | VBSM-SL-F3 | 11  |
| 3                                               | 2    | L252525-8    | L 2 1/2" X 2 1/2" X 1/4" X 8'-0" A36         | VBSM-F5    | 67  |
| 4                                               | 4    | BP6875-10    | PL 1/4" X 6 7/8" X 10" A36 BENT PLATE        | VBSM-F2    | 20  |
| 5                                               | 4    | AL-333       | L 3" X 3" X 1/4" X 3" A36                    | VBSM-F2    | 5   |
| 6                                               | 4    | ---          | THREADED ROD 5/8" DIA. X 1'-0" Fy=36 KSI HDG | ---        | --- |
| 7                                               | 4    | ---          | THREADED ROD 5/8" DIA. X 10" Fy=36 KSI HDG   | ---        | --- |
| 8                                               | 1    | ---          | BOLT 5/8" X 2 1/4" A325                      | ---        | --- |
| 9                                               | 6    | ---          | BOLT 5/8" X 1 3/4" A325                      | ---        | --- |
| 10                                              | 23   | FW-625       | 5/8" HDG USS FLAT WASHER                     | ---        | 2   |
| 11                                              | 23   | LW-625       | 5/8" HDG LOCK WASHER                         | ---        | 0   |
| 12                                              | 23   | NUT-625      | 5/8" HDG HEX NUT                             | ---        | 2   |
| GALVANIZED WT                                   |      |              |                                              |            | 119 |

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

|                                                     |             |                 |          |
|-----------------------------------------------------|-------------|-----------------|----------|
| DRAWN BY: BT                                        |             | CHECKED BY: HMA |          |
| REV.                                                | DESCRIPTION | BY              | DATE     |
| 1                                                   | FIRST ISSUE | BT              | 04/10/21 |
| 1                                                   | REVISED     | AW              | 08/23/23 |
| 2                                                   | REVISED     | JM              | 11/30/23 |
| SHEET TITLE:                                        |             |                 |          |
| VZWSMART-SFK3-SL<br>V-BRACING KIT<br>FOR SMALL LEGS |             |                 |          |
| SHEET NUMBER:                                       |             | REV #:          |          |
| VZWSMART-SFK3-SL                                    |             | 2               |          |



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

DRAWN BY: BT CHECKED BY: HMA

| REV. | DESCRIPTION | BY | DATE     |
|------|-------------|----|----------|
| 1    | FIRST ISSUE | BT | 04/10/21 |
| 1    | REVISED     | AW | 08/23/23 |
| 2    | REVISED     | JM | 11/30/23 |
|      |             |    |          |
|      |             |    |          |

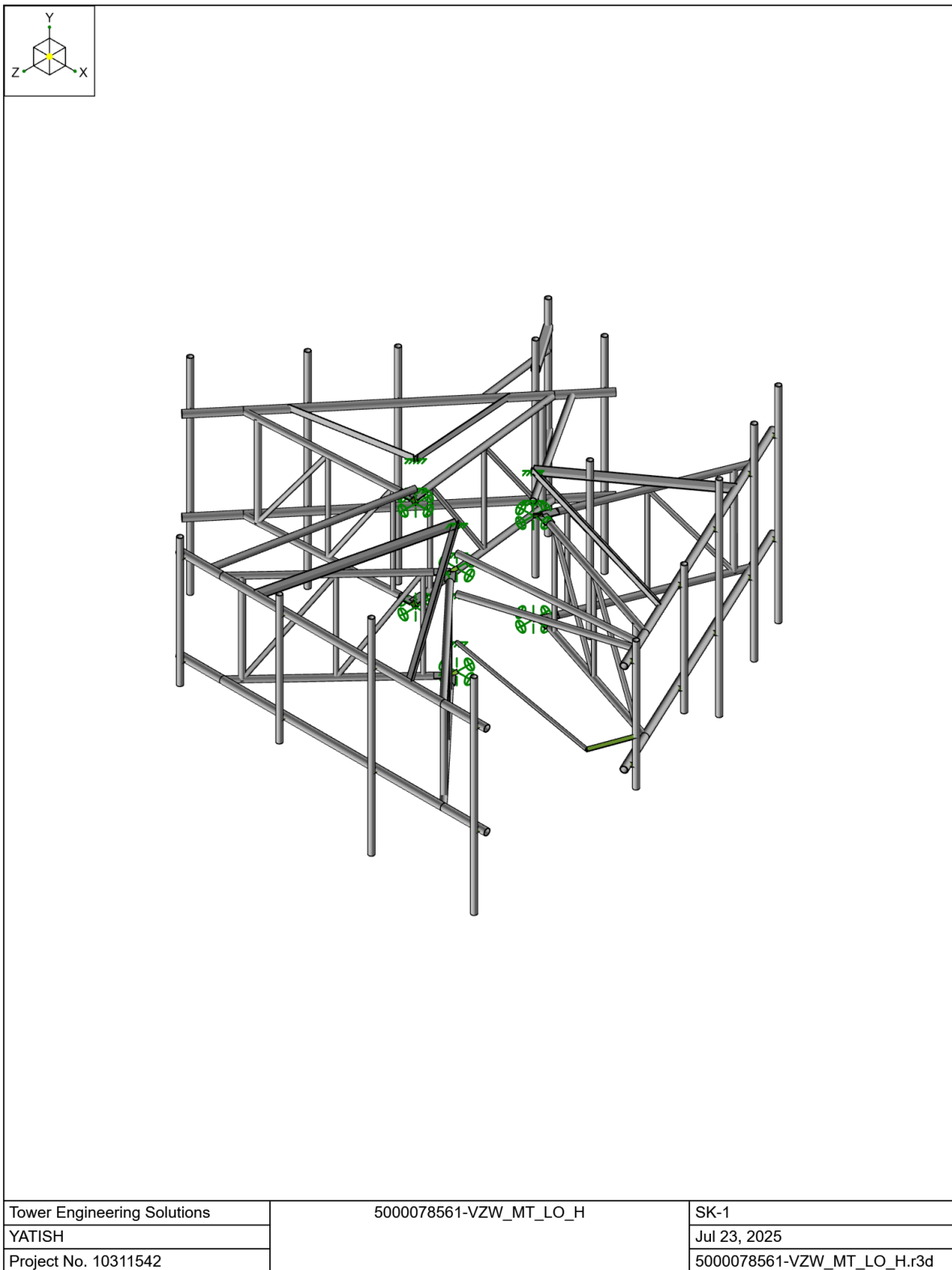
SHEET TITLE:

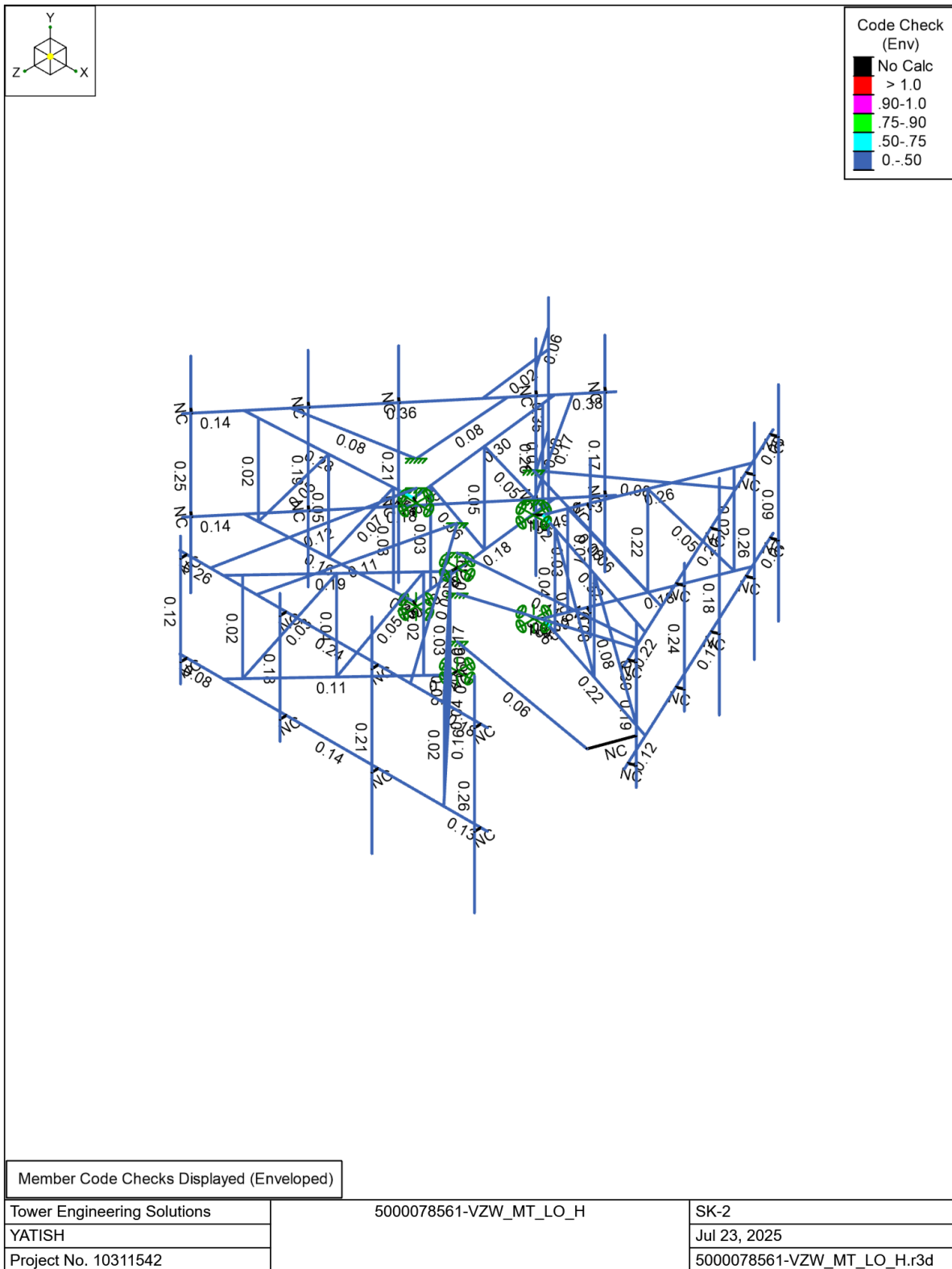
ADDITIONAL  
INSTALLATION OPTIONS

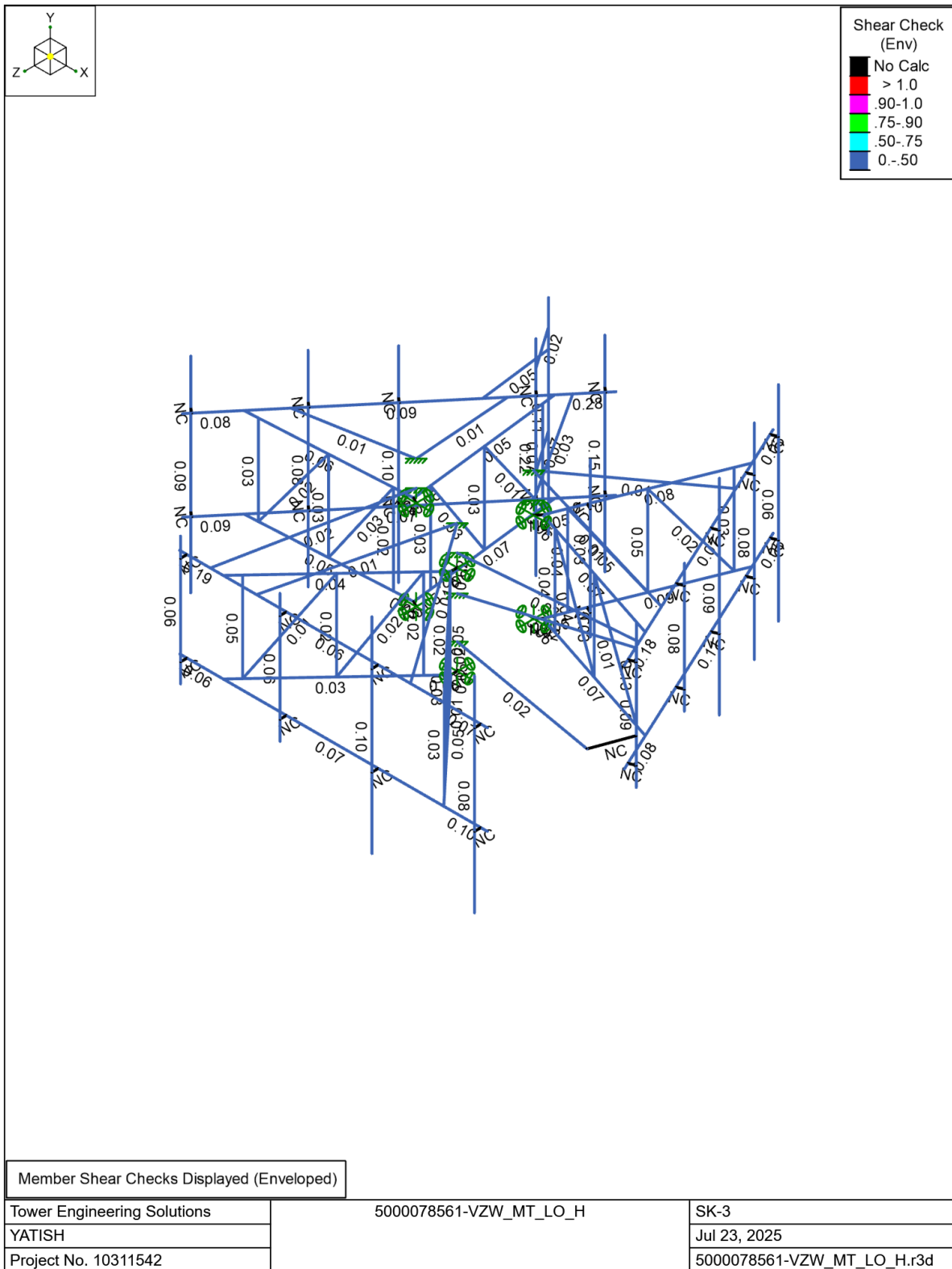
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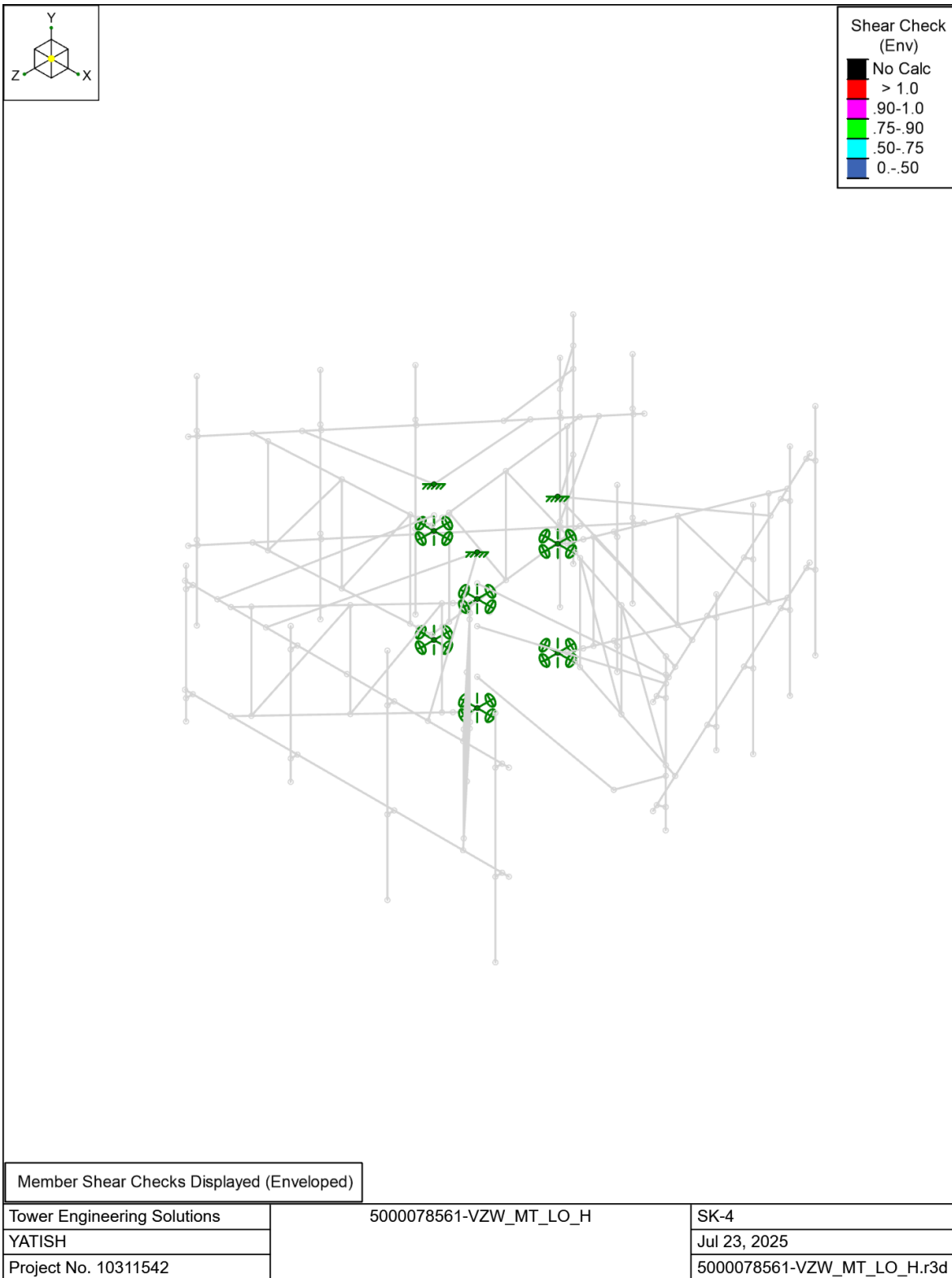
VZWSMART-SFK3-SL-A 2











### Basic Load Cases

|    | BLC Description        | Category | X Gravity | Y Gravity | Z Gravity | Point | Distributed |
|----|------------------------|----------|-----------|-----------|-----------|-------|-------------|
| 1  | Antenna D              | None     |           |           |           | 93    |             |
| 2  | Antenna Di             | None     |           |           |           |       |             |
| 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     |           |           |           |       |             |
| 16 | Antenna Wi (30 Deg)    | None     |           |           |           |       |             |
| 17 | Antenna Wi (60 Deg)    | None     |           |           |           |       |             |
| 18 | Antenna Wi (90 Deg)    | None     |           |           |           |       |             |
| 19 | Antenna Wi (120 Deg)   | None     |           |           |           |       |             |
| 20 | Antenna Wi (150 Deg)   | None     |           |           |           |       |             |
| 21 | Antenna Wi (180 Deg)   | None     |           |           |           |       |             |
| 22 | Antenna Wi (210 Deg)   | None     |           |           |           |       |             |
| 23 | Antenna Wi (240 Deg)   | None     |           |           |           |       |             |
| 24 | Antenna Wi (270 Deg)   | None     |           |           |           |       |             |
| 25 | Antenna Wi (300 Deg)   | None     |           |           |           |       |             |
| 26 | Antenna Wi (330 Deg)   | None     |           |           |           |       |             |
| 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        |           |       |             |
| 40 | Structure Di           | None     |           |           |           |       |             |
| 41 | Structure Wo (0 Deg)   | None     |           |           |           |       | 204         |
| 42 | Structure Wo (30 Deg)  | None     |           |           |           |       | 204         |
| 43 | Structure Wo (60 Deg)  | None     |           |           |           |       | 204         |
| 44 | Structure Wo (90 Deg)  | None     |           |           |           |       | 204         |
| 45 | Structure Wo (120 Deg) | None     |           |           |           |       | 204         |
| 46 | Structure Wo (150 Deg) | None     |           |           |           |       | 204         |
| 47 | Structure Wo (180 Deg) | None     |           |           |           |       | 204         |
| 48 | Structure Wo (210 Deg) | None     |           |           |           |       | 204         |
| 49 | Structure Wo (240 Deg) | None     |           |           |           |       | 204         |
| 50 | Structure Wo (270 Deg) | None     |           |           |           |       | 204         |
| 51 | Structure Wo (300 Deg) | None     |           |           |           |       | 204         |
| 52 | Structure Wo (330 Deg) | None     |           |           |           |       | 204         |
| 53 | Structure Wi (0 Deg)   | None     |           |           |           |       | 204         |
| 54 | Structure Wi (30 Deg)  | None     |           |           |           |       | 204         |
| 55 | Structure Wi (60 Deg)  | None     |           |           |           |       | 204         |

### Basic Load Cases (Continued)

|    | BLC Description        | Category | X Gravity | Y Gravity | Z Gravity | Point | Distributed |
|----|------------------------|----------|-----------|-----------|-----------|-------|-------------|
| 56 | Structure Wi (90 Deg)  | None     |           |           |           |       | 204         |
| 57 | Structure Wi (120 Deg) | None     |           |           |           |       | 204         |
| 58 | Structure Wi (150 Deg) | None     |           |           |           |       | 204         |
| 59 | Structure Wi (180 Deg) | None     |           |           |           |       | 204         |
| 60 | Structure Wi (210 Deg) | None     |           |           |           |       | 204         |
| 61 | Structure Wi (240 Deg) | None     |           |           |           |       | 204         |
| 62 | Structure Wi (270 Deg) | None     |           |           |           |       | 204         |
| 63 | Structure Wi (300 Deg) | None     |           |           |           |       | 204         |
| 64 | Structure Wi (330 Deg) | None     |           |           |           |       | 204         |
| 65 | Structure Wm (0 Deg)   | None     |           |           |           |       | 204         |
| 66 | Structure Wm (30 Deg)  | None     |           |           |           |       | 204         |
| 67 | Structure Wm (60 Deg)  | None     |           |           |           |       | 204         |
| 68 | Structure Wm (90 Deg)  | None     |           |           |           |       | 204         |
| 69 | Structure Wm (120 Deg) | None     |           |           |           |       | 204         |
| 70 | Structure Wm (150 Deg) | None     |           |           |           |       | 204         |
| 71 | Structure Wm (180 Deg) | None     |           |           |           |       | 204         |
| 72 | Structure Wm (210 Deg) | None     |           |           |           |       | 204         |
| 73 | Structure Wm (240 Deg) | None     |           |           |           |       | 204         |
| 74 | Structure Wm (270 Deg) | None     |           |           |           |       | 204         |
| 75 | Structure Wm (300 Deg) | None     |           |           |           |       | 204         |
| 76 | Structure Wm (330 Deg) | None     |           |           |           |       | 204         |
| 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      |           | -0.028    |           |       |             |
| 85 | Structure Eh (0 Deg)   | ELZ      |           |           | -0.069    |       |             |
| 86 | Structure Eh (90 Deg)  | ELX      | 0.069     |           |           |       |             |

### Load Combinations

|    | Description                    | Solve | P-Delta | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor | BLC Factor |
|----|--------------------------------|-------|---------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1  | 1.2D+1.0Wo (0 Deg)             | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 3          | 1          | 41         | 1          |            |            |            |            |            |            |            |            |
| 2  | 1.2D+1.0Wo (30 Deg)            | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 4          | 1          | 42         | 1          |            |            |            |            |            |            |            |            |
| 3  | 1.2D+1.0Wo (60 Deg)            | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 5          | 1          | 43         | 1          |            |            |            |            |            |            |            |            |
| 4  | 1.2D+1.0Wo (90 Deg)            | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 6          | 1          | 44         | 1          |            |            |            |            |            |            |            |            |
| 5  | 1.2D+1.0Wo (120 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 7          | 1          | 45         | 1          |            |            |            |            |            |            |            |            |
| 6  | 1.2D+1.0Wo (150 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 8          | 1          | 46         | 1          |            |            |            |            |            |            |            |            |
| 7  | 1.2D+1.0Wo (180 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 9          | 1          | 47         | 1          |            |            |            |            |            |            |            |            |
| 8  | 1.2D+1.0Wo (210 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 10         | 1          | 48         | 1          |            |            |            |            |            |            |            |            |
| 9  | 1.2D+1.0Wo (240 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 11         | 1          | 49         | 1          |            |            |            |            |            |            |            |            |
| 10 | 1.2D+1.0Wo (270 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 12         | 1          | 50         | 1          |            |            |            |            |            |            |            |            |
| 11 | 1.2D+1.0Wo (300 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 13         | 1          | 51         | 1          |            |            |            |            |            |            |            |            |
| 12 | 1.2D+1.0Wo (330 Deg)           | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 14         | 1          | 52         | 1          |            |            |            |            |            |            |            |            |
| 13 | 1.2D + 1.0Di + 1.0Wi (0 Deg)   | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 15         | 1          | 53         | 1          |            |            |            |            |
| 14 | 1.2D + 1.0Di + 1.0Wi (30 Deg)  | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 16         | 1          | 54         | 1          |            |            |            |            |
| 15 | 1.2D + 1.0Di + 1.0Wi (60 Deg)  | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 17         | 1          | 55         | 1          |            |            |            |            |
| 16 | 1.2D + 1.0Di + 1.0Wi (90 Deg)  | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 18         | 1          | 56         | 1          |            |            |            |            |
| 17 | 1.2D + 1.0Di + 1.0Wi (120 Deg) | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 19         | 1          | 57         | 1          |            |            |            |            |
| 18 | 1.2D + 1.0Di + 1.0Wi (150 Deg) | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 20         | 1          | 58         | 1          |            |            |            |            |
| 19 | 1.2D + 1.0Di + 1.0Wi (180 Deg) | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 21         | 1          | 59         | 1          |            |            |            |            |
| 20 | 1.2D + 1.0Di + 1.0Wi (210 Deg) | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 22         | 1          | 60         | 1          |            |            |            |            |
| 21 | 1.2D + 1.0Di + 1.0Wi (240 Deg) | Yes   | Y       | 1          | 1.2        | 39         | 1.2        | 2          | 1          | 40         | 1          | 23         | 1          | 61         | 1          |            |            |            |            |

### Load Combinations (Continued)

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

### Load Combination Design

|    | Description                     | Service | Hot Rolled | Cold Formed | Wood | Concrete | Masonry | Aluminum | Stainless | Connection |
|----|---------------------------------|---------|------------|-------------|------|----------|---------|----------|-----------|------------|
| 1  | 1.2D+1.0Wo (0 Deg)              |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 2  | 1.2D+1.0Wo (30 Deg)             |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 3  | 1.2D+1.0Wo (60 Deg)             |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 4  | 1.2D+1.0Wo (90 Deg)             |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 5  | 1.2D+1.0Wo (120 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 6  | 1.2D+1.0Wo (150 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 7  | 1.2D+1.0Wo (180 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 8  | 1.2D+1.0Wo (210 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 9  | 1.2D+1.0Wo (240 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 10 | 1.2D+1.0Wo (270 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 11 | 1.2D+1.0Wo (300 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 12 | 1.2D+1.0Wo (330 Deg)            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 13 | 1.2D + 1.0Di + 1.0Wi (0 Deg)    |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 14 | 1.2D + 1.0Di + 1.0Wi (30 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 15 | 1.2D + 1.0Di + 1.0Wi (60 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 16 | 1.2D + 1.0Di + 1.0Wi (90 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 17 | 1.2D + 1.0Di + 1.0Wi (120 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 18 | 1.2D + 1.0Di + 1.0Wi (150 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 19 | 1.2D + 1.0Di + 1.0Wi (180 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 20 | 1.2D + 1.0Di + 1.0Wi (210 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 21 | 1.2D + 1.0Di + 1.0Wi (240 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 22 | 1.2D + 1.0Di + 1.0Wi (270 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 23 | 1.2D + 1.0Di + 1.0Wi (300 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 24 | 1.2D + 1.0Di + 1.0Wi (330 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 25 | 1.2D + 1.5Lm1 + 1.0Wm (0 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 26 | 1.2D + 1.5Lm1 + 1.0Wm (30 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 27 | 1.2D + 1.5Lm1 + 1.0Wm (60 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 28 | 1.2D + 1.5Lm1 + 1.0Wm (90 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 29 | 1.2D + 1.5Lm1 + 1.0Wm (120 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 30 | 1.2D + 1.5Lm1 + 1.0Wm (150 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 31 | 1.2D + 1.5Lm1 + 1.0Wm (180 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 32 | 1.2D + 1.5Lm1 + 1.0Wm (210 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 33 | 1.2D + 1.5Lm1 + 1.0Wm (240 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 34 | 1.2D + 1.5Lm1 + 1.0Wm (270 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 35 | 1.2D + 1.5Lm1 + 1.0Wm (300 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 36 | 1.2D + 1.5Lm1 + 1.0Wm (330 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 37 | 1.2D + 1.5Lm2 + 1.0Wm (0 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 38 | 1.2D + 1.5Lm2 + 1.0Wm (30 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 39 | 1.2D + 1.5Lm2 + 1.0Wm (60 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 40 | 1.2D + 1.5Lm2 + 1.0Wm (90 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 41 | 1.2D + 1.5Lm2 + 1.0Wm (120 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 42 | 1.2D + 1.5Lm2 + 1.0Wm (150 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 43 | 1.2D + 1.5Lm2 + 1.0Wm (180 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 44 | 1.2D + 1.5Lm2 + 1.0Wm (210 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 45 | 1.2D + 1.5Lm2 + 1.0Wm (240 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 46 | 1.2D + 1.5Lm2 + 1.0Wm (270 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 47 | 1.2D + 1.5Lm2 + 1.0Wm (300 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 48 | 1.2D + 1.5Lm2 + 1.0Wm (330 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 49 | 1.2D + 1.5Lv1                   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 50 | 1.2D + 1.5Lv2                   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 51 | 1.4D                            |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 52 | 1.2D + 1.0Ev + 1.0Eh (0 Deg)    |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 53 | 1.2D + 1.0Ev + 1.0Eh (30 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 54 | 1.2D + 1.0Ev + 1.0Eh (60 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 55 | 1.2D + 1.0Ev + 1.0Eh (90 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |

### Load Combination Design (Continued)

|    | Description                    | Service | Hot Rolled | Cold Formed | Wood | Concrete | Masonry | Aluminum | Stainless | Connection |
|----|--------------------------------|---------|------------|-------------|------|----------|---------|----------|-----------|------------|
| 56 | 1.2D + 1.0Ev + 1.0Eh (120 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 57 | 1.2D + 1.0Ev + 1.0Eh (150 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 58 | 1.2D + 1.0Ev + 1.0Eh (180 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 59 | 1.2D + 1.0Ev + 1.0Eh (210 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 60 | 1.2D + 1.0Ev + 1.0Eh (240 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 61 | 1.2D + 1.0Ev + 1.0Eh (270 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 62 | 1.2D + 1.0Ev + 1.0Eh (300 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 63 | 1.2D + 1.0Ev + 1.0Eh (330 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 64 | 0.9D - 1.0Ev + 1.0Eh (0 Deg)   |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 65 | 0.9D - 1.0Ev + 1.0Eh (30 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 66 | 0.9D - 1.0Ev + 1.0Eh (60 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 67 | 0.9D - 1.0Ev + 1.0Eh (90 Deg)  |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 68 | 0.9D - 1.0Ev + 1.0Eh (120 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 69 | 0.9D - 1.0Ev + 1.0Eh (150 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 70 | 0.9D - 1.0Ev + 1.0Eh (180 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 71 | 0.9D - 1.0Ev + 1.0Eh (210 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 72 | 0.9D - 1.0Ev + 1.0Eh (240 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 73 | 0.9D - 1.0Ev + 1.0Eh (270 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 74 | 0.9D - 1.0Ev + 1.0Eh (300 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |
| 75 | 0.9D - 1.0Ev + 1.0Eh (330 Deg) |         | Yes        | Yes         | Yes  | Yes      | Yes     | Yes      | Yes       | Yes        |

### Node Coordinates

|    | Label | X [ft]    | Y [ft] | Z [ft]   | Detach From Diaphragm |
|----|-------|-----------|--------|----------|-----------------------|
| 1  | N1    | 6.841106  | -4.5   | 6.626732 |                       |
| 2  | N2    | 6.841106  | -1.75  | 6.376732 |                       |
| 3  | N3    | 6.841106  | 1.75   | 6.376732 |                       |
| 4  | N4    | 6.841106  | 3.5    | 6.626732 |                       |
| 5  | N5    | -4.905228 | -1.75  | 6.376732 |                       |
| 6  | N6    | 7.091106  | -1.75  | 6.376732 |                       |
| 7  | N7    | -4.905228 | 1.75   | 6.376732 |                       |
| 8  | N8    | 7.091106  | 1.75   | 6.376732 |                       |
| 9  | N9    | -3.208228 | -1.75  | 6.376732 |                       |
| 10 | N10   | -3.208228 | 1.75   | 6.376732 |                       |
| 11 | N11   | 5.394106  | -1.75  | 6.376732 |                       |
| 12 | N12   | 5.394106  | 1.75   | 6.376732 |                       |
| 13 | N13   | -1.064419 | 1.75   | 4.096837 |                       |
| 14 | N14   | -1.064419 | -1.75  | 4.096837 |                       |
| 15 | N15   | 3.250297  | -1.75  | 4.096837 |                       |
| 16 | N16   | 3.250297  | 1.75   | 4.096837 |                       |
| 17 | N17   | 0.58027   | 1.75   | 2.347745 |                       |
| 18 | N18   | 0.58027   | -1.75  | 2.347745 |                       |
| 19 | N19   | 1.605608  | -1.75  | 2.347745 |                       |
| 20 | N20   | 1.605608  | 1.75   | 2.347745 |                       |
| 21 | N21   | -2.839833 | 1.75   | 5.984953 |                       |
| 22 | N22   | -2.839833 | -1.75  | 5.984953 |                       |
| 23 | N23   | 5.025711  | -1.75  | 5.984953 |                       |
| 24 | N24   | 5.025711  | 1.75   | 5.984953 |                       |
| 25 | N25   | 6.841106  | -1.75  | 6.626732 |                       |
| 26 | N26   | 6.841106  | 1.75   | 6.626732 |                       |
| 27 | N27   | 0.778544  | 1.75   | 2.136884 |                       |
| 28 | N28   | 1.407334  | 1.75   | 2.136884 |                       |
| 29 | N29   | 0.778544  | -1.75  | 2.136884 |                       |
| 30 | N30   | 1.407334  | -1.75  | 2.136884 |                       |
| 31 | N31   | 1.092939  | -1.75  | 1.802514 |                       |
| 32 | N32   | 1.092939  | 1.75   | 1.802514 |                       |

**Node Coordinates (Continued)**

|    | Label | X [ft]    | Y [ft] | Z [ft]    | Detach From Diaphragm |
|----|-------|-----------|--------|-----------|-----------------------|
| 33 | N33   | 2.841106  | -4.5   | 6.626732  |                       |
| 34 | N34   | 2.841106  | -1.75  | 6.376732  |                       |
| 35 | N35   | 2.841106  | 1.75   | 6.376732  |                       |
| 36 | N36   | 2.841106  | 3.5    | 6.626732  |                       |
| 37 | N37   | 2.841106  | -1.75  | 6.626732  |                       |
| 38 | N38   | 2.841106  | 1.75   | 6.626732  |                       |
| 39 | N39   | -0.742224 | -2.5   | 6.626732  |                       |
| 40 | N40   | -0.742224 | -1.75  | 6.376732  |                       |
| 41 | N41   | -0.742224 | 1.75   | 6.376732  |                       |
| 42 | N42   | -0.742224 | 2.5    | 6.626732  |                       |
| 43 | N43   | -0.742224 | -1.75  | 6.626732  |                       |
| 44 | N44   | -0.742224 | 1.75   | 6.626732  |                       |
| 45 | N45   | -4.617224 | -2.5   | 6.626732  |                       |
| 46 | N46   | -4.617224 | -1.75  | 6.376732  |                       |
| 47 | N47   | -4.617224 | 1.75   | 6.376732  |                       |
| 48 | N48   | -4.617224 | 2.5    | 6.626732  |                       |
| 49 | N49   | -4.617224 | -1.75  | 6.626732  |                       |
| 50 | N50   | -4.617224 | 1.75   | 6.626732  |                       |
| 51 | N51   | -3.708228 | 1.75   | 6.376732  |                       |
| 52 | N52   | -1.890986 | 2.25   | 0.170256  |                       |
| 53 | N53   | 1.092939  | 0.875  | 1.552514  |                       |
| 54 | N54   | 0         | 0      | 0         |                       |
| 55 | N55   | 1.092939  | 2.25   | 1.552514  |                       |
| 56 | N56   | 2.691741  | 1.75   | -9.043085 |                       |
| 57 | N57   | 1.145545  | -1.75  | -2.326578 |                       |
| 58 | N58   | 5.896595  | -1.75  | -2.170254 |                       |
| 59 | N59   | 7.760818  | -1.75  | 1.236034  |                       |
| 60 | N60   | 7.655956  | -1.75  | 1.602708  |                       |
| 61 | N61   | 2.586087  | -1.75  | -9.269662 |                       |
| 62 | N62   | 7.655956  | 1.75   | 1.602708  |                       |
| 63 | N63   | 2.586087  | 1.75   | -9.269662 |                       |
| 64 | N64   | 6.938773  | -1.75  | 0.064704  |                       |
| 65 | N65   | 6.938773  | 1.75   | 0.064704  |                       |
| 66 | N66   | 3.30327   | -1.75  | -7.731658 |                       |
| 67 | N67   | 3.30327   | 1.75   | -7.731658 |                       |
| 68 | N68   | 2.918318  | -4.5   | -9.14874  |                       |
| 69 | N69   | 2.691741  | -1.75  | -9.043085 |                       |
| 70 | N70   | 2.918318  | 3.5    | -9.14874  |                       |
| 71 | N71   | 2.918318  | -1.75  | -9.14874  |                       |
| 72 | N72   | 2.918318  | 1.75   | -9.14874  |                       |
| 73 | N73   | 4.932235  | -4.5   | -4.829881 |                       |
| 74 | N74   | 4.705658  | -1.75  | -4.724226 |                       |
| 75 | N75   | 4.705658  | 1.75   | -4.724226 |                       |
| 76 | N76   | 4.932235  | 3.5    | -4.829881 |                       |
| 77 | N77   | 4.932235  | -1.75  | -4.829881 |                       |
| 78 | N78   | 4.932235  | 1.75   | -4.829881 |                       |
| 79 | N79   | 6.123172  | -2.5   | -2.275909 |                       |
| 80 | N80   | 5.896595  | 1.75   | -2.170254 |                       |
| 81 | N81   | 6.123172  | 2.5    | -2.275909 |                       |
| 82 | N82   | 6.123172  | -1.75  | -2.275909 |                       |
| 83 | N83   | 6.123172  | 1.75   | -2.275909 |                       |
| 84 | N84   | 7.760818  | -2.5   | 1.236034  |                       |
| 85 | N85   | 7.534241  | -1.75  | 1.341689  |                       |
| 86 | N86   | 7.534241  | 1.75   | 1.341689  |                       |
| 87 | N87   | 7.760818  | 2.5    | 1.236034  |                       |

**Node Coordinates (Continued)**

|     | Label | X [ft]    | Y [ft]    | Z [ft]    | Detach From Diaphragm |
|-----|-------|-----------|-----------|-----------|-----------------------|
| 88  | N88   | 7.760818  | 1.75      | 1.236034  |                       |
| 89  | N89   | 7.150082  | 1.75      | 0.517858  |                       |
| 90  | N90   | 6.42801   | 1.75      | -0.103601 |                       |
| 91  | N91   | 6.42801   | -1.75     | -0.103601 |                       |
| 92  | N92   | 3.103887  | 1.75      | -7.232206 |                       |
| 93  | N93   | 3.103887  | -1.75     | -7.232206 |                       |
| 94  | N94   | 3.966476  | 1.75      | -0.91472  |                       |
| 95  | N95   | 3.966473  | -1.75     | -0.914721 |                       |
| 96  | N96   | 1.686183  | 1.75      | -1.666117 |                       |
| 97  | N97   | 1.686182  | -1.75     | -1.666117 |                       |
| 98  | N98   | 1.252856  | 1.75      | -2.595389 |                       |
| 99  | N99   | 1.252856  | -1.75     | -2.595389 |                       |
| 100 | N100  | 2.142995  | 1.75      | -4.825182 |                       |
| 101 | N101  | 2.142996  | -1.75     | -4.825182 |                       |
| 102 | N102  | 1.411283  | 1.75      | -1.756701 |                       |
| 103 | N103  | 1.411283  | -1.75     | -1.756701 |                       |
| 104 | N104  | 1.145545  | 1.75      | -2.326578 |                       |
| 105 | N105  | 1.469204  | 1.75      | -3.13734  |                       |
| 106 | N106  | 1.695781  | 1.75      | -3.031685 |                       |
| 107 | N107  | 1.469204  | -1.75     | -3.13734  |                       |
| 108 | N108  | 1.695781  | -1.75     | -3.031685 |                       |
| 109 | N109  | 1.695781  | 3.416667  | -3.031685 |                       |
| 110 | N110  | 1.695781  | -2.583333 | -3.031685 |                       |
| 111 | N111  | 0.975372  | -1.75     | -1.900329 |                       |
| 112 | N112  | 0.975372  | 1.75      | -1.900329 |                       |
| 113 | N113  | 0.814675  | 2.25      | -1.708817 |                       |
| 114 | N114  | -9.306397 | 1.75      | 1.508356  |                       |
| 115 | N115  | -2.565724 | -1.75     | 0.071167  |                       |
| 116 | N116  | -5.611547 | -1.75     | -2.894995 |                       |
| 117 | N117  | -2.132636 | -1.75     | -7.429931 |                       |
| 118 | N118  | -1.756    | -1.75     | -7.489857 |                       |
| 119 | N119  | -9.467094 | -1.75     | 1.699867  |                       |
| 120 | N120  | -1.756    | 1.75      | -7.489857 |                       |
| 121 | N121  | -9.467094 | 1.75      | 1.699867  |                       |
| 122 | N122  | -2.84681  | -1.75     | -6.18988  |                       |
| 123 | N123  | -2.84681  | 1.75      | -6.18988  |                       |
| 124 | N124  | -8.376284 | -1.75     | 0.39989   |                       |
| 125 | N125  | -8.376284 | 1.75      | 0.39989   |                       |
| 126 | N126  | -9.497908 | -4.5      | 1.347659  |                       |
| 127 | N127  | -9.306397 | -1.75     | 1.508356  |                       |
| 128 | N128  | -9.497908 | 3.5       | 1.347659  |                       |
| 129 | N129  | -9.497908 | -1.75     | 1.347659  |                       |
| 130 | N130  | -9.497908 | 1.75      | 1.347659  |                       |
| 131 | N131  | -7.410027 | -4.5      | -1.140581 |                       |
| 132 | N132  | -7.218516 | -1.75     | -0.979884 |                       |
| 133 | N133  | -7.218516 | 1.75      | -0.979884 |                       |
| 134 | N134  | -7.410027 | 3.5       | -1.140581 |                       |
| 135 | N135  | -7.410027 | -1.75     | -1.140581 |                       |
| 136 | N136  | -7.410027 | 1.75      | -1.140581 |                       |
| 137 | N137  | -5.803058 | -4.5      | -3.055692 |                       |
| 138 | N138  | -5.611547 | 1.75      | -2.894995 |                       |
| 139 | N139  | -5.803058 | 3.5       | -3.055692 |                       |
| 140 | N140  | -5.803058 | -1.75     | -3.055692 |                       |
| 141 | N141  | -5.803058 | 1.75      | -3.055692 |                       |
| 142 | N142  | -2.132636 | -4.5      | -7.429931 |                       |

**Node Coordinates (Continued)**

|     | Label | X [ft]    | Y [ft] | Z [ft]    | Detach From Diaphragm |
|-----|-------|-----------|--------|-----------|-----------------------|
| 143 | N143  | -1.941125 | -1.75  | -7.269234 |                       |
| 144 | N144  | -1.941125 | 1.75   | -7.269234 |                       |
| 145 | N145  | -2.132636 | 3.5    | -7.429931 |                       |
| 146 | N146  | -2.132636 | 1.75   | -7.429931 |                       |
| 147 | N147  | -2.525417 | 1.75   | -6.572902 |                       |
| 148 | N148  | -2.783489 | 1.75   | -5.655842 |                       |
| 149 | N149  | -2.783489 | -1.75  | -5.655842 |                       |
| 150 | N150  | -7.839364 | 1.75   | 0.369514  |                       |
| 151 | N151  | -7.839363 | -1.75  | 0.369514  |                       |
| 152 | N152  | -2.478323 | 1.75   | -3.082139 |                       |
| 153 | N153  | -2.478322 | -1.75  | -3.082139 |                       |
| 154 | N154  | -2.195626 | 1.75   | -0.697939 |                       |
| 155 | N155  | -2.195626 | -1.75  | -0.697939 |                       |
| 156 | N156  | -2.854701 | 1.75   | 0.087515  |                       |
| 157 | N157  | -2.854701 | -1.75  | 0.087515  |                       |
| 158 | N158  | -5.251769 | 1.75   | 0.223126  |                       |
| 159 | N159  | -5.251771 | -1.75  | 0.223126  |                       |
| 160 | N160  | -2.161546 | 1.75   | -0.410514 |                       |
| 161 | N161  | -2.161546 | -1.75  | -0.410514 |                       |
| 162 | N162  | -2.565724 | 1.75   | 0.071167  |                       |
| 163 | N163  | -2.107492 | -1.75  | 0.045256  |                       |
| 164 | N164  | -2.107492 | 1.75   | 0.045256  |                       |
| 165 | N165  | 6.42801   | 0.875  | -0.103601 |                       |
| 166 | N166  | 1.092939  | 1.75   | 1.552514  |                       |
| 167 | N167  | 1.092939  | -1.75  | 1.552514  |                       |
| 168 | N168  | 0.814675  | 1.75   | -1.708817 |                       |
| 169 | N169  | 0.814675  | -1.75  | -1.708817 |                       |
| 170 | N170  | -1.890986 | 1.75   | 0.170256  |                       |
| 171 | N171  | -1.890986 | -1.75  | 0.170256  |                       |
| 172 | N172  | -3.168204 | 1.75   | -5.806858 |                       |
| 173 | N173  | -3.359715 | 3.5    | -5.967555 |                       |
| 174 | N174  | -3.359715 | 1.75   | -5.967555 |                       |
| 175 | N175  | -3.359715 | -1.75  | -5.967555 |                       |
| 176 | N176  | -3.168204 | -1.75  | -5.806858 |                       |
| 177 | N177  | -3.359715 | -4.5   | -5.967555 |                       |
| 178 | N178  | -3.359715 | 2.5    | -5.967555 |                       |
| 179 | N179  | -3.359715 | -1     | -5.967555 |                       |
| 180 | N180  | -4.506868 | 2.5    | -7.605859 |                       |
| 181 | N181  | -4.506868 | 3.5    | -7.605859 |                       |
| 182 | N182  | -4.506868 | -4.5   | -7.605859 |                       |
| 183 | N183  | -4.506868 | -1     | -7.605859 |                       |
| 184 | N184  | -4.506868 | 1.75   | -7.605859 |                       |
| 185 | N185  | 1.092939  | 1.75   | 6.376732  |                       |
| 186 | N186  | 4.092939  | 1.75   | 6.376732  |                       |
| 187 | N187  | -1.907061 | 1.75   | 6.376732  |                       |
| 188 | N188  | 6.388876  | 1.75   | -1.114553 |                       |
| 189 | N189  | -3.683184 | 1.75   | -5.193128 |                       |
| 190 | N190  | 3.853167  | 1.75   | -6.5524   |                       |
| 191 | N191  | -7.53991  | 1.75   | -0.596862 |                       |
| 192 | N192  | 1.092939  | 3.25   | 1.552514  |                       |
| 193 | N193  | 0.798047  | 3.25   | -1.72277  |                       |
| 194 | N194  | -1.890986 | 3.25   | 0.170256  |                       |
| 195 | N195  | 3.51472   | 1.75   | -7.278202 |                       |
| 196 | N196  | 3.741297  | 1.75   | -7.383856 |                       |
| 197 | N197  | 3.741297  | -1.75  | -7.383856 |                       |

### Node Coordinates (Continued)

|     | Label | X [ft]    | Y [ft] | Z [ft]    | Detach From Diaphragm |
|-----|-------|-----------|--------|-----------|-----------------------|
| 198 | N198  | 3.741297  | -4.5   | -7.383856 |                       |
| 199 | N199  | 3.51472   | -1.75  | -7.278202 |                       |
| 200 | N200  | 3.741297  | 3.5    | -7.383856 |                       |
| 201 | N201  | -4.132386 | 1.75   | -4.657791 |                       |
| 202 | N202  | 7.760818  | -0.75  | 1.236034  |                       |
| 203 | N203  | 7.247788  | -0.75  | 2.645573  |                       |
| 204 | N204  | 1.092939  | -0.75  | 1.552514  |                       |

### Node Boundary Conditions

|    | Node Label | X [k/in] | Y [k/in] | Z [k/in] | X Rot [k-ft/rad] | Y Rot [k-ft/rad] | Z Rot [k-ft/rad] |
|----|------------|----------|----------|----------|------------------|------------------|------------------|
| 1  | N5         |          |          |          |                  |                  |                  |
| 2  | N6         |          |          |          |                  |                  |                  |
| 3  | N7         |          |          |          |                  |                  |                  |
| 4  | N8         |          |          |          |                  |                  |                  |
| 5  | N9         |          |          |          |                  |                  |                  |
| 6  | N10        |          |          |          |                  |                  |                  |
| 7  | N11        |          |          |          |                  |                  |                  |
| 8  | N12        |          |          |          |                  |                  |                  |
| 9  | N1         |          |          |          |                  |                  |                  |
| 10 | N2         |          |          |          |                  |                  |                  |
| 11 | N3         |          |          |          |                  |                  |                  |
| 12 | N4         |          |          |          |                  |                  |                  |
| 13 | N25        |          |          |          |                  |                  |                  |
| 14 | N26        |          |          |          |                  |                  |                  |
| 15 | N33        |          |          |          |                  |                  |                  |
| 16 | N34        |          |          |          |                  |                  |                  |
| 17 | N35        |          |          |          |                  |                  |                  |
| 18 | N36        |          |          |          |                  |                  |                  |
| 19 | N37        |          |          |          |                  |                  |                  |
| 20 | N38        |          |          |          |                  |                  |                  |
| 21 | N39        |          |          |          |                  |                  |                  |
| 22 | N40        |          |          |          |                  |                  |                  |
| 23 | N41        |          |          |          |                  |                  |                  |
| 24 | N42        |          |          |          |                  |                  |                  |
| 25 | N43        |          |          |          |                  |                  |                  |
| 26 | N44        |          |          |          |                  |                  |                  |
| 27 | N45        |          |          |          |                  |                  |                  |
| 28 | N46        |          |          |          |                  |                  |                  |
| 29 | N47        |          |          |          |                  |                  |                  |
| 30 | N48        |          |          |          |                  |                  |                  |
| 31 | N49        |          |          |          |                  |                  |                  |
| 32 | N50        |          |          |          |                  |                  |                  |
| 33 | N51        |          |          |          |                  |                  |                  |
| 34 | N52        | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |
| 35 | N55        | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |
| 36 | N56        |          |          |          |                  |                  |                  |
| 37 | N58        |          |          |          |                  |                  |                  |
| 38 | N59        |          |          |          |                  |                  |                  |
| 39 | N60        |          |          |          |                  |                  |                  |
| 40 | N61        |          |          |          |                  |                  |                  |
| 41 | N62        |          |          |          |                  |                  |                  |
| 42 | N63        |          |          |          |                  |                  |                  |
| 43 | N64        |          |          |          |                  |                  |                  |
| 44 | N65        |          |          |          |                  |                  |                  |
| 45 | N66        |          |          |          |                  |                  |                  |

**Node Boundary Conditions (Continued)**

|     | Node Label | X [k/in] | Y [k/in] | Z [k/in] | X Rot [k-ft/rad] | Y Rot [k-ft/rad] | Z Rot [k-ft/rad] |
|-----|------------|----------|----------|----------|------------------|------------------|------------------|
| 46  | N67        |          |          |          |                  |                  |                  |
| 47  | N68        |          |          |          |                  |                  |                  |
| 48  | N69        |          |          |          |                  |                  |                  |
| 49  | N70        |          |          |          |                  |                  |                  |
| 50  | N71        |          |          |          |                  |                  |                  |
| 51  | N72        |          |          |          |                  |                  |                  |
| 52  | N73        |          |          |          |                  |                  |                  |
| 53  | N74        |          |          |          |                  |                  |                  |
| 54  | N75        |          |          |          |                  |                  |                  |
| 55  | N76        |          |          |          |                  |                  |                  |
| 56  | N77        |          |          |          |                  |                  |                  |
| 57  | N78        |          |          |          |                  |                  |                  |
| 58  | N79        |          |          |          |                  |                  |                  |
| 59  | N80        |          |          |          |                  |                  |                  |
| 60  | N81        |          |          |          |                  |                  |                  |
| 61  | N82        |          |          |          |                  |                  |                  |
| 62  | N83        |          |          |          |                  |                  |                  |
| 63  | N84        |          |          |          |                  |                  |                  |
| 64  | N85        |          |          |          |                  |                  |                  |
| 65  | N86        |          |          |          |                  |                  |                  |
| 66  | N87        |          |          |          |                  |                  |                  |
| 67  | N88        |          |          |          |                  |                  |                  |
| 68  | N89        |          |          |          |                  |                  |                  |
| 69  | N113       | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |
| 70  | N114       |          |          |          |                  |                  |                  |
| 71  | N116       |          |          |          |                  |                  |                  |
| 72  | N117       |          |          |          |                  |                  |                  |
| 73  | N118       |          |          |          |                  |                  |                  |
| 74  | N119       |          |          |          |                  |                  |                  |
| 75  | N120       |          |          |          |                  |                  |                  |
| 76  | N121       |          |          |          |                  |                  |                  |
| 77  | N122       |          |          |          |                  |                  |                  |
| 78  | N123       |          |          |          |                  |                  |                  |
| 79  | N124       |          |          |          |                  |                  |                  |
| 80  | N125       |          |          |          |                  |                  |                  |
| 81  | N126       |          |          |          |                  |                  |                  |
| 82  | N127       |          |          |          |                  |                  |                  |
| 83  | N128       |          |          |          |                  |                  |                  |
| 84  | N129       |          |          |          |                  |                  |                  |
| 85  | N130       |          |          |          |                  |                  |                  |
| 86  | N131       |          |          |          |                  |                  |                  |
| 87  | N132       |          |          |          |                  |                  |                  |
| 88  | N133       |          |          |          |                  |                  |                  |
| 89  | N134       |          |          |          |                  |                  |                  |
| 90  | N135       |          |          |          |                  |                  |                  |
| 91  | N136       |          |          |          |                  |                  |                  |
| 92  | N138       |          |          |          |                  |                  |                  |
| 93  | N140       |          |          |          |                  |                  |                  |
| 94  | N141       |          |          |          |                  |                  |                  |
| 95  | N143       |          |          |          |                  |                  |                  |
| 96  | N144       |          |          |          |                  |                  |                  |
| 97  | N146       |          |          |          |                  |                  |                  |
| 98  | N147       |          |          |          |                  |                  |                  |
| 99  | N53        | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |
| 100 | N166       | Reaction | Reaction | Reaction | Reaction         |                  | Reaction         |

### Node Boundary Conditions (Continued)

|     | Node Label | X [k/in] | Y [k/in] | Z [k/in] | X Rot [k-ft/rad] | Y Rot [k-ft/rad] | Z Rot [k-ft/rad] |
|-----|------------|----------|----------|----------|------------------|------------------|------------------|
| 101 | N167       | Reaction | Reaction | Reaction | Reaction         |                  | Reaction         |
| 102 | N168       | Reaction | Reaction | Reaction | Reaction         |                  | Reaction         |
| 103 | N169       | Reaction | Reaction | Reaction | Reaction         |                  | Reaction         |
| 104 | N170       | Reaction | Reaction | Reaction | Reaction         |                  | Reaction         |
| 105 | N171       | Reaction | Reaction | Reaction | Reaction         |                  | Reaction         |
| 106 | N174       |          |          |          |                  |                  |                  |
| 107 | N175       |          |          |          |                  |                  |                  |
| 108 | N176       |          |          |          |                  |                  |                  |
| 109 | N172       |          |          |          |                  |                  |                  |
| 110 | N178       |          |          |          |                  |                  |                  |
| 111 | N179       |          |          |          |                  |                  |                  |
| 112 | N180       |          |          |          |                  |                  |                  |
| 113 | N183       |          |          |          |                  |                  |                  |
| 114 | N184       |          |          |          |                  |                  |                  |
| 115 | N192       | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |
| 116 | N193       | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |
| 117 | N194       | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |
| 118 | N196       |          |          |          |                  |                  |                  |
| 119 | N197       |          |          |          |                  |                  |                  |
| 120 | N198       |          |          |          |                  |                  |                  |
| 121 | N199       |          |          |          |                  |                  |                  |
| 122 | N195       |          |          |          |                  |                  |                  |
| 123 | N200       |          |          |          |                  |                  |                  |
| 124 | N202       |          |          |          |                  |                  |                  |
| 125 | N203       |          |          |          |                  |                  |                  |
| 126 | N204       | Reaction | Reaction | Reaction | Reaction         | Reaction         | Reaction         |

### Hot Rolled Steel Section Sets

|   | Label        | Shape         | Type   | Design List           | Material           | Design Rule | Area [in <sup>2</sup> ] | Iyy [in <sup>4</sup> ] | Izz [in <sup>4</sup> ] | J [in <sup>4</sup> ] |
|---|--------------|---------------|--------|-----------------------|--------------------|-------------|-------------------------|------------------------|------------------------|----------------------|
| 1 | A-Framing    | PIPE 2.0      | Column | Pipe                  | A53 Gr. B (35 ksi) | Typical     | 1.02                    | 0.627                  | 0.627                  | 1.25                 |
| 2 | B-Framing    | HSS2X2X4      | Beam   | SquareTube            | A500 Gr. B (46ksi) | Typical     | 1.51                    | 0.747                  | 0.747                  | 1.31                 |
| 3 | C-Framing    | PIPE 2.5      | Beam   | Pipe                  | A53 Gr. B (35 ksi) | Typical     | 1.61                    | 1.45                   | 1.45                   | 2.89                 |
| 4 | D-Framing    | LL2.5X2.5X4X0 | Beam   | Double Angle (No Gap) | A36 (36ksi)        | Typical     | 2.38                    | 2.57                   | 1.38                   | 0.052                |
| 5 | E-Framing    | PIPE 2.0      | Beam   | Pipe                  | A53 Gr. B (35 ksi) | Typical     | 1.02                    | 0.627                  | 0.627                  | 1.25                 |
| 6 | Pipe to pipe | HSS3X3X4      | Beam   | Tube                  | A500 Gr. B (46ksi) | Typical     | 2.44                    | 3.02                   | 3.02                   | 5.08                 |
| 7 | V-Brace      | L2.5X2.5X4    | Beam   | Single Angle          | A36 (36ksi)        | Typical     | 1.19                    | 0.692                  | 0.692                  | 0.026                |
| 8 | Tieback      | PIPE 2.0      | Beam   | HSS Pipe              | A53 Gr. B (35 ksi) | Typical     | 1.02                    | 0.627                  | 0.627                  | 1.25                 |
| 9 | Dish Tieback | PIPE 1.0      | Beam   | HSS Pipe              | A53 Gr. B (35 ksi) | Typical     | 0.469                   | 0.083                  | 0.083                  | 0.166                |

### Cold Formed Steel Section Sets

|   | Label | Shape         | Type | Design List | Material      | Design Rule | Area [in <sup>2</sup> ] | Iyy [in <sup>4</sup> ] | Izz [in <sup>4</sup> ] | J [in <sup>4</sup> ] |
|---|-------|---------------|------|-------------|---------------|-------------|-------------------------|------------------------|------------------------|----------------------|
| 1 | CF1A  | 1.5CU1.25X035 | Beam | None        | A607 C1 Gr.55 | Typical     | 0.131                   | 0.022                  | 0.052                  | 5.4e-5               |

### Hot Rolled Steel Properties

|   | Label              | E [ksi] | G [ksi] | Nu  | Therm. Coeff. [1e <sup>6</sup> F <sup>-1</sup> ] | Density [k/ft <sup>3</sup> ] | Yield [ksi] | Ry  | Fu [ksi] | Rt  |
|---|--------------------|---------|---------|-----|--------------------------------------------------|------------------------------|-------------|-----|----------|-----|
| 1 | A53 Gr. B (35 ksi) | 29000   | 11154   | 0.3 | 0.65                                             | 0.49                         | 35          | 1.5 | 60       | 1.2 |
| 2 | A500 Gr. B (46ksi) | 29000   | 11154   | 0.3 | 0.65                                             | 0.49                         | 46          | 1.5 | 58       | 1.2 |
| 3 | A36 (36ksi)        | 29000   | 11154   | 0.3 | 0.65                                             | 0.49                         | 36          | 1.5 | 58       | 1.2 |

### Cold Formed Steel Properties

| Label           | E [ksi] | G [ksi] | Nu  | Therm. Coeff. [ $10^{-6}/^{\circ}\text{F}^{-1}$ ] | Density [k/ft <sup>3</sup> ] | Yield [ksi] | Fu [ksi] |
|-----------------|---------|---------|-----|---------------------------------------------------|------------------------------|-------------|----------|
| 1 A607 C1 Gr.55 | 29500   | 11346   | 0.3 | 0.65                                              | 0.49                         | 55          | 70       |

### Member Primary Data

|    | Label | I Node | J Node | Rotate(deg) | Section/Shape | Type   | Design List | Material           | Design Rule |
|----|-------|--------|--------|-------------|---------------|--------|-------------|--------------------|-------------|
| 1  | MP1A  | N4     | N1     |             | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 2  | M2    | N21    | N22    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 3  | M3    | N24    | N23    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 4  | M4    | N13    | N14    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 5  | M5    | N17    | N18    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 6  | M6    | N20    | N19    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 7  | M7    | N16    | N15    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 8  | M8    | N17    | N14    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 9  | M9    | N13    | N22    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 10 | M10   | N20    | N15    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 11 | M11   | N16    | N23    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 12 | M12   | N2     | N25    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 13 | M13   | N3     | N26    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 14 | M14   | N27    | N10    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 15 | M15   | N29    | N9     |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 16 | M16   | N28    | N12    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 17 | M17   | N30    | N11    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 18 | M18   | N27    | N32    | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 19 | M19   | N28    | N32    | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 20 | M20   | N30    | N31    | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 21 | M21   | N29    | N31    | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 22 | MP2A  | N36    | N33    |             | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 23 | M23   | N34    | N37    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 24 | M24   | N35    | N38    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 25 | MP3A  | N42    | N39    |             | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 26 | M26   | N40    | N43    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 27 | M27   | N41    | N44    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 28 | MP4A  | N48    | N45    |             | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 29 | M29   | N46    | N49    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 30 | M30   | N47    | N50    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 31 | M31   | N51    | N52    | 353.002     | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 32 | M32   | N80    | N83    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 33 | M33   | N98    | N99    | 5           | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 34 | M34   | N90    | N91    | 5           | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 35 | M35   | N96    | N95    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 36 | M36   | N89    | N55    | 353.428     | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 37 | M37   | N94    | N91    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 38 | M38   | N100   | N93    |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 39 | M39   | N104   | N112   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 40 | M40   | N56    | N72    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 41 | M41   | N102   | N65    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 42 | M42   | N57    | N66    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 43 | M43   | N102   | N112   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 44 | M44   | N107   | N108   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 45 | M45   | N74    | N77    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 46 | MP4C  | N81    | N79    | 5           | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 47 | MP3C  | N76    | N73    | 5           | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 48 | M48   | N86    | N88    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 49 | MP1C  | N70    | N68    | 5           | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 50 | M50   | N92    | N93    | 5           | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |

**Member Primary Data (Continued)**

|     | Label | I Node | J Node | Rotate(deg) | Section/Shape | Type   | Design List | Material           | Design Rule |
|-----|-------|--------|--------|-------------|---------------|--------|-------------|--------------------|-------------|
| 51  | M51   | N94    | N95    | 5           | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 52  | M52   | N96    | N97    | 5           | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 53  | MP7C  | N100   | N101   | 5           | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 54  | M54   | N98    | N101   |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 55  | M55   | N69    | N71    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 56  | M56   | N103   | N64    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 57  | M57   | N104   | N67    |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 58  | M58   | N75    | N78    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 59  | M59   | N58    | N82    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 60  | MP5C  | N87    | N84    | 5           | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 61  | M61   | N85    | N59    |             | RIGID         | None   | None        | RIGID              | Typical     |
| 62  | M62   | N105   | N106   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 63  | MP6C  | N109   | N110   | 5           | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 64  | M64   | N103   | N111   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 65  | M65   | N57    | N111   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 66  | M66   | N138   | N141   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 67  | M67   | N156   | N157   | 10          | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 68  | M68   | N148   | N149   | 10          | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 69  | M69   | N154   | N153   |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 70  | M70   | N147   | N113   | 354.754     | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 71  | M71   | N152   | N149   |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 72  | M72   | N158   | N151   |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 73  | M73   | N162   | N164   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 74  | M74   | N114   | N130   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 75  | M75   | N160   | N123   |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 76  | M76   | N115   | N124   |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 77  | M77   | N160   | N164   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 78  | M78   | N132   | N135   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 79  | MP3B  | N139   | N137   | 10          | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 80  | MP2B  | N134   | N131   | 10          | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 81  | M81   | N144   | N146   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 82  | MP1B  | N128   | N126   | 10          | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 83  | M83   | N150   | N151   | 10          | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 84  | M84   | N152   | N153   | 10          | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 85  | M85   | N154   | N155   | 10          | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 86  | M86   | N158   | N159   | 10          | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 87  | M87   | N156   | N159   |             | PIPE 1.25     | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 88  | M88   | N127   | N129   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 89  | M89   | N161   | N122   |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 90  | M90   | N162   | N125   |             | PIPE 2.0      | None   | None        | A53 Gr. B (35 ksi) | Typical     |
| 91  | M91   | N133   | N136   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 92  | M92   | N116   | N140   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 93  | MP5B  | N145   | N142   | 10          | PIPE 2.0      | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 94  | M94   | N143   | N117   |             | RIGID         | None   | None        | RIGID              | Typical     |
| 95  | M95   | N161   | N163   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 96  | M96   | N115   | N163   | 90          | PL3/8X3.5     | None   | None        | A36 (36ksi)        | Typical     |
| 97  | M97   | N165   | N53    | 10.273      | A-Framing     | Column | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 98  | M98   | N7     | N10    |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 99  | M99   | N10    | N12    |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 100 | M100  | N12    | N8     |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 101 | M101  | N5     | N9     |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 102 | M102  | N9     | N11    |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 103 | M103  | N11    | N6     |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 104 | M104  | N120   | N123   |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |
| 105 | M105  | N123   | N125   |             | C-Framing     | Beam   | Pipe        | A53 Gr. B (35 ksi) | Typical     |

### Member Primary Data (Continued)

|     | Label | I Node | J Node | Rotate(deg) | Section/Shape | Type   | Design List  | Material           | Design Rule |
|-----|-------|--------|--------|-------------|---------------|--------|--------------|--------------------|-------------|
| 106 | M106  | N125   | N121   |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 107 | M107  | N118   | N122   |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 108 | M108  | N122   | N124   |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 109 | M109  | N124   | N119   |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 110 | M110  | N62    | N65    |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 111 | M111  | N65    | N67    |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 112 | M112  | N67    | N63    |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 113 | M113  | N60    | N64    |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 114 | M114  | N64    | N66    |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 115 | M115  | N66    | N61    |             | C-Framing     | Beam   | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 116 | M116  | N32    | N166   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 117 | M117  | N31    | N167   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 118 | M118  | N164   | N170   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 119 | M119  | N163   | N171   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 120 | M120  | N112   | N168   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 121 | M121  | N111   | N169   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 122 | M122  | N172   | N174   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 123 | M123  | N176   | N175   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 124 | M124  | N173   | N177   | 10          | PIPE 2.0      | Column | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 125 | MP4B  | N181   | N182   | 25          | PIPE 2.0      | Column | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 126 | M126  | N180   | N178   |             | Pipe to pipe  | Beam   | Tube         | A500 Gr. B (46ksi) | Typical     |
| 127 | M127  | N183   | N179   |             | Pipe to pipe  | Beam   | Tube         | A500 Gr. B (46ksi) | Typical     |
| 128 | M128  | N187   | N192   |             | V-Brace       | Beam   | Single Angle | A36 (36ksi)        | Typical     |
| 129 | M129  | N192   | N186   |             | V-Brace       | Beam   | Single Angle | A36 (36ksi)        | Typical     |
| 130 | M130  | N188   | N193   |             | V-Brace       | Beam   | Single Angle | A36 (36ksi)        | Typical     |
| 131 | M131  | N193   | N190   |             | V-Brace       | Beam   | Single Angle | A36 (36ksi)        | Typical     |
| 132 | M132  | N189   | N194   |             | V-Brace       | Beam   | Single Angle | A36 (36ksi)        | Typical     |
| 133 | M133  | N194   | N191   |             | V-Brace       | Beam   | Single Angle | A36 (36ksi)        | Typical     |
| 134 | M134  | N199   | N197   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 135 | MP2C  | N200   | N198   | 5           | PIPE 2.0      | Column | Pipe         | A53 Gr. B (35 ksi) | Typical     |
| 136 | M136  | N195   | N196   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 137 | M137  | N184   | N201   |             | Tieback       | Beam   | HSS Pipe     | A53 Gr. B (35 ksi) | Typical     |
| 138 | M138  | N203   | N202   |             | RIGID         | None   | None         | RIGID              | Typical     |
| 139 | M139  | N203   | N204   |             | Dish Tieback  | Beam   | HSS Pipe     | A53 Gr. B (35 ksi) | Typical     |

### Member Advanced Data

|    | Label | I Release | J Release | Physical | Deflection Ratio Options | Activation | Seismic DR |
|----|-------|-----------|-----------|----------|--------------------------|------------|------------|
| 1  | MP1A  |           |           | Yes      | ** NA **                 |            | None       |
| 2  | M2    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 3  | M3    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 4  | M4    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 5  | M5    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 6  | M6    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 7  | M7    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 8  | M8    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 9  | M9    | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 10 | M10   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 11 | M11   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 12 | M12   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 13 | M13   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 14 | M14   |           |           | Yes      | ** NA **                 |            | None       |
| 15 | M15   |           |           | Yes      | ** NA **                 |            | None       |
| 16 | M16   |           |           | Yes      | ** NA **                 |            | None       |
| 17 | M17   |           |           | Yes      | ** NA **                 |            | None       |
| 18 | M18   |           |           | Yes      | ** NA **                 |            | None       |

**Member Advanced Data (Continued)**

|    | Label | I Release | J Release | Physical | Deflection Ratio Options | Activation | Seismic DR |
|----|-------|-----------|-----------|----------|--------------------------|------------|------------|
| 19 | M19   |           |           | Yes      | ** NA **                 |            | None       |
| 20 | M20   |           |           | Yes      | ** NA **                 |            | None       |
| 21 | M21   |           |           | Yes      | ** NA **                 |            | None       |
| 22 | MP2A  |           |           | Yes      | ** NA **                 |            | None       |
| 23 | M23   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 24 | M24   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 25 | MP3A  |           |           | Yes      | ** NA **                 |            | None       |
| 26 | M26   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 27 | M27   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 28 | MP4A  |           |           | Yes      | ** NA **                 |            | None       |
| 29 | M29   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 30 | M30   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 31 | M31   | BenPIN    |           | Yes      | ** NA **                 |            | None       |
| 32 | M32   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 33 | M33   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 34 | M34   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 35 | M35   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 36 | M36   | BenPIN    |           | Yes      | ** NA **                 |            | None       |
| 37 | M37   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 38 | M38   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 39 | M39   |           |           | Yes      | ** NA **                 |            | None       |
| 40 | M40   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 41 | M41   |           |           | Yes      | ** NA **                 |            | None       |
| 42 | M42   |           |           | Yes      | ** NA **                 |            | None       |
| 43 | M43   |           |           | Yes      | ** NA **                 |            | None       |
| 44 | M44   |           |           | Yes      | ** NA **                 |            | None       |
| 45 | M45   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 46 | MP4C  |           |           | Yes      | ** NA **                 |            | None       |
| 47 | MP3C  |           |           | Yes      | ** NA **                 |            | None       |
| 48 | M48   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 49 | MP1C  |           |           | Yes      | ** NA **                 |            | None       |
| 50 | M50   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 51 | M51   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 52 | M52   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 53 | MP7C  | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 54 | M54   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 55 | M55   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 56 | M56   |           |           | Yes      | ** NA **                 |            | None       |
| 57 | M57   |           |           | Yes      | ** NA **                 |            | None       |
| 58 | M58   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 59 | M59   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 60 | MP5C  |           |           | Yes      | ** NA **                 |            | None       |
| 61 | M61   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 62 | M62   |           |           | Yes      | ** NA **                 |            | None       |
| 63 | MP6C  |           |           | Yes      | ** NA **                 |            | None       |
| 64 | M64   |           |           | Yes      | ** NA **                 |            | None       |
| 65 | M65   |           |           | Yes      | ** NA **                 |            | None       |
| 66 | M66   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 67 | M67   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 68 | M68   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 69 | M69   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 70 | M70   | BenPIN    |           | Yes      | ** NA **                 |            | None       |
| 71 | M71   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 72 | M72   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 73 | M73   |           |           | Yes      | ** NA **                 |            | None       |

**Member Advanced Data (Continued)**

|     | Label | I Release | J Release | Physical | Deflection Ratio Options | Activation | Seismic DR |
|-----|-------|-----------|-----------|----------|--------------------------|------------|------------|
| 74  | M74   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 75  | M75   |           |           | Yes      | ** NA **                 |            | None       |
| 76  | M76   |           |           | Yes      | ** NA **                 |            | None       |
| 77  | M77   |           |           | Yes      | ** NA **                 |            | None       |
| 78  | M78   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 79  | MP3B  |           |           | Yes      | ** NA **                 |            | None       |
| 80  | MP2B  |           |           | Yes      | ** NA **                 |            | None       |
| 81  | M81   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 82  | MP1B  |           |           | Yes      | ** NA **                 |            | None       |
| 83  | M83   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 84  | M84   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 85  | M85   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 86  | M86   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 87  | M87   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 88  | M88   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 89  | M89   |           |           | Yes      | ** NA **                 |            | None       |
| 90  | M90   |           |           | Yes      | ** NA **                 |            | None       |
| 91  | M91   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 92  | M92   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 93  | MP5B  |           |           | Yes      | ** NA **                 |            | None       |
| 94  | M94   |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 95  | M95   |           |           | Yes      | ** NA **                 |            | None       |
| 96  | M96   |           |           | Yes      | ** NA **                 |            | None       |
| 97  | M97   | BenPIN    | BenPIN    | Yes      | ** NA **                 |            | None       |
| 98  | M98   |           |           | Yes      | Default                  |            | None       |
| 99  | M99   |           |           | Yes      | Default                  |            | None       |
| 100 | M100  |           |           | Yes      | Default                  |            | None       |
| 101 | M101  |           |           | Yes      | Default                  |            | None       |
| 102 | M102  |           |           | Yes      | Default                  |            | None       |
| 103 | M103  |           |           | Yes      | Default                  |            | None       |
| 104 | M104  |           |           | Yes      | Default                  |            | None       |
| 105 | M105  |           |           | Yes      | Default                  |            | None       |
| 106 | M106  |           |           | Yes      | Default                  |            | None       |
| 107 | M107  |           |           | Yes      | Default                  |            | None       |
| 108 | M108  |           |           | Yes      | Default                  |            | None       |
| 109 | M109  |           |           | Yes      | Default                  |            | None       |
| 110 | M110  |           |           | Yes      | Default                  |            | None       |
| 111 | M111  |           |           | Yes      | Default                  |            | None       |
| 112 | M112  |           |           | Yes      | Default                  |            | None       |
| 113 | M113  |           |           | Yes      | Default                  |            | None       |
| 114 | M114  |           |           | Yes      | Default                  |            | None       |
| 115 | M115  |           |           | Yes      | Default                  |            | None       |
| 116 | M116  |           |           | Yes      | ** NA **                 |            | None       |
| 117 | M117  |           |           | Yes      | ** NA **                 |            | None       |
| 118 | M118  |           |           | Yes      | ** NA **                 |            | None       |
| 119 | M119  |           |           | Yes      | ** NA **                 |            | None       |
| 120 | M120  |           |           | Yes      | ** NA **                 |            | None       |
| 121 | M121  |           |           | Yes      | ** NA **                 |            | None       |
| 122 | M122  |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 123 | M123  |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 124 | M124  |           |           | Yes      | ** NA **                 |            | None       |
| 125 | MP4B  |           |           | Yes      | ** NA **                 |            | None       |
| 126 | M126  |           |           | Yes      | Default                  |            | None       |
| 127 | M127  |           |           | Yes      | Default                  |            | None       |
| 128 | M128  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |

### Member Advanced Data (Continued)

|     | Label | I Release | J Release | Physical | Deflection Ratio Options | Activation | Seismic DR |
|-----|-------|-----------|-----------|----------|--------------------------|------------|------------|
| 129 | M129  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |
| 130 | M130  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |
| 131 | M131  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |
| 132 | M132  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |
| 133 | M133  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |
| 134 | M134  |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 135 | MP2C  |           |           | Yes      | ** NA **                 |            | None       |
| 136 | M136  |           |           | Yes      | ** NA **                 | Exclude    | None       |
| 137 | M137  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |
| 138 | M138  |           |           | Yes      | ** NA **                 |            | None       |
| 139 | M139  | BenPIN    | BenPIN    | Yes      | Default                  |            | None       |

### Hot Rolled Steel Design Parameters

|    | Label | Shape     | Length [ft] | Lcomp top [ft] | K y-y | K z-z | Channel Conn. | a [ft] | Function |
|----|-------|-----------|-------------|----------------|-------|-------|---------------|--------|----------|
| 1  | MP1A  | PIPE 2.0  | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 2  | M2    | PIPE 2.0  | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 3  | M3    | PIPE 2.0  | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 4  | M4    | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 5  | M5    | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 6  | M6    | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 7  | M7    | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 8  | M8    | PIPE 1.25 | 4.244       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 9  | M9    | PIPE 1.25 | 4.355       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 10 | M10   | PIPE 1.25 | 4.244       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 11 | M11   | PIPE 1.25 | 4.355       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 12 | M14   | PIPE 2.0  | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 13 | M15   | PIPE 2.0  | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 14 | M16   | PIPE 2.0  | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 15 | M17   | PIPE 2.0  | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 16 | M18   | PL3/8X3.5 | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 17 | M19   | PL3/8X3.5 | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 18 | M20   | PL3/8X3.5 | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 19 | M21   | PL3/8X3.5 | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 20 | MP2A  | PIPE 2.0  | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 21 | MP3A  | PIPE 2.0  | 5           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 22 | MP4A  | PIPE 2.0  | 5           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 23 | M31   | PIPE 2.0  | 6.486       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 24 | M33   | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 25 | M34   | PIPE 2.0  | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 26 | M35   | PIPE 1.25 | 4.244       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 27 | M36   | PIPE 2.0  | 6.165       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 28 | M37   | PIPE 1.25 | 4.355       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 29 | M38   | PIPE 1.25 | 4.355       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 30 | M39   | PL3/8X3.5 | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 31 | M41   | PIPE 2.0  | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 32 | M42   | PIPE 2.0  | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 33 | M43   | PL3/8X3.5 | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 34 | MP4C  | PIPE 2.0  | 5           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 35 | MP3C  | PIPE 2.0  | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 36 | MP1C  | PIPE 2.0  | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 37 | M50   | PIPE 2.0  | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 38 | M51   | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 39 | M52   | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 40 | MP7C  | PIPE 1.25 | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 41 | M54   | PIPE 1.25 | 4.244       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |

**Hot Rolled Steel Design Parameters (Continued)**

|    | Label | Shape        | Length [ft] | Lcomp top [ft] | K y-y | K z-z | Channel Conn. | a [ft] | Function |
|----|-------|--------------|-------------|----------------|-------|-------|---------------|--------|----------|
| 42 | M56   | PIPE 2.0     | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 43 | M57   | PIPE 2.0     | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 44 | MP5C  | PIPE 2.0     | 5           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 45 | MP6C  | PIPE 2.0     | 6           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 46 | M64   | PL3/8X3.5    | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 47 | M65   | PL3/8X3.5    | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 48 | M67   | PIPE 1.25    | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 49 | M68   | PIPE 2.0     | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 50 | M69   | PIPE 1.25    | 4.244       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 51 | M70   | PIPE 2.0     | 5.922       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 52 | M71   | PIPE 1.25    | 4.355       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 53 | M72   | PIPE 1.25    | 4.355       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 54 | M73   | PL3/8X3.5    | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 55 | M75   | PIPE 2.0     | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 56 | M76   | PIPE 2.0     | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 57 | M77   | PL3/8X3.5    | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 58 | MP3B  | PIPE 2.0     | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 59 | MP2B  | PIPE 2.0     | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 60 | MP1B  | PIPE 2.0     | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 61 | M83   | PIPE 2.0     | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 62 | M84   | PIPE 1.25    | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 63 | M85   | PIPE 1.25    | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 64 | M86   | PIPE 1.25    | 3.5         | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 65 | M87   | PIPE 1.25    | 4.244       | Lbyy           | 0.65  | 0.65  | N/A           | N/A    | Lateral  |
| 66 | M89   | PIPE 2.0     | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 67 | M90   | PIPE 2.0     | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 68 | MP5B  | PIPE 2.0     | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 69 | M95   | PL3/8X3.5    | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 70 | M96   | PL3/8X3.5    | 0.459       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 71 | M97   | A-Framing    | 5.586       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 72 | M98   | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 73 | M99   | C-Framing    | 8.602       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 74 | M100  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 75 | M101  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 76 | M102  | C-Framing    | 8.602       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 77 | M103  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 78 | M104  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 79 | M105  | C-Framing    | 8.602       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 80 | M106  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 81 | M107  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 82 | M108  | C-Framing    | 8.602       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 83 | M109  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 84 | M110  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 85 | M111  | C-Framing    | 8.602       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 86 | M112  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 87 | M113  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 88 | M114  | C-Framing    | 8.602       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 89 | M115  | C-Framing    | 1.697       | Lbyy           | 2.1   | 2.1   | N/A           | N/A    | Lateral  |
| 90 | M124  | PIPE 2.0     | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 91 | MP4B  | PIPE 2.0     | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 92 | M126  | Pipe to pipe | 2           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 93 | M127  | Pipe to pipe | 2           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 94 | M128  | V-Brace      | 5.876       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 95 | M129  | V-Brace      | 5.876       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 96 | M130  | V-Brace      | 5.82        | Lbyy           |       |       | N/A           | N/A    | Lateral  |

### Hot Rolled Steel Design Parameters (Continued)

|     | Label | Shape        | Length [ft] | Lcomp top [ft] | K y-y | K z-z | Channel Conn. | a [ft] | Function |
|-----|-------|--------------|-------------|----------------|-------|-------|---------------|--------|----------|
| 97  | M131  | V-Brace      | 5.908       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 98  | M132  | V-Brace      | 5.85        | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 99  | M133  | V-Brace      | 5.895       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 100 | MP2C  | PIPE 2.0     | 8           | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 101 | M137  | Tieback      | 2.972       | Lbyy           |       |       | N/A           | N/A    | Lateral  |
| 102 | M139  | Dish Tieback | 6.251       | Lbyy           |       |       | N/A           | N/A    | Lateral  |

### Cold Formed Steel Design Parameters

|                     |  |  |  |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|--|--|--|
| No Data to Print... |  |  |  |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|--|--|--|

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | Y         | -25                  | 3.5                |
| 2  | MP5C         | My        | -0.019               | 3.5                |
| 3  | MP5C         | Mz        | -0.016               | 3.5                |
| 4  | MP6C         | Y         | -32                  | 1                  |
| 5  | MP6C         | My        | 0                    | 1                  |
| 6  | MP6C         | Mz        | 0                    | 1                  |
| 7  | MP7C         | Y         | -32                  | 1.75               |
| 8  | MP7C         | My        | 0                    | 1.75               |
| 9  | MP7C         | Mz        | 0                    | 1.75               |
| 10 | MP2A         | Y         | -55                  | 2                  |
| 11 | MP2A         | My        | -0.041               | 2                  |
| 12 | MP2A         | Mz        | 0                    | 2                  |
| 13 | MP2A         | Y         | -55                  | 4                  |
| 14 | MP2A         | My        | -0.041               | 4                  |
| 15 | MP2A         | Mz        | 0                    | 4                  |
| 16 | MP3B         | Y         | -55                  | 2                  |
| 17 | MP3B         | My        | 0.027                | 2                  |
| 18 | MP3B         | Mz        | -0.032               | 2                  |
| 19 | MP3B         | Y         | -55                  | 4                  |
| 20 | MP3B         | My        | 0.027                | 4                  |
| 21 | MP3B         | Mz        | -0.032               | 4                  |
| 22 | MP3C         | Y         | -55                  | 2                  |
| 23 | MP3C         | My        | 0.004                | 2                  |
| 24 | MP3C         | Mz        | 0.041                | 2                  |
| 25 | MP3C         | Y         | -55                  | 4                  |
| 26 | MP3C         | My        | 0.004                | 4                  |
| 27 | MP3C         | Mz        | 0.041                | 4                  |
| 28 | MP5B         | Y         | -55                  | 2                  |
| 29 | MP5B         | My        | 0.041                | 2                  |
| 30 | MP5B         | Mz        | 0.007                | 2                  |
| 31 | MP5B         | Y         | -55                  | 4                  |
| 32 | MP5B         | My        | 0.041                | 4                  |
| 33 | MP5B         | Mz        | 0.007                | 4                  |
| 34 | MP1C         | Y         | -35.5                | 2                  |
| 35 | MP1C         | My        | 0.026                | 2                  |
| 36 | MP1C         | Mz        | 0.005                | 2                  |
| 37 | MP1C         | Y         | -35.5                | 3                  |
| 38 | MP1C         | My        | 0.026                | 3                  |
| 39 | MP1C         | Mz        | 0.005                | 3                  |
| 40 | MP2B         | Y         | -35.5                | 2                  |
| 41 | MP2B         | My        | 0.017                | 2                  |
| 42 | MP2B         | Mz        | -0.02                | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 43 | MP2B         | Y         | -35.5                | 3                  |
| 44 | MP2B         | My        | 0.017                | 3                  |
| 45 | MP2B         | Mz        | -0.02                | 3                  |
| 46 | MP3A         | Y         | -35.5                | 2                  |
| 47 | MP3A         | My        | -0.027               | 2                  |
| 48 | MP3A         | Mz        | 0                    | 2                  |
| 49 | MP3A         | Y         | -35.5                | 3                  |
| 50 | MP3A         | My        | -0.027               | 3                  |
| 51 | MP3A         | Mz        | 0                    | 3                  |
| 52 | MP4C         | Y         | -35.5                | 2                  |
| 53 | MP4C         | My        | 0.002                | 2                  |
| 54 | MP4C         | Mz        | 0.027                | 2                  |
| 55 | MP4C         | Y         | -35.5                | 3                  |
| 56 | MP4C         | My        | 0.002                | 3                  |
| 57 | MP4C         | Mz        | 0.027                | 3                  |
| 58 | MP1A         | Y         | -53.7                | 1                  |
| 59 | MP1A         | My        | -0.04                | 1                  |
| 60 | MP1A         | Mz        | 0                    | 1                  |
| 61 | MP1A         | Y         | -53.7                | 7                  |
| 62 | MP1A         | My        | -0.04                | 7                  |
| 63 | MP1A         | Mz        | 0                    | 7                  |
| 64 | MP1B         | Y         | -53.7                | 1                  |
| 65 | MP1B         | My        | 0.026                | 1                  |
| 66 | MP1B         | Mz        | -0.031               | 1                  |
| 67 | MP1B         | Y         | -53.7                | 7                  |
| 68 | MP1B         | My        | 0.026                | 7                  |
| 69 | MP1B         | Mz        | -0.031               | 7                  |
| 70 | MP2C         | Y         | -53.7                | 1                  |
| 71 | MP2C         | My        | 0.004                | 1                  |
| 72 | MP2C         | Mz        | 0.04                 | 1                  |
| 73 | MP2C         | Y         | -53.7                | 7                  |
| 74 | MP2C         | My        | 0.004                | 7                  |
| 75 | MP2C         | Mz        | 0.04                 | 7                  |
| 76 | MP4B         | Y         | -53.7                | 1                  |
| 77 | MP4B         | My        | 0.04                 | 1                  |
| 78 | MP4B         | Mz        | 0.007                | 1                  |
| 79 | MP4B         | Y         | -53.7                | 7                  |
| 80 | MP4B         | My        | 0.04                 | 7                  |
| 81 | MP4B         | Mz        | 0.007                | 7                  |
| 82 | MP1A         | Y         | -68.4                | 1                  |
| 83 | MP1A         | My        | 0.026                | 1                  |
| 84 | MP1A         | Mz        | 0.022                | 1                  |
| 85 | MP1B         | Y         | -68.4                | 1                  |
| 86 | MP1B         | My        | 0.026                | 1                  |
| 87 | MP1B         | Mz        | 0.022                | 1                  |
| 88 | MP2C         | Y         | -68.4                | 1                  |
| 89 | MP2C         | My        | 0.026                | 1                  |
| 90 | MP2C         | Mz        | 0.022                | 1                  |
| 91 | MP4B         | Y         | -68.4                | 1                  |
| 92 | MP4B         | My        | 0.026                | 1                  |
| 93 | MP4B         | Mz        | 0.022                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 0                    | 3.5                |
| 2  | MP5C         | Z         | -182.688             | 3.5                |
| 3  | MP5C         | Mx        | 0.117                | 3.5                |
| 4  | MP6C         | X         | 0                    | 1                  |
| 5  | MP6C         | Z         | -155.589             | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 0                    | 1.75               |
| 8  | MP7C         | Z         | -155.589             | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 0                    | 2                  |
| 11 | MP2A         | Z         | -158.039             | 2                  |
| 12 | MP2A         | Mx        | 0                    | 2                  |
| 13 | MP2A         | X         | 0                    | 4                  |
| 14 | MP2A         | Z         | -158.039             | 4                  |
| 15 | MP2A         | Mx        | 0                    | 4                  |
| 16 | MP3B         | X         | 0                    | 2                  |
| 17 | MP3B         | Z         | -109.3               | 2                  |
| 18 | MP3B         | Mx        | 0.063                | 2                  |
| 19 | MP3B         | X         | 0                    | 4                  |
| 20 | MP3B         | Z         | -109.3               | 4                  |
| 21 | MP3B         | Mx        | 0.063                | 4                  |
| 22 | MP3C         | X         | 0                    | 2                  |
| 23 | MP3C         | Z         | -75.615              | 2                  |
| 24 | MP3C         | Mx        | -0.056               | 2                  |
| 25 | MP3C         | X         | 0                    | 4                  |
| 26 | MP3C         | Z         | -75.615              | 4                  |
| 27 | MP3C         | Mx        | -0.056               | 4                  |
| 28 | MP5B         | X         | 0                    | 2                  |
| 29 | MP5B         | Z         | -155.535             | 2                  |
| 30 | MP5B         | Mx        | -0.02                | 2                  |
| 31 | MP5B         | X         | 0                    | 4                  |
| 32 | MP5B         | Z         | -155.535             | 4                  |
| 33 | MP5B         | Mx        | -0.02                | 4                  |
| 34 | MP1C         | X         | 0                    | 2                  |
| 35 | MP1C         | Z         | -73.644              | 2                  |
| 36 | MP1C         | Mx        | -0.01                | 2                  |
| 37 | MP1C         | X         | 0                    | 3                  |
| 38 | MP1C         | Z         | -73.644              | 3                  |
| 39 | MP1C         | Mx        | -0.01                | 3                  |
| 40 | MP2B         | X         | 0                    | 2                  |
| 41 | MP2B         | Z         | -52.832              | 2                  |
| 42 | MP2B         | Mx        | 0.03                 | 2                  |
| 43 | MP2B         | X         | 0                    | 3                  |
| 44 | MP2B         | Z         | -52.832              | 3                  |
| 45 | MP2B         | Mx        | 0.03                 | 3                  |
| 46 | MP3A         | X         | 0                    | 2                  |
| 47 | MP3A         | Z         | -74.771              | 2                  |
| 48 | MP3A         | Mx        | 0                    | 2                  |
| 49 | MP3A         | X         | 0                    | 3                  |
| 50 | MP3A         | Z         | -74.771              | 3                  |
| 51 | MP3A         | Mx        | 0                    | 3                  |
| 52 | MP4C         | X         | 0                    | 2                  |
| 53 | MP4C         | Z         | -37.67               | 2                  |
| 54 | MP4C         | Mx        | -0.028               | 2                  |
| 55 | MP4C         | X         | 0                    | 3                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 56 | MP4C         | Z         | -37.67               | 3                  |
| 57 | MP4C         | Mx        | -0.028               | 3                  |
| 58 | MP1A         | X         | 0                    | 1                  |
| 59 | MP1A         | Z         | -222.615             | 1                  |
| 60 | MP1A         | Mx        | 0                    | 1                  |
| 61 | MP1A         | X         | 0                    | 7                  |
| 62 | MP1A         | Z         | -222.615             | 7                  |
| 63 | MP1A         | Mx        | 0                    | 7                  |
| 64 | MP1B         | X         | 0                    | 1                  |
| 65 | MP1B         | Z         | -125.635             | 1                  |
| 66 | MP1B         | Mx        | 0.072                | 1                  |
| 67 | MP1B         | X         | 0                    | 7                  |
| 68 | MP1B         | Z         | -125.635             | 7                  |
| 69 | MP1B         | Mx        | 0.072                | 7                  |
| 70 | MP2C         | X         | 0                    | 1                  |
| 71 | MP2C         | Z         | -58.608              | 1                  |
| 72 | MP2C         | Mx        | -0.044               | 1                  |
| 73 | MP2C         | X         | 0                    | 7                  |
| 74 | MP2C         | Z         | -58.608              | 7                  |
| 75 | MP2C         | Mx        | -0.044               | 7                  |
| 76 | MP4B         | X         | 0                    | 1                  |
| 77 | MP4B         | Z         | -217.631             | 1                  |
| 78 | MP4B         | Mx        | -0.028               | 1                  |
| 79 | MP4B         | X         | 0                    | 7                  |
| 80 | MP4B         | Z         | -217.631             | 7                  |
| 81 | MP4B         | Mx        | -0.028               | 7                  |
| 82 | MP1A         | X         | 0                    | 1                  |
| 83 | MP1A         | Z         | -78.717              | 1                  |
| 84 | MP1A         | Mx        | -0.025               | 1                  |
| 85 | MP1B         | X         | 0                    | 1                  |
| 86 | MP1B         | Z         | -78.717              | 1                  |
| 87 | MP1B         | Mx        | -0.025               | 1                  |
| 88 | MP2C         | X         | 0                    | 1                  |
| 89 | MP2C         | Z         | -78.717              | 1                  |
| 90 | MP2C         | Mx        | -0.025               | 1                  |
| 91 | MP4B         | X         | 0                    | 1                  |
| 92 | MP4B         | Z         | -78.717              | 1                  |
| 93 | MP4B         | Mx        | -0.025               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 78.869               | 3.5                |
| 2  | MP5C         | Z         | -136.605             | 3.5                |
| 3  | MP5C         | Mx        | 0.027                | 3.5                |
| 4  | MP6C         | X         | 85.625               | 1                  |
| 5  | MP6C         | Z         | -148.308             | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 85.625               | 1.75               |
| 8  | MP7C         | Z         | -148.308             | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 68.638               | 2                  |
| 11 | MP2A         | Z         | -118.884             | 2                  |
| 12 | MP2A         | Mx        | -0.051               | 2                  |
| 13 | MP2A         | X         | 68.638               | 4                  |
| 14 | MP2A         | Z         | -118.884             | 4                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 15 | MP2A         | Mx        | -0.051               | 4                  |
| 16 | MP3B         | X         | 38.744               | 2                  |
| 17 | MP3B         | Z         | -67.107              | 2                  |
| 18 | MP3B         | Mx        | 0.057                | 2                  |
| 19 | MP3B         | X         | 38.744               | 4                  |
| 20 | MP3B         | Z         | -67.107              | 4                  |
| 21 | MP3B         | Mx        | 0.057                | 4                  |
| 22 | MP3C         | X         | 51.154               | 2                  |
| 23 | MP3C         | Z         | -88.601              | 2                  |
| 24 | MP3C         | Mx        | -0.063               | 2                  |
| 25 | MP3C         | X         | 51.154               | 4                  |
| 26 | MP3C         | Z         | -88.601              | 4                  |
| 27 | MP3C         | Mx        | -0.063               | 4                  |
| 28 | MP5B         | X         | 74.162               | 2                  |
| 29 | MP5B         | Z         | -128.452             | 2                  |
| 30 | MP5B         | Mx        | 0.038                | 2                  |
| 31 | MP5B         | X         | 74.162               | 4                  |
| 32 | MP5B         | Z         | -128.452             | 4                  |
| 33 | MP5B         | Mx        | 0.038                | 4                  |
| 34 | MP1C         | X         | 35.199               | 2                  |
| 35 | MP1C         | Z         | -60.966              | 2                  |
| 36 | MP1C         | Mx        | 0.018                | 2                  |
| 37 | MP1C         | X         | 35.199               | 3                  |
| 38 | MP1C         | Z         | -60.966              | 3                  |
| 39 | MP1C         | Mx        | 0.018                | 3                  |
| 40 | MP2B         | X         | 19.256               | 2                  |
| 41 | MP2B         | Z         | -33.353              | 2                  |
| 42 | MP2B         | Mx        | 0.028                | 2                  |
| 43 | MP2B         | X         | 19.256               | 3                  |
| 44 | MP2B         | Z         | -33.353              | 3                  |
| 45 | MP2B         | Mx        | 0.028                | 3                  |
| 46 | MP3A         | X         | 32.712               | 2                  |
| 47 | MP3A         | Z         | -56.66               | 2                  |
| 48 | MP3A         | Mx        | -0.025               | 2                  |
| 49 | MP3A         | X         | 32.712               | 3                  |
| 50 | MP3A         | Z         | -56.66               | 3                  |
| 51 | MP3A         | Mx        | -0.025               | 3                  |
| 52 | MP4C         | X         | 24.843               | 2                  |
| 53 | MP4C         | Z         | -43.029              | 2                  |
| 54 | MP4C         | Mx        | -0.031               | 2                  |
| 55 | MP4C         | X         | 24.843               | 3                  |
| 56 | MP4C         | Z         | -43.029              | 3                  |
| 57 | MP4C         | Mx        | -0.031               | 3                  |
| 58 | MP1A         | X         | 90.65                | 1                  |
| 59 | MP1A         | Z         | -157.01              | 1                  |
| 60 | MP1A         | Mx        | -0.068               | 1                  |
| 61 | MP1A         | X         | 90.65                | 7                  |
| 62 | MP1A         | Z         | -157.01              | 7                  |
| 63 | MP1A         | Mx        | -0.068               | 7                  |
| 64 | MP1B         | X         | 31.168               | 1                  |
| 65 | MP1B         | Z         | -53.985              | 1                  |
| 66 | MP1B         | Mx        | 0.046                | 1                  |
| 67 | MP1B         | X         | 31.168               | 7                  |
| 68 | MP1B         | Z         | -53.985              | 7                  |
| 69 | MP1B         | Mx        | 0.046                | 7                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 70 | MP2C         | X         | 55.861               | 1                  |
| 71 | MP2C         | Z         | -96.754              | 1                  |
| 72 | MP2C         | Mx        | -0.069               | 1                  |
| 73 | MP2C         | X         | 55.861               | 7                  |
| 74 | MP2C         | Z         | -96.754              | 7                  |
| 75 | MP2C         | Mx        | -0.069               | 7                  |
| 76 | MP4B         | X         | 101.641              | 1                  |
| 77 | MP4B         | Z         | -176.048             | 1                  |
| 78 | MP4B         | Mx        | 0.052                | 1                  |
| 79 | MP4B         | X         | 101.641              | 7                  |
| 80 | MP4B         | Z         | -176.048             | 7                  |
| 81 | MP4B         | Mx        | 0.052                | 7                  |
| 82 | MP1A         | X         | 49.935               | 1                  |
| 83 | MP1A         | Z         | -86.491              | 1                  |
| 84 | MP1A         | Mx        | -0.009               | 1                  |
| 85 | MP1B         | X         | 49.935               | 1                  |
| 86 | MP1B         | Z         | -86.491              | 1                  |
| 87 | MP1B         | Mx        | -0.009               | 1                  |
| 88 | MP2C         | X         | 49.935               | 1                  |
| 89 | MP2C         | Z         | -86.491              | 1                  |
| 90 | MP2C         | Mx        | -0.009               | 1                  |
| 91 | MP4B         | X         | 49.935               | 1                  |
| 92 | MP4B         | Z         | -86.491              | 1                  |
| 93 | MP4B         | Mx        | -0.009               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 141.503              | 3.5                |
| 2  | MP5C         | Z         | -81.697              | 3.5                |
| 3  | MP5C         | Mx        | -0.056               | 3.5                |
| 4  | MP6C         | X         | 145.233              | 1                  |
| 5  | MP6C         | Z         | -83.85               | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 145.233              | 1.75               |
| 8  | MP7C         | Z         | -83.85               | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 82.92                | 2                  |
| 11 | MP2A         | Z         | -47.874              | 2                  |
| 12 | MP2A         | Mx        | -0.062               | 2                  |
| 13 | MP2A         | X         | 82.92                | 4                  |
| 14 | MP2A         | Z         | -47.874              | 4                  |
| 15 | MP2A         | Mx        | -0.062               | 4                  |
| 16 | MP3B         | X         | 73.352               | 2                  |
| 17 | MP3B         | Z         | -42.35               | 2                  |
| 18 | MP3B         | Mx        | 0.06                 | 2                  |
| 19 | MP3B         | X         | 73.352               | 4                  |
| 20 | MP3B         | Z         | -42.35               | 4                  |
| 21 | MP3B         | Mx        | 0.06                 | 4                  |
| 22 | MP3C         | X         | 124.019              | 2                  |
| 23 | MP3C         | Z         | -71.603              | 2                  |
| 24 | MP3C         | Mx        | -0.045               | 2                  |
| 25 | MP3C         | X         | 124.019              | 4                  |
| 26 | MP3C         | Z         | -71.603              | 4                  |
| 27 | MP3C         | Mx        | -0.045               | 4                  |
| 28 | MP5B         | X         | 94.657               | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 29 | MP5B         | Z         | -54.65               | 2                  |
| 30 | MP5B         | Mx        | 0.063                | 2                  |
| 31 | MP5B         | X         | 94.657               | 4                  |
| 32 | MP5B         | Z         | -54.65               | 4                  |
| 33 | MP5B         | Mx        | 0.063                | 4                  |
| 34 | MP1C         | X         | 45.754               | 2                  |
| 35 | MP1C         | Z         | -26.416              | 2                  |
| 36 | MP1C         | Mx        | 0.03                 | 2                  |
| 37 | MP1C         | X         | 45.754               | 3                  |
| 38 | MP1C         | Z         | -26.416              | 3                  |
| 39 | MP1C         | Mx        | 0.03                 | 3                  |
| 40 | MP2B         | X         | 36.164               | 2                  |
| 41 | MP2B         | Z         | -20.879              | 2                  |
| 42 | MP2B         | Mx        | 0.029                | 2                  |
| 43 | MP2B         | X         | 36.164               | 3                  |
| 44 | MP2B         | Z         | -20.879              | 3                  |
| 45 | MP2B         | Mx        | 0.029                | 3                  |
| 46 | MP3A         | X         | 40.471               | 2                  |
| 47 | MP3A         | Z         | -23.366              | 2                  |
| 48 | MP3A         | Mx        | -0.03                | 2                  |
| 49 | MP3A         | X         | 40.471               | 3                  |
| 50 | MP3A         | Z         | -23.366              | 3                  |
| 51 | MP3A         | Mx        | -0.03                | 3                  |
| 52 | MP4C         | X         | 58.971               | 2                  |
| 53 | MP4C         | Z         | -34.047              | 2                  |
| 54 | MP4C         | Mx        | -0.022               | 2                  |
| 55 | MP4C         | X         | 58.971               | 3                  |
| 56 | MP4C         | Z         | -34.047              | 3                  |
| 57 | MP4C         | Mx        | -0.022               | 3                  |
| 58 | MP1A         | X         | 85.449               | 1                  |
| 59 | MP1A         | Z         | -49.334              | 1                  |
| 60 | MP1A         | Mx        | -0.064               | 1                  |
| 61 | MP1A         | X         | 85.449               | 7                  |
| 62 | MP1A         | Z         | -49.334              | 7                  |
| 63 | MP1A         | Mx        | -0.064               | 7                  |
| 64 | MP1B         | X         | 66.411               | 1                  |
| 65 | MP1B         | Z         | -38.342              | 1                  |
| 66 | MP1B         | Mx        | 0.054                | 1                  |
| 67 | MP1B         | X         | 66.411               | 7                  |
| 68 | MP1B         | Z         | -38.342              | 7                  |
| 69 | MP1B         | Mx        | 0.054                | 7                  |
| 70 | MP2C         | X         | 167.228              | 1                  |
| 71 | MP2C         | Z         | -96.549              | 1                  |
| 72 | MP2C         | Mx        | -0.061               | 1                  |
| 73 | MP2C         | X         | 167.228              | 7                  |
| 74 | MP2C         | Z         | -96.549              | 7                  |
| 75 | MP2C         | Mx        | -0.061               | 7                  |
| 76 | MP4B         | X         | 108.803              | 1                  |
| 77 | MP4B         | Z         | -62.818              | 1                  |
| 78 | MP4B         | Mx        | 0.072                | 1                  |
| 79 | MP4B         | X         | 108.803              | 7                  |
| 80 | MP4B         | Z         | -62.818              | 7                  |
| 81 | MP4B         | Mx        | 0.072                | 7                  |
| 82 | MP1A         | X         | 82.338               | 1                  |
| 83 | MP1A         | Z         | -47.538              | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 84 | MP1A         | Mx        | 0.016                | 1                  |
| 85 | MP1B         | X         | 82.338               | 1                  |
| 86 | MP1B         | Z         | -47.538              | 1                  |
| 87 | MP1B         | Mx        | 0.016                | 1                  |
| 88 | MP2C         | X         | 82.338               | 1                  |
| 89 | MP2C         | Z         | -47.538              | 1                  |
| 90 | MP2C         | Mx        | 0.016                | 1                  |
| 91 | MP4B         | X         | 82.338               | 1                  |
| 92 | MP4B         | Z         | -47.538              | 1                  |
| 93 | MP4B         | Mx        | 0.016                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 194                  | 3.5                |
| 2  | MP5C         | Z         | 0                    | 3.5                |
| 3  | MP5C         | Mx        | -0.149               | 3.5                |
| 4  | MP6C         | X         | 148.488              | 1                  |
| 5  | MP6C         | Z         | 0                    | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 148.488              | 1.75               |
| 8  | MP7C         | Z         | 0                    | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 74.984               | 2                  |
| 11 | MP2A         | Z         | 0                    | 2                  |
| 12 | MP2A         | Mx        | -0.056               | 2                  |
| 13 | MP2A         | X         | 74.984               | 4                  |
| 14 | MP2A         | Z         | 0                    | 4                  |
| 15 | MP2A         | Mx        | -0.056               | 4                  |
| 16 | MP3B         | X         | 123.723              | 2                  |
| 17 | MP3B         | Z         | 0                    | 2                  |
| 18 | MP3B         | Mx        | 0.06                 | 2                  |
| 19 | MP3B         | X         | 123.723              | 4                  |
| 20 | MP3B         | Z         | 0                    | 4                  |
| 21 | MP3B         | Mx        | 0.06                 | 4                  |
| 22 | MP3C         | X         | 157.408              | 2                  |
| 23 | MP3C         | Z         | 0                    | 2                  |
| 24 | MP3C         | Mx        | 0.01                 | 2                  |
| 25 | MP3C         | X         | 157.408              | 4                  |
| 26 | MP3C         | Z         | 0                    | 4                  |
| 27 | MP3C         | Mx        | 0.01                 | 4                  |
| 28 | MP5B         | X         | 77.488               | 2                  |
| 29 | MP5B         | Z         | 0                    | 2                  |
| 30 | MP5B         | Mx        | 0.057                | 2                  |
| 31 | MP5B         | X         | 77.488               | 4                  |
| 32 | MP5B         | Z         | 0                    | 4                  |
| 33 | MP5B         | Mx        | 0.057                | 4                  |
| 34 | MP1C         | X         | 38.513               | 2                  |
| 35 | MP1C         | Z         | 0                    | 2                  |
| 36 | MP1C         | Mx        | 0.028                | 2                  |
| 37 | MP1C         | X         | 38.513               | 3                  |
| 38 | MP1C         | Z         | 0                    | 3                  |
| 39 | MP1C         | Mx        | 0.028                | 3                  |
| 40 | MP2B         | X         | 59.324               | 2                  |
| 41 | MP2B         | Z         | 0                    | 2                  |
| 42 | MP2B         | Mx        | 0.029                | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 43 | MP2B         | X         | 59.324               | 3                  |
| 44 | MP2B         | Z         | 0                    | 3                  |
| 45 | MP2B         | Mx        | 0.029                | 3                  |
| 46 | MP3A         | X         | 37.386               | 2                  |
| 47 | MP3A         | Z         | 0                    | 2                  |
| 48 | MP3A         | Mx        | -0.028               | 2                  |
| 49 | MP3A         | X         | 37.386               | 3                  |
| 50 | MP3A         | Z         | 0                    | 3                  |
| 51 | MP3A         | Mx        | -0.028               | 3                  |
| 52 | MP4C         | X         | 74.487               | 2                  |
| 53 | MP4C         | Z         | 0                    | 2                  |
| 54 | MP4C         | Mx        | 0.005                | 2                  |
| 55 | MP4C         | X         | 74.487               | 3                  |
| 56 | MP4C         | Z         | 0                    | 3                  |
| 57 | MP4C         | Mx        | 0.005                | 3                  |
| 58 | MP1A         | X         | 57.353               | 1                  |
| 59 | MP1A         | Z         | 0                    | 1                  |
| 60 | MP1A         | Mx        | -0.043               | 1                  |
| 61 | MP1A         | X         | 57.353               | 7                  |
| 62 | MP1A         | Z         | 0                    | 7                  |
| 63 | MP1A         | Mx        | -0.043               | 7                  |
| 64 | MP1B         | X         | 154.332              | 1                  |
| 65 | MP1B         | Z         | 0                    | 1                  |
| 66 | MP1B         | Mx        | 0.074                | 1                  |
| 67 | MP1B         | X         | 154.332              | 7                  |
| 68 | MP1B         | Z         | 0                    | 7                  |
| 69 | MP1B         | Mx        | 0.074                | 7                  |
| 70 | MP2C         | X         | 221.359              | 1                  |
| 71 | MP2C         | Z         | 0                    | 1                  |
| 72 | MP2C         | Mx        | 0.014                | 1                  |
| 73 | MP2C         | X         | 221.359              | 7                  |
| 74 | MP2C         | Z         | 0                    | 7                  |
| 75 | MP2C         | Mx        | 0.014                | 7                  |
| 76 | MP4B         | X         | 62.336               | 1                  |
| 77 | MP4B         | Z         | 0                    | 1                  |
| 78 | MP4B         | Mx        | 0.046                | 1                  |
| 79 | MP4B         | X         | 62.336               | 7                  |
| 80 | MP4B         | Z         | 0                    | 7                  |
| 81 | MP4B         | Mx        | 0.046                | 7                  |
| 82 | MP1A         | X         | 69.126               | 1                  |
| 83 | MP1A         | Z         | 0                    | 1                  |
| 84 | MP1A         | Mx        | 0.026                | 1                  |
| 85 | MP1B         | X         | 69.126               | 1                  |
| 86 | MP1B         | Z         | 0                    | 1                  |
| 87 | MP1B         | Mx        | 0.026                | 1                  |
| 88 | MP2C         | X         | 69.126               | 1                  |
| 89 | MP2C         | Z         | 0                    | 1                  |
| 90 | MP2C         | Mx        | 0.026                | 1                  |
| 91 | MP4B         | X         | 69.126               | 1                  |
| 92 | MP4B         | Z         | 0                    | 1                  |
| 93 | MP4B         | Mx        | 0.026                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 189.617              | 3.5                |
| 2  | MP5C         | Z         | 109.475              | 3.5                |
| 3  | MP5C         | Mx        | -0.216               | 3.5                |
| 4  | MP6C         | X         | 115.031              | 1                  |
| 5  | MP6C         | Z         | 66.413               | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 115.031              | 1.75               |
| 8  | MP7C         | Z         | 66.413               | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 82.92                | 2                  |
| 11 | MP2A         | Z         | 47.874               | 2                  |
| 12 | MP2A         | Mx        | -0.062               | 2                  |
| 13 | MP2A         | X         | 82.92                | 4                  |
| 14 | MP2A         | Z         | 47.874               | 4                  |
| 15 | MP2A         | Mx        | -0.062               | 4                  |
| 16 | MP3B         | X         | 134.697              | 2                  |
| 17 | MP3B         | Z         | 77.767               | 2                  |
| 18 | MP3B         | Mx        | 0.02                 | 2                  |
| 19 | MP3B         | X         | 134.697              | 4                  |
| 20 | MP3B         | Z         | 77.767               | 4                  |
| 21 | MP3B         | Mx        | 0.02                 | 4                  |
| 22 | MP3C         | X         | 113.202              | 2                  |
| 23 | MP3C         | Z         | 65.357               | 2                  |
| 24 | MP3C         | Mx        | 0.056                | 2                  |
| 25 | MP3C         | X         | 113.202              | 4                  |
| 26 | MP3C         | Z         | 65.357               | 4                  |
| 27 | MP3C         | Mx        | 0.056                | 4                  |
| 28 | MP5B         | X         | 73.352               | 2                  |
| 29 | MP5B         | Z         | 42.35                | 2                  |
| 30 | MP5B         | Mx        | 0.06                 | 2                  |
| 31 | MP5B         | X         | 73.352               | 4                  |
| 32 | MP5B         | Z         | 42.35                | 4                  |
| 33 | MP5B         | Mx        | 0.06                 | 4                  |
| 34 | MP1C         | X         | 36.164               | 2                  |
| 35 | MP1C         | Z         | 20.879               | 2                  |
| 36 | MP1C         | Mx        | 0.029                | 2                  |
| 37 | MP1C         | X         | 36.164               | 3                  |
| 38 | MP1C         | Z         | 20.879               | 3                  |
| 39 | MP1C         | Mx        | 0.029                | 3                  |
| 40 | MP2B         | X         | 63.778               | 2                  |
| 41 | MP2B         | Z         | 36.822               | 2                  |
| 42 | MP2B         | Mx        | 0.01                 | 2                  |
| 43 | MP2B         | X         | 63.778               | 3                  |
| 44 | MP2B         | Z         | 36.822               | 3                  |
| 45 | MP2B         | Mx        | 0.01                 | 3                  |
| 46 | MP3A         | X         | 40.471               | 2                  |
| 47 | MP3A         | Z         | 23.366               | 2                  |
| 48 | MP3A         | Mx        | -0.03                | 2                  |
| 49 | MP3A         | X         | 40.471               | 3                  |
| 50 | MP3A         | Z         | 23.366               | 3                  |
| 51 | MP3A         | Mx        | -0.03                | 3                  |
| 52 | MP4C         | X         | 54.102               | 2                  |
| 53 | MP4C         | Z         | 31.236               | 2                  |
| 54 | MP4C         | Mx        | 0.027                | 2                  |
| 55 | MP4C         | X         | 54.102               | 3                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 56 | MP4C         | Z         | 31.236               | 3                  |
| 57 | MP4C         | Mx        | 0.027                | 3                  |
| 58 | MP1A         | X         | 85.449               | 1                  |
| 59 | MP1A         | Z         | 49.334               | 1                  |
| 60 | MP1A         | Mx        | -0.064               | 1                  |
| 61 | MP1A         | X         | 85.449               | 7                  |
| 62 | MP1A         | Z         | 49.334               | 7                  |
| 63 | MP1A         | Mx        | -0.064               | 7                  |
| 64 | MP1B         | X         | 188.474              | 1                  |
| 65 | MP1B         | Z         | 108.816              | 1                  |
| 66 | MP1B         | Mx        | 0.028                | 1                  |
| 67 | MP1B         | X         | 188.474              | 7                  |
| 68 | MP1B         | Z         | 108.816              | 7                  |
| 69 | MP1B         | Mx        | 0.028                | 7                  |
| 70 | MP2C         | X         | 145.705              | 1                  |
| 71 | MP2C         | Z         | 84.123               | 1                  |
| 72 | MP2C         | Mx        | 0.072                | 1                  |
| 73 | MP2C         | X         | 145.705              | 7                  |
| 74 | MP2C         | Z         | 84.123               | 7                  |
| 75 | MP2C         | Mx        | 0.072                | 7                  |
| 76 | MP4B         | X         | 66.411               | 1                  |
| 77 | MP4B         | Z         | 38.342               | 1                  |
| 78 | MP4B         | Mx        | 0.054                | 1                  |
| 79 | MP4B         | X         | 66.411               | 7                  |
| 80 | MP4B         | Z         | 38.342               | 7                  |
| 81 | MP4B         | Mx        | 0.054                | 7                  |
| 82 | MP1A         | X         | 41.545               | 1                  |
| 83 | MP1A         | Z         | 23.986               | 1                  |
| 84 | MP1A         | Mx        | 0.024                | 1                  |
| 85 | MP1B         | X         | 41.545               | 1                  |
| 86 | MP1B         | Z         | 23.986               | 1                  |
| 87 | MP1B         | Mx        | 0.024                | 1                  |
| 88 | MP2C         | X         | 41.545               | 1                  |
| 89 | MP2C         | Z         | 23.986               | 1                  |
| 90 | MP2C         | Mx        | 0.024                | 1                  |
| 91 | MP4B         | X         | 41.545               | 1                  |
| 92 | MP4B         | Z         | 23.986               | 1                  |
| 93 | MP4B         | Mx        | 0.024                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 106.648              | 3.5                |
| 2  | MP5C         | Z         | 184.719              | 3.5                |
| 3  | MP5C         | Mx        | -0.2                 | 3.5                |
| 4  | MP6C         | X         | 68.188               | 1                  |
| 5  | MP6C         | Z         | 118.106              | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 68.188               | 1.75               |
| 8  | MP7C         | Z         | 118.106              | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 68.638               | 2                  |
| 11 | MP2A         | Z         | 118.884              | 2                  |
| 12 | MP2A         | Mx        | -0.051               | 2                  |
| 13 | MP2A         | X         | 68.638               | 4                  |
| 14 | MP2A         | Z         | 118.884              | 4                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 15 | MP2A         | Mx        | -0.051               | 4                  |
| 16 | MP3B         | X         | 74.162               | 2                  |
| 17 | MP3B         | Z         | 128.452              | 2                  |
| 18 | MP3B         | Mx        | -0.038               | 2                  |
| 19 | MP3B         | X         | 74.162               | 4                  |
| 20 | MP3B         | Z         | 128.452              | 4                  |
| 21 | MP3B         | Mx        | -0.038               | 4                  |
| 22 | MP3C         | X         | 44.909               | 2                  |
| 23 | MP3C         | Z         | 77.785               | 2                  |
| 24 | MP3C         | Mx        | 0.061                | 2                  |
| 25 | MP3C         | X         | 44.909               | 4                  |
| 26 | MP3C         | Z         | 77.785               | 4                  |
| 27 | MP3C         | Mx        | 0.061                | 4                  |
| 28 | MP5B         | X         | 61.861               | 2                  |
| 29 | MP5B         | Z         | 107.147              | 2                  |
| 30 | MP5B         | Mx        | 0.06                 | 2                  |
| 31 | MP5B         | X         | 61.861               | 4                  |
| 32 | MP5B         | Z         | 107.147              | 4                  |
| 33 | MP5B         | Mx        | 0.06                 | 4                  |
| 34 | MP1C         | X         | 29.662               | 2                  |
| 35 | MP1C         | Z         | 51.376               | 2                  |
| 36 | MP1C         | Mx        | 0.029                | 2                  |
| 37 | MP1C         | X         | 29.662               | 3                  |
| 38 | MP1C         | Z         | 51.376               | 3                  |
| 39 | MP1C         | Mx        | 0.029                | 3                  |
| 40 | MP2B         | X         | 35.199               | 2                  |
| 41 | MP2B         | Z         | 60.966               | 2                  |
| 42 | MP2B         | Mx        | -0.018               | 2                  |
| 43 | MP2B         | X         | 35.199               | 3                  |
| 44 | MP2B         | Z         | 60.966               | 3                  |
| 45 | MP2B         | Mx        | -0.018               | 3                  |
| 46 | MP3A         | X         | 32.712               | 2                  |
| 47 | MP3A         | Z         | 56.66                | 2                  |
| 48 | MP3A         | Mx        | -0.025               | 2                  |
| 49 | MP3A         | X         | 32.712               | 3                  |
| 50 | MP3A         | Z         | 56.66                | 3                  |
| 51 | MP3A         | Mx        | -0.025               | 3                  |
| 52 | MP4C         | X         | 22.031               | 2                  |
| 53 | MP4C         | Z         | 38.16                | 2                  |
| 54 | MP4C         | Mx        | 0.03                 | 2                  |
| 55 | MP4C         | X         | 22.031               | 3                  |
| 56 | MP4C         | Z         | 38.16                | 3                  |
| 57 | MP4C         | Mx        | 0.03                 | 3                  |
| 58 | MP1A         | X         | 90.65                | 1                  |
| 59 | MP1A         | Z         | 157.01               | 1                  |
| 60 | MP1A         | Mx        | -0.068               | 1                  |
| 61 | MP1A         | X         | 90.65                | 7                  |
| 62 | MP1A         | Z         | 157.01               | 7                  |
| 63 | MP1A         | Mx        | -0.068               | 7                  |
| 64 | MP1B         | X         | 101.641              | 1                  |
| 65 | MP1B         | Z         | 176.048              | 1                  |
| 66 | MP1B         | Mx        | -0.052               | 1                  |
| 67 | MP1B         | X         | 101.641              | 7                  |
| 68 | MP1B         | Z         | 176.048              | 7                  |
| 69 | MP1B         | Mx        | -0.052               | 7                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 70 | MP2C         | X         | 43.435               | 1                  |
| 71 | MP2C         | Z         | 75.231               | 1                  |
| 72 | MP2C         | Mx        | 0.059                | 1                  |
| 73 | MP2C         | X         | 43.435               | 7                  |
| 74 | MP2C         | Z         | 75.231               | 7                  |
| 75 | MP2C         | Mx        | 0.059                | 7                  |
| 76 | MP4B         | X         | 77.166               | 1                  |
| 77 | MP4B         | Z         | 133.656              | 1                  |
| 78 | MP4B         | Mx        | 0.074                | 1                  |
| 79 | MP4B         | X         | 77.166               | 7                  |
| 80 | MP4B         | Z         | 133.656              | 7                  |
| 81 | MP4B         | Mx        | 0.074                | 7                  |
| 82 | MP1A         | X         | 26.384               | 1                  |
| 83 | MP1A         | Z         | 45.698               | 1                  |
| 84 | MP1A         | Mx        | 0.025                | 1                  |
| 85 | MP1B         | X         | 26.384               | 1                  |
| 86 | MP1B         | Z         | 45.698               | 1                  |
| 87 | MP1B         | Mx        | 0.025                | 1                  |
| 88 | MP2C         | X         | 26.384               | 1                  |
| 89 | MP2C         | Z         | 45.698               | 1                  |
| 90 | MP2C         | Mx        | 0.025                | 1                  |
| 91 | MP4B         | X         | 26.384               | 1                  |
| 92 | MP4B         | Z         | 45.698               | 1                  |
| 93 | MP4B         | Mx        | 0.025                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 0                    | 3.5                |
| 2  | MP5C         | Z         | 182.688              | 3.5                |
| 3  | MP5C         | Mx        | -0.117               | 3.5                |
| 4  | MP6C         | X         | 0                    | 1                  |
| 5  | MP6C         | Z         | 155.589              | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 0                    | 1.75               |
| 8  | MP7C         | Z         | 155.589              | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 0                    | 2                  |
| 11 | MP2A         | Z         | 158.039              | 2                  |
| 12 | MP2A         | Mx        | 0                    | 2                  |
| 13 | MP2A         | X         | 0                    | 4                  |
| 14 | MP2A         | Z         | 158.039              | 4                  |
| 15 | MP2A         | Mx        | 0                    | 4                  |
| 16 | MP3B         | X         | 0                    | 2                  |
| 17 | MP3B         | Z         | 109.3                | 2                  |
| 18 | MP3B         | Mx        | -0.063               | 2                  |
| 19 | MP3B         | X         | 0                    | 4                  |
| 20 | MP3B         | Z         | 109.3                | 4                  |
| 21 | MP3B         | Mx        | -0.063               | 4                  |
| 22 | MP3C         | X         | 0                    | 2                  |
| 23 | MP3C         | Z         | 75.615               | 2                  |
| 24 | MP3C         | Mx        | 0.056                | 2                  |
| 25 | MP3C         | X         | 0                    | 4                  |
| 26 | MP3C         | Z         | 75.615               | 4                  |
| 27 | MP3C         | Mx        | 0.056                | 4                  |
| 28 | MP5B         | X         | 0                    | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 29 | MP5B         | Z         | 155.535              | 2                  |
| 30 | MP5B         | Mx        | 0.02                 | 2                  |
| 31 | MP5B         | X         | 0                    | 4                  |
| 32 | MP5B         | Z         | 155.535              | 4                  |
| 33 | MP5B         | Mx        | 0.02                 | 4                  |
| 34 | MP1C         | X         | 0                    | 2                  |
| 35 | MP1C         | Z         | 73.644               | 2                  |
| 36 | MP1C         | Mx        | 0.01                 | 2                  |
| 37 | MP1C         | X         | 0                    | 3                  |
| 38 | MP1C         | Z         | 73.644               | 3                  |
| 39 | MP1C         | Mx        | 0.01                 | 3                  |
| 40 | MP2B         | X         | 0                    | 2                  |
| 41 | MP2B         | Z         | 52.832               | 2                  |
| 42 | MP2B         | Mx        | -0.03                | 2                  |
| 43 | MP2B         | X         | 0                    | 3                  |
| 44 | MP2B         | Z         | 52.832               | 3                  |
| 45 | MP2B         | Mx        | -0.03                | 3                  |
| 46 | MP3A         | X         | 0                    | 2                  |
| 47 | MP3A         | Z         | 74.771               | 2                  |
| 48 | MP3A         | Mx        | 0                    | 2                  |
| 49 | MP3A         | X         | 0                    | 3                  |
| 50 | MP3A         | Z         | 74.771               | 3                  |
| 51 | MP3A         | Mx        | 0                    | 3                  |
| 52 | MP4C         | X         | 0                    | 2                  |
| 53 | MP4C         | Z         | 37.67                | 2                  |
| 54 | MP4C         | Mx        | 0.028                | 2                  |
| 55 | MP4C         | X         | 0                    | 3                  |
| 56 | MP4C         | Z         | 37.67                | 3                  |
| 57 | MP4C         | Mx        | 0.028                | 3                  |
| 58 | MP1A         | X         | 0                    | 1                  |
| 59 | MP1A         | Z         | 222.615              | 1                  |
| 60 | MP1A         | Mx        | 0                    | 1                  |
| 61 | MP1A         | X         | 0                    | 7                  |
| 62 | MP1A         | Z         | 222.615              | 7                  |
| 63 | MP1A         | Mx        | 0                    | 7                  |
| 64 | MP1B         | X         | 0                    | 1                  |
| 65 | MP1B         | Z         | 125.635              | 1                  |
| 66 | MP1B         | Mx        | -0.072               | 1                  |
| 67 | MP1B         | X         | 0                    | 7                  |
| 68 | MP1B         | Z         | 125.635              | 7                  |
| 69 | MP1B         | Mx        | -0.072               | 7                  |
| 70 | MP2C         | X         | 0                    | 1                  |
| 71 | MP2C         | Z         | 58.608               | 1                  |
| 72 | MP2C         | Mx        | 0.044                | 1                  |
| 73 | MP2C         | X         | 0                    | 7                  |
| 74 | MP2C         | Z         | 58.608               | 7                  |
| 75 | MP2C         | Mx        | 0.044                | 7                  |
| 76 | MP4B         | X         | 0                    | 1                  |
| 77 | MP4B         | Z         | 217.631              | 1                  |
| 78 | MP4B         | Mx        | 0.028                | 1                  |
| 79 | MP4B         | X         | 0                    | 7                  |
| 80 | MP4B         | Z         | 217.631              | 7                  |
| 81 | MP4B         | Mx        | 0.028                | 7                  |
| 82 | MP1A         | X         | 0                    | 1                  |
| 83 | MP1A         | Z         | 78.717               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 84 | MP1A         | Mx        | 0.025                | 1                  |
| 85 | MP1B         | X         | 0                    | 1                  |
| 86 | MP1B         | Z         | 78.717               | 1                  |
| 87 | MP1B         | Mx        | 0.025                | 1                  |
| 88 | MP2C         | X         | 0                    | 1                  |
| 89 | MP2C         | Z         | 78.717               | 1                  |
| 90 | MP2C         | Mx        | 0.025                | 1                  |
| 91 | MP4B         | X         | 0                    | 1                  |
| 92 | MP4B         | Z         | 78.717               | 1                  |
| 93 | MP4B         | Mx        | 0.025                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -78.869              | 3.5                |
| 2  | MP5C         | Z         | 136.605              | 3.5                |
| 3  | MP5C         | Mx        | -0.027               | 3.5                |
| 4  | MP6C         | X         | -85.625              | 1                  |
| 5  | MP6C         | Z         | 148.308              | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -85.625              | 1.75               |
| 8  | MP7C         | Z         | 148.308              | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -68.638              | 2                  |
| 11 | MP2A         | Z         | 118.884              | 2                  |
| 12 | MP2A         | Mx        | 0.051                | 2                  |
| 13 | MP2A         | X         | -68.638              | 4                  |
| 14 | MP2A         | Z         | 118.884              | 4                  |
| 15 | MP2A         | Mx        | 0.051                | 4                  |
| 16 | MP3B         | X         | -38.744              | 2                  |
| 17 | MP3B         | Z         | 67.107               | 2                  |
| 18 | MP3B         | Mx        | -0.057               | 2                  |
| 19 | MP3B         | X         | -38.744              | 4                  |
| 20 | MP3B         | Z         | 67.107               | 4                  |
| 21 | MP3B         | Mx        | -0.057               | 4                  |
| 22 | MP3C         | X         | -51.154              | 2                  |
| 23 | MP3C         | Z         | 88.601               | 2                  |
| 24 | MP3C         | Mx        | 0.063                | 2                  |
| 25 | MP3C         | X         | -51.154              | 4                  |
| 26 | MP3C         | Z         | 88.601               | 4                  |
| 27 | MP3C         | Mx        | 0.063                | 4                  |
| 28 | MP5B         | X         | -74.162              | 2                  |
| 29 | MP5B         | Z         | 128.452              | 2                  |
| 30 | MP5B         | Mx        | -0.038               | 2                  |
| 31 | MP5B         | X         | -74.162              | 4                  |
| 32 | MP5B         | Z         | 128.452              | 4                  |
| 33 | MP5B         | Mx        | -0.038               | 4                  |
| 34 | MP1C         | X         | -35.199              | 2                  |
| 35 | MP1C         | Z         | 60.966               | 2                  |
| 36 | MP1C         | Mx        | -0.018               | 2                  |
| 37 | MP1C         | X         | -35.199              | 3                  |
| 38 | MP1C         | Z         | 60.966               | 3                  |
| 39 | MP1C         | Mx        | -0.018               | 3                  |
| 40 | MP2B         | X         | -19.256              | 2                  |
| 41 | MP2B         | Z         | 33.353               | 2                  |
| 42 | MP2B         | Mx        | -0.028               | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 43 | MP2B         | X         | -19.256              | 3                  |
| 44 | MP2B         | Z         | 33.353               | 3                  |
| 45 | MP2B         | Mx        | -0.028               | 3                  |
| 46 | MP3A         | X         | -32.712              | 2                  |
| 47 | MP3A         | Z         | 56.66                | 2                  |
| 48 | MP3A         | Mx        | 0.025                | 2                  |
| 49 | MP3A         | X         | -32.712              | 3                  |
| 50 | MP3A         | Z         | 56.66                | 3                  |
| 51 | MP3A         | Mx        | 0.025                | 3                  |
| 52 | MP4C         | X         | -24.843              | 2                  |
| 53 | MP4C         | Z         | 43.029               | 2                  |
| 54 | MP4C         | Mx        | 0.031                | 2                  |
| 55 | MP4C         | X         | -24.843              | 3                  |
| 56 | MP4C         | Z         | 43.029               | 3                  |
| 57 | MP4C         | Mx        | 0.031                | 3                  |
| 58 | MP1A         | X         | -90.65               | 1                  |
| 59 | MP1A         | Z         | 157.01               | 1                  |
| 60 | MP1A         | Mx        | 0.068                | 1                  |
| 61 | MP1A         | X         | -90.65               | 7                  |
| 62 | MP1A         | Z         | 157.01               | 7                  |
| 63 | MP1A         | Mx        | 0.068                | 7                  |
| 64 | MP1B         | X         | -31.168              | 1                  |
| 65 | MP1B         | Z         | 53.985               | 1                  |
| 66 | MP1B         | Mx        | -0.046               | 1                  |
| 67 | MP1B         | X         | -31.168              | 7                  |
| 68 | MP1B         | Z         | 53.985               | 7                  |
| 69 | MP1B         | Mx        | -0.046               | 7                  |
| 70 | MP2C         | X         | -55.861              | 1                  |
| 71 | MP2C         | Z         | 96.754               | 1                  |
| 72 | MP2C         | Mx        | 0.069                | 1                  |
| 73 | MP2C         | X         | -55.861              | 7                  |
| 74 | MP2C         | Z         | 96.754               | 7                  |
| 75 | MP2C         | Mx        | 0.069                | 7                  |
| 76 | MP4B         | X         | -101.641             | 1                  |
| 77 | MP4B         | Z         | 176.048              | 1                  |
| 78 | MP4B         | Mx        | -0.052               | 1                  |
| 79 | MP4B         | X         | -101.641             | 7                  |
| 80 | MP4B         | Z         | 176.048              | 7                  |
| 81 | MP4B         | Mx        | -0.052               | 7                  |
| 82 | MP1A         | X         | -49.935              | 1                  |
| 83 | MP1A         | Z         | 86.491               | 1                  |
| 84 | MP1A         | Mx        | 0.009                | 1                  |
| 85 | MP1B         | X         | -49.935              | 1                  |
| 86 | MP1B         | Z         | 86.491               | 1                  |
| 87 | MP1B         | Mx        | 0.009                | 1                  |
| 88 | MP2C         | X         | -49.935              | 1                  |
| 89 | MP2C         | Z         | 86.491               | 1                  |
| 90 | MP2C         | Mx        | 0.009                | 1                  |
| 91 | MP4B         | X         | -49.935              | 1                  |
| 92 | MP4B         | Z         | 86.491               | 1                  |
| 93 | MP4B         | Mx        | 0.009                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -141.503             | 3.5                |
| 2  | MP5C         | Z         | 81.697               | 3.5                |
| 3  | MP5C         | Mx        | 0.056                | 3.5                |
| 4  | MP6C         | X         | -145.233             | 1                  |
| 5  | MP6C         | Z         | 83.85                | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -145.233             | 1.75               |
| 8  | MP7C         | Z         | 83.85                | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -82.92               | 2                  |
| 11 | MP2A         | Z         | 47.874               | 2                  |
| 12 | MP2A         | Mx        | 0.062                | 2                  |
| 13 | MP2A         | X         | -82.92               | 4                  |
| 14 | MP2A         | Z         | 47.874               | 4                  |
| 15 | MP2A         | Mx        | 0.062                | 4                  |
| 16 | MP3B         | X         | -73.352              | 2                  |
| 17 | MP3B         | Z         | 42.35                | 2                  |
| 18 | MP3B         | Mx        | -0.06                | 2                  |
| 19 | MP3B         | X         | -73.352              | 4                  |
| 20 | MP3B         | Z         | 42.35                | 4                  |
| 21 | MP3B         | Mx        | -0.06                | 4                  |
| 22 | MP3C         | X         | -124.019             | 2                  |
| 23 | MP3C         | Z         | 71.603               | 2                  |
| 24 | MP3C         | Mx        | 0.045                | 2                  |
| 25 | MP3C         | X         | -124.019             | 4                  |
| 26 | MP3C         | Z         | 71.603               | 4                  |
| 27 | MP3C         | Mx        | 0.045                | 4                  |
| 28 | MP5B         | X         | -94.657              | 2                  |
| 29 | MP5B         | Z         | 54.65                | 2                  |
| 30 | MP5B         | Mx        | -0.063               | 2                  |
| 31 | MP5B         | X         | -94.657              | 4                  |
| 32 | MP5B         | Z         | 54.65                | 4                  |
| 33 | MP5B         | Mx        | -0.063               | 4                  |
| 34 | MP1C         | X         | -45.754              | 2                  |
| 35 | MP1C         | Z         | 26.416               | 2                  |
| 36 | MP1C         | Mx        | -0.03                | 2                  |
| 37 | MP1C         | X         | -45.754              | 3                  |
| 38 | MP1C         | Z         | 26.416               | 3                  |
| 39 | MP1C         | Mx        | -0.03                | 3                  |
| 40 | MP2B         | X         | -36.164              | 2                  |
| 41 | MP2B         | Z         | 20.879               | 2                  |
| 42 | MP2B         | Mx        | -0.029               | 2                  |
| 43 | MP2B         | X         | -36.164              | 3                  |
| 44 | MP2B         | Z         | 20.879               | 3                  |
| 45 | MP2B         | Mx        | -0.029               | 3                  |
| 46 | MP3A         | X         | -40.471              | 2                  |
| 47 | MP3A         | Z         | 23.366               | 2                  |
| 48 | MP3A         | Mx        | 0.03                 | 2                  |
| 49 | MP3A         | X         | -40.471              | 3                  |
| 50 | MP3A         | Z         | 23.366               | 3                  |
| 51 | MP3A         | Mx        | 0.03                 | 3                  |
| 52 | MP4C         | X         | -58.971              | 2                  |
| 53 | MP4C         | Z         | 34.047               | 2                  |
| 54 | MP4C         | Mx        | 0.022                | 2                  |
| 55 | MP4C         | X         | -58.971              | 3                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 56 | MP4C         | Z         | 34.047               | 3                  |
| 57 | MP4C         | Mx        | 0.022                | 3                  |
| 58 | MP1A         | X         | -85.449              | 1                  |
| 59 | MP1A         | Z         | 49.334               | 1                  |
| 60 | MP1A         | Mx        | 0.064                | 1                  |
| 61 | MP1A         | X         | -85.449              | 7                  |
| 62 | MP1A         | Z         | 49.334               | 7                  |
| 63 | MP1A         | Mx        | 0.064                | 7                  |
| 64 | MP1B         | X         | -66.411              | 1                  |
| 65 | MP1B         | Z         | 38.342               | 1                  |
| 66 | MP1B         | Mx        | -0.054               | 1                  |
| 67 | MP1B         | X         | -66.411              | 7                  |
| 68 | MP1B         | Z         | 38.342               | 7                  |
| 69 | MP1B         | Mx        | -0.054               | 7                  |
| 70 | MP2C         | X         | -167.228             | 1                  |
| 71 | MP2C         | Z         | 96.549               | 1                  |
| 72 | MP2C         | Mx        | 0.061                | 1                  |
| 73 | MP2C         | X         | -167.228             | 7                  |
| 74 | MP2C         | Z         | 96.549               | 7                  |
| 75 | MP2C         | Mx        | 0.061                | 7                  |
| 76 | MP4B         | X         | -108.803             | 1                  |
| 77 | MP4B         | Z         | 62.818               | 1                  |
| 78 | MP4B         | Mx        | -0.072               | 1                  |
| 79 | MP4B         | X         | -108.803             | 7                  |
| 80 | MP4B         | Z         | 62.818               | 7                  |
| 81 | MP4B         | Mx        | -0.072               | 7                  |
| 82 | MP1A         | X         | -82.338              | 1                  |
| 83 | MP1A         | Z         | 47.538               | 1                  |
| 84 | MP1A         | Mx        | -0.016               | 1                  |
| 85 | MP1B         | X         | -82.338              | 1                  |
| 86 | MP1B         | Z         | 47.538               | 1                  |
| 87 | MP1B         | Mx        | -0.016               | 1                  |
| 88 | MP2C         | X         | -82.338              | 1                  |
| 89 | MP2C         | Z         | 47.538               | 1                  |
| 90 | MP2C         | Mx        | -0.016               | 1                  |
| 91 | MP4B         | X         | -82.338              | 1                  |
| 92 | MP4B         | Z         | 47.538               | 1                  |
| 93 | MP4B         | Mx        | -0.016               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -194                 | 3.5                |
| 2  | MP5C         | Z         | 0                    | 3.5                |
| 3  | MP5C         | Mx        | 0.149                | 3.5                |
| 4  | MP6C         | X         | -148.488             | 1                  |
| 5  | MP6C         | Z         | 0                    | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -148.488             | 1.75               |
| 8  | MP7C         | Z         | 0                    | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -74.984              | 2                  |
| 11 | MP2A         | Z         | 0                    | 2                  |
| 12 | MP2A         | Mx        | 0.056                | 2                  |
| 13 | MP2A         | X         | -74.984              | 4                  |
| 14 | MP2A         | Z         | 0                    | 4                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 15 | MP2A         | Mx        | 0.056                | 4                  |
| 16 | MP3B         | X         | -123.723             | 2                  |
| 17 | MP3B         | Z         | 0                    | 2                  |
| 18 | MP3B         | Mx        | -0.06                | 2                  |
| 19 | MP3B         | X         | -123.723             | 4                  |
| 20 | MP3B         | Z         | 0                    | 4                  |
| 21 | MP3B         | Mx        | -0.06                | 4                  |
| 22 | MP3C         | X         | -157.408             | 2                  |
| 23 | MP3C         | Z         | 0                    | 2                  |
| 24 | MP3C         | Mx        | -0.01                | 2                  |
| 25 | MP3C         | X         | -157.408             | 4                  |
| 26 | MP3C         | Z         | 0                    | 4                  |
| 27 | MP3C         | Mx        | -0.01                | 4                  |
| 28 | MP5B         | X         | -77.488              | 2                  |
| 29 | MP5B         | Z         | 0                    | 2                  |
| 30 | MP5B         | Mx        | -0.057               | 2                  |
| 31 | MP5B         | X         | -77.488              | 4                  |
| 32 | MP5B         | Z         | 0                    | 4                  |
| 33 | MP5B         | Mx        | -0.057               | 4                  |
| 34 | MP1C         | X         | -38.513              | 2                  |
| 35 | MP1C         | Z         | 0                    | 2                  |
| 36 | MP1C         | Mx        | -0.028               | 2                  |
| 37 | MP1C         | X         | -38.513              | 3                  |
| 38 | MP1C         | Z         | 0                    | 3                  |
| 39 | MP1C         | Mx        | -0.028               | 3                  |
| 40 | MP2B         | X         | -59.324              | 2                  |
| 41 | MP2B         | Z         | 0                    | 2                  |
| 42 | MP2B         | Mx        | -0.029               | 2                  |
| 43 | MP2B         | X         | -59.324              | 3                  |
| 44 | MP2B         | Z         | 0                    | 3                  |
| 45 | MP2B         | Mx        | -0.029               | 3                  |
| 46 | MP3A         | X         | -37.386              | 2                  |
| 47 | MP3A         | Z         | 0                    | 2                  |
| 48 | MP3A         | Mx        | 0.028                | 2                  |
| 49 | MP3A         | X         | -37.386              | 3                  |
| 50 | MP3A         | Z         | 0                    | 3                  |
| 51 | MP3A         | Mx        | 0.028                | 3                  |
| 52 | MP4C         | X         | -74.487              | 2                  |
| 53 | MP4C         | Z         | 0                    | 2                  |
| 54 | MP4C         | Mx        | -0.005               | 2                  |
| 55 | MP4C         | X         | -74.487              | 3                  |
| 56 | MP4C         | Z         | 0                    | 3                  |
| 57 | MP4C         | Mx        | -0.005               | 3                  |
| 58 | MP1A         | X         | -57.353              | 1                  |
| 59 | MP1A         | Z         | 0                    | 1                  |
| 60 | MP1A         | Mx        | 0.043                | 1                  |
| 61 | MP1A         | X         | -57.353              | 7                  |
| 62 | MP1A         | Z         | 0                    | 7                  |
| 63 | MP1A         | Mx        | 0.043                | 7                  |
| 64 | MP1B         | X         | -154.332             | 1                  |
| 65 | MP1B         | Z         | 0                    | 1                  |
| 66 | MP1B         | Mx        | -0.074               | 1                  |
| 67 | MP1B         | X         | -154.332             | 7                  |
| 68 | MP1B         | Z         | 0                    | 7                  |
| 69 | MP1B         | Mx        | -0.074               | 7                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 70 | MP2C         | X         | -221.359             | 1                  |
| 71 | MP2C         | Z         | 0                    | 1                  |
| 72 | MP2C         | Mx        | -0.014               | 1                  |
| 73 | MP2C         | X         | -221.359             | 7                  |
| 74 | MP2C         | Z         | 0                    | 7                  |
| 75 | MP2C         | Mx        | -0.014               | 7                  |
| 76 | MP4B         | X         | -62.336              | 1                  |
| 77 | MP4B         | Z         | 0                    | 1                  |
| 78 | MP4B         | Mx        | -0.046               | 1                  |
| 79 | MP4B         | X         | -62.336              | 7                  |
| 80 | MP4B         | Z         | 0                    | 7                  |
| 81 | MP4B         | Mx        | -0.046               | 7                  |
| 82 | MP1A         | X         | -69.126              | 1                  |
| 83 | MP1A         | Z         | 0                    | 1                  |
| 84 | MP1A         | Mx        | -0.026               | 1                  |
| 85 | MP1B         | X         | -69.126              | 1                  |
| 86 | MP1B         | Z         | 0                    | 1                  |
| 87 | MP1B         | Mx        | -0.026               | 1                  |
| 88 | MP2C         | X         | -69.126              | 1                  |
| 89 | MP2C         | Z         | 0                    | 1                  |
| 90 | MP2C         | Mx        | -0.026               | 1                  |
| 91 | MP4B         | X         | -69.126              | 1                  |
| 92 | MP4B         | Z         | 0                    | 1                  |
| 93 | MP4B         | Mx        | -0.026               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -189.617             | 3.5                |
| 2  | MP5C         | Z         | -109.475             | 3.5                |
| 3  | MP5C         | Mx        | 0.216                | 3.5                |
| 4  | MP6C         | X         | -115.031             | 1                  |
| 5  | MP6C         | Z         | -66.413              | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -115.031             | 1.75               |
| 8  | MP7C         | Z         | -66.413              | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -82.92               | 2                  |
| 11 | MP2A         | Z         | -47.874              | 2                  |
| 12 | MP2A         | Mx        | 0.062                | 2                  |
| 13 | MP2A         | X         | -82.92               | 4                  |
| 14 | MP2A         | Z         | -47.874              | 4                  |
| 15 | MP2A         | Mx        | 0.062                | 4                  |
| 16 | MP3B         | X         | -134.697             | 2                  |
| 17 | MP3B         | Z         | -77.767              | 2                  |
| 18 | MP3B         | Mx        | -0.02                | 2                  |
| 19 | MP3B         | X         | -134.697             | 4                  |
| 20 | MP3B         | Z         | -77.767              | 4                  |
| 21 | MP3B         | Mx        | -0.02                | 4                  |
| 22 | MP3C         | X         | -113.202             | 2                  |
| 23 | MP3C         | Z         | -65.357              | 2                  |
| 24 | MP3C         | Mx        | -0.056               | 2                  |
| 25 | MP3C         | X         | -113.202             | 4                  |
| 26 | MP3C         | Z         | -65.357              | 4                  |
| 27 | MP3C         | Mx        | -0.056               | 4                  |
| 28 | MP5B         | X         | -73.352              | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 29 | MP5B         | Z         | -42.35               | 2                  |
| 30 | MP5B         | Mx        | -0.06                | 2                  |
| 31 | MP5B         | X         | -73.352              | 4                  |
| 32 | MP5B         | Z         | -42.35               | 4                  |
| 33 | MP5B         | Mx        | -0.06                | 4                  |
| 34 | MP1C         | X         | -36.164              | 2                  |
| 35 | MP1C         | Z         | -20.879              | 2                  |
| 36 | MP1C         | Mx        | -0.029               | 2                  |
| 37 | MP1C         | X         | -36.164              | 3                  |
| 38 | MP1C         | Z         | -20.879              | 3                  |
| 39 | MP1C         | Mx        | -0.029               | 3                  |
| 40 | MP2B         | X         | -63.778              | 2                  |
| 41 | MP2B         | Z         | -36.822              | 2                  |
| 42 | MP2B         | Mx        | -0.01                | 2                  |
| 43 | MP2B         | X         | -63.778              | 3                  |
| 44 | MP2B         | Z         | -36.822              | 3                  |
| 45 | MP2B         | Mx        | -0.01                | 3                  |
| 46 | MP3A         | X         | -40.471              | 2                  |
| 47 | MP3A         | Z         | -23.366              | 2                  |
| 48 | MP3A         | Mx        | 0.03                 | 2                  |
| 49 | MP3A         | X         | -40.471              | 3                  |
| 50 | MP3A         | Z         | -23.366              | 3                  |
| 51 | MP3A         | Mx        | 0.03                 | 3                  |
| 52 | MP4C         | X         | -54.102              | 2                  |
| 53 | MP4C         | Z         | -31.236              | 2                  |
| 54 | MP4C         | Mx        | -0.027               | 2                  |
| 55 | MP4C         | X         | -54.102              | 3                  |
| 56 | MP4C         | Z         | -31.236              | 3                  |
| 57 | MP4C         | Mx        | -0.027               | 3                  |
| 58 | MP1A         | X         | -85.449              | 1                  |
| 59 | MP1A         | Z         | -49.334              | 1                  |
| 60 | MP1A         | Mx        | 0.064                | 1                  |
| 61 | MP1A         | X         | -85.449              | 7                  |
| 62 | MP1A         | Z         | -49.334              | 7                  |
| 63 | MP1A         | Mx        | 0.064                | 7                  |
| 64 | MP1B         | X         | -188.474             | 1                  |
| 65 | MP1B         | Z         | -108.816             | 1                  |
| 66 | MP1B         | Mx        | -0.028               | 1                  |
| 67 | MP1B         | X         | -188.474             | 7                  |
| 68 | MP1B         | Z         | -108.816             | 7                  |
| 69 | MP1B         | Mx        | -0.028               | 7                  |
| 70 | MP2C         | X         | -145.705             | 1                  |
| 71 | MP2C         | Z         | -84.123              | 1                  |
| 72 | MP2C         | Mx        | -0.072               | 1                  |
| 73 | MP2C         | X         | -145.705             | 7                  |
| 74 | MP2C         | Z         | -84.123              | 7                  |
| 75 | MP2C         | Mx        | -0.072               | 7                  |
| 76 | MP4B         | X         | -66.411              | 1                  |
| 77 | MP4B         | Z         | -38.342              | 1                  |
| 78 | MP4B         | Mx        | -0.054               | 1                  |
| 79 | MP4B         | X         | -66.411              | 7                  |
| 80 | MP4B         | Z         | -38.342              | 7                  |
| 81 | MP4B         | Mx        | -0.054               | 7                  |
| 82 | MP1A         | X         | -41.545              | 1                  |
| 83 | MP1A         | Z         | -23.986              | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 84 | MP1A         | Mx        | -0.024               | 1                  |
| 85 | MP1B         | X         | -41.545              | 1                  |
| 86 | MP1B         | Z         | -23.986              | 1                  |
| 87 | MP1B         | Mx        | -0.024               | 1                  |
| 88 | MP2C         | X         | -41.545              | 1                  |
| 89 | MP2C         | Z         | -23.986              | 1                  |
| 90 | MP2C         | Mx        | -0.024               | 1                  |
| 91 | MP4B         | X         | -41.545              | 1                  |
| 92 | MP4B         | Z         | -23.986              | 1                  |
| 93 | MP4B         | Mx        | -0.024               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -106.648             | 3.5                |
| 2  | MP5C         | Z         | -184.719             | 3.5                |
| 3  | MP5C         | Mx        | 0.2                  | 3.5                |
| 4  | MP6C         | X         | -68.188              | 1                  |
| 5  | MP6C         | Z         | -118.106             | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -68.188              | 1.75               |
| 8  | MP7C         | Z         | -118.106             | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -68.638              | 2                  |
| 11 | MP2A         | Z         | -118.884             | 2                  |
| 12 | MP2A         | Mx        | 0.051                | 2                  |
| 13 | MP2A         | X         | -68.638              | 4                  |
| 14 | MP2A         | Z         | -118.884             | 4                  |
| 15 | MP2A         | Mx        | 0.051                | 4                  |
| 16 | MP3B         | X         | -74.162              | 2                  |
| 17 | MP3B         | Z         | -128.452             | 2                  |
| 18 | MP3B         | Mx        | 0.038                | 2                  |
| 19 | MP3B         | X         | -74.162              | 4                  |
| 20 | MP3B         | Z         | -128.452             | 4                  |
| 21 | MP3B         | Mx        | 0.038                | 4                  |
| 22 | MP3C         | X         | -44.909              | 2                  |
| 23 | MP3C         | Z         | -77.785              | 2                  |
| 24 | MP3C         | Mx        | -0.061               | 2                  |
| 25 | MP3C         | X         | -44.909              | 4                  |
| 26 | MP3C         | Z         | -77.785              | 4                  |
| 27 | MP3C         | Mx        | -0.061               | 4                  |
| 28 | MP5B         | X         | -61.861              | 2                  |
| 29 | MP5B         | Z         | -107.147             | 2                  |
| 30 | MP5B         | Mx        | -0.06                | 2                  |
| 31 | MP5B         | X         | -61.861              | 4                  |
| 32 | MP5B         | Z         | -107.147             | 4                  |
| 33 | MP5B         | Mx        | -0.06                | 4                  |
| 34 | MP1C         | X         | -29.662              | 2                  |
| 35 | MP1C         | Z         | -51.376              | 2                  |
| 36 | MP1C         | Mx        | -0.029               | 2                  |
| 37 | MP1C         | X         | -29.662              | 3                  |
| 38 | MP1C         | Z         | -51.376              | 3                  |
| 39 | MP1C         | Mx        | -0.029               | 3                  |
| 40 | MP2B         | X         | -35.199              | 2                  |
| 41 | MP2B         | Z         | -60.966              | 2                  |
| 42 | MP2B         | Mx        | 0.018                | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 43 | MP2B         | X         | -35.199              | 3                  |
| 44 | MP2B         | Z         | -60.966              | 3                  |
| 45 | MP2B         | Mx        | 0.018                | 3                  |
| 46 | MP3A         | X         | -32.712              | 2                  |
| 47 | MP3A         | Z         | -56.66               | 2                  |
| 48 | MP3A         | Mx        | 0.025                | 2                  |
| 49 | MP3A         | X         | -32.712              | 3                  |
| 50 | MP3A         | Z         | -56.66               | 3                  |
| 51 | MP3A         | Mx        | 0.025                | 3                  |
| 52 | MP4C         | X         | -22.031              | 2                  |
| 53 | MP4C         | Z         | -38.16               | 2                  |
| 54 | MP4C         | Mx        | -0.03                | 2                  |
| 55 | MP4C         | X         | -22.031              | 3                  |
| 56 | MP4C         | Z         | -38.16               | 3                  |
| 57 | MP4C         | Mx        | -0.03                | 3                  |
| 58 | MP1A         | X         | -90.65               | 1                  |
| 59 | MP1A         | Z         | -157.01              | 1                  |
| 60 | MP1A         | Mx        | 0.068                | 1                  |
| 61 | MP1A         | X         | -90.65               | 7                  |
| 62 | MP1A         | Z         | -157.01              | 7                  |
| 63 | MP1A         | Mx        | 0.068                | 7                  |
| 64 | MP1B         | X         | -101.641             | 1                  |
| 65 | MP1B         | Z         | -176.048             | 1                  |
| 66 | MP1B         | Mx        | 0.052                | 1                  |
| 67 | MP1B         | X         | -101.641             | 7                  |
| 68 | MP1B         | Z         | -176.048             | 7                  |
| 69 | MP1B         | Mx        | 0.052                | 7                  |
| 70 | MP2C         | X         | -43.435              | 1                  |
| 71 | MP2C         | Z         | -75.231              | 1                  |
| 72 | MP2C         | Mx        | -0.059               | 1                  |
| 73 | MP2C         | X         | -43.435              | 7                  |
| 74 | MP2C         | Z         | -75.231              | 7                  |
| 75 | MP2C         | Mx        | -0.059               | 7                  |
| 76 | MP4B         | X         | -77.166              | 1                  |
| 77 | MP4B         | Z         | -133.656             | 1                  |
| 78 | MP4B         | Mx        | -0.074               | 1                  |
| 79 | MP4B         | X         | -77.166              | 7                  |
| 80 | MP4B         | Z         | -133.656             | 7                  |
| 81 | MP4B         | Mx        | -0.074               | 7                  |
| 82 | MP1A         | X         | -26.384              | 1                  |
| 83 | MP1A         | Z         | -45.698              | 1                  |
| 84 | MP1A         | Mx        | -0.025               | 1                  |
| 85 | MP1B         | X         | -26.384              | 1                  |
| 86 | MP1B         | Z         | -45.698              | 1                  |
| 87 | MP1B         | Mx        | -0.025               | 1                  |
| 88 | MP2C         | X         | -26.384              | 1                  |
| 89 | MP2C         | Z         | -45.698              | 1                  |
| 90 | MP2C         | Mx        | -0.025               | 1                  |
| 91 | MP4B         | X         | -26.384              | 1                  |
| 92 | MP4B         | Z         | -45.698              | 1                  |
| 93 | MP4B         | Mx        | -0.025               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 0                    | 3.5                |
| 2  | MP5C         | Z         | -11.611              | 3.5                |
| 3  | MP5C         | Mx        | 0.007                | 3.5                |
| 4  | MP6C         | X         | 0                    | 1                  |
| 5  | MP6C         | Z         | -9.888               | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 0                    | 1.75               |
| 8  | MP7C         | Z         | -9.888               | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 0                    | 2                  |
| 11 | MP2A         | Z         | -10.044              | 2                  |
| 12 | MP2A         | Mx        | 0                    | 2                  |
| 13 | MP2A         | X         | 0                    | 4                  |
| 14 | MP2A         | Z         | -10.044              | 4                  |
| 15 | MP2A         | Mx        | 0                    | 4                  |
| 16 | MP3B         | X         | 0                    | 2                  |
| 17 | MP3B         | Z         | -6.947               | 2                  |
| 18 | MP3B         | Mx        | 0.004                | 2                  |
| 19 | MP3B         | X         | 0                    | 4                  |
| 20 | MP3B         | Z         | -6.947               | 4                  |
| 21 | MP3B         | Mx        | 0.004                | 4                  |
| 22 | MP3C         | X         | 0                    | 2                  |
| 23 | MP3C         | Z         | -4.806               | 2                  |
| 24 | MP3C         | Mx        | -0.004               | 2                  |
| 25 | MP3C         | X         | 0                    | 4                  |
| 26 | MP3C         | Z         | -4.806               | 4                  |
| 27 | MP3C         | Mx        | -0.004               | 4                  |
| 28 | MP5B         | X         | 0                    | 2                  |
| 29 | MP5B         | Z         | -9.885               | 2                  |
| 30 | MP5B         | Mx        | -0.001               | 2                  |
| 31 | MP5B         | X         | 0                    | 4                  |
| 32 | MP5B         | Z         | -9.885               | 4                  |
| 33 | MP5B         | Mx        | -0.001               | 4                  |
| 34 | MP1C         | X         | 0                    | 2                  |
| 35 | MP1C         | Z         | -4.68                | 2                  |
| 36 | MP1C         | Mx        | -0.00061             | 2                  |
| 37 | MP1C         | X         | 0                    | 3                  |
| 38 | MP1C         | Z         | -4.68                | 3                  |
| 39 | MP1C         | Mx        | -0.00061             | 3                  |
| 40 | MP2B         | X         | 0                    | 2                  |
| 41 | MP2B         | Z         | -3.358               | 2                  |
| 42 | MP2B         | Mx        | 0.002                | 2                  |
| 43 | MP2B         | X         | 0                    | 3                  |
| 44 | MP2B         | Z         | -3.358               | 3                  |
| 45 | MP2B         | Mx        | 0.002                | 3                  |
| 46 | MP3A         | X         | 0                    | 2                  |
| 47 | MP3A         | Z         | -4.752               | 2                  |
| 48 | MP3A         | Mx        | 0                    | 2                  |
| 49 | MP3A         | X         | 0                    | 3                  |
| 50 | MP3A         | Z         | -4.752               | 3                  |
| 51 | MP3A         | Mx        | 0                    | 3                  |
| 52 | MP4C         | X         | 0                    | 2                  |
| 53 | MP4C         | Z         | -2.394               | 2                  |
| 54 | MP4C         | Mx        | -0.002               | 2                  |
| 55 | MP4C         | X         | 0                    | 3                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 56 | MP4C         | Z         | -2.394               | 3                  |
| 57 | MP4C         | Mx        | -0.002               | 3                  |
| 58 | MP1A         | X         | 0                    | 1                  |
| 59 | MP1A         | Z         | -14.148              | 1                  |
| 60 | MP1A         | Mx        | 0                    | 1                  |
| 61 | MP1A         | X         | 0                    | 7                  |
| 62 | MP1A         | Z         | -14.148              | 7                  |
| 63 | MP1A         | Mx        | 0                    | 7                  |
| 64 | MP1B         | X         | 0                    | 1                  |
| 65 | MP1B         | Z         | -7.985               | 1                  |
| 66 | MP1B         | Mx        | 0.005                | 1                  |
| 67 | MP1B         | X         | 0                    | 7                  |
| 68 | MP1B         | Z         | -7.985               | 7                  |
| 69 | MP1B         | Mx        | 0.005                | 7                  |
| 70 | MP2C         | X         | 0                    | 1                  |
| 71 | MP2C         | Z         | -3.725               | 1                  |
| 72 | MP2C         | Mx        | -0.003               | 1                  |
| 73 | MP2C         | X         | 0                    | 7                  |
| 74 | MP2C         | Z         | -3.725               | 7                  |
| 75 | MP2C         | Mx        | -0.003               | 7                  |
| 76 | MP4B         | X         | 0                    | 1                  |
| 77 | MP4B         | Z         | -13.832              | 1                  |
| 78 | MP4B         | Mx        | -0.002               | 1                  |
| 79 | MP4B         | X         | 0                    | 7                  |
| 80 | MP4B         | Z         | -13.832              | 7                  |
| 81 | MP4B         | Mx        | -0.002               | 7                  |
| 82 | MP1A         | X         | 0                    | 1                  |
| 83 | MP1A         | Z         | -5.003               | 1                  |
| 84 | MP1A         | Mx        | -0.002               | 1                  |
| 85 | MP1B         | X         | 0                    | 1                  |
| 86 | MP1B         | Z         | -5.003               | 1                  |
| 87 | MP1B         | Mx        | -0.002               | 1                  |
| 88 | MP2C         | X         | 0                    | 1                  |
| 89 | MP2C         | Z         | -5.003               | 1                  |
| 90 | MP2C         | Mx        | -0.002               | 1                  |
| 91 | MP4B         | X         | 0                    | 1                  |
| 92 | MP4B         | Z         | -5.003               | 1                  |
| 93 | MP4B         | Mx        | -0.002               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 5.012                | 3.5                |
| 2  | MP5C         | Z         | -8.682               | 3.5                |
| 3  | MP5C         | Mx        | 0.002                | 3.5                |
| 4  | MP6C         | X         | 5.442                | 1                  |
| 5  | MP6C         | Z         | -9.426               | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 5.442                | 1.75               |
| 8  | MP7C         | Z         | -9.426               | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 4.362                | 2                  |
| 11 | MP2A         | Z         | -7.556               | 2                  |
| 12 | MP2A         | Mx        | -0.003               | 2                  |
| 13 | MP2A         | X         | 4.362                | 4                  |
| 14 | MP2A         | Z         | -7.556               | 4                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 15 | MP2A         | Mx        | -0.003               | 4                  |
| 16 | MP3B         | X         | 2.462                | 2                  |
| 17 | MP3B         | Z         | -4.265               | 2                  |
| 18 | MP3B         | Mx        | 0.004                | 2                  |
| 19 | MP3B         | X         | 2.462                | 4                  |
| 20 | MP3B         | Z         | -4.265               | 4                  |
| 21 | MP3B         | Mx        | 0.004                | 4                  |
| 22 | MP3C         | X         | 3.251                | 2                  |
| 23 | MP3C         | Z         | -5.631               | 2                  |
| 24 | MP3C         | Mx        | -0.004               | 2                  |
| 25 | MP3C         | X         | 3.251                | 4                  |
| 26 | MP3C         | Z         | -5.631               | 4                  |
| 27 | MP3C         | Mx        | -0.004               | 4                  |
| 28 | MP5B         | X         | 4.713                | 2                  |
| 29 | MP5B         | Z         | -8.164               | 2                  |
| 30 | MP5B         | Mx        | 0.002                | 2                  |
| 31 | MP5B         | X         | 4.713                | 4                  |
| 32 | MP5B         | Z         | -8.164               | 4                  |
| 33 | MP5B         | Mx        | 0.002                | 4                  |
| 34 | MP1C         | X         | 2.237                | 2                  |
| 35 | MP1C         | Z         | -3.875               | 2                  |
| 36 | MP1C         | Mx        | 0.001                | 2                  |
| 37 | MP1C         | X         | 2.237                | 3                  |
| 38 | MP1C         | Z         | -3.875               | 3                  |
| 39 | MP1C         | Mx        | 0.001                | 3                  |
| 40 | MP2B         | X         | 1.224                | 2                  |
| 41 | MP2B         | Z         | -2.12                | 2                  |
| 42 | MP2B         | Mx        | 0.002                | 2                  |
| 43 | MP2B         | X         | 1.224                | 3                  |
| 44 | MP2B         | Z         | -2.12                | 3                  |
| 45 | MP2B         | Mx        | 0.002                | 3                  |
| 46 | MP3A         | X         | 2.079                | 2                  |
| 47 | MP3A         | Z         | -3.601               | 2                  |
| 48 | MP3A         | Mx        | -0.002               | 2                  |
| 49 | MP3A         | X         | 2.079                | 3                  |
| 50 | MP3A         | Z         | -3.601               | 3                  |
| 51 | MP3A         | Mx        | -0.002               | 3                  |
| 52 | MP4C         | X         | 1.579                | 2                  |
| 53 | MP4C         | Z         | -2.735               | 2                  |
| 54 | MP4C         | Mx        | -0.002               | 2                  |
| 55 | MP4C         | X         | 1.579                | 3                  |
| 56 | MP4C         | Z         | -2.735               | 3                  |
| 57 | MP4C         | Mx        | -0.002               | 3                  |
| 58 | MP1A         | X         | 5.761                | 1                  |
| 59 | MP1A         | Z         | -9.979               | 1                  |
| 60 | MP1A         | Mx        | -0.004               | 1                  |
| 61 | MP1A         | X         | 5.761                | 7                  |
| 62 | MP1A         | Z         | -9.979               | 7                  |
| 63 | MP1A         | Mx        | -0.004               | 7                  |
| 64 | MP1B         | X         | 1.981                | 1                  |
| 65 | MP1B         | Z         | -3.431               | 1                  |
| 66 | MP1B         | Mx        | 0.003                | 1                  |
| 67 | MP1B         | X         | 1.981                | 7                  |
| 68 | MP1B         | Z         | -3.431               | 7                  |
| 69 | MP1B         | Mx        | 0.003                | 7                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 70 | MP2C         | X         | 3.55                 | 1                  |
| 71 | MP2C         | Z         | -6.149               | 1                  |
| 72 | MP2C         | Mx        | -0.004               | 1                  |
| 73 | MP2C         | X         | 3.55                 | 7                  |
| 74 | MP2C         | Z         | -6.149               | 7                  |
| 75 | MP2C         | Mx        | -0.004               | 7                  |
| 76 | MP4B         | X         | 6.46                 | 1                  |
| 77 | MP4B         | Z         | -11.189              | 1                  |
| 78 | MP4B         | Mx        | 0.003                | 1                  |
| 79 | MP4B         | X         | 6.46                 | 7                  |
| 80 | MP4B         | Z         | -11.189              | 7                  |
| 81 | MP4B         | Mx        | 0.003                | 7                  |
| 82 | MP1A         | X         | 3.174                | 1                  |
| 83 | MP1A         | Z         | -5.497               | 1                  |
| 84 | MP1A         | Mx        | -0.000551            | 1                  |
| 85 | MP1B         | X         | 3.174                | 1                  |
| 86 | MP1B         | Z         | -5.497               | 1                  |
| 87 | MP1B         | Mx        | -0.000551            | 1                  |
| 88 | MP2C         | X         | 3.174                | 1                  |
| 89 | MP2C         | Z         | -5.497               | 1                  |
| 90 | MP2C         | Mx        | -0.000551            | 1                  |
| 91 | MP4B         | X         | 3.174                | 1                  |
| 92 | MP4B         | Z         | -5.497               | 1                  |
| 93 | MP4B         | Mx        | -0.000551            | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 8.993                | 3.5                |
| 2  | MP5C         | Z         | -5.192               | 3.5                |
| 3  | MP5C         | Mx        | -0.004               | 3.5                |
| 4  | MP6C         | X         | 9.23                 | 1                  |
| 5  | MP6C         | Z         | -5.329               | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 9.23                 | 1.75               |
| 8  | MP7C         | Z         | -5.329               | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 5.27                 | 2                  |
| 11 | MP2A         | Z         | -3.043               | 2                  |
| 12 | MP2A         | Mx        | -0.004               | 2                  |
| 13 | MP2A         | X         | 5.27                 | 4                  |
| 14 | MP2A         | Z         | -3.043               | 4                  |
| 15 | MP2A         | Mx        | -0.004               | 4                  |
| 16 | MP3B         | X         | 4.662                | 2                  |
| 17 | MP3B         | Z         | -2.692               | 2                  |
| 18 | MP3B         | Mx        | 0.004                | 2                  |
| 19 | MP3B         | X         | 4.662                | 4                  |
| 20 | MP3B         | Z         | -2.692               | 4                  |
| 21 | MP3B         | Mx        | 0.004                | 4                  |
| 22 | MP3C         | X         | 7.882                | 2                  |
| 23 | MP3C         | Z         | -4.551               | 2                  |
| 24 | MP3C         | Mx        | -0.003               | 2                  |
| 25 | MP3C         | X         | 7.882                | 4                  |
| 26 | MP3C         | Z         | -4.551               | 4                  |
| 27 | MP3C         | Mx        | -0.003               | 4                  |
| 28 | MP5B         | X         | 6.016                | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 29 | MP5B         | Z         | -3.473               | 2                  |
| 30 | MP5B         | Mx        | 0.004                | 2                  |
| 31 | MP5B         | X         | 6.016                | 4                  |
| 32 | MP5B         | Z         | -3.473               | 4                  |
| 33 | MP5B         | Mx        | 0.004                | 4                  |
| 34 | MP1C         | X         | 2.908                | 2                  |
| 35 | MP1C         | Z         | -1.679               | 2                  |
| 36 | MP1C         | Mx        | 0.002                | 2                  |
| 37 | MP1C         | X         | 2.908                | 3                  |
| 38 | MP1C         | Z         | -1.679               | 3                  |
| 39 | MP1C         | Mx        | 0.002                | 3                  |
| 40 | MP2B         | X         | 2.298                | 2                  |
| 41 | MP2B         | Z         | -1.327               | 2                  |
| 42 | MP2B         | Mx        | 0.002                | 2                  |
| 43 | MP2B         | X         | 2.298                | 3                  |
| 44 | MP2B         | Z         | -1.327               | 3                  |
| 45 | MP2B         | Mx        | 0.002                | 3                  |
| 46 | MP3A         | X         | 2.572                | 2                  |
| 47 | MP3A         | Z         | -1.485               | 2                  |
| 48 | MP3A         | Mx        | -0.002               | 2                  |
| 49 | MP3A         | X         | 2.572                | 3                  |
| 50 | MP3A         | Z         | -1.485               | 3                  |
| 51 | MP3A         | Mx        | -0.002               | 3                  |
| 52 | MP4C         | X         | 3.748                | 2                  |
| 53 | MP4C         | Z         | -2.164               | 2                  |
| 54 | MP4C         | Mx        | -0.001               | 2                  |
| 55 | MP4C         | X         | 3.748                | 3                  |
| 56 | MP4C         | Z         | -2.164               | 3                  |
| 57 | MP4C         | Mx        | -0.001               | 3                  |
| 58 | MP1A         | X         | 5.431                | 1                  |
| 59 | MP1A         | Z         | -3.135               | 1                  |
| 60 | MP1A         | Mx        | -0.004               | 1                  |
| 61 | MP1A         | X         | 5.431                | 7                  |
| 62 | MP1A         | Z         | -3.135               | 7                  |
| 63 | MP1A         | Mx        | -0.004               | 7                  |
| 64 | MP1B         | X         | 4.221                | 1                  |
| 65 | MP1B         | Z         | -2.437               | 1                  |
| 66 | MP1B         | Mx        | 0.003                | 1                  |
| 67 | MP1B         | X         | 4.221                | 7                  |
| 68 | MP1B         | Z         | -2.437               | 7                  |
| 69 | MP1B         | Mx        | 0.003                | 7                  |
| 70 | MP2C         | X         | 10.628               | 1                  |
| 71 | MP2C         | Z         | -6.136               | 1                  |
| 72 | MP2C         | Mx        | -0.004               | 1                  |
| 73 | MP2C         | X         | 10.628               | 7                  |
| 74 | MP2C         | Z         | -6.136               | 7                  |
| 75 | MP2C         | Mx        | -0.004               | 7                  |
| 76 | MP4B         | X         | 6.915                | 1                  |
| 77 | MP4B         | Z         | -3.992               | 1                  |
| 78 | MP4B         | Mx        | 0.005                | 1                  |
| 79 | MP4B         | X         | 6.915                | 7                  |
| 80 | MP4B         | Z         | -3.992               | 7                  |
| 81 | MP4B         | Mx        | 0.005                | 7                  |
| 82 | MP1A         | X         | 5.233                | 1                  |
| 83 | MP1A         | Z         | -3.021               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 84 | MP1A         | Mx        | 0.001                | 1                  |
| 85 | MP1B         | X         | 5.233                | 1                  |
| 86 | MP1B         | Z         | -3.021               | 1                  |
| 87 | MP1B         | Mx        | 0.001                | 1                  |
| 88 | MP2C         | X         | 5.233                | 1                  |
| 89 | MP2C         | Z         | -3.021               | 1                  |
| 90 | MP2C         | Mx        | 0.001                | 1                  |
| 91 | MP4B         | X         | 5.233                | 1                  |
| 92 | MP4B         | Z         | -3.021               | 1                  |
| 93 | MP4B         | Mx        | 0.001                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 12.33                | 3.5                |
| 2  | MP5C         | Z         | 0                    | 3.5                |
| 3  | MP5C         | Mx        | -0.009               | 3.5                |
| 4  | MP6C         | X         | 9.437                | 1                  |
| 5  | MP6C         | Z         | 0                    | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 9.437                | 1.75               |
| 8  | MP7C         | Z         | 0                    | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 4.766                | 2                  |
| 11 | MP2A         | Z         | 0                    | 2                  |
| 12 | MP2A         | Mx        | -0.004               | 2                  |
| 13 | MP2A         | X         | 4.766                | 4                  |
| 14 | MP2A         | Z         | 0                    | 4                  |
| 15 | MP2A         | Mx        | -0.004               | 4                  |
| 16 | MP3B         | X         | 7.863                | 2                  |
| 17 | MP3B         | Z         | 0                    | 2                  |
| 18 | MP3B         | Mx        | 0.004                | 2                  |
| 19 | MP3B         | X         | 7.863                | 4                  |
| 20 | MP3B         | Z         | 0                    | 4                  |
| 21 | MP3B         | Mx        | 0.004                | 4                  |
| 22 | MP3C         | X         | 10.004               | 2                  |
| 23 | MP3C         | Z         | 0                    | 2                  |
| 24 | MP3C         | Mx        | 0.000654             | 2                  |
| 25 | MP3C         | X         | 10.004               | 4                  |
| 26 | MP3C         | Z         | 0                    | 4                  |
| 27 | MP3C         | Mx        | 0.000654             | 4                  |
| 28 | MP5B         | X         | 4.925                | 2                  |
| 29 | MP5B         | Z         | 0                    | 2                  |
| 30 | MP5B         | Mx        | 0.004                | 2                  |
| 31 | MP5B         | X         | 4.925                | 4                  |
| 32 | MP5B         | Z         | 0                    | 4                  |
| 33 | MP5B         | Mx        | 0.004                | 4                  |
| 34 | MP1C         | X         | 2.448                | 2                  |
| 35 | MP1C         | Z         | 0                    | 2                  |
| 36 | MP1C         | Mx        | 0.002                | 2                  |
| 37 | MP1C         | X         | 2.448                | 3                  |
| 38 | MP1C         | Z         | 0                    | 3                  |
| 39 | MP1C         | Mx        | 0.002                | 3                  |
| 40 | MP2B         | X         | 3.77                 | 2                  |
| 41 | MP2B         | Z         | 0                    | 2                  |
| 42 | MP2B         | Mx        | 0.002                | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 43 | MP2B         | X         | 3.77                 | 3                  |
| 44 | MP2B         | Z         | 0                    | 3                  |
| 45 | MP2B         | Mx        | 0.002                | 3                  |
| 46 | MP3A         | X         | 2.376                | 2                  |
| 47 | MP3A         | Z         | 0                    | 2                  |
| 48 | MP3A         | Mx        | -0.002               | 2                  |
| 49 | MP3A         | X         | 2.376                | 3                  |
| 50 | MP3A         | Z         | 0                    | 3                  |
| 51 | MP3A         | Mx        | -0.002               | 3                  |
| 52 | MP4C         | X         | 4.734                | 2                  |
| 53 | MP4C         | Z         | 0                    | 2                  |
| 54 | MP4C         | Mx        | 0.000309             | 2                  |
| 55 | MP4C         | X         | 4.734                | 3                  |
| 56 | MP4C         | Z         | 0                    | 3                  |
| 57 | MP4C         | Mx        | 0.000309             | 3                  |
| 58 | MP1A         | X         | 3.645                | 1                  |
| 59 | MP1A         | Z         | 0                    | 1                  |
| 60 | MP1A         | Mx        | -0.003               | 1                  |
| 61 | MP1A         | X         | 3.645                | 7                  |
| 62 | MP1A         | Z         | 0                    | 7                  |
| 63 | MP1A         | Mx        | -0.003               | 7                  |
| 64 | MP1B         | X         | 9.809                | 1                  |
| 65 | MP1B         | Z         | 0                    | 1                  |
| 66 | MP1B         | Mx        | 0.005                | 1                  |
| 67 | MP1B         | X         | 9.809                | 7                  |
| 68 | MP1B         | Z         | 0                    | 7                  |
| 69 | MP1B         | Mx        | 0.005                | 7                  |
| 70 | MP2C         | X         | 14.068               | 1                  |
| 71 | MP2C         | Z         | 0                    | 1                  |
| 72 | MP2C         | Mx        | 0.00092              | 1                  |
| 73 | MP2C         | X         | 14.068               | 7                  |
| 74 | MP2C         | Z         | 0                    | 7                  |
| 75 | MP2C         | Mx        | 0.00092              | 7                  |
| 76 | MP4B         | X         | 3.962                | 1                  |
| 77 | MP4B         | Z         | 0                    | 1                  |
| 78 | MP4B         | Mx        | 0.003                | 1                  |
| 79 | MP4B         | X         | 3.962                | 7                  |
| 80 | MP4B         | Z         | 0                    | 7                  |
| 81 | MP4B         | Mx        | 0.003                | 7                  |
| 82 | MP1A         | X         | 4.393                | 1                  |
| 83 | MP1A         | Z         | 0                    | 1                  |
| 84 | MP1A         | Mx        | 0.002                | 1                  |
| 85 | MP1B         | X         | 4.393                | 1                  |
| 86 | MP1B         | Z         | 0                    | 1                  |
| 87 | MP1B         | Mx        | 0.002                | 1                  |
| 88 | MP2C         | X         | 4.393                | 1                  |
| 89 | MP2C         | Z         | 0                    | 1                  |
| 90 | MP2C         | Mx        | 0.002                | 1                  |
| 91 | MP4B         | X         | 4.393                | 1                  |
| 92 | MP4B         | Z         | 0                    | 1                  |
| 93 | MP4B         | Mx        | 0.002                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 12.051               | 3.5                |
| 2  | MP5C         | Z         | 6.958                | 3.5                |
| 3  | MP5C         | Mx        | -0.014               | 3.5                |
| 4  | MP6C         | X         | 7.311                | 1                  |
| 5  | MP6C         | Z         | 4.221                | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 7.311                | 1.75               |
| 8  | MP7C         | Z         | 4.221                | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 5.27                 | 2                  |
| 11 | MP2A         | Z         | 3.043                | 2                  |
| 12 | MP2A         | Mx        | -0.004               | 2                  |
| 13 | MP2A         | X         | 5.27                 | 4                  |
| 14 | MP2A         | Z         | 3.043                | 4                  |
| 15 | MP2A         | Mx        | -0.004               | 4                  |
| 16 | MP3B         | X         | 8.561                | 2                  |
| 17 | MP3B         | Z         | 4.942                | 2                  |
| 18 | MP3B         | Mx        | 0.001                | 2                  |
| 19 | MP3B         | X         | 8.561                | 4                  |
| 20 | MP3B         | Z         | 4.942                | 4                  |
| 21 | MP3B         | Mx        | 0.001                | 4                  |
| 22 | MP3C         | X         | 7.195                | 2                  |
| 23 | MP3C         | Z         | 4.154                | 2                  |
| 24 | MP3C         | Mx        | 0.004                | 2                  |
| 25 | MP3C         | X         | 7.195                | 4                  |
| 26 | MP3C         | Z         | 4.154                | 4                  |
| 27 | MP3C         | Mx        | 0.004                | 4                  |
| 28 | MP5B         | X         | 4.662                | 2                  |
| 29 | MP5B         | Z         | 2.692                | 2                  |
| 30 | MP5B         | Mx        | 0.004                | 2                  |
| 31 | MP5B         | X         | 4.662                | 4                  |
| 32 | MP5B         | Z         | 2.692                | 4                  |
| 33 | MP5B         | Mx        | 0.004                | 4                  |
| 34 | MP1C         | X         | 2.298                | 2                  |
| 35 | MP1C         | Z         | 1.327                | 2                  |
| 36 | MP1C         | Mx        | 0.002                | 2                  |
| 37 | MP1C         | X         | 2.298                | 3                  |
| 38 | MP1C         | Z         | 1.327                | 3                  |
| 39 | MP1C         | Mx        | 0.002                | 3                  |
| 40 | MP2B         | X         | 4.053                | 2                  |
| 41 | MP2B         | Z         | 2.34                 | 2                  |
| 42 | MP2B         | Mx        | 0.00061              | 2                  |
| 43 | MP2B         | X         | 4.053                | 3                  |
| 44 | MP2B         | Z         | 2.34                 | 3                  |
| 45 | MP2B         | Mx        | 0.00061              | 3                  |
| 46 | MP3A         | X         | 2.572                | 2                  |
| 47 | MP3A         | Z         | 1.485                | 2                  |
| 48 | MP3A         | Mx        | -0.002               | 2                  |
| 49 | MP3A         | X         | 2.572                | 3                  |
| 50 | MP3A         | Z         | 1.485                | 3                  |
| 51 | MP3A         | Mx        | -0.002               | 3                  |
| 52 | MP4C         | X         | 3.438                | 2                  |
| 53 | MP4C         | Z         | 1.985                | 2                  |
| 54 | MP4C         | Mx        | 0.002                | 2                  |
| 55 | MP4C         | X         | 3.438                | 3                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 56 | MP4C         | Z         | 1.985                | 3                  |
| 57 | MP4C         | Mx        | 0.002                | 3                  |
| 58 | MP1A         | X         | 5.431                | 1                  |
| 59 | MP1A         | Z         | 3.135                | 1                  |
| 60 | MP1A         | Mx        | -0.004               | 1                  |
| 61 | MP1A         | X         | 5.431                | 7                  |
| 62 | MP1A         | Z         | 3.135                | 7                  |
| 63 | MP1A         | Mx        | -0.004               | 7                  |
| 64 | MP1B         | X         | 11.978               | 1                  |
| 65 | MP1B         | Z         | 6.916                | 1                  |
| 66 | MP1B         | Mx        | 0.002                | 1                  |
| 67 | MP1B         | X         | 11.978               | 7                  |
| 68 | MP1B         | Z         | 6.916                | 7                  |
| 69 | MP1B         | Mx        | 0.002                | 7                  |
| 70 | MP2C         | X         | 9.26                 | 1                  |
| 71 | MP2C         | Z         | 5.346                | 1                  |
| 72 | MP2C         | Mx        | 0.005                | 1                  |
| 73 | MP2C         | X         | 9.26                 | 7                  |
| 74 | MP2C         | Z         | 5.346                | 7                  |
| 75 | MP2C         | Mx        | 0.005                | 7                  |
| 76 | MP4B         | X         | 4.221                | 1                  |
| 77 | MP4B         | Z         | 2.437                | 1                  |
| 78 | MP4B         | Mx        | 0.003                | 1                  |
| 79 | MP4B         | X         | 4.221                | 7                  |
| 80 | MP4B         | Z         | 2.437                | 7                  |
| 81 | MP4B         | Mx        | 0.003                | 7                  |
| 82 | MP1A         | X         | 2.64                 | 1                  |
| 83 | MP1A         | Z         | 1.524                | 1                  |
| 84 | MP1A         | Mx        | 0.002                | 1                  |
| 85 | MP1B         | X         | 2.64                 | 1                  |
| 86 | MP1B         | Z         | 1.524                | 1                  |
| 87 | MP1B         | Mx        | 0.002                | 1                  |
| 88 | MP2C         | X         | 2.64                 | 1                  |
| 89 | MP2C         | Z         | 1.524                | 1                  |
| 90 | MP2C         | Mx        | 0.002                | 1                  |
| 91 | MP4B         | X         | 2.64                 | 1                  |
| 92 | MP4B         | Z         | 1.524                | 1                  |
| 93 | MP4B         | Mx        | 0.002                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 6.778                | 3.5                |
| 2  | MP5C         | Z         | 11.74                | 3.5                |
| 3  | MP5C         | Mx        | -0.013               | 3.5                |
| 4  | MP6C         | X         | 4.334                | 1                  |
| 5  | MP6C         | Z         | 7.506                | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 4.334                | 1.75               |
| 8  | MP7C         | Z         | 7.506                | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 4.362                | 2                  |
| 11 | MP2A         | Z         | 7.556                | 2                  |
| 12 | MP2A         | Mx        | -0.003               | 2                  |
| 13 | MP2A         | X         | 4.362                | 4                  |
| 14 | MP2A         | Z         | 7.556                | 4                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 15 | MP2A         | Mx        | -0.003               | 4                  |
| 16 | MP3B         | X         | 4.713                | 2                  |
| 17 | MP3B         | Z         | 8.164                | 2                  |
| 18 | MP3B         | Mx        | -0.002               | 2                  |
| 19 | MP3B         | X         | 4.713                | 4                  |
| 20 | MP3B         | Z         | 8.164                | 4                  |
| 21 | MP3B         | Mx        | -0.002               | 4                  |
| 22 | MP3C         | X         | 2.854                | 2                  |
| 23 | MP3C         | Z         | 4.944                | 2                  |
| 24 | MP3C         | Mx        | 0.004                | 2                  |
| 25 | MP3C         | X         | 2.854                | 4                  |
| 26 | MP3C         | Z         | 4.944                | 4                  |
| 27 | MP3C         | Mx        | 0.004                | 4                  |
| 28 | MP5B         | X         | 3.932                | 2                  |
| 29 | MP5B         | Z         | 6.81                 | 2                  |
| 30 | MP5B         | Mx        | 0.004                | 2                  |
| 31 | MP5B         | X         | 3.932                | 4                  |
| 32 | MP5B         | Z         | 6.81                 | 4                  |
| 33 | MP5B         | Mx        | 0.004                | 4                  |
| 34 | MP1C         | X         | 1.885                | 2                  |
| 35 | MP1C         | Z         | 3.265                | 2                  |
| 36 | MP1C         | Mx        | 0.002                | 2                  |
| 37 | MP1C         | X         | 1.885                | 3                  |
| 38 | MP1C         | Z         | 3.265                | 3                  |
| 39 | MP1C         | Mx        | 0.002                | 3                  |
| 40 | MP2B         | X         | 2.237                | 2                  |
| 41 | MP2B         | Z         | 3.875                | 2                  |
| 42 | MP2B         | Mx        | -0.001               | 2                  |
| 43 | MP2B         | X         | 2.237                | 3                  |
| 44 | MP2B         | Z         | 3.875                | 3                  |
| 45 | MP2B         | Mx        | -0.001               | 3                  |
| 46 | MP3A         | X         | 2.079                | 2                  |
| 47 | MP3A         | Z         | 3.601                | 2                  |
| 48 | MP3A         | Mx        | -0.002               | 2                  |
| 49 | MP3A         | X         | 2.079                | 3                  |
| 50 | MP3A         | Z         | 3.601                | 3                  |
| 51 | MP3A         | Mx        | -0.002               | 3                  |
| 52 | MP4C         | X         | 1.4                  | 2                  |
| 53 | MP4C         | Z         | 2.425                | 2                  |
| 54 | MP4C         | Mx        | 0.002                | 2                  |
| 55 | MP4C         | X         | 1.4                  | 3                  |
| 56 | MP4C         | Z         | 2.425                | 3                  |
| 57 | MP4C         | Mx        | 0.002                | 3                  |
| 58 | MP1A         | X         | 5.761                | 1                  |
| 59 | MP1A         | Z         | 9.979                | 1                  |
| 60 | MP1A         | Mx        | -0.004               | 1                  |
| 61 | MP1A         | X         | 5.761                | 7                  |
| 62 | MP1A         | Z         | 9.979                | 7                  |
| 63 | MP1A         | Mx        | -0.004               | 7                  |
| 64 | MP1B         | X         | 6.46                 | 1                  |
| 65 | MP1B         | Z         | 11.189               | 1                  |
| 66 | MP1B         | Mx        | -0.003               | 1                  |
| 67 | MP1B         | X         | 6.46                 | 7                  |
| 68 | MP1B         | Z         | 11.189               | 7                  |
| 69 | MP1B         | Mx        | -0.003               | 7                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 70 | MP2C         | X         | 2.76                 | 1                  |
| 71 | MP2C         | Z         | 4.781                | 1                  |
| 72 | MP2C         | Mx        | 0.004                | 1                  |
| 73 | MP2C         | X         | 2.76                 | 7                  |
| 74 | MP2C         | Z         | 4.781                | 7                  |
| 75 | MP2C         | Mx        | 0.004                | 7                  |
| 76 | MP4B         | X         | 4.904                | 1                  |
| 77 | MP4B         | Z         | 8.494                | 1                  |
| 78 | MP4B         | Mx        | 0.005                | 1                  |
| 79 | MP4B         | X         | 4.904                | 7                  |
| 80 | MP4B         | Z         | 8.494                | 7                  |
| 81 | MP4B         | Mx        | 0.005                | 7                  |
| 82 | MP1A         | X         | 1.677                | 1                  |
| 83 | MP1A         | Z         | 2.904                | 1                  |
| 84 | MP1A         | Mx        | 0.002                | 1                  |
| 85 | MP1B         | X         | 1.677                | 1                  |
| 86 | MP1B         | Z         | 2.904                | 1                  |
| 87 | MP1B         | Mx        | 0.002                | 1                  |
| 88 | MP2C         | X         | 1.677                | 1                  |
| 89 | MP2C         | Z         | 2.904                | 1                  |
| 90 | MP2C         | Mx        | 0.002                | 1                  |
| 91 | MP4B         | X         | 1.677                | 1                  |
| 92 | MP4B         | Z         | 2.904                | 1                  |
| 93 | MP4B         | Mx        | 0.002                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 0                    | 3.5                |
| 2  | MP5C         | Z         | 11.611               | 3.5                |
| 3  | MP5C         | Mx        | -0.007               | 3.5                |
| 4  | MP6C         | X         | 0                    | 1                  |
| 5  | MP6C         | Z         | 9.888                | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | 0                    | 1.75               |
| 8  | MP7C         | Z         | 9.888                | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | 0                    | 2                  |
| 11 | MP2A         | Z         | 10.044               | 2                  |
| 12 | MP2A         | Mx        | 0                    | 2                  |
| 13 | MP2A         | X         | 0                    | 4                  |
| 14 | MP2A         | Z         | 10.044               | 4                  |
| 15 | MP2A         | Mx        | 0                    | 4                  |
| 16 | MP3B         | X         | 0                    | 2                  |
| 17 | MP3B         | Z         | 6.947                | 2                  |
| 18 | MP3B         | Mx        | -0.004               | 2                  |
| 19 | MP3B         | X         | 0                    | 4                  |
| 20 | MP3B         | Z         | 6.947                | 4                  |
| 21 | MP3B         | Mx        | -0.004               | 4                  |
| 22 | MP3C         | X         | 0                    | 2                  |
| 23 | MP3C         | Z         | 4.806                | 2                  |
| 24 | MP3C         | Mx        | 0.004                | 2                  |
| 25 | MP3C         | X         | 0                    | 4                  |
| 26 | MP3C         | Z         | 4.806                | 4                  |
| 27 | MP3C         | Mx        | 0.004                | 4                  |
| 28 | MP5B         | X         | 0                    | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 29 | MP5B         | Z         | 9.885                | 2                  |
| 30 | MP5B         | Mx        | 0.001                | 2                  |
| 31 | MP5B         | X         | 0                    | 4                  |
| 32 | MP5B         | Z         | 9.885                | 4                  |
| 33 | MP5B         | Mx        | 0.001                | 4                  |
| 34 | MP1C         | X         | 0                    | 2                  |
| 35 | MP1C         | Z         | 4.68                 | 2                  |
| 36 | MP1C         | Mx        | 0.00061              | 2                  |
| 37 | MP1C         | X         | 0                    | 3                  |
| 38 | MP1C         | Z         | 4.68                 | 3                  |
| 39 | MP1C         | Mx        | 0.00061              | 3                  |
| 40 | MP2B         | X         | 0                    | 2                  |
| 41 | MP2B         | Z         | 3.358                | 2                  |
| 42 | MP2B         | Mx        | -0.002               | 2                  |
| 43 | MP2B         | X         | 0                    | 3                  |
| 44 | MP2B         | Z         | 3.358                | 3                  |
| 45 | MP2B         | Mx        | -0.002               | 3                  |
| 46 | MP3A         | X         | 0                    | 2                  |
| 47 | MP3A         | Z         | 4.752                | 2                  |
| 48 | MP3A         | Mx        | 0                    | 2                  |
| 49 | MP3A         | X         | 0                    | 3                  |
| 50 | MP3A         | Z         | 4.752                | 3                  |
| 51 | MP3A         | Mx        | 0                    | 3                  |
| 52 | MP4C         | X         | 0                    | 2                  |
| 53 | MP4C         | Z         | 2.394                | 2                  |
| 54 | MP4C         | Mx        | 0.002                | 2                  |
| 55 | MP4C         | X         | 0                    | 3                  |
| 56 | MP4C         | Z         | 2.394                | 3                  |
| 57 | MP4C         | Mx        | 0.002                | 3                  |
| 58 | MP1A         | X         | 0                    | 1                  |
| 59 | MP1A         | Z         | 14.148               | 1                  |
| 60 | MP1A         | Mx        | 0                    | 1                  |
| 61 | MP1A         | X         | 0                    | 7                  |
| 62 | MP1A         | Z         | 14.148               | 7                  |
| 63 | MP1A         | Mx        | 0                    | 7                  |
| 64 | MP1B         | X         | 0                    | 1                  |
| 65 | MP1B         | Z         | 7.985                | 1                  |
| 66 | MP1B         | Mx        | -0.005               | 1                  |
| 67 | MP1B         | X         | 0                    | 7                  |
| 68 | MP1B         | Z         | 7.985                | 7                  |
| 69 | MP1B         | Mx        | -0.005               | 7                  |
| 70 | MP2C         | X         | 0                    | 1                  |
| 71 | MP2C         | Z         | 3.725                | 1                  |
| 72 | MP2C         | Mx        | 0.003                | 1                  |
| 73 | MP2C         | X         | 0                    | 7                  |
| 74 | MP2C         | Z         | 3.725                | 7                  |
| 75 | MP2C         | Mx        | 0.003                | 7                  |
| 76 | MP4B         | X         | 0                    | 1                  |
| 77 | MP4B         | Z         | 13.832               | 1                  |
| 78 | MP4B         | Mx        | 0.002                | 1                  |
| 79 | MP4B         | X         | 0                    | 7                  |
| 80 | MP4B         | Z         | 13.832               | 7                  |
| 81 | MP4B         | Mx        | 0.002                | 7                  |
| 82 | MP1A         | X         | 0                    | 1                  |
| 83 | MP1A         | Z         | 5.003                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 84 | MP1A         | Mx        | 0.002                | 1                  |
| 85 | MP1B         | X         | 0                    | 1                  |
| 86 | MP1B         | Z         | 5.003                | 1                  |
| 87 | MP1B         | Mx        | 0.002                | 1                  |
| 88 | MP2C         | X         | 0                    | 1                  |
| 89 | MP2C         | Z         | 5.003                | 1                  |
| 90 | MP2C         | Mx        | 0.002                | 1                  |
| 91 | MP4B         | X         | 0                    | 1                  |
| 92 | MP4B         | Z         | 5.003                | 1                  |
| 93 | MP4B         | Mx        | 0.002                | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -5.012               | 3.5                |
| 2  | MP5C         | Z         | 8.682                | 3.5                |
| 3  | MP5C         | Mx        | -0.002               | 3.5                |
| 4  | MP6C         | X         | -5.442               | 1                  |
| 5  | MP6C         | Z         | 9.426                | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -5.442               | 1.75               |
| 8  | MP7C         | Z         | 9.426                | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -4.362               | 2                  |
| 11 | MP2A         | Z         | 7.556                | 2                  |
| 12 | MP2A         | Mx        | 0.003                | 2                  |
| 13 | MP2A         | X         | -4.362               | 4                  |
| 14 | MP2A         | Z         | 7.556                | 4                  |
| 15 | MP2A         | Mx        | 0.003                | 4                  |
| 16 | MP3B         | X         | -2.462               | 2                  |
| 17 | MP3B         | Z         | 4.265                | 2                  |
| 18 | MP3B         | Mx        | -0.004               | 2                  |
| 19 | MP3B         | X         | -2.462               | 4                  |
| 20 | MP3B         | Z         | 4.265                | 4                  |
| 21 | MP3B         | Mx        | -0.004               | 4                  |
| 22 | MP3C         | X         | -3.251               | 2                  |
| 23 | MP3C         | Z         | 5.631                | 2                  |
| 24 | MP3C         | Mx        | 0.004                | 2                  |
| 25 | MP3C         | X         | -3.251               | 4                  |
| 26 | MP3C         | Z         | 5.631                | 4                  |
| 27 | MP3C         | Mx        | 0.004                | 4                  |
| 28 | MP5B         | X         | -4.713               | 2                  |
| 29 | MP5B         | Z         | 8.164                | 2                  |
| 30 | MP5B         | Mx        | -0.002               | 2                  |
| 31 | MP5B         | X         | -4.713               | 4                  |
| 32 | MP5B         | Z         | 8.164                | 4                  |
| 33 | MP5B         | Mx        | -0.002               | 4                  |
| 34 | MP1C         | X         | -2.237               | 2                  |
| 35 | MP1C         | Z         | 3.875                | 2                  |
| 36 | MP1C         | Mx        | -0.001               | 2                  |
| 37 | MP1C         | X         | -2.237               | 3                  |
| 38 | MP1C         | Z         | 3.875                | 3                  |
| 39 | MP1C         | Mx        | -0.001               | 3                  |
| 40 | MP2B         | X         | -1.224               | 2                  |
| 41 | MP2B         | Z         | 2.12                 | 2                  |
| 42 | MP2B         | Mx        | -0.002               | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 43 | MP2B         | X         | -1.224               | 3                  |
| 44 | MP2B         | Z         | 2.12                 | 3                  |
| 45 | MP2B         | Mx        | -0.002               | 3                  |
| 46 | MP3A         | X         | -2.079               | 2                  |
| 47 | MP3A         | Z         | 3.601                | 2                  |
| 48 | MP3A         | Mx        | 0.002                | 2                  |
| 49 | MP3A         | X         | -2.079               | 3                  |
| 50 | MP3A         | Z         | 3.601                | 3                  |
| 51 | MP3A         | Mx        | 0.002                | 3                  |
| 52 | MP4C         | X         | -1.579               | 2                  |
| 53 | MP4C         | Z         | 2.735                | 2                  |
| 54 | MP4C         | Mx        | 0.002                | 2                  |
| 55 | MP4C         | X         | -1.579               | 3                  |
| 56 | MP4C         | Z         | 2.735                | 3                  |
| 57 | MP4C         | Mx        | 0.002                | 3                  |
| 58 | MP1A         | X         | -5.761               | 1                  |
| 59 | MP1A         | Z         | 9.979                | 1                  |
| 60 | MP1A         | Mx        | 0.004                | 1                  |
| 61 | MP1A         | X         | -5.761               | 7                  |
| 62 | MP1A         | Z         | 9.979                | 7                  |
| 63 | MP1A         | Mx        | 0.004                | 7                  |
| 64 | MP1B         | X         | -1.981               | 1                  |
| 65 | MP1B         | Z         | 3.431                | 1                  |
| 66 | MP1B         | Mx        | -0.003               | 1                  |
| 67 | MP1B         | X         | -1.981               | 7                  |
| 68 | MP1B         | Z         | 3.431                | 7                  |
| 69 | MP1B         | Mx        | -0.003               | 7                  |
| 70 | MP2C         | X         | -3.55                | 1                  |
| 71 | MP2C         | Z         | 6.149                | 1                  |
| 72 | MP2C         | Mx        | 0.004                | 1                  |
| 73 | MP2C         | X         | -3.55                | 7                  |
| 74 | MP2C         | Z         | 6.149                | 7                  |
| 75 | MP2C         | Mx        | 0.004                | 7                  |
| 76 | MP4B         | X         | -6.46                | 1                  |
| 77 | MP4B         | Z         | 11.189               | 1                  |
| 78 | MP4B         | Mx        | -0.003               | 1                  |
| 79 | MP4B         | X         | -6.46                | 7                  |
| 80 | MP4B         | Z         | 11.189               | 7                  |
| 81 | MP4B         | Mx        | -0.003               | 7                  |
| 82 | MP1A         | X         | -3.174               | 1                  |
| 83 | MP1A         | Z         | 5.497                | 1                  |
| 84 | MP1A         | Mx        | 0.000551             | 1                  |
| 85 | MP1B         | X         | -3.174               | 1                  |
| 86 | MP1B         | Z         | 5.497                | 1                  |
| 87 | MP1B         | Mx        | 0.000551             | 1                  |
| 88 | MP2C         | X         | -3.174               | 1                  |
| 89 | MP2C         | Z         | 5.497                | 1                  |
| 90 | MP2C         | Mx        | 0.000551             | 1                  |
| 91 | MP4B         | X         | -3.174               | 1                  |
| 92 | MP4B         | Z         | 5.497                | 1                  |
| 93 | MP4B         | Mx        | 0.000551             | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -8.993               | 3.5                |
| 2  | MP5C         | Z         | 5.192                | 3.5                |
| 3  | MP5C         | Mx        | 0.004                | 3.5                |
| 4  | MP6C         | X         | -9.23                | 1                  |
| 5  | MP6C         | Z         | 5.329                | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -9.23                | 1.75               |
| 8  | MP7C         | Z         | 5.329                | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -5.27                | 2                  |
| 11 | MP2A         | Z         | 3.043                | 2                  |
| 12 | MP2A         | Mx        | 0.004                | 2                  |
| 13 | MP2A         | X         | -5.27                | 4                  |
| 14 | MP2A         | Z         | 3.043                | 4                  |
| 15 | MP2A         | Mx        | 0.004                | 4                  |
| 16 | MP3B         | X         | -4.662               | 2                  |
| 17 | MP3B         | Z         | 2.692                | 2                  |
| 18 | MP3B         | Mx        | -0.004               | 2                  |
| 19 | MP3B         | X         | -4.662               | 4                  |
| 20 | MP3B         | Z         | 2.692                | 4                  |
| 21 | MP3B         | Mx        | -0.004               | 4                  |
| 22 | MP3C         | X         | -7.882               | 2                  |
| 23 | MP3C         | Z         | 4.551                | 2                  |
| 24 | MP3C         | Mx        | 0.003                | 2                  |
| 25 | MP3C         | X         | -7.882               | 4                  |
| 26 | MP3C         | Z         | 4.551                | 4                  |
| 27 | MP3C         | Mx        | 0.003                | 4                  |
| 28 | MP5B         | X         | -6.016               | 2                  |
| 29 | MP5B         | Z         | 3.473                | 2                  |
| 30 | MP5B         | Mx        | -0.004               | 2                  |
| 31 | MP5B         | X         | -6.016               | 4                  |
| 32 | MP5B         | Z         | 3.473                | 4                  |
| 33 | MP5B         | Mx        | -0.004               | 4                  |
| 34 | MP1C         | X         | -2.908               | 2                  |
| 35 | MP1C         | Z         | 1.679                | 2                  |
| 36 | MP1C         | Mx        | -0.002               | 2                  |
| 37 | MP1C         | X         | -2.908               | 3                  |
| 38 | MP1C         | Z         | 1.679                | 3                  |
| 39 | MP1C         | Mx        | -0.002               | 3                  |
| 40 | MP2B         | X         | -2.298               | 2                  |
| 41 | MP2B         | Z         | 1.327                | 2                  |
| 42 | MP2B         | Mx        | -0.002               | 2                  |
| 43 | MP2B         | X         | -2.298               | 3                  |
| 44 | MP2B         | Z         | 1.327                | 3                  |
| 45 | MP2B         | Mx        | -0.002               | 3                  |
| 46 | MP3A         | X         | -2.572               | 2                  |
| 47 | MP3A         | Z         | 1.485                | 2                  |
| 48 | MP3A         | Mx        | 0.002                | 2                  |
| 49 | MP3A         | X         | -2.572               | 3                  |
| 50 | MP3A         | Z         | 1.485                | 3                  |
| 51 | MP3A         | Mx        | 0.002                | 3                  |
| 52 | MP4C         | X         | -3.748               | 2                  |
| 53 | MP4C         | Z         | 2.164                | 2                  |
| 54 | MP4C         | Mx        | 0.001                | 2                  |
| 55 | MP4C         | X         | -3.748               | 3                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 56 | MP4C         | Z         | 2.164                | 3                  |
| 57 | MP4C         | Mx        | 0.001                | 3                  |
| 58 | MP1A         | X         | -5.431               | 1                  |
| 59 | MP1A         | Z         | 3.135                | 1                  |
| 60 | MP1A         | Mx        | 0.004                | 1                  |
| 61 | MP1A         | X         | -5.431               | 7                  |
| 62 | MP1A         | Z         | 3.135                | 7                  |
| 63 | MP1A         | Mx        | 0.004                | 7                  |
| 64 | MP1B         | X         | -4.221               | 1                  |
| 65 | MP1B         | Z         | 2.437                | 1                  |
| 66 | MP1B         | Mx        | -0.003               | 1                  |
| 67 | MP1B         | X         | -4.221               | 7                  |
| 68 | MP1B         | Z         | 2.437                | 7                  |
| 69 | MP1B         | Mx        | -0.003               | 7                  |
| 70 | MP2C         | X         | -10.628              | 1                  |
| 71 | MP2C         | Z         | 6.136                | 1                  |
| 72 | MP2C         | Mx        | 0.004                | 1                  |
| 73 | MP2C         | X         | -10.628              | 7                  |
| 74 | MP2C         | Z         | 6.136                | 7                  |
| 75 | MP2C         | Mx        | 0.004                | 7                  |
| 76 | MP4B         | X         | -6.915               | 1                  |
| 77 | MP4B         | Z         | 3.992                | 1                  |
| 78 | MP4B         | Mx        | -0.005               | 1                  |
| 79 | MP4B         | X         | -6.915               | 7                  |
| 80 | MP4B         | Z         | 3.992                | 7                  |
| 81 | MP4B         | Mx        | -0.005               | 7                  |
| 82 | MP1A         | X         | -5.233               | 1                  |
| 83 | MP1A         | Z         | 3.021                | 1                  |
| 84 | MP1A         | Mx        | -0.001               | 1                  |
| 85 | MP1B         | X         | -5.233               | 1                  |
| 86 | MP1B         | Z         | 3.021                | 1                  |
| 87 | MP1B         | Mx        | -0.001               | 1                  |
| 88 | MP2C         | X         | -5.233               | 1                  |
| 89 | MP2C         | Z         | 3.021                | 1                  |
| 90 | MP2C         | Mx        | -0.001               | 1                  |
| 91 | MP4B         | X         | -5.233               | 1                  |
| 92 | MP4B         | Z         | 3.021                | 1                  |
| 93 | MP4B         | Mx        | -0.001               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -12.33               | 3.5                |
| 2  | MP5C         | Z         | 0                    | 3.5                |
| 3  | MP5C         | Mx        | 0.009                | 3.5                |
| 4  | MP6C         | X         | -9.437               | 1                  |
| 5  | MP6C         | Z         | 0                    | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -9.437               | 1.75               |
| 8  | MP7C         | Z         | 0                    | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -4.766               | 2                  |
| 11 | MP2A         | Z         | 0                    | 2                  |
| 12 | MP2A         | Mx        | 0.004                | 2                  |
| 13 | MP2A         | X         | -4.766               | 4                  |
| 14 | MP2A         | Z         | 0                    | 4                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 15 | MP2A         | Mx        | 0.004                | 4                  |
| 16 | MP3B         | X         | -7.863               | 2                  |
| 17 | MP3B         | Z         | 0                    | 2                  |
| 18 | MP3B         | Mx        | -0.004               | 2                  |
| 19 | MP3B         | X         | -7.863               | 4                  |
| 20 | MP3B         | Z         | 0                    | 4                  |
| 21 | MP3B         | Mx        | -0.004               | 4                  |
| 22 | MP3C         | X         | -10.004              | 2                  |
| 23 | MP3C         | Z         | 0                    | 2                  |
| 24 | MP3C         | Mx        | -0.000654            | 2                  |
| 25 | MP3C         | X         | -10.004              | 4                  |
| 26 | MP3C         | Z         | 0                    | 4                  |
| 27 | MP3C         | Mx        | -0.000654            | 4                  |
| 28 | MP5B         | X         | -4.925               | 2                  |
| 29 | MP5B         | Z         | 0                    | 2                  |
| 30 | MP5B         | Mx        | -0.004               | 2                  |
| 31 | MP5B         | X         | -4.925               | 4                  |
| 32 | MP5B         | Z         | 0                    | 4                  |
| 33 | MP5B         | Mx        | -0.004               | 4                  |
| 34 | MP1C         | X         | -2.448               | 2                  |
| 35 | MP1C         | Z         | 0                    | 2                  |
| 36 | MP1C         | Mx        | -0.002               | 2                  |
| 37 | MP1C         | X         | -2.448               | 3                  |
| 38 | MP1C         | Z         | 0                    | 3                  |
| 39 | MP1C         | Mx        | -0.002               | 3                  |
| 40 | MP2B         | X         | -3.77                | 2                  |
| 41 | MP2B         | Z         | 0                    | 2                  |
| 42 | MP2B         | Mx        | -0.002               | 2                  |
| 43 | MP2B         | X         | -3.77                | 3                  |
| 44 | MP2B         | Z         | 0                    | 3                  |
| 45 | MP2B         | Mx        | -0.002               | 3                  |
| 46 | MP3A         | X         | -2.376               | 2                  |
| 47 | MP3A         | Z         | 0                    | 2                  |
| 48 | MP3A         | Mx        | 0.002                | 2                  |
| 49 | MP3A         | X         | -2.376               | 3                  |
| 50 | MP3A         | Z         | 0                    | 3                  |
| 51 | MP3A         | Mx        | 0.002                | 3                  |
| 52 | MP4C         | X         | -4.734               | 2                  |
| 53 | MP4C         | Z         | 0                    | 2                  |
| 54 | MP4C         | Mx        | -0.000309            | 2                  |
| 55 | MP4C         | X         | -4.734               | 3                  |
| 56 | MP4C         | Z         | 0                    | 3                  |
| 57 | MP4C         | Mx        | -0.000309            | 3                  |
| 58 | MP1A         | X         | -3.645               | 1                  |
| 59 | MP1A         | Z         | 0                    | 1                  |
| 60 | MP1A         | Mx        | 0.003                | 1                  |
| 61 | MP1A         | X         | -3.645               | 7                  |
| 62 | MP1A         | Z         | 0                    | 7                  |
| 63 | MP1A         | Mx        | 0.003                | 7                  |
| 64 | MP1B         | X         | -9.809               | 1                  |
| 65 | MP1B         | Z         | 0                    | 1                  |
| 66 | MP1B         | Mx        | -0.005               | 1                  |
| 67 | MP1B         | X         | -9.809               | 7                  |
| 68 | MP1B         | Z         | 0                    | 7                  |
| 69 | MP1B         | Mx        | -0.005               | 7                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 70 | MP2C         | X         | -14.068              | 1                  |
| 71 | MP2C         | Z         | 0                    | 1                  |
| 72 | MP2C         | Mx        | -0.00092             | 1                  |
| 73 | MP2C         | X         | -14.068              | 7                  |
| 74 | MP2C         | Z         | 0                    | 7                  |
| 75 | MP2C         | Mx        | -0.00092             | 7                  |
| 76 | MP4B         | X         | -3.962               | 1                  |
| 77 | MP4B         | Z         | 0                    | 1                  |
| 78 | MP4B         | Mx        | -0.003               | 1                  |
| 79 | MP4B         | X         | -3.962               | 7                  |
| 80 | MP4B         | Z         | 0                    | 7                  |
| 81 | MP4B         | Mx        | -0.003               | 7                  |
| 82 | MP1A         | X         | -4.393               | 1                  |
| 83 | MP1A         | Z         | 0                    | 1                  |
| 84 | MP1A         | Mx        | -0.002               | 1                  |
| 85 | MP1B         | X         | -4.393               | 1                  |
| 86 | MP1B         | Z         | 0                    | 1                  |
| 87 | MP1B         | Mx        | -0.002               | 1                  |
| 88 | MP2C         | X         | -4.393               | 1                  |
| 89 | MP2C         | Z         | 0                    | 1                  |
| 90 | MP2C         | Mx        | -0.002               | 1                  |
| 91 | MP4B         | X         | -4.393               | 1                  |
| 92 | MP4B         | Z         | 0                    | 1                  |
| 93 | MP4B         | Mx        | -0.002               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -12.051              | 3.5                |
| 2  | MP5C         | Z         | -6.958               | 3.5                |
| 3  | MP5C         | Mx        | 0.014                | 3.5                |
| 4  | MP6C         | X         | -7.311               | 1                  |
| 5  | MP6C         | Z         | -4.221               | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -7.311               | 1.75               |
| 8  | MP7C         | Z         | -4.221               | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -5.27                | 2                  |
| 11 | MP2A         | Z         | -3.043               | 2                  |
| 12 | MP2A         | Mx        | 0.004                | 2                  |
| 13 | MP2A         | X         | -5.27                | 4                  |
| 14 | MP2A         | Z         | -3.043               | 4                  |
| 15 | MP2A         | Mx        | 0.004                | 4                  |
| 16 | MP3B         | X         | -8.561               | 2                  |
| 17 | MP3B         | Z         | -4.942               | 2                  |
| 18 | MP3B         | Mx        | -0.001               | 2                  |
| 19 | MP3B         | X         | -8.561               | 4                  |
| 20 | MP3B         | Z         | -4.942               | 4                  |
| 21 | MP3B         | Mx        | -0.001               | 4                  |
| 22 | MP3C         | X         | -7.195               | 2                  |
| 23 | MP3C         | Z         | -4.154               | 2                  |
| 24 | MP3C         | Mx        | -0.004               | 2                  |
| 25 | MP3C         | X         | -7.195               | 4                  |
| 26 | MP3C         | Z         | -4.154               | 4                  |
| 27 | MP3C         | Mx        | -0.004               | 4                  |
| 28 | MP5B         | X         | -4.662               | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 29 | MP5B         | Z         | -2.692               | 2                  |
| 30 | MP5B         | Mx        | -0.004               | 2                  |
| 31 | MP5B         | X         | -4.662               | 4                  |
| 32 | MP5B         | Z         | -2.692               | 4                  |
| 33 | MP5B         | Mx        | -0.004               | 4                  |
| 34 | MP1C         | X         | -2.298               | 2                  |
| 35 | MP1C         | Z         | -1.327               | 2                  |
| 36 | MP1C         | Mx        | -0.002               | 2                  |
| 37 | MP1C         | X         | -2.298               | 3                  |
| 38 | MP1C         | Z         | -1.327               | 3                  |
| 39 | MP1C         | Mx        | -0.002               | 3                  |
| 40 | MP2B         | X         | -4.053               | 2                  |
| 41 | MP2B         | Z         | -2.34                | 2                  |
| 42 | MP2B         | Mx        | -0.00061             | 2                  |
| 43 | MP2B         | X         | -4.053               | 3                  |
| 44 | MP2B         | Z         | -2.34                | 3                  |
| 45 | MP2B         | Mx        | -0.00061             | 3                  |
| 46 | MP3A         | X         | -2.572               | 2                  |
| 47 | MP3A         | Z         | -1.485               | 2                  |
| 48 | MP3A         | Mx        | 0.002                | 2                  |
| 49 | MP3A         | X         | -2.572               | 3                  |
| 50 | MP3A         | Z         | -1.485               | 3                  |
| 51 | MP3A         | Mx        | 0.002                | 3                  |
| 52 | MP4C         | X         | -3.438               | 2                  |
| 53 | MP4C         | Z         | -1.985               | 2                  |
| 54 | MP4C         | Mx        | -0.002               | 2                  |
| 55 | MP4C         | X         | -3.438               | 3                  |
| 56 | MP4C         | Z         | -1.985               | 3                  |
| 57 | MP4C         | Mx        | -0.002               | 3                  |
| 58 | MP1A         | X         | -5.431               | 1                  |
| 59 | MP1A         | Z         | -3.135               | 1                  |
| 60 | MP1A         | Mx        | 0.004                | 1                  |
| 61 | MP1A         | X         | -5.431               | 7                  |
| 62 | MP1A         | Z         | -3.135               | 7                  |
| 63 | MP1A         | Mx        | 0.004                | 7                  |
| 64 | MP1B         | X         | -11.978              | 1                  |
| 65 | MP1B         | Z         | -6.916               | 1                  |
| 66 | MP1B         | Mx        | -0.002               | 1                  |
| 67 | MP1B         | X         | -11.978              | 7                  |
| 68 | MP1B         | Z         | -6.916               | 7                  |
| 69 | MP1B         | Mx        | -0.002               | 7                  |
| 70 | MP2C         | X         | -9.26                | 1                  |
| 71 | MP2C         | Z         | -5.346               | 1                  |
| 72 | MP2C         | Mx        | -0.005               | 1                  |
| 73 | MP2C         | X         | -9.26                | 7                  |
| 74 | MP2C         | Z         | -5.346               | 7                  |
| 75 | MP2C         | Mx        | -0.005               | 7                  |
| 76 | MP4B         | X         | -4.221               | 1                  |
| 77 | MP4B         | Z         | -2.437               | 1                  |
| 78 | MP4B         | Mx        | -0.003               | 1                  |
| 79 | MP4B         | X         | -4.221               | 7                  |
| 80 | MP4B         | Z         | -2.437               | 7                  |
| 81 | MP4B         | Mx        | -0.003               | 7                  |
| 82 | MP1A         | X         | -2.64                | 1                  |
| 83 | MP1A         | Z         | -1.524               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 84 | MP1A         | Mx        | -0.002               | 1                  |
| 85 | MP1B         | X         | -2.64                | 1                  |
| 86 | MP1B         | Z         | -1.524               | 1                  |
| 87 | MP1B         | Mx        | -0.002               | 1                  |
| 88 | MP2C         | X         | -2.64                | 1                  |
| 89 | MP2C         | Z         | -1.524               | 1                  |
| 90 | MP2C         | Mx        | -0.002               | 1                  |
| 91 | MP4B         | X         | -2.64                | 1                  |
| 92 | MP4B         | Z         | -1.524               | 1                  |
| 93 | MP4B         | Mx        | -0.002               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | -6.778               | 3.5                |
| 2  | MP5C         | Z         | -11.74               | 3.5                |
| 3  | MP5C         | Mx        | 0.013                | 3.5                |
| 4  | MP6C         | X         | -4.334               | 1                  |
| 5  | MP6C         | Z         | -7.506               | 1                  |
| 6  | MP6C         | Mx        | 0                    | 1                  |
| 7  | MP7C         | X         | -4.334               | 1.75               |
| 8  | MP7C         | Z         | -7.506               | 1.75               |
| 9  | MP7C         | Mx        | 0                    | 1.75               |
| 10 | MP2A         | X         | -4.362               | 2                  |
| 11 | MP2A         | Z         | -7.556               | 2                  |
| 12 | MP2A         | Mx        | 0.003                | 2                  |
| 13 | MP2A         | X         | -4.362               | 4                  |
| 14 | MP2A         | Z         | -7.556               | 4                  |
| 15 | MP2A         | Mx        | 0.003                | 4                  |
| 16 | MP3B         | X         | -4.713               | 2                  |
| 17 | MP3B         | Z         | -8.164               | 2                  |
| 18 | MP3B         | Mx        | 0.002                | 2                  |
| 19 | MP3B         | X         | -4.713               | 4                  |
| 20 | MP3B         | Z         | -8.164               | 4                  |
| 21 | MP3B         | Mx        | 0.002                | 4                  |
| 22 | MP3C         | X         | -2.854               | 2                  |
| 23 | MP3C         | Z         | -4.944               | 2                  |
| 24 | MP3C         | Mx        | -0.004               | 2                  |
| 25 | MP3C         | X         | -2.854               | 4                  |
| 26 | MP3C         | Z         | -4.944               | 4                  |
| 27 | MP3C         | Mx        | -0.004               | 4                  |
| 28 | MP5B         | X         | -3.932               | 2                  |
| 29 | MP5B         | Z         | -6.81                | 2                  |
| 30 | MP5B         | Mx        | -0.004               | 2                  |
| 31 | MP5B         | X         | -3.932               | 4                  |
| 32 | MP5B         | Z         | -6.81                | 4                  |
| 33 | MP5B         | Mx        | -0.004               | 4                  |
| 34 | MP1C         | X         | -1.885               | 2                  |
| 35 | MP1C         | Z         | -3.265               | 2                  |
| 36 | MP1C         | Mx        | -0.002               | 2                  |
| 37 | MP1C         | X         | -1.885               | 3                  |
| 38 | MP1C         | Z         | -3.265               | 3                  |
| 39 | MP1C         | Mx        | -0.002               | 3                  |
| 40 | MP2B         | X         | -2.237               | 2                  |
| 41 | MP2B         | Z         | -3.875               | 2                  |
| 42 | MP2B         | Mx        | 0.001                | 2                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 43 | MP2B         | X         | -2.237               | 3                  |
| 44 | MP2B         | Z         | -3.875               | 3                  |
| 45 | MP2B         | Mx        | 0.001                | 3                  |
| 46 | MP3A         | X         | -2.079               | 2                  |
| 47 | MP3A         | Z         | -3.601               | 2                  |
| 48 | MP3A         | Mx        | 0.002                | 2                  |
| 49 | MP3A         | X         | -2.079               | 3                  |
| 50 | MP3A         | Z         | -3.601               | 3                  |
| 51 | MP3A         | Mx        | 0.002                | 3                  |
| 52 | MP4C         | X         | -1.4                 | 2                  |
| 53 | MP4C         | Z         | -2.425               | 2                  |
| 54 | MP4C         | Mx        | -0.002               | 2                  |
| 55 | MP4C         | X         | -1.4                 | 3                  |
| 56 | MP4C         | Z         | -2.425               | 3                  |
| 57 | MP4C         | Mx        | -0.002               | 3                  |
| 58 | MP1A         | X         | -5.761               | 1                  |
| 59 | MP1A         | Z         | -9.979               | 1                  |
| 60 | MP1A         | Mx        | 0.004                | 1                  |
| 61 | MP1A         | X         | -5.761               | 7                  |
| 62 | MP1A         | Z         | -9.979               | 7                  |
| 63 | MP1A         | Mx        | 0.004                | 7                  |
| 64 | MP1B         | X         | -6.46                | 1                  |
| 65 | MP1B         | Z         | -11.189              | 1                  |
| 66 | MP1B         | Mx        | 0.003                | 1                  |
| 67 | MP1B         | X         | -6.46                | 7                  |
| 68 | MP1B         | Z         | -11.189              | 7                  |
| 69 | MP1B         | Mx        | 0.003                | 7                  |
| 70 | MP2C         | X         | -2.76                | 1                  |
| 71 | MP2C         | Z         | -4.781               | 1                  |
| 72 | MP2C         | Mx        | -0.004               | 1                  |
| 73 | MP2C         | X         | -2.76                | 7                  |
| 74 | MP2C         | Z         | -4.781               | 7                  |
| 75 | MP2C         | Mx        | -0.004               | 7                  |
| 76 | MP4B         | X         | -4.904               | 1                  |
| 77 | MP4B         | Z         | -8.494               | 1                  |
| 78 | MP4B         | Mx        | -0.005               | 1                  |
| 79 | MP4B         | X         | -4.904               | 7                  |
| 80 | MP4B         | Z         | -8.494               | 7                  |
| 81 | MP4B         | Mx        | -0.005               | 7                  |
| 82 | MP1A         | X         | -1.677               | 1                  |
| 83 | MP1A         | Z         | -2.904               | 1                  |
| 84 | MP1A         | Mx        | -0.002               | 1                  |
| 85 | MP1B         | X         | -1.677               | 1                  |
| 86 | MP1B         | Z         | -2.904               | 1                  |
| 87 | MP1B         | Mx        | -0.002               | 1                  |
| 88 | MP2C         | X         | -1.677               | 1                  |
| 89 | MP2C         | Z         | -2.904               | 1                  |
| 90 | MP2C         | Mx        | -0.002               | 1                  |
| 91 | MP4B         | X         | -1.677               | 1                  |
| 92 | MP4B         | Z         | -2.904               | 1                  |
| 93 | MP4B         | Mx        | -0.002               | 1                  |

#### Member Point Loads (BLC 77 : Lm1)

|   | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|---|--------------|-----------|----------------------|--------------------|
| 1 | M113         | Y         | -500                 | %6                 |

#### Member Point Loads (BLC 78 : Lm2)

|   | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|---|--------------|-----------|----------------------|--------------------|
| 1 | M117         | Y         | -500                 | %94                |

#### Member Point Loads (BLC 79 : Lv1)

|   | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|---|--------------|-----------|----------------------|--------------------|
| 1 | M2           | Y         | -250                 | %50                |

#### Member Point Loads (BLC 80 : Lv2)

|   | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|---|--------------|-----------|----------------------|--------------------|
| 1 | M4           | Y         | -250                 | %50                |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | Y         | -0.693               | 3.5                |
| 2  | MP5C         | My        | -0.000531            | 3.5                |
| 3  | MP5C         | Mz        | -0.000446            | 3.5                |
| 4  | MP6C         | Y         | -0.887               | 1                  |
| 5  | MP6C         | My        | 0                    | 1                  |
| 6  | MP6C         | Mz        | 0                    | 1                  |
| 7  | MP7C         | Y         | -0.887               | 1.75               |
| 8  | MP7C         | My        | 0                    | 1.75               |
| 9  | MP7C         | Mz        | 0                    | 1.75               |
| 10 | MP2A         | Y         | -1.525               | 2                  |
| 11 | MP2A         | My        | -0.001               | 2                  |
| 12 | MP2A         | Mz        | 0                    | 2                  |
| 13 | MP2A         | Y         | -1.525               | 4                  |
| 14 | MP2A         | My        | -0.001               | 4                  |
| 15 | MP2A         | Mz        | 0                    | 4                  |
| 16 | MP3B         | Y         | -1.525               | 2                  |
| 17 | MP3B         | My        | 0.000735             | 2                  |
| 18 | MP3B         | Mz        | -0.000876            | 2                  |
| 19 | MP3B         | Y         | -1.525               | 4                  |
| 20 | MP3B         | My        | 0.000735             | 4                  |
| 21 | MP3B         | Mz        | -0.000876            | 4                  |
| 22 | MP3C         | Y         | -1.525               | 2                  |
| 23 | MP3C         | My        | 0.0001               | 2                  |
| 24 | MP3C         | Mz        | 0.001                | 2                  |
| 25 | MP3C         | Y         | -1.525               | 4                  |
| 26 | MP3C         | My        | 0.0001               | 4                  |
| 27 | MP3C         | Mz        | 0.001                | 4                  |
| 28 | MP5B         | Y         | -1.525               | 2                  |
| 29 | MP5B         | My        | 0.001                | 2                  |
| 30 | MP5B         | Mz        | 0.000199             | 2                  |
| 31 | MP5B         | Y         | -1.525               | 4                  |
| 32 | MP5B         | My        | 0.001                | 4                  |
| 33 | MP5B         | Mz        | 0.000199             | 4                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 34 | MP1C         | Y         | -0.985               | 2                  |
| 35 | MP1C         | My        | 0.000727             | 2                  |
| 36 | MP1C         | Mz        | 0.000128             | 2                  |
| 37 | MP1C         | Y         | -0.985               | 3                  |
| 38 | MP1C         | My        | 0.000727             | 3                  |
| 39 | MP1C         | Mz        | 0.000128             | 3                  |
| 40 | MP2B         | Y         | -0.985               | 2                  |
| 41 | MP2B         | My        | 0.000475             | 2                  |
| 42 | MP2B         | Mz        | -0.000566            | 2                  |
| 43 | MP2B         | Y         | -0.985               | 3                  |
| 44 | MP2B         | My        | 0.000475             | 3                  |
| 45 | MP2B         | Mz        | -0.000566            | 3                  |
| 46 | MP3A         | Y         | -0.985               | 2                  |
| 47 | MP3A         | My        | -0.000738            | 2                  |
| 48 | MP3A         | Mz        | 0                    | 2                  |
| 49 | MP3A         | Y         | -0.985               | 3                  |
| 50 | MP3A         | My        | -0.000738            | 3                  |
| 51 | MP3A         | Mz        | 0                    | 3                  |
| 52 | MP4C         | Y         | -0.985               | 2                  |
| 53 | MP4C         | My        | 6.4e-5               | 2                  |
| 54 | MP4C         | Mz        | 0.000736             | 2                  |
| 55 | MP4C         | Y         | -0.985               | 3                  |
| 56 | MP4C         | My        | 6.4e-5               | 3                  |
| 57 | MP4C         | Mz        | 0.000736             | 3                  |
| 58 | MP1A         | Y         | -1.489               | 1                  |
| 59 | MP1A         | My        | -0.001               | 1                  |
| 60 | MP1A         | Mz        | 0                    | 1                  |
| 61 | MP1A         | Y         | -1.489               | 7                  |
| 62 | MP1A         | My        | -0.001               | 7                  |
| 63 | MP1A         | Mz        | 0                    | 7                  |
| 64 | MP1B         | Y         | -1.489               | 1                  |
| 65 | MP1B         | My        | 0.000718             | 1                  |
| 66 | MP1B         | Mz        | -0.000856            | 1                  |
| 67 | MP1B         | Y         | -1.489               | 7                  |
| 68 | MP1B         | My        | 0.000718             | 7                  |
| 69 | MP1B         | Mz        | -0.000856            | 7                  |
| 70 | MP2C         | Y         | -1.489               | 1                  |
| 71 | MP2C         | My        | 9.7e-5               | 1                  |
| 72 | MP2C         | Mz        | 0.001                | 1                  |
| 73 | MP2C         | Y         | -1.489               | 7                  |
| 74 | MP2C         | My        | 9.7e-5               | 7                  |
| 75 | MP2C         | Mz        | 0.001                | 7                  |
| 76 | MP4B         | Y         | -1.489               | 1                  |
| 77 | MP4B         | My        | 0.001                | 1                  |
| 78 | MP4B         | Mz        | 0.000194             | 1                  |
| 79 | MP4B         | Y         | -1.489               | 7                  |
| 80 | MP4B         | My        | 0.001                | 7                  |
| 81 | MP4B         | Mz        | 0.000194             | 7                  |
| 82 | MP1A         | Y         | -1.897               | 1                  |
| 83 | MP1A         | My        | 0.000727             | 1                  |
| 84 | MP1A         | Mz        | 0.00061              | 1                  |
| 85 | MP1B         | Y         | -1.897               | 1                  |
| 86 | MP1B         | My        | 0.000727             | 1                  |
| 87 | MP1B         | Mz        | 0.00061              | 1                  |
| 88 | MP2C         | Y         | -1.897               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 89 | MP2C         | My        | 0.000727             | 1                  |
| 90 | MP2C         | Mz        | 0.00061              | 1                  |
| 91 | MP4B         | Y         | -1.897               | 1                  |
| 92 | MP4B         | My        | 0.000727             | 1                  |
| 93 | MP4B         | Mz        | 0.00061              | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | Z         | -1.733               | 3.5                |
| 2  | MP5C         | Mx        | 0.001                | 3.5                |
| 3  | MP6C         | Z         | -2.219               | 1                  |
| 4  | MP6C         | Mx        | 0                    | 1                  |
| 5  | MP7C         | Z         | -2.219               | 1.75               |
| 6  | MP7C         | Mx        | 0                    | 1.75               |
| 7  | MP2A         | Z         | -3.813               | 2                  |
| 8  | MP2A         | Mx        | 0                    | 2                  |
| 9  | MP2A         | Z         | -3.813               | 4                  |
| 10 | MP2A         | Mx        | 0                    | 4                  |
| 11 | MP3B         | Z         | -3.813               | 2                  |
| 12 | MP3B         | Mx        | 0.002                | 2                  |
| 13 | MP3B         | Z         | -3.813               | 4                  |
| 14 | MP3B         | Mx        | 0.002                | 4                  |
| 15 | MP3C         | Z         | -3.813               | 2                  |
| 16 | MP3C         | Mx        | -0.003               | 2                  |
| 17 | MP3C         | Z         | -3.813               | 4                  |
| 18 | MP3C         | Mx        | -0.003               | 4                  |
| 19 | MP5B         | Z         | -3.813               | 2                  |
| 20 | MP5B         | Mx        | -0.000497            | 2                  |
| 21 | MP5B         | Z         | -3.813               | 4                  |
| 22 | MP5B         | Mx        | -0.000497            | 4                  |
| 23 | MP1C         | Z         | -2.461               | 2                  |
| 24 | MP1C         | Mx        | -0.000321            | 2                  |
| 25 | MP1C         | Z         | -2.461               | 3                  |
| 26 | MP1C         | Mx        | -0.000321            | 3                  |
| 27 | MP2B         | Z         | -2.461               | 2                  |
| 28 | MP2B         | Mx        | 0.001                | 2                  |
| 29 | MP2B         | Z         | -2.461               | 3                  |
| 30 | MP2B         | Mx        | 0.001                | 3                  |
| 31 | MP3A         | Z         | -2.461               | 2                  |
| 32 | MP3A         | Mx        | 0                    | 2                  |
| 33 | MP3A         | Z         | -2.461               | 3                  |
| 34 | MP3A         | Mx        | 0                    | 3                  |
| 35 | MP4C         | Z         | -2.461               | 2                  |
| 36 | MP4C         | Mx        | -0.002               | 2                  |
| 37 | MP4C         | Z         | -2.461               | 3                  |
| 38 | MP4C         | Mx        | -0.002               | 3                  |
| 39 | MP1A         | Z         | -3.723               | 1                  |
| 40 | MP1A         | Mx        | 0                    | 1                  |
| 41 | MP1A         | Z         | -3.723               | 7                  |
| 42 | MP1A         | Mx        | 0                    | 7                  |
| 43 | MP1B         | Z         | -3.723               | 1                  |
| 44 | MP1B         | Mx        | 0.002                | 1                  |
| 45 | MP1B         | Z         | -3.723               | 7                  |
| 46 | MP1B         | Mx        | 0.002                | 7                  |
| 47 | MP2C         | Z         | -3.723               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 48 | MP2C         | Mx        | -0.003               | 1                  |
| 49 | MP2C         | Z         | -3.723               | 7                  |
| 50 | MP2C         | Mx        | -0.003               | 7                  |
| 51 | MP4B         | Z         | -3.723               | 1                  |
| 52 | MP4B         | Mx        | -0.000485            | 1                  |
| 53 | MP4B         | Z         | -3.723               | 7                  |
| 54 | MP4B         | Mx        | -0.000485            | 7                  |
| 55 | MP1A         | Z         | -4.742               | 1                  |
| 56 | MP1A         | Mx        | -0.002               | 1                  |
| 57 | MP1B         | Z         | -4.742               | 1                  |
| 58 | MP1B         | Mx        | -0.002               | 1                  |
| 59 | MP2C         | Z         | -4.742               | 1                  |
| 60 | MP2C         | Mx        | -0.002               | 1                  |
| 61 | MP4B         | Z         | -4.742               | 1                  |
| 62 | MP4B         | Mx        | -0.002               | 1                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 1  | MP5C         | X         | 1.733                | 3.5                |
| 2  | MP5C         | Mx        | -0.001               | 3.5                |
| 3  | MP6C         | X         | 2.219                | 1                  |
| 4  | MP6C         | Mx        | 0                    | 1                  |
| 5  | MP7C         | X         | 2.219                | 1.75               |
| 6  | MP7C         | Mx        | 0                    | 1.75               |
| 7  | MP2A         | X         | 3.813                | 2                  |
| 8  | MP2A         | Mx        | -0.003               | 2                  |
| 9  | MP2A         | X         | 3.813                | 4                  |
| 10 | MP2A         | Mx        | -0.003               | 4                  |
| 11 | MP3B         | X         | 3.813                | 2                  |
| 12 | MP3B         | Mx        | 0.002                | 2                  |
| 13 | MP3B         | X         | 3.813                | 4                  |
| 14 | MP3B         | Mx        | 0.002                | 4                  |
| 15 | MP3C         | X         | 3.813                | 2                  |
| 16 | MP3C         | Mx        | 0.000249             | 2                  |
| 17 | MP3C         | X         | 3.813                | 4                  |
| 18 | MP3C         | Mx        | 0.000249             | 4                  |
| 19 | MP5B         | X         | 3.813                | 2                  |
| 20 | MP5B         | Mx        | 0.003                | 2                  |
| 21 | MP5B         | X         | 3.813                | 4                  |
| 22 | MP5B         | Mx        | 0.003                | 4                  |
| 23 | MP1C         | X         | 2.461                | 2                  |
| 24 | MP1C         | Mx        | 0.002                | 2                  |
| 25 | MP1C         | X         | 2.461                | 3                  |
| 26 | MP1C         | Mx        | 0.002                | 3                  |
| 27 | MP2B         | X         | 2.461                | 2                  |
| 28 | MP2B         | Mx        | 0.001                | 2                  |
| 29 | MP2B         | X         | 2.461                | 3                  |
| 30 | MP2B         | Mx        | 0.001                | 3                  |
| 31 | MP3A         | X         | 2.461                | 2                  |
| 32 | MP3A         | Mx        | -0.002               | 2                  |
| 33 | MP3A         | X         | 2.461                | 3                  |
| 34 | MP3A         | Mx        | -0.002               | 3                  |
| 35 | MP4C         | X         | 2.461                | 2                  |
| 36 | MP4C         | Mx        | 0.000161             | 2                  |
| 37 | MP4C         | X         | 2.461                | 3                  |

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

|    | Member Label | Direction | Magnitude [lb, k-ft] | Location [(ft, %)] |
|----|--------------|-----------|----------------------|--------------------|
| 38 | MP4C         | Mx        | 0.000161             | 3                  |
| 39 | MP1A         | X         | 3.723                | 1                  |
| 40 | MP1A         | Mx        | -0.003               | 1                  |
| 41 | MP1A         | X         | 3.723                | 7                  |
| 42 | MP1A         | Mx        | -0.003               | 7                  |
| 43 | MP1B         | X         | 3.723                | 1                  |
| 44 | MP1B         | Mx        | 0.002                | 1                  |
| 45 | MP1B         | X         | 3.723                | 7                  |
| 46 | MP1B         | Mx        | 0.002                | 7                  |
| 47 | MP2C         | X         | 3.723                | 1                  |
| 48 | MP2C         | Mx        | 0.000243             | 1                  |
| 49 | MP2C         | X         | 3.723                | 7                  |
| 50 | MP2C         | Mx        | 0.000243             | 7                  |
| 51 | MP4B         | X         | 3.723                | 1                  |
| 52 | MP4B         | Mx        | 0.003                | 1                  |
| 53 | MP4B         | X         | 3.723                | 7                  |
| 54 | MP4B         | Mx        | 0.003                | 7                  |
| 55 | MP1A         | X         | 4.742                | 1                  |
| 56 | MP1A         | Mx        | 0.002                | 1                  |
| 57 | MP1B         | X         | 4.742                | 1                  |
| 58 | MP1B         | Mx        | 0.002                | 1                  |
| 59 | MP2C         | X         | 4.742                | 1                  |
| 60 | MP2C         | Mx        | 0.002                | 1                  |
| 61 | MP4B         | X         | 4.742                | 1                  |
| 62 | MP4B         | Mx        | 0.002                | 1                  |

### Member Area Loads

No Data to Print...

### Envelope Node Reactions

|    | Node Label |     | X [lb]    | LC | Y [lb]   | LC | Z [lb]    | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|----|------------|-----|-----------|----|----------|----|-----------|----|-----------|----|-----------|----|-----------|----|
| 1  | N52        | max | 615.501   | 2  | 189.007  | 2  | 2133.554  | 8  | -0.013    | 5  | 0.09      | 10 | 0.022     | 8  |
| 2  |            | min | -618.022  | 8  | -153.614 | 8  | -2141.657 | 2  | -0.045    | 11 | -0.088    | 4  | -0.02     | 2  |
| 3  | N55        | max | 1876.801  | 5  | 183.986  | 11 | 369.195   | 11 | 0.038     | 6  | 0.115     | 6  | 0.108     | 31 |
| 4  |            | min | -2008.236 | 11 | -136.858 | 5  | -341.444  | 5  | -0.024    | 36 | -0.107    | 12 | 0.024     | 64 |
| 5  | N113       | max | 1996.708  | 8  | 316.009  | 8  | 2823.978  | 8  | 0.063     | 8  | 0.152     | 3  | 0.012     | 9  |
| 6  |            | min | -1981.021 | 2  | -272.055 | 2  | -2815.857 | 2  | 0.036     | 65 | -0.12     | 9  | -0.073    | 3  |
| 7  | N53        | max | 1004.192  | 5  | 13.529   | 51 | 279.247   | 11 | 0.021     | 5  | 0         | 75 | 0.008     | 11 |
| 8  |            | min | -855.514  | 11 | 8.43     | 69 | -320.877  | 5  | -0.026    | 11 | 0         | 1  | -0.007    | 5  |
| 9  | N166       | max | 1400.837  | 9  | 632.135  | 50 | 2642.472  | 2  | -0.13     | 5  | 0         | 75 | 0.051     | 8  |
| 10 |            | min | -1917.55  | 3  | 299.439  | 5  | -4245.371 | 8  | -0.279    | 50 | 0         | 1  | -0.007    | 49 |
| 11 | N167       | max | 645.548   | 11 | 1183.167 | 47 | 2065.947  | 12 | -0.125    | 5  | 0         | 75 | 0.056     | 8  |
| 12 |            | min | -19.624   | 49 | 283.649  | 5  | 49.384    | 6  | -0.266    | 50 | 0         | 1  | -0.007    | 49 |
| 13 | N168       | max | 3062.14   | 11 | 913.187  | 32 | 1337.796  | 1  | 0.239     | 7  | 0         | 75 | 0.333     | 32 |
| 14 |            | min | -4437.907 | 5  | 406.264  | 64 | 16.468    | 7  | 0.124     | 1  | 0         | 1  | 0.127     | 64 |
| 15 | N169       | max | 2304.204  | 10 | 853.392  | 32 | 21.12     | 2  | 0.215     | 8  | 0         | 75 | 0.317     | 33 |
| 16 |            | min | -293.369  | 4  | 379.049  | 64 | -1696.323 | 8  | 0.12      | 64 | 0         | 1  | 0.121     | 64 |
| 17 | N170       | max | 2456.235  | 1  | 865.615  | 4  | 5274.363  | 2  | 0.207     | 51 | 0         | 75 | -0.143    | 9  |
| 18 |            | min | -506.645  | 7  | 478.985  | 72 | -3267.365 | 8  | 0.128     | 72 | 0         | 1  | -0.327    | 3  |
| 19 | N171       | max | -62.191   | 11 | 804.701  | 4  | -431.561  | 12 | 0.2       | 4  | 0         | 75 | -0.141    | 9  |
| 20 |            | min | -2406.305 | 5  | 455.708  | 72 | -2222.283 | 6  | 0.122     | 72 | 0         | 1  | -0.307    | 3  |
| 21 | N192       | max | 15.551    | 49 | 293.545  | 6  | 395.674   | 12 | 0         | 6  | 0         | 49 | 0         | 8  |
| 22 |            | min | -168.44   | 12 | -82.777  | 12 | -890.046  | 6  | 0         | 12 | 0         | 8  | 0         | 49 |
| 23 | N193       | max | 435.234   | 9  | 409.511  | 3  | 654.851   | 3  | 0         | 9  | 0         | 26 | 0         | 33 |

### Envelope Node Reactions (Continued)

|    | Node Label |     | X [lb]    | LC | Y [lb]   | LC | Z [lb]    | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|----|------------|-----|-----------|----|----------|----|-----------|----|-----------|----|-----------|----|-----------|----|
| 24 |            | min | -1078.203 | 3  | -125.22  | 9  | -309.291  | 9  | -0.001    | 27 | 0         | 8  | 0         | 3  |
| 25 | N194       | max | 708.009   | 10 | 316.412  | 10 | 654.395   | 10 | 0         | 5  | 0         | 6  | 0         | 10 |
| 26 |            | min | -213.399  | 4  | -14.437  | 4  | -21.094   | 4  | 0         | 12 | 0         | 1  | 0         | 4  |
| 27 | N204       | max | 120.193   | 11 | 6.992    | 51 | 25.118    | 12 | 0.007     | 5  | 0         | 75 | 0.001     | 5  |
| 28 |            | min | -151.112  | 5  | 4.354    | 75 | -31.327   | 6  | -0.008    | 11 | 0         | 1  | -0.001    | 11 |
| 29 | Totals:    | max | 6209.489  | 10 | 4500.154 | 26 | 6749.857  | 1  |           |    |           |    |           |    |
| 30 |            | min | -6209.484 | 4  | 2725.945 | 71 | -6749.856 | 7  |           |    |           |    |           |    |

### Node Reactions

|    | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 1  | 1  | N52        | 300.918   | 101.619  | -1036.157 | -0.027    | -0.018    | -0.008    |
| 2  | 1  | N55        | -1467.227 | 137.824  | 298.995   | -0.013    | -0.099    | 0.024     |
| 3  | 1  | N113       | -1537.43  | -207.364 | -2205.552 | 0.039     | 0.11      | -0.063    |
| 4  | 1  | N53        | -669.054  | 11.734   | 234.519   | -0.022    | 0         | 0.007     |
| 5  | 1  | N166       | -686.761  | 440.747  | 1009.493  | -0.195    | 0         | 0.015     |
| 6  | 1  | N167       | 464.763   | 417.463  | 1972.019  | -0.192    | 0         | 0.005     |
| 7  | 1  | N168       | 1851.314  | 448.238  | 1337.796  | 0.124     | 0         | 0.139     |
| 8  | 1  | N169       | 853.71    | 433.428  | -109.082  | 0.126     | 0         | 0.138     |
| 9  | 1  | N170       | 2456.235  | 781.219  | 4954.599  | 0.178     | 0         | -0.298    |
| 10 | 1  | N171       | -1210.524 | 732.283  | -569.991  | 0.169     | 0         | -0.281    |
| 11 | 1  | N192       | -78.919   | 34.042   | 16.376    | 0         | 0         | 0         |
| 12 | 1  | N193       | -595.922  | 240.782  | 398.11    | 0         | 0         | 0         |
| 13 | 1  | N194       | 291.727   | 172.174  | 427.033   | 0         | 0         | 0         |
| 14 | 1  | N204       | 27.203    | 5.966    | 21.7      | -0.005    | 0         | -0.001    |
| 15 | 1  | Totals:    | 0.033     | 3750.154 | 6749.857  |           |           |           |
| 16 | 1  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 17 | 2  | N52        | 615.501   | 189.007  | -2141.657 | -0.015    | -0.052    | -0.02     |
| 18 | 2  | N55        | -868.738  | 88.008   | 171.397   | -0.007    | -0.048    | 0.026     |
| 19 | 2  | N113       | -1981.021 | -272.055 | -2815.857 | 0.036     | 0.145     | -0.07     |
| 20 | 2  | N53        | -388.202  | 11.709   | 130.079   | -0.016    | 0         | 0.005     |
| 21 | 2  | N166       | -1758.829 | 326.715  | 2642.472  | -0.142    | 0         | 0.003     |
| 22 | 2  | N167       | 233.836   | 308.129  | 1472.116  | -0.14     | 0         | -0.003    |
| 23 | 2  | N168       | 656.824   | 432.108  | 1246.551  | 0.124     | 0         | 0.136     |
| 24 | 2  | N169       | 315.602   | 405.053  | 21.12     | 0.121     | 0         | 0.13      |
| 25 | 2  | N170       | 2290.046  | 806.777  | 5274.363  | 0.178     | 0         | -0.312    |
| 26 | 2  | N171       | -1724.074 | 752.524  | -957.816  | 0.172     | 0         | -0.293    |
| 27 | 2  | N192       | 10.531    | 170.021  | -415.873  | 0         | 0         | 0         |
| 28 | 2  | N193       | -885.969  | 335.092  | 513.939   | 0         | 0         | 0         |
| 29 | 2  | N194       | 224.721   | 191.066  | 560.995   | 0         | 0         | 0         |
| 30 | 2  | N204       | -36.922   | 6.002    | 8.216     | -0.003    | 0         | -0.001    |
| 31 | 2  | Totals:    | -3296.693 | 3750.155 | 5710.044  |           |           |           |
| 32 | 2  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 33 | 3  | N52        | 546.371   | 173.865  | -1950.705 | -0.015    | -0.068    | -0.02     |
| 34 | 3  | N55        | 296.918   | -6.796   | -52.252   | 0.008     | 0.018     | 0.032     |
| 35 | 3  | N113       | -1972.537 | -267.951 | -2787.236 | 0.04      | 0.152     | -0.073    |
| 36 | 3  | N53        | 192.446   | 11.575   | -59.319   | -0.003    | 0         | 0.001     |
| 37 | 3  | N166       | -1917.55  | 312.111  | 2206.601  | -0.136    | 0         | 0.006     |
| 38 | 3  | N167       | 108.823   | 294.911  | 1030.554  | -0.132    | 0         | 0.006     |
| 39 | 3  | N168       | -1401.278 | 451.221  | 832.287   | 0.144     | 0         | 0.143     |
| 40 | 3  | N169       | -219.159  | 406.465  | -46.658   | 0.131     | 0         | 0.13      |
| 41 | 3  | N170       | 2125.267  | 851.743  | 5014.576  | 0.191     | 0         | -0.327    |
| 42 | 3  | N171       | -2088.278 | 791.445  | -1439.136 | 0.185     | 0         | -0.307    |
| 43 | 3  | N192       | 3.489     | 212.986  | -559.637  | 0         | 0         | 0         |
| 44 | 3  | N193       | -1078.203 | 409.511  | 654.851   | 0         | 0         | 0         |
| 45 | 3  | N194       | 4.559     | 103.074  | 326.615   | 0         | 0         | 0         |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 46  | 3  | N204       | -76.938   | 5.996    | -8.961    | 0.001     | 0         | 0         |
| 47  | 3  | Totals:    | -5476.069 | 3750.155 | 3161.578  |           |           |           |
| 48  | 3  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 49  | 4  | N52        | 396.312   | 137.837  | -1510.305 | -0.015    | -0.088    | -0.018    |
| 50  | 4  | N55        | 1468.748  | -102.63  | -260.034  | 0.024     | 0.066     | 0.037     |
| 51  | 4  | N113       | -1368.85  | -177.569 | -1938.124 | 0.047     | 0.107     | -0.064    |
| 52  | 4  | N53        | 779.037   | 11.297   | -241.088  | 0.013     | 0         | -0.004    |
| 53  | 4  | N166       | -1716.354 | 322.592  | 1392.894  | -0.141    | 0         | 0.01      |
| 54  | 4  | N167       | 72.939    | 305.943  | 756.666   | -0.136    | 0         | 0.013     |
| 55  | 4  | N168       | -3555.061 | 536.964  | 446.602   | 0.188     | 0         | 0.168     |
| 56  | 4  | N169       | -293.369  | 474.878  | -503.47   | 0.165     | 0         | 0.15      |
| 57  | 4  | N170       | 1671.978  | 865.615  | 3803.846  | 0.205     | 0         | -0.325    |
| 58  | 4  | N171       | -2393.936 | 804.701  | -1844.658 | 0.2       | 0         | -0.304    |
| 59  | 4  | N192       | -26.002   | 227.5    | -639.251  | 0         | 0         | 0         |
| 60  | 4  | N193       | -913.125  | 351.508  | 579.186   | 0         | 0         | 0         |
| 61  | 4  | N194       | -213.399  | -14.437  | -21.094   | 0         | 0         | 0         |
| 62  | 4  | N204       | -118.403  | 5.954    | -21.183   | 0.005     | 0         | 0.001     |
| 63  | 4  | Totals:    | -6209.484 | 3750.153 | -0.013    |           |           |           |
| 64  | 4  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 65  | 5  | N52        | 358.93    | 126.162  | -1385.247 | -0.013    | -0.087    | -0.018    |
| 66  | 5  | N55        | 1876.801  | -136.858 | -341.444  | 0.035     | 0.095     | 0.04      |
| 67  | 5  | N113       | -316.67   | -22.947  | -447.84   | 0.053     | 0.032     | -0.04     |
| 68  | 5  | N53        | 1004.192  | 11.086   | -320.877  | 0.021     | 0         | -0.007    |
| 69  | 5  | N166       | -1637.292 | 299.439  | 1128.122  | -0.13     | 0         | 0.01      |
| 70  | 5  | N167       | 30.067    | 283.649  | 394.661   | -0.125    | 0         | 0.015     |
| 71  | 5  | N168       | -4437.907 | 632.955  | 293.552   | 0.227     | 0         | 0.197     |
| 72  | 5  | N169       | 162.608   | 560.046  | -1081.743 | 0.198     | 0         | 0.177     |
| 73  | 5  | N170       | 681.614   | 770.399  | 1272.521  | 0.198     | 0         | -0.276    |
| 74  | 5  | N171       | -2406.305 | 721.9    | -2116.113 | 0.196     | 0         | -0.26     |
| 75  | 5  | N192       | 3.904     | 284.622  | -855.986  | 0         | 0         | 0         |
| 76  | 5  | N193       | -532.52   | 204.806  | 278.807   | 0         | 0         | 0         |
| 77  | 5  | N194       | -149.393  | 8.958    | 26.597    | 0         | 0         | 0         |
| 78  | 5  | N204       | -151.112  | 5.935    | -27.96    | 0.007     | 0         | 0.001     |
| 79  | 5  | Totals:    | -5513.085 | 3750.153 | -3182.951 |           |           |           |
| 80  | 5  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 81  | 6  | N52        | 161.214   | 64.918   | -618.164  | -0.017    | -0.04     | -0.009    |
| 82  | 6  | N55        | 1661.151  | -118.932 | -326.286  | 0.038     | 0.115     | 0.042     |
| 83  | 6  | N113       | 758.721   | 135.321  | 1092.997  | 0.057     | -0.033    | -0.014    |
| 84  | 6  | N53        | 944.85    | 11.069   | -318.473  | 0.02      | 0         | -0.006    |
| 85  | 6  | N166       | -1109.781 | 325.731  | -83.751   | -0.143    | 0         | 0.019     |
| 86  | 6  | N167       | 43.214    | 309.678  | 49.384    | -0.134    | 0         | 0.027     |
| 87  | 6  | N168       | -4027.793 | 676.105  | 171.915   | 0.238     | 0         | 0.212     |
| 88  | 6  | N169       | 712.34    | 601.984  | -1417.307 | 0.208     | 0         | 0.192     |
| 89  | 6  | N170       | -251.549  | 631.715  | -1454.722 | 0.181     | 0         | -0.209    |
| 90  | 6  | N171       | -1932.745 | 598.249  | -2222.283 | 0.178     | 0         | -0.2      |
| 91  | 6  | N192       | 14.748    | 293.545  | -890.046  | 0         | 0         | 0         |
| 92  | 6  | N193       | -247.919  | 101.778  | 38.48     | 0         | 0         | 0         |
| 93  | 6  | N194       | 85.257    | 113.025  | 262.542   | 0         | 0         | 0         |
| 94  | 6  | N204       | -129.81   | 5.966    | -31.327   | 0.006     | 0         | 0.001     |
| 95  | 6  | Totals:    | -3318.103 | 3750.152 | -5747.041 |           |           |           |
| 96  | 6  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 97  | 7  | N52        | -299.658  | -65.523  | 1030.509  | -0.032    | 0.02      | 0.01      |
| 98  | 7  | N55        | 1334.582  | -90.424  | -274.389  | 0.037     | 0.107     | 0.043     |
| 99  | 7  | N113       | 1553.472  | 252.614  | 2221.639  | 0.061     | -0.078    | 0.002     |
| 100 | 7  | N53        | 831.089   | 11.142   | -282.108  | 0.017     | 0         | -0.005    |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 101 | 7  | N166       | 158.295   | 451.131  | -2620.558 | -0.201    | 0         | 0.039     |
| 102 | 7  | N167       | 213.569   | 430.475  | 141.272   | -0.188    | 0         | 0.048     |
| 103 | 7  | N168       | -3225.897 | 688.859  | 16.468    | 0.239     | 0         | 0.216     |
| 104 | 7  | N169       | 1157.979  | 620.602  | -1565.329 | 0.21      | 0         | 0.198     |
| 105 | 7  | N170       | -506.645  | 559.391  | -2955.162 | 0.177     | 0         | -0.172    |
| 106 | 7  | N171       | -1253.22  | 534.286  | -2083.528 | 0.169     | 0         | -0.166    |
| 107 | 7  | N192       | -72.207   | 177.789  | -512.948  | 0         | 0         | 0         |
| 108 | 7  | N193       | -37.942   | 41.806   | -48.999   | 0         | 0         | 0         |
| 109 | 7  | N194       | 206.385   | 132.019  | 210.961   | 0         | 0         | 0         |
| 110 | 7  | N204       | -59.829   | 5.985    | -27.684   | 0.004     | 0         | 0.001     |
| 111 | 7  | Totals:    | -0.028    | 3750.151 | -6749.856 |           |           |           |
| 112 | 7  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 113 | 8  | N52        | -618.022  | -153.614 | 2133.554  | -0.043    | 0.053     | 0.022     |
| 114 | 8  | N55        | 728.687   | -39.54   | -148.05   | 0.031     | 0.057     | 0.042     |
| 115 | 8  | N113       | 1996.708  | 316.009  | 2823.978  | 0.063     | -0.113    | 0.009     |
| 116 | 8  | N53        | 557.396   | 11.33    | -181.632  | 0.011     | 0         | -0.003    |
| 117 | 8  | N166       | 1238.454  | 566.539  | -4245.371 | -0.254    | 0         | 0.051     |
| 118 | 8  | N167       | 442.949   | 538.087  | 639.54    | -0.238    | 0         | 0.056     |
| 119 | 8  | N168       | -2020.742 | 703.961  | 114.892   | 0.238     | 0         | 0.219     |
| 120 | 8  | N169       | 1691.659  | 647.618  | -1696.323 | 0.215     | 0         | 0.206     |
| 121 | 8  | N170       | -343.947  | 534.262  | -3267.365 | 0.177     | 0         | -0.158    |
| 122 | 8  | N171       | -738.845  | 513.562  | -1697.094 | 0.166     | 0         | -0.154    |
| 123 | 8  | N192       | -164.42   | 42.857   | -84.775   | 0         | 0         | 0         |
| 124 | 8  | N193       | 246.864   | -51.386  | -166.078  | 0         | 0         | 0         |
| 125 | 8  | N194       | 276.413   | 114.478  | 78.794    | 0         | 0         | 0         |
| 126 | 8  | N204       | 3.545     | 5.986    | -14.111   | 0.002     | 0         | 0         |
| 127 | 8  | Totals:    | 3296.7    | 3750.151 | -5710.042 |           |           |           |
| 128 | 8  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 129 | 9  | N52        | -549.9    | -138.989 | 1947.739  | -0.044    | 0.07      | 0.022     |
| 130 | 9  | N55        | -446.235  | 56.412   | 76.376    | 0.016     | -0.01     | 0.036     |
| 131 | 9  | N113       | 1981.697  | 310.672  | 2787.372  | 0.059     | -0.12     | 0.012     |
| 132 | 9  | N53        | -24.235   | 11.645   | 7.213     | -0.002    | 0         | 0.001     |
| 133 | 9  | N166       | 1400.837  | 582.254  | -3817.394 | -0.261    | 0         | 0.048     |
| 134 | 9  | N167       | 566.755   | 551.36   | 1082.212  | -0.247    | 0         | 0.047     |
| 135 | 9  | N168       | 53.682    | 683.203  | 532.633   | 0.218     | 0         | 0.212     |
| 136 | 9  | N169       | 2223.924  | 645.967  | -1629.923 | 0.205     | 0         | 0.206     |
| 137 | 9  | N170       | -171.357  | 491.748  | -2994.344 | 0.164     | 0         | -0.143    |
| 138 | 9  | N171       | -375.44   | 474.15   | -1219.113 | 0.153     | 0         | -0.141    |
| 139 | 9  | N192       | -158.827  | -0.755   | 60.637    | 0         | 0         | 0         |
| 140 | 9  | N193       | 435.234   | -125.22  | -309.291  | 0         | 0         | 0         |
| 141 | 9  | N194       | 496.09    | 201.741  | 311.265   | 0         | 0         | 0         |
| 142 | 9  | N204       | 43.849    | 5.963    | 3.043     | -0.002    | 0         | 0         |
| 143 | 9  | Totals:    | 5476.075  | 3750.151 | -3161.577 |           |           |           |
| 144 | 9  | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 145 | 10 | N52        | -398.774  | -102.869 | 1510.015  | -0.043    | 0.09      | 0.02      |
| 146 | 10 | N55        | -1612.176 | 151.365  | 287.195   | -0.001    | -0.058    | 0.03      |
| 147 | 10 | N113       | 1369.753  | 220.719  | 1938.217  | 0.052     | -0.074    | 0.002     |
| 148 | 10 | N53        | -624.43   | 11.832   | 195.691   | -0.018    | 0         | 0.006     |
| 149 | 10 | N166       | 1197.625  | 571.662  | -3009.052 | -0.256    | 0         | 0.044     |
| 150 | 10 | N167       | 602.932   | 540.88   | 1356.987  | -0.243    | 0         | 0.04      |
| 151 | 10 | N168       | 2201.367  | 597.55   | 907.331   | 0.173     | 0         | 0.188     |
| 152 | 10 | N169       | 2304.204  | 579.983  | -1172.709 | 0.17      | 0         | 0.187     |
| 153 | 10 | N170       | 299.116   | 479.678  | -1776.803 | 0.15      | 0         | -0.147    |
| 154 | 10 | N171       | -72.67    | 461.503  | -815.782  | 0.138     | 0         | -0.144    |
| 155 | 10 | N192       | -128.679  | -15.802  | 142.052   | 0         | 0         | 0         |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 156 | 10 | N193       | 276.206   | -68.658  | -232.7    | 0         | 0         | 0         |
| 157 | 10 | N194       | 708.009   | 316.412  | 654.395   | 0         | 0         | 0         |
| 158 | 10 | N204       | 87.006    | 5.898    | 15.175    | -0.006    | 0         | -0.001    |
| 159 | 10 | Totals:    | 6209.489  | 3750.152 | 0.014     |           |           |           |
| 160 | 10 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 161 | 11 | N52        | -361.621  | -91.343  | 1387.353  | -0.045    | 0.089     | 0.02      |
| 162 | 11 | N55        | -2008.236 | 183.986  | 369.195   | -0.011    | -0.088    | 0.027     |
| 163 | 11 | N113       | 317.062   | 68.22    | 458.249   | 0.047     | 0.003     | -0.022    |
| 164 | 11 | N53        | -855.514  | 11.808   | 279.247   | -0.026    | 0         | 0.008     |
| 165 | 11 | N166       | 1119.546  | 595.555  | -2748.133 | -0.267    | 0         | 0.044     |
| 166 | 11 | N167       | 645.548   | 562.941  | 1719.792  | -0.255    | 0         | 0.038     |
| 167 | 11 | N168       | 3062.14   | 504.17   | 1052.152  | 0.135     | 0         | 0.159     |
| 168 | 11 | N169       | 1854.661  | 496.043  | -592.802  | 0.138     | 0         | 0.16      |
| 169 | 11 | N170       | 1297.371  | 571.766  | 739.498   | 0.157     | 0         | -0.195    |
| 170 | 11 | N171       | -62.191   | 546.125  | -541.047  | 0.143     | 0         | -0.188    |
| 171 | 11 | N192       | -159.082  | -73.283  | 359.444   | 0         | 0         | 0         |
| 172 | 11 | N193       | -95.301   | 76.105   | 70.154    | 0         | 0         | 0         |
| 173 | 11 | N194       | 638.513   | 292.201  | 608.133   | 0         | 0         | 0         |
| 174 | 11 | N204       | 120.193   | 5.859    | 21.716    | -0.008    | 0         | -0.001    |
| 175 | 11 | Totals:    | 5513.091  | 3750.153 | 3182.951  |           |           |           |
| 176 | 11 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 177 | 12 | N52        | -161.943  | -29.673  | 620.639   | -0.041    | 0.043     | 0.011     |
| 178 | 12 | N55        | -1790.782 | 165.842  | 352.385   | -0.014    | -0.107    | 0.026     |
| 179 | 12 | N113       | -749.697  | -89.21   | -1074.671 | 0.043     | 0.066     | -0.048    |
| 180 | 12 | N53        | -790.229  | 11.753   | 274.368   | -0.025    | 0         | 0.008     |
| 181 | 12 | N166       | 587.707   | 568.563  | -1539.676 | -0.255    | 0         | 0.035     |
| 182 | 12 | N167       | 633.281   | 537.758  | 2065.947  | -0.245    | 0         | 0.026     |
| 183 | 12 | N168       | 2647.581  | 461.808  | 1177.072  | 0.124     | 0         | 0.144     |
| 184 | 12 | N169       | 1303.377  | 453.174  | -256.842  | 0.129     | 0         | 0.145     |
| 185 | 12 | N170       | 2216.909  | 708.52   | 3453.232  | 0.174     | 0         | -0.261    |
| 186 | 12 | N171       | -533.669  | 669.594  | -431.561  | 0.161     | 0         | -0.247    |
| 187 | 12 | N192       | -168.44   | -82.777  | 395.674   | 0         | 0         | 0         |
| 188 | 12 | N193       | -380.799  | 179.491  | 310.895   | 0         | 0         | 0         |
| 189 | 12 | N194       | 406.774   | 189.406  | 374.463   | 0         | 0         | 0         |
| 190 | 12 | N204       | 98.038    | 5.903    | 25.118    | -0.007    | 0         | -0.001    |
| 191 | 12 | Totals:    | 3318.109  | 3750.154 | 5747.042  |           |           |           |
| 192 | 12 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 193 | 13 | N52        | 1.551     | 18.2     | -3.996    | -0.03     | 0.001     | 0.001     |
| 194 | 13 | N55        | -114.989  | 28.072   | 21.503    | 0.011     | 0         | 0.034     |
| 195 | 13 | N113       | -37.013   | 17.165   | -47.392   | 0.05      | 0.02      | -0.032    |
| 196 | 13 | N53        | 61.913    | 11.61    | -17.581   | -0.003    | 0         | 0.001     |
| 197 | 13 | N166       | -265.618  | 448.979  | -800.378  | -0.2      | 0         | 0.027     |
| 198 | 13 | N167       | 339.484   | 426.618  | 1093.534  | -0.191    | 0         | 0.026     |
| 199 | 13 | N168       | -600.886  | 563.877  | 701.651   | 0.179     | 0         | 0.176     |
| 200 | 13 | N169       | 998.231   | 523.69   | -812.501  | 0.166     | 0         | 0.167     |
| 201 | 13 | N170       | 1019.424  | 673.052  | 1102.049  | 0.177     | 0         | -0.237    |
| 202 | 13 | N171       | -1231.668 | 636.398  | -1303.658 | 0.169     | 0         | -0.225    |
| 203 | 13 | N192       | -75.417   | 100.074  | -227.371  | 0         | 0         | 0         |
| 204 | 13 | N193       | -328.457  | 144.73   | 179.737   | 0         | 0         | 0         |
| 205 | 13 | N194       | 249.258   | 151.696  | 320.614   | 0         | 0         | 0         |
| 206 | 13 | N204       | -15.808   | 5.992    | -1.731    | -0.001    | 0         | 0         |
| 207 | 13 | Totals:    | 0.004     | 3750.153 | 204.479   |           |           |           |
| 208 | 13 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 209 | 14 | N52        | 12.569    | 21.272   | -42.613   | -0.029    | 0         | 0         |
| 210 | 14 | N55        | -102.174  | 26.946   | 17.965    | 0.011     | 0.002     | 0.034     |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 211 | 14 | N113       | -46.396   | 15.923   | -58.624   | 0.05      | 0.022     | -0.032    |
| 212 | 14 | N53        | 67.344    | 11.608   | -20.312   | -0.003    | 0         | 0.001     |
| 213 | 14 | N166       | -302.474  | 445.501  | -747.004  | -0.198    | 0         | 0.027     |
| 214 | 14 | N167       | 332.201   | 423.404  | 1079.504  | -0.19     | 0         | 0.026     |
| 215 | 14 | N168       | -628.934  | 563.331  | 696.961   | 0.18      | 0         | 0.176     |
| 216 | 14 | N169       | 980.099   | 523.227  | -810.582  | 0.166     | 0         | 0.167     |
| 217 | 14 | N170       | 1022.327  | 675.095  | 1118.271  | 0.177     | 0         | -0.238    |
| 218 | 14 | N171       | -1250.99  | 638.204  | -1314.766 | 0.17      | 0         | -0.226    |
| 219 | 14 | N192       | -71.851   | 103.694  | -238.693  | 0         | 0         | 0         |
| 220 | 14 | N193       | -336.052  | 146.867  | 181.102   | 0         | 0         | 0         |
| 221 | 14 | N194       | 239.435   | 149.088  | 316.819   | 0         | 0         | 0         |
| 222 | 14 | N204       | -16.712   | 5.992    | -2.031    | -0.001    | 0         | 0         |
| 223 | 14 | Totals:    | -101.608  | 3750.153 | 175.996   |           |           |           |
| 224 | 14 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 225 | 15 | N52        | 14.99     | 22.213   | -54.035   | -0.029    | -0.001    | 0         |
| 226 | 15 | N55        | -70.777   | 24.4     | 11.354    | 0.012     | 0.004     | 0.034     |
| 227 | 15 | N113       | -52.314   | 15.225   | -66.107   | 0.05      | 0.023     | -0.033    |
| 228 | 15 | N53        | 83.701    | 11.602   | -25.952   | -0.003    | 0         | 0.001     |
| 229 | 15 | N166       | -316.898  | 443.434  | -731.604  | -0.197    | 0         | 0.026     |
| 230 | 15 | N167       | 327.059   | 421.484  | 1062.312  | -0.189    | 0         | 0.026     |
| 231 | 15 | N168       | -686.382  | 564.165  | 687.208   | 0.18      | 0         | 0.176     |
| 232 | 15 | N169       | 966.235   | 524.02   | -816.77   | 0.167     | 0         | 0.167     |
| 233 | 15 | N170       | 1024.069  | 677.054  | 1124.841  | 0.178     | 0         | -0.239    |
| 234 | 15 | N171       | -1266.52  | 639.945  | -1330.268 | 0.17      | 0         | -0.227    |
| 235 | 15 | N192       | -73.38    | 106.739  | -248.826  | 0         | 0         | 0         |
| 236 | 15 | N193       | -338.197  | 147.793  | 182.81    | 0         | 0         | 0         |
| 237 | 15 | N194       | 230.732   | 146.087  | 308.502   | 0         | 0         | 0         |
| 238 | 15 | N204       | -16.859   | 5.992    | -2.694    | 0         | 0         | 0         |
| 239 | 15 | Totals:    | -174.541  | 3750.153 | 100.772   |           |           |           |
| 240 | 15 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 241 | 16 | N52        | 13.272    | 22.093   | -53.284   | -0.029    | -0.003    | 0         |
| 242 | 16 | N55        | -39.814   | 21.879   | 5.728     | 0.012     | 0.006     | 0.034     |
| 243 | 16 | N113       | -45.118   | 16.258   | -57.525   | 0.05      | 0.021     | -0.033    |
| 244 | 16 | N53        | 99.979    | 11.596   | -31.068   | -0.002    | 0         | 0.001     |
| 245 | 16 | N166       | -317.924  | 442.39   | -736.656  | -0.197    | 0         | 0.026     |
| 246 | 16 | N167       | 325.215   | 420.507  | 1047.746  | -0.188    | 0         | 0.026     |
| 247 | 16 | N168       | -743.15   | 566.073  | 676.648   | 0.181     | 0         | 0.177     |
| 248 | 16 | N169       | 965.348   | 525.778  | -830.43   | 0.168     | 0         | 0.168     |
| 249 | 16 | N170       | 1020.136  | 678.037  | 1106.049  | 0.178     | 0         | -0.239    |
| 250 | 16 | N171       | -1277.014 | 640.845  | -1347.866 | 0.17      | 0         | -0.227    |
| 251 | 16 | N192       | -75.508   | 108.881  | -257.803  | 0         | 0         | 0         |
| 252 | 16 | N193       | -334.816  | 146.654  | 182.086   | 0         | 0         | 0         |
| 253 | 16 | N194       | 224.997   | 143.171  | 299.339   | 0         | 0         | 0         |
| 254 | 16 | N204       | -16.725   | 5.992    | -2.966    | 0         | 0         | 0         |
| 255 | 16 | Totals:    | -201.123  | 3750.153 | 0         |           |           |           |
| 256 | 16 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 257 | 17 | N52        | 13.434    | 22.054   | -54.147   | -0.029    | -0.003    | 0         |
| 258 | 17 | N55        | -28.79    | 20.924   | 3.111     | 0.013     | 0.007     | 0.034     |
| 259 | 17 | N113       | -16.496   | 20.345   | -18.289   | 0.05      | 0.019     | -0.032    |
| 260 | 17 | N53        | 106.146   | 11.593   | -33.673   | -0.002    | 0         | 0.001     |
| 261 | 17 | N166       | -316.402  | 441.296  | -740.92   | -0.196    | 0         | 0.026     |
| 262 | 17 | N167       | 326.662   | 419.489  | 1033.072  | -0.188    | 0         | 0.026     |
| 263 | 17 | N168       | -765.448  | 567.831  | 668.978   | 0.182     | 0         | 0.177     |
| 264 | 17 | N169       | 976.025   | 527.388  | -845.267  | 0.169     | 0         | 0.168     |
| 265 | 17 | N170       | 1000.83   | 676.009  | 1039.714  | 0.179     | 0         | -0.238    |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 266 | 17 | N171       | -1275.391 | 639.11   | -1359.434 | 0.17      | 0         | -0.226    |
| 267 | 17 | N192       | -73.595   | 111.032  | -266.813  | 0         | 0         | 0         |
| 268 | 17 | N193       | -328.868  | 144.244  | 176.295   | 0         | 0         | 0         |
| 269 | 17 | N194       | 224.055   | 142.848  | 299.323   | 0         | 0         | 0         |
| 270 | 17 | N204       | -17.428   | 5.992    | -3.141    | 0         | 0         | 0         |
| 271 | 17 | Totals:    | -175.266  | 3750.153 | -101.191  |           |           |           |
| 272 | 17 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 273 | 18 | N52        | 10.326    | 20.784   | -38.31    | -0.029    | -0.001    | 0         |
| 274 | 18 | N55        | -30.052   | 21.027   | 1.918     | 0.013     | 0.009     | 0.034     |
| 275 | 18 | N113       | 17.821    | 25.389   | 30.777    | 0.051     | 0.016     | -0.031    |
| 276 | 18 | N53        | 107.173   | 11.592   | -34.989   | -0.002    | 0         | 0.001     |
| 277 | 18 | N166       | -299.844  | 441.387  | -764.901  | -0.196    | 0         | 0.027     |
| 278 | 18 | N167       | 331.235   | 419.571  | 1021.041  | -0.188    | 0         | 0.026     |
| 279 | 18 | N168       | -761.99   | 569.051  | 664.608   | 0.182     | 0         | 0.178     |
| 280 | 18 | N169       | 990.413   | 528.498  | -856.282  | 0.169     | 0         | 0.169     |
| 281 | 18 | N170       | 975.364   | 671.879  | 957.565   | 0.178     | 0         | -0.236    |
| 282 | 18 | N171       | -1259.168 | 635.514  | -1360.02  | 0.17      | 0         | -0.224    |
| 283 | 18 | N192       | -72.237   | 112.129  | -270.691  | 0         | 0         | 0         |
| 284 | 18 | N193       | -321.448  | 141.81   | 169.308   | 0         | 0         | 0         |
| 285 | 18 | N194       | 228.646   | 145.529  | 307.006   | 0         | 0         | 0         |
| 286 | 18 | N204       | -18.265   | 5.992    | -3.751    | 0         | 0         | 0         |
| 287 | 18 | Totals:    | -102.028  | 3750.153 | -176.719  |           |           |           |
| 288 | 18 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 289 | 19 | N52        | -0.777    | 17.515   | 3.564     | -0.029    | 0.001     | 0.001     |
| 290 | 19 | N55        | -32.054   | 21.296   | 1.95      | 0.013     | 0.009     | 0.034     |
| 291 | 19 | N113       | 38.394    | 28.439   | 59.635    | 0.051     | 0.015     | -0.03     |
| 292 | 19 | N53        | 108.456   | 11.592   | -35.281   | -0.002    | 0         | 0.001     |
| 293 | 19 | N166       | -261.564  | 443.989  | -822.05   | -0.197    | 0         | 0.027     |
| 294 | 19 | N167       | 338.209   | 421.975  | 1021.511  | -0.189    | 0         | 0.027     |
| 295 | 19 | N168       | -752.283  | 570.12   | 663.843   | 0.183     | 0         | 0.178     |
| 296 | 19 | N169       | 1006.305  | 529.451  | -863.157  | 0.169     | 0         | 0.169     |
| 297 | 19 | N170       | 961.318   | 668.527  | 908.832   | 0.178     | 0         | -0.234    |
| 298 | 19 | N171       | -1236.96  | 632.574  | -1352.877 | 0.17      | 0         | -0.223    |
| 299 | 19 | N192       | -75.868   | 110.392  | -264.808  | 0         | 0         | 0         |
| 300 | 19 | N193       | -312.491  | 139.519  | 165.826   | 0         | 0         | 0         |
| 301 | 19 | N194       | 237.249   | 148.771  | 312.794   | 0         | 0         | 0         |
| 302 | 19 | N204       | -17.93    | 5.992    | -4.262    | 0         | 0         | 0         |
| 303 | 19 | Totals:    | 0.002     | 3750.153 | -204.478  |           |           |           |
| 304 | 19 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 305 | 20 | N52        | -11.796   | 14.443   | 42.176    | -0.03     | 0.003     | 0.001     |
| 306 | 20 | N55        | -44.874   | 22.423   | 5.487     | 0.013     | 0.007     | 0.034     |
| 307 | 20 | N113       | 47.776    | 29.679   | 70.862    | 0.051     | 0.013     | -0.03     |
| 308 | 20 | N53        | 103.031   | 11.594   | -32.553   | -0.002    | 0         | 0.001     |
| 309 | 20 | N166       | -224.706  | 447.465  | -875.411  | -0.199    | 0         | 0.028     |
| 310 | 20 | N167       | 345.492   | 425.189  | 1035.539  | -0.19     | 0         | 0.027     |
| 311 | 20 | N168       | -724.23   | 570.665  | 668.538   | 0.183     | 0         | 0.179     |
| 312 | 20 | N169       | 1024.434  | 529.914  | -865.075  | 0.169     | 0         | 0.169     |
| 313 | 20 | N170       | 958.41    | 666.485  | 892.618   | 0.177     | 0         | -0.233    |
| 314 | 20 | N171       | -1217.636 | 630.766  | -1341.771 | 0.169     | 0         | -0.222    |
| 315 | 20 | N192       | -79.435   | 106.774  | -253.491  | 0         | 0         | 0         |
| 316 | 20 | N193       | -304.899  | 137.382  | 164.461   | 0         | 0         | 0         |
| 317 | 20 | N194       | 247.075   | 151.38   | 316.588   | 0         | 0         | 0         |
| 318 | 20 | N204       | -17.027   | 5.992    | -3.961    | 0         | 0         | 0         |
| 319 | 20 | Totals:    | 101.614   | 3750.153 | -175.995  |           |           |           |
| 320 | 20 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 321 | 21 | N52        | -14.219   | 13.501   | 53.599    | -0.03     | 0.004     | 0.002     |
| 322 | 21 | N55        | -76.281   | 24.97    | 12.099    | 0.012     | 0.005     | 0.034     |
| 323 | 21 | N113       | 53.692    | 30.376   | 78.338    | 0.051     | 0.012     | -0.03     |
| 324 | 21 | N53        | 86.676    | 11.6     | -26.916   | -0.003    | 0         | 0.001     |
| 325 | 21 | N166       | -210.276  | 449.533  | -890.811  | -0.2      | 0         | 0.028     |
| 326 | 21 | N167       | 350.632   | 427.108  | 1052.73   | -0.191    | 0         | 0.027     |
| 327 | 21 | N168       | -666.767  | 569.829  | 678.296   | 0.182     | 0         | 0.178     |
| 328 | 21 | N169       | 1038.294  | 529.121  | -858.889  | 0.168     | 0         | 0.169     |
| 329 | 21 | N170       | 956.666   | 664.529  | 886.058   | 0.177     | 0         | -0.232    |
| 330 | 21 | N171       | -1202.106 | 629.024  | -1326.271 | 0.169     | 0         | -0.221    |
| 331 | 21 | N192       | -77.909   | 103.729  | -243.361  | 0         | 0         | 0         |
| 332 | 21 | N193       | -302.758  | 136.458  | 162.749   | 0         | 0         | 0         |
| 333 | 21 | N194       | 255.782   | 154.382  | 324.905   | 0         | 0         | 0         |
| 334 | 21 | N204       | -16.88    | 5.992    | -3.299    | -0.001    | 0         | 0         |
| 335 | 21 | Totals:    | 174.547   | 3750.153 | -100.772  |           |           |           |
| 336 | 21 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 337 | 22 | N52        | -12.503   | 13.621   | 52.852    | -0.03     | 0.006     | 0.002     |
| 338 | 22 | N55        | -107.242  | 27.491   | 17.726    | 0.012     | 0.003     | 0.034     |
| 339 | 22 | N113       | 46.49     | 29.343   | 69.752    | 0.05      | 0.013     | -0.03     |
| 340 | 22 | N53        | 70.39     | 11.607   | -21.796   | -0.003    | 0         | 0.001     |
| 341 | 22 | N166       | -209.247  | 450.578  | -885.762  | -0.2      | 0         | 0.028     |
| 342 | 22 | N167       | 352.476   | 428.084  | 1067.297  | -0.192    | 0         | 0.027     |
| 343 | 22 | N168       | -610      | 567.921  | 688.852   | 0.181     | 0         | 0.178     |
| 344 | 22 | N169       | 1039.184  | 527.364  | -845.23   | 0.167     | 0         | 0.168     |
| 345 | 22 | N170       | 960.61    | 663.549  | 904.859   | 0.176     | 0         | -0.232    |
| 346 | 22 | N171       | -1191.613 | 628.124  | -1308.676 | 0.168     | 0         | -0.221    |
| 347 | 22 | N192       | -75.782   | 101.588  | -234.383  | 0         | 0         | 0         |
| 348 | 22 | N193       | -306.136  | 137.595  | 163.473   | 0         | 0         | 0         |
| 349 | 22 | N194       | 261.514   | 157.296  | 334.065   | 0         | 0         | 0         |
| 350 | 22 | N204       | -17.013   | 5.992    | -3.027    | -0.001    | 0         | 0         |
| 351 | 22 | Totals:    | 201.129   | 3750.153 | 0.001     |           |           |           |
| 352 | 22 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 353 | 23 | N52        | -12.665   | 13.66    | 53.717    | -0.03     | 0.006     | 0.002     |
| 354 | 23 | N55        | -118.258  | 28.445   | 20.343    | 0.011     | 0.002     | 0.034     |
| 355 | 23 | N113       | 17.865    | 25.257   | 30.524    | 0.05      | 0.016     | -0.031    |
| 356 | 23 | N53        | 64.219    | 11.61    | -19.188   | -0.003    | 0         | 0.001     |
| 357 | 23 | N166       | -210.767  | 451.673  | -881.501  | -0.201    | 0         | 0.028     |
| 358 | 23 | N167       | 351.028   | 429.101  | 1081.971  | -0.192    | 0         | 0.027     |
| 359 | 23 | N168       | -587.715  | 566.165  | 696.517   | 0.18      | 0         | 0.177     |
| 360 | 23 | N169       | 1028.511  | 525.754  | -830.391  | 0.167     | 0         | 0.168     |
| 361 | 23 | N170       | 979.931   | 665.575  | 971.183   | 0.176     | 0         | -0.233    |
| 362 | 23 | N171       | -1193.239 | 629.861  | -1297.106 | 0.168     | 0         | -0.222    |
| 363 | 23 | N192       | -77.695   | 99.436   | -225.373  | 0         | 0         | 0         |
| 364 | 23 | N193       | -312.079  | 140.005  | 169.267   | 0         | 0         | 0         |
| 365 | 23 | N194       | 262.446   | 157.617  | 334.081   | 0         | 0         | 0         |
| 366 | 23 | N204       | -16.309   | 5.992    | -2.851    | -0.001    | 0         | 0         |
| 367 | 23 | Totals:    | 175.272   | 3750.153 | 101.191   |           |           |           |
| 368 | 23 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 369 | 24 | N52        | -9.556    | 14.93    | 37.882    | -0.03     | 0.004     | 0.001     |
| 370 | 24 | N55        | -116.993  | 28.342   | 21.536    | 0.011     | 0         | 0.034     |
| 371 | 24 | N113       | -16.444   | 20.215   | -18.532   | 0.05      | 0.018     | -0.031    |
| 372 | 24 | N53        | 63.193    | 11.61    | -17.873   | -0.003    | 0         | 0.001     |
| 373 | 24 | N166       | -227.327  | 451.583  | -857.529  | -0.201    | 0         | 0.028     |
| 374 | 24 | N167       | 346.456   | 429.021  | 1094.004  | -0.192    | 0         | 0.027     |
| 375 | 24 | N168       | -591.178  | 564.945  | 700.886   | 0.18      | 0         | 0.177     |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 376 | 24 | N169       | 1014.124  | 524.644  | -819.376  | 0.167     | 0         | 0.167     |
| 377 | 24 | N170       | 1005.39   | 669.701  | 1053.314  | 0.177     | 0         | -0.235    |
| 378 | 24 | N171       | -1209.462 | 633.458  | -1296.515 | 0.169     | 0         | -0.224    |
| 379 | 24 | N192       | -79.052   | 98.338   | -221.491  | 0         | 0         | 0         |
| 380 | 24 | N193       | -319.499  | 142.439  | 176.255   | 0         | 0         | 0         |
| 381 | 24 | N194       | 257.855   | 154.937  | 326.402   | 0         | 0         | 0         |
| 382 | 24 | N204       | -15.472   | 5.992    | -2.242    | -0.001    | 0         | 0         |
| 383 | 24 | Totals:    | 102.034   | 3750.153 | 176.72    |           |           |           |
| 384 | 24 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 385 | 25 | N52        | 19.472    | 23.169   | -65.898   | -0.029    | 0         | 0         |
| 386 | 25 | N55        | -301.791  | 54.647   | 50.453    | -0.024    | 0.021     | 0.107     |
| 387 | 25 | N113       | -97.501   | 8.181    | -134.562  | 0.05      | 0.023     | -0.033    |
| 388 | 25 | N53        | 181.813   | 11.385   | -54.752   | -0.024    | 0         | 0.007     |
| 389 | 25 | N166       | -290.447  | 446.152  | -695.841  | -0.198    | 0         | 0.026     |
| 390 | 25 | N167       | 346.83    | 423.882  | 1115.695  | -0.19     | 0         | 0.025     |
| 391 | 25 | N168       | -1354.282 | 896.253  | 290.087   | 0.177     | 0         | 0.328     |
| 392 | 25 | N169       | 2159.1    | 840.034  | -186.326  | 0.159     | 0         | 0.313     |
| 393 | 25 | N170       | 1084.436  | 677.837  | 1256.773  | 0.178     | 0         | -0.239    |
| 394 | 25 | N171       | -1232.939 | 640.771  | -1280.164 | 0.169     | 0         | -0.228    |
| 395 | 25 | N192       | -75.856   | 100.668  | -229.277  | 0         | 0         | 0         |
| 396 | 25 | N193       | -655.016  | 219.59   | 43.432    | 0         | 0         | 0         |
| 397 | 25 | N194       | 246.005   | 151.522  | 323.584   | 0         | 0         | 0         |
| 398 | 25 | N204       | -29.813   | 6.063    | -4.215    | -0.004    | 0         | -0.001    |
| 399 | 25 | Totals:    | 0.011     | 4500.154 | 428.99    |           |           |           |
| 400 | 25 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 401 | 26 | N52        | 39.58     | 28.745   | -136.085  | -0.029    | -0.002    | -0.001    |
| 402 | 26 | N55        | -263.404  | 51.383   | 42.371    | -0.024    | 0.024     | 0.107     |
| 403 | 26 | N113       | -125.68   | 4.107    | -173.113  | 0.049     | 0.026     | -0.034    |
| 404 | 26 | N53        | 199.344   | 11.36    | -61.226   | -0.023    | 0         | 0.007     |
| 405 | 26 | N166       | -358.833  | 438.864  | -592.314  | -0.195    | 0         | 0.026     |
| 406 | 26 | N167       | 332.203   | 416.987  | 1083.978  | -0.187    | 0         | 0.025     |
| 407 | 26 | N168       | -1430.695 | 895.37   | 283.909   | 0.177     | 0         | 0.328     |
| 408 | 26 | N169       | 2125.087  | 838.256  | -177.903  | 0.159     | 0         | 0.312     |
| 409 | 26 | N170       | 1073.966  | 679.448  | 1276.867  | 0.178     | 0         | -0.24     |
| 410 | 26 | N171       | -1265.6   | 642.071  | -1304.771 | 0.17      | 0         | -0.228    |
| 411 | 26 | N192       | -70.084   | 109.275  | -256.616  | 0         | 0         | 0         |
| 412 | 26 | N193       | -673.19   | 225.532  | 50.839    | -0.001    | 0         | 0         |
| 413 | 26 | N194       | 241.662   | 152.685  | 332.048   | 0         | 0         | 0         |
| 414 | 26 | N204       | -33.869   | 6.072    | -5.077    | -0.003    | 0         | -0.001    |
| 415 | 26 | Totals:    | -209.511  | 4500.154 | 362.907   |           |           |           |
| 416 | 26 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 417 | 27 | N52        | 35.216    | 27.798   | -124.102  | -0.028    | -0.003    | -0.001    |
| 418 | 27 | N55        | -188.813  | 45.201   | 28.117    | -0.023    | 0.028     | 0.107     |
| 419 | 27 | N113       | -124.95   | 4.405    | -171.058  | 0.05      | 0.026     | -0.034    |
| 420 | 27 | N53        | 236.102   | 11.308   | -73.169   | -0.022    | 0         | 0.007     |
| 421 | 27 | N166       | -369.029  | 437.903  | -619.784  | -0.195    | 0         | 0.026     |
| 422 | 27 | N167       | 324.293   | 416.145  | 1055.881  | -0.186    | 0         | 0.025     |
| 423 | 27 | N168       | -1562.287 | 896.885  | 257.158   | 0.179     | 0         | 0.329     |
| 424 | 27 | N169       | 2091.286  | 838.286  | -181.916  | 0.159     | 0         | 0.312     |
| 425 | 27 | N170       | 1063.272  | 682.234  | 1259.966  | 0.178     | 0         | -0.241    |
| 426 | 27 | N171       | -1288.725 | 644.56   | -1335.264 | 0.17      | 0         | -0.229    |
| 427 | 27 | N192       | -70.488   | 112.025  | -265.801  | 0         | 0         | 0         |
| 428 | 27 | N193       | -685.145  | 230.214  | 59.871    | -0.001    | 0         | 0         |
| 429 | 27 | N194       | 227.68    | 147.112  | 317.206   | 0         | 0         | 0         |
| 430 | 27 | N204       | -36.433   | 6.077    | -6.171    | -0.003    | 0         | -0.001    |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 431 | 27 | Totals:    | -348.022  | 4500.154 | 200.934   |           |           |           |
| 432 | 27 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 433 | 28 | N52        | 25.647    | 25.505   | -96.194   | -0.029    | -0.004    | 0         |
| 434 | 28 | N55        | -114.273  | 39.014   | 14.804    | -0.022    | 0.031     | 0.107     |
| 435 | 28 | N113       | -86.341   | 10.139   | -117.087  | 0.05      | 0.023     | -0.033    |
| 436 | 28 | N53        | 273.602   | 11.254   | -84.838   | -0.021    | 0         | 0.007     |
| 437 | 28 | N166       | -356.177  | 438.572  | -671.328  | -0.195    | 0         | 0.026     |
| 438 | 28 | N167       | 322.002   | 416.829  | 1038.445  | -0.186    | 0         | 0.026     |
| 439 | 28 | N168       | -1699.297 | 902.627  | 232.646   | 0.182     | 0         | 0.33      |
| 440 | 28 | N169       | 2086.511  | 842.457  | -210.701  | 0.162     | 0         | 0.314     |
| 441 | 28 | N170       | 1033.977  | 683.062  | 1182.816  | 0.179     | 0         | -0.241    |
| 442 | 28 | N171       | -1308.072 | 645.386  | -1360.971 | 0.171     | 0         | -0.229    |
| 443 | 28 | N192       | -72.384   | 112.965  | -270.921  | 0         | 0         | 0         |
| 444 | 28 | N193       | -674.69   | 226.536  | 55.039    | 0         | 0         | 0         |
| 445 | 28 | N194       | 213.993   | 139.724  | 295.24    | 0         | 0         | 0         |
| 446 | 28 | N204       | -39.129   | 6.084    | -6.949    | -0.003    | 0         | -0.001    |
| 447 | 28 | Totals:    | -394.633  | 4500.154 | 0.001     |           |           |           |
| 448 | 28 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 449 | 29 | N52        | 23.278    | 24.768   | -88.319   | -0.028    | -0.004    | 0         |
| 450 | 29 | N55        | -88.603   | 36.843   | 9.605     | -0.021    | 0.033     | 0.108     |
| 451 | 29 | N113       | -19.457   | 19.904   | -22.679   | 0.05      | 0.018     | -0.032    |
| 452 | 29 | N53        | 288.013   | 11.231   | -89.987   | -0.021    | 0         | 0.007     |
| 453 | 29 | N166       | -351.18   | 437.078  | -688.035  | -0.194    | 0         | 0.026     |
| 454 | 29 | N167       | 319.285   | 415.418  | 1015.413  | -0.186    | 0         | 0.026     |
| 455 | 29 | N168       | -1754.847 | 908.8    | 223.052   | 0.184     | 0         | 0.332     |
| 456 | 29 | N169       | 2115.339  | 847.75   | -247.42   | 0.164     | 0         | 0.315     |
| 457 | 29 | N170       | 970.812   | 677.104  | 1022.389  | 0.179     | 0         | -0.238    |
| 458 | 29 | N171       | -1308.805 | 640.07   | -1378.322 | 0.171     | 0         | -0.226    |
| 459 | 29 | N192       | -70.47    | 116.607  | -284.718  | 0         | 0         | 0         |
| 460 | 29 | N193       | -650.731  | 217.259  | 35.88     | 0         | 0         | 0         |
| 461 | 29 | N194       | 218.217   | 141.233  | 298.226   | 0         | 0         | 0         |
| 462 | 29 | N204       | -41.224   | 6.089    | -7.374    | -0.003    | 0         | 0         |
| 463 | 29 | Totals:    | -350.372  | 4500.154 | -202.289  |           |           |           |
| 464 | 29 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 465 | 30 | N52        | 10.652    | 20.862   | -39.574   | -0.029    | -0.001    | 0         |
| 466 | 30 | N55        | -102.407  | 38.012   | 10.62     | -0.021    | 0.035     | 0.108     |
| 467 | 30 | N113       | 48.633    | 29.938   | 75.015    | 0.051     | 0.014     | -0.03     |
| 468 | 30 | N53        | 284.104   | 11.236   | -89.777   | -0.021    | 0         | 0.007     |
| 469 | 30 | N166       | -317.52   | 438.77   | -764.954  | -0.195    | 0         | 0.027     |
| 470 | 30 | N167       | 320.093   | 417.047  | 993.442   | -0.186    | 0         | 0.027     |
| 471 | 30 | N168       | -1728.562 | 911.518  | 215.317   | 0.185     | 0         | 0.333     |
| 472 | 30 | N169       | 2150.294  | 850.409  | -268.828  | 0.164     | 0         | 0.316     |
| 473 | 30 | N170       | 911.915   | 668.347  | 849.456   | 0.178     | 0         | -0.234    |
| 474 | 30 | N171       | -1278.771 | 632.217  | -1385.168 | 0.17      | 0         | -0.222    |
| 475 | 30 | N192       | -69.827   | 117.192  | -286.95   | 0         | 0         | 0         |
| 476 | 30 | N193       | -632.672  | 210.711  | 20.583    | 0         | 0         | 0         |
| 477 | 30 | N194       | 233.04    | 147.809  | 313.154   | 0         | 0         | 0         |
| 478 | 30 | N204       | -39.841   | 6.085    | -7.588    | -0.003    | 0         | 0         |
| 479 | 30 | Totals:    | -210.87   | 4500.154 | -365.251  |           |           |           |
| 480 | 30 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 481 | 31 | N52        | -18.697   | 12.547   | 65.445    | -0.03     | 0.003     | 0.001     |
| 482 | 31 | N55        | -123.145  | 39.847   | 13.967    | -0.021    | 0.034     | 0.108     |
| 483 | 31 | N113       | 98.932    | 37.421   | 146.818   | 0.051     | 0.011     | -0.029    |
| 484 | 31 | N53        | 276.723   | 11.247   | -87.391   | -0.021    | 0         | 0.007     |
| 485 | 31 | N166       | -236.74   | 446.811  | -926.543  | -0.199    | 0         | 0.028     |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 486 | 31 | N167       | 330.866   | 424.709  | 999.343   | -0.19     | 0         | 0.028     |
| 487 | 31 | N168       | -1677.65  | 912.308  | 205.397   | 0.185     | 0         | 0.333     |
| 488 | 31 | N169       | 2178.701  | 851.619  | -278.308  | 0.164     | 0         | 0.317     |
| 489 | 31 | N170       | 896.2     | 663.74   | 754.069   | 0.177     | 0         | -0.231    |
| 490 | 31 | N171       | -1235.672 | 628.192  | -1376.361 | 0.169     | 0         | -0.22     |
| 491 | 31 | N192       | -75.429   | 109.804  | -262.919  | 0         | 0         | 0         |
| 492 | 31 | N193       | -619.254  | 206.876  | 15.019    | 0         | 0         | 0         |
| 493 | 31 | N194       | 240.54    | 148.958  | 309.839   | 0         | 0         | 0         |
| 494 | 31 | N204       | -35.366   | 6.075    | -7.362    | -0.003    | 0         | -0.001    |
| 495 | 31 | Totals:    | 0.007     | 4500.154 | -428.986  |           |           |           |
| 496 | 31 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 497 | 32 | N52        | -38.82    | 6.968    | 135.622   | -0.03     | 0.005     | 0.002     |
| 498 | 32 | N55        | -161.562  | 43.115   | 22.044    | -0.022    | 0.031     | 0.108     |
| 499 | 32 | N113       | 127.11    | 41.49    | 185.338   | 0.051     | 0.009     | -0.029    |
| 500 | 32 | N53        | 259.221   | 11.273   | -80.933   | -0.022    | 0         | 0.007     |
| 501 | 32 | N166       | -168.321  | 454.105  | -1030.037 | -0.202    | 0         | 0.029     |
| 502 | 32 | N167       | 345.486   | 431.597  | 1031.054  | -0.193    | 0         | 0.028     |
| 503 | 32 | N168       | -1601.194 | 913.187  | 211.604   | 0.185     | 0         | 0.333     |
| 504 | 32 | N169       | 2212.696  | 853.392  | -286.734  | 0.165     | 0         | 0.317     |
| 505 | 32 | N170       | 906.656   | 662.131  | 734.006   | 0.177     | 0         | -0.231    |
| 506 | 32 | N171       | -1203.008 | 626.891  | -1351.759 | 0.169     | 0         | -0.219    |
| 507 | 32 | N192       | -81.212   | 101.2    | -235.596  | 0         | 0         | 0         |
| 508 | 32 | N193       | -601.102  | 200.939  | 7.606     | 0         | 0         | 0         |
| 509 | 32 | N194       | 244.894   | 147.8    | 301.383   | 0         | 0         | 0         |
| 510 | 32 | N204       | -31.313   | 6.067    | -6.501    | -0.003    | 0         | -0.001    |
| 511 | 32 | Totals:    | 209.53    | 4500.154 | -362.904  |           |           |           |
| 512 | 32 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 513 | 33 | N52        | -34.46    | 7.913    | 123.66    | -0.03     | 0.006     | 0.002     |
| 514 | 33 | N55        | -236.19   | 49.301   | 36.302    | -0.022    | 0.027     | 0.107     |
| 515 | 33 | N113       | 126.353   | 41.187   | 183.25    | 0.051     | 0.009     | -0.028    |
| 516 | 33 | N53        | 222.459   | 11.325   | -68.992   | -0.022    | 0         | 0.007     |
| 517 | 33 | N166       | -158.11   | 455.071  | -1002.599 | -0.203    | 0         | 0.029     |
| 518 | 33 | N167       | 353.391   | 432.439  | 1059.155  | -0.194    | 0         | 0.028     |
| 519 | 33 | N168       | -1469.536 | 911.665  | 238.369   | 0.183     | 0         | 0.333     |
| 520 | 33 | N169       | 2246.487  | 853.36   | -282.727  | 0.164     | 0         | 0.317     |
| 521 | 33 | N170       | 917.382   | 659.354  | 750.96    | 0.177     | 0         | -0.23     |
| 522 | 33 | N171       | -1179.886 | 624.4    | -1321.279 | 0.168     | 0         | -0.219    |
| 523 | 33 | N192       | -80.814   | 98.448   | -226.404  | 0         | 0         | 0         |
| 524 | 33 | N193       | -589.162  | 196.259  | -1.435    | 0         | 0         | 0         |
| 525 | 33 | N194       | 258.874   | 153.37   | 316.217   | 0         | 0         | 0         |
| 526 | 33 | N204       | -28.749   | 6.061    | -5.406    | -0.003    | 0         | -0.001    |
| 527 | 33 | Totals:    | 348.04    | 4500.154 | -200.931  |           |           |           |
| 528 | 33 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 529 | 34 | N52        | -24.887   | 10.206   | 95.763    | -0.03     | 0.007     | 0.002     |
| 530 | 34 | N55        | -310.707  | 55.485   | 49.626    | -0.024    | 0.024     | 0.107     |
| 531 | 34 | N113       | 87.711    | 35.455   | 129.279   | 0.05      | 0.012     | -0.029    |
| 532 | 34 | N53        | 184.904   | 11.379   | -57.296   | -0.023    | 0         | 0.007     |
| 533 | 34 | N166       | -170.97   | 454.401  | -951.077  | -0.202    | 0         | 0.028     |
| 534 | 34 | N167       | 355.683   | 431.758  | 1076.594  | -0.193    | 0         | 0.027     |
| 535 | 34 | N168       | -1332.549 | 905.924  | 262.837   | 0.181     | 0         | 0.331     |
| 536 | 34 | N169       | 2251.286  | 849.199  | -253.941  | 0.162     | 0         | 0.316     |
| 537 | 34 | N170       | 946.746   | 658.534  | 828.138   | 0.176     | 0         | -0.23     |
| 538 | 34 | N171       | -1160.55  | 623.576  | -1295.581 | 0.167     | 0         | -0.219    |
| 539 | 34 | N192       | -78.915   | 97.506   | -221.277  | 0         | 0         | 0         |
| 540 | 34 | N193       | -599.594  | 199.932  | 3.401     | 0         | 0         | 0         |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 541 | 34 | N194       | 272.537   | 160.746  | 338.164   | 0         | 0         | 0         |
| 542 | 34 | N204       | -26.045   | 6.054    | -4.629    | -0.004    | 0         | -0.001    |
| 543 | 34 | Totals:    | 394.652   | 4500.154 | 0.002     |           |           |           |
| 544 | 34 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 545 | 35 | N52        | -22.519   | 10.943   | 87.897    | -0.03     | 0.007     | 0.002     |
| 546 | 35 | N55        | -336.329  | 57.65    | 54.828    | -0.024    | 0.022     | 0.107     |
| 547 | 35 | N113       | 20.824    | 25.698   | 34.913    | 0.05      | 0.017     | -0.031    |
| 548 | 35 | N53        | 170.47    | 11.401   | -52.132   | -0.024    | 0         | 0.007     |
| 549 | 35 | N166       | -175.963  | 455.898  | -934.386  | -0.203    | 0         | 0.028     |
| 550 | 35 | N167       | 358.4     | 433.167  | 1099.629  | -0.194    | 0         | 0.027     |
| 551 | 35 | N168       | -1277.089 | 899.761  | 272.398   | 0.178     | 0         | 0.33      |
| 552 | 35 | N169       | 2222.485  | 843.911  | -217.215  | 0.16      | 0         | 0.314     |
| 553 | 35 | N170       | 1009.942  | 664.48   | 988.504   | 0.176     | 0         | -0.233    |
| 554 | 35 | N171       | -1159.825 | 628.899  | -1278.217 | 0.168     | 0         | -0.222    |
| 555 | 35 | N192       | -80.831   | 93.862   | -207.477  | 0         | 0         | 0         |
| 556 | 35 | N193       | -623.516  | 209.201  | 22.57     | 0         | 0         | 0         |
| 557 | 35 | N194       | 268.291   | 159.234  | 335.184   | 0         | 0         | 0         |
| 558 | 35 | N204       | -23.949   | 6.048    | -4.205    | -0.004    | 0         | -0.001    |
| 559 | 35 | Totals:    | 350.391   | 4500.154 | 202.292   |           |           |           |
| 560 | 35 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 561 | 36 | N52        | -9.885    | 14.851   | 39.154    | -0.03     | 0.004     | 0.001     |
| 562 | 36 | N55        | -322.517  | 56.479   | 53.806    | -0.024    | 0.021     | 0.107     |
| 563 | 36 | N113       | -47.23    | 15.667   | -62.75    | 0.05      | 0.021     | -0.032    |
| 564 | 36 | N53        | 174.402   | 11.396   | -52.352   | -0.024    | 0         | 0.007     |
| 565 | 36 | N166       | -209.64   | 454.203  | -857.48   | -0.202    | 0         | 0.028     |
| 566 | 36 | N167       | 357.595   | 431.542  | 1121.605  | -0.193    | 0         | 0.026     |
| 567 | 36 | N168       | -1303.391 | 897.046  | 280.146   | 0.177     | 0         | 0.329     |
| 568 | 36 | N169       | 2187.523  | 841.249  | -195.805  | 0.159     | 0         | 0.313     |
| 569 | 36 | N170       | 1068.785  | 673.228  | 1161.382  | 0.177     | 0         | -0.237    |
| 570 | 36 | N171       | -1189.85  | 636.751  | -1271.358 | 0.169     | 0         | -0.225    |
| 571 | 36 | N192       | -81.468   | 93.275   | -205.237  | 0         | 0         | 0         |
| 572 | 36 | N193       | -641.579  | 215.75   | 37.868    | 0         | 0         | 0         |
| 573 | 36 | N194       | 253.48    | 152.664  | 320.265   | 0         | 0         | 0         |
| 574 | 36 | N204       | -25.335   | 6.052    | -3.991    | -0.004    | 0         | -0.001    |
| 575 | 36 | Totals:    | 210.889   | 4500.154 | 365.254   |           |           |           |
| 576 | 36 | COG (ft):  | X: 1.194  | Y: 0.049 | Z: -0.79  |           |           |           |
| 577 | 37 | N52        | 19.472    | 23.169   | -65.898   | -0.029    | 0         | 0         |
| 578 | 37 | N55        | -162.542  | 31.935   | 29.95     | 0.01      | -0.002    | 0.033     |
| 579 | 37 | N113       | -97.501   | 8.181    | -134.562  | 0.05      | 0.023     | -0.033    |
| 580 | 37 | N53        | 37.508    | 11.62    | -10.009   | -0.004    | 0         | 0.001     |
| 581 | 37 | N166       | -290.447  | 446.152  | -695.841  | -0.198    | 0         | 0.026     |
| 582 | 37 | N167       | 346.83    | 1173.882 | 1115.695  | -0.201    | 0         | 0.025     |
| 583 | 37 | N168       | -515.27   | 559.356  | 724.72    | 0.177     | 0         | 0.175     |
| 584 | 37 | N169       | 992.607   | 520.623  | -791.551  | 0.165     | 0         | 0.166     |
| 585 | 37 | N170       | 1084.436  | 677.837  | 1256.773  | 0.178     | 0         | -0.239    |
| 586 | 37 | N171       | -1232.939 | 640.771  | -1280.164 | 0.169     | 0         | -0.228    |
| 587 | 37 | N192       | -75.856   | 100.668  | -229.277  | 0         | 0         | 0         |
| 588 | 37 | N193       | -338.196  | 148.445  | 186.994   | 0         | 0         | 0         |
| 589 | 37 | N194       | 246.005   | 151.522  | 323.584   | 0         | 0         | 0         |
| 590 | 37 | N204       | -14.103   | 5.991    | -1.427    | -0.001    | 0         | 0         |
| 591 | 37 | Totals:    | 0.005     | 4500.153 | 428.988   |           |           |           |
| 592 | 37 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 593 | 38 | N52        | 39.58     | 28.745   | -136.085  | -0.029    | -0.002    | -0.001    |
| 594 | 38 | N55        | -124.278  | 28.737   | 21.877    | 0.011     | 0.001     | 0.033     |
| 595 | 38 | N113       | -125.68   | 4.107    | -173.113  | 0.049     | 0.026     | -0.034    |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 596 | 38 | N53        | 55.138    | 11.613   | -16.526   | -0.003    | 0         | 0.001     |
| 597 | 38 | N166       | -358.833  | 438.864  | -592.314  | -0.195    | 0         | 0.026     |
| 598 | 38 | N167       | 332.203   | 1166.987 | 1083.978  | -0.198    | 0         | 0.025     |
| 599 | 38 | N168       | -591.51   | 558.363  | 718.708   | 0.177     | 0         | 0.175     |
| 600 | 38 | N169       | 958.543   | 518.861  | -783.253  | 0.165     | 0         | 0.166     |
| 601 | 38 | N170       | 1073.966  | 679.448  | 1276.867  | 0.178     | 0         | -0.24     |
| 602 | 38 | N171       | -1265.6   | 642.071  | -1304.771 | 0.17      | 0         | -0.228    |
| 603 | 38 | N192       | -70.084   | 109.275  | -256.616  | 0         | 0         | 0         |
| 604 | 38 | N193       | -356.472  | 154.405  | 194.393   | 0         | 0         | 0         |
| 605 | 38 | N194       | 241.662   | 152.685  | 332.048   | 0         | 0         | 0         |
| 606 | 38 | N204       | -18.155   | 5.992    | -2.287    | -0.001    | 0         | 0         |
| 607 | 38 | Totals:    | -209.517  | 4500.153 | 362.906   |           |           |           |
| 608 | 38 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 609 | 39 | N52        | 35.216    | 27.798   | -124.102  | -0.028    | -0.003    | -0.001    |
| 610 | 39 | N55        | -49.919   | 22.677   | 7.64      | 0.012     | 0.005     | 0.034     |
| 611 | 39 | N113       | -124.95   | 4.405    | -171.058  | 0.05      | 0.026     | -0.034    |
| 612 | 39 | N53        | 92.069    | 11.599   | -28.546   | -0.003    | 0         | 0.001     |
| 613 | 39 | N166       | -369.029  | 437.903  | -619.784  | -0.195    | 0         | 0.026     |
| 614 | 39 | N167       | 324.293   | 1166.145 | 1055.881  | -0.197    | 0         | 0.025     |
| 615 | 39 | N168       | -722.797  | 559.626  | 692.274   | 0.179     | 0         | 0.175     |
| 616 | 39 | N169       | 924.631   | 518.958  | -787.519  | 0.165     | 0         | 0.166     |
| 617 | 39 | N170       | 1063.272  | 682.234  | 1259.967  | 0.178     | 0         | -0.241    |
| 618 | 39 | N171       | -1288.725 | 644.559  | -1335.264 | 0.17      | 0         | -0.229    |
| 619 | 39 | N192       | -70.488   | 112.025  | -265.801  | 0         | 0         | 0         |
| 620 | 39 | N193       | -368.574  | 159.118  | 203.417   | 0         | 0         | 0         |
| 621 | 39 | N194       | 227.68    | 147.112  | 317.206   | 0         | 0         | 0         |
| 622 | 39 | N204       | -20.706   | 5.993    | -3.378    | 0         | 0         | 0         |
| 623 | 39 | Totals:    | -348.028  | 4500.153 | 200.933   |           |           |           |
| 624 | 39 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 625 | 40 | N52        | 25.647    | 25.505   | -96.194   | -0.029    | -0.004    | 0         |
| 626 | 40 | N55        | 24.39     | 16.612   | -5.656    | 0.013     | 0.008     | 0.034     |
| 627 | 40 | N113       | -86.341   | 10.139   | -117.088  | 0.05      | 0.023     | -0.033    |
| 628 | 40 | N53        | 129.742   | 11.584   | -40.292   | -0.002    | 0         | 0         |
| 629 | 40 | N166       | -356.177  | 438.572  | -671.328  | -0.195    | 0         | 0.026     |
| 630 | 40 | N167       | 322.002   | 1166.829 | 1038.445  | -0.198    | 0         | 0.026     |
| 631 | 40 | N168       | -859.51   | 565.074  | 668.085   | 0.182     | 0         | 0.177     |
| 632 | 40 | N169       | 919.74    | 523.236  | -816.565  | 0.168     | 0         | 0.167     |
| 633 | 40 | N170       | 1033.976  | 683.062  | 1182.816  | 0.179     | 0         | -0.241    |
| 634 | 40 | N171       | -1308.072 | 645.386  | -1360.972 | 0.171     | 0         | -0.229    |
| 635 | 40 | N192       | -72.384   | 112.965  | -270.921  | 0         | 0         | 0         |
| 636 | 40 | N193       | -358.256  | 155.472  | 198.579   | 0         | 0         | 0         |
| 637 | 40 | N194       | 213.993   | 139.724  | 295.24    | 0         | 0         | 0         |
| 638 | 40 | N204       | -23.39    | 5.993    | -4.152    | 0         | 0         | 0         |
| 639 | 40 | Totals:    | -394.64   | 4500.153 | 0         |           |           |           |
| 640 | 40 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 641 | 41 | N52        | 23.278    | 24.768   | -88.319   | -0.028    | -0.004    | 0         |
| 642 | 41 | N55        | 49.977    | 14.483   | -10.848   | 0.014     | 0.01      | 0.034     |
| 643 | 41 | N113       | -19.457   | 19.904   | -22.679   | 0.05      | 0.018     | -0.032    |
| 644 | 41 | N53        | 144.218   | 11.577   | -45.471   | -0.001    | 0         | 0         |
| 645 | 41 | N166       | -351.18   | 437.078  | -688.035  | -0.194    | 0         | 0.026     |
| 646 | 41 | N167       | 319.285   | 1165.418 | 1015.413  | -0.197    | 0         | 0.026     |
| 647 | 41 | N168       | -914.97   | 571.097  | 658.59    | 0.184     | 0         | 0.179     |
| 648 | 41 | N169       | 948.533   | 528.613  | -853.363  | 0.17      | 0         | 0.169     |
| 649 | 41 | N170       | 970.812   | 677.104  | 1022.389  | 0.179     | 0         | -0.238    |
| 650 | 41 | N171       | -1308.805 | 640.07   | -1378.322 | 0.171     | 0         | -0.226    |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 651 | 41 | N192       | -70.47    | 116.607  | -284.718  | 0         | 0         | 0         |
| 652 | 41 | N193       | -334.335  | 146.206  | 179.421   | 0         | 0         | 0         |
| 653 | 41 | N194       | 218.217   | 141.233  | 298.226   | 0         | 0         | 0         |
| 654 | 41 | N204       | -25.482   | 5.994    | -4.575    | 0         | 0         | 0         |
| 655 | 41 | Totals:    | -350.378  | 4500.153 | -202.29   |           |           |           |
| 656 | 41 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 657 | 42 | N52        | 10.652    | 20.862   | -39.574   | -0.029    | -0.001    | 0         |
| 658 | 42 | N55        | 36.213    | 15.629   | -9.836    | 0.014     | 0.012     | 0.034     |
| 659 | 42 | N113       | 48.633    | 29.938   | 75.015    | 0.051     | 0.014     | -0.03     |
| 660 | 42 | N53        | 140.277   | 11.578   | -45.248   | -0.001    | 0         | 0         |
| 661 | 42 | N166       | -317.52   | 438.77   | -764.954  | -0.195    | 0         | 0.027     |
| 662 | 42 | N167       | 320.093   | 1167.047 | 993.442   | -0.198    | 0         | 0.027     |
| 663 | 42 | N168       | -888.768  | 573.816  | 650.769   | 0.185     | 0         | 0.18      |
| 664 | 42 | N169       | 983.514   | 531.306  | -874.702  | 0.17      | 0         | 0.169     |
| 665 | 42 | N170       | 911.915   | 668.347  | 849.456   | 0.178     | 0         | -0.234    |
| 666 | 42 | N171       | -1278.771 | 632.217  | -1385.168 | 0.17      | 0         | -0.222    |
| 667 | 42 | N192       | -69.827   | 117.192  | -286.95   | 0         | 0         | 0         |
| 668 | 42 | N193       | -316.224  | 139.648  | 164.133   | 0         | 0         | 0         |
| 669 | 42 | N194       | 233.04    | 147.809  | 313.154   | 0         | 0         | 0         |
| 670 | 42 | N204       | -24.104   | 5.994    | -4.79     | 0         | 0         | 0         |
| 671 | 42 | Totals:    | -210.877  | 4500.153 | -365.252  |           |           |           |
| 672 | 42 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 673 | 43 | N52        | -18.697   | 12.547   | 65.445    | -0.03     | 0.003     | 0.001     |
| 674 | 43 | N55        | 15.543    | 17.427   | -6.493    | 0.014     | 0.011     | 0.034     |
| 675 | 43 | N113       | 98.932    | 37.421   | 146.818   | 0.051     | 0.011     | -0.029    |
| 676 | 43 | N53        | 132.836   | 11.581   | -42.837   | -0.001    | 0         | 0         |
| 677 | 43 | N166       | -236.74   | 446.811  | -926.543  | -0.199    | 0         | 0.028     |
| 678 | 43 | N167       | 330.866   | 1174.709 | 999.343   | -0.201    | 0         | 0.028     |
| 679 | 43 | N168       | -837.969  | 574.65   | 640.739   | 0.185     | 0         | 0.18      |
| 680 | 43 | N169       | 1011.951  | 532.521  | -884.102  | 0.17      | 0         | 0.17      |
| 681 | 43 | N170       | 896.2     | 663.74   | 754.069   | 0.177     | 0         | -0.231    |
| 682 | 43 | N171       | -1235.672 | 628.192  | -1376.361 | 0.169     | 0         | -0.22     |
| 683 | 43 | N192       | -75.429   | 109.804  | -262.919  | 0         | 0         | 0         |
| 684 | 43 | N193       | -302.729  | 135.798  | 158.579   | 0         | 0         | 0         |
| 685 | 43 | N194       | 240.54    | 148.958  | 309.839   | 0         | 0         | 0         |
| 686 | 43 | N204       | -19.632   | 5.993    | -4.566    | 0         | 0         | 0         |
| 687 | 43 | Totals:    | 0.001     | 4500.153 | -428.988  |           |           |           |
| 688 | 43 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 689 | 44 | N52        | -38.82    | 6.968    | 135.622   | -0.03     | 0.005     | 0.002     |
| 690 | 44 | N55        | -22.751   | 20.63    | 1.574     | 0.013     | 0.008     | 0.034     |
| 691 | 44 | N113       | 127.11    | 41.49    | 185.338   | 0.051     | 0.009     | -0.029    |
| 692 | 44 | N53        | 115.235   | 11.589   | -36.336   | -0.002    | 0         | 0.001     |
| 693 | 44 | N166       | -168.321  | 454.105  | -1030.037 | -0.202    | 0         | 0.029     |
| 694 | 44 | N167       | 345.486   | 1181.597 | 1031.054  | -0.204    | 0         | 0.028     |
| 695 | 44 | N168       | -761.685  | 575.64   | 646.781   | 0.185     | 0         | 0.18      |
| 696 | 44 | N169       | 1045.997  | 534.278  | -892.404  | 0.171     | 0         | 0.17      |
| 697 | 44 | N170       | 906.656   | 662.13   | 734.006   | 0.177     | 0         | -0.231    |
| 698 | 44 | N171       | -1203.008 | 626.891  | -1351.759 | 0.169     | 0         | -0.219    |
| 699 | 44 | N192       | -81.212   | 101.2    | -235.596  | 0         | 0         | 0         |
| 700 | 44 | N193       | -284.475  | 129.843  | 151.176   | 0         | 0         | 0         |
| 701 | 44 | N194       | 244.894   | 147.8    | 301.383   | 0         | 0         | 0         |
| 702 | 44 | N204       | -15.583   | 5.991    | -3.706    | 0         | 0         | 0         |
| 703 | 44 | Totals:    | 209.523   | 4500.153 | -362.905  |           |           |           |
| 704 | 44 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 705 | 45 | N52        | -34.46    | 7.913    | 123.66    | -0.03     | 0.006     | 0.002     |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 706 | 45 | N55        | -97.148   | 26.694   | 15.814    | 0.012     | 0.004     | 0.034     |
| 707 | 45 | N113       | 126.353   | 41.187   | 183.25    | 0.051     | 0.009     | -0.028    |
| 708 | 45 | N53        | 78.3      | 11.603   | -24.319   | -0.003    | 0         | 0.001     |
| 709 | 45 | N166       | -158.11   | 455.071  | -1002.599 | -0.203    | 0         | 0.029     |
| 710 | 45 | N167       | 353.391   | 1182.439 | 1059.155  | -0.205    | 0         | 0.028     |
| 711 | 45 | N168       | -630.332  | 574.37   | 673.229   | 0.183     | 0         | 0.18      |
| 712 | 45 | N169       | 1079.9    | 534.18   | -888.143  | 0.17      | 0         | 0.17      |
| 713 | 45 | N170       | 917.382   | 659.354  | 750.96    | 0.177     | 0         | -0.23     |
| 714 | 45 | N171       | -1179.886 | 624.4    | -1321.279 | 0.168     | 0         | -0.219    |
| 715 | 45 | N192       | -80.814   | 98.448   | -226.404  | 0         | 0         | 0         |
| 716 | 45 | N193       | -272.388  | 125.133  | 142.142   | 0         | 0         | 0         |
| 717 | 45 | N194       | 258.874   | 153.37   | 316.217   | 0         | 0         | 0         |
| 718 | 45 | N204       | -13.03    | 5.991    | -2.615    | -0.001    | 0         | 0         |
| 719 | 45 | Totals:    | 348.034   | 4500.153 | -200.932  |           |           |           |
| 720 | 45 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 721 | 46 | N52        | -24.887   | 10.206   | 95.763    | -0.03     | 0.007     | 0.002     |
| 722 | 46 | N55        | -171.433  | 32.756   | 29.123    | 0.011     | 0.001     | 0.034     |
| 723 | 46 | N113       | 87.711    | 35.455   | 129.279   | 0.05      | 0.012     | -0.029    |
| 724 | 46 | N53        | 40.572    | 11.618   | -12.545   | -0.004    | 0         | 0.001     |
| 725 | 46 | N166       | -170.97   | 454.401  | -951.077  | -0.202    | 0         | 0.028     |
| 726 | 46 | N167       | 355.683   | 1181.758 | 1076.594  | -0.205    | 0         | 0.027     |
| 727 | 46 | N168       | -493.644  | 568.922  | 697.374   | 0.181     | 0         | 0.178     |
| 728 | 46 | N169       | 1084.815  | 529.912  | -859.096  | 0.168     | 0         | 0.169     |
| 729 | 46 | N170       | 946.746   | 658.534  | 828.138   | 0.176     | 0         | -0.23     |
| 730 | 46 | N171       | -1160.55  | 623.576  | -1295.581 | 0.167     | 0         | -0.219    |
| 731 | 46 | N192       | -78.915   | 97.506   | -221.277  | 0         | 0         | 0         |
| 732 | 46 | N193       | -282.682  | 128.773  | 146.984   | 0         | 0         | 0         |
| 733 | 46 | N194       | 272.537   | 160.746  | 338.164   | 0         | 0         | 0         |
| 734 | 46 | N204       | -10.339   | 5.99     | -1.841    | -0.001    | 0         | 0         |
| 735 | 46 | Totals:    | 394.646   | 4500.153 | 0.001     |           |           |           |
| 736 | 46 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 737 | 47 | N52        | -22.519   | 10.943   | 87.897    | -0.03     | 0.007     | 0.002     |
| 738 | 47 | N55        | -196.972  | 34.878   | 34.317    | 0.011     | -0.001    | 0.033     |
| 739 | 47 | N113       | 20.824    | 25.698   | 34.913    | 0.05      | 0.017     | -0.031    |
| 740 | 47 | N53        | 26.072    | 11.624   | -7.352    | -0.004    | 0         | 0.001     |
| 741 | 47 | N166       | -175.963  | 455.898  | -934.386  | -0.203    | 0         | 0.028     |
| 742 | 47 | N167       | 358.4     | 1183.167 | 1099.629  | -0.205    | 0         | 0.027     |
| 743 | 47 | N168       | -438.273  | 562.909  | 706.835   | 0.178     | 0         | 0.176     |
| 744 | 47 | N169       | 1056.049  | 524.54   | -822.291  | 0.166     | 0         | 0.167     |
| 745 | 47 | N170       | 1009.942  | 664.48   | 988.504   | 0.176     | 0         | -0.233    |
| 746 | 47 | N171       | -1159.825 | 628.899  | -1278.217 | 0.168     | 0         | -0.222    |
| 747 | 47 | N192       | -80.831   | 93.862   | -207.477  | 0         | 0         | 0         |
| 748 | 47 | N193       | -306.566  | 138.03   | 166.152   | 0         | 0         | 0         |
| 749 | 47 | N194       | 268.291   | 159.234  | 335.184   | 0         | 0         | 0         |
| 750 | 47 | N204       | -8.246    | 5.989    | -1.418    | -0.001    | 0         | 0         |
| 751 | 47 | Totals:    | 350.384   | 4500.153 | 202.291   |           |           |           |
| 752 | 47 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 753 | 48 | N52        | -9.885    | 14.851   | 39.154    | -0.03     | 0.004     | 0.001     |
| 754 | 48 | N55        | -183.2    | 33.731   | 33.299    | 0.01      | -0.003    | 0.033     |
| 755 | 48 | N113       | -47.23    | 15.667   | -62.75    | 0.05      | 0.021     | -0.032    |
| 756 | 48 | N53        | 30.037    | 11.623   | -7.585    | -0.004    | 0         | 0.001     |
| 757 | 48 | N166       | -209.64   | 454.203  | -857.48   | -0.202    | 0         | 0.028     |
| 758 | 48 | N167       | 357.595   | 1181.542 | 1121.605  | -0.205    | 0         | 0.026     |
| 759 | 48 | N168       | -464.493  | 560.194  | 714.669   | 0.177     | 0         | 0.175     |
| 760 | 48 | N169       | 1021.061  | 521.843  | -800.951  | 0.165     | 0         | 0.167     |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 761 | 48 | N170       | 1068.784  | 673.228  | 1161.382  | 0.177     | 0         | -0.237    |
| 762 | 48 | N171       | -1189.85  | 636.751  | -1271.358 | 0.169     | 0         | -0.225    |
| 763 | 48 | N192       | -81.468   | 93.275   | -205.237  | 0         | 0         | 0         |
| 764 | 48 | N193       | -324.681  | 144.59   | 181.442   | 0         | 0         | 0         |
| 765 | 48 | N194       | 253.48    | 152.664  | 320.265   | 0         | 0         | 0         |
| 766 | 48 | N204       | -9.627    | 5.99     | -1.203    | -0.001    | 0         | 0         |
| 767 | 48 | Totals:    | 210.883   | 4500.153 | 365.253   |           |           |           |
| 768 | 48 | COG (ft):  | X: 0.107  | Y: 0.049 | Z: -0.78  |           |           |           |
| 769 | 49 | N52        | 1.825     | 20.498   | -1.778    | -0.044    | 0.008     | -0.008    |
| 770 | 49 | N55        | -73.529   | 24.685   | 11.726    | 0.012     | 0.005     | 0.034     |
| 771 | 49 | N113       | 0.686     | 22.802   | 6.12      | 0.05      | 0.017     | -0.031    |
| 772 | 49 | N53        | 85.189    | 11.601   | -26.434   | -0.003    | 0         | 0.001     |
| 773 | 49 | N166       | 2.248     | 629.115  | -1153.544 | -0.278    | 0         | -0.007    |
| 774 | 49 | N167       | -19.624   | 595.815  | 1459.735  | -0.265    | 0         | -0.007    |
| 775 | 49 | N168       | -676.576  | 566.997  | 682.752   | 0.181     | 0         | 0.177     |
| 776 | 49 | N169       | 1002.265  | 526.57   | -837.829  | 0.168     | 0         | 0.168     |
| 777 | 49 | N170       | 990.381   | 670.79   | 1005.444  | 0.177     | 0         | -0.235    |
| 778 | 49 | N171       | -1234.315 | 634.486  | -1328.268 | 0.169     | 0         | -0.224    |
| 779 | 49 | N192       | 15.551    | 123.443  | -304.409  | 0         | 0         | 0         |
| 780 | 49 | N193       | -320.477  | 142.125  | 172.78    | 0         | 0         | 0         |
| 781 | 49 | N194       | 243.249   | 150.232  | 316.702   | 0         | 0         | 0         |
| 782 | 49 | N204       | -16.869   | 5.992    | -2.996    | -0.001    | 0         | 0         |
| 783 | 49 | Totals:    | 0.003     | 4125.153 | 0.001     |           |           |           |
| 784 | 49 | COG (ft):  | X: -0.34  | Y: 0.372 | Z: -0.592 |           |           |           |
| 785 | 50 | N52        | 1.27      | 19.81    | -1.185    | -0.04     | 0.005     | -0.005    |
| 786 | 50 | N55        | -73.529   | 24.685   | 11.726    | 0.012     | 0.005     | 0.034     |
| 787 | 50 | N113       | 0.686     | 22.802   | 6.12      | 0.05      | 0.017     | -0.031    |
| 788 | 50 | N53        | 85.189    | 11.601   | -26.434   | -0.003    | 0         | 0.001     |
| 789 | 50 | N166       | -141.395  | 632.135  | -973.728  | -0.279    | 0         | -0.006    |
| 790 | 50 | N167       | 155.785   | 598.219  | 1264.173  | -0.266    | 0         | -0.006    |
| 791 | 50 | N168       | -676.576  | 566.997  | 682.752   | 0.181     | 0         | 0.177     |
| 792 | 50 | N169       | 1002.265  | 526.57   | -837.829  | 0.168     | 0         | 0.168     |
| 793 | 50 | N170       | 990.381   | 670.79   | 1005.444  | 0.177     | 0         | -0.235    |
| 794 | 50 | N171       | -1234.315 | 634.486  | -1328.268 | 0.169     | 0         | -0.224    |
| 795 | 50 | N192       | -15.661   | 118.707  | -289.256  | 0         | 0         | 0         |
| 796 | 50 | N193       | -320.477  | 142.125  | 172.78    | 0         | 0         | 0         |
| 797 | 50 | N194       | 243.249   | 150.232  | 316.702   | 0         | 0         | 0         |
| 798 | 50 | N204       | -16.869   | 5.992    | -2.996    | -0.001    | 0         | 0         |
| 799 | 50 | Totals:    | 0.003     | 4125.153 | 0.001     |           |           |           |
| 800 | 50 | COG (ft):  | X: -0.178 | Y: 0.372 | Z: -0.763 |           |           |           |
| 801 | 51 | N52        | 0.45      | 20.833   | -0.246    | -0.034    | 0.002     | 0.001     |
| 802 | 51 | N55        | -85.787   | 28.805   | 13.679    | 0.014     | 0.005     | 0.04      |
| 803 | 51 | N113       | 0.811     | 26.605   | 7.155     | 0.059     | 0.02      | -0.036    |
| 804 | 51 | N53        | 99.373    | 13.529   | -30.833   | -0.003    | 0         | 0.001     |
| 805 | 51 | N166       | -307.472  | 521.396  | -946.379  | -0.232    | 0         | 0.032     |
| 806 | 51 | N167       | 395.289   | 494.477  | 1233.752  | -0.221    | 0         | 0.031     |
| 807 | 51 | N168       | -789.28   | 662.209  | 796.517   | 0.211     | 0         | 0.207     |
| 808 | 51 | N169       | 1169.272  | 613.561  | -977.446  | 0.195     | 0         | 0.196     |
| 809 | 51 | N170       | 1155.345  | 783.762  | 1172.942  | 0.207     | 0         | -0.275    |
| 810 | 51 | N171       | -1439.932 | 738.977  | -1549.647 | 0.198     | 0         | -0.261    |
| 811 | 51 | N192       | -88.267   | 122.81   | -287.123  | 0         | 0         | 0         |
| 812 | 51 | N193       | -373.901  | 165.87   | 201.575   | 0         | 0         | 0         |
| 813 | 51 | N194       | 283.777   | 175.351  | 369.549   | 0         | 0         | 0         |
| 814 | 51 | N204       | -19.674   | 6.992    | -3.495    | -0.001    | 0         | 0         |
| 815 | 51 | Totals:    | 0.003     | 4375.178 | 0         |           |           |           |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 816 | 51 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 817 | 52 | N52        | 7.068     | 20.127   | -22.279   | -0.03     | 0.001     | 0.001     |
| 818 | 52 | N55        | -126.289  | 29.41    | 21.988    | 0.011     | 0.001     | 0.034     |
| 819 | 52 | N113       | -51.315   | 15.608   | -67.771   | 0.051     | 0.021     | -0.033    |
| 820 | 52 | N53        | 60.721    | 11.879   | -18.173   | -0.003    | 0         | 0.001     |
| 821 | 52 | N166       | -277.408  | 457.277  | -785.095  | -0.203    | 0         | 0.028     |
| 822 | 52 | N167       | 348.891   | 434.423  | 1106.401  | -0.195    | 0         | 0.027     |
| 823 | 52 | N168       | -593.452  | 574.969  | 715.626   | 0.183     | 0         | 0.18      |
| 824 | 52 | N169       | 1017.939  | 534.195  | -830.841  | 0.17      | 0         | 0.17      |
| 825 | 52 | N170       | 1064.324  | 690.27   | 1165.731  | 0.182     | 0         | -0.243    |
| 826 | 52 | N171       | -1262.547 | 652.359  | -1340.014 | 0.174     | 0         | -0.231    |
| 827 | 52 | N192       | -78.551   | 105.013  | -241.6    | 0         | 0         | 0         |
| 828 | 52 | N193       | -342.99   | 150.922  | 187.719   | 0         | 0         | 0         |
| 829 | 52 | N194       | 249.538   | 154.238  | 327.465   | 0         | 0         | 0         |
| 830 | 52 | N204       | -15.926   | 6.13     | -2.482    | -0.001    | 0         | 0         |
| 831 | 52 | Totals:    | 0.004     | 3836.823 | 216.674   |           |           |           |
| 832 | 52 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 833 | 53 | N52        | 16.6      | 22.895   | -57.176   | -0.03     | 0         | 0         |
| 834 | 53 | N55        | -97.747   | 27.033   | 16.723    | 0.012     | 0.003     | 0.034     |
| 835 | 53 | N113       | -72.207   | 12.569   | -97.439   | 0.051     | 0.023     | -0.033    |
| 836 | 53 | N53        | 73.1      | 11.874   | -22.207   | -0.003    | 0         | 0.001     |
| 837 | 53 | N166       | -311.739  | 454.088  | -735.807  | -0.202    | 0         | 0.027     |
| 838 | 53 | N167       | 342.639   | 431.408  | 1095.566  | -0.193    | 0         | 0.026     |
| 839 | 53 | N168       | -650.154  | 575.51   | 713.221   | 0.183     | 0         | 0.18      |
| 840 | 53 | N169       | 1003.132  | 534.433  | -830.806  | 0.17      | 0         | 0.17      |
| 841 | 53 | N170       | 1068.554  | 693.009  | 1198.751  | 0.182     | 0         | -0.244    |
| 842 | 53 | N171       | -1281.491 | 654.789  | -1351.437 | 0.174     | 0         | -0.232    |
| 843 | 53 | N192       | -76.211   | 108.448  | -252.852  | 0         | 0         | 0         |
| 844 | 53 | N193       | -348.462  | 152.525  | 189.661   | 0         | 0         | 0         |
| 845 | 53 | N194       | 242.438   | 152.109  | 324.089   | 0         | 0         | 0         |
| 846 | 53 | N204       | -16.785   | 6.13     | -2.651    | -0.001    | 0         | 0         |
| 847 | 53 | Totals:    | -108.334  | 3836.823 | 187.64    |           |           |           |
| 848 | 53 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 849 | 54 | N52        | 21.788    | 24.424   | -76.808   | -0.03     | -0.002    | 0         |
| 850 | 54 | N55        | -63.172   | 24.18    | 10.194    | 0.012     | 0.005     | 0.035     |
| 851 | 54 | N113       | -73.567   | 12.413   | -99.321   | 0.051     | 0.022     | -0.033    |
| 852 | 54 | N53        | 89.239    | 11.868   | -27.534   | -0.003    | 0         | 0.001     |
| 853 | 54 | N166       | -334.795  | 451.644  | -711.748  | -0.201    | 0         | 0.027     |
| 854 | 54 | N167       | 337.467   | 429.098  | 1081.087  | -0.192    | 0         | 0.026     |
| 855 | 54 | N168       | -718.122  | 577.305  | 706.875   | 0.184     | 0         | 0.181     |
| 856 | 54 | N169       | 994.302   | 535.8    | -837.838  | 0.171     | 0         | 0.171     |
| 857 | 54 | N170       | 1057.974  | 693.986  | 1186.203  | 0.182     | 0         | -0.244    |
| 858 | 54 | N171       | -1295.436 | 655.668  | -1364.876 | 0.174     | 0         | -0.232    |
| 859 | 54 | N192       | -74.189   | 111.675  | -263.815  | 0         | 0         | 0         |
| 860 | 54 | N193       | -348.417  | 152.223  | 188.152   | 0         | 0         | 0         |
| 861 | 54 | N194       | 237.061   | 150.409  | 320.698   | 0         | 0         | 0         |
| 862 | 54 | N204       | -17.771   | 6.131    | -2.931    | 0         | 0         | 0         |
| 863 | 54 | Totals:    | -187.638  | 3836.823 | 108.337   |           |           |           |
| 864 | 54 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 865 | 55 | N52        | 21.245    | 24.304   | -75.92    | -0.029    | -0.002    | 0         |
| 866 | 55 | N55        | -31.818   | 21.613   | 4.148     | 0.013     | 0.007     | 0.035     |
| 867 | 55 | N113       | -55.027   | 15.183   | -72.91    | 0.051     | 0.021     | -0.033    |
| 868 | 55 | N53        | 104.816   | 11.861   | -32.727   | -0.002    | 0         | 0.001     |
| 869 | 55 | N166       | -340.405  | 450.598  | -719.363  | -0.2      | 0         | 0.027     |
| 870 | 55 | N167       | 334.762   | 428.111  | 1066.84   | -0.192    | 0         | 0.026     |

### Node Reactions (Continued)

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 871 | 55 | N168       | -779.162  | 579.874  | 698.286   | 0.186     | 0         | 0.181     |
| 872 | 55 | N169       | 993.813   | 537.931  | -850.056  | 0.172     | 0         | 0.172     |
| 873 | 55 | N170       | 1035.414  | 692.94   | 1131.441  | 0.182     | 0         | -0.244    |
| 874 | 55 | N171       | -1300.645 | 654.76   | -1376.732 | 0.174     | 0         | -0.232    |
| 875 | 55 | N192       | -73.026   | 113.828  | -271.554  | 0         | 0         | 0         |
| 876 | 55 | N193       | -342.867  | 150.096  | 183.595   | 0         | 0         | 0         |
| 877 | 55 | N194       | 234.845   | 149.594  | 318.199   | 0         | 0         | 0         |
| 878 | 55 | N204       | -18.618   | 6.131    | -3.247    | 0         | 0         | 0         |
| 879 | 55 | Totals:    | -216.673  | 3836.823 | 0         |           |           |           |
| 880 | 55 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 881 | 56 | N52        | 15.115    | 22.567   | -54.746   | -0.029    | -0.001    | 0         |
| 882 | 56 | N55        | -12.093   | 20.023   | 0.205     | 0.013     | 0.008     | 0.035     |
| 883 | 56 | N113       | -21.547   | 20.136   | -25.278   | 0.051     | 0.019     | -0.032    |
| 884 | 56 | N53        | 115.659   | 11.857   | -36.396   | -0.002    | 0         | 0.001     |
| 885 | 56 | N166       | -327.063  | 451.23   | -756.617  | -0.201    | 0         | 0.027     |
| 886 | 56 | N167       | 335.25    | 428.713  | 1056.646  | -0.192    | 0         | 0.027     |
| 887 | 56 | N168       | -816.905  | 582.528  | 689.76    | 0.187     | 0         | 0.182     |
| 888 | 56 | N169       | 1001.798  | 540.254  | -864.185  | 0.172     | 0         | 0.172     |
| 889 | 56 | N170       | 1006.908  | 690.15   | 1049.132  | 0.182     | 0         | -0.243    |
| 890 | 56 | N171       | -1295.718 | 652.307  | -1383.826 | 0.174     | 0         | -0.231    |
| 891 | 56 | N192       | -73.032   | 114.331  | -273.992  | 0         | 0         | 0         |
| 892 | 56 | N193       | -333.299  | 146.715  | 177.21    | 0         | 0         | 0         |
| 893 | 56 | N194       | 236.39    | 149.885  | 317.263   | 0         | 0         | 0         |
| 894 | 56 | N204       | -19.101   | 6.131    | -3.514    | 0         | 0         | 0         |
| 895 | 56 | Totals:    | -187.639  | 3836.823 | -108.337  |           |           |           |
| 896 | 56 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 897 | 57 | N52        | 5.043     | 19.679   | -18.967   | -0.03     | 0         | 0.001     |
| 898 | 57 | N55        | -9.286    | 19.834   | -0.578    | 0.013     | 0.008     | 0.035     |
| 899 | 57 | N113       | 17.895    | 25.943   | 30.798    | 0.052     | 0.016     | -0.032    |
| 900 | 57 | N53        | 118.866   | 11.855   | -37.561   | -0.002    | 0         | 0.001     |
| 901 | 57 | N166       | -298.348  | 453.371  | -813.513  | -0.202    | 0         | 0.027     |
| 902 | 57 | N167       | 338.799   | 430.741  | 1053.234  | -0.193    | 0         | 0.027     |
| 903 | 57 | N168       | -821.235  | 584.555  | 683.584   | 0.187     | 0         | 0.183     |
| 904 | 57 | N169       | 1016.111  | 542.145  | -876.438  | 0.173     | 0         | 0.173     |
| 905 | 57 | N170       | 980.094   | 686.365  | 961.35    | 0.182     | 0         | -0.241    |
| 906 | 57 | N171       | -1281.978 | 648.966  | -1384.259 | 0.174     | 0         | -0.229    |
| 907 | 57 | N192       | -74.206   | 113.049  | -270.48   | 0         | 0         | 0         |
| 908 | 57 | N193       | -322.283  | 142.986  | 170.709   | 0         | 0         | 0         |
| 909 | 57 | N194       | 241.283   | 151.202  | 318.142   | 0         | 0         | 0         |
| 910 | 57 | N204       | -19.091   | 6.131    | -3.661    | 0         | 0         | 0         |
| 911 | 57 | Totals:    | -108.336  | 3836.823 | -187.64   |           |           |           |
| 912 | 57 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 913 | 58 | N52        | -6.277    | 16.413   | 21.836    | -0.03     | 0.001     | 0.001     |
| 914 | 58 | N55        | -24.149   | 21.099   | 2.007     | 0.013     | 0.008     | 0.035     |
| 915 | 58 | N113       | 52.736    | 31.049   | 80.3      | 0.052     | 0.014     | -0.031    |
| 916 | 58 | N53        | 113.58    | 11.857   | -35.908   | -0.002    | 0         | 0.001     |
| 917 | 58 | N166       | -261.945  | 456.449  | -874.815  | -0.203    | 0         | 0.028     |
| 918 | 58 | N167       | 344.457   | 433.652  | 1057.517  | -0.194    | 0         | 0.027     |
| 919 | 58 | N168       | -790.989  | 585.411  | 681.415   | 0.187     | 0         | 0.183     |
| 920 | 58 | N169       | 1032.919  | 543.098  | -883.536  | 0.173     | 0         | 0.173     |
| 921 | 58 | N170       | 962.155   | 682.601  | 891.604   | 0.181     | 0         | -0.239    |
| 922 | 58 | N171       | -1263.105 | 645.632  | -1377.916 | 0.173     | 0         | -0.227    |
| 923 | 58 | N192       | -76.235   | 110.327  | -261.959  | 0         | 0         | 0         |
| 924 | 58 | N193       | -312.769  | 139.909  | 165.832   | 0         | 0         | 0         |
| 925 | 58 | N194       | 248.214   | 153.194  | 320.598   | 0         | 0         | 0         |

**Node Reactions (Continued)**

|     | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|-----|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 926 | 58 | N204       | -18.59    | 6.131    | -3.649    | 0         | 0         | 0         |
| 927 | 58 | Totals:    | 0.002     | 3836.823 | -216.674  |           |           |           |
| 928 | 58 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 929 | 59 | N52        | -15.811   | 13.644   | 56.729    | -0.03     | 0.003     | 0.001     |
| 930 | 59 | N55        | -52.703   | 23.478   | 7.27      | 0.013     | 0.006     | 0.035     |
| 931 | 59 | N113       | 73.631    | 34.085   | 109.956   | 0.052     | 0.013     | -0.03     |
| 932 | 59 | N53        | 101.21    | 11.863   | -31.88    | -0.002    | 0         | 0.001     |
| 933 | 59 | N166       | -227.609  | 459.638  | -924.093  | -0.204    | 0         | 0.028     |
| 934 | 59 | N167       | 350.708   | 436.665  | 1068.35   | -0.195    | 0         | 0.028     |
| 935 | 59 | N168       | -734.266  | 584.867  | 683.831   | 0.187     | 0         | 0.183     |
| 936 | 59 | N169       | 1047.718  | 542.859  | -883.572  | 0.173     | 0         | 0.173     |
| 937 | 59 | N170       | 957.912   | 679.866  | 858.598   | 0.181     | 0         | -0.238    |
| 938 | 59 | N171       | -1244.157 | 643.2    | -1366.497 | 0.173     | 0         | -0.226    |
| 939 | 59 | N192       | -78.577   | 106.893  | -250.712  | 0         | 0         | 0         |
| 940 | 59 | N193       | -307.307  | 138.308  | 163.887   | 0         | 0         | 0         |
| 941 | 59 | N194       | 255.321   | 155.326  | 323.975   | 0         | 0         | 0         |
| 942 | 59 | N204       | -17.731   | 6.131    | -3.48     | 0         | 0         | 0         |
| 943 | 59 | Totals:    | 108.34    | 3836.823 | -187.639  |           |           |           |
| 944 | 59 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 945 | 60 | N52        | -21.003   | 12.115   | 76.363    | -0.031    | 0.004     | 0.002     |
| 946 | 60 | N55        | -87.286   | 26.333   | 13.8      | 0.012     | 0.005     | 0.035     |
| 947 | 60 | N113       | 74.983    | 34.24    | 111.829   | 0.052     | 0.013     | -0.03     |
| 948 | 60 | N53        | 85.071    | 11.869   | -26.553   | -0.003    | 0         | 0.001     |
| 949 | 60 | N166       | -204.543  | 462.085  | -948.148  | -0.206    | 0         | 0.029     |
| 950 | 60 | N167       | 355.877   | 438.973  | 1082.829  | -0.197    | 0         | 0.028     |
| 951 | 60 | N168       | -666.284  | 583.07   | 690.179   | 0.186     | 0         | 0.182     |
| 952 | 60 | N169       | 1056.546  | 541.492  | -876.541  | 0.172     | 0         | 0.173     |
| 953 | 60 | N170       | 968.502   | 678.89   | 871.161   | 0.181     | 0         | -0.237    |
| 954 | 60 | N171       | -1230.215 | 642.321  | -1353.061 | 0.172     | 0         | -0.226    |
| 955 | 60 | N192       | -80.603   | 103.668  | -239.752  | 0         | 0         | 0         |
| 956 | 60 | N193       | -307.355  | 138.611  | 165.395   | 0         | 0         | 0         |
| 957 | 60 | N194       | 260.698   | 157.025  | 327.365   | 0         | 0         | 0         |
| 958 | 60 | N204       | -16.746   | 6.131    | -3.2      | -0.001    | 0         | 0         |
| 959 | 60 | Totals:    | 187.644   | 3836.823 | -108.336  |           |           |           |
| 960 | 60 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 961 | 61 | N52        | -20.461   | 12.234   | 75.48     | -0.031    | 0.005     | 0.002     |
| 962 | 61 | N55        | -118.635  | 28.899   | 19.849    | 0.012     | 0.003     | 0.035     |
| 963 | 61 | N113       | 56.433    | 31.472   | 85.421    | 0.051     | 0.015     | -0.031    |
| 964 | 61 | N53        | 69.484    | 11.876   | -21.355   | -0.003    | 0         | 0.001     |
| 965 | 61 | N166       | -198.928  | 463.132  | -940.541  | -0.206    | 0         | 0.029     |
| 966 | 61 | N167       | 358.581   | 439.96   | 1097.076  | -0.197    | 0         | 0.028     |
| 967 | 61 | N168       | -605.251  | 580.502  | 698.76    | 0.185     | 0         | 0.182     |
| 968 | 61 | N169       | 1057.04   | 539.362  | -864.323  | 0.171     | 0         | 0.172     |
| 969 | 61 | N170       | 991.087   | 679.936  | 925.923   | 0.181     | 0         | -0.238    |
| 970 | 61 | N171       | -1225.01  | 643.232  | -1341.205 | 0.172     | 0         | -0.226    |
| 971 | 61 | N192       | -81.768   | 101.514  | -232.013  | 0         | 0         | 0         |
| 972 | 61 | N193       | -312.899  | 140.737  | 169.952   | 0         | 0         | 0         |
| 973 | 61 | N194       | 262.904   | 157.837  | 329.862   | 0         | 0         | 0         |
| 974 | 61 | N204       | -15.897   | 6.13     | -2.884    | -0.001    | 0         | 0         |
| 975 | 61 | Totals:    | 216.679   | 3836.823 | 0.001     |           |           |           |
| 976 | 61 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 977 | 62 | N52        | -14.33    | 13.972   | 54.31     | -0.031    | 0.004     | 0.002     |
| 978 | 62 | N55        | -138.347  | 30.487   | 23.793    | 0.012     | 0.001     | 0.034     |
| 979 | 62 | N113       | 22.951    | 26.522   | 37.801    | 0.051     | 0.017     | -0.031    |
| 980 | 62 | N53        | 58.632    | 11.88    | -17.681   | -0.003    | 0         | 0.001     |

### Node Reactions (Continued)

|      | LC | Node Label | X [lb]    | Y [lb]   | Z [lb]    | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|------|----|------------|-----------|----------|-----------|-----------|-----------|-----------|
| 981  | 62 | N166       | -212.275  | 462.499  | -903.297  | -0.206    | 0         | 0.028     |
| 982  | 62 | N167       | 358.094   | 439.36   | 1107.272  | -0.197    | 0         | 0.028     |
| 983  | 62 | N168       | -567.529  | 577.851  | 707.275   | 0.184     | 0         | 0.181     |
| 984  | 62 | N169       | 1049.063  | 537.041  | -850.193  | 0.171     | 0         | 0.171     |
| 985  | 62 | N170       | 1019.606  | 682.723  | 1008.217  | 0.181     | 0         | -0.239    |
| 986  | 62 | N171       | -1229.939 | 645.687  | -1334.109 | 0.173     | 0         | -0.228    |
| 987  | 62 | N192       | -81.761   | 101.01   | -229.57   | 0         | 0         | 0         |
| 988  | 62 | N193       | -322.458  | 144.116  | 176.339   | 0         | 0         | 0         |
| 989  | 62 | N194       | 261.351   | 157.545  | 330.797   | 0         | 0         | 0         |
| 990  | 62 | N204       | -15.413   | 6.13     | -2.617    | -0.001    | 0         | 0         |
| 991  | 62 | Totals:    | 187.645   | 3836.823 | 108.338   |           |           |           |
| 992  | 62 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 993  | 63 | N52        | -4.253    | 16.86    | 18.529    | -0.03     | 0.003     | 0.001     |
| 994  | 63 | N55        | -141.147  | 30.674   | 24.576    | 0.011     | 0.001     | 0.034     |
| 995  | 63 | N113       | -16.483   | 20.716   | -18.266   | 0.051     | 0.019     | -0.032    |
| 996  | 63 | N53        | 55.424    | 11.881   | -16.516   | -0.003    | 0         | 0.001     |
| 997  | 63 | N166       | -241      | 460.356  | -846.404  | -0.205    | 0         | 0.028     |
| 998  | 63 | N167       | 354.548   | 437.333  | 1110.686  | -0.196    | 0         | 0.027     |
| 999  | 63 | N168       | -563.212  | 575.827  | 713.448   | 0.183     | 0         | 0.18      |
| 1000 | 63 | N169       | 1034.752  | 535.15   | -837.938  | 0.17      | 0         | 0.171     |
| 1001 | 63 | N170       | 1046.409  | 686.505  | 1095.985  | 0.181     | 0         | -0.241    |
| 1002 | 63 | N171       | -1243.678 | 649.028  | -1333.672 | 0.173     | 0         | -0.229    |
| 1003 | 63 | N192       | -80.583   | 102.291  | -233.079  | 0         | 0         | 0         |
| 1004 | 63 | N193       | -333.47   | 147.844  | 182.842   | 0         | 0         | 0         |
| 1005 | 63 | N194       | 256.459   | 156.228  | 329.92    | 0         | 0         | 0         |
| 1006 | 63 | N204       | -15.423   | 6.13     | -2.469    | -0.001    | 0         | 0         |
| 1007 | 63 | Totals:    | 108.342   | 3836.823 | 187.64    |           |           |           |
| 1008 | 63 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 1009 | 64 | N52        | 6.956     | 14.837   | -22.225   | -0.021    | 0.001     | 0         |
| 1010 | 64 | N55        | -104.491  | 22.086   | 18.514    | 0.008     | 0         | 0.024     |
| 1011 | 64 | N113       | -51.536   | 8.873    | -69.591   | 0.036     | 0.016     | -0.024    |
| 1012 | 64 | N53        | 35.489    | 8.447    | -10.343   | -0.002    | 0         | 0.001     |
| 1013 | 64 | N166       | -199.387  | 324.456  | -544.84   | -0.144    | 0         | 0.02      |
| 1014 | 64 | N167       | 248.55    | 309.344  | 793.165   | -0.138    | 0         | 0.019     |
| 1015 | 64 | N168       | -393.163  | 406.264  | 513.397   | 0.129     | 0         | 0.127     |
| 1016 | 64 | N169       | 721.118   | 379.049  | -582.673  | 0.12      | 0         | 0.121     |
| 1017 | 64 | N170       | 771.109   | 490.133  | 867.905   | 0.129     | 0         | -0.173    |
| 1018 | 64 | N171       | -897.072  | 465.912  | -946.513  | 0.124     | 0         | -0.165    |
| 1019 | 64 | N192       | -56.119   | 73.797   | -168.674  | 0         | 0         | 0         |
| 1020 | 64 | N193       | -248.014  | 108.744  | 136.538   | 0         | 0         | 0         |
| 1021 | 64 | N194       | 177.5     | 109.649  | 233.61    | 0         | 0         | 0         |
| 1022 | 64 | N204       | -10.935   | 4.354    | -1.596    | -0.001    | 0         | 0         |
| 1023 | 64 | Totals:    | 0.003     | 2725.945 | 216.674   |           |           |           |
| 1024 | 64 | COG (ft):  | X: -0.09  | Y: 0.409 | Z: -1.25  |           |           |           |
| 1025 | 65 | N52        | 16.486    | 17.604   | -57.119   | -0.021    | -0.001    | 0         |
| 1026 | 65 | N55        | -75.958   | 19.712   | 13.251    | 0.008     | 0.002     | 0.024     |
| 1027 | 65 | N113       | -72.427   | 5.844    | -99.25    | 0.036     | 0.017     | -0.024    |
| 1028 | 65 | N53        | 47.876    | 8.443    | -14.381   | -0.002    | 0         | 0.001     |
| 1029 | 65 | N166       | -233.705  | 321.295  | -495.566  | -0.143    | 0         | 0.019     |
| 1030 | 65 | N167       | 242.29    | 306.307  | 782.336   | -0.137    | 0         | 0.019     |
| 1031 | 65 | N168       | -449.832  | 406.783  | 511.002   | 0.13      | 0         | 0.127     |
| 1032 | 65 | N169       | 706.298   | 379.299  | -582.647  | 0.12      | 0         | 0.121     |
| 1033 | 65 | N170       | 775.346   | 492.832  | 900.896   | 0.13      | 0         | -0.174    |
| 1034 | 65 | N171       | -916.022  | 468.373  | -957.917  | 0.124     | 0         | -0.166    |
| 1035 | 65 | N192       | -53.782   | 77.228   | -179.92   | 0         | 0         | 0         |

**Node Reactions (Continued)**

|      | LC | Node Label | X [lb]   | Y [lb]   | Z [lb]   | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|------|----|------------|----------|----------|----------|-----------|-----------|-----------|
| 1036 | 65 | N193       | -253.506 | 110.352  | 138.483  | 0         | 0         | 0         |
| 1037 | 65 | N194       | 170.397  | 107.52   | 230.237  | 0         | 0         | 0         |
| 1038 | 65 | N204       | -11.795  | 4.354    | -1.764   | 0         | 0         | 0         |
| 1039 | 65 | Totals:    | -108.335 | 2725.945 | 187.64   |           |           |           |
| 1040 | 65 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1041 | 66 | N52        | 21.673   | 19.131   | -76.75   | -0.021    | -0.002    | 0         |
| 1042 | 66 | N55        | -41.392  | 16.863   | 6.722    | 0.009     | 0.003     | 0.024     |
| 1043 | 66 | N113       | -73.784  | 5.688    | -101.129 | 0.036     | 0.017     | -0.024    |
| 1044 | 66 | N53        | 64.025   | 8.439    | -19.713  | -0.002    | 0         | 0.001     |
| 1045 | 66 | N166       | -256.752 | 318.868  | -471.517 | -0.142    | 0         | 0.019     |
| 1046 | 66 | N167       | 237.114  | 303.982  | 767.862  | -0.136    | 0         | 0.018     |
| 1047 | 66 | N168       | -517.759 | 408.544  | 504.667  | 0.131     | 0         | 0.128     |
| 1048 | 66 | N169       | 697.449  | 380.687  | -589.69  | 0.121     | 0         | 0.121     |
| 1049 | 66 | N170       | 764.76   | 493.805  | 888.346  | 0.13      | 0         | -0.174    |
| 1050 | 66 | N171       | -929.959 | 469.256  | -971.352 | 0.124     | 0         | -0.166    |
| 1051 | 66 | N192       | -51.765  | 80.452   | -190.881 | 0         | 0         | 0         |
| 1052 | 66 | N193       | -253.484 | 110.056  | 136.976  | 0         | 0         | 0         |
| 1053 | 66 | N194       | 165.016  | 105.819  | 226.839  | 0         | 0         | 0         |
| 1054 | 66 | N204       | -12.78   | 4.354    | -2.044   | 0         | 0         | 0         |
| 1055 | 66 | Totals:    | -187.639 | 2725.945 | 108.337  |           |           |           |
| 1056 | 66 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1057 | 67 | N52        | 21.13    | 19.011   | -75.86   | -0.021    | -0.002    | 0         |
| 1058 | 67 | N55        | -10.046  | 14.3     | 0.677    | 0.009     | 0.005     | 0.025     |
| 1059 | 67 | N113       | -55.241  | 8.45     | -74.721  | 0.036     | 0.016     | -0.024    |
| 1060 | 67 | N53        | 79.61    | 8.434    | -24.91   | -0.002    | 0         | 0         |
| 1061 | 67 | N166       | -262.358 | 317.826  | -479.135 | -0.141    | 0         | 0.019     |
| 1062 | 67 | N167       | 234.409  | 302.992  | 753.619  | -0.135    | 0         | 0.019     |
| 1063 | 67 | N168       | -578.762 | 411.077  | 496.088  | 0.132     | 0         | 0.129     |
| 1064 | 67 | N169       | 696.943  | 382.842  | -601.915 | 0.122     | 0         | 0.122     |
| 1065 | 67 | N170       | 742.182  | 492.791  | 833.612  | 0.13      | 0         | -0.174    |
| 1066 | 67 | N171       | -935.152 | 468.325  | -983.22  | 0.124     | 0         | -0.166    |
| 1067 | 67 | N192       | -50.604  | 82.605   | -198.622 | 0         | 0         | 0         |
| 1068 | 67 | N193       | -247.953 | 107.936  | 132.419  | 0         | 0         | 0         |
| 1069 | 67 | N194       | 162.798  | 105.003  | 224.326  | 0         | 0         | 0         |
| 1070 | 67 | N204       | -13.629  | 4.354    | -2.36    | 0         | 0         | 0         |
| 1071 | 67 | Totals:    | -216.674 | 2725.945 | 0        |           |           |           |
| 1072 | 67 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1073 | 68 | N52        | 15       | 17.275   | -54.684  | -0.021    | -0.002    | 0         |
| 1074 | 68 | N55        | 9.673    | 12.712   | -3.265   | 0.009     | 0.006     | 0.025     |
| 1075 | 68 | N113       | -21.759  | 13.387   | -27.096  | 0.037     | 0.014     | -0.023    |
| 1076 | 68 | N53        | 90.457   | 8.431    | -28.582  | -0.001    | 0         | 0         |
| 1077 | 68 | N166       | -249.018 | 318.447  | -516.384 | -0.142    | 0         | 0.019     |
| 1078 | 68 | N167       | 234.9    | 303.602  | 743.425  | -0.136    | 0         | 0.019     |
| 1079 | 68 | N168       | -616.481 | 413.702  | 487.567  | 0.133     | 0         | 0.13      |
| 1080 | 68 | N169       | 704.915  | 385.185  | -616.047 | 0.123     | 0         | 0.123     |
| 1081 | 68 | N170       | 713.652  | 490.062  | 751.352  | 0.129     | 0         | -0.172    |
| 1082 | 68 | N171       | -930.203 | 465.829  | -990.338 | 0.124     | 0         | -0.164    |
| 1083 | 68 | N192       | -50.612  | 83.109   | -201.066 | 0         | 0         | 0         |
| 1084 | 68 | N193       | -238.395 | 104.559  | 126.034  | 0         | 0         | 0         |
| 1085 | 68 | N194       | 164.342  | 105.29   | 223.374  | 0         | 0         | 0         |
| 1086 | 68 | N204       | -14.112  | 4.354    | -2.627   | 0         | 0         | 0         |
| 1087 | 68 | Totals:    | -187.64  | 2725.945 | -108.337 |           |           |           |
| 1088 | 68 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1089 | 69 | N52        | 4.928    | 14.389   | -18.906  | -0.021    | -0.001    | 0         |
| 1090 | 69 | N55        | 12.481   | 12.524   | -4.049   | 0.01      | 0.007     | 0.025     |

**Node Reactions (Continued)**

|      | LC | Node Label | X [lb]   | Y [lb]   | Z [lb]   | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|------|----|------------|----------|----------|----------|-----------|-----------|-----------|
| 1091 | 69 | N113       | 17.685   | 19.177   | 28.97    | 0.037     | 0.011     | -0.022    |
| 1092 | 69 | N53        | 93.665   | 8.43     | -29.746  | -0.001    | 0         | 0         |
| 1093 | 69 | N166       | -220.31  | 320.565  | -573.269 | -0.143    | 0         | 0.019     |
| 1094 | 69 | N167       | 238.456  | 305.649  | 740.01   | -0.137    | 0         | 0.019     |
| 1095 | 69 | N168       | -620.807 | 415.714  | 481.392  | 0.134     | 0         | 0.13      |
| 1096 | 69 | N169       | 719.223  | 387.088  | -628.298 | 0.124     | 0         | 0.123     |
| 1097 | 69 | N170       | 686.813  | 486.351  | 663.627  | 0.129     | 0         | -0.171    |
| 1098 | 69 | N171       | -916.441 | 462.435  | -990.802 | 0.124     | 0         | -0.163    |
| 1099 | 69 | N192       | -51.785  | 81.831   | -197.562 | 0         | 0         | 0         |
| 1100 | 69 | N193       | -227.378 | 100.833  | 119.531  | 0         | 0         | 0         |
| 1101 | 69 | N194       | 169.237  | 106.605  | 224.237  | 0         | 0         | 0         |
| 1102 | 69 | N204       | -14.102  | 4.354    | -2.775   | 0         | 0         | 0         |
| 1103 | 69 | Totals:    | -108.337 | 2725.945 | -187.64  |           |           |           |
| 1104 | 69 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1105 | 70 | N52        | -6.391   | 11.125   | 21.897   | -0.021    | 0.001     | 0.001     |
| 1106 | 70 | N55        | -2.378   | 13.787   | -1.464   | 0.01      | 0.006     | 0.025     |
| 1107 | 70 | N113       | 52.526   | 24.267   | 78.462   | 0.037     | 0.009     | -0.022    |
| 1108 | 70 | N53        | 88.374   | 8.431    | -28.092  | -0.001    | 0         | 0         |
| 1109 | 70 | N166       | -183.919 | 323.613  | -634.557 | -0.144    | 0         | 0.02      |
| 1110 | 70 | N167       | 244.122  | 308.584  | 744.287  | -0.138    | 0         | 0.02      |
| 1111 | 70 | N168       | -590.578 | 416.575  | 479.216  | 0.134     | 0         | 0.13      |
| 1112 | 70 | N169       | 736.037  | 388.042  | -635.388 | 0.124     | 0         | 0.124     |
| 1113 | 70 | N170       | 668.855  | 482.652  | 593.931  | 0.129     | 0         | -0.169    |
| 1114 | 70 | N171       | -897.552 | 459.053  | -984.489 | 0.123     | 0         | -0.161    |
| 1115 | 70 | N192       | -53.813  | 79.112   | -189.049 | 0         | 0         | 0         |
| 1116 | 70 | N193       | -217.852 | 97.754   | 114.652  | 0         | 0         | 0         |
| 1117 | 70 | N194       | 176.171  | 108.596  | 226.683  | 0         | 0         | 0         |
| 1118 | 70 | N204       | -13.601  | 4.354    | -2.763   | 0         | 0         | 0         |
| 1119 | 70 | Totals:    | 0.001    | 2725.945 | -216.674 |           |           |           |
| 1120 | 70 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1121 | 71 | N52        | -15.923  | 8.358    | 56.787   | -0.022    | 0.003     | 0.001     |
| 1122 | 71 | N55        | -30.924  | 16.162   | 3.798    | 0.009     | 0.005     | 0.025     |
| 1123 | 71 | N113       | 73.42    | 27.294   | 108.109  | 0.037     | 0.008     | -0.021    |
| 1124 | 71 | N53        | 75.996   | 8.435    | -24.059  | -0.002    | 0         | 0         |
| 1125 | 71 | N166       | -149.595 | 326.775  | -683.821 | -0.145    | 0         | 0.02      |
| 1126 | 71 | N167       | 250.381  | 311.619  | 755.114  | -0.139    | 0         | 0.02      |
| 1127 | 71 | N168       | -533.888 | 416.053  | 481.622  | 0.133     | 0         | 0.13      |
| 1128 | 71 | N169       | 750.849  | 387.79   | -635.415 | 0.124     | 0         | 0.124     |
| 1129 | 71 | N170       | 664.604  | 479.956  | 560.955  | 0.128     | 0         | -0.168    |
| 1130 | 71 | N171       | -878.599 | 456.591  | -973.088 | 0.123     | 0         | -0.16     |
| 1131 | 71 | N192       | -56.151  | 75.682   | -177.808 | 0         | 0         | 0         |
| 1132 | 71 | N193       | -212.37  | 96.148   | 112.704  | 0         | 0         | 0         |
| 1133 | 71 | N194       | 183.282  | 110.727  | 230.057  | 0         | 0         | 0         |
| 1134 | 71 | N204       | -12.743  | 4.354    | -2.594   | 0         | 0         | 0         |
| 1135 | 71 | Totals:    | 108.339  | 2725.945 | -187.639 |           |           |           |
| 1136 | 71 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1137 | 72 | N52        | -21.114  | 6.829    | 76.419   | -0.022    | 0.004     | 0.001     |
| 1138 | 72 | N55        | -65.497  | 19.013   | 10.327   | 0.009     | 0.003     | 0.025     |
| 1139 | 72 | N113       | 74.769   | 27.448   | 109.978  | 0.037     | 0.008     | -0.021    |
| 1140 | 72 | N53        | 59.847   | 8.44     | -18.728  | -0.002    | 0         | 0.001     |
| 1141 | 72 | N166       | -126.539 | 329.204  | -707.867 | -0.147    | 0         | 0.02      |
| 1142 | 72 | N167       | 255.555  | 313.942  | 769.588  | -0.14     | 0         | 0.02      |
| 1143 | 72 | N168       | -465.947 | 414.289  | 487.959  | 0.132     | 0         | 0.13      |
| 1144 | 72 | N169       | 759.696  | 386.403  | -628.374 | 0.123     | 0         | 0.123     |
| 1145 | 72 | N170       | 675.2    | 478.985  | 573.519  | 0.128     | 0         | -0.167    |

**Node Reactions (Continued)**

|      | LC | Node Label | X [lb]   | Y [lb]   | Z [lb]   | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|------|----|------------|----------|----------|----------|-----------|-----------|-----------|
| 1146 | 72 | N171       | -864.664 | 455.708  | -959.657 | 0.122     | 0         | -0.16     |
| 1147 | 72 | N192       | -58.173  | 72.459   | -166.85  | 0         | 0         | 0         |
| 1148 | 72 | N193       | -212.395 | 96.445   | 114.21   | 0         | 0         | 0         |
| 1149 | 72 | N194       | 188.662  | 112.427  | 233.453  | 0         | 0         | 0         |
| 1150 | 72 | N204       | -11.757  | 4.354    | -2.314   | 0         | 0         | 0         |
| 1151 | 72 | Totals:    | 187.643  | 2725.945 | -108.336 |           |           |           |
| 1152 | 72 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1153 | 73 | N52        | -20.573  | 6.949    | 75.535   | -0.022    | 0.004     | 0.001     |
| 1154 | 73 | N55        | -96.838  | 21.574   | 16.375   | 0.008     | 0.001     | 0.025     |
| 1155 | 73 | N113       | 56.216   | 24.689   | 83.572   | 0.037     | 0.009     | -0.021    |
| 1156 | 73 | N53        | 44.252   | 8.444    | -13.526  | -0.002    | 0         | 0.001     |
| 1157 | 73 | N166       | -120.927 | 330.248  | -700.256 | -0.147    | 0         | 0.021     |
| 1158 | 73 | N167       | 258.259  | 314.932  | 783.832  | -0.141    | 0         | 0.02      |
| 1159 | 73 | N168       | -404.951 | 411.757  | 496.53   | 0.131     | 0         | 0.129     |
| 1160 | 73 | N169       | 760.207  | 384.25   | -616.148 | 0.122     | 0         | 0.122     |
| 1161 | 73 | N170       | 697.802  | 479.998  | 628.253  | 0.128     | 0         | -0.168    |
| 1162 | 73 | N171       | -859.476 | 456.641  | -947.789 | 0.122     | 0         | -0.16     |
| 1163 | 73 | N192       | -59.336  | 70.305   | -159.109 | 0         | 0         | 0         |
| 1164 | 73 | N193       | -217.92  | 98.563   | 118.767  | 0         | 0         | 0         |
| 1165 | 73 | N194       | 190.87   | 113.241  | 235.964  | 0         | 0         | 0         |
| 1166 | 73 | N204       | -10.908  | 4.354    | -1.998   | -0.001    | 0         | 0         |
| 1167 | 73 | Totals:    | 216.678  | 2725.945 | 0.001    |           |           |           |
| 1168 | 73 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1169 | 74 | N52        | -14.441  | 8.685    | 54.363   | -0.022    | 0.004     | 0.001     |
| 1170 | 74 | N55        | -116.545 | 23.161   | 20.318   | 0.008     | 0         | 0.024     |
| 1171 | 74 | N113       | 22.732   | 19.754   | 35.96    | 0.036     | 0.012     | -0.022    |
| 1172 | 74 | N53        | 33.394   | 8.447    | -9.849   | -0.002    | 0         | 0.001     |
| 1173 | 74 | N166       | -134.273 | 329.626  | -663.017 | -0.147    | 0         | 0.02      |
| 1174 | 74 | N167       | 257.769  | 314.323  | 794.028  | -0.141    | 0         | 0.02      |
| 1175 | 74 | N168       | -367.253 | 409.136  | 505.04   | 0.13      | 0         | 0.128     |
| 1176 | 74 | N169       | 752.242  | 381.908  | -602.015 | 0.121     | 0         | 0.122     |
| 1177 | 74 | N170       | 726.346  | 482.724  | 710.499  | 0.128     | 0         | -0.169    |
| 1178 | 74 | N171       | -864.427 | 459.139  | -940.668 | 0.123     | 0         | -0.162    |
| 1179 | 74 | N192       | -59.326  | 69.8     | -156.661 | 0         | 0         | 0         |
| 1180 | 74 | N193       | -227.468 | 101.938  | 125.154  | 0         | 0         | 0         |
| 1181 | 74 | N194       | 189.318  | 112.951  | 236.916  | 0         | 0         | 0         |
| 1182 | 74 | N204       | -10.423  | 4.354    | -1.731   | -0.001    | 0         | 0         |
| 1183 | 74 | Totals:    | 187.644  | 2725.945 | 108.338  |           |           |           |
| 1184 | 74 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |
| 1185 | 75 | N52        | -4.365   | 11.573   | 18.583   | -0.022    | 0.003     | 0.001     |
| 1186 | 75 | N55        | -119.345 | 23.348   | 21.101   | 0.008     | 0         | 0.024     |
| 1187 | 75 | N113       | -16.704  | 13.965   | -20.097  | 0.036     | 0.014     | -0.023    |
| 1188 | 75 | N53        | 30.187   | 8.448    | -8.684   | -0.003    | 0         | 0.001     |
| 1189 | 75 | N166       | -162.99  | 327.506  | -606.135 | -0.146    | 0         | 0.02      |
| 1190 | 75 | N167       | 254.215  | 312.278  | 797.444  | -0.14     | 0         | 0.019     |
| 1191 | 75 | N168       | -362.941 | 407.125  | 511.213  | 0.129     | 0         | 0.127     |
| 1192 | 75 | N169       | 737.936  | 380.004  | -589.763 | 0.12      | 0         | 0.121     |
| 1193 | 75 | N170       | 753.175  | 486.433  | 798.209  | 0.129     | 0         | -0.171    |
| 1194 | 75 | N171       | -878.187 | 462.533  | -940.2   | 0.123     | 0         | -0.163    |
| 1195 | 75 | N192       | -58.148  | 71.078   | -160.161 | 0         | 0         | 0         |
| 1196 | 75 | N193       | -238.482 | 105.664  | 131.659  | 0         | 0         | 0         |
| 1197 | 75 | N194       | 184.424  | 111.637  | 236.054  | 0         | 0         | 0         |
| 1198 | 75 | N204       | -10.433  | 4.354    | -1.583   | -0.001    | 0         | 0         |
| 1199 | 75 | Totals:    | 108.341  | 2725.945 | 187.64   |           |           |           |
| 1200 | 75 | COG (ft):  | X: -0.09 | Y: 0.409 | Z: -1.25 |           |           |           |



Company : Tower Engineering Solutions  
Designer : YATISH  
Job Number : Project No. 10311542  
Model Name : 5000078561-VZW\_MT\_LO\_H

7/23/2025  
2:15:33 PM  
Checked By : \_\_\_\_\_

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***Node Reactions (Continued)***

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| LC | Node Label | X [lb] | Y [lb] | Z [lb] | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|----|------------|--------|--------|--------|-----------|-----------|-----------|
|----|------------|--------|--------|--------|-----------|-----------|-----------|

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

| Member | Shape | Code Check | Loc[ft] | LC Shear Check | Loc[ft] | DirLC | phi*Pnc [lb] | phi*Pnt [lb] | phi*Mn y-y [k-ft] | phi*Mn z-z [k-ft] | Cb    | Eqn         |
|--------|-------|------------|---------|----------------|---------|-------|--------------|--------------|-------------------|-------------------|-------|-------------|
| 1      | M104  | PIPE 2.5   | 0.385   | 1.697          | 2       | 0.285 | 1.202        | 8 45708.844  | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 2      | M124  | PIPE 2.0   | 0.264   | 4.5            | 8       | 0.217 | 1            | 8 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 3      | M98   | PIPE 2.5   | 0.255   | 1.697          | 8       | 0.186 | 1.697        | 2 45708.844  | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 4      | M110  | PIPE 2.5   | 0.223   | 1.697          | 11      | 0.184 | 1.697        | 11 45708.844 | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 5      | MP5B  | PIPE 2.0   | 0.172   | 1.75           | 8       | 0.146 | 1.75         | 3 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 6      | M34   | PIPE 2.0   | 0.388   | 0.875          | 5       | 0.134 | 0            | 5 30196.78   | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 7      | M114  | PIPE 2.5   | 0.173   | 0              | 10      | 0.114 | 8.602        | 4 27678.13   | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 8      | MP4B  | PIPE 2.0   | 0.346   | 4.5            | 7       | 0.106 | 1.75         | 8 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 9      | MP2A  | PIPE 2.0   | 0.212   | 1.75           | 8       | 0.104 | 1.75         | 9 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 10     | MP3B  | PIPE 2.0   | 0.213   | 1.75           | 8       | 0.099 | 1.75         | 9 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 11     | M107  | PIPE 2.5   | 0.126   | 1.697          | 7       | 0.097 | 1.697        | 8 45708.844  | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 12     | M103  | PIPE 2.5   | 0.131   | 0              | 1       | 0.096 | 0            | 7 45708.844  | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 13     | M105  | PIPE 2.5   | 0.357   | 0              | 8       | 0.094 | 0            | 2 27678.13   | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 14     | MP5C  | PIPE 2.0   | 0.187   | 4.219          | 29      | 0.092 | 3.281        | 5 23808.54   | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 15     | MP3C  | PIPE 2.0   | 0.178   | 1.75           | 11      | 0.092 | 1.75         | 5 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 16     | M109  | PIPE 2.5   | 0.135   | 0              | 5       | 0.091 | 0            | 6 45708.844  | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 17     | M42   | PIPE 2.0   | 0.179   | 5.82           | 4       | 0.09  | 5.335        | 4 21406.329  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 18     | MP1B  | PIPE 2.0   | 0.249   | 5.25           | 5       | 0.086 | 1.75         | 10 14916.096 | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 19     | M57   | PIPE 2.0   | 0.261   | 0.242          | 5       | 0.084 | 5.335        | 10 21406.329 | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 20     | MP2C  | PIPE 2.0   | 0.262   | 5.25           | 10      | 0.082 | 1.75         | 5 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 21     | MP2B  | PIPE 2.0   | 0.193   | 1.75           | 2       | 0.082 | 1.75         | 3 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 22     | M113  | PIPE 2.5   | 0.123   | 1.697          | 10      | 0.08  | 1.697        | 10 45708.844 | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 23     | M106  | PIPE 2.5   | 0.142   | 0              | 12      | 0.078 | 0            | 5 45708.844  | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 24     | MP1A  | PIPE 2.0   | 0.259   | 5.25           | 1       | 0.077 | 1.75         | 2 14916.096  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 25     | MP4C  | PIPE 2.0   | 0.237   | 0.781          | 11      | 0.075 | 0.781        | 11 23808.54  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 26     | M100  | PIPE 2.5   | 0.178   | 0              | 8       | 0.075 | 0            | 12 45708.844 | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 27     | M56   | PIPE 2.0   | 0.22    | 0.303          | 34      | 0.073 | 5.335        | 34 21406.329 | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 28     | M68   | PIPE 2.0   | 0.019   | 3.5            | 2       | 0.072 | 3.5          | 2 30196.78   | 32130             | 1.872             | 1.872 | 1 H1-1b*    |
| 29     | M127  | HSS3X3X4   | 0.079   | 2              | 8       | 0.071 | 2 z          | 8 97902.683  | 101016            | 8.556             | 8.556 | 1.345 H1-1b |
| 30     | M108  | PIPE 2.5   | 0.182   | 0              | 7       | 0.07  | 0            | 3 27678.13   | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 31     | M41   | PIPE 2.0   | 0.32    | 0              | 11      | 0.068 | 0            | 35 21406.329 | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 32     | M102  | PIPE 2.5   | 0.142   | 8.602          | 7       | 0.068 | 8.602        | 1 27678.13   | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 33     | M89   | PIPE 2.0   | 0.18    | 5.82           | 8       | 0.066 | 5.335        | 8 21406.329  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 34     | M111  | PIPE 2.5   | 0.202   | 0              | 11      | 0.066 | 8.602        | 9 27678.13   | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 35     | M77   | PL3/8X3.5  | 0.45    | 0.459          | 3       | 0.063 | 0 y          | 2 37107.772  | 42525             | 0.332             | 3.055 | 1.003 H1-1b |
| 36     | M101  | PIPE 2.5   | 0.085   | 1.697          | 2       | 0.063 | 1.697        | 2 45708.844  | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 37     | MP4A  | PIPE 2.0   | 0.118   | 0.781          | 2       | 0.063 | 4.219        | 8 23808.54   | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 38     | M64   | PL3/8X3.5  | 0.557   | 0.459          | 34      | 0.062 | 0.459 z      | 35 37107.772 | 42525             | 0.332             | 3.101 | 1.037 H1-1b |
| 39     | M99   | PIPE 2.5   | 0.236   | 0              | 2       | 0.06  | 0            | 8 27678.13   | 50715             | 3.596             | 3.596 | 1 H1-1b     |
| 40     | M18   | PL3/8X3.5  | 0.282   | 0.459          | 50      | 0.06  | 0.459 y      | 11 37107.772 | 42525             | 0.332             | 3.101 | 1.069 H1-1b |
| 41     | M65   | PL3/8X3.5  | 0.39    | 0.459          | 8       | 0.06  | 0.459 y      | 30 37107.772 | 42525             | 0.332             | 3.101 | 1.111 H1-1b |
| 42     | M43   | PL3/8X3.5  | 0.523   | 0.459          | 29      | 0.06  | 0 y          | 6 37107.772  | 42525             | 0.332             | 3.101 | 1.021 H1-1b |
| 43     | M90   | PIPE 2.0   | 0.28    | 0.242          | 2       | 0.06  | 5.335        | 4 21406.329  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 44     | MP3A  | PIPE 2.0   | 0.182   | 0.781          | 2       | 0.059 | 0.781        | 8 23808.54   | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 45     | M73   | PL3/8X3.5  | 0.537   | 0.459          | 3       | 0.056 | 0 y          | 8 37107.772  | 42525             | 0.332             | 3.101 | 1.045 H1-1b |
| 46     | MP1C  | PIPE 2.0   | 0.087   | 5.25           | 9       | 0.055 | 1.75         | 12 14916.096 | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 47     | M21   | PL3/8X3.5  | 0.269   | 0.459          | 49      | 0.055 | 0.005 y      | 8 37107.772  | 42525             | 0.332             | 3.101 | 1.082 H1-1b |
| 48     | M137  | PIPE 2.0   | 0.021   | 2.972          | 8       | 0.055 | 2.972        | 8 28901.8    | 32130             | 1.872             | 1.872 | 1 H1-1b*    |
| 49     | M39   | PL3/8X3.5  | 0.493   | 0.459          | 6       | 0.055 | 0 y          | 30 37107.772 | 42525             | 0.332             | 3.101 | 1.03 H1-1b  |
| 50     | M75   | PIPE 2.0   | 0.302   | 2.728          | 8       | 0.053 | 5.335        | 2 21406.329  | 32130             | 1.872             | 1.872 | 1 H1-1a     |
| 51     | M96   | PL3/8X3.5  | 0.386   | 0.459          | 3       | 0.052 | 0.459 y      | 6 37107.772  | 42525             | 0.332             | 3.101 | 1.021 H1-1b |
| 52     | M2    | PIPE 2.0   | 0.015   | 3.5            | 49      | 0.052 | 3.5          | 2 30196.78   | 32130             | 1.872             | 1.872 | 1 H1-1b*    |
| 53     | M95   | PL3/8X3.5  | 0.386   | 0.459          | 4       | 0.051 | 0.459 y      | 3 37107.772  | 42525             | 0.332             | 3.101 | 1.129 H1-1b |
| 54     | M17   | PIPE 2.0   | 0.157   | 0.303          | 11      | 0.051 | 5.335        | 7 21406.329  | 32130             | 1.872             | 1.872 | 1 H1-1b     |
| 55     | M16   | PIPE 2.0   | 0.165   | 0.242          | 9       | 0.05  | 5.335        | 12 21406.329 | 32130             | 1.872             | 1.872 | 1 H1-1b     |

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

| Member | Shape | Code Check | Loc(ft) | LC Shear Check | Loc(ft) | DirLC | phi*Pnc [lb] | phi*Pnt [lb] | phi*Mn y-y [k-ft] | phi*Mn z-z [k-ft] | Cb    | Eqn    |
|--------|-------|------------|---------|----------------|---------|-------|--------------|--------------|-------------------|-------------------|-------|--------|
| 56     | M76   | PIPE 2.0   | 0.164   | 0.303          | 3       |       | 5.335        | 12 21406.329 | 32130             | 1.872             | 1     | H1-1b  |
| 57     | M54   | PIPE 1.25  | 0.059   | 4.244          | 6       |       | 4.244        | 11 16271.96  | 19687.5           | 0.801             | 1     | H1-1b* |
| 58     | M20   | PL3/8X3.5  | 0.363   | 0.459          | 11      | y     | 0.459        | 1 37107.772  | 42525             | 0.332             | 1.036 | H1-1b  |
| 59     | M115  | PIPE 2.5   | 0.066   | 0              | 9       |       | 0            | 8 45708.844  | 50715             | 3.596             | 1     | H1-1b  |
| 60     | MP7C  | PIPE 1.25  | 0.225   | 1.75           | 8       |       | 3.5          | 11 17294.934 | 19687.5           | 0.801             | 1     | H1-1b  |
| 61     | M52   | PIPE 1.25  | 0.04    | 3.5            | 34      |       | 3.5          | 30 17294.934 | 19687.5           | 0.801             | 1     | H1-1b* |
| 62     | M35   | PIPE 1.25  | 0.087   | 0              | 34      |       | 4.244        | 11 16271.96  | 19687.5           | 0.801             | 1     | H1-1b* |
| 63     | M14   | PIPE 2.0   | 0.192   | 0.242          | 3       |       | 0            | 50 21406.329 | 32130             | 1.872             | 1     | H1-1b  |
| 64     | M33   | PIPE 1.25  | 0.027   | 3.5            | 8       |       | 3.5          | 30 17294.934 | 19687.5           | 0.801             | 1     | H1-1b* |
| 65     | M15   | PIPE 2.0   | 0.107   | 0.303          | 49      |       | 0            | 50 21406.329 | 32130             | 1.872             | 1     | H1-1b  |
| 66     | M86   | PIPE 1.25  | 0.055   | 3.5            | 3       |       | 3.5          | 12 17294.934 | 19687.5           | 0.801             | 1     | H1-1b* |
| 67     | M83   | PIPE 2.0   | 0.019   | 3.5            | 4       |       | 3.5          | 9 30196.78   | 32130             | 1.872             | 1     | H1-1b* |
| 68     | M84   | PIPE 1.25  | 0.051   | 3.5            | 51      |       | 3.5          | 3 17294.934  | 19687.5           | 0.801             | 1     | H1-1b* |
| 69     | MP6C  | PIPE 2.0   | 0.065   | 1.625          | 2       |       | 5.125        | 31 20866.733 | 32130             | 1.872             | 1     | H1-1b  |
| 70     | M87   | PIPE 1.25  | 0.067   | 4.244          | 3       |       | 4.244        | 1 16271.958  | 19687.5           | 0.801             | 1     | H1-1b* |
| 71     | M69   | PIPE 1.25  | 0.061   | 0              | 51      |       | 4.244        | 8 16271.96   | 19687.5           | 0.801             | 1     | H1-1b* |
| 72     | M50   | PIPE 2.0   | 0.02    | 3.5            | 9       |       | 3.5          | 12 30196.78  | 32130             | 1.872             | 1     | H1-1b* |
| 73     | M36   | PIPE 2.0   | 0.109   | 6.165          | 6       |       | 6.165        | 36 20369.988 | 32130             | 1.872             | 1     | H1-1b  |
| 74     | M112  | PIPE 2.5   | 0.079   | 0              | 5       |       | 0            | 6 45708.844  | 50715             | 3.596             | 1     | H1-1b  |
| 75     | M3    | PIPE 2.0   | 0.016   | 3.5            | 12      |       | 3.5          | 2 30196.78   | 32130             | 1.872             | 1     | H1-1b* |
| 76     | M51   | PIPE 1.25  | 0.075   | 3.5            | 34      |       | 3.5          | 11 17294.934 | 19687.5           | 0.801             | 1     | H1-1b* |
| 77     | M85   | PIPE 1.25  | 0.028   | 3.5            | 51      |       | 3.5          | 3 17294.934  | 19687.5           | 0.801             | 1     | H1-1b* |
| 78     | M7    | PIPE 1.25  | 0.046   | 3.5            | 8       |       | 3.5          | 2 17294.934  | 19687.5           | 0.801             | 1     | H1-1b* |
| 79     | M70   | PIPE 2.0   | 0.173   | 5.922          | 3       |       | 5.922        | 9 21101.842  | 32130             | 1.872             | 1     | H1-1b  |
| 80     | M67   | PIPE 1.25  | 0.031   | 3.5            | 3       |       | 3.5          | 3 17294.934  | 19687.5           | 0.801             | 1     | H1-1b* |
| 81     | M72   | PIPE 1.25  | 0.053   | 4.355          | 3       |       | 4.355        | 3 16108.804  | 19687.5           | 0.801             | 1     | H1-1b* |
| 82     | M4    | PIPE 1.25  | 0.039   | 3.5            | 50      |       | 3.5          | 2 17294.934  | 19687.5           | 0.801             | 1     | H1-1b* |
| 83     | M19   | PL3/8X3.5  | 0.388   | 0.459          | 8       | z     | 0.459        | 11 37107.772 | 42525             | 0.332             | 1.02  | H1-1b  |
| 84     | M10   | PIPE 1.25  | 0.058   | 0              | 8       |       | 4.244        | 3 16271.96   | 19687.5           | 0.801             | 1     | H1-1b* |
| 85     | M126  | HSS3X3X4   | 0.057   | 0              | 8       | y     | 2            | 7 97902.683  | 101016            | 8.556             | 1.596 | H1-1b  |
| 86     | M139  | PIPE 1.0   | 0.064   | 3.126          | 1       |       | 6.251        | 11 3332.229  | 14773.5           | 0.465             | 1     | H1-1b  |
| 87     | M31   | PIPE 2.0   | 0.115   | 0              | 8       |       | 6.486        | 11 19401.402 | 32130             | 1.872             | 1     | H1-1b* |
| 88     | M38   | PIPE 1.25  | 0.048   | 4.355          | 8       |       | 4.355        | 9 16108.804  | 19687.5           | 0.801             | 1     | H1-1b* |
| 89     | M8    | PIPE 1.25  | 0.049   | 0              | 50      |       | 4.244        | 4 16271.96   | 19687.5           | 0.801             | 1     | H1-1b* |
| 90     | M5    | PIPE 1.25  | 0.023   | 3.5            | 50      |       | 3.5          | 3 17294.934  | 19687.5           | 0.801             | 1     | H1-1b* |
| 91     | M97   | PIPE 2.0   | 0.049   | 0              | 5       |       | 5.586        | 12 22101.357 | 32130             | 1.872             | 1     | H1-1b* |
| 92     | M6    | PIPE 1.25  | 0.027   | 3.5            | 8       |       | 3.5          | 4 17294.934  | 19687.5           | 0.801             | 1     | H1-1b* |
| 93     | M11   | PIPE 1.25  | 0.045   | 0              | 8       |       | 4.355        | 11 16108.804 | 19687.5           | 0.801             | 1     | H1-1b* |
| 94     | M9    | PIPE 1.25  | 0.035   | 0              | 49      |       | 4.355        | 12 16108.804 | 19687.5           | 0.801             | 1     | H1-1b* |
| 95     | M37   | PIPE 1.25  | 0.077   | 0              | 33      |       | 4.355        | 11 16108.806 | 19687.5           | 0.801             | 1     | H1-1b* |
| 96     | M71   | PIPE 1.25  | 0.05    | 0              | 4       |       | 4.355        | 4 16108.804  | 19687.5           | 0.801             | 1     | H1-1b* |
| 97     | M128  | L2.5X2.5X4 | 0.112   | 2.938          | 11      | z     | 5.876        | 11 12563.447 | 38556             | 1.114             | 1.136 | H2-1   |
| 98     | M130  | L2.5X2.5X4 | 0.077   | 2.91           | 7       | z     | 5.82         | 7 12802.937  | 38556             | 1.114             | 1.136 | H2-1   |
| 99     | M133  | L2.5X2.5X4 | 0.082   | 2.947          | 7       | z     | 5.895        | 7 12481.835  | 38556             | 1.114             | 1.136 | H2-1   |
| 100    | M131  | L2.5X2.5X4 | 0.082   | 2.954          | 11      | z     | 5.908        | 11 12424.528 | 38556             | 1.114             | 1.136 | H2-1   |
| 101    | M129  | L2.5X2.5X4 | 0.087   | 2.938          | 3       | z     | 5.876        | 9 12563.447  | 38556             | 1.114             | 1.136 | H2-1   |
| 102    | M132  | L2.5X2.5X4 | 0.082   | 2.925          | 3       | z     | 5.85         | 4 12671.808  | 38556             | 1.114             | 1.136 | H2-1   |

**Envelope AISI S100-16: LRFD Member Cold Formed Steel Code Checks**

No Data to Print...

| <br><b>TES</b><br>A CONGRUEX COMPANY | Threaded Bolts Connection Check |                | Date              |                |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|-------------------|----------------|
|                                                                                                                       |                                 |                | 7/23/2025         |                |
|                                                                                                                       | Customer:                       | VZW            | TIA Standard:     | ANSI/TIA-222-H |
|                                                                                                                       | Carrier:                        | VZW            | Mount Elev. [ft]: | 150.5          |
|                                                                                                                       | Site Name:                      | COMMERCE       | Engineer Name:    | S. Bhujel      |
|                                                                                                                       | Site Number:                    | 5000078561-VZW | TES Project #:    | 10311542       |
| NOTE: The results for all load combinations are presented in the Results Summary Table.                               |                                 |                |                   |                |

|                            |        |             |
|----------------------------|--------|-------------|
| RISA Member Label =        | M117   |             |
| I or J End?                | J      |             |
| Load Combination # =       | 47     |             |
| Con. Configuration # =     | 6      |             |
| Bolt Material =            | A36    |             |
| Bolt Diameter =            | 0.5    | [in]        |
| # U-Bolts =                | 2      |             |
| Bolt Fy =                  | 36     | [KSI]       |
| Bolt Fu =                  | 58     | [KSI]       |
| Vertical Spacing, Sv =     | 4.0    | [in]        |
| Bracket/Plate Height, Hb = | 6.0    | [in]        |
| Tower Leg Type =           | Round  |             |
| Tower Leg Size =           | 2.50   | [in]        |
| Bolt Pretension, P =       | 3.9270 | [Kips/bolt] |

Check Tension:

|                           |        |             |
|---------------------------|--------|-------------|
| Applied Tension, T =      | 3.9270 | [Kips/bolt] |
| Tension Capacity, ΦRnt =  | 6.1726 | [Kips/bolt] |
| Tension Check, (T/ΦRnt) = | 63.6%  |             |

Check Sliding:

|                            |        |             |
|----------------------------|--------|-------------|
| Applied Shear, Vy =        | 0.5916 | [Kips/bolt] |
| Sliding Capacity, ΦRns =   | 2.3562 | [Kips/bolt] |
| Sliding Check, (Vy/ΦRns) = | 25.1%  |             |

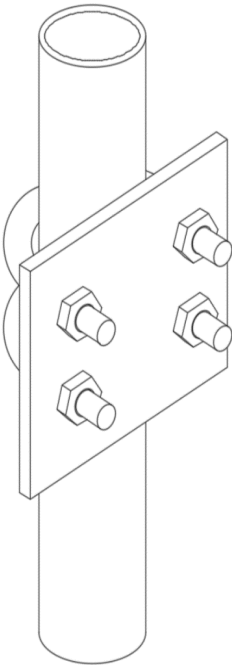
Check Rotation:

|                             |        |        |
|-----------------------------|--------|--------|
| Applied Moment, My =        | 0.0000 | [K-Ft] |
| Rotation Capacity, ΦRnr =   | 0.4909 | [K-Ft] |
| Rotation Check, (My/ΦRnr) = | Pass   |        |

Check Interaction:

$$\left(\frac{V_{us}}{\phi_u R_{ns}}\right)^2 + \left(\frac{T_{ur}}{\phi_u R_{nr}}\right)^2 \leq 1.0$$

|                     |        |
|---------------------|--------|
| Interaction Ratio = | 0.0630 |
| Max Usage =         | 25.1%  |

|                                                                                      |                 |
|--------------------------------------------------------------------------------------|-----------------|
|  | Configuration 6 |
|                                                                                      |                 |
|                                                                                      | Notes           |

|  <b>TES</b><br>A CONGRUEX COMPANY | Threaded Bolts Connection Check |                |                   | Date           |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|-------------------|----------------|
|                                                                                                                    | Customer:                       | VZW            | TIA Standard:     | ANSI/TIA-222-H |
|                                                                                                                    | Carrier:                        | VZW            | Mount Elev. [ft]: | 150.5          |
|                                                                                                                    | Site Name:                      | COMMERCE       | Engineer Name:    | S. Bhujel      |
|                                                                                                                    | Site Number:                    | 5000078561-VZW | TES Project #:    | 10311542       |

**Results Summary Table**

| Member Label | Member End | LC | Max. Tension<br>[Kips] | Shear<br>[Kips] | My [K-Ft] | Tension<br>Check | Sliding Check | Rotation<br>Check | Interaction<br>Check |
|--------------|------------|----|------------------------|-----------------|-----------|------------------|---------------|-------------------|----------------------|
| M116         | J          | 1  | 3.9270                 | 0.2204          | 0.0000    | 63.6%            | 9.4%          | Pass              | 9.4%                 |
| M116         | J          | 2  | 3.9270                 | 0.1634          | 0.0000    | 63.6%            | 6.9%          | Pass              | 6.9%                 |
| M116         | J          | 3  | 3.9270                 | 0.1561          | 0.0000    | 63.6%            | 6.6%          | Pass              | 6.6%                 |
| M116         | J          | 4  | 3.9270                 | 0.1613          | 0.0000    | 63.6%            | 6.8%          | Pass              | 6.8%                 |
| M116         | J          | 5  | 3.9270                 | 0.1497          | 0.0000    | 63.6%            | 6.4%          | Pass              | 6.4%                 |
| M116         | J          | 6  | 3.9270                 | 0.1629          | 0.0000    | 63.6%            | 6.9%          | Pass              | 6.9%                 |
| M116         | J          | 7  | 3.9270                 | 0.2256          | 0.0000    | 63.6%            | 11.5%         | Pass              | 11.5%                |
| M116         | J          | 8  | 3.9270                 | 0.2833          | 0.0000    | 63.6%            | 16.5%         | Pass              | 16.5%                |
| M116         | J          | 9  | 3.9270                 | 0.2911          | 0.0000    | 63.6%            | 16.3%         | Pass              | 16.3%                |
| M116         | J          | 10 | 3.9270                 | 0.2858          | 0.0000    | 63.6%            | 15.0%         | Pass              | 15.0%                |
| M116         | J          | 11 | 3.9270                 | 0.2978          | 0.0000    | 63.6%            | 15.3%         | Pass              | 15.3%                |
| M116         | J          | 12 | 3.9270                 | 0.2843          | 0.0000    | 63.6%            | 13.4%         | Pass              | 13.4%                |
| M116         | J          | 13 | 3.9270                 | 0.2245          | 0.0000    | 63.6%            | 10.0%         | Pass              | 10.0%                |
| M116         | J          | 14 | 3.9270                 | 0.2228          | 0.0000    | 63.6%            | 9.9%          | Pass              | 9.9%                 |
| M116         | J          | 15 | 3.9270                 | 0.2217          | 0.0000    | 63.6%            | 9.9%          | Pass              | 9.9%                 |
| M116         | J          | 16 | 3.9270                 | 0.2212          | 0.0000    | 63.6%            | 9.8%          | Pass              | 9.8%                 |
| M116         | J          | 17 | 3.9270                 | 0.2206          | 0.0000    | 63.6%            | 9.8%          | Pass              | 9.8%                 |
| M116         | J          | 18 | 3.9270                 | 0.2207          | 0.0000    | 63.6%            | 9.8%          | Pass              | 9.8%                 |
| M116         | J          | 19 | 3.9270                 | 0.2220          | 0.0000    | 63.6%            | 9.9%          | Pass              | 9.9%                 |
| M116         | J          | 20 | 3.9270                 | 0.2237          | 0.0000    | 63.6%            | 10.1%         | Pass              | 10.1%                |
| M116         | J          | 21 | 3.9270                 | 0.2248          | 0.0000    | 63.6%            | 10.1%         | Pass              | 10.1%                |
| M116         | J          | 22 | 3.9270                 | 0.2253          | 0.0000    | 63.6%            | 10.1%         | Pass              | 10.1%                |
| M116         | J          | 23 | 3.9270                 | 0.2258          | 0.0000    | 63.6%            | 10.2%         | Pass              | 10.2%                |
| M116         | J          | 24 | 3.9270                 | 0.2258          | 0.0000    | 63.6%            | 10.1%         | Pass              | 10.1%                |
| M116         | J          | 25 | 3.9270                 | 0.2231          | 0.0000    | 63.6%            | 9.9%          | Pass              | 9.9%                 |
| M116         | J          | 26 | 3.9270                 | 0.2194          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 27 | 3.9270                 | 0.2190          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 28 | 3.9270                 | 0.2193          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 29 | 3.9270                 | 0.2185          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 30 | 3.9270                 | 0.2194          | 0.0000    | 63.6%            | 9.8%          | Pass              | 9.8%                 |
| M116         | J          | 31 | 3.9270                 | 0.2234          | 0.0000    | 63.6%            | 10.1%         | Pass              | 10.1%                |
| M116         | J          | 32 | 3.9270                 | 0.2271          | 0.0000    | 63.6%            | 10.3%         | Pass              | 10.3%                |
| M116         | J          | 33 | 3.9270                 | 0.2275          | 0.0000    | 63.6%            | 10.3%         | Pass              | 10.3%                |
| M116         | J          | 34 | 3.9270                 | 0.2272          | 0.0000    | 63.6%            | 10.3%         | Pass              | 10.3%                |
| M116         | J          | 35 | 3.9270                 | 0.2279          | 0.0000    | 63.6%            | 10.3%         | Pass              | 10.3%                |
| M116         | J          | 36 | 3.9270                 | 0.2271          | 0.0000    | 63.6%            | 10.2%         | Pass              | 10.2%                |
| M116         | J          | 37 | 3.9270                 | 0.2231          | 0.0000    | 63.6%            | 9.9%          | Pass              | 9.9%                 |
| M116         | J          | 38 | 3.9270                 | 0.2194          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 39 | 3.9270                 | 0.2190          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 40 | 3.9270                 | 0.2193          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 41 | 3.9270                 | 0.2185          | 0.0000    | 63.6%            | 9.7%          | Pass              | 9.7%                 |
| M116         | J          | 42 | 3.9270                 | 0.2194          | 0.0000    | 63.6%            | 9.8%          | Pass              | 9.8%                 |
| M116         | J          | 43 | 3.9270                 | 0.2234          | 0.0000    | 63.6%            | 10.1%         | Pass              | 10.1%                |
| M116         | J          | 44 | 3.9270                 | 0.2271          | 0.0000    | 63.6%            | 10.3%         | Pass              | 10.3%                |
| M116         | J          | 45 | 3.9270                 | 0.2275          | 0.0000    | 63.6%            | 10.3%         | Pass              | 10.3%                |

|  <b>TES</b><br>A CONGRUEX COMPANY | Threaded Bolts Connection Check |                |                   | Date           |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|-------------------|----------------|
|                                                                                                                    | Customer:                       | VZW            | TIA Standard:     | ANSI/TIA-222-H |
|                                                                                                                    | Carrier:                        | VZW            | Mount Elev. [ft]: | 150.5          |
|                                                                                                                    | Site Name:                      | COMMERCE       | Engineer Name:    | S. Bhujel      |
|                                                                                                                    | Site Number:                    | 5000078561-VZW | TES Project #:    | 10311542       |

**Results Summary Table (continued)**

| Member Label | Member End | LC | Max. Tension [Kips] | Shear [Kips] | My [K-Ft] | Tension Check | Sliding Check | Rotation Check | Interaction Check |
|--------------|------------|----|---------------------|--------------|-----------|---------------|---------------|----------------|-------------------|
| M116         | J          | 46 | 3.9270              | 0.2272       | 0.0000    | 63.6%         | 10.3%         | Pass           | 10.3%             |
| M116         | J          | 47 | 3.9270              | 0.2279       | 0.0000    | 63.6%         | 10.3%         | Pass           | 10.3%             |
| M116         | J          | 48 | 3.9270              | 0.2271       | 0.0000    | 63.6%         | 10.2%         | Pass           | 10.2%             |
| M116         | J          | 49 | 3.9270              | 0.3146       | 0.0000    | 63.6%         | 14.4%         | Pass           | 14.4%             |
| M116         | J          | 50 | 3.9270              | 0.3161       | 0.0000    | 63.6%         | 14.3%         | Pass           | 14.3%             |
| M116         | J          | 51 | 3.9270              | 0.2607       | 0.0000    | 63.6%         | 11.8%         | Pass           | 11.8%             |
| M116         | J          | 52 | 3.9270              | 0.2286       | 0.0000    | 63.6%         | 10.2%         | Pass           | 10.2%             |
| M116         | J          | 53 | 3.9270              | 0.2270       | 0.0000    | 63.6%         | 10.1%         | Pass           | 10.1%             |
| M116         | J          | 54 | 3.9270              | 0.2258       | 0.0000    | 63.6%         | 10.0%         | Pass           | 10.0%             |
| M116         | J          | 55 | 3.9270              | 0.2253       | 0.0000    | 63.6%         | 10.0%         | Pass           | 10.0%             |
| M116         | J          | 56 | 3.9270              | 0.2256       | 0.0000    | 63.6%         | 10.1%         | Pass           | 10.1%             |
| M116         | J          | 57 | 3.9270              | 0.2267       | 0.0000    | 63.6%         | 10.1%         | Pass           | 10.1%             |
| M116         | J          | 58 | 3.9270              | 0.2282       | 0.0000    | 63.6%         | 10.3%         | Pass           | 10.3%             |
| M116         | J          | 59 | 3.9270              | 0.2298       | 0.0000    | 63.6%         | 10.4%         | Pass           | 10.4%             |
| M116         | J          | 60 | 3.9270              | 0.2310       | 0.0000    | 63.6%         | 10.4%         | Pass           | 10.4%             |
| M116         | J          | 61 | 3.9270              | 0.2316       | 0.0000    | 63.6%         | 10.5%         | Pass           | 10.5%             |
| M116         | J          | 62 | 3.9270              | 0.2312       | 0.0000    | 63.6%         | 10.4%         | Pass           | 10.4%             |
| M116         | J          | 63 | 3.9270              | 0.2302       | 0.0000    | 63.6%         | 10.3%         | Pass           | 10.3%             |
| M116         | J          | 64 | 3.9270              | 0.1622       | 0.0000    | 63.6%         | 7.1%          | Pass           | 7.1%              |
| M116         | J          | 65 | 3.9270              | 0.1606       | 0.0000    | 63.6%         | 7.0%          | Pass           | 7.0%              |
| M116         | J          | 66 | 3.9270              | 0.1594       | 0.0000    | 63.6%         | 7.0%          | Pass           | 7.0%              |
| M116         | J          | 67 | 3.9270              | 0.1589       | 0.0000    | 63.6%         | 7.0%          | Pass           | 7.0%              |
| M116         | J          | 68 | 3.9270              | 0.1592       | 0.0000    | 63.6%         | 7.0%          | Pass           | 7.0%              |
| M116         | J          | 69 | 3.9270              | 0.1603       | 0.0000    | 63.6%         | 7.1%          | Pass           | 7.1%              |
| M116         | J          | 70 | 3.9270              | 0.1618       | 0.0000    | 63.6%         | 7.2%          | Pass           | 7.2%              |
| M116         | J          | 71 | 3.9270              | 0.1634       | 0.0000    | 63.6%         | 7.2%          | Pass           | 7.2%              |
| M116         | J          | 72 | 3.9270              | 0.1646       | 0.0000    | 63.6%         | 7.3%          | Pass           | 7.3%              |
| M116         | J          | 73 | 3.9270              | 0.1651       | 0.0000    | 63.6%         | 7.3%          | Pass           | 7.3%              |
| M116         | J          | 74 | 3.9270              | 0.1648       | 0.0000    | 63.6%         | 7.3%          | Pass           | 7.3%              |
| M116         | J          | 75 | 3.9270              | 0.1638       | 0.0000    | 63.6%         | 7.2%          | Pass           | 7.2%              |
| M117         | J          | 1  | 3.9270              | 0.2087       | 0.0000    | 63.6%         | 8.9%          | Pass           | 8.9%              |
| M117         | J          | 2  | 3.9270              | 0.1541       | 0.0000    | 63.6%         | 6.5%          | Pass           | 6.5%              |
| M117         | J          | 3  | 3.9270              | 0.1475       | 0.0000    | 63.6%         | 6.3%          | Pass           | 6.3%              |
| M117         | J          | 4  | 3.9270              | 0.1530       | 0.0000    | 63.6%         | 6.5%          | Pass           | 6.5%              |
| M117         | J          | 5  | 3.9270              | 0.1418       | 0.0000    | 63.6%         | 6.0%          | Pass           | 6.0%              |
| M117         | J          | 6  | 3.9270              | 0.1548       | 0.0000    | 63.6%         | 6.6%          | Pass           | 6.6%              |
| M117         | J          | 7  | 3.9270              | 0.2152       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 8  | 3.9270              | 0.2690       | 0.0000    | 63.6%         | 11.4%         | Pass           | 11.4%             |
| M117         | J          | 9  | 3.9270              | 0.2757       | 0.0000    | 63.6%         | 11.7%         | Pass           | 11.7%             |
| M117         | J          | 10 | 3.9270              | 0.2704       | 0.0000    | 63.6%         | 11.5%         | Pass           | 11.5%             |
| M117         | J          | 11 | 3.9270              | 0.2815       | 0.0000    | 63.6%         | 11.9%         | Pass           | 11.9%             |
| M117         | J          | 12 | 3.9270              | 0.2689       | 0.0000    | 63.6%         | 11.4%         | Pass           | 11.4%             |
| M117         | J          | 13 | 3.9270              | 0.2133       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 14 | 3.9270              | 0.2117       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M117         | J          | 15 | 3.9270              | 0.2107       | 0.0000    | 63.6%         | 8.9%          | Pass           | 8.9%              |
| M117         | J          | 16 | 3.9270              | 0.2103       | 0.0000    | 63.6%         | 8.9%          | Pass           | 8.9%              |

|  <b>TES</b><br>A CONGRUEX COMPANY | Threaded Bolts Connection Check |                |                   | Date           |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|-------------------|----------------|
|                                                                                                                    | Customer:                       | VZW            | TIA Standard:     | ANSI/TIA-222-H |
|                                                                                                                    | Carrier:                        | VZW            | Mount Elev. [ft]: | 150.5          |
|                                                                                                                    | Site Name:                      | COMMERCE       | Engineer Name:    | S. Bhujel      |
|                                                                                                                    | Site Number:                    | 5000078561-VZW | TES Project #:    | 10311542       |

**Results Summary Table (continued)**

| Member Label | Member End | LC | Max. Tension [Kips] | Shear [Kips] | My [K-Ft] | Tension Check | Sliding Check | Rotation Check | Interaction Check |
|--------------|------------|----|---------------------|--------------|-----------|---------------|---------------|----------------|-------------------|
| M117         | J          | 17 | 3.9270              | 0.2097       | 0.0000    | 63.6%         | 8.9%          | Pass           | 8.9%              |
| M117         | J          | 18 | 3.9270              | 0.2098       | 0.0000    | 63.6%         | 8.9%          | Pass           | 8.9%              |
| M117         | J          | 19 | 3.9270              | 0.2110       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M117         | J          | 20 | 3.9270              | 0.2126       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M117         | J          | 21 | 3.9270              | 0.2136       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 22 | 3.9270              | 0.2140       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 23 | 3.9270              | 0.2146       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 24 | 3.9270              | 0.2145       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 25 | 3.9270              | 0.2119       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M117         | J          | 26 | 3.9270              | 0.2085       | 0.0000    | 63.6%         | 8.8%          | Pass           | 8.8%              |
| M117         | J          | 27 | 3.9270              | 0.2081       | 0.0000    | 63.6%         | 8.8%          | Pass           | 8.8%              |
| M117         | J          | 28 | 3.9270              | 0.2084       | 0.0000    | 63.6%         | 8.8%          | Pass           | 8.8%              |
| M117         | J          | 29 | 3.9270              | 0.2077       | 0.0000    | 63.6%         | 8.8%          | Pass           | 8.8%              |
| M117         | J          | 30 | 3.9270              | 0.2085       | 0.0000    | 63.6%         | 8.9%          | Pass           | 8.9%              |
| M117         | J          | 31 | 3.9270              | 0.2124       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M117         | J          | 32 | 3.9270              | 0.2158       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 33 | 3.9270              | 0.2162       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 34 | 3.9270              | 0.2159       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 35 | 3.9270              | 0.2166       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 36 | 3.9270              | 0.2158       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 37 | 3.9270              | 0.5869       | 0.0000    | 63.6%         | 24.9%         | Pass           | 24.9%             |
| M117         | J          | 38 | 3.9270              | 0.5835       | 0.0000    | 63.6%         | 24.8%         | Pass           | 24.8%             |
| M117         | J          | 39 | 3.9270              | 0.5831       | 0.0000    | 63.6%         | 24.7%         | Pass           | 24.7%             |
| M117         | J          | 40 | 3.9270              | 0.5834       | 0.0000    | 63.6%         | 24.8%         | Pass           | 24.8%             |
| M117         | J          | 41 | 3.9270              | 0.5827       | 0.0000    | 63.6%         | 24.7%         | Pass           | 24.7%             |
| M117         | J          | 42 | 3.9270              | 0.5835       | 0.0000    | 63.6%         | 24.8%         | Pass           | 24.8%             |
| M117         | J          | 43 | 3.9270              | 0.5874       | 0.0000    | 63.6%         | 24.9%         | Pass           | 24.9%             |
| M117         | J          | 44 | 3.9270              | 0.5908       | 0.0000    | 63.6%         | 25.1%         | Pass           | 25.1%             |
| M117         | J          | 45 | 3.9270              | 0.5912       | 0.0000    | 63.6%         | 25.1%         | Pass           | 25.1%             |
| M117         | J          | 46 | 3.9270              | 0.5909       | 0.0000    | 63.6%         | 25.1%         | Pass           | 25.1%             |
| M117         | J          | 47 | 3.9270              | 0.5916       | 0.0000    | 63.6%         | 25.1%         | Pass           | 25.1%             |
| M117         | J          | 48 | 3.9270              | 0.5908       | 0.0000    | 63.6%         | 25.1%         | Pass           | 25.1%             |
| M117         | J          | 49 | 3.9270              | 0.2979       | 0.0000    | 63.6%         | 12.6%         | Pass           | 12.6%             |
| M117         | J          | 50 | 3.9270              | 0.2991       | 0.0000    | 63.6%         | 12.7%         | Pass           | 12.7%             |
| M117         | J          | 51 | 3.9270              | 0.2472       | 0.0000    | 63.6%         | 10.5%         | Pass           | 10.5%             |
| M117         | J          | 52 | 3.9270              | 0.2172       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 53 | 3.9270              | 0.2157       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 54 | 3.9270              | 0.2145       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 55 | 3.9270              | 0.2141       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 56 | 3.9270              | 0.2144       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 57 | 3.9270              | 0.2154       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M117         | J          | 58 | 3.9270              | 0.2168       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M117         | J          | 59 | 3.9270              | 0.2183       | 0.0000    | 63.6%         | 9.3%          | Pass           | 9.3%              |
| M117         | J          | 60 | 3.9270              | 0.2195       | 0.0000    | 63.6%         | 9.3%          | Pass           | 9.3%              |
| M117         | J          | 61 | 3.9270              | 0.2200       | 0.0000    | 63.6%         | 9.3%          | Pass           | 9.3%              |

|  <b>TES</b><br>A CONGRUEX <sup>®</sup> COMPANY | Threaded Bolts Connection Check |                |                   | Date           |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|-------------------|----------------|
|                                                                                                                                 | Customer:                       | VZW            | TIA Standard:     | ANSI/TIA-222-H |
|                                                                                                                                 | Carrier:                        | VZW            | Mount Elev. [ft]: | 150.5          |
|                                                                                                                                 | Site Name:                      | COMMERCE       | Engineer Name:    | S. Bhujel      |
|                                                                                                                                 | Site Number:                    | 5000078561-VZW | TES Project #:    | 10311542       |

#### Results Summary Table (continued)

| Member Label | Member End | LC | Max. Tension<br>[Kips] | Shear<br>[Kips] | My [K-Ft] | Tension<br>Check | Sliding Check | Rotation<br>Check | Interaction<br>Check |
|--------------|------------|----|------------------------|-----------------|-----------|------------------|---------------|-------------------|----------------------|
| M117         | J          | 62 | 3.9270                 | 0.2197          | 0.0000    | 63.6%            | 9.3%          | Pass              | 9.3%                 |
| M117         | J          | 63 | 3.9270                 | 0.2187          | 0.0000    | 63.6%            | 9.3%          | Pass              | 9.3%                 |
| M117         | J          | 64 | 3.9270                 | 0.1547          | 0.0000    | 63.6%            | 6.6%          | Pass              | 6.6%                 |
| M117         | J          | 65 | 3.9270                 | 0.1532          | 0.0000    | 63.6%            | 6.5%          | Pass              | 6.5%                 |
| M117         | J          | 66 | 3.9270                 | 0.1520          | 0.0000    | 63.6%            | 6.5%          | Pass              | 6.5%                 |
| M117         | J          | 67 | 3.9270                 | 0.1515          | 0.0000    | 63.6%            | 6.4%          | Pass              | 6.4%                 |
| M117         | J          | 68 | 3.9270                 | 0.1518          | 0.0000    | 63.6%            | 6.4%          | Pass              | 6.4%                 |
| M117         | J          | 69 | 3.9270                 | 0.1528          | 0.0000    | 63.6%            | 6.5%          | Pass              | 6.5%                 |
| M117         | J          | 70 | 3.9270                 | 0.1543          | 0.0000    | 63.6%            | 6.5%          | Pass              | 6.5%                 |
| M117         | J          | 71 | 3.9270                 | 0.1558          | 0.0000    | 63.6%            | 6.6%          | Pass              | 6.6%                 |
| M117         | J          | 72 | 3.9270                 | 0.1570          | 0.0000    | 63.6%            | 6.7%          | Pass              | 6.7%                 |
| M117         | J          | 73 | 3.9270                 | 0.1575          | 0.0000    | 63.6%            | 6.7%          | Pass              | 6.7%                 |
| M117         | J          | 74 | 3.9270                 | 0.1572          | 0.0000    | 63.6%            | 6.7%          | Pass              | 6.7%                 |
| M117         | J          | 75 | 3.9270                 | 0.1561          | 0.0000    | 63.6%            | 6.6%          | Pass              | 6.6%                 |
| M118         | J          | 1  | 3.9270                 | 0.3906          | 0.0000    | 63.6%            | 23.5%         | Pass              | 23.5%                |
| M118         | J          | 2  | 3.9270                 | 0.4034          | 0.0000    | 63.6%            | 24.3%         | Pass              | 24.3%                |
| M118         | J          | 3  | 3.9270                 | 0.4259          | 0.0000    | 63.6%            | 25.0%         | Pass              | 25.0%                |
| M118         | J          | 4  | 3.9270                 | 0.4328          | 0.0000    | 63.6%            | 23.3%         | Pass              | 23.3%                |
| M118         | J          | 5  | 3.9270                 | 0.3852          | 0.0000    | 63.6%            | 17.7%         | Pass              | 17.7%                |
| M118         | J          | 6  | 3.9270                 | 0.3159          | 0.0000    | 63.6%            | 13.4%         | Pass              | 13.4%                |
| M118         | J          | 7  | 3.9270                 | 0.2797          | 0.0000    | 63.6%            | 11.9%         | Pass              | 11.9%                |
| M118         | J          | 8  | 3.9270                 | 0.2671          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M118         | J          | 9  | 3.9270                 | 0.2459          | 0.0000    | 63.6%            | 10.4%         | Pass              | 10.4%                |
| M118         | J          | 10 | 3.9270                 | 0.2398          | 0.0000    | 63.6%            | 10.2%         | Pass              | 10.2%                |
| M118         | J          | 11 | 3.9270                 | 0.2859          | 0.0000    | 63.6%            | 13.4%         | Pass              | 13.4%                |
| M118         | J          | 12 | 3.9270                 | 0.3543          | 0.0000    | 63.6%            | 19.6%         | Pass              | 19.6%                |
| M118         | J          | 13 | 3.9270                 | 0.3365          | 0.0000    | 63.6%            | 15.7%         | Pass              | 15.7%                |
| M118         | J          | 14 | 3.9270                 | 0.3375          | 0.0000    | 63.6%            | 15.8%         | Pass              | 15.8%                |
| M118         | J          | 15 | 3.9270                 | 0.3385          | 0.0000    | 63.6%            | 15.8%         | Pass              | 15.8%                |
| M118         | J          | 16 | 3.9270                 | 0.3390          | 0.0000    | 63.6%            | 15.8%         | Pass              | 15.8%                |
| M118         | J          | 17 | 3.9270                 | 0.3380          | 0.0000    | 63.6%            | 15.7%         | Pass              | 15.7%                |
| M118         | J          | 18 | 3.9270                 | 0.3359          | 0.0000    | 63.6%            | 15.6%         | Pass              | 15.6%                |
| M118         | J          | 19 | 3.9270                 | 0.3343          | 0.0000    | 63.6%            | 15.5%         | Pass              | 15.5%                |
| M118         | J          | 20 | 3.9270                 | 0.3332          | 0.0000    | 63.6%            | 15.4%         | Pass              | 15.4%                |
| M118         | J          | 21 | 3.9270                 | 0.3323          | 0.0000    | 63.6%            | 15.3%         | Pass              | 15.3%                |
| M118         | J          | 22 | 3.9270                 | 0.3318          | 0.0000    | 63.6%            | 15.3%         | Pass              | 15.3%                |
| M118         | J          | 23 | 3.9270                 | 0.3328          | 0.0000    | 63.6%            | 15.4%         | Pass              | 15.4%                |
| M118         | J          | 24 | 3.9270                 | 0.3349          | 0.0000    | 63.6%            | 15.6%         | Pass              | 15.6%                |
| M118         | J          | 25 | 3.9270                 | 0.3389          | 0.0000    | 63.6%            | 16.0%         | Pass              | 16.0%                |
| M118         | J          | 26 | 3.9270                 | 0.3397          | 0.0000    | 63.6%            | 16.0%         | Pass              | 16.0%                |
| M118         | J          | 27 | 3.9270                 | 0.3411          | 0.0000    | 63.6%            | 16.1%         | Pass              | 16.1%                |
| M118         | J          | 28 | 3.9270                 | 0.3415          | 0.0000    | 63.6%            | 16.0%         | Pass              | 16.0%                |
| M118         | J          | 29 | 3.9270                 | 0.3386          | 0.0000    | 63.6%            | 15.7%         | Pass              | 15.7%                |
| M118         | J          | 30 | 3.9270                 | 0.3342          | 0.0000    | 63.6%            | 15.4%         | Pass              | 15.4%                |
| M118         | J          | 31 | 3.9270                 | 0.3319          | 0.0000    | 63.6%            | 15.2%         | Pass              | 15.2%                |

|  <b>TES</b><br>A CONGRUEX <sup>®</sup> COMPANY | Threaded Bolts Connection Check |                |                   | Date           |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|-------------------|----------------|
|                                                                                                                                 | Customer:                       | VZW            | TIA Standard:     | 7/23/2025      |
|                                                                                                                                 | Carrier:                        | VZW            | Mount Elev. [ft]: | ANSI/TIA-222-H |
|                                                                                                                                 | Site Name:                      | COMMERCE       | Engineer Name:    | 150.5          |
|                                                                                                                                 | Site Number:                    | 5000078561-VZW | TES Project #:    | S. Bhujel      |
|                                                                                                                                 |                                 |                |                   | 10311542       |

#### Results Summary Table (continued)

| Member Label | Member End | LC | Max. Tension<br>[Kips] | Shear<br>[Kips] | My [K-Ft] | Tension<br>Check | Sliding Check | Rotation<br>Check | Interaction<br>Check |
|--------------|------------|----|------------------------|-----------------|-----------|------------------|---------------|-------------------|----------------------|
| M118         | J          | 32 | 3.9270                 | 0.3311          | 0.0000    | 63.6%            | 15.2%         | Pass              | 15.2%                |
| M118         | J          | 33 | 3.9270                 | 0.3297          | 0.0000    | 63.6%            | 15.1%         | Pass              | 15.1%                |
| M118         | J          | 34 | 3.9270                 | 0.3293          | 0.0000    | 63.6%            | 15.2%         | Pass              | 15.2%                |
| M118         | J          | 35 | 3.9270                 | 0.3322          | 0.0000    | 63.6%            | 15.4%         | Pass              | 15.4%                |
| M118         | J          | 36 | 3.9270                 | 0.3366          | 0.0000    | 63.6%            | 15.8%         | Pass              | 15.8%                |
| M118         | J          | 37 | 3.9270                 | 0.3389          | 0.0000    | 63.6%            | 16.0%         | Pass              | 16.0%                |
| M118         | J          | 38 | 3.9270                 | 0.3397          | 0.0000    | 63.6%            | 16.0%         | Pass              | 16.0%                |
| M118         | J          | 39 | 3.9270                 | 0.3411          | 0.0000    | 63.6%            | 16.1%         | Pass              | 16.1%                |
| M118         | J          | 40 | 3.9270                 | 0.3415          | 0.0000    | 63.6%            | 16.0%         | Pass              | 16.0%                |
| M118         | J          | 41 | 3.9270                 | 0.3386          | 0.0000    | 63.6%            | 15.7%         | Pass              | 15.7%                |
| M118         | J          | 42 | 3.9270                 | 0.3342          | 0.0000    | 63.6%            | 15.4%         | Pass              | 15.4%                |
| M118         | J          | 43 | 3.9270                 | 0.3319          | 0.0000    | 63.6%            | 15.2%         | Pass              | 15.2%                |
| M118         | J          | 44 | 3.9270                 | 0.3311          | 0.0000    | 63.6%            | 15.2%         | Pass              | 15.2%                |
| M118         | J          | 45 | 3.9270                 | 0.3297          | 0.0000    | 63.6%            | 15.1%         | Pass              | 15.1%                |
| M118         | J          | 46 | 3.9270                 | 0.3293          | 0.0000    | 63.6%            | 15.2%         | Pass              | 15.2%                |
| M118         | J          | 47 | 3.9270                 | 0.3322          | 0.0000    | 63.6%            | 15.4%         | Pass              | 15.4%                |
| M118         | J          | 48 | 3.9270                 | 0.3366          | 0.0000    | 63.6%            | 15.8%         | Pass              | 15.8%                |
| M118         | J          | 49 | 3.9270                 | 0.3354          | 0.0000    | 63.6%            | 15.6%         | Pass              | 15.6%                |
| M118         | J          | 50 | 3.9270                 | 0.3354          | 0.0000    | 63.6%            | 15.6%         | Pass              | 15.6%                |
| M118         | J          | 51 | 3.9270                 | 0.3919          | 0.0000    | 63.6%            | 18.5%         | Pass              | 18.5%                |
| M118         | J          | 52 | 3.9270                 | 0.3451          | 0.0000    | 63.6%            | 16.2%         | Pass              | 16.2%                |
| M118         | J          | 53 | 3.9270                 | 0.3465          | 0.0000    | 63.6%            | 16.3%         | Pass              | 16.3%                |
| M118         | J          | 54 | 3.9270                 | 0.3470          | 0.0000    | 63.6%            | 16.3%         | Pass              | 16.3%                |
| M118         | J          | 55 | 3.9270                 | 0.3465          | 0.0000    | 63.6%            | 16.2%         | Pass              | 16.2%                |
| M118         | J          | 56 | 3.9270                 | 0.3451          | 0.0000    | 63.6%            | 16.1%         | Pass              | 16.1%                |
| M118         | J          | 57 | 3.9270                 | 0.3432          | 0.0000    | 63.6%            | 15.9%         | Pass              | 15.9%                |
| M118         | J          | 58 | 3.9270                 | 0.3413          | 0.0000    | 63.6%            | 15.8%         | Pass              | 15.8%                |
| M118         | J          | 59 | 3.9270                 | 0.3399          | 0.0000    | 63.6%            | 15.7%         | Pass              | 15.7%                |
| M118         | J          | 60 | 3.9270                 | 0.3394          | 0.0000    | 63.6%            | 15.7%         | Pass              | 15.7%                |
| M118         | J          | 61 | 3.9270                 | 0.3400          | 0.0000    | 63.6%            | 15.8%         | Pass              | 15.8%                |
| M118         | J          | 62 | 3.9270                 | 0.3414          | 0.0000    | 63.6%            | 15.9%         | Pass              | 15.9%                |
| M118         | J          | 63 | 3.9270                 | 0.3433          | 0.0000    | 63.6%            | 16.1%         | Pass              | 16.1%                |
| M118         | J          | 64 | 3.9270                 | 0.2451          | 0.0000    | 63.6%            | 11.2%         | Pass              | 11.2%                |
| M118         | J          | 65 | 3.9270                 | 0.2464          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M118         | J          | 66 | 3.9270                 | 0.2469          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M118         | J          | 67 | 3.9270                 | 0.2464          | 0.0000    | 63.6%            | 11.2%         | Pass              | 11.2%                |
| M118         | J          | 68 | 3.9270                 | 0.2450          | 0.0000    | 63.6%            | 11.1%         | Pass              | 11.1%                |
| M118         | J          | 69 | 3.9270                 | 0.2432          | 0.0000    | 63.6%            | 11.0%         | Pass              | 11.0%                |
| M118         | J          | 70 | 3.9270                 | 0.2413          | 0.0000    | 63.6%            | 10.8%         | Pass              | 10.8%                |
| M118         | J          | 71 | 3.9270                 | 0.2400          | 0.0000    | 63.6%            | 10.8%         | Pass              | 10.8%                |
| M118         | J          | 72 | 3.9270                 | 0.2395          | 0.0000    | 63.6%            | 10.8%         | Pass              | 10.8%                |
| M118         | J          | 73 | 3.9270                 | 0.2400          | 0.0000    | 63.6%            | 10.8%         | Pass              | 10.8%                |
| M118         | J          | 74 | 3.9270                 | 0.2414          | 0.0000    | 63.6%            | 10.9%         | Pass              | 10.9%                |
| M118         | J          | 75 | 3.9270                 | 0.2432          | 0.0000    | 63.6%            | 11.1%         | Pass              | 11.1%                |

|                                                                                                                                                                |   |   |                                 |        |                |       |                   |      |                |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---------------------------------|--------|----------------|-------|-------------------|------|----------------|--|
| <div><div><div>TES</div><div>A CONGRUEX<sup>®</sup> COMPANY</div></div></div> |   |   | Threaded Bolts Connection Check |        |                |       |                   |      | Date           |  |
|                                                                                                                                                                |   |   |                                 |        |                |       |                   |      | 7/23/2025      |  |
|                                                                                                                                                                |   |   | Customer:                       |        | VZW            |       | TIA Standard:     |      | ANSI/TIA-222-H |  |
|                                                                                                                                                                |   |   | Carrier:                        |        | VZW            |       | Mount Elev. [ft]: |      | 150.5          |  |
|                                                                                                                                                                |   |   | Site Name:                      |        | COMMERCE       |       | Engineer Name:    |      | S. Bhujel      |  |
|                                                                                                                                                                |   |   | Site Number:                    |        | 5000078561-VZW |       | TES Project #:    |      | 10311542       |  |
| M119                                                                                                                                                           | J | 1 | 3.9270                          | 0.3661 | 0.0000         | 63.6% | 15.5%             | Pass | 15.5%          |  |

**Results Summary Table (continued)**

| Member Label | Member End | LC | Max. Tension [Kips] | Shear [Kips] | My [K-Ft] | Tension Check | Sliding Check | Rotation Check | Interaction Check |
|--------------|------------|----|---------------------|--------------|-----------|---------------|---------------|----------------|-------------------|
| M119         | J          | 2  | 3.9270              | 0.3763       | 0.0000    | 63.6%         | 16.0%         | Pass           | 16.0%             |
| M119         | J          | 3  | 3.9270              | 0.3957       | 0.0000    | 63.6%         | 16.8%         | Pass           | 16.8%             |
| M119         | J          | 4  | 3.9270              | 0.4024       | 0.0000    | 63.6%         | 17.1%         | Pass           | 17.1%             |
| M119         | J          | 5  | 3.9270              | 0.3610       | 0.0000    | 63.6%         | 15.3%         | Pass           | 15.3%             |
| M119         | J          | 6  | 3.9270              | 0.2991       | 0.0000    | 63.6%         | 12.7%         | Pass           | 12.7%             |
| M119         | J          | 7  | 3.9270              | 0.2671       | 0.0000    | 63.6%         | 11.3%         | Pass           | 11.3%             |
| M119         | J          | 8  | 3.9270              | 0.2568       | 0.0000    | 63.6%         | 10.9%         | Pass           | 10.9%             |
| M119         | J          | 9  | 3.9270              | 0.2371       | 0.0000    | 63.6%         | 10.1%         | Pass           | 10.1%             |
| M119         | J          | 10 | 3.9270              | 0.2308       | 0.0000    | 63.6%         | 9.8%          | Pass           | 9.8%              |
| M119         | J          | 11 | 3.9270              | 0.2731       | 0.0000    | 63.6%         | 11.6%         | Pass           | 11.6%             |
| M119         | J          | 12 | 3.9270              | 0.3348       | 0.0000    | 63.6%         | 14.2%         | Pass           | 14.2%             |
| M119         | J          | 13 | 3.9270              | 0.3182       | 0.0000    | 63.6%         | 13.5%         | Pass           | 13.5%             |
| M119         | J          | 14 | 3.9270              | 0.3191       | 0.0000    | 63.6%         | 13.5%         | Pass           | 13.5%             |
| M119         | J          | 15 | 3.9270              | 0.3200       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 16 | 3.9270              | 0.3204       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 17 | 3.9270              | 0.3196       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 18 | 3.9270              | 0.3178       | 0.0000    | 63.6%         | 13.5%         | Pass           | 13.5%             |
| M119         | J          | 19 | 3.9270              | 0.3163       | 0.0000    | 63.6%         | 13.4%         | Pass           | 13.4%             |
| M119         | J          | 20 | 3.9270              | 0.3154       | 0.0000    | 63.6%         | 13.4%         | Pass           | 13.4%             |
| M119         | J          | 21 | 3.9270              | 0.3145       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 22 | 3.9270              | 0.3141       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 23 | 3.9270              | 0.3149       | 0.0000    | 63.6%         | 13.4%         | Pass           | 13.4%             |
| M119         | J          | 24 | 3.9270              | 0.3167       | 0.0000    | 63.6%         | 13.4%         | Pass           | 13.4%             |
| M119         | J          | 25 | 3.9270              | 0.3204       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 26 | 3.9270              | 0.3210       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 27 | 3.9270              | 0.3223       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M119         | J          | 28 | 3.9270              | 0.3227       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M119         | J          | 29 | 3.9270              | 0.3200       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 30 | 3.9270              | 0.3161       | 0.0000    | 63.6%         | 13.4%         | Pass           | 13.4%             |
| M119         | J          | 31 | 3.9270              | 0.3141       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 32 | 3.9270              | 0.3134       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 33 | 3.9270              | 0.3122       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 34 | 3.9270              | 0.3118       | 0.0000    | 63.6%         | 13.2%         | Pass           | 13.2%             |
| M119         | J          | 35 | 3.9270              | 0.3144       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 36 | 3.9270              | 0.3184       | 0.0000    | 63.6%         | 13.5%         | Pass           | 13.5%             |
| M119         | J          | 37 | 3.9270              | 0.3204       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 38 | 3.9270              | 0.3210       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 39 | 3.9270              | 0.3223       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M119         | J          | 40 | 3.9270              | 0.3227       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M119         | J          | 41 | 3.9270              | 0.3200       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 42 | 3.9270              | 0.3161       | 0.0000    | 63.6%         | 13.4%         | Pass           | 13.4%             |
| M119         | J          | 43 | 3.9270              | 0.3141       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 44 | 3.9270              | 0.3134       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |

|  |   |    | Threaded Bolts Connection Check |                |        |                   |       | Date           |       |
|-----------------------------------------------------------------------------------|---|----|---------------------------------|----------------|--------|-------------------|-------|----------------|-------|
|                                                                                   |   |    |                                 |                |        |                   |       | 7/23/2025      |       |
|                                                                                   |   |    | Customer:                       | VZW            |        | TIA Standard:     |       | ANSI/TIA-222-H |       |
|                                                                                   |   |    | Carrier:                        | VZW            |        | Mount Elev. [ft]: |       | 150.5          |       |
|                                                                                   |   |    | Site Name:                      | COMMERCE       |        | Engineer Name:    |       | S. Bhujel      |       |
|                                                                                   |   |    | Site Number:                    | 5000078561-VZW |        | TES Project #:    |       | 10311542       |       |
| M119                                                                              | J | 45 | 3.9270                          | 0.3122         | 0.0000 | 63.6%             | 13.3% | Pass           | 13.3% |
| M119                                                                              | J | 46 | 3.9270                          | 0.3118         | 0.0000 | 63.6%             | 13.2% | Pass           | 13.2% |

**Results Summary Table (continued)**

| Member Label | Member End | LC | Max. Tension [Kips] | Shear [Kips] | My [K-Ft] | Tension Check | Sliding Check | Rotation Check | Interaction Check |
|--------------|------------|----|---------------------|--------------|-----------|---------------|---------------|----------------|-------------------|
| M119         | J          | 47 | 3.9270              | 0.3144       | 0.0000    | 63.6%         | 13.3%         | Pass           | 13.3%             |
| M119         | J          | 48 | 3.9270              | 0.3184       | 0.0000    | 63.6%         | 13.5%         | Pass           | 13.5%             |
| M119         | J          | 49 | 3.9270              | 0.3172       | 0.0000    | 63.6%         | 13.5%         | Pass           | 13.5%             |
| M119         | J          | 50 | 3.9270              | 0.3172       | 0.0000    | 63.6%         | 13.5%         | Pass           | 13.5%             |
| M119         | J          | 51 | 3.9270              | 0.3695       | 0.0000    | 63.6%         | 15.7%         | Pass           | 15.7%             |
| M119         | J          | 52 | 3.9270              | 0.3262       | 0.0000    | 63.6%         | 13.8%         | Pass           | 13.8%             |
| M119         | J          | 53 | 3.9270              | 0.3274       | 0.0000    | 63.6%         | 13.9%         | Pass           | 13.9%             |
| M119         | J          | 54 | 3.9270              | 0.3278       | 0.0000    | 63.6%         | 13.9%         | Pass           | 13.9%             |
| M119         | J          | 55 | 3.9270              | 0.3274       | 0.0000    | 63.6%         | 13.9%         | Pass           | 13.9%             |
| M119         | J          | 56 | 3.9270              | 0.3262       | 0.0000    | 63.6%         | 13.8%         | Pass           | 13.8%             |
| M119         | J          | 57 | 3.9270              | 0.3245       | 0.0000    | 63.6%         | 13.8%         | Pass           | 13.8%             |
| M119         | J          | 58 | 3.9270              | 0.3228       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M119         | J          | 59 | 3.9270              | 0.3216       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 60 | 3.9270              | 0.3212       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 61 | 3.9270              | 0.3216       | 0.0000    | 63.6%         | 13.6%         | Pass           | 13.6%             |
| M119         | J          | 62 | 3.9270              | 0.3228       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M119         | J          | 63 | 3.9270              | 0.3245       | 0.0000    | 63.6%         | 13.8%         | Pass           | 13.8%             |
| M119         | J          | 64 | 3.9270              | 0.2330       | 0.0000    | 63.6%         | 9.9%          | Pass           | 9.9%              |
| M119         | J          | 65 | 3.9270              | 0.2342       | 0.0000    | 63.6%         | 9.9%          | Pass           | 9.9%              |
| M119         | J          | 66 | 3.9270              | 0.2346       | 0.0000    | 63.6%         | 10.0%         | Pass           | 10.0%             |
| M119         | J          | 67 | 3.9270              | 0.2342       | 0.0000    | 63.6%         | 9.9%          | Pass           | 9.9%              |
| M119         | J          | 68 | 3.9270              | 0.2329       | 0.0000    | 63.6%         | 9.9%          | Pass           | 9.9%              |
| M119         | J          | 69 | 3.9270              | 0.2312       | 0.0000    | 63.6%         | 9.8%          | Pass           | 9.8%              |
| M119         | J          | 70 | 3.9270              | 0.2295       | 0.0000    | 63.6%         | 9.7%          | Pass           | 9.7%              |
| M119         | J          | 71 | 3.9270              | 0.2283       | 0.0000    | 63.6%         | 9.7%          | Pass           | 9.7%              |
| M119         | J          | 72 | 3.9270              | 0.2279       | 0.0000    | 63.6%         | 9.7%          | Pass           | 9.7%              |
| M119         | J          | 73 | 3.9270              | 0.2283       | 0.0000    | 63.6%         | 9.7%          | Pass           | 9.7%              |
| M119         | J          | 74 | 3.9270              | 0.2296       | 0.0000    | 63.6%         | 9.7%          | Pass           | 9.7%              |
| M119         | J          | 75 | 3.9270              | 0.2313       | 0.0000    | 63.6%         | 9.8%          | Pass           | 9.8%              |
| M120         | J          | 1  | 3.9270              | 0.2241       | 0.0000    | 63.6%         | 9.5%          | Pass           | 9.5%              |
| M120         | J          | 2  | 3.9270              | 0.2161       | 0.0000    | 63.6%         | 9.5%          | Pass           | 9.5%              |
| M120         | J          | 3  | 3.9270              | 0.2256       | 0.0000    | 63.6%         | 10.6%         | Pass           | 10.6%             |
| M120         | J          | 4  | 3.9270              | 0.2685       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M120         | J          | 5  | 3.9270              | 0.3165       | 0.0000    | 63.6%         | 16.7%         | Pass           | 16.7%             |
| M120         | J          | 6  | 3.9270              | 0.3381       | 0.0000    | 63.6%         | 17.4%         | Pass           | 17.4%             |
| M120         | J          | 7  | 3.9270              | 0.3444       | 0.0000    | 63.6%         | 16.9%         | Pass           | 16.9%             |
| M120         | J          | 8  | 3.9270              | 0.3520       | 0.0000    | 63.6%         | 16.4%         | Pass           | 16.4%             |
| M120         | J          | 9  | 3.9270              | 0.3416       | 0.0000    | 63.6%         | 14.9%         | Pass           | 14.9%             |
| M120         | J          | 10 | 3.9270              | 0.2988       | 0.0000    | 63.6%         | 12.7%         | Pass           | 12.7%             |
| M120         | J          | 11 | 3.9270              | 0.2521       | 0.0000    | 63.6%         | 10.7%         | Pass           | 10.7%             |
| M120         | J          | 12 | 3.9270              | 0.2309       | 0.0000    | 63.6%         | 9.8%          | Pass           | 9.8%              |
| M120         | J          | 13 | 3.9270              | 0.2819       | 0.0000    | 63.6%         | 12.7%         | Pass           | 12.7%             |

|  |   |    | Threaded Bolts Connection Check |                |        |                   |       | Date           |       |
|-----------------------------------------------------------------------------------|---|----|---------------------------------|----------------|--------|-------------------|-------|----------------|-------|
|                                                                                   |   |    |                                 |                |        |                   |       | 7/23/2025      |       |
|                                                                                   |   |    | Customer:                       | VZW            |        | TIA Standard:     |       | ANSI/TIA-222-H |       |
|                                                                                   |   |    | Carrier:                        | VZW            |        | Mount Elev. [ft]: |       | 150.5          |       |
|                                                                                   |   |    | Site Name:                      | COMMERCE       |        | Engineer Name:    |       | S. Bhujel      |       |
|                                                                                   |   |    | Site Number:                    | 5000078561-VZW |        | TES Project #:    |       | 10311542       |       |
| M120                                                                              | J | 14 | 3.9270                          | 0.2817         | 0.0000 | 63.6%             | 12.7% | Pass           | 12.7% |
| M120                                                                              | J | 15 | 3.9270                          | 0.2821         | 0.0000 | 63.6%             | 12.8% | Pass           | 12.8% |
| M120                                                                              | J | 16 | 3.9270                          | 0.2830         | 0.0000 | 63.6%             | 12.8% | Pass           | 12.8% |

**Results Summary Table (continued)**

| Member Label | Member End | LC | Max. Tension<br>[Kips] | Shear<br>[Kips] | My [K-Ft] | Tension<br>Check | Sliding Check | Rotation<br>Check | Interaction<br>Check |
|--------------|------------|----|------------------------|-----------------|-----------|------------------|---------------|-------------------|----------------------|
| M120         | J          | 17 | 3.9270                 | 0.2839          | 0.0000    | 63.6%            | 12.9%         | Pass              | 12.9%                |
| M120         | J          | 18 | 3.9270                 | 0.2845          | 0.0000    | 63.6%            | 12.9%         | Pass              | 12.9%                |
| M120         | J          | 19 | 3.9270                 | 0.2851          | 0.0000    | 63.6%            | 12.9%         | Pass              | 12.9%                |
| M120         | J          | 20 | 3.9270                 | 0.2853          | 0.0000    | 63.6%            | 12.9%         | Pass              | 12.9%                |
| M120         | J          | 21 | 3.9270                 | 0.2849          | 0.0000    | 63.6%            | 12.9%         | Pass              | 12.9%                |
| M120         | J          | 22 | 3.9270                 | 0.2840          | 0.0000    | 63.6%            | 12.8%         | Pass              | 12.8%                |
| M120         | J          | 23 | 3.9270                 | 0.2831          | 0.0000    | 63.6%            | 12.8%         | Pass              | 12.8%                |
| M120         | J          | 24 | 3.9270                 | 0.2825          | 0.0000    | 63.6%            | 12.7%         | Pass              | 12.7%                |
| M120         | J          | 25 | 3.9270                 | 0.4481          | 0.0000    | 63.6%            | 20.4%         | Pass              | 20.4%                |
| M120         | J          | 26 | 3.9270                 | 0.4477          | 0.0000    | 63.6%            | 20.5%         | Pass              | 20.5%                |
| M120         | J          | 27 | 3.9270                 | 0.4484          | 0.0000    | 63.6%            | 20.6%         | Pass              | 20.6%                |
| M120         | J          | 28 | 3.9270                 | 0.4513          | 0.0000    | 63.6%            | 20.8%         | Pass              | 20.8%                |
| M120         | J          | 29 | 3.9270                 | 0.4544          | 0.0000    | 63.6%            | 21.0%         | Pass              | 21.0%                |
| M120         | J          | 30 | 3.9270                 | 0.4558          | 0.0000    | 63.6%            | 21.1%         | Pass              | 21.1%                |
| M120         | J          | 31 | 3.9270                 | 0.4562          | 0.0000    | 63.6%            | 21.0%         | Pass              | 21.0%                |
| M120         | J          | 32 | 3.9270                 | 0.4566          | 0.0000    | 63.6%            | 21.0%         | Pass              | 21.0%                |
| M120         | J          | 33 | 3.9270                 | 0.4558          | 0.0000    | 63.6%            | 20.8%         | Pass              | 20.8%                |
| M120         | J          | 34 | 3.9270                 | 0.4530          | 0.0000    | 63.6%            | 20.6%         | Pass              | 20.6%                |
| M120         | J          | 35 | 3.9270                 | 0.4499          | 0.0000    | 63.6%            | 20.4%         | Pass              | 20.4%                |
| M120         | J          | 36 | 3.9270                 | 0.4485          | 0.0000    | 63.6%            | 20.4%         | Pass              | 20.4%                |
| M120         | J          | 37 | 3.9270                 | 0.2797          | 0.0000    | 63.6%            | 12.6%         | Pass              | 12.6%                |
| M120         | J          | 38 | 3.9270                 | 0.2792          | 0.0000    | 63.6%            | 12.6%         | Pass              | 12.6%                |
| M120         | J          | 39 | 3.9270                 | 0.2798          | 0.0000    | 63.6%            | 12.7%         | Pass              | 12.7%                |
| M120         | J          | 40 | 3.9270                 | 0.2825          | 0.0000    | 63.6%            | 12.9%         | Pass              | 12.9%                |
| M120         | J          | 41 | 3.9270                 | 0.2855          | 0.0000    | 63.6%            | 13.0%         | Pass              | 13.0%                |
| M120         | J          | 42 | 3.9270                 | 0.2869          | 0.0000    | 63.6%            | 13.1%         | Pass              | 13.1%                |
| M120         | J          | 43 | 3.9270                 | 0.2873          | 0.0000    | 63.6%            | 13.0%         | Pass              | 13.0%                |
| M120         | J          | 44 | 3.9270                 | 0.2878          | 0.0000    | 63.6%            | 13.0%         | Pass              | 13.0%                |
| M120         | J          | 45 | 3.9270                 | 0.2872          | 0.0000    | 63.6%            | 12.9%         | Pass              | 12.9%                |
| M120         | J          | 46 | 3.9270                 | 0.2845          | 0.0000    | 63.6%            | 12.8%         | Pass              | 12.8%                |
| M120         | J          | 47 | 3.9270                 | 0.2815          | 0.0000    | 63.6%            | 12.6%         | Pass              | 12.6%                |
| M120         | J          | 48 | 3.9270                 | 0.2801          | 0.0000    | 63.6%            | 12.6%         | Pass              | 12.6%                |
| M120         | J          | 49 | 3.9270                 | 0.2835          | 0.0000    | 63.6%            | 12.8%         | Pass              | 12.8%                |
| M120         | J          | 50 | 3.9270                 | 0.2835          | 0.0000    | 63.6%            | 12.8%         | Pass              | 12.8%                |
| M120         | J          | 51 | 3.9270                 | 0.3311          | 0.0000    | 63.6%            | 15.1%         | Pass              | 15.1%                |
| M120         | J          | 52 | 3.9270                 | 0.2875          | 0.0000    | 63.6%            | 13.0%         | Pass              | 13.0%                |
| M120         | J          | 53 | 3.9270                 | 0.2878          | 0.0000    | 63.6%            | 13.0%         | Pass              | 13.0%                |
| M120         | J          | 54 | 3.9270                 | 0.2887          | 0.0000    | 63.6%            | 13.1%         | Pass              | 13.1%                |
| M120         | J          | 55 | 3.9270                 | 0.2899          | 0.0000    | 63.6%            | 13.2%         | Pass              | 13.2%                |
| M120         | J          | 56 | 3.9270                 | 0.2913          | 0.0000    | 63.6%            | 13.3%         | Pass              | 13.3%                |
| M120         | J          | 57 | 3.9270                 | 0.2923          | 0.0000    | 63.6%            | 13.3%         | Pass              | 13.3%                |

|  |   |    | Threaded Bolts Connection Check |                |        |                   |       | Date           |       |
|-----------------------------------------------------------------------------------|---|----|---------------------------------|----------------|--------|-------------------|-------|----------------|-------|
|                                                                                   |   |    |                                 |                |        |                   |       | 7/23/2025      |       |
|                                                                                   |   |    | Customer:                       | VZW            |        | TIA Standard:     |       | ANSI/TIA-222-H |       |
|                                                                                   |   |    | Carrier:                        | VZW            |        | Mount Elev. [ft]: |       | 150.5          |       |
|                                                                                   |   |    | Site Name:                      | COMMERCE       |        | Engineer Name:    |       | S. Bhujel      |       |
|                                                                                   |   |    | Site Number:                    | 5000078561-VZW |        | TES Project #:    |       | 10311542       |       |
| M120                                                                              | J | 58 | 3.9270                          | 0.2927         | 0.0000 | 63.6%             | 13.3% | Pass           | 13.3% |
| M120                                                                              | J | 59 | 3.9270                          | 0.2924         | 0.0000 | 63.6%             | 13.3% | Pass           | 13.3% |
| M120                                                                              | J | 60 | 3.9270                          | 0.2915         | 0.0000 | 63.6%             | 13.2% | Pass           | 13.2% |
| M120                                                                              | J | 61 | 3.9270                          | 0.2903         | 0.0000 | 63.6%             | 13.1% | Pass           | 13.1% |

**Results Summary Table (continued)**

| Member Label | Member End | LC | Max. Tension [Kips] | Shear [Kips] | My [K-Ft] | Tension Check | Sliding Check | Rotation Check | Interaction Check |
|--------------|------------|----|---------------------|--------------|-----------|---------------|---------------|----------------|-------------------|
| M120         | J          | 62 | 3.9270              | 0.2889       | 0.0000    | 63.6%         | 13.0%         | Pass           | 13.0%             |
| M120         | J          | 63 | 3.9270              | 0.2879       | 0.0000    | 63.6%         | 13.0%         | Pass           | 13.0%             |
| M120         | J          | 64 | 3.9270              | 0.2031       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M120         | J          | 65 | 3.9270              | 0.2034       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M120         | J          | 66 | 3.9270              | 0.2043       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M120         | J          | 67 | 3.9270              | 0.2055       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M120         | J          | 68 | 3.9270              | 0.2069       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M120         | J          | 69 | 3.9270              | 0.2079       | 0.0000    | 63.6%         | 9.3%          | Pass           | 9.3%              |
| M120         | J          | 70 | 3.9270              | 0.2083       | 0.0000    | 63.6%         | 9.3%          | Pass           | 9.3%              |
| M120         | J          | 71 | 3.9270              | 0.2080       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M120         | J          | 72 | 3.9270              | 0.2071       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M120         | J          | 73 | 3.9270              | 0.2059       | 0.0000    | 63.6%         | 9.1%          | Pass           | 9.1%              |
| M120         | J          | 74 | 3.9270              | 0.2046       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M120         | J          | 75 | 3.9270              | 0.2036       | 0.0000    | 63.6%         | 9.0%          | Pass           | 9.0%              |
| M121         | J          | 1  | 3.9270              | 0.2167       | 0.0000    | 63.6%         | 9.2%          | Pass           | 9.2%              |
| M121         | J          | 2  | 3.9270              | 0.2025       | 0.0000    | 63.6%         | 8.6%          | Pass           | 8.6%              |
| M121         | J          | 3  | 3.9270              | 0.2032       | 0.0000    | 63.6%         | 8.7%          | Pass           | 8.7%              |
| M121         | J          | 4  | 3.9270              | 0.2374       | 0.0000    | 63.6%         | 10.1%         | Pass           | 10.1%             |
| M121         | J          | 5  | 3.9270              | 0.2800       | 0.0000    | 63.6%         | 11.9%         | Pass           | 11.9%             |
| M121         | J          | 6  | 3.9270              | 0.3010       | 0.0000    | 63.6%         | 12.8%         | Pass           | 12.8%             |
| M121         | J          | 7  | 3.9270              | 0.3103       | 0.0000    | 63.6%         | 13.2%         | Pass           | 13.2%             |
| M121         | J          | 8  | 3.9270              | 0.3238       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M121         | J          | 9  | 3.9270              | 0.3230       | 0.0000    | 63.6%         | 13.7%         | Pass           | 13.7%             |
| M121         | J          | 10 | 3.9270              | 0.2900       | 0.0000    | 63.6%         | 12.3%         | Pass           | 12.3%             |
| M121         | J          | 11 | 3.9270              | 0.2480       | 0.0000    | 63.6%         | 10.5%         | Pass           | 10.5%             |
| M121         | J          | 12 | 3.9270              | 0.2266       | 0.0000    | 63.6%         | 9.6%          | Pass           | 9.6%              |
| M121         | J          | 13 | 3.9270              | 0.2618       | 0.0000    | 63.6%         | 11.1%         | Pass           | 11.1%             |
| M121         | J          | 14 | 3.9270              | 0.2616       | 0.0000    | 63.6%         | 11.1%         | Pass           | 11.1%             |
| M121         | J          | 15 | 3.9270              | 0.2620       | 0.0000    | 63.6%         | 11.1%         | Pass           | 11.1%             |
| M121         | J          | 16 | 3.9270              | 0.2629       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 17 | 3.9270              | 0.2637       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 18 | 3.9270              | 0.2642       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 19 | 3.9270              | 0.2647       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 20 | 3.9270              | 0.2650       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 21 | 3.9270              | 0.2646       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 22 | 3.9270              | 0.2637       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 23 | 3.9270              | 0.2629       | 0.0000    | 63.6%         | 11.2%         | Pass           | 11.2%             |
| M121         | J          | 24 | 3.9270              | 0.2623       | 0.0000    | 63.6%         | 11.1%         | Pass           | 11.1%             |
| M121         | J          | 25 | 3.9270              | 0.4200       | 0.0000    | 63.6%         | 17.8%         | Pass           | 17.8%             |
| M121         | J          | 26 | 3.9270              | 0.4191       | 0.0000    | 63.6%         | 17.8%         | Pass           | 17.8%             |

|  |   |    | Threaded Bolts Connection Check |        |                |       |                   | Date |                |
|-----------------------------------------------------------------------------------|---|----|---------------------------------|--------|----------------|-------|-------------------|------|----------------|
|                                                                                   |   |    | Customer:                       |        | VZW            |       | TIA Standard:     |      | 7/23/2025      |
|                                                                                   |   |    | Carrier:                        |        | VZW            |       | Mount Elev. [ft]: |      | ANSI/TIA-222-H |
|                                                                                   |   |    | Site Name:                      |        | COMMERCE       |       | Engineer Name:    |      | 150.5          |
|                                                                                   |   |    | Site Number:                    |        | 5000078561-VZW |       | TES Project #:    |      | S. Bhujel      |
|                                                                                   |   |    |                                 |        |                |       |                   |      | 10311542       |
| M121                                                                              | J | 27 | 3.9270                          | 0.4191 | 0.0000         | 63.6% | 17.8%             | Pass | 17.8%          |
| M121                                                                              | J | 28 | 3.9270                          | 0.4212 | 0.0000         | 63.6% | 17.9%             | Pass | 17.9%          |
| M121                                                                              | J | 29 | 3.9270                          | 0.4239 | 0.0000         | 63.6% | 18.0%             | Pass | 18.0%          |
| M121                                                                              | J | 30 | 3.9270                          | 0.4252 | 0.0000         | 63.6% | 18.0%             | Pass | 18.0%          |
| M121                                                                              | J | 31 | 3.9270                          | 0.4258 | 0.0000         | 63.6% | 18.1%             | Pass | 18.1%          |

**Results Summary Table (continued)**

| Member Label | Member End | LC | Max. Tension<br>[Kips] | Shear<br>[Kips] | My [K-Ft] | Tension<br>Check | Sliding Check | Rotation<br>Check | Interaction<br>Check |
|--------------|------------|----|------------------------|-----------------|-----------|------------------|---------------|-------------------|----------------------|
| M121         | J          | 32 | 3.9270                 | 0.4267          | 0.0000    | 63.6%            | 18.1%         | Pass              | 18.1%                |
| M121         | J          | 33 | 3.9270                 | 0.4267          | 0.0000    | 63.6%            | 18.1%         | Pass              | 18.1%                |
| M121         | J          | 34 | 3.9270                 | 0.4246          | 0.0000    | 63.6%            | 18.0%         | Pass              | 18.0%                |
| M121         | J          | 35 | 3.9270                 | 0.4220          | 0.0000    | 63.6%            | 17.9%         | Pass              | 17.9%                |
| M121         | J          | 36 | 3.9270                 | 0.4206          | 0.0000    | 63.6%            | 17.9%         | Pass              | 17.9%                |
| M121         | J          | 37 | 3.9270                 | 0.2603          | 0.0000    | 63.6%            | 11.0%         | Pass              | 11.0%                |
| M121         | J          | 38 | 3.9270                 | 0.2594          | 0.0000    | 63.6%            | 11.0%         | Pass              | 11.0%                |
| M121         | J          | 39 | 3.9270                 | 0.2595          | 0.0000    | 63.6%            | 11.0%         | Pass              | 11.0%                |
| M121         | J          | 40 | 3.9270                 | 0.2616          | 0.0000    | 63.6%            | 11.1%         | Pass              | 11.1%                |
| M121         | J          | 41 | 3.9270                 | 0.2643          | 0.0000    | 63.6%            | 11.2%         | Pass              | 11.2%                |
| M121         | J          | 42 | 3.9270                 | 0.2657          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M121         | J          | 43 | 3.9270                 | 0.2663          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M121         | J          | 44 | 3.9270                 | 0.2671          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M121         | J          | 45 | 3.9270                 | 0.2671          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M121         | J          | 46 | 3.9270                 | 0.2650          | 0.0000    | 63.6%            | 11.2%         | Pass              | 11.2%                |
| M121         | J          | 47 | 3.9270                 | 0.2623          | 0.0000    | 63.6%            | 11.1%         | Pass              | 11.1%                |
| M121         | J          | 48 | 3.9270                 | 0.2609          | 0.0000    | 63.6%            | 11.1%         | Pass              | 11.1%                |
| M121         | J          | 49 | 3.9270                 | 0.2633          | 0.0000    | 63.6%            | 11.2%         | Pass              | 11.2%                |
| M121         | J          | 50 | 3.9270                 | 0.2633          | 0.0000    | 63.6%            | 11.2%         | Pass              | 11.2%                |
| M121         | J          | 51 | 3.9270                 | 0.3068          | 0.0000    | 63.6%            | 13.0%         | Pass              | 13.0%                |
| M121         | J          | 52 | 3.9270                 | 0.2671          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M121         | J          | 53 | 3.9270                 | 0.2672          | 0.0000    | 63.6%            | 11.3%         | Pass              | 11.3%                |
| M121         | J          | 54 | 3.9270                 | 0.2679          | 0.0000    | 63.6%            | 11.4%         | Pass              | 11.4%                |
| M121         | J          | 55 | 3.9270                 | 0.2690          | 0.0000    | 63.6%            | 11.4%         | Pass              | 11.4%                |
| M121         | J          | 56 | 3.9270                 | 0.2701          | 0.0000    | 63.6%            | 11.5%         | Pass              | 11.5%                |
| M121         | J          | 57 | 3.9270                 | 0.2711          | 0.0000    | 63.6%            | 11.5%         | Pass              | 11.5%                |
| M121         | J          | 58 | 3.9270                 | 0.2715          | 0.0000    | 63.6%            | 11.5%         | Pass              | 11.5%                |
| M121         | J          | 59 | 3.9270                 | 0.2714          | 0.0000    | 63.6%            | 11.5%         | Pass              | 11.5%                |
| M121         | J          | 60 | 3.9270                 | 0.2707          | 0.0000    | 63.6%            | 11.5%         | Pass              | 11.5%                |
| M121         | J          | 61 | 3.9270                 | 0.2697          | 0.0000    | 63.6%            | 11.4%         | Pass              | 11.4%                |
| M121         | J          | 62 | 3.9270                 | 0.2685          | 0.0000    | 63.6%            | 11.4%         | Pass              | 11.4%                |
| M121         | J          | 63 | 3.9270                 | 0.2676          | 0.0000    | 63.6%            | 11.4%         | Pass              | 11.4%                |
| M121         | J          | 64 | 3.9270                 | 0.1895          | 0.0000    | 63.6%            | 8.0%          | Pass              | 8.0%                 |
| M121         | J          | 65 | 3.9270                 | 0.1896          | 0.0000    | 63.6%            | 8.0%          | Pass              | 8.0%                 |
| M121         | J          | 66 | 3.9270                 | 0.1903          | 0.0000    | 63.6%            | 8.1%          | Pass              | 8.1%                 |
| M121         | J          | 67 | 3.9270                 | 0.1914          | 0.0000    | 63.6%            | 8.1%          | Pass              | 8.1%                 |
| M121         | J          | 68 | 3.9270                 | 0.1926          | 0.0000    | 63.6%            | 8.2%          | Pass              | 8.2%                 |
| M121         | J          | 69 | 3.9270                 | 0.1935          | 0.0000    | 63.6%            | 8.2%          | Pass              | 8.2%                 |
| M121         | J          | 70 | 3.9270                 | 0.1940          | 0.0000    | 63.6%            | 8.2%          | Pass              | 8.2%                 |

[illegible]

| <br><b>TES</b><br>A CONGRUEX® COMPANY | Mount Tower Interaction Check |            |                |                |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------|----------------|----------------|
|                                                                                                                        | Customer:                     | VZW        | Project No:    | 10311542       |
|                                                                                                                        | Carrier:                      | VZW        | Date:          | 7/23/2025      |
|                                                                                                                        | Site Name:                    | COMMERCE   | TIA Standard:  | ANSI/TIA-222-I |
|                                                                                                                        | Site Number:                  | 5000078561 | Engineer Name: | S. Bhujel      |

#### Applied Loads

Controlling Load Case: 5  
Top Bay Panel Elevation: 149.9 ft  
Bottom Bay Panel Elevation: 147.5 ft

Leg: A  
Node #: N166  
Node / Load Application Elevation: 152.3 ft  
Applied Vertical Load ( $P_u$ ): 299.4 lb  
Applied Lateral Load ( $V_u$ ): 1988.3 lb  
Applied Moment ( $M_u$ ): 0.130 k-ft  
Applied Torsional Moment ( $M_{ut}$ ): 0.000 k-ft

Leg: A  
Node #: N167  
Node / Load Application Elevation: 148.8 ft  
Applied Vertical Load ( $P_u$ ): 283.6 lb  
Applied Lateral Load ( $V_u$ ): 395.8 lb  
Applied Moment ( $M_u$ ): 0.126 k-ft  
Applied Torsional Moment ( $M_{ut}$ ): 0.000 k-ft

Leg: C  
Node #: N168  
Node / Load Application Elevation: 152.25 ft  
Applied Vertical Load: 633.0 lb  
Resultant Applied Lateral Load: 4447.6 lb  
Resultant Applied Moment: 0.301 k-ft  
Applied Torsional Moment: 0.000 k-ft

Leg: C  
Node #: N169  
Node / Load Application Elevation: 148.8 ft  
Applied Vertical Load: 560.0 lb  
Resultant Applied Lateral Load: 1093.9 lb  
Resultant Applied Moment: 0.266 k-ft  
Applied Torsional Moment: 0.000 k-ft

Leg: B  
Node #: N170  
Node / Load Application Elevation: 152.25 ft  
Applied Vertical Load: 770.4 lb  
Resultant Applied Lateral Load: 1443.6 lb  
Resultant Applied Moment: 0.340 k-ft  
Applied Torsional Moment: 0.000 k-ft

Leg: B  
Node #: N171  
Node / Load Application Elevation: 148.8 ft  
Applied Vertical Load: 721.9 lb  
Resultant Applied Lateral Load: 3204.4 lb  
Resultant Applied Moment: 0.326 k-ft  
Applied Torsional Moment: 0.000 k-ft

Leg: A  
Node #: N192  
Node / Load Application Elevation: 153.75 ft  
Applied Vertical Load: 284.6 lb  
Resultant Applied Lateral Load: 856.0 lb  
Resultant Applied Moment: 0.000 k-ft  
Applied Torsional Moment: 0.000 k-ft

Leg: C  
Node #: N193  
Node / Load Application Elevation: 153.8 ft  
Applied Vertical Load: 204.8 lb  
Resultant Applied Lateral Load: 601.1 lb  
Resultant Applied Moment: 0.000 k-ft  
Applied Torsional Moment: 0.000 k-ft

| <br><b>TES</b><br>A CONGRUEX* COMPANY | Mount Tower Interaction Check |            |                |                |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------|----------------|----------------|
|                                                                                                                        | Customer:                     | VZW        | Project No:    | 10311542       |
|                                                                                                                        | Carrier:                      | VZW        | Date:          | 7/23/2025      |
|                                                                                                                        | Site Name:                    | COMMERCE   | TIA Standard:  | ANSI/TIA-222-I |
|                                                                                                                        | Site Number:                  | 5000078561 | Engineer Name: | S. Bhujel      |

#### Design Loads

|                                |            |
|--------------------------------|------------|
| Max Axial ( $P_u$ ):           | 0.722 k    |
| Max Shear / Torsion ( $V_u$ ): | 1.678 k    |
| Max Moment ( $M_u$ ):          | 1.483 k-ft |

#### Cross-Sectional Properties and Design Considerations

|                             |                       |
|-----------------------------|-----------------------|
| Member:                     | PSP Rohn 2.5 STD      |
| Steel Grade:                | A572 Gr. 50           |
| Yield Strength:             | 50 ksi                |
| Ultimate Strength:          | 65 ksi                |
| Elastic Modulus:            | 29000 ksi             |
| Shear Modulus:              | 11200 ksi             |
| Area:                       | 1.704 in <sup>2</sup> |
| Plastic Modulus, X Axis:    | 1.452 in <sup>3</sup> |
| Plastic Modulus, Y Axis:    | 1.452 in <sup>3</sup> |
| Radius of Gyration, X Axis: | 0.947 in              |
| Radius of Gyration, Y Axis: | 0.947 in              |
| Radius of Gyration, Z Axis: | 0.947 in              |
| Length:                     | 2.44 ft               |
| K:                          | 1.00                  |
| $B_1$ :                     | 1.001                 |

#### Factored Strength

|                                          |           |
|------------------------------------------|-----------|
| Leg Compressive Strength ( $\phi P_n$ ): | 71.52 k   |
| Leg Shear Strength ( $\phi V_n$ ):       | 46.01 k   |
| Leg Flexural Strength ( $\phi M_n$ ):    | 5.45 k-ft |

|                |       |
|----------------|-------|
| Maximum Usage: | 27.8% |
|----------------|-------|