



1 Cityplace Dr, Suite 490
Creve Coeur, MO 63141

Phone: (314) 513-0147
www.crowncastle.com

June 23rd, 2022

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

RE: **Notice of Exempt Modification for AT&T
Crown Site ID# 842861; AT&T Site ID# CTL05126
221-223 BRAINARD ROAD, HARTFORD, CT 06114
Latitude: 41.7327919 / Longitude: -72.6618989**

Dear Ms. Bachman:

AT&T currently maintains (12) antennas at the 103-foot mounts on the existing 101-foot Monopole Tower located at **221-223 BRAINARD ROAD, HARTFORD**. The property is owned by The Metropolitan District and the Tower by Crown Castle. AT&T now intends to replace nine (9) antennas. This modification/proposal includes hardware that is both 4G(LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modifications:

Tower:

REMOVE AND REPLACE

- (3) CCI – OPA-65R-LCUU-H6 antennas (**REMOVE**); (3) CCI-HPA-65R-BUU-HU antennas (**REMOVE**); (3) Ericsson – AIR6449 N77D (**REPLACE**) & (3) Ericsson – AIR6419 N77G (antennas stacked) (**REPLACE**)
- (3) Powerwave 7770 antennas (**REMOVE**); (3) CCI-DMP65R-BU6EA-K antennas at 103' (**REPLACE**)
- (2) Commscope – APT-BDFDM-DBW Surge Arrestor (**REMOVE**); (1) Raycap – DC6-48-60-18-8F Squid (Surge Arrestor) (**REMOVE**); (1) Raycap – DC9-48-60-24-BC-EV Squid (Surge arrestor) (**REPLACE**)
- (3) Ericsson RRUS-11 B12 Radios (**REMOVE**); (3) Ericsson – 4449 B5/B12 Radios (**REPLACE**)
- (6) Coax Cables (1 ¼”) (**REMOVE**); (2) 6AWG DC Cables (7/8”) (**REPLACE**); (1) 24 Pair Fiber Cable (3/8”) (**REPLACE**)
- (6) Powerwave - LGP 21401 TMAs (**REMOVE**)
- (6) Powerwave – 7020 RET Motors (**REMOVE**)
- (6) Kaelus – DBC0061F1V51-2 Diplexers (**REMOVE**)

RELOCATE

- (3) Kathrein – 800 – 10965 Antennas
- (3) Ericsson – 4478 B14 Radios
- (3) Ericsson – RRUS-32 B66A Radios
- (3) Ericsson – RRUS-32 B2 Radios

The Foundation for a Wireless World.

CrownCastle.com



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Ground:

REMOVE:

- (1) 5216 Module
- (6) LGP21901 Diplexers
- (3) Ericsson RRUS-12 B5 Radios

INSTALL:

- (1) 6648 W/ Xcede Cable in existing power plant
- (1) 6630 Module in Existing Power Plant
- (3) Rectifiers in Existing Power Plant

The Facility was approved by the City of Hartford. As has been previously documented, attempts to obtain copies of the approvals from the City have been unsuccessful.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b)(2). In accordance with R.C.S.A. §16-50j-73, a copy of this letter is being sent to Luke Bronin, City of Hartford Mayor, I. Charles Mathews, City of Hartford Development Services Acting Director, and property owner, The Metropolitan District.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

Katie Adams
Crown Castle, Agent for AT&T
kadams@nbcllc.com, (781) 392-7547



1 Cityplace Dr, Suite 490
Creve Coeur, MO 63141

Phone: (314) 513-0147
www.crowncastle.com

cc:

Luke Bronin, Mayor
Hartford City Hall
550 Main Street, 2nd Floor, Room 200
Hartford, CT 06103
(860) 757-9500
(Via Fedex)

I. Charles Mathews, Acting Director
260 Constitution Plaza, 1st Floor
Hartford, CT 06103
(860) 757-9040
(Via Fedex)

The Metropolitan District
555 Main Street
Hartford, CT 06103
(Via Fedex)

(https://www.fedex.com/en-us/home.html)



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TO
HARTFORD, CT US

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Travel History

TIME ZONE

Local Scan Time



Friday, June 24, 2022

| | | |
|----------|-------------------|--|
| 10:29 AM | HARTFORD, CT | Delivered Package delivered to recipient address - release authorized |
| 8:35 AM | WINDSOR LOCKS, CT | On FedEx vehicle for delivery |
| 7:53 AM | WINDSOR LOCKS, CT | At local FedEx facility |
| 6:35 AM | EAST GRANBY, CT | At destination sort facility |
| 3:30 AM | NEWARK, NJ | Departed FedEx hub |

Thursday, June 23, 2022

| | | |
|---------|----------------|----------------------------|
| 8:05 PM | WILMINGTON, MA | Left FedEx origin facility |
|---------|----------------|----------------------------|

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FROM
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TO
HARTFORD, CT US

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Travel History

TIME ZONE

Local Scan Time



Friday, June 24, 2022

| | | |
|----------|-------------------|-------------------------------|
| 10:40 AM | HARTFORD, CT | Delivered |
| 8:35 AM | WINDSOR LOCKS, CT | On FedEx vehicle for delivery |
| 7:52 AM | WINDSOR LOCKS, CT | At local FedEx facility |
| 6:35 AM | EAST GRANBY, CT | At destination sort facility |
| 3:30 AM | NEWARK, NJ | Departed FedEx hub |

Thursday, June 23, 2022

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| 8:05 PM | WILMINGTON, MA | Left FedEx origin facility |
| 6:19 PM | WILMINGTON, MA | Shipment arriving On-Time |

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FROM
CHELMSFORD, MA US

TO
HARTFORD, CT US

[MANAGE DELIVERY](#)

Travel History

TIME ZONE

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| | | |
|----------|-------------------|--|
| 10:29 AM | HARTFORD, CT | Delivered Package delivered to recipient address - release authorized |
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| 8:05 PM | WILMINGTON, MA | Left FedEx origin facility |
|---------|----------------|----------------------------|

Exhibit A

Original Facility Approval

(Not Available)

Exhibit B

Property Card

Unofficial Property Record Card - Hartford, CT

General Property Data

| | |
|---|---|
| Parcel ID 317-817-002 Prior Parcel ID Property Owner THE METROPOLITAN DISTRICT Mailing Address 555 MAIN ST City HARTFORD Mailing State CT Zip 06103-2915 ParcelZoning ID-1 | Account Number Property Location 221 BRAINARD RD Property Use SPECIAL ACTS Most Recent Sale Date 12/16/2010 Legal Reference 06402-0246 Grantor 221-223 BRAINARD ROAD LLC Sale Price 4,705,000 Land Area 121,500.000 acres |
|---|---|

Current Property Assessment

| | | | | |
|--------------|---------------------------------|-----------------------------------|---------------------------|------------------------------|
| Card 1 Value | Building Value 1,350,020 | Xtra Features Value 73,150 | Land Value 622,580 | Total Value 2,045,750 |
|--------------|---------------------------------|-----------------------------------|---------------------------|------------------------------|

Building Description

| | | |
|--|--|---|
| Building Style WAREHSE # of Living Units 0 Year Built 1975 Building Grade Average Building Condition N/A Finished Area (SF) N/A Number Rooms 0 # of 3/4 Baths 0 | Foundation Type Concrete Frame Type Steel Roof Structure FLAT Roof Cover Membrane Siding Conc Block Interior Walls DRYWALL # of Bedrooms 0 # of 1/2 Baths 0 | Flooring Type COMBINATION Basement Floor N/A Heating Type Warm Air Heating Fuel Gas Air Conditioning 32% # of Bsmt Garages 0 # of Full Baths 0 # of Other Fixtures 0 |
|--|--|---|

Legal Description

Narrative Description of Property

This property contains 121,500.000 acres of land mainly classified as SPECIAL ACTS with a(n) WAREHSE style building, built about 1975 , having Conc Block exterior and Membrane roof cover, with 0 commercial unit(s) and 0 residential unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images



Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

Exhibit C

Construction Drawings



AT&T SITE NUMBER: CTL05126
AT&T SITE NAME: EAST HARTFORD HOCHANUM
AT&T FA CODE: 10071011
AT&T PACE NUMBER: MRCTB052064, MRCTB051086, MRCTB050937, MRCTB051242, MRCTB051051
AT&T PROJECT: 5G NR SOFTWARE UPGRADE, BBU ADD, G5 NR 1SR CBAND, 4TXRX ANTENNA RETROFIT

BUSINESS UNIT #: 842861
SITE ADDRESS: 223 BRAINARD ROAD HARTFORD, CT 06114
COUNTY: HARTFORD
SITE TYPE: MONOPOLE
TOWER HEIGHT: 101'-0"



AT&T SITE NUMBER: CTL05126

BU #: 842861
EAST HARTFORD HOCHANUM

223 BRAINARD ROAD
HARTFORD, CT 06114

EXISTING
101'-0" MONOPOLE

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | DES./QA |
|-----|---------|------|--------------------|---------|
| A | 11/1/21 | AJA | PRELIMINARY REVIEW | MTJ |
| B | 1/14/22 | GAC | PRELIMINARY REVIEW | MTJ |
| C | 4/25/22 | DAS | PRELIMINARY REVIEW | CV |
| D | 4/28/22 | CV | PRELIMINARY REVIEW | CV |
| 0 | 5/4/22 | CV | CONSTRUCTION | CV |



B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

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

SHEET NUMBER: T-1 **REVISION:** 0

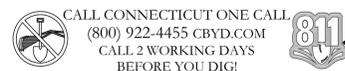
SITE INFORMATION

CROWN CASTLE USA INC. EAST HARTFORD HOCHANUM
SITE NAME:
SITE ADDRESS: 223 BRAINARD ROAD HARTFORD, CT 06114
COUNTY: HARTFORD
MAP/PARCEL #: 300-817-009
AREA OF CONSTRUCTION: EXISTING
LATITUDE: 41.7327919
LONGITUDE: -72.6618989
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 14'-0"
CURRENT ZONING: ID-1 (INDUSTRIAL DISTRICT)
JURISDICTION: CITY OF HARTFORD
OCCUPANCY CLASSIFICATION: U
TYPE OF CONSTRUCTION: IIB
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER: THE METROPOLITAN DISTRICT 555 MAIN ST HARTFORD, CT 06103-2915
TOWER OWNER: CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT: AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER: NOT PROVIDED
TELCO PROVIDER: NOT PROVIDED

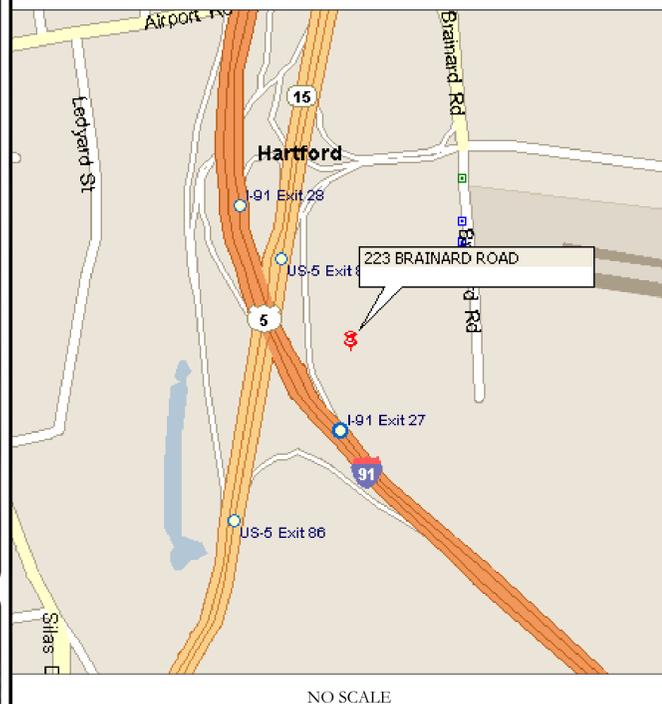
DRAWING INDEX

| SHEET # | SHEET DESCRIPTION |
|----------|----------------------------------|
| T-1 | TITLE SHEET |
| T-2 | GENERAL NOTES |
| C-1.1 | SITE PLAN |
| C-1.2 | EXISTING & FINAL EQUIPMENT PLANS |
| C-2 | FINAL ELEVATION & ANTENNA PLANS |
| C-3 | FINAL EQUIPMENT SCHEDULE |
| C-4 | EQUIPMENT MOUNTING DETAILS |
| C-5 | EQUIPMENT SPECS |
| C-6 | EQUIPMENT SPECS |
| E-1 | POWER ANALYSIS |
| G-1 | GROUNDING SCHEMATIC |
| G-2 | GROUNDING DETAILS |
| ATTACHED | PLUMBING DIAGRAM |
| ATTACHED | MOUNT MODIFICATION DRAWINGS |

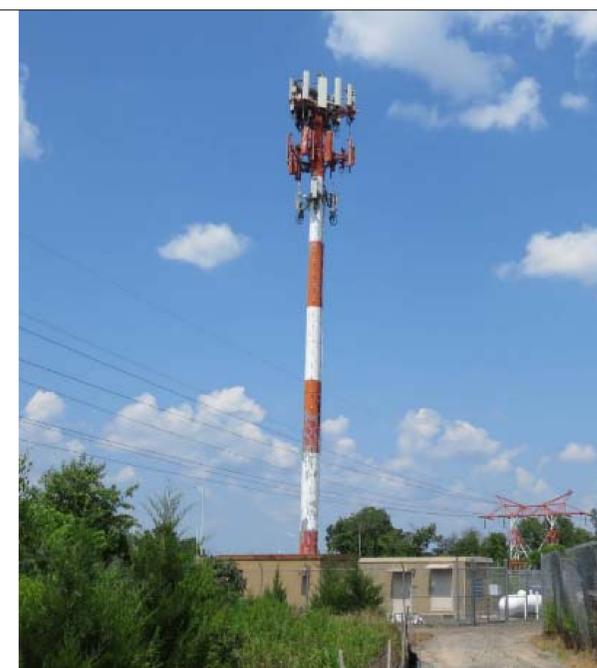
ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22X34. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



LOCATION MAP



SITE PHOTO



PROJECT TEAM

A&E FIRM: B+T GROUP 1717 S BOULDER AVE, SUITE 300 TULSA, OK 74119 MARVIN PHILLIPS marvin.phillips@btgrp.com
CROWN CASTLE USA INC. DISTRICT CONTACTS: 3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065
PAUL PEDICONE - PROJECT MANAGER PAUL.PEDICONE@CROWNCastle.COM
JASON D'AMICO - CONSTRUCTION MANAGER JASON.DAMICO@CROWNCastle.COM

PROJECT DESCRIPTION

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

- REMOVE (3) POWERWAVE - 7770 ANTENNAS
- REMOVE (3) CCI - HIPA-65R-BU4-H6 ANTENNAS
- REMOVE (3) CCI - OP3-65R-LCUU-H6 ANTENNAS
- REMOVE (6) POWERWAVE - LGP 21401 TMA's
- REMOVE (1) RAYCAP - DC6-48-60-0-8F SQUID
- REMOVE (6) COMMSCOPE - APTDC-BDFDM-DBW SURGE ARRESTOR
- REMOVE (3) ERICSSON - RRUS-11 B12 RADIOS
- REMOVE (6) KAELUS - DBC0061F1V51-2 DIPLEXERS
- REMOVE (6) POWERWAVE - 7020 RET MOTORS
- REMOVE (6) 1-1/4" COAX CABLES
- RELOCATE (3) KATHRIEN - 800-10965 ANTENNAS
- RELOCATE (3) ERICSSON - RRUS-32 B2 RADIOS
- RELOCATE (3) ERICSSON - 4478 B14 RADIOS
- RELOCATE (3) ERICSSON - RRUS-32 B66A RADIOS
- INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS BY INFINGY ENGINEERING, PLLC DATED OCTOBER 1, 2021
- INSTALL (3) ERICSSON - AIR6449 N77D + AIR6419 N77G STACKED ANTENNAS
- INSTALL (3) CCI - DMP65R-BU6EA-K ANTENNAS
- INSTALL (3) ERICSSON - 4449 B5/B12 RADIOS
- INSTALL (1) RAYCAP - DC9-48-60-24-8C-EV SQUID
- INSTALL (3) Y CABLES
- INSTALL (2) 7/8" 6AWG DC CABLES
- INSTALL (1) 3/8" 24 PAIR FIBER CABLE

GROUND SCOPE OF WORK:

- REMOVE (3) ERICSSON - RRUS-12 B5
- REMOVE (6) POWERWAVE - LGP 21901 DIPLEXERS
- REMOVE (1) 5216 MODULE
- INSTALL (1) 6648 W/ XCEDE CABLE
- INSTALL (1) 6630 MODULE
- INSTALL (1) IDLE CABLE
- INSTALL (3) RECTIFIERS IN EXISTING POWER PLANT

APPLICABLE CODES/REFERENCE DOCUMENTS

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 | 2012 IBC WITH AMENDMENTS / 2016 CT SBC |
| MECHANICAL | 2012 IMC WITH AMENDMENTS |
| ELECTRICAL | 2014 NEC WITH AMENDMENTS |

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: BY OTHERS
DATED:
MOUNT ANALYSIS: INFINGY ENGINEERING, PLLC
DATED: 10/1/21
RFDS REVISION: FINAL
DATED: 3/30/21
ORDER ID: 556508
REVISION: 1

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.
- 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--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 GROUNDING 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 BETWEEN 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 ANTI-OXIDANT 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-ELECTRICAL 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 DETAIL 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: AT&T
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 (WVF) 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.
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
4.2. 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 PRE 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 THE 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/IEEC 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.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- 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 WORK FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOULD SPECMATE WIREWAY).
- SLOTTED WIRING DUCT 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 "AT&T".
- 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 |
| | GROUND | GREEN |
| 277/480V, 3Ø | A PHASE | BROWN |
| | B PHASE | ORANGE OR PURPLE |
| | C PHASE | YELLOW |
| | NEUTRAL | GREY |
| | GROUND | GREEN |
| DC VOLTAGE | POS (+) | RED** |
| | NEG (-) | BLACK** |

APWA UNIFORM COLOR CODE:

- PROPOSED EXCAVATION
- TEMPORARY SURVEY MARKINGS
- ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
- GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
- COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
- POTABLE WATER
- RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
- SEWERS AND DRAIN LINES

* 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
- PP POWER PLANT
- QTY QUANTITY
- RECT RECTIFIER
- RBS RADIO BASE STATION
- RETS REMOTE ELECTRIC TILT
- RFDS RADIO FREQUENCY DATA SHEET
- RRH REMOTE RADIO HEAD
- RRI REMOTE RADIO UNIT
- SIAD SMART INTEGRATED DEVICE
- TMA TOWER MOUNTED AMPLIFIER
- TYP TYPICAL
- UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
- W.P. WORK POINT



575 MOROSGO DRIVE
ATLANTA, GA 30324-3300



3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065



1717 S. BOULDER
SUITE 300
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**AT&T SITE NUMBER:
CTL05126**

**BU #: 842861
EAST HARTFORD
HOCHANUM**

**223 BRAINARD ROAD
HARTFORD, CT 06114**

**EXISTING
101'-0" MONOPOLE**

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | DES./QA |
|-----|----------|------|--------------------|---------|
| A | 11/11/21 | AJA | PRELIMINARY REVIEW | MTJ |
| B | 1/14/22 | GAC | PRELIMINARY REVIEW | MTJ |
| C | 4/25/22 | DAS | PRELIMINARY REVIEW | CV |
| D | 4/28/22 | CV | PRELIMINARY REVIEW | CV |
| 0 | 5/4/22 | CV | CONSTRUCTION | CV |



B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

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SHEET NUMBER: REVISION:

T-2 0



575 MOROSGO DRIVE
ATLANTA, GA 30324-3300



3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065



1717 S. BOULDER
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EXISTING
101'-0" MONOPOLE

ISSUED FOR:

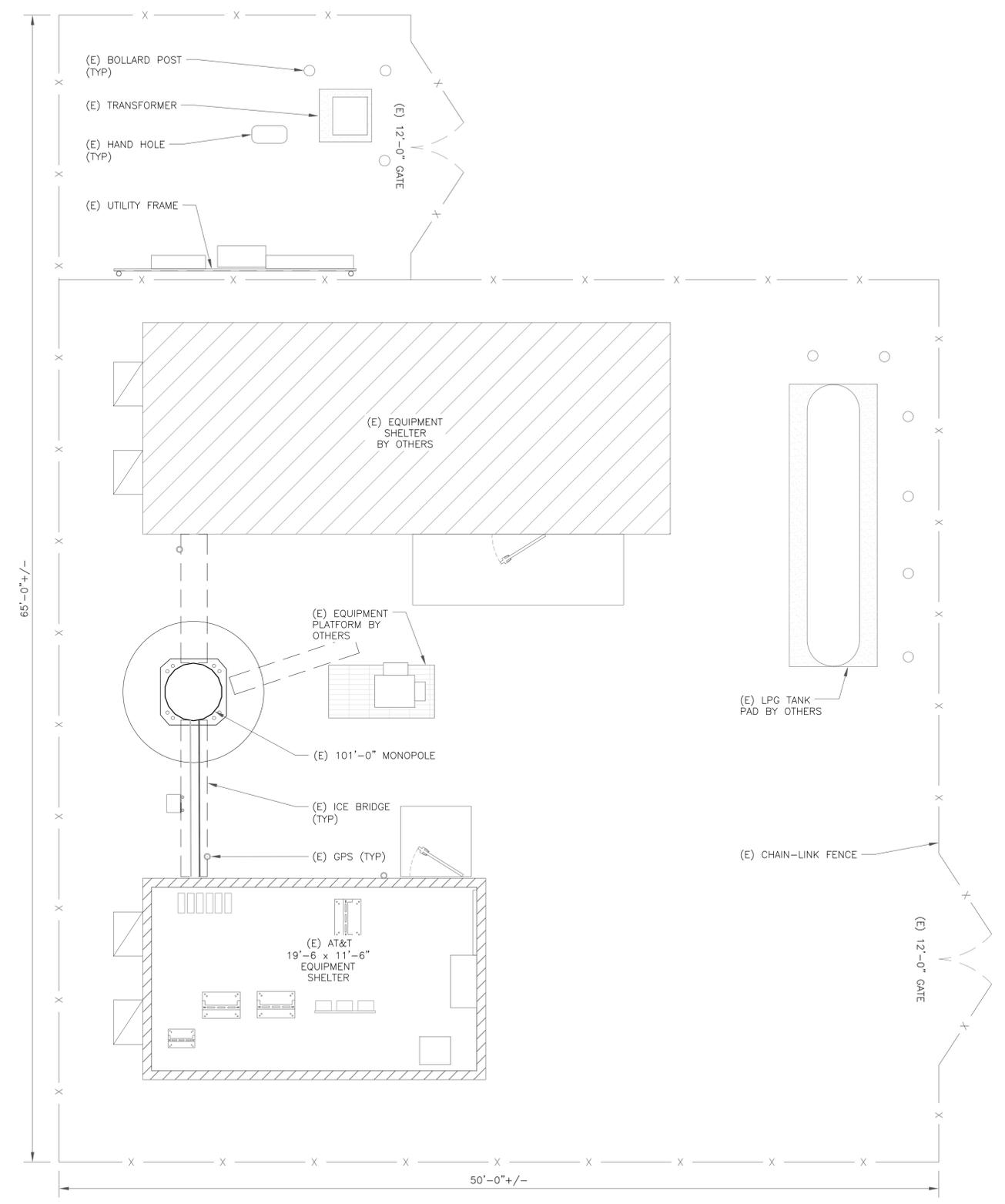
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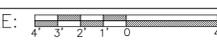
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1 SITE PLAN

SCALE:  1/4"=1'-0" (FULL SIZE)
1/8"=1'-0" (11x17)



SHEET NUMBER: **C-1.1** REVISION: **0**

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575 MOROSGO DRIVE
ATLANTA, GA 30324-3300



3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065



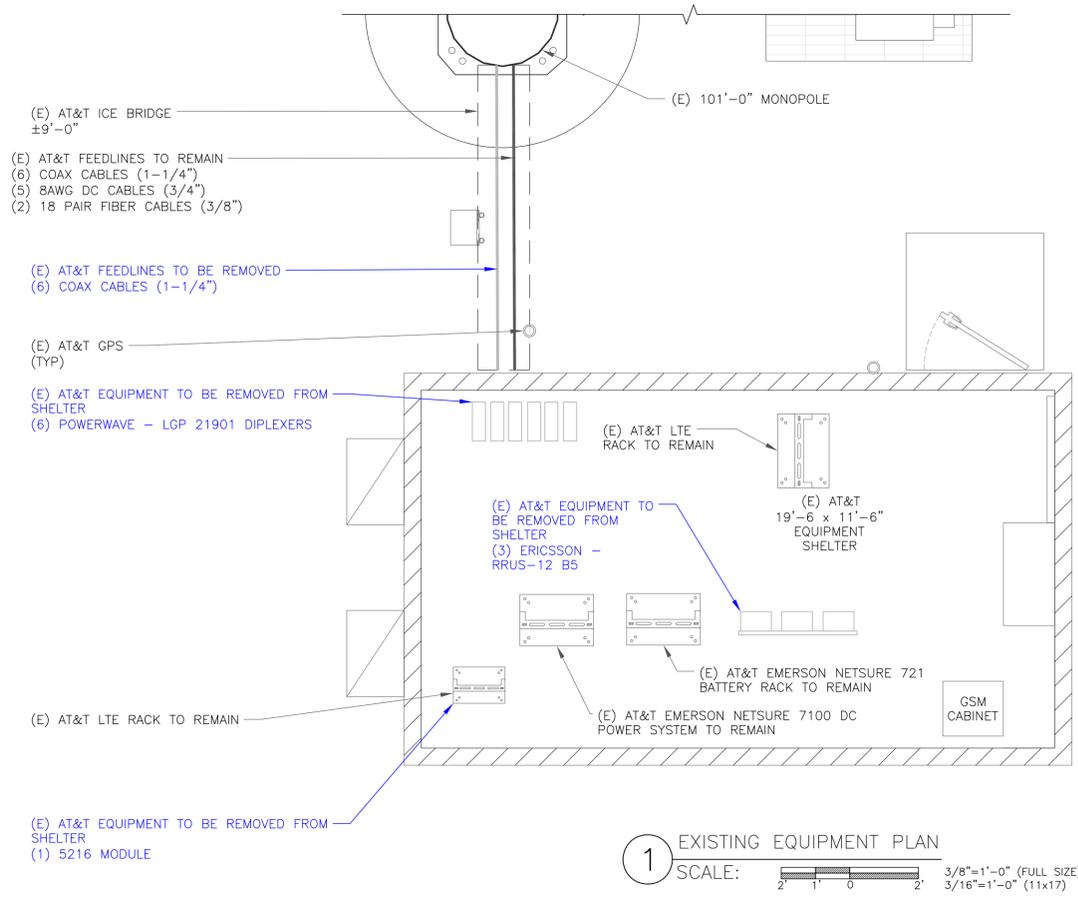
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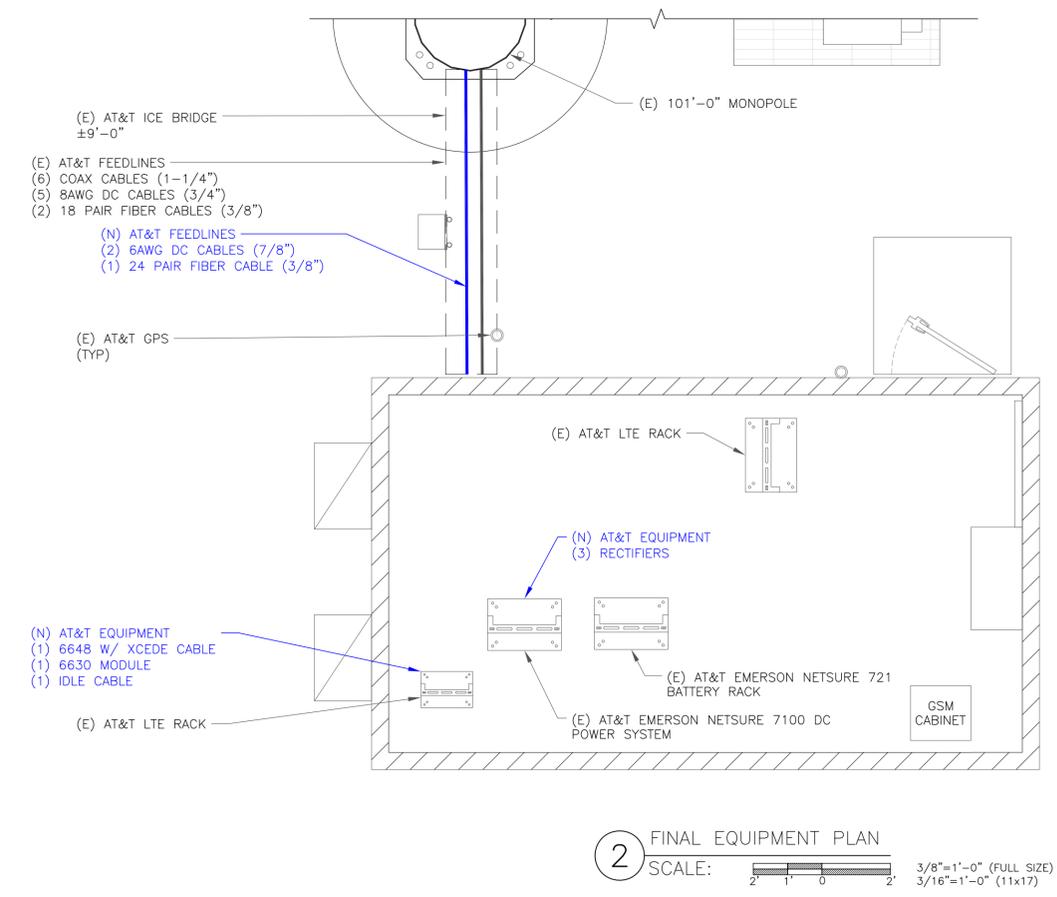
EXISTING
101'-0" MONOPOLE



1 EXISTING EQUIPMENT PLAN
SCALE: 3/8"=1'-0" (FULL SIZE)
3/16"=1'-0" (11x17)



- GROUND SCOPE OF WORK:**
- REMOVE (3) RRU 12 B5
 - REMOVE (1) 5216
 - REMOVE (6) DIPLEXERS
 - INSTALL (3) RECTIFIERS
 - INSTALL (1) 6648 W/ XCEDE CABLE
 - INSTALL (1) 6630 MODULE
 - INSTALL (1) IDLE CABLE



2 FINAL EQUIPMENT PLAN
SCALE: 3/8"=1'-0" (FULL SIZE)
3/16"=1'-0" (11x17)



ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | DES./QA |
|-----|---------|------|--------------------|---------|
| A | 11/1/21 | AJA | PRELIMINARY REVIEW | MTJ |
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| D | 4/28/22 | CV | PRELIMINARY REVIEW | CV |
| 0 | 5/4/22 | CV | CONSTRUCTION | CV |



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PEC.0001564
Expires 2/10/22

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TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-1.2** REVISION: **0**

154567.002.01_EAST_HARTFORD_HOCHANUM.dwg - Sheet: C-1.2 - User: chad.vandergraft - May 04, 2022 - 9:51am



AT&T SITE NUMBER:
CTL05126

BU #: **842861**
EAST HARTFORD HOCHANUM

223 BRAINARD ROAD
HARTFORD, CT 06114

EXISTING
101'-0" MONOPOLE

ISSUED FOR:

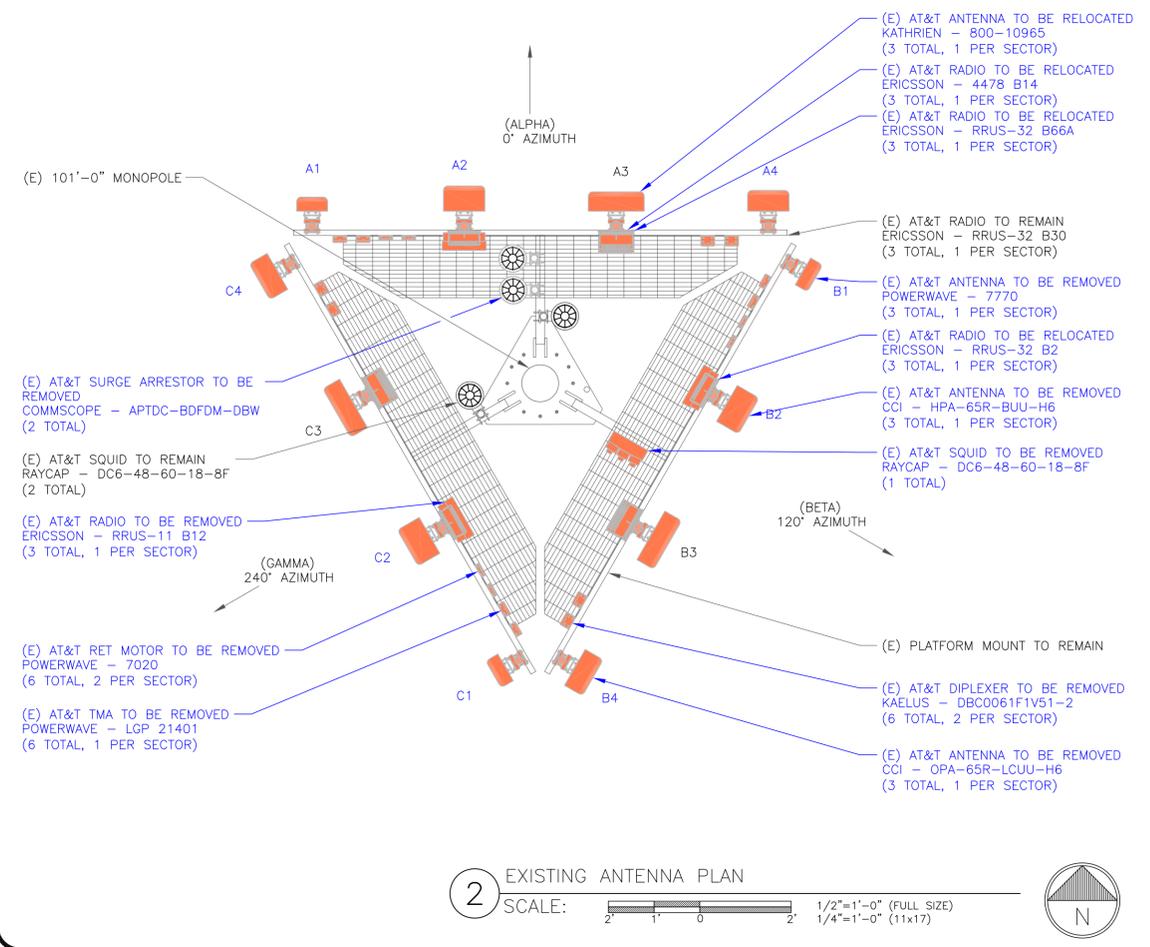
| REV | DATE | DRWN | DESCRIPTION | DES./QA |
|-----|---------|------|--------------------|---------|
| A | 11/1/21 | AJA | PRELIMINARY REVIEW | MTJ |
| B | 1/14/22 | GAC | PRELIMINARY REVIEW | MTJ |
| C | 4/25/22 | DAS | PRELIMINARY REVIEW | CV |
| D | 4/28/22 | CV | PRELIMINARY REVIEW | CV |
| 0 | 5/4/22 | CV | CONSTRUCTION | CV |



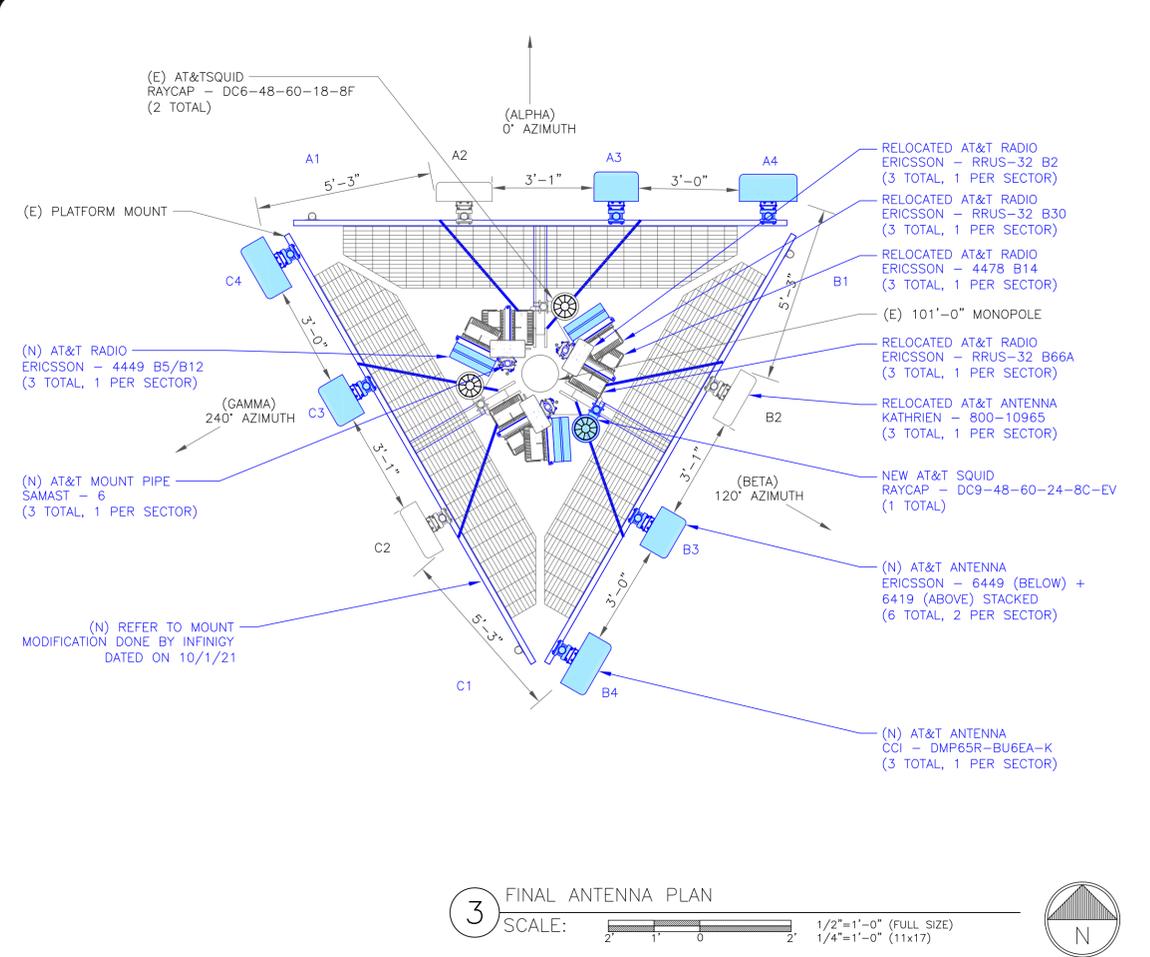
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

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SHEET NUMBER: **C-2** REVISION: **0**



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



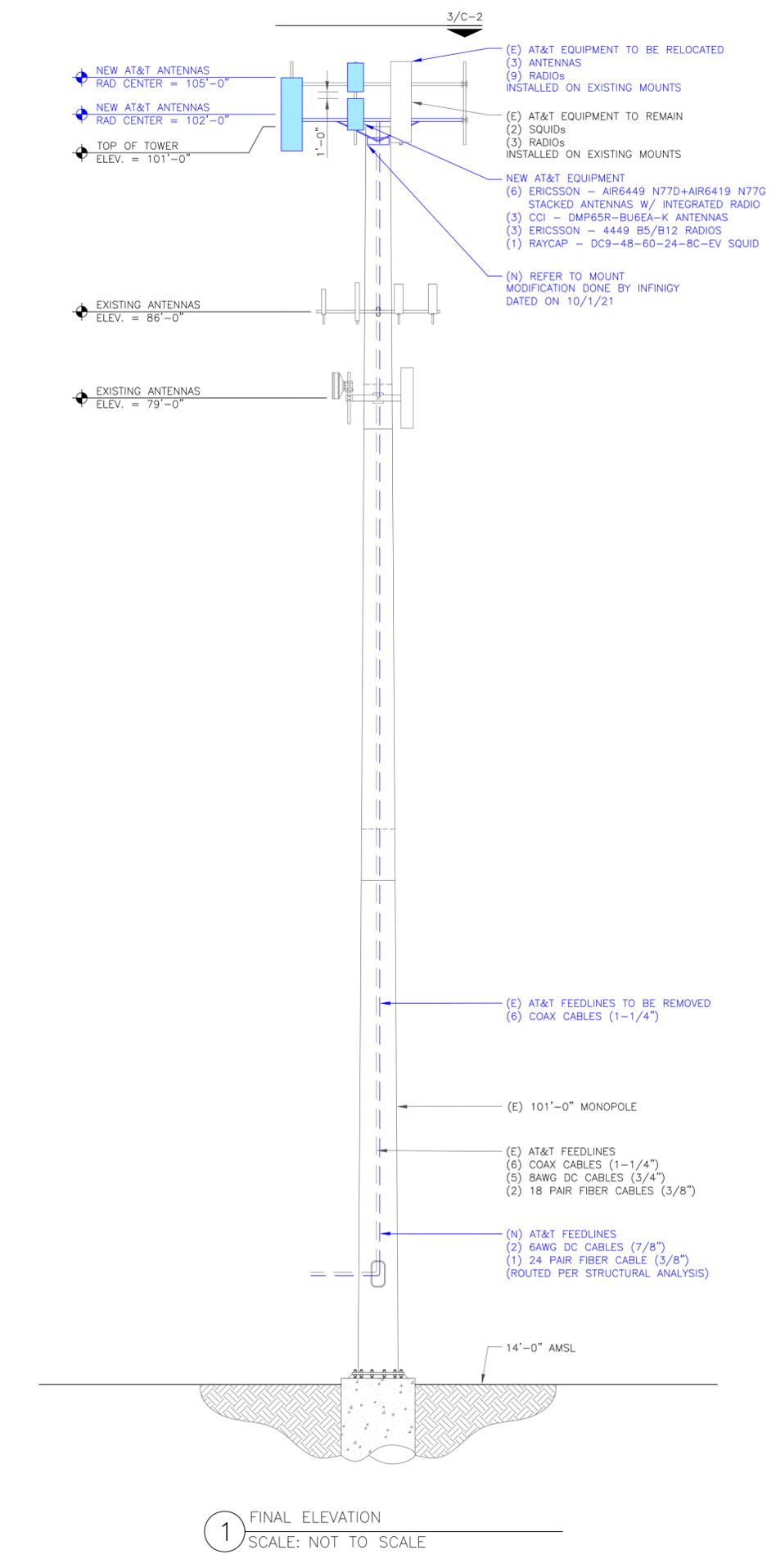
3 FINAL ANTENNA PLAN
SCALE: 1/2"=1'-0" (FULL SIZE), 1/4"=1'-0" (11x17)

"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.

INSTALLER NOTES:

- REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
- REFERENCE C-4 FOR NEW EQUIPMENT SPECIFICATIONS.
- CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
- 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
- 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN 700BC & 700DE ANTENNAS ON SAME SECTOR.
- 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
- ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
- 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.



1 FINAL ELEVATION
SCALE: NOT TO SCALE

1:54567.002.01_EAST_HARTFORD_HOCHANUM.dwg - Sheet: C-2 - User: chad.vandergraaf - May 04, 2022 - 9:51am



AT&T SITE NUMBER:
CTL05126

BU #: **842861**
EAST HARTFORD
HOCHANUM

223 BRAINARD ROAD
HARTFORD, CT 06114

EXISTING
101'-0" MONOPOLE

ISSUED FOR:

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SHEET NUMBER:

C-3

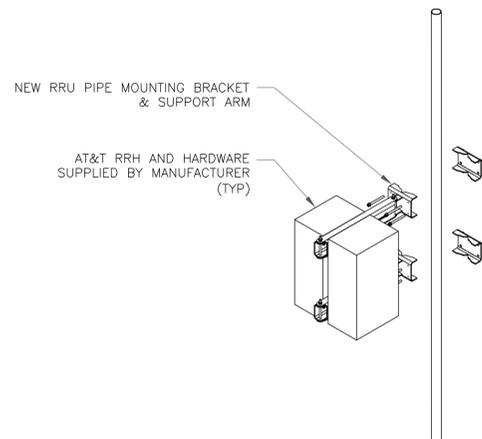
REVISION:

0

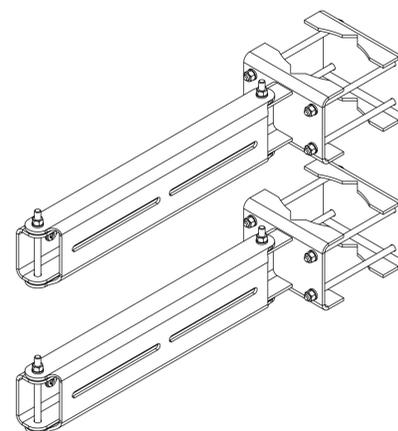
FINAL ANTENNA AND FEEDLINE SCHEDULE

| POS. | TECH | STATUS | AZIMUTH | ANTENNA TYPE | ANTENNA RAD CENTER | MECHANICAL DOWNTILT | ELECTRICAL DOWNTILT | MAIN COAX SIZE | MAIN COAX LENGTH | COAX QTY | TMA QTY AND MODEL | SURGE PROTECTION | DC/FIBER CABLES | RRHs QTY & MODEL ON TOWER | LOCATION | DIPLEXER ON TOWER | DIPLEXER ON GROUND | RET CABLE |
|--------------|---|----------|---------|----------------------|--------------------|---------------------|---------------------|----------------|------------------|----------|-------------------|----------------------------|---|--|----------|-------------------|--------------------|-----------|
| ALPHA SECTOR | | | | | | | | | | | | | | | | | | |
| A1 | - | - | - | - | - | - | - | - | - | - | - | (E) (1) DC6-48-60-18-8F | (E) (2) 8AWG DC CABLES (3/4") (E) (1) 18 PAIR FIBER CABLE (3/8") | - | - | - | - | - |
| A2 | LTE 700/5G AWS/LTE AWS | EXISTING | 0° | KATHRIEN - 800-10965 | 103'-0" | 0° | 2°/2°/4° | - | - | - | - | | | (1) 4478 B14 (1) RRUS-32 B66A | TOWER | N | N | N |
| A3 | 5G CBAND | NEW | 0° | AIR6449+AIR6419 N77G | 103'-0" 105'-0" | 0° | 0° | - | - | - | - | | | - | - | N | N | N |
| A4 | LTE 700/ 5G 850/ LTE 1900/ LTE WCS/ 5G 1900 | NEW | 0° | DMP65R-BU6EA-K | 102'-0" | 0° | - | 1 1/4" | 153'-0" | 2 | - | | | (1) RRUS-32 B30 (1) RRUS-32 B2 (1) 4449 B5/B12 | TOWER | N | N | N |
| BETA SECTOR | | | | | | | | | | | | | | | | | | |
| B1 | - | - | - | - | - | - | - | - | - | - | - | (1) DC9-48-60-24-8C-EV | (E) (1) 8AWG DC CABLE (3/4") (N) (2) 6AWG DC CABLES (7/8") (N) (1) 24 PAIR FIBER CABLE (3/8") | - | - | - | - | - |
| B2 | LTE 700/5G AWS/LTE AWS | EXISTING | 120° | KATHRIEN - 800-10965 | 103'-0" | 0° | 6°/3°/3° | - | - | - | - | | | (1) 4478 B14 (1) RRUS-32 B66A | TOWER | N | N | N |
| B3 | 5G CBAND | NEW | 120° | AIR6449+AIR6419 N77G | 103'-0" 105'-0" | 0° | 0° | - | - | - | - | | | - | - | N | N | N |
| B4 | LTE 700/ 5G 850/ LTE 1900/ LTE WCS/ 5G 1900 | NEW | 120° | DMP65R-BU6EA-K | 102'-0" | 0° | - | 1 1/4" | 153'-0" | 2 | - | | | (1) RRUS-32 B30 (1) RRUS-32 B2 (1) 4449 B5/B12 | TOWER | N | N | N |
| GAMMA SECTOR | | | | | | | | | | | | | | | | | | |
| C1 | - | - | - | - | - | - | - | - | - | - | - | (E) (1) DC6-48-60-18-8F | (E) (2) 8AWG DC CABLES (3/4") (E) (1) 18 PAIR FIBER CABLE (3/8") | - | - | - | - | - |
| C2 | LTE 700/5G AWS/LTE AWS | EXISTING | 240° | KATHRIEN - 800-10965 | 103'-0" | 0° | 2°/7°/7° | - | - | - | - | | | (1) 4478 B14 (1) RRUS-32 B66A | TOWER | N | N | N |
| C3 | 5G CBAND | NEW | 240° | AIR6449+AIR6419 N77G | 103'-0" 105'-0" | 0° | 0° | - | - | - | - | | | - | - | N | N | N |
| C4 | LTE 700/ 5G 850/ LTE 1900/ LTE WCS/ 5G 1900 | NEW | 240° | DMP65R-BU6EA-K | 102'-0" | 0° | - | 1 1/4" | 153'-0" | 2 | - | | | (1) RRUS-32 B30 (1) RRUS-32 B2 (1) 4449 B5/B12 | TOWER | N | N | N |

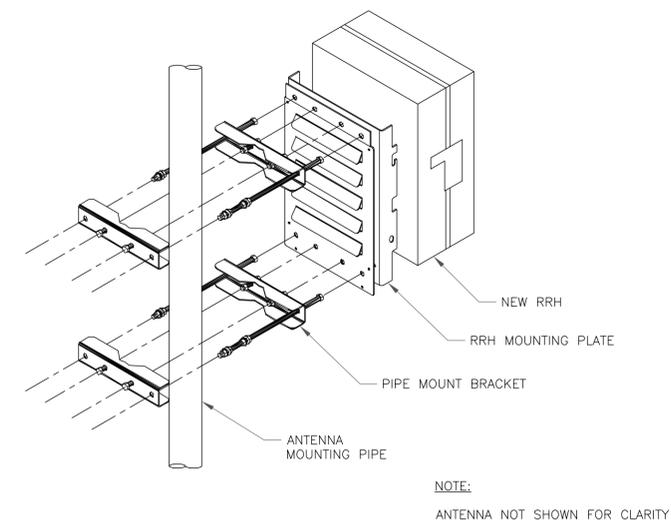
NOTE: BLUE DENOTES NEW EQUIPMENT



1 DUAL RRH MOUNTING DETAIL
SCALE: NOT TO SCALE



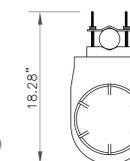
2 DUAL RADIO MOUNT
SCALE: NOT TO SCALE



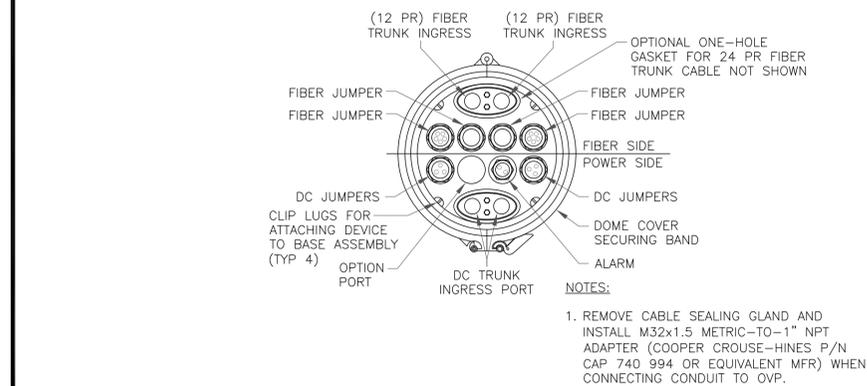
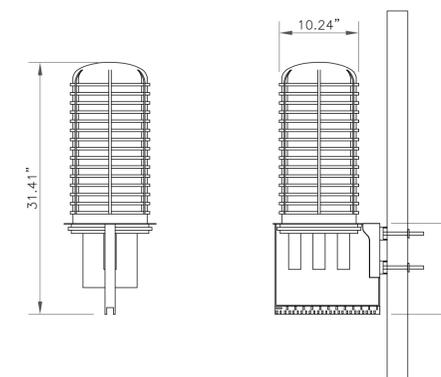
3 SINGLE RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

RAYCAP
DC9-48-60-24-8C-EV

RAYCAP - DC9-48-60-24-8C-EV
SIZE: 10.24x31.40 IN.
WEIGHT: 26.2 LBS
NOMINAL OPERATING VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING: 330 V
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)
WIND LOADING: 195 MPH GUST (213.6 LBS)



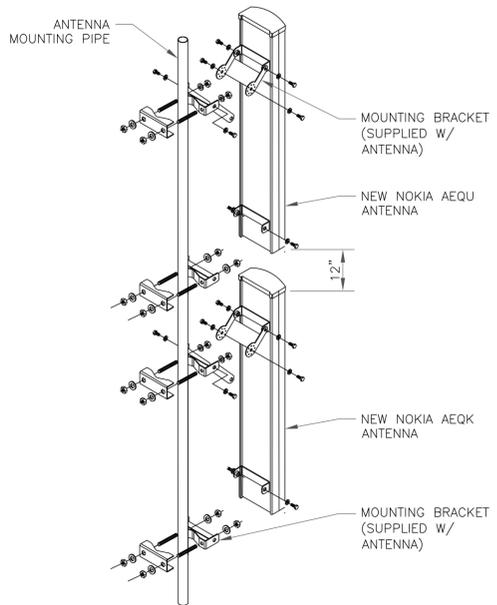
CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION



6 SQUID MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:

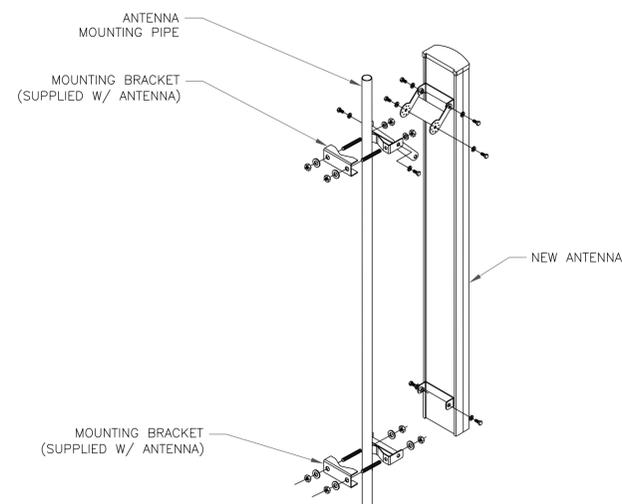
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



4 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:

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



5 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.blgrp.com

AT&T SITE NUMBER:
CTL05126

BU #: 842861
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HOCHANUM**

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HARTFORD, CT 06114

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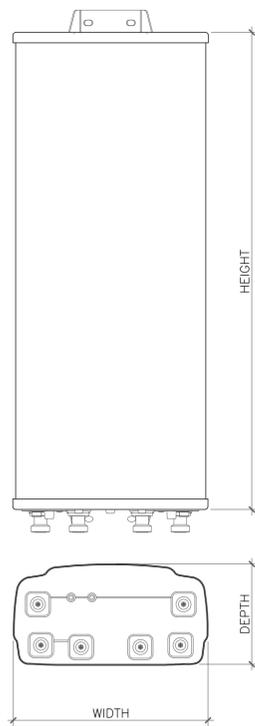
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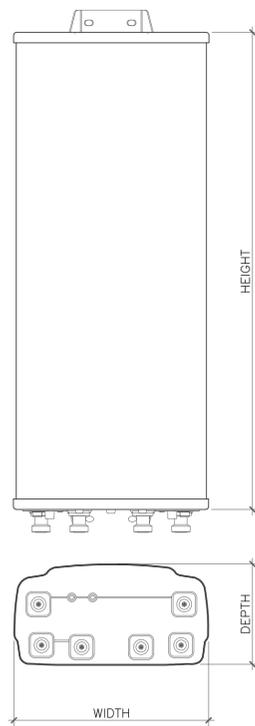
SHEET NUMBER: **C-4** REVISION: **0**

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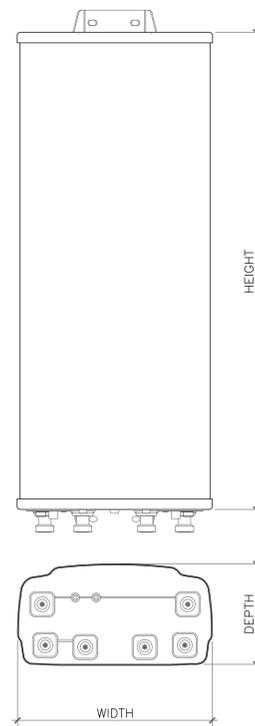
| ANTENNA DIMENSIONS (INCHES) | | | | |
|-----------------------------|--------|--------|--------|-----------|
| MODEL | HEIGHT | WIDTH | DEPTH | WEIGHT |
| AIR6449 N77D | 33.63" | 15.87" | 10.55" | 96.80 lbs |

1 ANTENNA DETAIL
SCALE: NOT TO SCALE



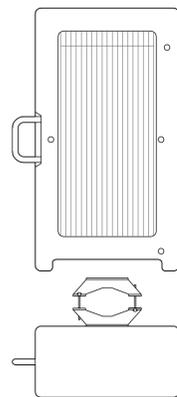
| ANTENNA DIMENSIONS (INCHES) | | | | |
|-----------------------------|--------|--------|-------|-----------|
| MODEL | HEIGHT | WIDTH | DEPTH | WEIGHT |
| AIR6419 N77G | 27.95" | 15.75" | 6.68" | 66.20 lbs |

2 ANTENNA DETAIL
SCALE: NOT TO SCALE



| ANTENNA DIMENSIONS (INCHES) | | | | |
|-----------------------------|--------|--------|-------|-----------|
| MODEL | HEIGHT | WIDTH | DEPTH | WEIGHT |
| DMP65R-BU6EA-K | 71.20" | 20.70" | 9.70" | 103.8 lbs |

3 ANTENNA DETAIL
SCALE: NOT TO SCALE



ERICSSON - 4449 B5/B12
WEIGHT (FULLY EQUIPPED): 71.0 LBS
SIZE (HxWxD): 17.90x13.19x9.44 IN.
CONNECTOR TYPE: 4.3-10 FEMALE (4 TOTAL PORTS)

4 ERICSSON - 4449 B5/B12
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

AT&T
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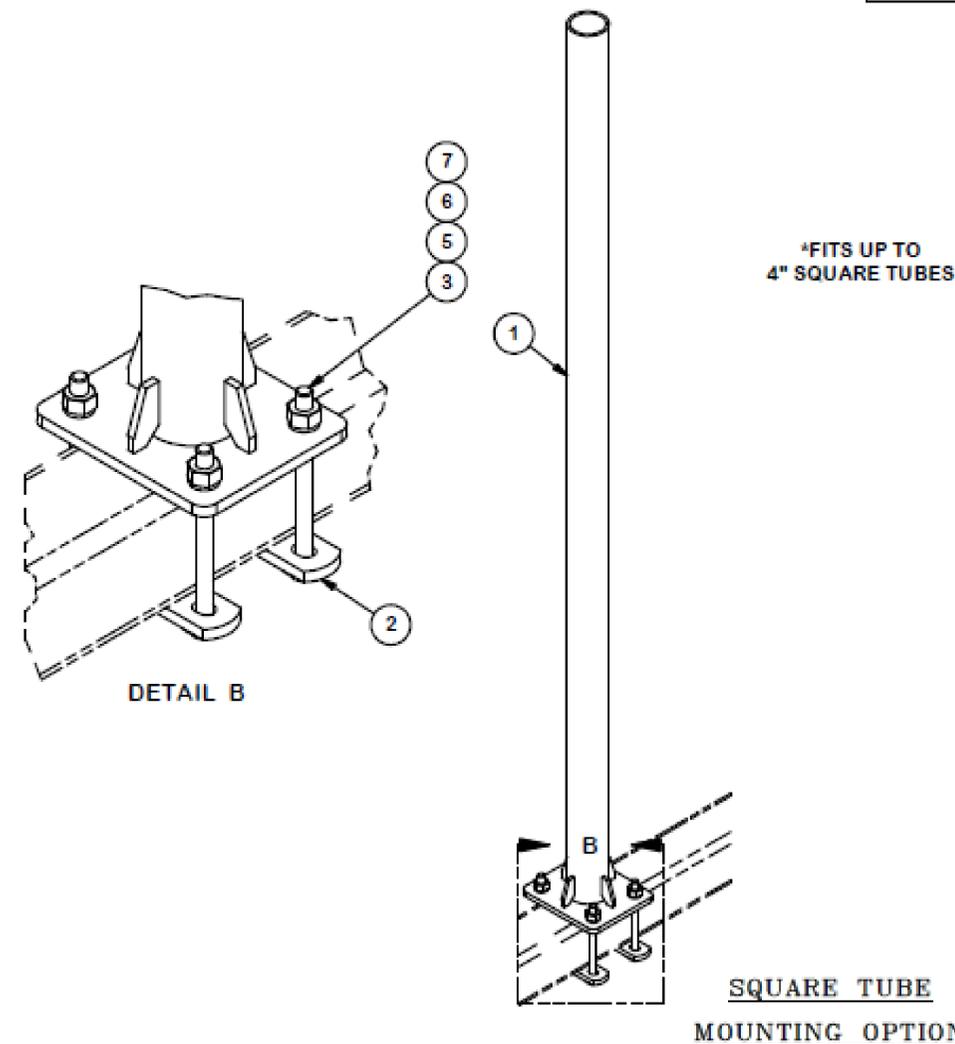
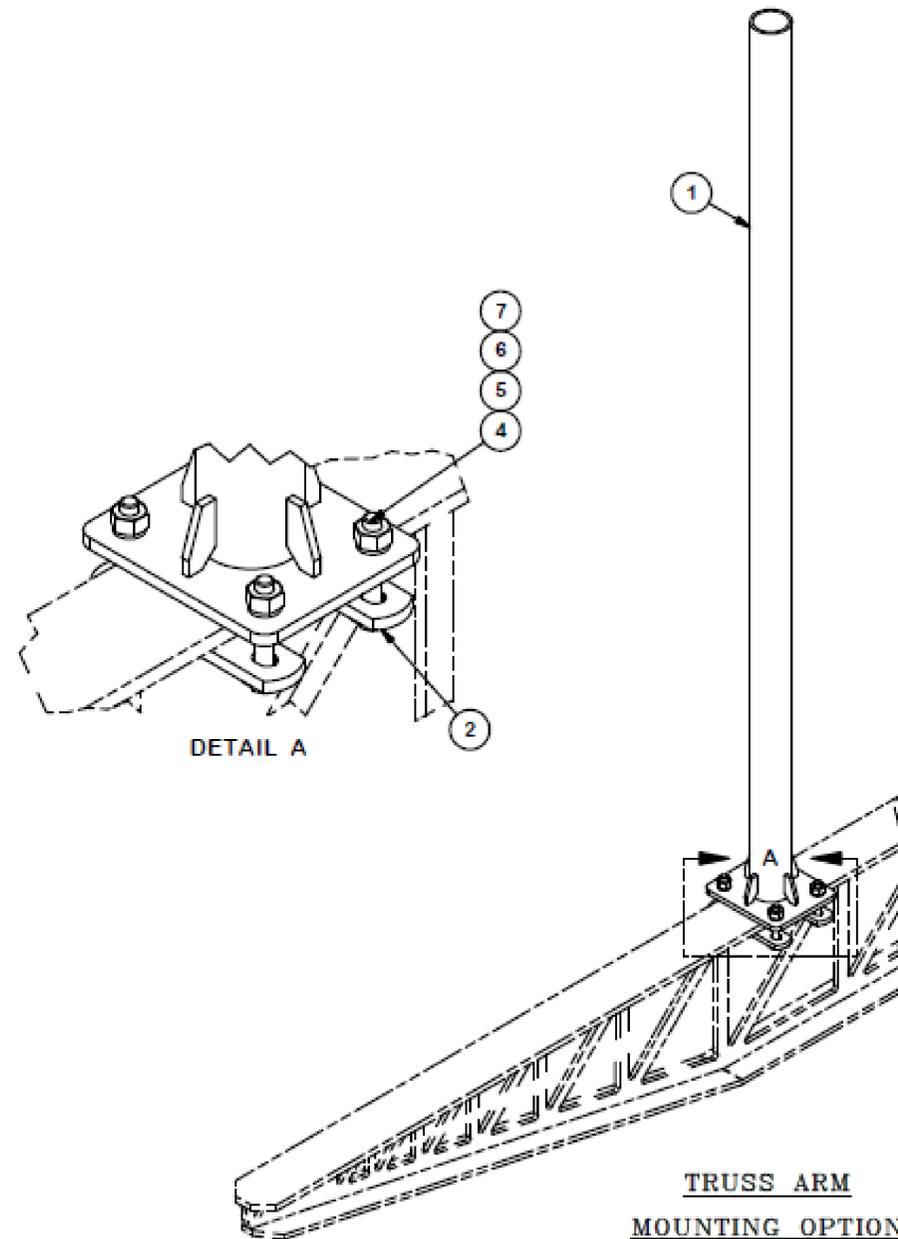


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SHEET NUMBER: **C-6** REVISION: **0**

| PARTS LIST | | | | | | |
|-------------|-----|------------|--|-----------|----------|---------|
| ITEM | QTY | PART NO. | PART DESCRIPTION | LENGTH | UNIT WT. | NET WT. |
| 1 | 1 | X-SAMAST-6 | 6' STANDOFF ARM MAST WELDMENT | | 23.19 | 23.19 |
| 2 | 2 | X-115765 | 5" V-CLAMP | 7 1/16 in | 1.03 | 2.05 |
| 3 | 4 | G1206 | 1/2" x 6" HDG HEX BOLT GR5 FULL THREAD | 2 in | 0.38 | 1.53 |
| 4 | 4 | G1203 | 1/2" x 3" HDG HEX BOLT GR5 FULL THREAD | 3 in | 0.22 | 0.87 |
| 5 | 4 | G12FW | 1/2" HDG USS FLATWASHER | 3/32 in | 0.03 | 0.14 |
| 6 | 4 | G12LW | 1/2" HDG LOCKWASHER | 1/8 in | 0.01 | 0.06 |
| 7 | 4 | G12NUT | 1/2" HDG HEAVY 2H HEX NUT | | 0.07 | 0.29 |
| TOTAL WT. # | | | | | | 28.11 |



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030)
DRILLED AND GAS CUT HOLES (± 0.030) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010) - NO CONING OF HOLES
BENDS AND ANGLES ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING (± 0.030)
ALL OTHER ASSEMBLY (± 0.080)

PROPRIETARY NOTE:
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

| DESCRIPTION | | |
|-------------------------|--|--|
| 6' STANDOFF ARM MAST | | |

SITE PRO 1
A valmont  **CROWN CASTLE**

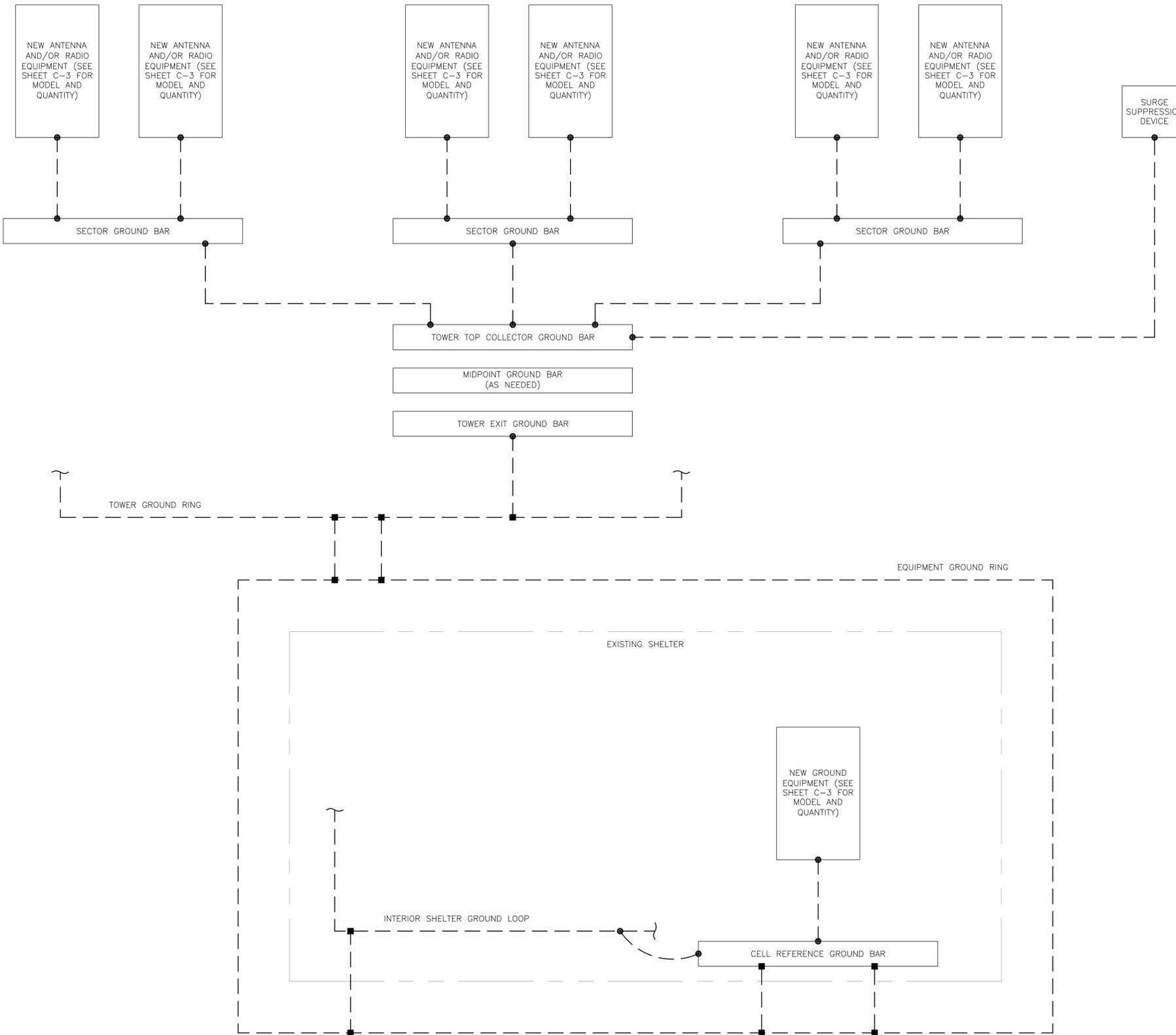
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX
Tampa, FL

Engineering Support Team:
1-888-753-7446

| CPD NO. | DRAWN BY | ENG. APPROVAL |
|---------------|---------------|---------------|
| | CEK 6/19/2019 | |
| CLASS | SUB | DRAWING USAGE |
| 81 | 02 | CUSTOMER |
| CHECKED BY | | |
| BMC 6/19/2019 | | |

| PART NO. | DWG. NO. |
|----------|----------|
| SAMAST-6 | SAMAST-6 |

1 OF 1
PAGE



GROUNDING PLAN LEGEND:

- GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- ⊙ COPPER GROUND ROD
- ⊗ GROUND ROD W/ TEST WELL

CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUITS (ATT-TP-76416 7.6.7).

HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CELL SITE REFERENCE GROUND BAR MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS.

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416 7.6.7.2).

DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.

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| D | 4/28/22 | CV | PRELIMINARY REVIEW | CV |
| 0 | 5/4/22 | CV | CONSTRUCTION | CV |

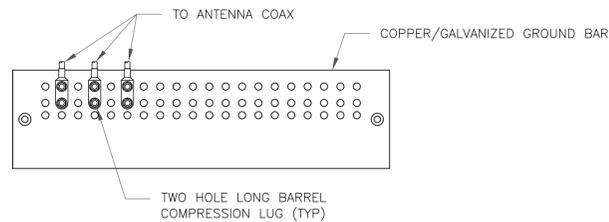
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

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SHEET NUMBER: **G-1** REVISION: **0**

1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

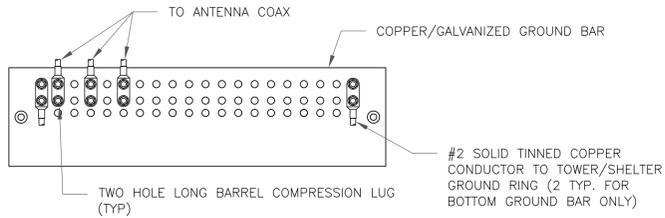
154567.002.01_EAST_HARTFORD_HOCHANUM.dwg - Sheet:G-1 - User: chad.vandergraft - May 04, 2022 - 9:51am



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

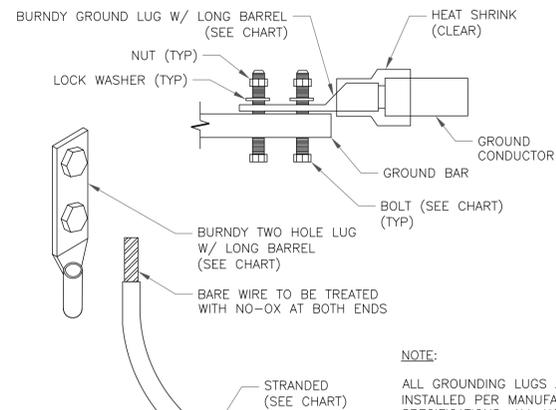


NOTES:

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

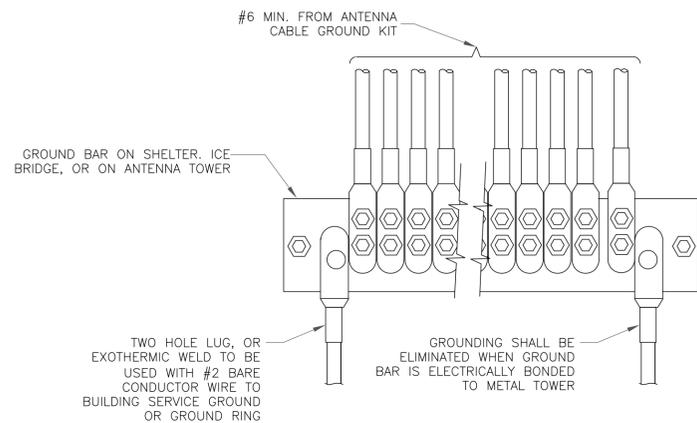
| WIRE SIZE | BURNDY LUG | BOLT SIZE |
|--------------------|------------|------------------------|
| #6 GREEN INSULATED | YA6C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2 SOLID TINNED | YA3C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2 STRANDED | YA2C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2/0 STRANDED | YA26-2TC38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



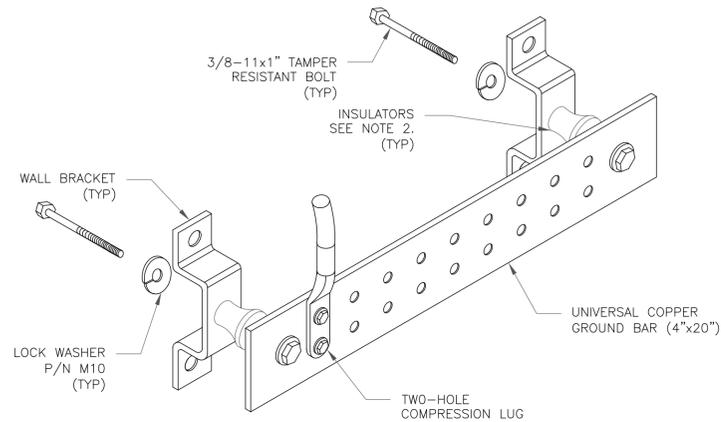
NOTE:

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



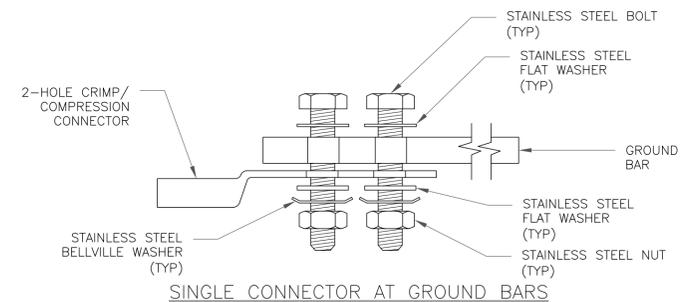
4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



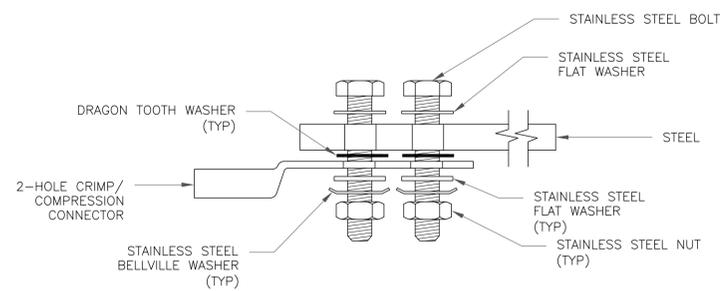
NOTES:

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.

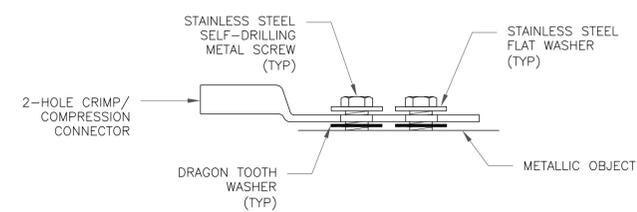
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

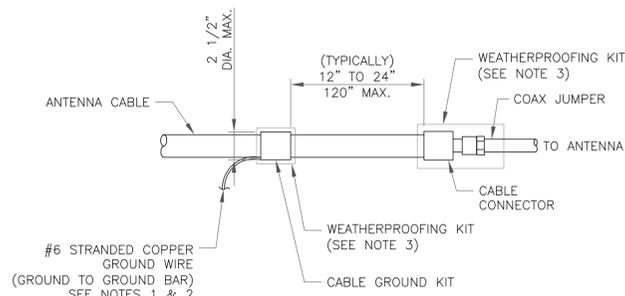


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

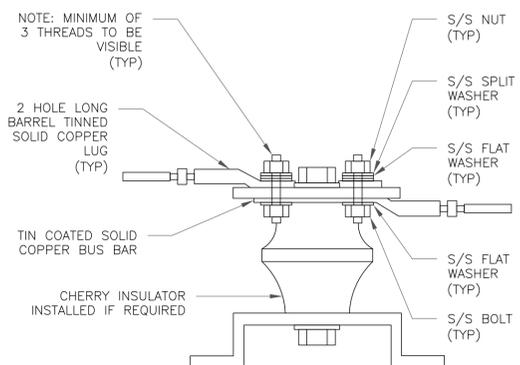
8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



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

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.blgrp.com

AT&T SITE NUMBER:
CTL05126

BU #: 842861
EAST HARTFORD
HOCHANUM

223 BRAINARD ROAD
HARTFORD, CT 06114

EXISTING
101'-0" MONOPOLE

ISSUED FOR:

| REV | DATE | DRWN | DESCRIPTION | DES./QA |
|-----|----------|------|--------------------|---------|
| A | 11/11/21 | AJA | PRELIMINARY REVIEW | MTJ |
| B | 1/14/22 | GAC | PRELIMINARY REVIEW | MTJ |
| C | 4/25/22 | DAS | PRELIMINARY REVIEW | CV |
| D | 4/28/22 | CV | PRELIMINARY REVIEW | CV |
| 0 | 5/4/22 | CV | CONSTRUCTION | CV |

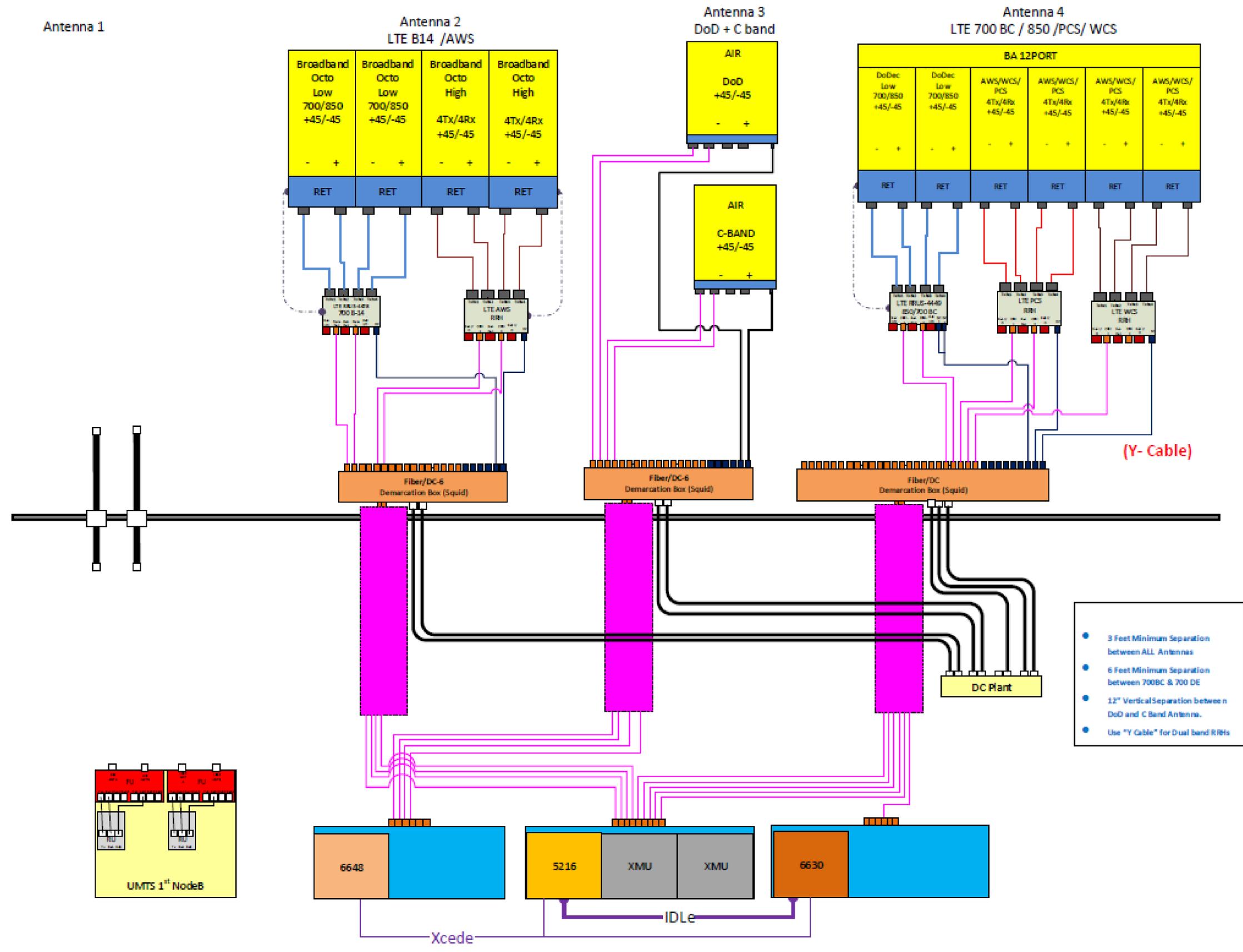


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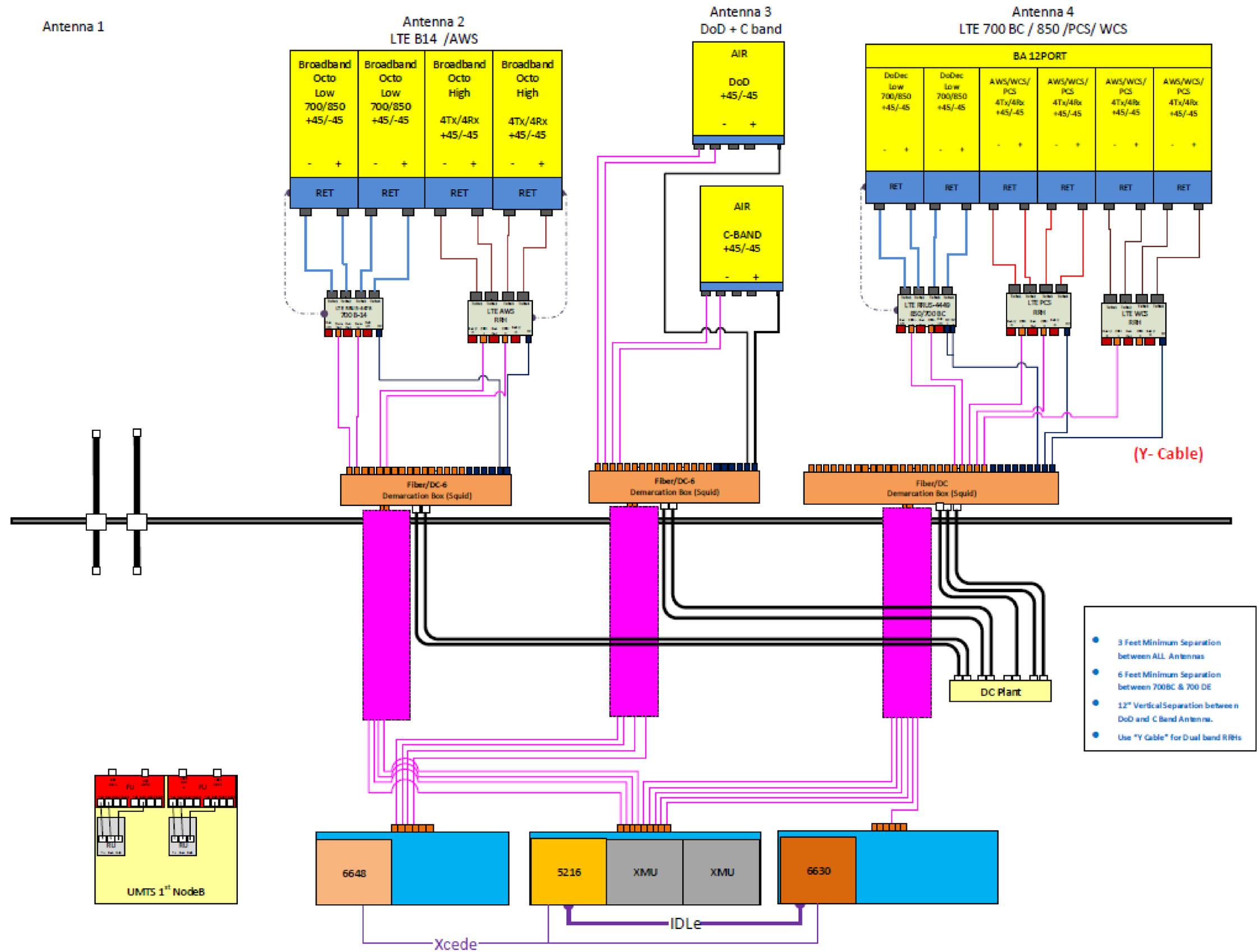
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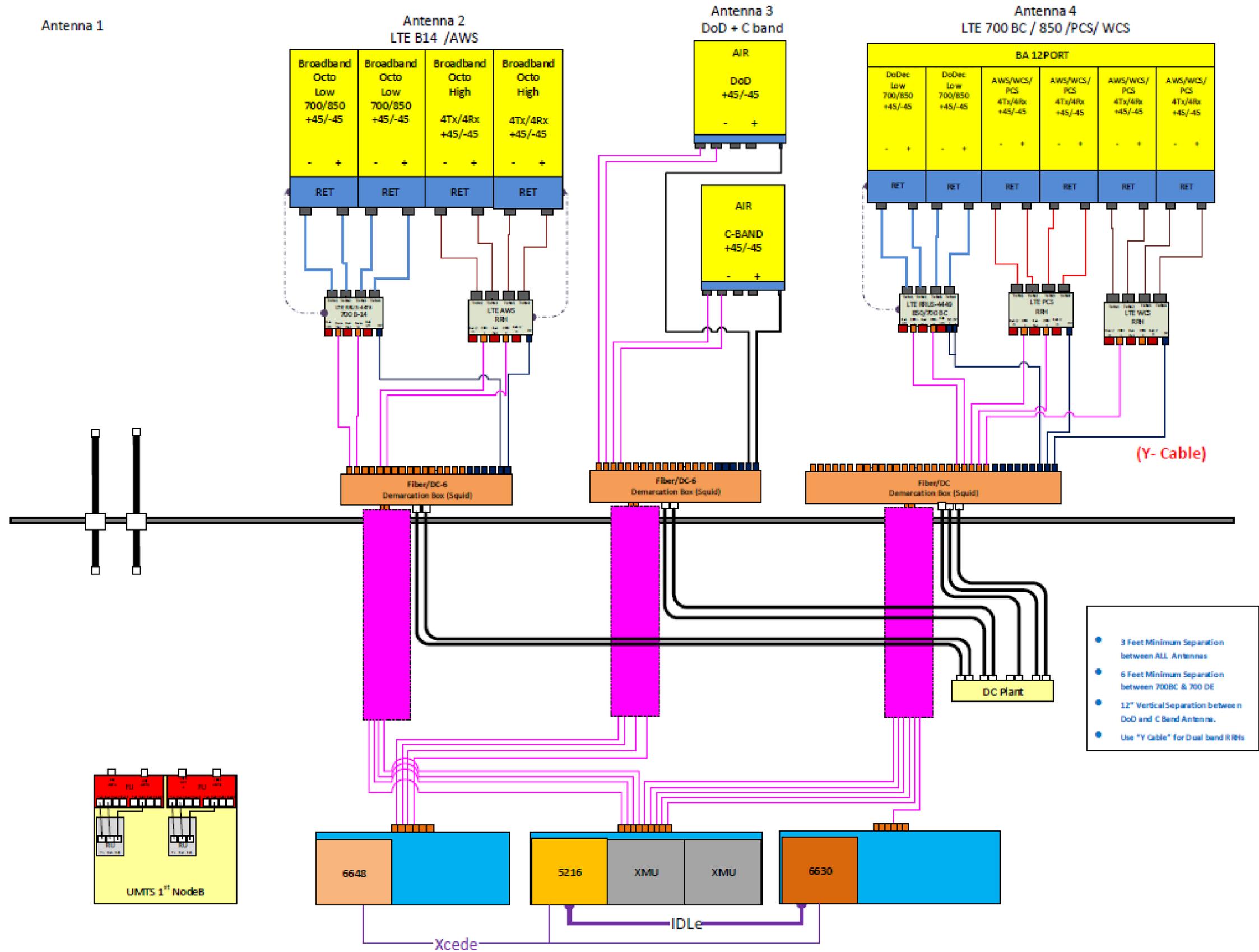
SHEET NUMBER: **G-2** REVISION: **0**

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- 3 Feet Minimum Separation between ALL Antennas
- 6 Feet Minimum Separation between 700BC & 700 DE
- 12" Vertical Separation between DoD and C Band Antenna.
- Use "Y Cable" for Dual band RIBs





GENERAL NOTES:

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

STEEL CONSTRUCTION NOTES:

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

CONCRETE CONSTRUCTION NOTES:

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

FIBER REINFORCED POLYMER (FRP) NOTES:

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

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

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

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

WOOD CONSTRUCTION NOTES:

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

MASONRY CONSTRUCTION NOTES:

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

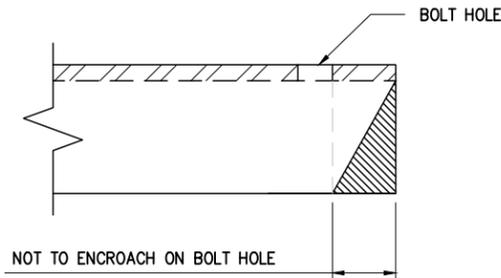
TOWER PLUMB & TENSION NOTES:

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

SPECIAL INSPECTIONS NOTES:

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

MAXIMUM ALLOWABLE ANGLE CLIP



INFINIGY
 1033 Watervliet Shaker Rd
 Albany, NY 12205
 Office # (518) 690-0790
 Fax # (518) 690-0793



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| No. | ISSUED FOR REVIEW | AM | 09/30/21 |
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| 0 | Submitted / Revision | App'd | Date |

Drawn: DMB Date: 09/30/21
 Designed: AM Date: 09/30/21
 Checked: AG Date: 09/30/21

Project Number:
1039-Z0001-B

Project Title:
BU# 842861

EAST HARTFORD HOCHANUM

223 BRAINARD ROAD
 HARTFORD, CT 06114

Prepared For:

CROWN CASTLE
 3 Corporate Park, Suite 101
 Clifton Park, NY 12065

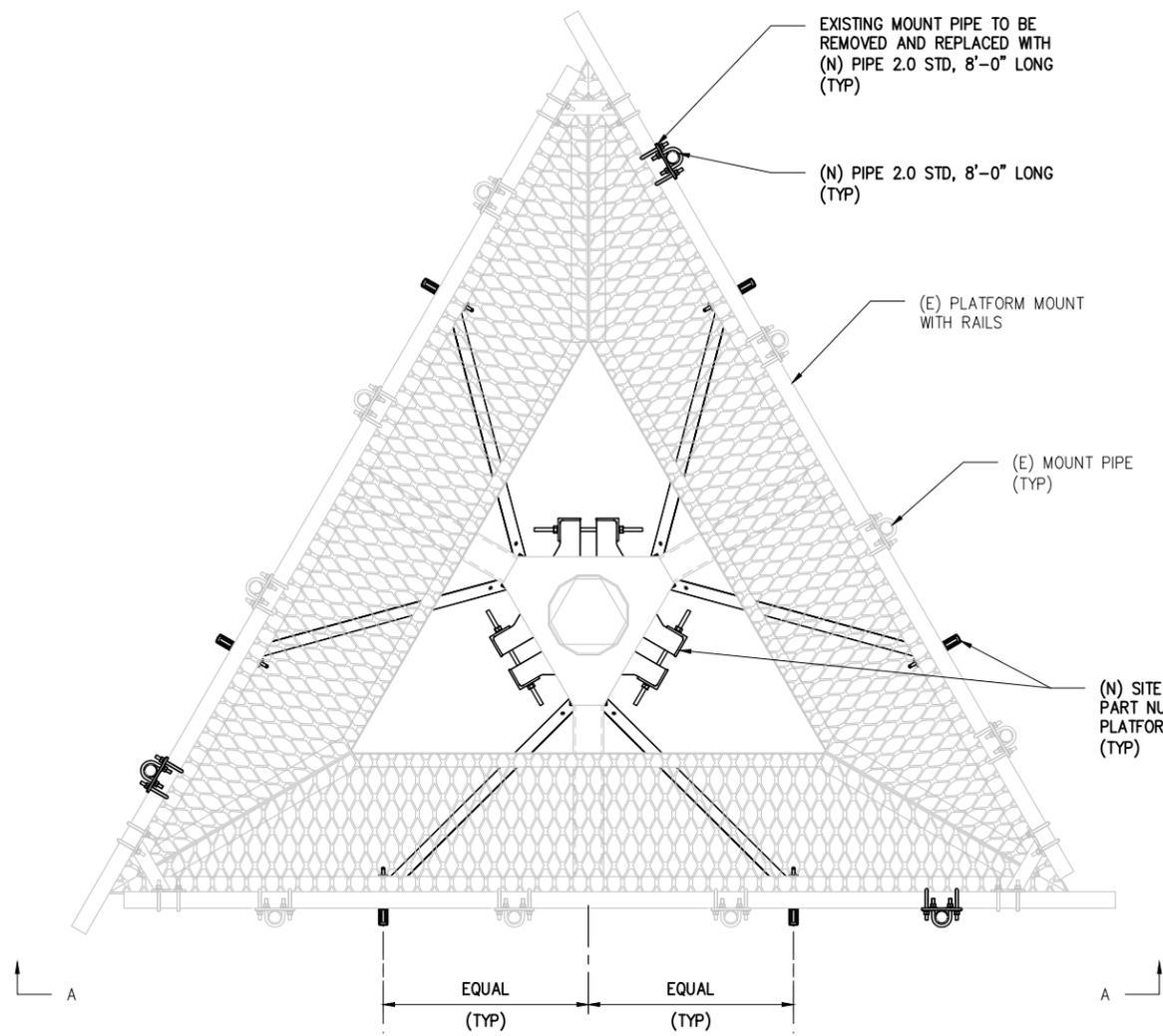
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Drawing Scale:
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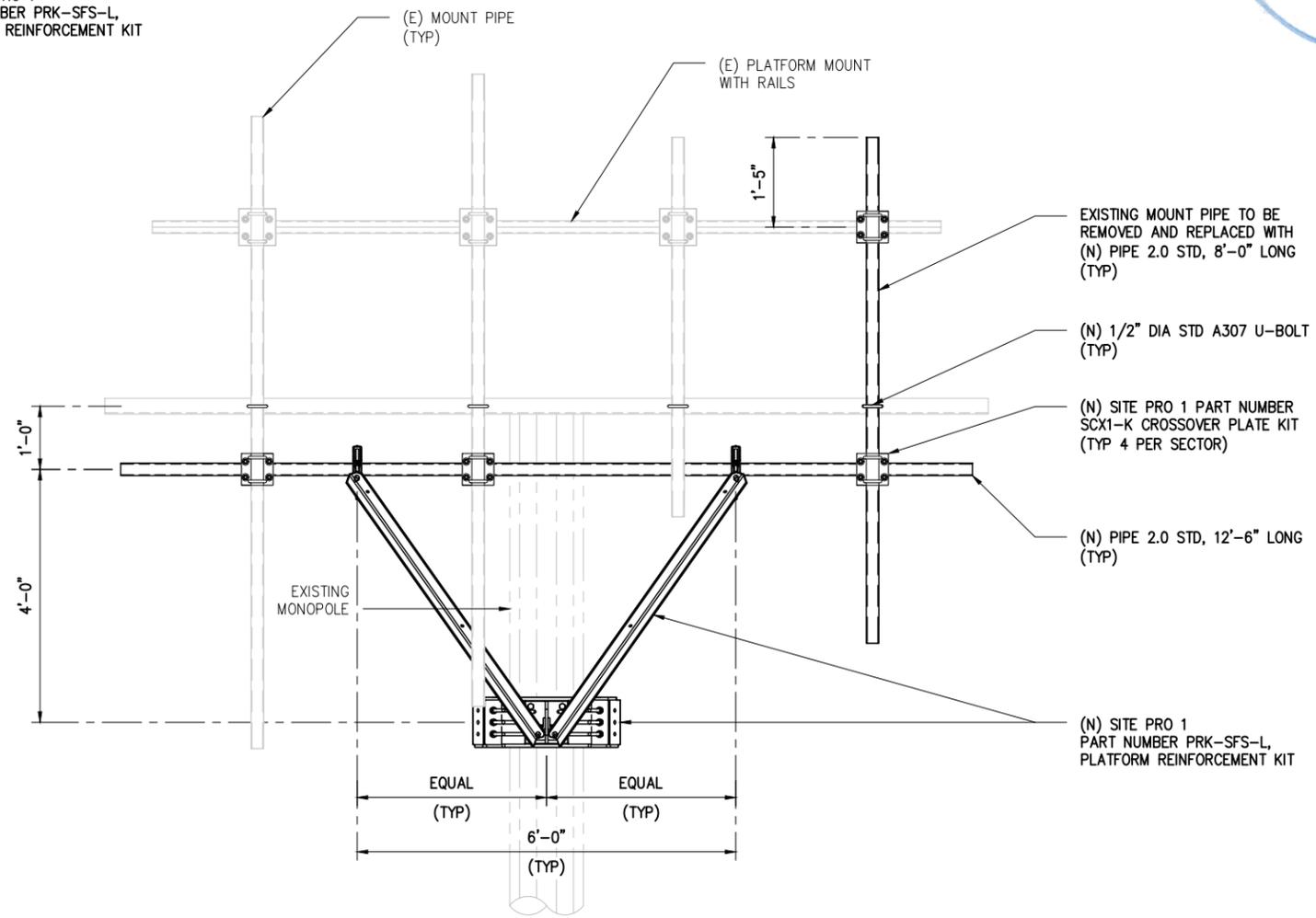
Date:
09/30/21

Drawing Title
GENERAL NOTES

Drawing Number
S-1

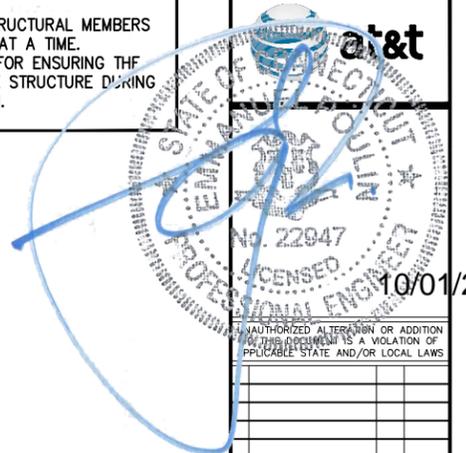


1 PLAN VIEW
SCALE: NOT TO SCALE



2 SECTION A-A
SCALE: NOT TO SCALE

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



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|-----|-------------------|-------|----------|
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Project Number: 1039-Z0001-B
 Project Title: BU# 842861
 EAST HARTFORD HOCHANUM
 223 BRAINARD ROAD
 HARTFORD, CT 06114

Prepared For:

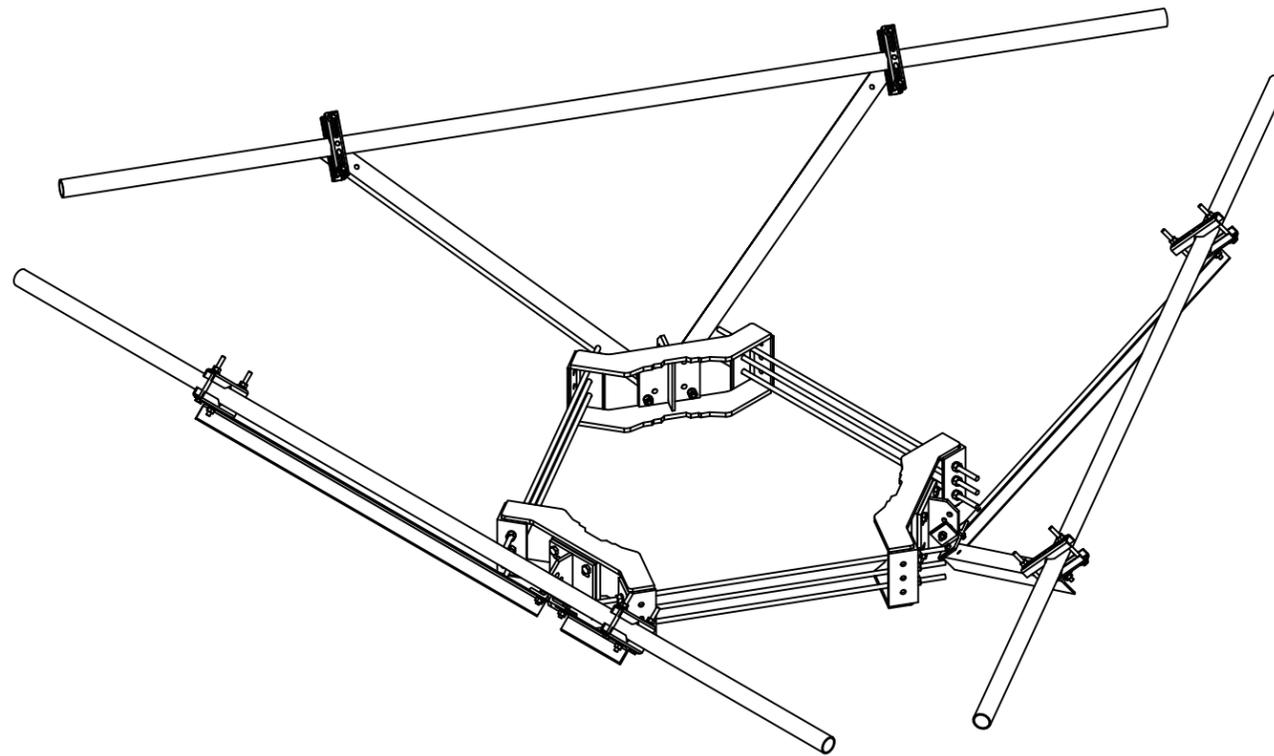
CROWN CASTLE
 3 Corporate Park, Suite 101
 Clifton Park, NY 12065

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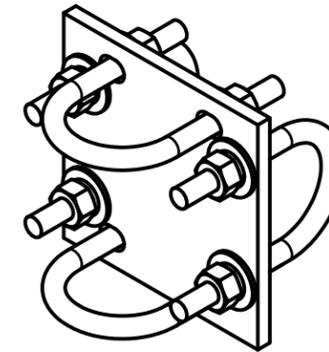
Drawing Scale: AS NOTED
 Date: 09/30/21

Drawing Title
MOUNT MODIFICATION DETAILS

Drawing Number
S-2

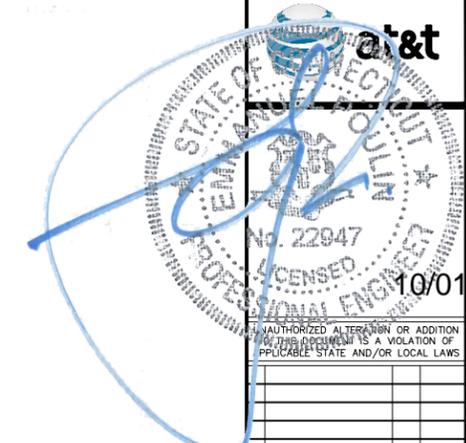


1 SITE PRO 1 P/N PRK-SFS-L
 -- SCALE: NOT TO SCALE



2 SITE PRO 1 P/N SCX1-K
 -- SCALE: NOT TO SCALE

INFINIGY
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 Albany, NY 12205
 Office # (518) 690-0790
 Fax # (518) 690-0793



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| No. | Submission / Revision | App'd | Date |
|-----|-----------------------|-------|----------|
| 0 | ISSUED FOR REVIEW | AM | 09/30/21 |

Drawn: DMB Date: 09/30/21
 Designed: AM Date: 09/30/21
 Checked: AG Date: 09/30/21

Project Number: 1039-Z0001-B

Project Title: BU# 842861

EAST HARTFORD HOCHANUM
 223 BRAINARD ROAD
 HARTFORD, CT 06114

Prepared For:

CROWN CASTLE
 3 Corporate Park, Suite 101
 Clifton Park, NY 12065
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Drawing Scale: AS NOTED
 Date: 09/30/21

Drawing Title
REQUIRED PARTS

Drawing Number
S-3

Exhibit D

Structural Analysis Report

Date: **February 11, 2022**



B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Subject: **Structural Analysis Report**

Carrier Designation: **AT&T Mobility Co-Locate**
Site Number: CTL05126
Site Name: East Hartford Hochanum
FA Number: 10071011

Crown Castle Designation: **BU Number:** 842861
Site Name: East Hartford Hochanum
JDE Job Number: 649397
Work Order Number: 2017792
Order Number: 556508 Rev. 1

Engineering Firm Designation: **B+T Group Project Number:** 154567.004.01

Site Data: **223 Brainard Road, Hartford, Hartford County, CT**
Latitude 41° 43' 58.72", Longitude -72° 39' 43.47"
96.83 Foot - Monopole Tower

B+T Group is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above-mentioned tower.

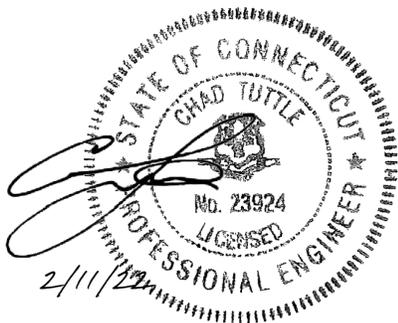
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity – 86.5%**

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Luke Antloger

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 02/10/2022



Chad E. Tuttle, P.E.

tnxTower Report - version 8.1.1.0

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1) INTRODUCTION

This tower is a 96.83 ft. Monopole tower Mapped by TEP in January of 2016. The original design standard and wind speed are unavailable.

2) ANALYSIS CRITERIA

| | |
|-----------------------------|-----------|
| TIA-222 Revision: | TIA-222-H |
| Risk Category: | II |
| Wind Speed: | 118 mph |
| Exposure Category: | C |
| Topographic Factor: | 1 |
| Ice Thickness: | 1.5 in |
| Wind Speed with Ice: | 50 mph |
| Service Wind Speed: | 60 mph |

Table 1 - Proposed Equipment Configuration

| Mounting Level (ft) | Center Line Elevation (ft) | Number of Antennas | Antenna Manufacturer | Antenna Model | Number of Feed Lines | Feed Line Size (in) |
|---------------------|----------------------------|--------------------|---------------------------------|-------------------------------|----------------------|---------------------|
| 103.0 | 103.0 | 3 | Ericsson | AIR 6419 B77G | 6 2 1 | 1-1/4 7/8 3/8 |
| | | 3 | Ericsson | AIR 6449 N77 | | |
| | | 3 | Ericsson | RRUS 4449 B5/B12 | | |
| | | 3 | Kathrein | 80010965 | | |
| | | 1 | Raycap | DC9-48-60-24-8C-EV | | |
| | | 3 | -- | 2 STD x 8' Mount Pipe | | |
| | | 1 | Site Pro 1 | PRK-SFS-L Reinforcement Kit | | |
| | | 3 | -- | 2 STD x 12.5' Horizontal Pipe | | |
| | 1 | -- | Platform Mount [LP 1201-1_HR-1] | | | |
| | 102.0 | 102.0 | 3 | CCI Antennas | DMP65R-BU6e | |
| 3 | | | Ericsson | RRUS 32 B2 | | |
| 3 | | | Ericsson | RRUS 32 B30 | | |
| 3 | | | Ericsson | RRUS 32 B66 | | |
| 3 | | | Ericsson | RRUS 4478 B14 | | |
| 98.0 | 102.0 | 2 | Raycap | DC6-48-60-18-8F | 4 | 7/8 |
| | 98.0 | 1 | -- | Side Arm Mount [SO 102-3] | 2 | 3/8 |

Table 2 - Other Considered Equipment

| Mounting Level (ft) | Center Line Elevation (ft) | Number of Antennas | Antenna Manufacturer | Antenna Model | Number of Feed Lines | Feed Line Size (in) |
|---------------------|----------------------------|--------------------|----------------------|------------------|----------------------|---------------------|
| 86.0 | 88.0 | 1 | Antel | BXA-70063/4CF | 8 | 1-5/8 |
| | | 3 | Commscope | NHH-65B-R2B | | |
| | | 3 | Commscope | NHHSS-65B-R2B | | |
| | | 2 | Raycap | RRFDC-3315-PF-48 | | |
| | | 3 | Samsung Telecom. | CBRS RT4401-48A | | |
| | | 3 | Samsung Telecom. | MT6407-77A | | |
| | | 3 | Samsung Telecom. | RF4439D-25A | | |

| Mounting Level (ft) | Center Line Elevation (ft) | Number of Antennas | Antenna Manufacturer | Antenna Model | Number of Feed Lines | Feed Line Size (in) |
|---------------------|----------------------------|--------------------|----------------------|---------------------------|----------------------|---------------------|
| | | 3 | Samsung Telecom. | RF4440D-13A | | |
| | | 1 | Swedcom | SCCP 2X6015 | | |
| | | 1 | Swedcom | SLCP 2X6015 | | |
| | 86.0 | 1 | VZWSMART | PLK1 Support Rail Kit | | |
| | | 1 | VZWSMART | PLK5 Kicker Kit | | |
| | | 1 | -- | Platform Mount [LP 303-1] | | |

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

| Document | Reference | Source |
|---------------------------|------------------|-----------|
| Tower Mapping | 5210316 | CCI Sites |
| Mount Modification Report | 9998880 | CCI Sites |
| Foundation Mapping | 6049752 | CCI Sites |
| Geotech Report | 6049468 | CCI Sites |
| Crown CAD Package | Date: 12/15/2021 | CCI Sites |

3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

3.2) Assumptions

- 1) The tower and structures were maintained in accordance with the - TIA-222 standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

| Section No. | Elevation (ft) | Component Type | Size | Critical Element | P (K) | SF*P_allow (K) | % Capacity | Pass / Fail |
|-------------|----------------|----------------|-----------------------|------------------|---------|-----------------|-------------|-------------|
| L1 | 96.83 - 76.5 | Pole | TP28.875x25.75x0.188 | 1 | -11.338 | 1028.403 | 36.7 | Pass |
| L2 | 76.5 - 39.92 | Pole | TP33.375x27.945x0.219 | 2 | -15.972 | 1390.021 | 78.9 | Pass |
| L3 | 39.92 - 0 | Pole | TP39x32.374x0.281 | 3 | -24.069 | 2123.079 | 84.4 | Pass |
| | | | | | | | Summary | |
| | | | | | | Pole (L3) | 84.4 | Pass |
| | | | | | | RATING = | 84.4 | Pass |

Table 5 - Tower Component Stresses vs. Capacity - LC7

| Notes | Component | Elevation (ft) | % Capacity | Pass / Fail |
|-------|------------------------------------|----------------|------------|-------------|
| 1,2 | Anchor Rods | Base | 86.5 | Pass |
| 1,2 | Base Plate | Base | 59.5 | Pass |
| 1,2 | Base Foundation (Structure) | Base | 33.9 | Pass |
| 1,2 | Base Foundation (Soil Interaction) | Base | 48.9 | Pass |

| | |
|---|--------------|
| Structure Rating (max from all components) = | 86.5% |
|---|--------------|

Notes:

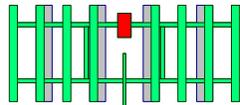
- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
- 2) Rating per TIA-222-H Section 15.5.

4.1) Recommendations

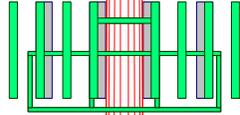
The tower and its foundations have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT



96.8 ft



76.5 ft

39.9 ft

0.0 ft

MATERIAL STRENGTH

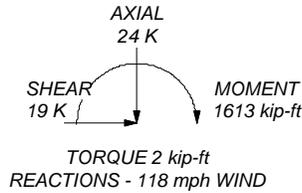
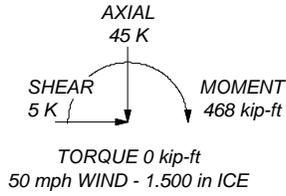
| GRADE | Fy | Fu | GRADE | Fy | Fu |
|---------|--------|--------|-------|----|----|
| A572-65 | 65 ksi | 80 ksi | | | |

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TIA-222-H Annex S
9. TOWER RATING: 85.3%

| | | | | | | | | | |
|--------------------|--------|---------|--------|--|--|--|--|--|--|
| Section | 1 | 2 | 3 | | | | | | |
| Length (ft) | 20.330 | 40.190 | 44.090 | | | | | | |
| Number of Sides | 18 | 18 | 18 | | | | | | |
| Thickness (in) | 0.188 | 0.219 | 0.281 | | | | | | |
| Socket Length (ft) | 3.610 | 4.170 | 32.374 | | | | | | |
| Top Dia (in) | 25.750 | 27.945 | 39.000 | | | | | | |
| Bot Dia (in) | 28.875 | 33.375 | | | | | | | |
| Grade | | A572-65 | | | | | | | |
| Weight (K) | 1.1 | 2.9 | 4.7 | | | | | | |

ALL REACTIONS ARE FACTORED



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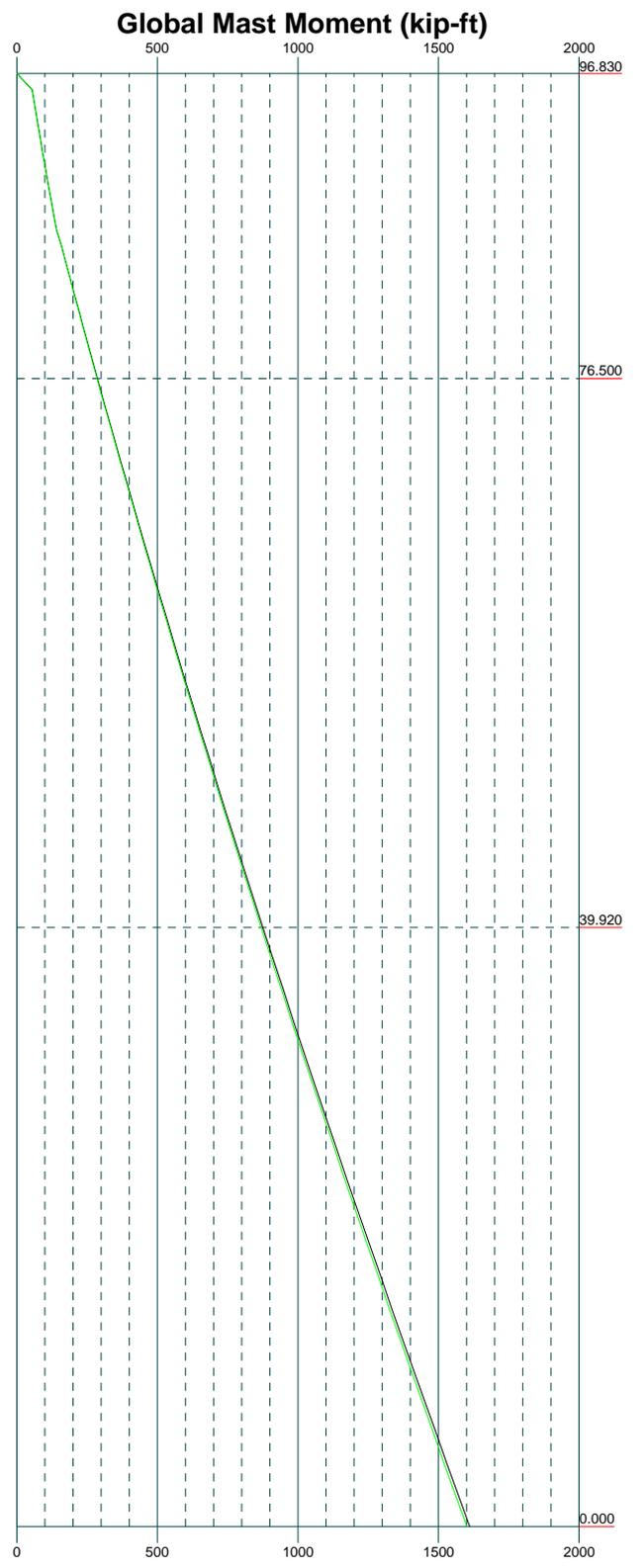
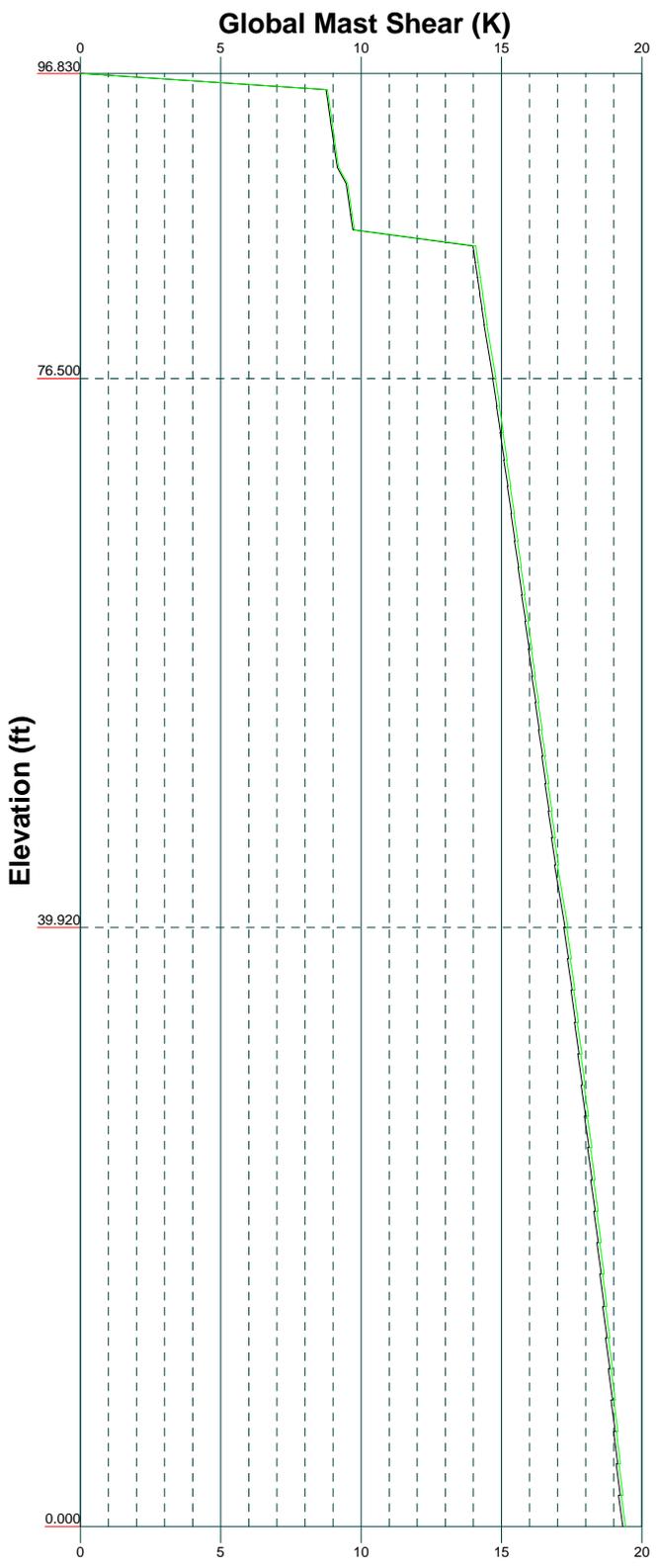
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| Job: | 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 84286) | | |
| Project: | | | |
| Client: | Crown Castle | Drawn by: | SACHIN |
| Code: | TIA-222-H | Date: | 02/11/22 |
| Path: | | Scale: | NTS |
| | | Dwg No.: | E-1 |

Vx

Vz

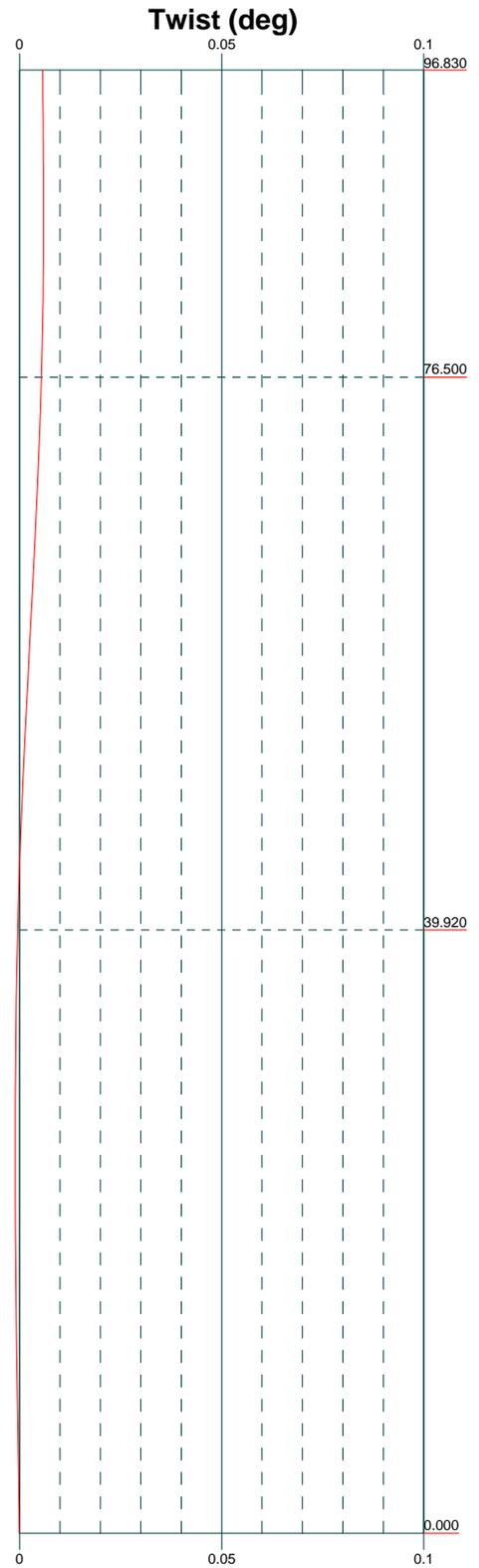
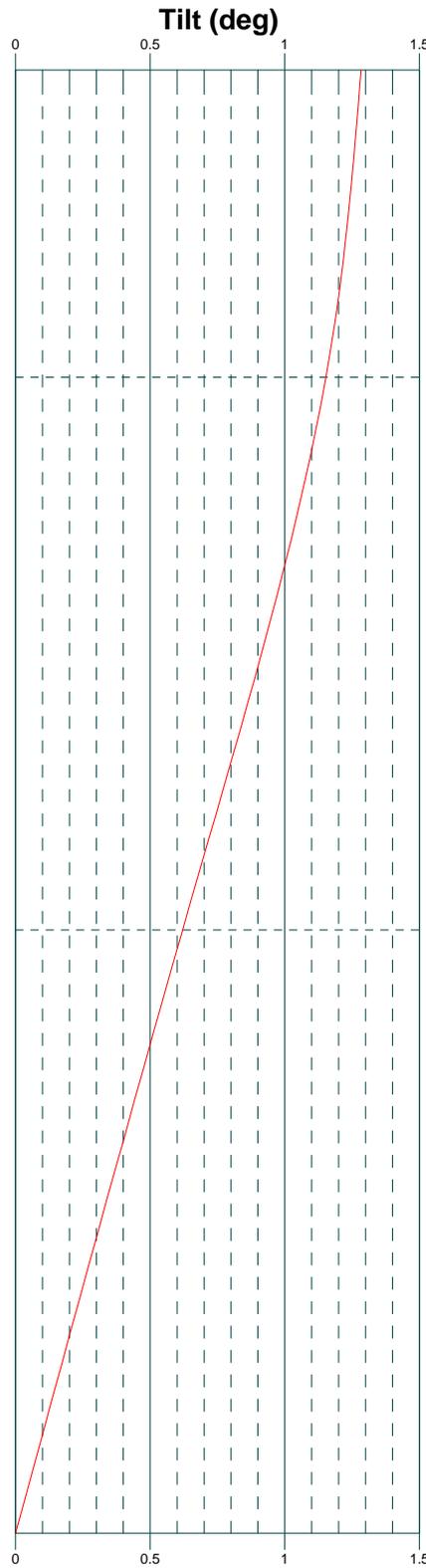
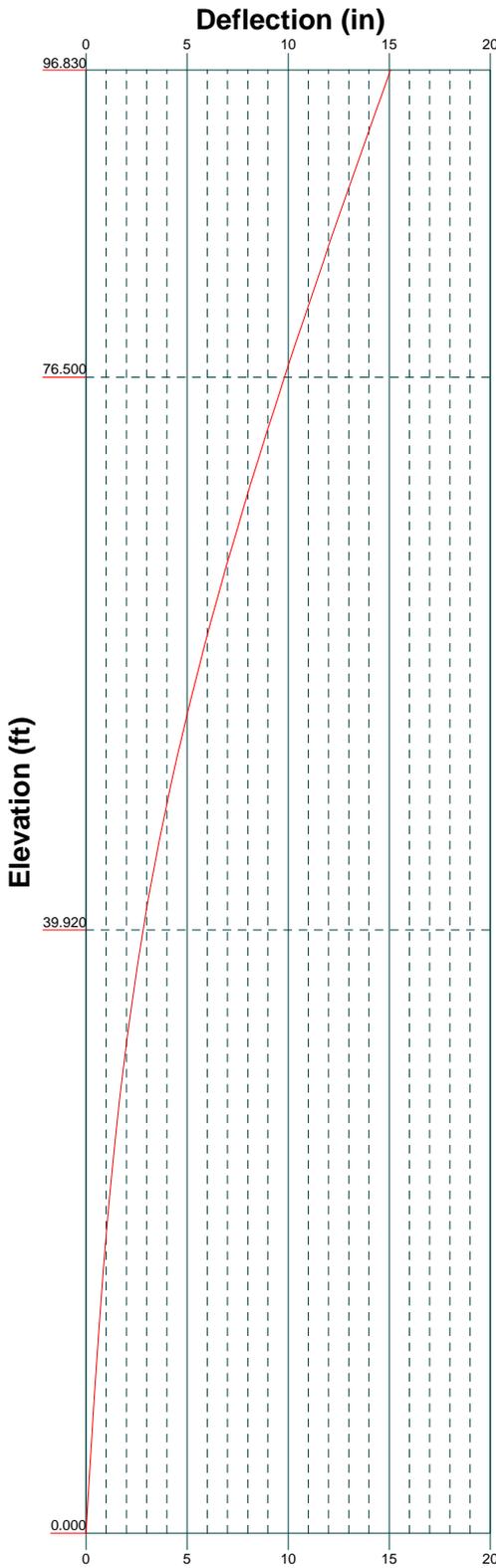
Mx

Mz



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| | | |
|--|------------------|------------|
| Job: 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 84286) | | |
| Project: | | |
| Client: Crown Castle | Drawn by: SACHIN | App'd: |
| Code: TIA-222-H | Date: 02/11/22 | Scale: NTS |
| Path: | Dwg No. E-4 | |



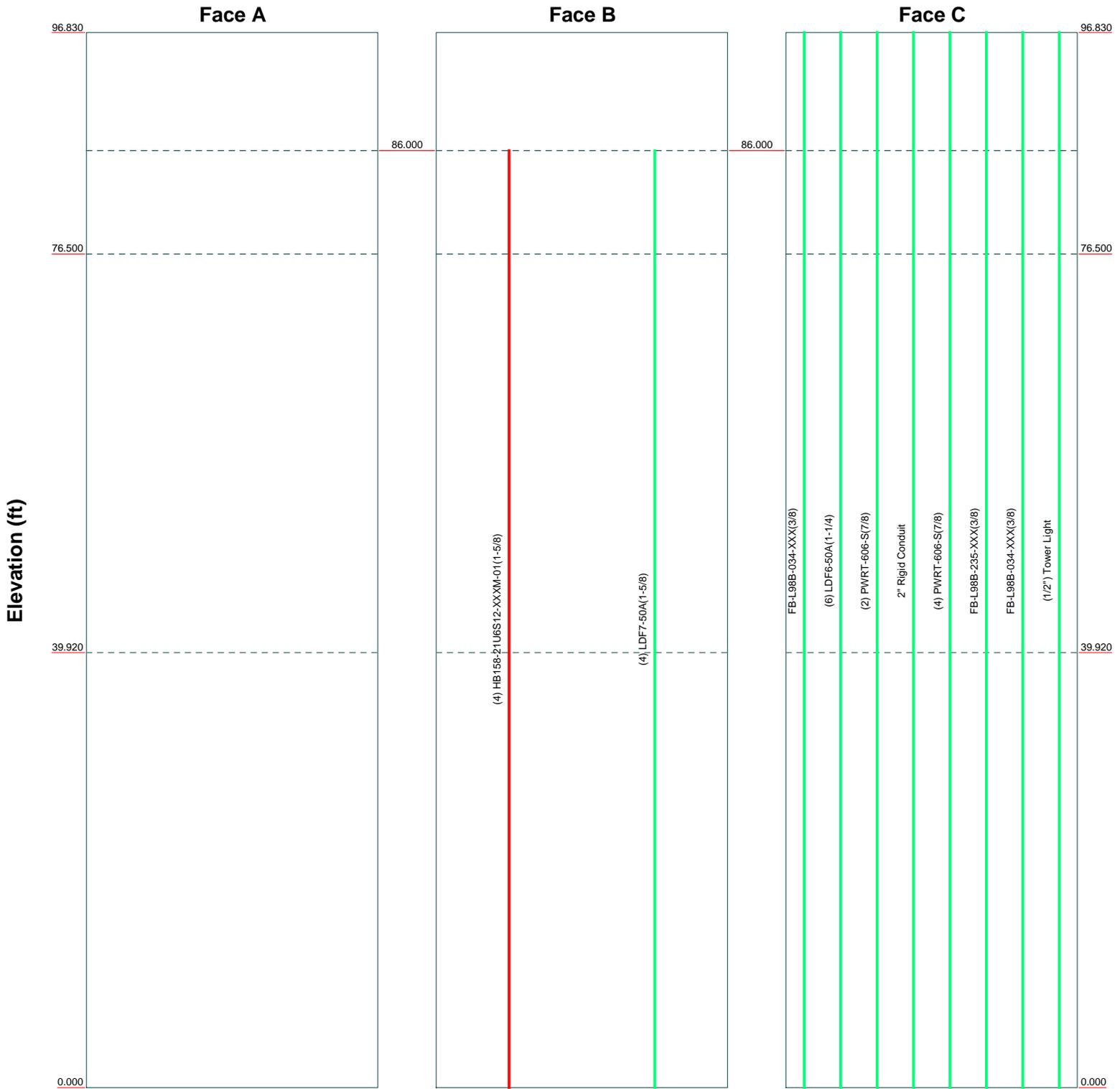
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| | | |
|--|------------------|------------|
| Job: 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 84286) | | |
| Project: | | |
| Client: Crown Castle | Drawn by: SACHIN | App'd: |
| Code: TIA-222-H | Date: 02/11/22 | Scale: NTS |
| Path: | Dwg No. E-5 | |

Feed Line Distribution Chart

0' - 96'9-31/32"

— Round
 — Flat
 — App In Face
 — App Out Face
 — Truss Leg



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| | | |
|--|------------------|------------|
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| Project: | | |
| Client: Crown Castle | Drawn by: SACHIN | App'd: |
| Code: TIA-222-H | Date: 02/11/22 | Scale: NTS |
| Path: | Dwg No. E-7 | |

| | | |
|---|---|----------------------------------|
| <p>tnxTower</p> <p>B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265</p> | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 1 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- Tower is located in Hartford County, Connecticut.
- Tower base elevation above sea level: 13.000 ft.
- Basic wind speed of 118 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.000 ft.
- Nominal ice thickness of 1.500 in.
- Ice thickness is considered to increase with height.
- Ice density of 56.000 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50.000 °F.
- Deflections calculated using a wind speed of 60 mph.
- TIA-222-H Annex S.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification √ Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric | <ul style="list-style-type: none"> Distribute Leg Loads As Uniform Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs | <ul style="list-style-type: none"> Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <li style="text-align: center;">Poles √ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known |
|--|---|---|

| | | |
|--|---|----------------------------------|
| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 2 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

Tapered Pole Section Geometry

| Section | Elevation ft | Section Length ft | Splice Length ft | Number of Sides | Top Diameter in | Bottom Diameter in | Wall Thickness in | Bend Radius in | Pole Grade |
|---------|-----------------|----------------------|---------------------|-----------------|--------------------|-----------------------|----------------------|-------------------|---------------------|
| L1 | 96.830-76.500 | 20.330 | 3.610 | 18 | 25.750 | 28.875 | 0.188 | 0.750 | A572-65 (65 ksi) |
| L2 | 76.500-39.920 | 40.190 | 4.170 | 18 | 27.945 | 33.375 | 0.219 | 0.875 | A572-65 (65 ksi) |
| L3 | 39.920-0.000 | 44.090 | | 18 | 32.374 | 39.000 | 0.281 | 1.125 | A572-65 (65 ksi) |

Tapered Pole Properties

| Section | Tip Dia. in | Area in ² | I in ⁴ | r in | C in | I/C in ³ | J in ⁴ | It/Q in ² | w in | w/t |
|---------|----------------|-------------------------|----------------------|---------|---------|------------------------|----------------------|-------------------------|---------|--------|
| L1 | 26.118 | 15.213 | 1255.902 | 9.075 | 13.081 | 96.010 | 2513.456 | 7.608 | 4.202 | 22.411 |
| | 29.292 | 17.073 | 1775.104 | 10.184 | 14.669 | 121.015 | 3552.543 | 8.538 | 4.752 | 25.344 |
| L2 | 28.838 | 19.251 | 1869.693 | 9.843 | 14.196 | 131.705 | 3741.845 | 9.627 | 4.533 | 20.724 |
| | 33.856 | 23.021 | 3197.339 | 11.770 | 16.954 | 188.583 | 6398.885 | 11.513 | 5.489 | 25.093 |
| L3 | 33.466 | 28.649 | 3727.881 | 11.393 | 16.446 | 226.673 | 7460.668 | 14.327 | 5.203 | 18.499 |
| | 39.558 | 34.564 | 6546.375 | 13.745 | 19.812 | 330.425 | 13101.364 | 17.285 | 6.369 | 22.645 |

| Tower Elevation ft | Gusset Area (per face) ft ² | Gusset Thickness in | Gusset Grade | Adjust. Factor A _f | Adjust. Factor A _r | Weight Mult. | Double Angle Stitch Bolt Spacing Diagonals in | Double Angle Stitch Bolt Spacing Horizontals in | Double Angle Stitch Bolt Spacing Redundants in |
|-----------------------|--|------------------------|--------------|----------------------------------|----------------------------------|--------------|---|---|--|
| L1 96.830-76.500 | | | | 1 | 1 | 1 | | | |
| L2 76.500-39.920 | | | | 1 | 1 | 1 | | | |
| L3 39.920-0.000 | | | | 1 | 1 | 1 | | | |

Feed Line/Linear Appurtenances - Entered As Round Or Flat

| Description | Sector | Exclude From Torque Calculation | Component Type | Placement ft | Total Number | Number Per Row | Start/End Position | Width or Diameter in | Perimeter in | Weight klf |
|--|--------|---------------------------------|----------------------|-------------------|--------------|----------------|--------------------|-------------------------|-----------------|---------------|
| HB158-21U6S12-XXX M-01(1-5/8) * * | B | No | Surface Ar (CaAa) | 86.000 - 0.000 | 4 | 4 | -0.480 -0.350 | 1.990 | | 0.002 |

| | | |
|--|---|----------------------------------|
| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 3 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

Feed Line/Linear Appurtenances - Entered As Area

| Description | Face or Leg | Allow Shield | Exclude From Torque Calculation | Component Type | Placement ft | Total Number | | C _{AA} ft ² /ft | Weight klf |
|----------------------|-------------|--------------|---------------------------------|----------------|----------------|--------------|----------|-------------------------------------|------------|
| FB-L98B-034-XXX(3/8) | C | No | No | Inside Pole | 96.830 - 0.000 | 1 | No Ice | 0.000 | 0.000 |
| | | | | | | | 1/2" Ice | 0.000 | 0.000 |
| | | | | | | | 1" Ice | 0.000 | 0.000 |
| | | | | | | | 2" Ice | 0.000 | 0.000 |
| LDF6-50A(1-1/4) | C | No | No | Inside Pole | 96.830 - 0.000 | 6 | No Ice | 0.000 | 0.001 |
| | | | | | | | 1/2" Ice | 0.000 | 0.001 |
| | | | | | | | 1" Ice | 0.000 | 0.001 |
| | | | | | | | 2" Ice | 0.000 | 0.001 |
| PWRT-606-S(7/8) | C | No | No | Inside Pole | 96.830 - 0.000 | 2 | No Ice | 0.000 | 0.001 |
| | | | | | | | 1/2" Ice | 0.000 | 0.001 |
| | | | | | | | 1" Ice | 0.000 | 0.001 |
| | | | | | | | 2" Ice | 0.000 | 0.001 |
| 2" Rigid Conduit | C | No | No | Inside Pole | 96.830 - 0.000 | 1 | No Ice | 0.000 | 0.003 |
| | | | | | | | 1/2" Ice | 0.000 | 0.003 |
| | | | | | | | 1" Ice | 0.000 | 0.003 |
| | | | | | | | 2" Ice | 0.000 | 0.003 |
| * PWRT-606-S(7/8) | C | No | No | Inside Pole | 96.830 - 0.000 | 4 | No Ice | 0.000 | 0.001 |
| | | | | | | | 1/2" Ice | 0.000 | 0.001 |
| | | | | | | | 1" Ice | 0.000 | 0.001 |
| | | | | | | | 2" Ice | 0.000 | 0.001 |
| FB-L98B-235-XXX(3/8) | C | No | No | Inside Pole | 96.830 - 0.000 | 1 | No Ice | 0.000 | 0.000 |
| | | | | | | | 1/2" Ice | 0.000 | 0.000 |
| | | | | | | | 1" Ice | 0.000 | 0.000 |
| | | | | | | | 2" Ice | 0.000 | 0.000 |
| FB-L98B-034-XXX(3/8) | C | No | No | Inside Pole | 96.830 - 0.000 | 1 | No Ice | 0.000 | 0.000 |
| | | | | | | | 1/2" Ice | 0.000 | 0.000 |
| | | | | | | | 1" Ice | 0.000 | 0.000 |
| | | | | | | | 2" Ice | 0.000 | 0.000 |
| * LDF7-50A(1-5/8) | B | No | No | Inside Pole | 86.000 - 0.000 | 4 | No Ice | 0.000 | 0.001 |
| | | | | | | | 1/2" Ice | 0.000 | 0.001 |
| | | | | | | | 1" Ice | 0.000 | 0.001 |
| | | | | | | | 2" Ice | 0.000 | 0.001 |
| * (1/2") Tower Light | C | No | No | Inside Pole | 96.830 - 0.000 | 1 | No Ice | 0.000 | 0.000 |
| | | | | | | | 1/2" Ice | 0.000 | 0.000 |
| | | | | | | | 1" Ice | 0.000 | 0.000 |
| | | | | | | | 2" Ice | 0.000 | 0.000 |
| * | | | | | | | | | |

Feed Line/Linear Appurtenances Section Areas

| Tower Section | Tower Elevation ft | Face | A _R ft ² | A _F ft ² | C _{AA} In Face ft ² | C _{AA} Out Face ft ² | Weight K |
|---------------|--------------------|------|--------------------------------|--------------------------------|---|--|----------|
| L1 | 96.830-76.500 | A | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | | B | 0.000 | 0.000 | 7.562 | 0.000 | 0.103 |
| | | C | 0.000 | 0.000 | 0.000 | 0.000 | 0.245 |
| L2 | 76.500-39.920 | A | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 4 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

| Tower Section | Tower Elevation ft | Face | A _R ft ² | A _F ft ² | C _A A _A In Face ft ² | C _A A _A Out Face ft ² | Weight K |
|---------------|-----------------------|------|-----------------------------------|-----------------------------------|---|--|-------------|
| L3 | 39.920-0.000 | B | 0.000 | 0.000 | 29.118 | 0.000 | 0.398 |
| | | C | 0.000 | 0.000 | 0.000 | 0.000 | 0.441 |
| | | A | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | | B | 0.000 | 0.000 | 31.776 | 0.000 | 0.434 |
| | | C | 0.000 | 0.000 | 0.000 | 0.000 | 0.482 |

Feed Line/Linear Appurtenances Section Areas - With Ice

| Tower Section | Tower Elevation ft | Face or Leg | Ice Thickness in | A _R ft ² | A _F ft ² | C _A A _A In Face ft ² | C _A A _A Out Face ft ² | Weight K |
|---------------|-----------------------|-------------|---------------------|-----------------------------------|-----------------------------------|---|--|-------------|
| L1 | 96.830-76.500 | A | 1.404 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | | B | | 0.000 | 0.000 | 12.787 | 0.000 | 0.230 |
| | | C | | 0.000 | 0.000 | 0.000 | 0.000 | 0.245 |
| L2 | 76.500-39.920 | A | 1.349 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | | B | | 0.000 | 0.000 | 49.236 | 0.000 | 0.886 |
| | | C | | 0.000 | 0.000 | 0.000 | 0.000 | 0.441 |
| L3 | 39.920-0.000 | A | 1.213 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | | B | | 0.000 | 0.000 | 53.184 | 0.000 | 0.944 |
| | | C | | 0.000 | 0.000 | 0.000 | 0.000 | 0.482 |

Feed Line Center of Pressure

| Section | Elevation ft | CP _x in | CP _z in | CP _x Ice in | CP _z Ice in |
|---------|-----------------|-----------------------|-----------------------|------------------------------|------------------------------|
| L1 | 96.830-76.500 | 0.482 | -2.681 | 0.424 | -2.355 |
| L2 | 76.500-39.920 | 0.858 | -4.767 | 0.733 | -4.072 |
| L3 | 39.920-0.000 | 0.887 | -4.932 | 0.771 | -4.285 |

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

| Tower Section | Feed Line Record No. | Description | Feed Line Segment Elev. | K _a No Ice | K _a Ice |
|---------------|----------------------|------------------------------|-------------------------|--------------------------|-----------------------|
| L1 | 17 | HB158-21U6S12-XXXM-01(1-5/8) | 76.50 - 86.00 | 1.0000 | 1.0000 |
| L2 | 17 | HB158-21U6S12-XXXM-01(1-5/8) | 39.92 - 76.50 | 1.0000 | 1.0000 |
| L3 | 17 | HB158-21U6S12-XXXM-01(1-5/8) | 0.00 - 39.92 | 1.0000 | 1.0000 |

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| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 5 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

Discrete Tower Loads

| Description | Face or Leg | Offset Type | Offsets: | | Azimuth Adjustment | Placement | C _A A _A Front | C _A A _A Side | Weight |
|------------------------|-------------|-------------|--------------------------|------|--------------------|-----------|--|------------------------------------|----------------------------------|
| | | | Horz | Vert | | | | | |
| | | | ft | ft | ° | ft | ft ² | ft ² | K |
| Flash Beacon Lighting | C | None | | | 0.000 | 104.000 | No Ice 2.700 1/2" Ice 3.100 1" Ice 3.500 2" Ice 4.300 | 2.700 3.100 3.500 4.300 | 0.050 0.070 0.090 0.130 |
| 4' x 2" Pipe Mount | C | None | | | 0.000 | 100.000 | No Ice 0.785 1/2" Ice 1.028 1" Ice 1.281 2" Ice 1.814 | 0.785 1.028 1.281 1.814 | 0.029 0.035 0.044 0.072 |
| Top Hat | C | None | | | 0.000 | 98.000 | No Ice 3.000 1/2" Ice 3.480 1" Ice 3.960 2" Ice 4.920 | 3.000 3.480 3.960 4.920 | 0.081 0.111 0.141 0.201 |
| * | | | | | | | | | |
| 80010965 w/ Mount Pipe | A | From Leg | 4.000 0.000 0.000 | | 0.000 | 103.000 | No Ice 12.260 1/2" Ice 13.030 1" Ice 13.800 2" Ice 15.410 | 5.790 6.470 7.170 8.600 | 0.136 0.226 0.328 0.570 |
| 80010965 w/ Mount Pipe | B | From Leg | 4.000 0.000 0.000 | | 0.000 | 103.000 | No Ice 12.260 1/2" Ice 13.030 1" Ice 13.800 2" Ice 15.410 | 5.790 6.470 7.170 8.600 | 0.136 0.226 0.328 0.570 |
| 80010965 w/ Mount Pipe | C | From Leg | 4.000 0.000 0.000 | | 0.000 | 103.000 | No Ice 12.260 1/2" Ice 13.030 1" Ice 13.800 2" Ice 15.410 | 5.790 6.470 7.170 8.600 | 0.136 0.226 0.328 0.570 |
| RRUS 4478 B14 | A | From Leg | 4.000 0.000 -1.000 | | 0.000 | 103.000 | No Ice 1.843 1/2" Ice 2.012 1" Ice 2.190 2" Ice 2.566 | 1.059 1.197 1.342 1.656 | 0.060 0.076 0.094 0.140 |
| RRUS 4478 B14 | B | From Leg | 4.000 0.000 -1.000 | | 0.000 | 103.000 | No Ice 1.843 1/2" Ice 2.012 1" Ice 2.190 2" Ice 2.566 | 1.059 1.197 1.342 1.656 | 0.060 0.076 0.094 0.140 |
| RRUS 4478 B14 | C | From Leg | 4.000 0.000 -1.000 | | 0.000 | 103.000 | No Ice 1.843 1/2" Ice 2.012 1" Ice 2.190 2" Ice 2.566 | 1.059 1.197 1.342 1.656 | 0.060 0.076 0.094 0.140 |
| RRUS 32 B2 | A | From Leg | 4.000 0.000 -1.000 | | 0.000 | 103.000 | No Ice 2.731 1/2" Ice 2.953 1" Ice 3.182 2" Ice 3.663 | 1.668 1.855 2.049 2.458 | 0.053 0.074 0.098 0.157 |
| RRUS 32 B2 | B | From Leg | 4.000 0.000 -1.000 | | 0.000 | 103.000 | No Ice 2.731 1/2" Ice 2.953 1" Ice 3.182 2" Ice 3.663 | 1.668 1.855 2.049 2.458 | 0.053 0.074 0.098 0.157 |
| RRUS 32 B2 | C | From Leg | 4.000 0.000 -1.000 | | 0.000 | 103.000 | No Ice 2.731 1/2" Ice 2.953 1" Ice 3.182 2" Ice 3.663 | 1.668 1.855 2.049 2.458 | 0.053 0.074 0.098 0.157 |
| RRUS 32 B66 | A | From Leg | 4.000 0.000 | | 0.000 | 103.000 | No Ice 2.743 1/2" Ice 2.965 | 1.668 1.855 | 0.053 0.074 |

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| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 7 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

| Description | Face or Leg | Offset Type | Offsets: | | Azimuth Adjustment | Placement | C _{AA} Front | C _{AA} Side | Weight | |
|--------------------------------------|-------------|-------------|--------------|----------|--------------------|-----------|-----------------------|----------------------|--------|-------|
| | | | Horz Lateral | Vert | | | | | | ° |
| RRUS 4449 B5/B12 | A | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 15.720 | 10.330 | 0.568 |
| | | | 0.000 | No Ice | | | 1.968 | 1.408 | 0.071 | |
| | | | 0.000 | 1/2" Ice | | | 2.144 | 1.564 | 0.090 | |
| | | | 0.000 | 1" Ice | | | 2.328 | 1.727 | 0.111 | |
| RRUS 4449 B5/B12 | B | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 2.718 | 2.075 | 0.163 |
| | | | 0.000 | No Ice | | | 1.968 | 1.408 | 0.071 | |
| | | | 0.000 | 1/2" Ice | | | 2.144 | 1.564 | 0.090 | |
| | | | 0.000 | 1" Ice | | | 2.328 | 1.727 | 0.111 | |
| RRUS 4449 B5/B12 | C | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 2.718 | 2.075 | 0.163 |
| | | | 0.000 | No Ice | | | 1.968 | 1.408 | 0.071 | |
| | | | 0.000 | 1/2" Ice | | | 2.144 | 1.564 | 0.090 | |
| | | | 0.000 | 1" Ice | | | 2.328 | 1.727 | 0.111 | |
| DC9-48-60-24-8C-EV | C | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 2.718 | 2.075 | 0.163 |
| | | | 0.000 | No Ice | | | 2.737 | 4.785 | 0.026 | |
| | | | 0.000 | 1/2" Ice | | | 2.963 | 5.065 | 0.063 | |
| | | | 0.000 | 1" Ice | | | 3.196 | 5.352 | 0.104 | |
| 12.5' x 2.375" Horizontal Mount Pipe | A | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 3.684 | 5.948 | 0.200 |
| | | | 0.000 | No Ice | | | 2.980 | 0.010 | 0.046 | |
| | | | -2.000 | 1/2" Ice | | | 4.250 | 0.050 | 0.068 | |
| | | | | 1" Ice | | | 5.550 | 0.100 | 0.981 | |
| 12.5' x 2.375" Horizontal Mount Pipe | B | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 8.060 | 0.240 | 0.183 |
| | | | 0.000 | No Ice | | | 2.980 | 0.010 | 0.046 | |
| | | | -2.000 | 1/2" Ice | | | 4.250 | 0.050 | 0.068 | |
| | | | | 1" Ice | | | 5.550 | 0.100 | 0.981 | |
| 12.5' x 2.375" Horizontal Mount Pipe | C | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 8.060 | 0.240 | 0.183 |
| | | | 0.000 | No Ice | | | 2.980 | 0.010 | 0.046 | |
| | | | -2.000 | 1/2" Ice | | | 4.250 | 0.050 | 0.068 | |
| | | | | 1" Ice | | | 5.550 | 0.100 | 0.981 | |
| 3' x 2" Pipe Mount | A | From Leg | 2.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 8.060 | 0.240 | 0.183 |
| | | | 0.000 | No Ice | | | 0.583 | 0.583 | 0.011 | |
| | | | 2.000 | 1/2" Ice | | | 0.770 | 0.770 | 0.017 | |
| | | | | 1" Ice | | | 0.967 | 0.967 | 0.024 | |
| 3' x 2" Pipe Mount | B | From Leg | 2.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 1.388 | 1.388 | 0.047 |
| | | | 0.000 | No Ice | | | 0.583 | 0.583 | 0.011 | |
| | | | 2.000 | 1/2" Ice | | | 0.770 | 0.770 | 0.017 | |
| | | | | 1" Ice | | | 0.967 | 0.967 | 0.024 | |
| 3' x 2" Pipe Mount | C | From Leg | 2.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 1.388 | 1.388 | 0.047 |
| | | | 0.000 | No Ice | | | 0.583 | 0.583 | 0.011 | |
| | | | 2.000 | 1/2" Ice | | | 0.770 | 0.770 | 0.017 | |
| | | | | 1" Ice | | | 0.967 | 0.967 | 0.024 | |
| 7'x2" Antenna Mount Pipe | A | From Leg | 2.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 1.388 | 1.388 | 0.047 |
| | | | 0.000 | No Ice | | | 1.663 | 1.663 | 0.026 | |
| | | | 0.000 | 1/2" Ice | | | 2.391 | 2.391 | 0.039 | |
| | | | | 1" Ice | | | 2.825 | 2.825 | 0.056 | |
| 7'x2" Antenna Mount Pipe | B | From Leg | 2.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 3.706 | 3.706 | 0.105 |
| | | | 0.000 | No Ice | | | 1.663 | 1.663 | 0.026 | |
| | | | 0.000 | 1/2" Ice | | | 2.391 | 2.391 | 0.039 | |
| | | | | 1" Ice | | | 2.825 | 2.825 | 0.056 | |
| 7'x2" Antenna Mount Pipe | C | From Leg | 2.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 3.706 | 3.706 | 0.105 |
| | | | 0.000 | No Ice | | | 1.663 | 1.663 | 0.026 | |
| | | | 0.000 | 1/2" Ice | | | 2.391 | 2.391 | 0.039 | |
| | | | | 1" Ice | | | 2.825 | 2.825 | 0.056 | |
| 8' x 2" Mount Pipe | A | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | 2" Ice | 3.706 | 3.706 | 0.105 |
| | | | 0.000 | No Ice | | | 1.900 | 1.900 | 0.029 | |
| | | | 0.000 | 1/2" Ice | | | 2.728 | 2.728 | 0.044 | |
| | | | | 1" Ice | | | 3.401 | 3.401 | 0.063 | |
| | | | | | | 2" Ice | 4.396 | 4.396 | 0.119 | |

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| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 8 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

| Description | Face or Leg | Offset Type | Offsets: | | Azimuth Adjustment | Placement | C _{AA} Front | C _{AA} Side | Weight | |
|--------------------------------------|-------------|-------------|--------------|-------|--------------------|-----------|-----------------------|----------------------|--------|-------|
| | | | Horz Lateral | Vert | | | | | | ° |
| 8' x 2" Mount Pipe | B | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | No Ice | 1.900 | 1.900 | 0.029 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 2.728 | 2.728 | 0.044 |
| | | | 0.000 | 0.000 | | | 1" Ice | 3.401 | 3.401 | 0.063 |
| | | | | | | | 2" Ice | 4.396 | 4.396 | 0.119 |
| | | | | | | | No Ice | 1.900 | 1.900 | 0.029 |
| 8' x 2" Mount Pipe | C | From Leg | 4.000 | 0.000 | 0.000 | 103.000 | No Ice | 1.900 | 1.900 | 0.029 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 2.728 | 2.728 | 0.044 |
| | | | 0.000 | 0.000 | | | 1" Ice | 3.401 | 3.401 | 0.063 |
| | | | | | | | 2" Ice | 4.396 | 4.396 | 0.119 |
| | | | | | | | No Ice | 37.610 | 37.610 | 2.631 |
| Platform Mount [LP 1201-1_KCKR-HR-1] | C | None | | 0.000 | 0.000 | 103.000 | No Ice | 37.610 | 37.610 | 2.631 |
| | | | | 0.000 | | | 1/2" Ice | 45.620 | 45.620 | 3.478 |
| | | | | 0.000 | | | 1" Ice | 53.590 | 53.590 | 4.462 |
| | | | | 0.000 | | | 2" Ice | 69.650 | 69.650 | 6.848 |
| | | | | 0.000 | | | No Ice | 1.212 | 1.212 | 0.033 |
| * DC6-48-60-18-8F | A | From Leg | 1.000 | 0.000 | 0.000 | 98.000 | No Ice | 1.212 | 1.212 | 0.033 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.892 | 1.892 | 0.055 |
| | | | 4.000 | 0.000 | | | 1" Ice | 2.105 | 2.105 | 0.080 |
| | | | | 0.000 | | | 2" Ice | 2.570 | 2.570 | 0.138 |
| | | | | 0.000 | | | No Ice | 1.212 | 1.212 | 0.033 |
| DC6-48-60-18-8F | B | From Leg | 1.000 | 0.000 | 0.000 | 98.000 | No Ice | 1.212 | 1.212 | 0.033 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.892 | 1.892 | 0.055 |
| | | | 4.000 | 0.000 | | | 1" Ice | 2.105 | 2.105 | 0.080 |
| | | | | 0.000 | | | 2" Ice | 2.570 | 2.570 | 0.138 |
| | | | | 0.000 | | | No Ice | 1.425 | 1.425 | 0.022 |
| 6' x 2" Mount Pipe | A | From Leg | 1.000 | 0.000 | 0.000 | 98.000 | No Ice | 1.425 | 1.425 | 0.022 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.925 | 1.925 | 0.033 |
| | | | 0.000 | 0.000 | | | 1" Ice | 2.294 | 2.294 | 0.048 |
| | | | | 0.000 | | | 2" Ice | 3.060 | 3.060 | 0.090 |
| | | | | 0.000 | | | No Ice | 1.425 | 1.425 | 0.022 |
| 6' x 2" Mount Pipe | B | From Leg | 1.000 | 0.000 | 0.000 | 98.000 | No Ice | 1.425 | 1.425 | 0.022 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.925 | 1.925 | 0.033 |
| | | | 0.000 | 0.000 | | | 1" Ice | 2.294 | 2.294 | 0.048 |
| | | | | 0.000 | | | 2" Ice | 3.060 | 3.060 | 0.090 |
| | | | | 0.000 | | | No Ice | 1.425 | 1.425 | 0.022 |
| 6' x 2" Mount Pipe | C | From Leg | 1.000 | 0.000 | 0.000 | 98.000 | No Ice | 1.425 | 1.425 | 0.022 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.925 | 1.925 | 0.033 |
| | | | 0.000 | 0.000 | | | 1" Ice | 2.294 | 2.294 | 0.048 |
| | | | | 0.000 | | | 2" Ice | 3.060 | 3.060 | 0.090 |
| | | | | 0.000 | | | No Ice | 3.600 | 3.600 | 0.075 |
| Side Arm Mount [SO 102-3] | C | None | | 0.000 | 0.000 | 98.000 | No Ice | 3.600 | 3.600 | 0.075 |
| | | | | 0.000 | | | 1/2" Ice | 4.180 | 4.180 | 0.105 |
| | | | | 0.000 | | | 1" Ice | 4.750 | 4.750 | 0.135 |
| | | | | 0.000 | | | 2" Ice | 5.900 | 5.900 | 0.195 |
| | | | | 0.000 | | | No Ice | 0.785 | 0.785 | 0.029 |
| * 4' x 2" Pipe Mount | A | From Leg | 1.000 | 0.000 | 0.000 | 90.000 | No Ice | 0.785 | 0.785 | 0.029 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.028 | 1.028 | 0.035 |
| | | | 0.000 | 0.000 | | | 1" Ice | 1.281 | 1.281 | 0.044 |
| | | | | 0.000 | | | 2" Ice | 1.814 | 1.814 | 0.072 |
| | | | | 0.000 | | | No Ice | 0.785 | 0.785 | 0.029 |
| 4' x 2" Pipe Mount | B | From Leg | 1.000 | 0.000 | 0.000 | 90.000 | No Ice | 0.785 | 0.785 | 0.029 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.028 | 1.028 | 0.035 |
| | | | 0.000 | 0.000 | | | 1" Ice | 1.281 | 1.281 | 0.044 |
| | | | | 0.000 | | | 2" Ice | 1.814 | 1.814 | 0.072 |
| | | | | 0.000 | | | No Ice | 0.785 | 0.785 | 0.029 |
| 4' x 2" Pipe Mount | C | From Leg | 1.000 | 0.000 | 0.000 | 90.000 | No Ice | 0.785 | 0.785 | 0.029 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 1.028 | 1.028 | 0.035 |
| | | | 0.000 | 0.000 | | | 1" Ice | 1.281 | 1.281 | 0.044 |
| | | | | 0.000 | | | 2" Ice | 1.814 | 1.814 | 0.072 |
| | | | | 0.000 | | | No Ice | 2.620 | 2.620 | 0.288 |
| Side Arm Mount [SO 104-3] | C | None | | 0.000 | 0.000 | 90.000 | No Ice | 2.620 | 2.620 | 0.288 |
| | | | | 0.000 | | | 1/2" Ice | 3.300 | 3.300 | 0.408 |
| | | | | 0.000 | | | 1" Ice | 3.980 | 3.980 | 0.528 |
| | | | | 0.000 | | | 2" Ice | 5.350 | 5.350 | 0.768 |
| | | | | 0.000 | | | No Ice | 4.840 | 3.540 | 0.037 |
| * BXA-70063/4CF w/ Mount Pipe | A | From Leg | 4.000 | 0.000 | 0.000 | 86.000 | No Ice | 4.840 | 3.540 | 0.037 |
| | | | 0.000 | 0.000 | | | 1/2" Ice | 5.350 | 4.030 | 0.075 |

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| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

| Description | Face or Leg | Offset Type | Offsets: | | Azimuth Adjustment | Placement | C _{AA} Front | C _{AA} Side | Weight |
|-----------------------------|-------------|-------------|----------|---------|--------------------|-----------|-----------------------|----------------------|--------|
| | | | Horz | Lateral | | | | | |
| | | | | | | | | | |
| | | | 2.000 | | | | | | |
| | | | | | | 1" Ice | 5.880 | 4.530 | 0.121 |
| | | | | | | 2" Ice | 6.990 | 5.590 | 0.237 |
| SCCP 2X6015 w/ Mount Pipe | B | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 8.642 | 7.947 | 0.054 |
| | | | 0.000 | | | 1/2" Ice | 9.174 | 8.986 | 0.130 |
| | | | 2.000 | | | 1" Ice | 9.679 | 9.810 | 0.215 |
| | | | | | | 2" Ice | 10.714 | 11.506 | 0.411 |
| SLCP 2X6015 w/ Mount Pipe | C | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 10.219 | 9.996 | 0.057 |
| | | | 0.000 | | | 1/2" Ice | 10.817 | 11.245 | 0.147 |
| | | | 2.000 | | | 1" Ice | 11.389 | 12.259 | 0.246 |
| | | | | | | 2" Ice | 12.537 | 14.180 | 0.475 |
| NHH-65B-R2B w/ Mount Pipe | A | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 4.090 | 3.290 | 0.069 |
| | | | 0.000 | | | 1/2" Ice | 4.480 | 3.670 | 0.132 |
| | | | 2.000 | | | 1" Ice | 4.880 | 4.060 | 0.205 |
| | | | | | | 2" Ice | 5.700 | 4.860 | 0.385 |
| NHH-65B-R2B w/ Mount Pipe | B | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 4.090 | 3.290 | 0.069 |
| | | | 0.000 | | | 1/2" Ice | 4.480 | 3.670 | 0.132 |
| | | | 2.000 | | | 1" Ice | 4.880 | 4.060 | 0.205 |
| | | | | | | 2" Ice | 5.700 | 4.860 | 0.385 |
| NHH-65B-R2B w/ Mount Pipe | C | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 4.090 | 3.290 | 0.069 |
| | | | 0.000 | | | 1/2" Ice | 4.480 | 3.670 | 0.132 |
| | | | 2.000 | | | 1" Ice | 4.880 | 4.060 | 0.205 |
| | | | | | | 2" Ice | 5.700 | 4.860 | 0.385 |
| NHHSS-65B-R2B w/ Mount Pipe | A | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 3.890 | 3.140 | 0.091 |
| | | | 0.000 | | | 1/2" Ice | 4.270 | 3.500 | 0.154 |
| | | | 2.000 | | | 1" Ice | 4.650 | 3.870 | 0.227 |
| | | | | | | 2" Ice | 5.430 | 4.630 | 0.407 |
| NHHSS-65B-R2B w/ Mount Pipe | B | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 3.890 | 3.140 | 0.091 |
| | | | 0.000 | | | 1/2" Ice | 4.270 | 3.500 | 0.154 |
| | | | 2.000 | | | 1" Ice | 4.650 | 3.870 | 0.227 |
| | | | | | | 2" Ice | 5.430 | 4.630 | 0.407 |
| NHHSS-65B-R2B w/ Mount Pipe | C | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 3.890 | 3.140 | 0.091 |
| | | | 0.000 | | | 1/2" Ice | 4.270 | 3.500 | 0.154 |
| | | | 2.000 | | | 1" Ice | 4.650 | 3.870 | 0.227 |
| | | | | | | 2" Ice | 5.430 | 4.630 | 0.407 |
| MT6407-77A | A | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 4.692 | 1.840 | 0.082 |
| | | | 0.000 | | | 1/2" Ice | 4.980 | 2.063 | 0.111 |
| | | | 2.000 | | | 1" Ice | 5.275 | 2.292 | 0.144 |
| | | | | | | 2" Ice | 5.887 | 2.772 | 0.223 |
| MT6407-77A | B | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 4.692 | 1.840 | 0.082 |
| | | | 0.000 | | | 1/2" Ice | 4.980 | 2.063 | 0.111 |
| | | | 2.000 | | | 1" Ice | 5.275 | 2.292 | 0.144 |
| | | | | | | 2" Ice | 5.887 | 2.772 | 0.223 |
| MT6407-77A | C | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 4.692 | 1.840 | 0.082 |
| | | | 0.000 | | | 1/2" Ice | 4.980 | 2.063 | 0.111 |
| | | | 2.000 | | | 1" Ice | 5.275 | 2.292 | 0.144 |
| | | | | | | 2" Ice | 5.887 | 2.772 | 0.223 |
| RF4440D-13A | A | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 1.865 | 1.129 | 0.073 |
| | | | 0.000 | | | 1/2" Ice | 2.035 | 1.267 | 0.090 |
| | | | 2.000 | | | 1" Ice | 2.212 | 1.411 | 0.110 |
| | | | | | | 2" Ice | 2.589 | 1.723 | 0.159 |
| (2) RF4440D-13A | C | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 1.865 | 1.129 | 0.073 |
| | | | 0.000 | | | 1/2" Ice | 2.035 | 1.267 | 0.090 |
| | | | 2.000 | | | 1" Ice | 2.212 | 1.411 | 0.110 |
| | | | | | | 2" Ice | 2.589 | 1.723 | 0.159 |
| CBRS RT4401-48A | A | From Leg | 4.000 | 0.000 | 86.000 | No Ice | 0.991 | 0.496 | 0.019 |
| | | | 0.000 | | | 1/2" Ice | 1.120 | 0.596 | 0.026 |
| | | | 2.000 | | | 1" Ice | 1.255 | 0.704 | 0.036 |

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| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 11 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

Dishes

| Description | Face or Leg | Dish Type | Offset Type | Offsets: | | Azimuth Adjustment | 3 dB Beam Width | Elevation | Outside Diameter | Aperture Area | Weight |
|-------------|-------------------|--------------|----------------|-------------------------|---|-----------------------|-----------------------|-----------|---------------------|------------------|--------|
| | | | | Horz Lateral Vert | | | | | | | |
| | | | | ft | ° | ° | ft | ft | ft ² | K | |
| * | | | | | | | | | | | |

Load Combinations

| Comb. No. | Description |
|-----------|--|
| 1 | Dead Only |
| 2 | 1.2 Dead+1.0 Wind 0 deg - No Ice |
| 3 | 0.9 Dead+1.0 Wind 0 deg - No Ice |
| 4 | 1.2 Dead+1.0 Wind 30 deg - No Ice |
| 5 | 0.9 Dead+1.0 Wind 30 deg - No Ice |
| 6 | 1.2 Dead+1.0 Wind 60 deg - No Ice |
| 7 | 0.9 Dead+1.0 Wind 60 deg - No Ice |
| 8 | 1.2 Dead+1.0 Wind 90 deg - No Ice |
| 9 | 0.9 Dead+1.0 Wind 90 deg - No Ice |
| 10 | 1.2 Dead+1.0 Wind 120 deg - No Ice |
| 11 | 0.9 Dead+1.0 Wind 120 deg - No Ice |
| 12 | 1.2 Dead+1.0 Wind 150 deg - No Ice |
| 13 | 0.9 Dead+1.0 Wind 150 deg - No Ice |
| 14 | 1.2 Dead+1.0 Wind 180 deg - No Ice |
| 15 | 0.9 Dead+1.0 Wind 180 deg - No Ice |
| 16 | 1.2 Dead+1.0 Wind 210 deg - No Ice |
| 17 | 0.9 Dead+1.0 Wind 210 deg - No Ice |
| 18 | 1.2 Dead+1.0 Wind 240 deg - No Ice |
| 19 | 0.9 Dead+1.0 Wind 240 deg - No Ice |
| 20 | 1.2 Dead+1.0 Wind 270 deg - No Ice |
| 21 | 0.9 Dead+1.0 Wind 270 deg - No Ice |
| 22 | 1.2 Dead+1.0 Wind 300 deg - No Ice |
| 23 | 0.9 Dead+1.0 Wind 300 deg - No Ice |
| 24 | 1.2 Dead+1.0 Wind 330 deg - No Ice |
| 25 | 0.9 Dead+1.0 Wind 330 deg - No Ice |
| 26 | 1.2 Dead+1.0 Ice+1.0 Temp |
| 27 | 1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp |
| 28 | 1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp |
| 29 | 1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp |
| 30 | 1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp |
| 31 | 1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp |
| 32 | 1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp |
| 33 | 1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp |
| 34 | 1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp |
| 35 | 1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp |
| 36 | 1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp |
| 37 | 1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp |
| 38 | 1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp |
| 39 | Dead+Wind 0 deg - Service |
| 40 | Dead+Wind 30 deg - Service |
| 41 | Dead+Wind 60 deg - Service |
| 42 | Dead+Wind 90 deg - Service |
| 43 | Dead+Wind 120 deg - Service |
| 44 | Dead+Wind 150 deg - Service |
| 45 | Dead+Wind 180 deg - Service |
| 46 | Dead+Wind 210 deg - Service |
| 47 | Dead+Wind 240 deg - Service |

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|--|---|----------------------------------|
| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 12 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

| Comb. No. | Description |
|-----------|-----------------------------|
| 48 | Dead+Wind 270 deg - Service |
| 49 | Dead+Wind 300 deg - Service |
| 50 | Dead+Wind 330 deg - Service |

Maximum Member Forces

| Section No. | Elevation ft | Component Type | Condition | Gov. Load Comb. | Axial K | Major Axis Moment kip-ft | Minor Axis Moment kip-ft |
|-------------|--------------|----------------|------------------|-----------------|---------|--------------------------|--------------------------|
| L1 | 96.83 - 76.5 | Pole | Max Tension | 1 | 0.000 | 0.000 | 0.000 |
| | | | Max. Compression | 26 | -27.783 | 1.239 | -0.283 |
| | | | Max. Mx | 20 | -11.323 | 233.019 | 1.129 |
| | | | Max. My | 2 | -11.307 | 1.592 | 233.960 |
| | | | Max. Vy | 20 | -14.389 | 233.019 | 1.129 |
| | | | Max. Vx | 2 | -14.491 | 1.592 | 233.960 |
| L2 | 76.5 - 39.92 | Pole | Max. Torque | 25 | | | 1.518 |
| | | | Max Tension | 1 | 0.000 | 0.000 | 0.000 |
| | | | Max. Compression | 26 | -34.647 | 0.334 | 0.239 |
| | | | Max. Mx | 20 | -15.967 | 798.325 | 2.959 |
| | | | Max. My | 2 | -15.956 | 2.923 | 803.507 |
| | | | Max. Vy | 20 | -16.930 | 798.325 | 2.959 |
| L3 | 39.92 - 0 | Pole | Max. Vx | 2 | -17.031 | 2.923 | 803.507 |
| | | | Max. Torque | 25 | | | 1.517 |
| | | | Max Tension | 1 | 0.000 | 0.000 | 0.000 |
| | | | Max. Compression | 26 | -45.187 | -0.975 | 0.995 |
| | | | Max. Mx | 8 | -24.069 | -1601.397 | -3.905 |
| | | | Max. My | 2 | -24.069 | 4.326 | 1611.349 |
| | | | Max. Vy | 8 | 19.320 | -1601.397 | -3.905 |
| | | | Max. Vx | 2 | -19.416 | 4.326 | 1611.349 |
| | | | Max. Torque | 25 | | | 1.511 |

Maximum Reactions

| Location | Condition | Gov. Load Comb. | Vertical K | Horizontal, X K | Horizontal, Z K |
|----------|---------------------|-----------------|------------|-----------------|-----------------|
| Pole | Max. Vert | 27 | 45.187 | 0.009 | 5.468 |
| | Max. H _x | 20 | 24.094 | 19.289 | 0.043 |
| | Max. H _z | 2 | 24.094 | 0.043 | 19.385 |
| | Max. M _x | 2 | 1611.349 | 0.043 | 19.385 |
| | Max. M _z | 8 | 1601.397 | -19.289 | -0.043 |
| | Max. Torsion | 25 | 1.507 | 9.681 | 16.809 |
| | Min. Vert | 19 | 18.070 | 16.684 | -9.656 |
| | Min. H _x | 8 | 24.094 | -19.289 | -0.043 |
| | Min. H _z | 14 | 24.094 | -0.043 | -19.385 |
| | Min. M _x | 14 | -1610.059 | -0.043 | -19.385 |
| | Min. M _z | 20 | -1600.942 | 19.289 | 0.043 |
| | Min. Torsion | 13 | -1.496 | -9.681 | -16.809 |

| | | |
|---|---|--|
| <p>tnxTower</p> <p>B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265</p> | <p>Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861)</p> | <p>Page 13 of 18</p> |
| | <p>Project</p> | <p>Date 15:56:24 02/11/22</p> |
| | <p>Client Crown Castle</p> | <p>Designed by SACHIN</p> |

Tower Mast Reaction Summary

| Load Combination | Vertical | Shear _x | Shear _z | Overtuning Moment, M _x | Overtuning Moment, M _z | Torque |
|---|----------|--------------------|--------------------|-----------------------------------|-----------------------------------|--------|
| | K | K | K | kip-ft | kip-ft | kip-ft |
| Dead Only | 20.078 | 0.000 | 0.000 | -0.516 | -0.199 | 0.000 |
| 1.2 Dead+1.0 Wind 0 deg - No Ice | 24.094 | -0.043 | -19.385 | -1611.349 | 4.326 | -1.155 |
| 0.9 Dead+1.0 Wind 0 deg - No Ice | 18.070 | -0.043 | -19.385 | -1592.336 | 4.323 | -1.160 |
| 1.2 Dead+1.0 Wind 30 deg - No Ice | 24.094 | 9.608 | -16.767 | -1393.293 | -796.858 | -0.491 |
| 0.9 Dead+1.0 Wind 30 deg - No Ice | 18.070 | 9.608 | -16.767 | -1376.833 | -787.489 | -0.496 |
| 1.2 Dead+1.0 Wind 60 deg - No Ice | 24.094 | 16.684 | -9.656 | -802.070 | -1384.602 | 0.308 |
| 0.9 Dead+1.0 Wind 60 deg - No Ice | 18.070 | 16.684 | -9.656 | -792.528 | -1368.357 | 0.304 |
| 1.2 Dead+1.0 Wind 90 deg - No Ice | 24.094 | 19.289 | 0.043 | 3.905 | -1601.397 | 1.020 |
| 0.9 Dead+1.0 Wind 90 deg - No Ice | 18.070 | 19.289 | 0.043 | 4.017 | -1582.612 | 1.018 |
| 1.2 Dead+1.0 Wind 120 deg - No Ice | 24.094 | 16.726 | 9.729 | 808.650 | -1389.151 | 1.452 |
| 0.9 Dead+1.0 Wind 120 deg - No Ice | 18.070 | 16.726 | 9.729 | 799.346 | -1372.845 | 1.453 |
| 1.2 Dead+1.0 Wind 150 deg - No Ice | 24.094 | 9.681 | 16.809 | 1396.534 | -804.756 | 1.492 |
| 0.9 Dead+1.0 Wind 150 deg - No Ice | 18.070 | 9.681 | 16.809 | 1380.352 | -795.284 | 1.496 |
| 1.2 Dead+1.0 Wind 180 deg - No Ice | 24.094 | 0.043 | 19.385 | 1610.059 | -4.799 | 1.137 |
| 0.9 Dead+1.0 Wind 180 deg - No Ice | 18.070 | 0.043 | 19.385 | 1591.379 | -4.684 | 1.142 |
| 1.2 Dead+1.0 Wind 210 deg - No Ice | 24.094 | -9.608 | 16.767 | 1392.005 | 796.400 | 0.484 |
| 0.9 Dead+1.0 Wind 210 deg - No Ice | 18.070 | -9.608 | 16.767 | 1375.878 | 787.140 | 0.489 |
| 1.2 Dead+1.0 Wind 240 deg - No Ice | 24.094 | -16.684 | 9.656 | 800.770 | 1384.154 | -0.297 |
| 0.9 Dead+1.0 Wind 240 deg - No Ice | 18.070 | -16.684 | 9.656 | 791.565 | 1368.014 | -0.292 |
| 1.2 Dead+1.0 Wind 270 deg - No Ice | 24.094 | -19.289 | -0.043 | -5.220 | 1600.942 | -1.002 |
| 0.9 Dead+1.0 Wind 270 deg - No Ice | 18.070 | -19.289 | -0.043 | -4.991 | 1582.266 | -1.000 |
| 1.2 Dead+1.0 Wind 300 deg - No Ice | 24.094 | -16.726 | -9.729 | -809.967 | 1388.681 | -1.445 |
| 0.9 Dead+1.0 Wind 300 deg - No Ice | 18.070 | -16.726 | -9.729 | -800.322 | 1372.487 | -1.446 |
| 1.2 Dead+1.0 Wind 330 deg - No Ice | 24.094 | -9.681 | -16.809 | -1397.839 | 804.278 | -1.503 |
| 0.9 Dead+1.0 Wind 330 deg - No Ice | 18.070 | -9.681 | -16.809 | -1381.319 | 794.919 | -1.507 |
| 1.2 Dead+1.0 Ice+1.0 Temp | 45.187 | 0.000 | 0.000 | -0.995 | -0.975 | 0.000 |
| 1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp | 45.187 | -0.009 | -5.468 | -467.697 | 0.037 | -0.247 |
| 1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp | 45.187 | 2.713 | -4.731 | -404.692 | -232.053 | -0.117 |
| 1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp | 45.187 | 4.708 | -2.726 | -233.526 | -402.220 | 0.044 |
| 1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp | 45.187 | 5.442 | 0.009 | -0.072 | -464.861 | 0.193 |

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|---|---|--|
| <p>tnxTower</p> <p>B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265</p> | <p>Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861)</p> | <p>Page 14 of 18</p> |
| | <p>Project</p> | <p>Date 15:56:24 02/11/22</p> |
| | <p>Client Crown Castle</p> | <p>Designed by SACHIN</p> |

| Load Combination | Vertical K | Shear _x K | Shear _z K | Overturning Moment, M _x kip-ft | Overturning Moment, M _z kip-ft | Torque kip-ft |
|--|---------------|-------------------------|-------------------------|--|--|------------------|
| 1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp | 45.187 | 4.717 | 2.742 | 233.117 | -403.212 | 0.290 |
| 1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp | 45.187 | 2.728 | 4.740 | 403.558 | -233.770 | 0.309 |
| 1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp | 45.187 | 0.009 | 5.468 | 465.574 | -1.944 | 0.246 |
| 1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp | 45.187 | -2.713 | 4.731 | 402.569 | 230.148 | 0.117 |
| 1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp | 45.187 | -4.708 | 2.726 | 231.402 | 400.317 | -0.043 |
| 1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp | 45.187 | -5.442 | -0.009 | -2.054 | 462.957 | -0.192 |
| 1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp | 45.187 | -4.717 | -2.742 | -235.243 | 401.306 | -0.290 |
| 1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp | 45.187 | -2.728 | -4.740 | -405.683 | 231.863 | -0.310 |
| Dead+Wind 0 deg - Service | 20.078 | -0.010 | -4.724 | -390.585 | 0.914 | -0.280 |
| Dead+Wind 30 deg - Service | 20.078 | 2.341 | -4.086 | -337.779 | -193.102 | -0.119 |
| Dead+Wind 60 deg - Service | 20.078 | 4.065 | -2.353 | -194.607 | -335.427 | 0.074 |
| Dead+Wind 90 deg - Service | 20.078 | 4.700 | 0.010 | 0.566 | -387.924 | 0.247 |
| Dead+Wind 120 deg - Service | 20.078 | 4.076 | 2.371 | 195.444 | -336.530 | 0.354 |
| Dead+Wind 150 deg - Service | 20.078 | 2.359 | 4.096 | 337.809 | -195.013 | 0.365 |
| Dead+Wind 180 deg - Service | 20.078 | 0.010 | 4.724 | 389.513 | -1.292 | 0.279 |
| Dead+Wind 210 deg - Service | 20.078 | -2.341 | 4.086 | 336.706 | 192.725 | 0.119 |
| Dead+Wind 240 deg - Service | 20.078 | -4.065 | 2.353 | 193.534 | 335.050 | -0.073 |
| Dead+Wind 270 deg - Service | 20.078 | -4.700 | -0.010 | -1.640 | 387.547 | -0.246 |
| Dead+Wind 300 deg - Service | 20.078 | -4.076 | -2.371 | -196.518 | 336.153 | -0.353 |
| Dead+Wind 330 deg - Service | 20.078 | -2.359 | -4.096 | -338.882 | 194.635 | -0.366 |

Solution Summary

| Load Comb. | Sum of Applied Forces | | | Sum of Reactions | | | % Error |
|------------|-----------------------|---------|---------|------------------|---------|---------|---------|
| | PX K | PY K | PZ K | PX K | PY K | PZ K | |
| 1 | 0.000 | -20.078 | 0.000 | 0.000 | 20.078 | 0.000 | 0.000% |
| 2 | -0.043 | -24.094 | -19.385 | 0.043 | 24.094 | 19.385 | 0.000% |
| 3 | -0.043 | -18.070 | -19.385 | 0.043 | 18.070 | 19.385 | 0.000% |
| 4 | 9.608 | -24.094 | -16.767 | -9.608 | 24.094 | 16.767 | 0.000% |
| 5 | 9.608 | -18.070 | -16.767 | -9.608 | 18.070 | 16.767 | 0.000% |
| 6 | 16.684 | -24.094 | -9.656 | -16.684 | 24.094 | 9.656 | 0.000% |
| 7 | 16.684 | -18.070 | -9.656 | -16.684 | 18.070 | 9.656 | 0.000% |
| 8 | 19.289 | -24.094 | 0.043 | -19.289 | 24.094 | -0.043 | 0.000% |
| 9 | 19.289 | -18.070 | 0.043 | -19.289 | 18.070 | -0.043 | 0.000% |
| 10 | 16.726 | -24.094 | 9.729 | -16.726 | 24.094 | -9.729 | 0.000% |
| 11 | 16.726 | -18.070 | 9.729 | -16.726 | 18.070 | -9.729 | 0.000% |
| 12 | 9.681 | -24.094 | 16.809 | -9.681 | 24.094 | -16.809 | 0.000% |
| 13 | 9.681 | -18.070 | 16.809 | -9.681 | 18.070 | -16.809 | 0.000% |
| 14 | 0.043 | -24.094 | 19.385 | -0.043 | 24.094 | -19.385 | 0.000% |
| 15 | 0.043 | -18.070 | 19.385 | -0.043 | 18.070 | -19.385 | 0.000% |
| 16 | -9.608 | -24.094 | 16.767 | 9.608 | 24.094 | -16.767 | 0.000% |
| 17 | -9.608 | -18.070 | 16.767 | 9.608 | 18.070 | -16.767 | 0.000% |
| 18 | -16.684 | -24.094 | 9.656 | 16.684 | 24.094 | -9.656 | 0.000% |
| 19 | -16.684 | -18.070 | 9.656 | 16.684 | 18.070 | -9.656 | 0.000% |
| 20 | -19.289 | -24.094 | -0.043 | 19.289 | 24.094 | 0.043 | 0.000% |
| 21 | -19.289 | -18.070 | -0.043 | 19.289 | 18.070 | 0.043 | 0.000% |
| 22 | -16.726 | -24.094 | -9.729 | 16.726 | 24.094 | 9.729 | 0.000% |
| 23 | -16.726 | -18.070 | -9.729 | 16.726 | 18.070 | 9.729 | 0.000% |
| 24 | -9.681 | -24.094 | -16.809 | 9.681 | 24.094 | 16.809 | 0.000% |

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| <p>tnxTower</p> <p>B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265</p> | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 15 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

| Load Comb. | Sum of Applied Forces | | | Sum of Reactions | | | % Error |
|------------|-----------------------|---------|---------|------------------|--------|--------|---------|
| | PX K | PY K | PZ K | PX K | PY K | PZ K | |
| 25 | -9.681 | -18.070 | -16.809 | 9.681 | 18.070 | 16.809 | 0.000% |
| 26 | 0.000 | -45.187 | 0.000 | 0.000 | 45.187 | 0.000 | 0.000% |
| 27 | -0.009 | -45.187 | -5.468 | 0.009 | 45.187 | 5.468 | 0.000% |
| 28 | 2.713 | -45.187 | -4.731 | -2.713 | 45.187 | 4.731 | 0.000% |
| 29 | 4.708 | -45.187 | -2.726 | -4.708 | 45.187 | 2.726 | 0.000% |
| 30 | 5.442 | -45.187 | 0.009 | -5.442 | 45.187 | -0.009 | 0.000% |
| 31 | 4.717 | -45.187 | 2.742 | -4.717 | 45.187 | -2.742 | 0.000% |
| 32 | 2.728 | -45.187 | 4.740 | -2.728 | 45.187 | -4.740 | 0.000% |
| 33 | 0.009 | -45.187 | 5.468 | -0.009 | 45.187 | -5.468 | 0.000% |
| 34 | -2.713 | -45.187 | 4.731 | 2.713 | 45.187 | -4.731 | 0.000% |
| 35 | -4.708 | -45.187 | 2.726 | 4.708 | 45.187 | -2.726 | 0.000% |
| 36 | -5.442 | -45.187 | -0.009 | 5.442 | 45.187 | 0.009 | 0.000% |
| 37 | -4.717 | -45.187 | -2.742 | 4.717 | 45.187 | 2.742 | 0.000% |
| 38 | -2.728 | -45.187 | -4.740 | 2.728 | 45.187 | 4.740 | 0.000% |
| 39 | -0.010 | -20.078 | -4.724 | 0.010 | 20.078 | 4.724 | 0.000% |
| 40 | 2.341 | -20.078 | -4.086 | -2.341 | 20.078 | 4.086 | 0.000% |
| 41 | 4.065 | -20.078 | -2.353 | -4.065 | 20.078 | 2.353 | 0.000% |
| 42 | 4.700 | -20.078 | 0.010 | -4.700 | 20.078 | -0.010 | 0.000% |
| 43 | 4.076 | -20.078 | 2.371 | -4.076 | 20.078 | -2.371 | 0.000% |
| 44 | 2.359 | -20.078 | 4.096 | -2.359 | 20.078 | -4.096 | 0.000% |
| 45 | 0.010 | -20.078 | 4.724 | -0.010 | 20.078 | -4.724 | 0.000% |
| 46 | -2.341 | -20.078 | 4.086 | 2.341 | 20.078 | -4.086 | 0.000% |
| 47 | -4.065 | -20.078 | 2.353 | 4.065 | 20.078 | -2.353 | 0.000% |
| 48 | -4.700 | -20.078 | -0.010 | 4.700 | 20.078 | 0.010 | 0.000% |
| 49 | -4.076 | -20.078 | -2.371 | 4.076 | 20.078 | 2.371 | 0.000% |
| 50 | -2.359 | -20.078 | -4.096 | 2.359 | 20.078 | 4.096 | 0.000% |

Non-Linear Convergence Results

| Load Combination | Converged? | Number of Cycles | Displacement Tolerance | Force Tolerance |
|------------------|------------|------------------|------------------------|-----------------|
| 1 | Yes | 4 | 0.00000001 | 0.00000001 |
| 2 | Yes | 5 | 0.00000001 | 0.00023850 |
| 3 | Yes | 5 | 0.00000001 | 0.00010989 |
| 4 | Yes | 6 | 0.00000001 | 0.00016092 |
| 5 | Yes | 6 | 0.00000001 | 0.00005036 |
| 6 | Yes | 6 | 0.00000001 | 0.00016185 |
| 7 | Yes | 6 | 0.00000001 | 0.00005074 |
| 8 | Yes | 5 | 0.00000001 | 0.00020494 |
| 9 | Yes | 5 | 0.00000001 | 0.00009458 |
| 10 | Yes | 6 | 0.00000001 | 0.00017350 |
| 11 | Yes | 6 | 0.00000001 | 0.00005471 |
| 12 | Yes | 6 | 0.00000001 | 0.00015793 |
| 13 | Yes | 6 | 0.00000001 | 0.00004911 |
| 14 | Yes | 5 | 0.00000001 | 0.00018408 |
| 15 | Yes | 5 | 0.00000001 | 0.00008546 |
| 16 | Yes | 6 | 0.00000001 | 0.00016636 |
| 17 | Yes | 6 | 0.00000001 | 0.00005232 |
| 18 | Yes | 6 | 0.00000001 | 0.00016495 |
| 19 | Yes | 6 | 0.00000001 | 0.00005184 |
| 20 | Yes | 5 | 0.00000001 | 0.00015104 |
| 21 | Yes | 5 | 0.00000001 | 0.00007031 |
| 22 | Yes | 6 | 0.00000001 | 0.00015851 |
| 23 | Yes | 6 | 0.00000001 | 0.00004929 |
| 24 | Yes | 6 | 0.00000001 | 0.00017455 |
| 25 | Yes | 6 | 0.00000001 | 0.00005499 |

| | | |
|---|---|--|
| <p>tnxTower</p> <p>B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265</p> | <p>Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861)</p> | <p>Page 16 of 18</p> |
| | <p>Project</p> | <p>Date 15:56:24 02/11/22</p> |
| | <p>Client Crown Castle</p> | <p>Designed by SACHIN</p> |

| | | | | |
|----|-----|---|------------|------------|
| 26 | Yes | 4 | 0.00000001 | 0.00000001 |
| 27 | Yes | 5 | 0.00000001 | 0.00081898 |
| 28 | Yes | 6 | 0.00000001 | 0.00016313 |
| 29 | Yes | 6 | 0.00000001 | 0.00016368 |
| 30 | Yes | 5 | 0.00000001 | 0.00080981 |
| 31 | Yes | 6 | 0.00000001 | 0.00016822 |
| 32 | Yes | 6 | 0.00000001 | 0.00016285 |
| 33 | Yes | 5 | 0.00000001 | 0.00081605 |
| 34 | Yes | 6 | 0.00000001 | 0.00016586 |
| 35 | Yes | 6 | 0.00000001 | 0.00016465 |
| 36 | Yes | 5 | 0.00000001 | 0.00081100 |
| 37 | Yes | 6 | 0.00000001 | 0.00016406 |
| 38 | Yes | 6 | 0.00000001 | 0.00017014 |
| 39 | Yes | 4 | 0.00000001 | 0.00031253 |
| 40 | Yes | 5 | 0.00000001 | 0.00005546 |
| 41 | Yes | 5 | 0.00000001 | 0.00005642 |
| 42 | Yes | 4 | 0.00000001 | 0.00026775 |
| 43 | Yes | 5 | 0.00000001 | 0.00006816 |
| 44 | Yes | 5 | 0.00000001 | 0.00005287 |
| 45 | Yes | 4 | 0.00000001 | 0.00029455 |
| 46 | Yes | 5 | 0.00000001 | 0.00006108 |
| 47 | Yes | 5 | 0.00000001 | 0.00005958 |
| 48 | Yes | 4 | 0.00000001 | 0.00025166 |
| 49 | Yes | 5 | 0.00000001 | 0.00005375 |
| 50 | Yes | 5 | 0.00000001 | 0.00006964 |

Maximum Tower Deflections - Service Wind

| Section No. | Elevation ft | Horz. Deflection in | Gov. Load Comb. | Tilt ° | Twist ° |
|-------------|-----------------|------------------------|-----------------|-----------|------------|
| L1 | 96.83 - 76.5 | 15.066 | 50 | 1.284 | 0.004 |
| L2 | 80.11 - 39.92 | 10.709 | 50 | 1.185 | 0.003 |
| L3 | 44.09 - 0 | 3.371 | 50 | 0.690 | 0.001 |

Critical Deflections and Radius of Curvature - Service Wind

| Elevation ft | Appurtenance | Gov. Load Comb. | Deflection in | Tilt ° | Twist ° | Radius of Curvature ft |
|-----------------|-----------------------------|-----------------|------------------|-----------|------------|---------------------------|
| 104.000 | Flash Beacon Lighting | 50 | 15.066 | 1.284 | 0.004 | 23040 |
| 103.000 | 80010965 w/ Mount Pipe | 50 | 15.066 | 1.284 | 0.004 | 23040 |
| 100.000 | 4' x 2" Pipe Mount | 50 | 15.066 | 1.284 | 0.004 | 23040 |
| 98.000 | Top Hat | 50 | 15.066 | 1.284 | 0.004 | 23040 |
| 90.000 | 4' x 2" Pipe Mount | 50 | 13.259 | 1.251 | 0.004 | 16867 |
| 86.000 | BXA-70063/4CF w/ Mount Pipe | 50 | 12.213 | 1.228 | 0.003 | 10637 |

| | | |
|--|---|----------------------------------|
| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 17 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

Maximum Tower Deflections - Design Wind

| Section No. | Elevation ft | Horz. Deflection in | Gov. Load Comb. | Tilt ° | Twist ° |
|-------------|-----------------|------------------------|-----------------|-----------|------------|
| L1 | 96.83 - 76.5 | 62.128 | 24 | 5.301 | 0.017 |
| L2 | 80.11 - 39.92 | 44.179 | 24 | 4.893 | 0.012 |
| L3 | 44.09 - 0 | 13.917 | 24 | 2.848 | 0.005 |

Critical Deflections and Radius of Curvature - Design Wind

| Elevation ft | Appurtenance | Gov. Load Comb. | Deflection in | Tilt ° | Twist ° | Radius of Curvature ft |
|-----------------|-----------------------------|-----------------|------------------|-----------|------------|---------------------------|
| 104.000 | Flash Beacon Lighting | 24 | 62.128 | 5.301 | 0.017 | 5710 |
| 103.000 | 80010965 w/ Mount Pipe | 24 | 62.128 | 5.301 | 0.017 | 5710 |
| 100.000 | 4' x 2" Pipe Mount | 24 | 62.128 | 5.301 | 0.017 | 5710 |
| 98.000 | Top Hat | 24 | 62.128 | 5.301 | 0.017 | 5710 |
| 90.000 | 4' x 2" Pipe Mount | 24 | 54.683 | 5.164 | 0.015 | 4180 |
| 86.000 | BXA-70063/4CF w/ Mount Pipe | 24 | 50.377 | 5.070 | 0.014 | 2635 |

Compression Checks

Pole Design Data

| Section No. | Elevation ft | Size | L ft | L _u ft | KI/r | A in ² | P _u K | φP _n K | Ratio P _u / φP _n |
|-------------|------------------|-----------------------|---------|----------------------|------|----------------------|---------------------|----------------------|--|
| L1 | 96.83 - 76.5 (1) | TP28.875x25.75x0.188 | 20.330 | 0.000 | 0.0 | 16.742 | -11.305 | 979.431 | 0.012 |
| L2 | 76.5 - 39.92 (2) | TP33.375x27.945x0.219 | 40.190 | 0.000 | 0.0 | 22.630 | -15.955 | 1323.830 | 0.012 |
| L3 | 39.92 - 0 (3) | TP39x32.374x0.281 | 44.090 | 0.000 | 0.0 | 34.564 | -24.069 | 2021.980 | 0.012 |

Pole Bending Design Data

| Section No. | Elevation ft | Size | M _{ux} kip-ft | φM _{ux} kip-ft | Ratio M _{ux} / φM _{ux} | M _{uy} kip-ft | φM _{uy} kip-ft | Ratio M _{uy} / φM _{uy} |
|-------------|------------------|-----------------------|---------------------------|----------------------------|--|---------------------------|----------------------------|--|
| L1 | 96.83 - 76.5 (1) | TP28.875x25.75x0.188 | 234.747 | 621.113 | 0.378 | 0.000 | 621.113 | 0.000 |
| L2 | 76.5 - 39.92 (2) | TP33.375x27.945x0.219 | 804.587 | 975.525 | 0.825 | 0.000 | 975.525 | 0.000 |
| L3 | 39.92 - 0 (3) | TP39x32.374x0.281 | 1612.708 | 1827.183 | 0.883 | 0.000 | 1827.183 | 0.000 |

| | | |
|--|---|----------------------------------|
| tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (555) 295-0265 | Job 154567.004.01 - EAST HARTFORD HOCHANUM, CT (BU# 842861) | Page 18 of 18 |
| | Project | Date 15:56:24 02/11/22 |
| | Client Crown Castle | Designed by SACHIN |

Pole Shear Design Data

| Section No. | Elevation ft | Size | Actual V_u K | ϕV_n K | Ratio $\frac{V_u}{\phi V_n}$ | Actual T_u kip-ft | ϕT_n kip-ft | Ratio $\frac{T_u}{\phi T_n}$ |
|-------------|------------------|-----------------------|----------------------|-----------------|---------------------------------|---------------------------|----------------------|---------------------------------|
| L1 | 96.83 - 76.5 (1) | TP28.875x25.75x0.188 | 14.505 | 293.829 | 0.049 | 1.514 | 723.911 | 0.002 |
| L2 | 76.5 - 39.92 (2) | TP33.375x27.945x0.219 | 17.044 | 397.150 | 0.043 | 1.508 | 1133.592 | 0.001 |
| L3 | 39.92 - 0 (3) | TP39x32.374x0.281 | 19.429 | 606.594 | 0.032 | 1.503 | 2056.833 | 0.001 |

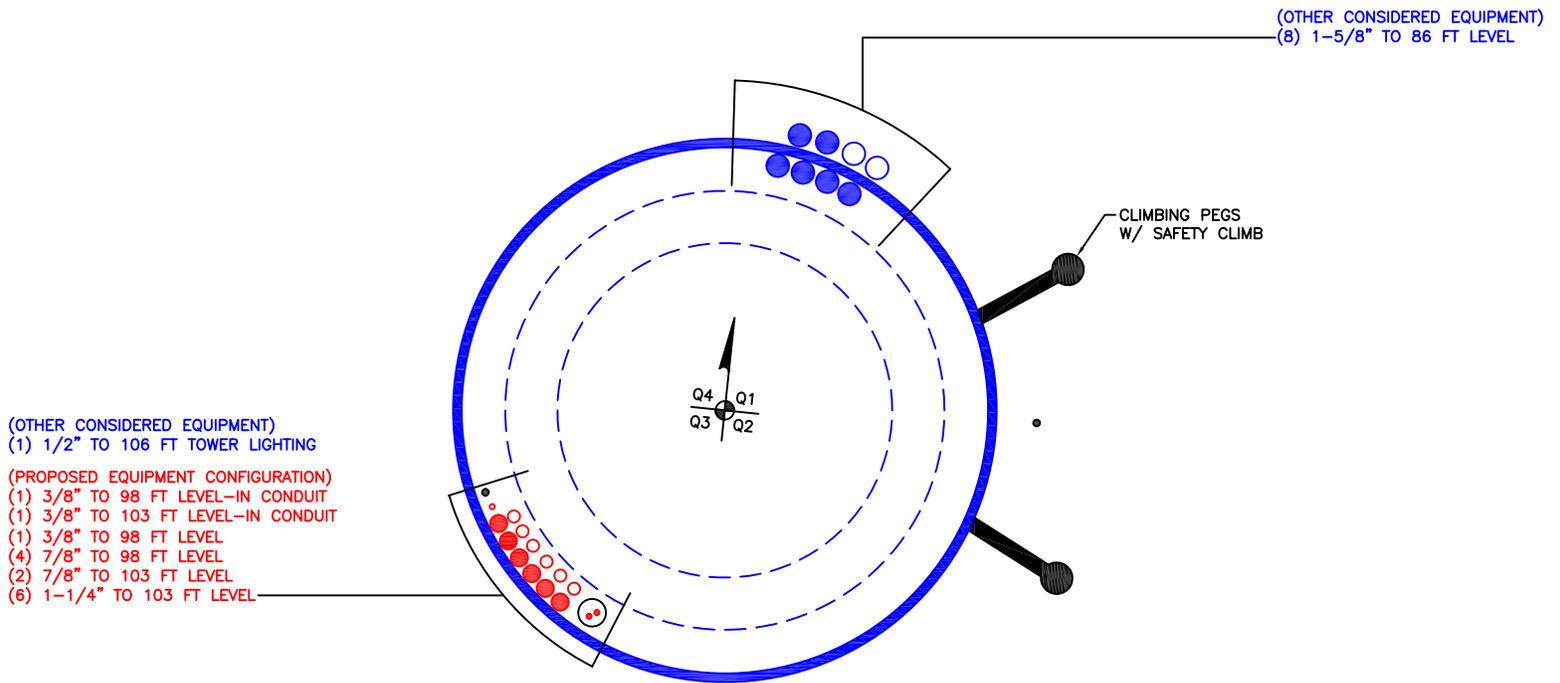
Pole Interaction Design Data

| Section No. | Elevation ft | Ratio P_u | Ratio M_{ux} | Ratio M_{uy} | Ratio V_u | Ratio T_u | Comb. Stress Ratio | Allow. Stress Ratio | Criteria |
|-------------|------------------|----------------|-------------------|-------------------|----------------|----------------|--------------------------|---------------------------|----------|
| | | ϕP_n | ϕM_{nx} | ϕM_{ny} | ϕV_n | ϕT_n | | | |
| L1 | 96.83 - 76.5 (1) | 0.012 | 0.378 | 0.000 | 0.049 | 0.002 | 0.392 | 1.050 | 4.8.2 ✓ |
| L2 | 76.5 - 39.92 (2) | 0.012 | 0.825 | 0.000 | 0.043 | 0.001 | 0.839 | 1.050 | 4.8.2 ✓ |
| L3 | 39.92 - 0 (3) | 0.012 | 0.883 | 0.000 | 0.032 | 0.001 | 0.896 | 1.050 | 4.8.2 ✓ |

Section Capacity Table

| Section No. | Elevation ft | Component Type | Size | Critical Element | P K | ϕP_{allow} K | % Capacity | Pass Fail |
|-----------------|-----------------|-------------------|-----------------------|---------------------|---------|-----------------------|---------------|--------------|
| L1 | 96.83 - 76.5 | Pole | TP28.875x25.75x0.188 | 1 | -11.305 | 1028.403 | 37.3 | Pass |
| L2 | 76.5 - 39.92 | Pole | TP33.375x27.945x0.219 | 2 | -15.955 | 1390.021 | 79.9 | Pass |
| L3 | 39.92 - 0 | Pole | TP39x32.374x0.281 | 3 | -24.069 | 2123.079 | 85.3 | Pass |
| Summary | | | | | | | | |
| Pole (L3) | | | | | | | 85.3 | Pass |
| RATING = | | | | | | | 85.3 | Pass |

APPENDIX B
BASE LEVEL DRAWING



BUSINESS UNIT: 842861

APPENDIX C
ADDITIONAL CALCULATIONS

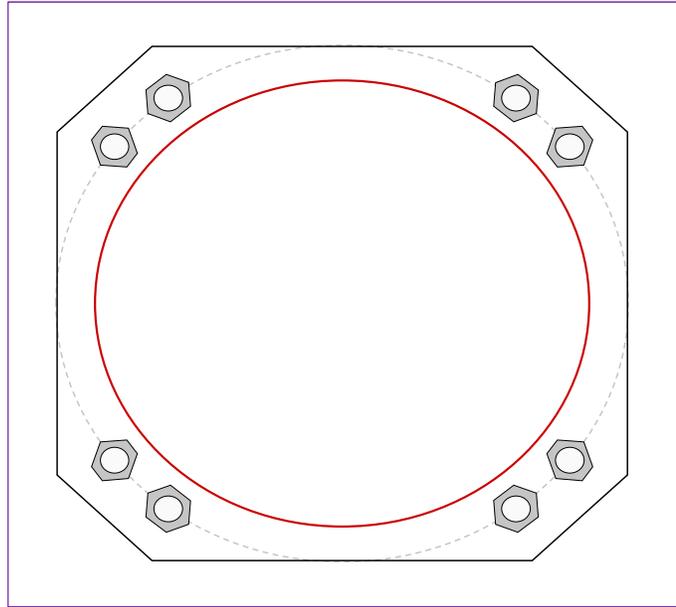
Monopole Base Plate Connection



| Site Info | |
|-----------|----------------------|
| BU # | 842861 |
| Site Name | t Hartford Hochanum, |
| Order # | 556508, Rev# 1 |

| Analysis Considerations | |
|-------------------------|-------|
| TIA-222 Revision | H |
| Grout Considered: | No |
| l_{ar} (in) | 1.375 |

| Applied Loads | |
|--------------------|---------|
| Moment (kip-ft) | 1612.70 |
| Axial Force (kips) | 24.07 |
| Shear Force (kips) | 19.43 |



| Connection Properties | Analysis Results |
|-----------------------|------------------|
|-----------------------|------------------|

| Anchor Rod Data | |
|--|--|
| (8) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 45.2" BC | |
| Anchor Spacing: 6 in | |
| Base Plate Data | |
| 45" W x 2.75" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi); Clip: 7.5 in | |
| Stiffener Data | |
| N/A | |
| Pole Data | |
| 39" x 0.28125" 18-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi) | |

| Anchor Rod Summary | | (units of kips, kip-in) |
|-------------------------|----------------------|-------------------------|
| $Pu_t = 210.85$ | $\phi Pn_t = 243.75$ | Stress Rating |
| $Vu = 2.43$ | $\phi Vn = 149.1$ | 86.5% |
| $Mu = n/a$ | $\phi Mn = n/a$ | Pass |
| Base Plate Summary | | |
| Max Stress (ksi): | 26.77 | (Flexural) |
| Allowable Stress (ksi): | 45 | |
| Stress Rating: | 59.5% | Pass |

Drilled Pier Foundation

| | |
|------------------|---------------------|
| BU # : | 842861 |
| Site Name: | EAST HARTFORDHOCHAN |
| Order Number: | 556508, Rev# 0 |
| TIA-222 Revison: | H |
| Tower Type: | Monopole |

Report File: _____



| Applied Loads | | |
|--------------------|--------|--------|
| | Comp. | Uplift |
| Moment (kip-ft) | 1612.7 | |
| Axial Force (kips) | 24.07 | |
| Shear Force (kips) | 19.43 | |

| Material Properties | |
|--------------------------|--------|
| Concrete Strength, f'c: | 3 ksi |
| Rebar Strength, Fy: | 60 ksi |
| Tie Yield Strength, Fyt: | 40 ksi |

| Pier Design Data | |
|---|----------|
| Depth | 44.75 ft |
| Ext. Above Grade | 0.25 ft |
| Pier Section 1 | |
| <i>From 0.25' above grade to 44.75' below grade</i> | |
| Pier Diameter | 7.5 ft |
| Rebar Quantity | 22 |
| Rebar Size | 10 |
| Rebar Cage Diameter | 81 in |
| Tie Size | |
| Tie Spacing | in |

Rebar & Pier Options
Embedded Pole Inputs
Belled Pier Inputs

| Analysis Results | | |
|--------------------------------------|--------------|--------|
| Soil Lateral Check | Compression | Uplift |
| D _{v=0} (ft from TOC) | 7.92 | - |
| Soil Safety Factor | 10.66 | - |
| Max Moment (kip-ft) | 1751.15 | - |
| Rating* | 11.9% | - |
| Soil Vertical Check | Compression | Uplift |
| Skin Friction (kips) | 432.91 | - |
| End Bearing (kips) | 77.04 | - |
| Weight of Concrete (kips) | 237.86 | - |
| Total Capacity (kips) | 509.94 | - |
| Axial (kips) | 261.93 | - |
| Rating* | 48.9% | - |
| Reinforced Concrete Flexure | Compression | Uplift |
| Critical Depth (ft from TOC) | 7.56 | - |
| Critical Moment (kip-ft) | 1750.73 | - |
| Critical Moment Capacity | 4920.66 | - |
| Rating* | 33.9% | - |
| Reinforced Concrete Shear | Compression | Uplift |
| Critical Depth (ft from TOC) | 21.49 | - |
| Critical Shear (kip) | 155.22 | - |
| Critical Shear Capacity | 509.59 | - |
| Rating* | 29.0% | - |
| Structural Foundation Rating* | 33.9% | |
| Soil Interaction Rating* | 48.9% | |

*Rating per TIA-222-H Section 15.5

| Check Limitation | |
|---------------------------------------|-------------------------------------|
| Apply TIA-222-H Section 15.5: | <input checked="" type="checkbox"/> |
| N/A | <input type="checkbox"/> |
| Additional Longitudinal Rebar | |
| Input Effective Depths (else Actual): | <input type="checkbox"/> |
| Shear Design Options | |
| Check Shear along Depth of Pier: | <input checked="" type="checkbox"/> |
| Utilize Shear-Friction Methodology: | <input type="checkbox"/> |
| Override Critical Depth: | <input type="checkbox"/> |

[Go to Soil Calculations](#)

| Soil Profile | | | |
|-------------------|-----|-------------|----|
| Groundwater Depth | 8.5 | # of Layers | 13 |

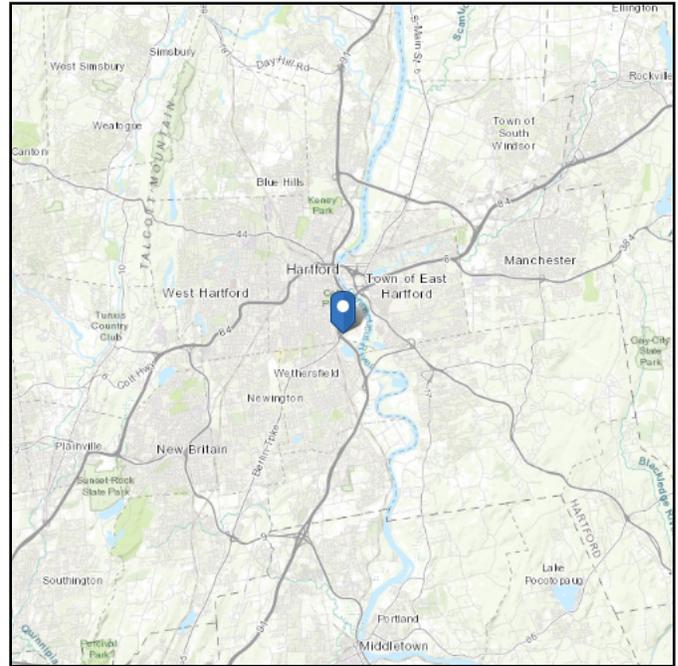
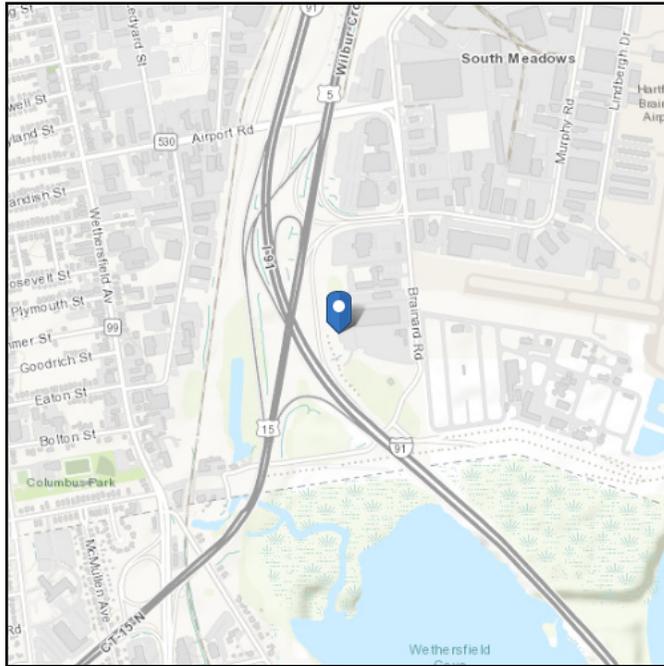
| Layer | Top (ft) | Bottom (ft) | Thickness (ft) | Y _{soil} (pcf) | Y _{concrete} (pcf) | Cohesion (ksf) | Angle of Friction (degrees) | Calculated Ultimate Skin Friction Comp (ksf) | Calculated Ultimate Skin Friction Uplift (ksf) | Ultimate Skin Friction Comp Override (ksf) | Ultimate Skin Friction Uplift Override (ksf) | Ult. Gross Bearing Capacity (ksf) | SPT Blow Count | Soil Type |
|-------|----------|-------------|----------------|-------------------------|-----------------------------|----------------|-----------------------------|--|--|--|--|-----------------------------------|----------------|--------------|
| 1 | 0 | 1 | 1 | 108 | 150 | 0 | 0 | 0.000 | 0.000 | 0.00 | 0.00 | | | Cohesionless |
| 2 | 1 | 3.5 | 2.5 | 114 | 150 | 0 | 0 | 0.000 | 0.000 | 0.00 | 0.00 | | | Cohesionless |
| 3 | 3.5 | 3.75 | 0.25 | 110 | 150 | 0 | 0 | 0.000 | 0.000 | 0.00 | 0.00 | | | Cohesionless |
| 4 | 3.75 | 6 | 2.25 | 110 | 150 | 0.775 | 0 | 0.426 | 0.426 | 0.66 | 0.66 | | | Cohesive |
| 5 | 6 | 8.5 | 2.5 | 112 | 150 | 0 | 34 | 0.000 | 0.000 | 0.38 | 0.38 | | | Cohesionless |
| 6 | 8.5 | 13.5 | 5 | 49.6 | 87.6 | 0 | 34 | 0.000 | 0.000 | 0.51 | 0.51 | | | Cohesionless |
| 7 | 13.5 | 18.5 | 5 | 50.6 | 87.6 | 0 | 38 | 0.00 | 0.00 | 0.71 | 0.71 | | | Cohesionless |
| 8 | 18.5 | 23.5 | 5 | 51.6 | 87.6 | 0 | 45 | 0.00 | 0.00 | 1.05 | 1.05 | | | Cohesionless |
| 9 | 23.5 | 28.5 | 5 | 50.6 | 87.6 | 0 | 35 | 0.00 | 0.00 | 0.90 | 0.90 | | | Cohesionless |
| 10 | 28.5 | 33.5 | 5 | 47.6 | 87.6 | 0.8 | 0 | 0.44 | 0.44 | 0.68 | 0.68 | | | Cohesive |
| 11 | 33.5 | 38.5 | 5 | 47.6 | 87.6 | 0.25 | 0 | 0.14 | 0.14 | 0.25 | 0.25 | | | Cohesive |
| 12 | 38.5 | 43.5 | 5 | 47.6 | 87.6 | 0.2 | 0 | 0.11 | 0.11 | 0.20 | 0.20 | | | Cohesive |
| 13 | 43.5 | 44.75 | 1.25 | 47.6 | 87.6 | 0.45 | 0 | 0.25 | 0.25 | 0.45 | 0.45 | 2.325 | | Cohesive |

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Elevation: 12.74 ft (NAVD 88)
Latitude: 41.732978
Longitude: -72.662075



Wind

Results:

| | |
|--------------|----------|
| Wind Speed | 118 Vmph |
| 10-year MRI | 75 Vmph |
| 25-year MRI | 84 Vmph |
| 50-year MRI | 90 Vmph |
| 100-year MRI | 97 Vmph |

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Sat Dec 18 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

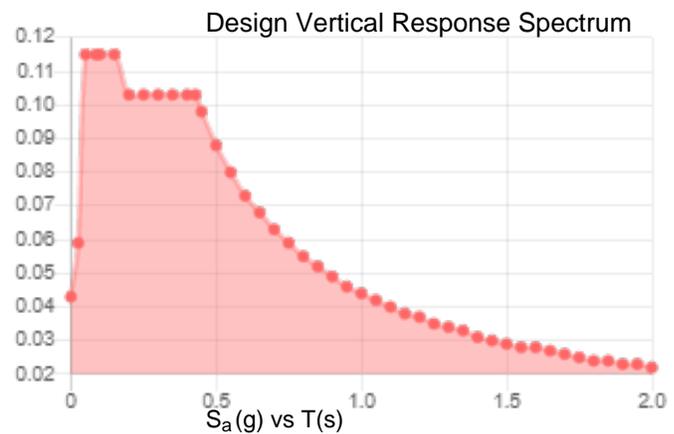
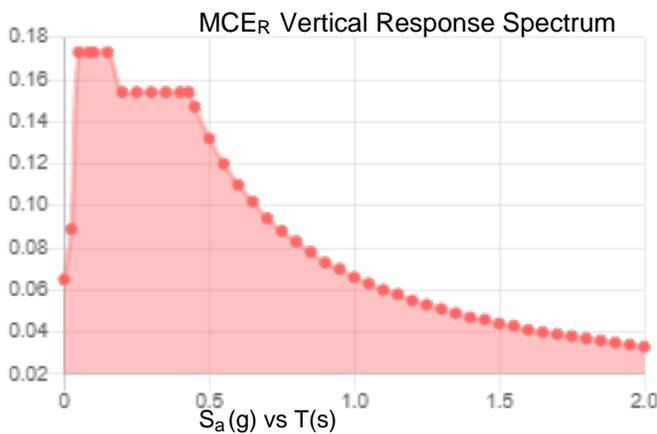
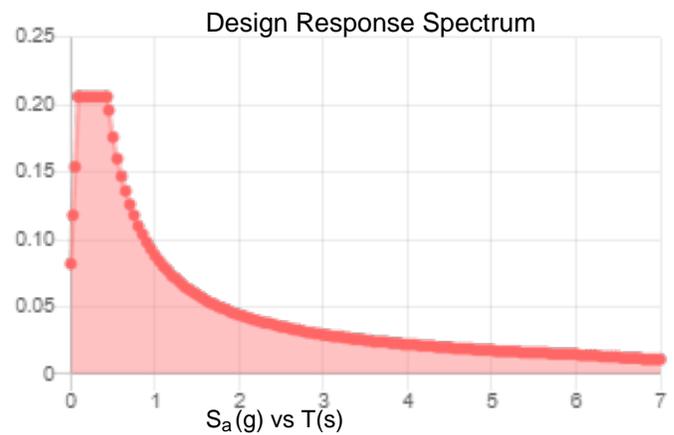
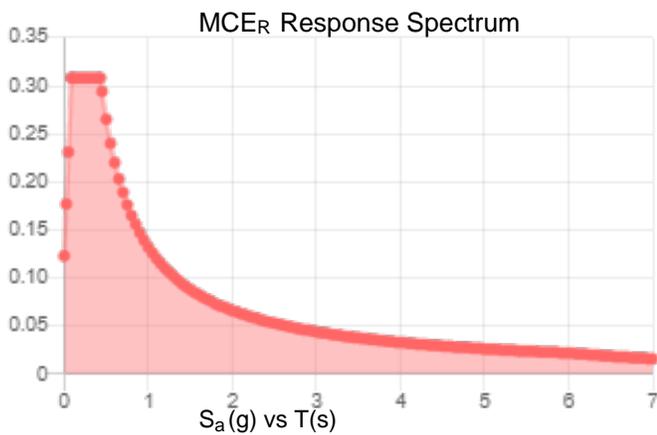
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Default (see Section 11.4.3)

Results:

| | | | |
|------------|-------|--------------------|-------|
| S_s : | 0.193 | S_{D1} : | 0.088 |
| S_1 : | 0.055 | T_L : | 6 |
| F_a : | 1.6 | PGA : | 0.104 |
| F_v : | 2.4 | PGA _M : | 0.166 |
| S_{MS} : | 0.308 | F_{PGA} : | 1.591 |
| S_{M1} : | 0.132 | I_e : | 1 |
| S_{DS} : | 0.206 | C_v : | 0.7 |

Seismic Design Category B



Data Accessed: Sat Dec 18 2021

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.50 in.
Concurrent Temperature: 15 F
Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Sat Dec 18 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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Exhibit E

Mount Analysis

Date: **October 1, 2021**

Darcy Tarr
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 405-6589

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
Infinigy Engineering, PLLC
1033 Watervliet Shaker Road
Albany, NY 12205
518-690-0790
structural@infinigy.com

Subject: **Mount Modification Report**

Carrier Designation: **AT&T Mobility Equipment Change-Out**
Carrier Site Number: CTL05126
Carrier Site Name: EAST HARTFORD HOCHANUM
Carrier FA Number: 10071011

Crown Castle Designation: **Crown Castle BU Number:** 842861
Crown Castle Site Name: EAST HARTFORD HOCHANUM
Crown Castle JDE Job Number: 649397
Crown Castle Order Number: 556508 Rev. 0

Engineering Firm Designation: **Infinigy Engineering, PLLC Report Designation:** 1039-Z0001-B

Site Data: **223 Brainard Road, Hartford, Hartford County, CT, 06114**
Latitude 41°43'58.72", Longitude -73°39'43.47"

Structure Information: **Tower Height & Type:** **96.8 ft Monopole**
Mount Elevation: **103.0 ft**
Mount Type: **14.0 ft Platform**

Dear Darcy Tarr,

Infinigy Engineering, PLLC is pleased to submit this "**Mount Modification Report**" to determine the structural integrity of AT&T Mobility's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform **Sufficient – 82.6%**
***Sufficient upon completion of the changes listed in the 'Recommendations' section of this report.**

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 118 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Alex Mercado, E.I.T.

Respectfully Submitted by:
Emmanuel Poulin, P.E.
518-690-0790
structural@infinigy.com
CT PE License No. 22947

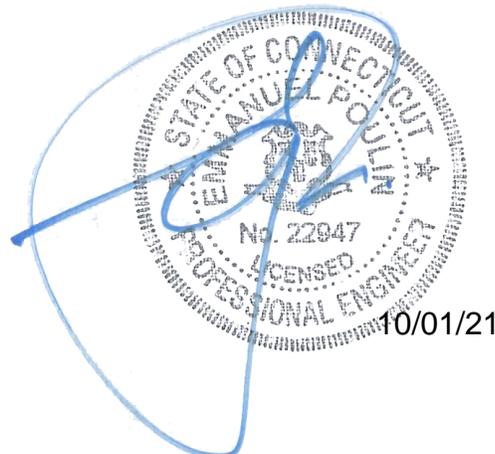


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Mount Modification Design Drawings (MDD) / Supplemental Drawings

1) INTRODUCTION

This is an existing 3 sector 14.0 ft Platform, mapped by Infinigy Engineering.

Proposed modifications are being considered in the analysis per Engineering detail drawings provided in Appendix E – Mount Modification Design Drawings.

2) ANALYSIS CRITERIA

Building Code: 2018 IBC
TIA-222 Revision: TIA-222-H
Risk Category: II
Ultimate Wind Speed: 118 mph
Exposure Category: C
Topographic Factor at Base: 1.0
Topographic Factor at Mount: 1.0
Ice Thickness: 1.5 in
Wind Speed with Ice: 50 mph
Seismic S_s: 0.193
Seismic S₁: 0.055
Live Loading Wind Speed: 30 mph
Man Live Load at Mid/End-Points: 250 lb
Man Live Load at Mount Pipes: 500 lb

Table 1 - Proposed Equipment Configuration

| Mount Centerline (ft) | Antenna Centerline (ft) | Number of Antennas | Antenna Manufacturer | Antenna Model | Mount / Modification Details |
|-----------------------|-------------------------|--------------------|----------------------|--------------------|------------------------------|
| 103.0 | 103.0 | 3 | ERICSSON | AIR 6419 B77G | 14.0 ft Platform |
| | | 3 | ERICSSON | AIR 6449 N77 | |
| | | 3 | KATHREIN | 80010965 | |
| | | 3 | ERICSSON | RRUS 4449 B5/B12 | |
| | | 1 | RAYCAP | DC9-48-60-24-8C-EV | |
| | 102.0 | 3 | CCI ANTENNAS | DMP65R-BU6e | |
| | | 2 | RAYCAP | DC6-48-60-18-8F | |
| | | 3 | ERICSSON | RRUS 32 B2 | |
| | | 3 | ERICSSON | RRUS 32 B30 | |
| | | 3 | ERICSSON | RRUS 32 B66 | |
| | | 3 | ERICSSON | RRUS 4478 B14 | |

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

| Document | Remarks | Reference | Source |
|-----------------------------|----------------------------|------------------|-----------|
| Crown Application | AT&T Mobility Application | 556508 Rev. 0 | CCI Sites |
| Loading Document | AT&T Mobility | RFDS ID: 4392762 | TSA |
| Mount Mapping Documents | Infinigy Engineering | 9721940 | CCI Sites |
| Mount Modification Drawings | Infinigy Engineering, PLLC | Appendix E | Infinigy |

3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

Infinigy Mount Analysis Tool V2.1.6, a tool internally developed by Infinigy, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B “Software Input Calculations”.

This analysis was performed in accordance with Crown Castle’s ENG-SOW-10208 *Tower Mount Analysis* (Revision B).

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
- 3) 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.
- 4) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
- 5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
- 6) Steel grades have been assumed as follows, unless noted otherwise:

| | |
|------------------------------------|---------------------|
| Channel, Solid Round, Angle, Plate | ASTM A36 (GR 36) |
| HSS (Rectangular) | ASTM A500 (GR B-46) |
| Pipe | ASTM A53 (GR 35) |
| Connection Bolts | ASTM A325 |

This analysis may be affected if any assumptions are not valid or have been made in error. Infinigy Engineering, PLLC should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform, All Sectors)

| Notes | Component | Critical Member | Centerline (ft) | % Capacity | Pass / Fail |
|-------|------------------------|-----------------|-----------------|------------|-------------|
| 1,2 | Mount Pipe(s) | MP3 | 103.0 | 54.5 | Pass |
| | Horizontal(s) | H1 | | 82.6 | Pass |
| | Standoff(s) | S3 | | 39.1 | Pass |
| | Handrail(s) | HR2 | | 40.3 | Pass |
| | Proposed Horizontal(s) | RH3 | | 50.5 | Pass |
| | Kicker(s) | K4 | | 24.3 | Pass |
| | Mount Connection(s) | - | | 44.6 | Pass |

| | |
|---|--------------|
| Structure Rating (max from all components) = | 82.6% |
|---|--------------|

Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
- 2) See additional documentation in "Appendix D - Additional Calculations" for detailed mount connection calculations.

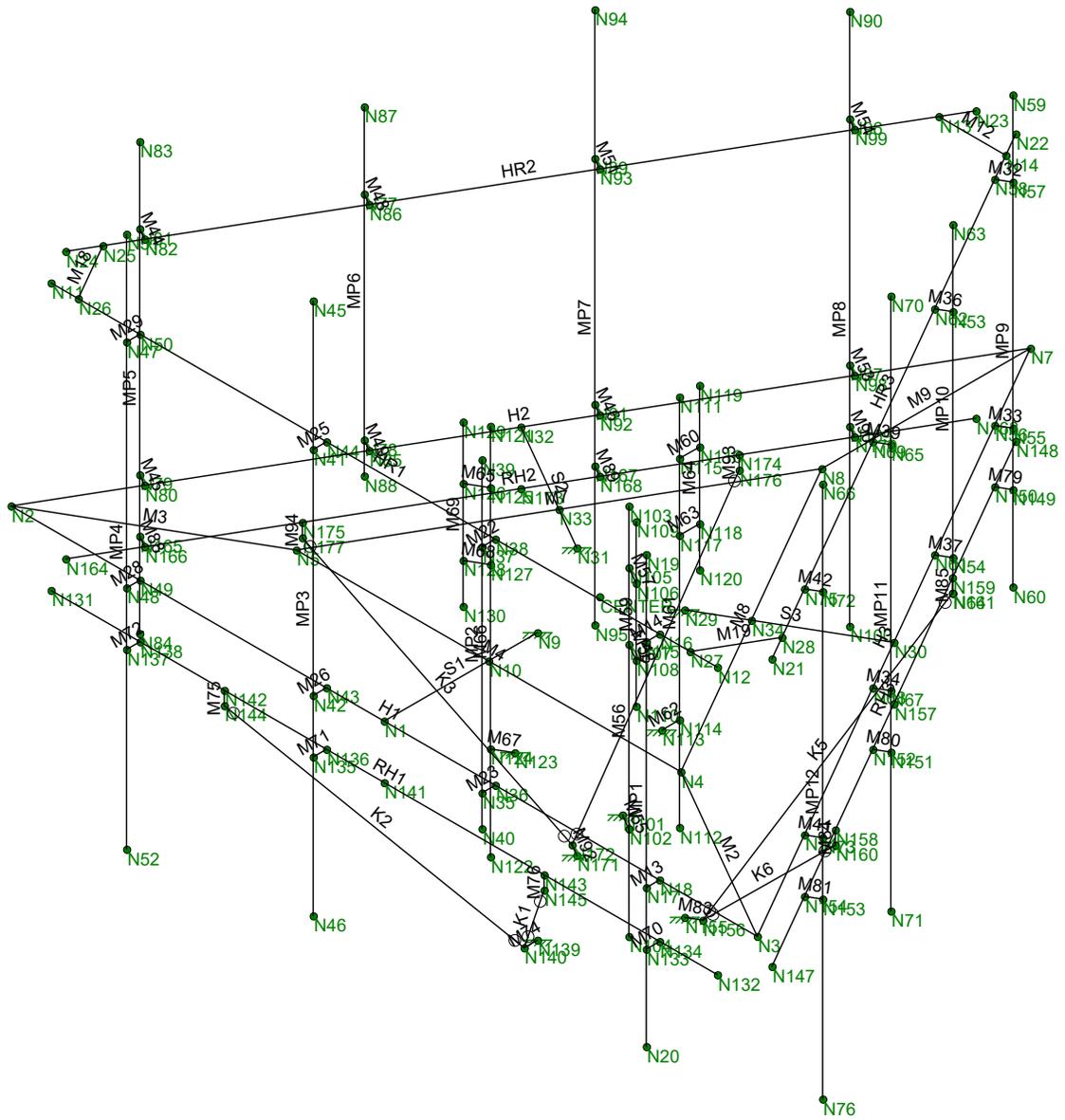
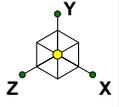
4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the structural modifications listed below must be completed.

1. Installation of (1) Site Pro 1 PRK-SFS-L Reinforcement Kit.
2. Installation of (1) 2.0 STD 12.5' long horizontal pipe with (4) Site Pro 1 SCX1-K Crossover Plate per sector.
3. Remove (1) existing mount pipe and replace with (1) 2.0 STD 8' long mount pipe per sector.

Engineering detail drawings have been provided in Appendix E – Mount Modification Design Drawings. Connection from the mount to the tower and local stresses on the tower are sufficient.

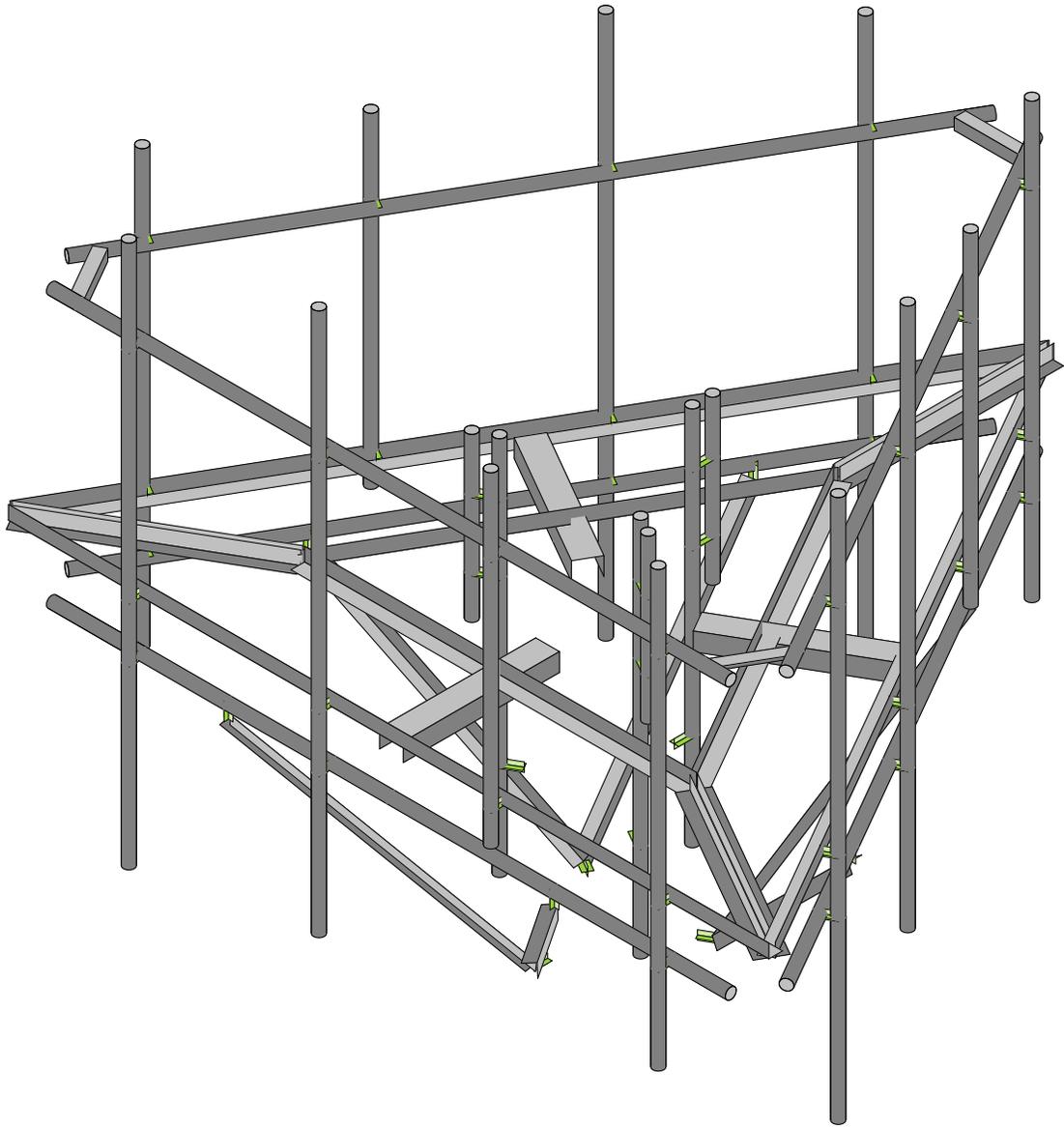
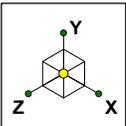
APPENDIX A
WIRE FRAME AND RENDERED MODELS



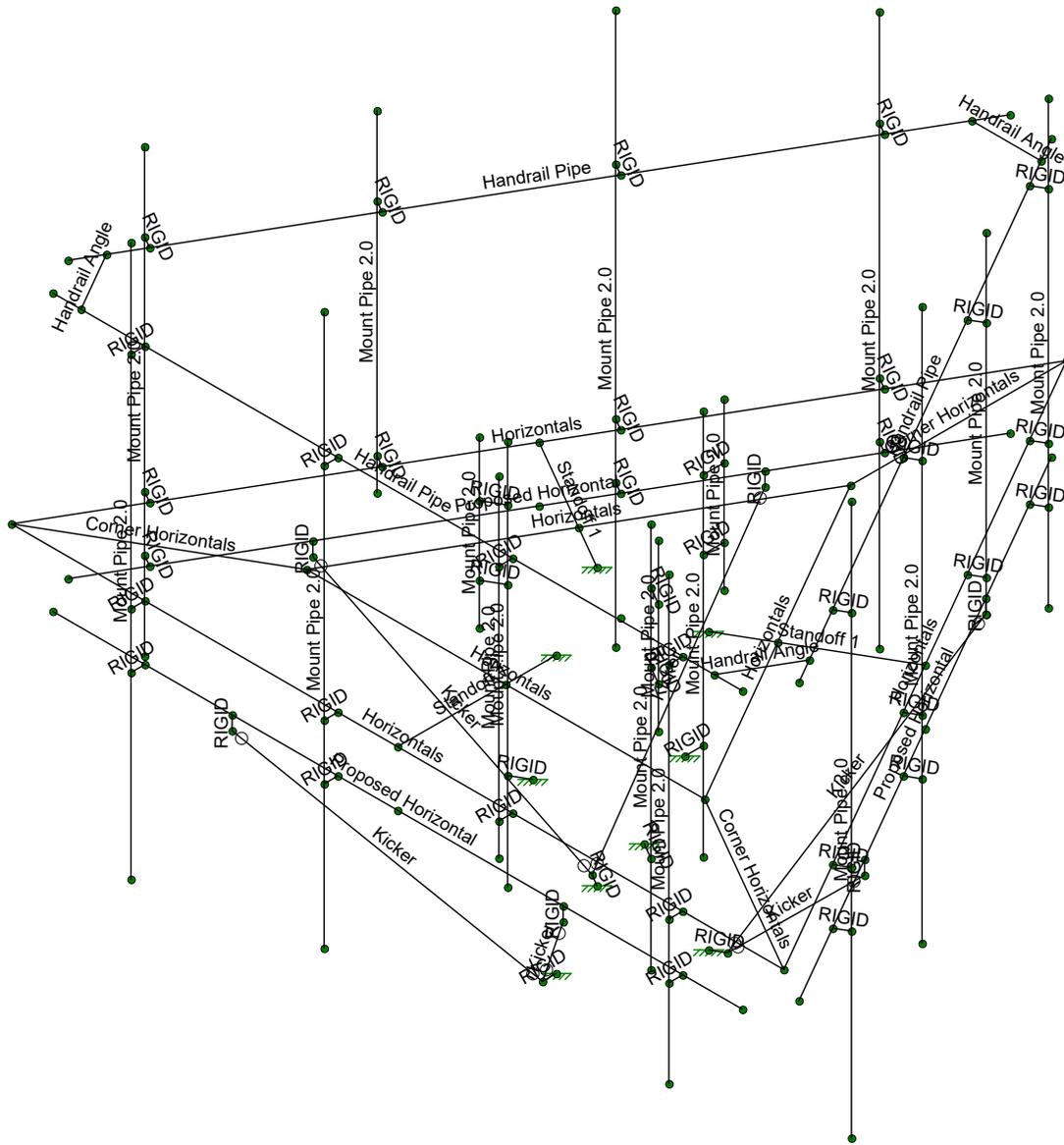
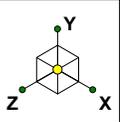
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1039-Z0001-B

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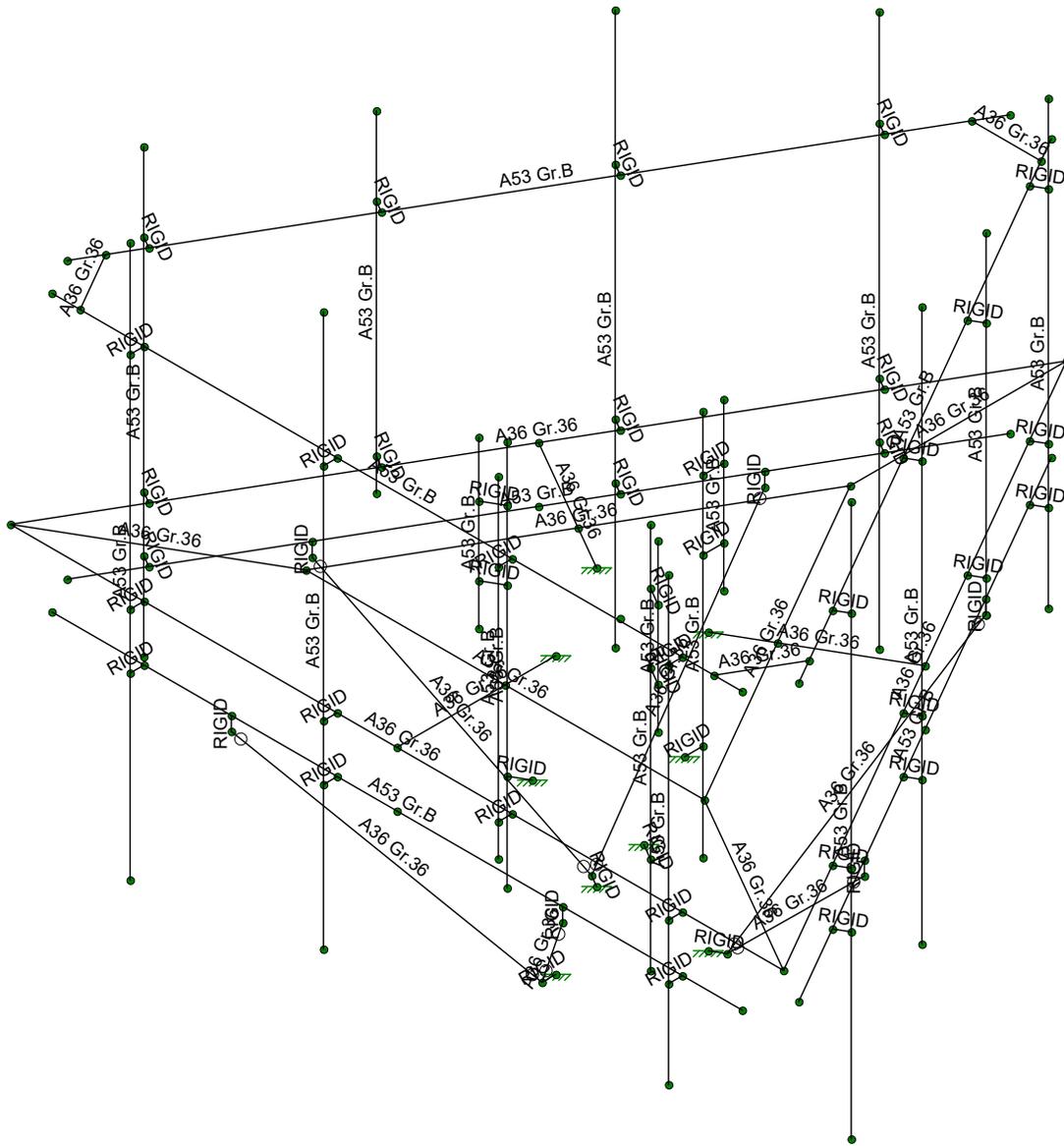
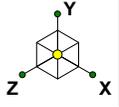
Wireframe
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| | | |
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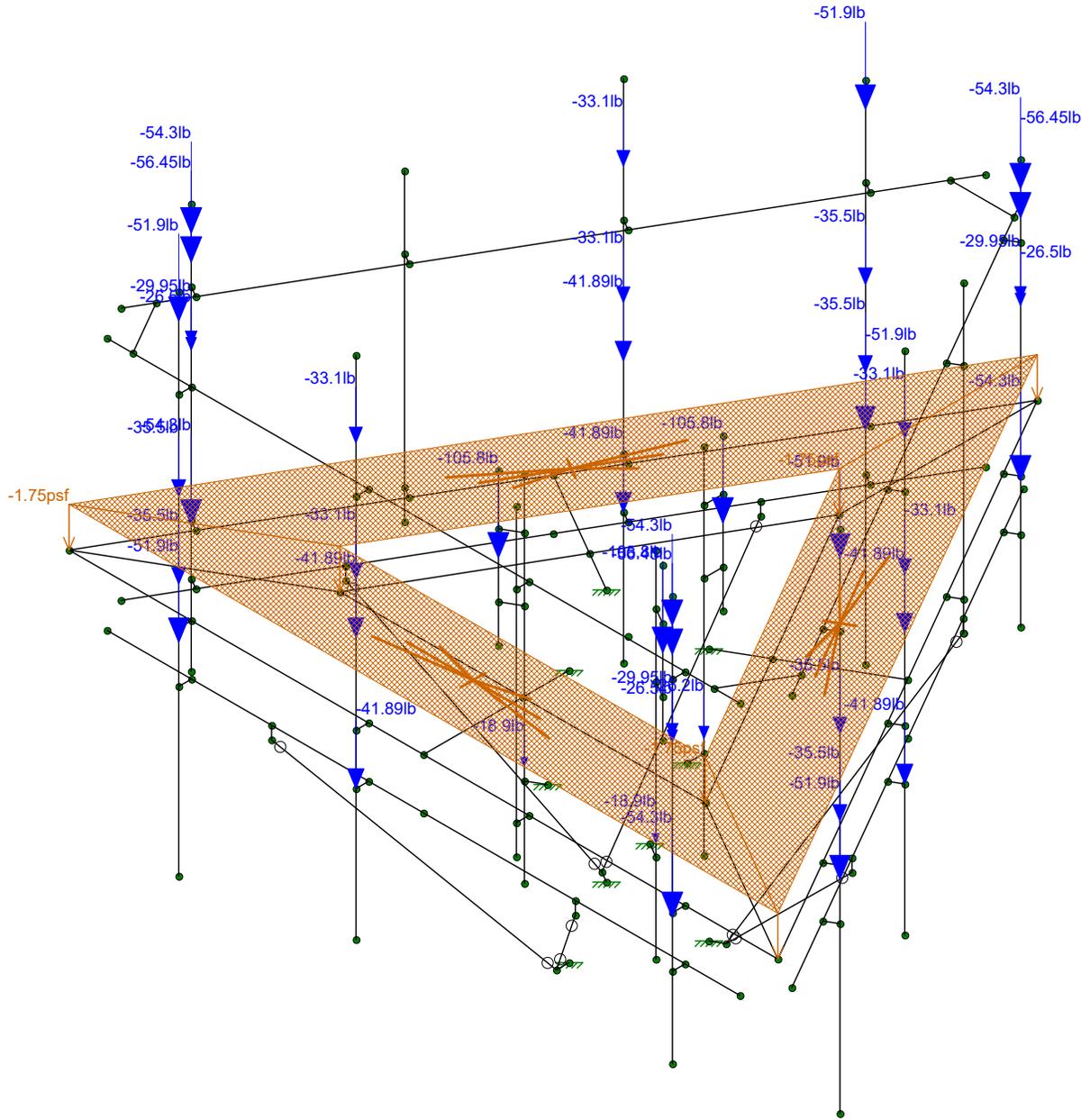
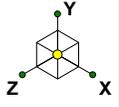
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Grade

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Loads: BLC 1, Self Weight

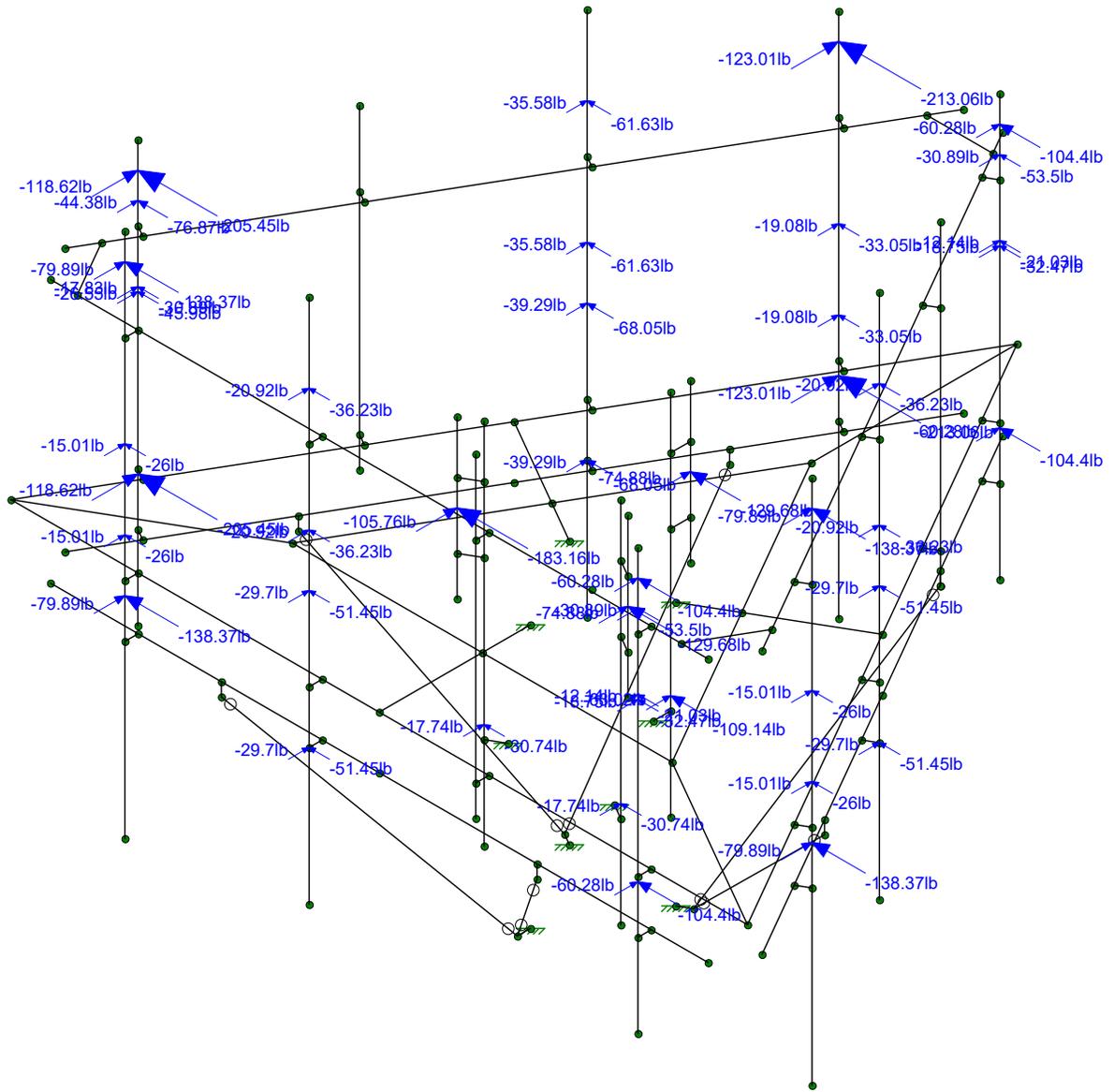
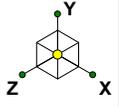
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Self Weight

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Loads: BLC 4, Wind Load AZI 60

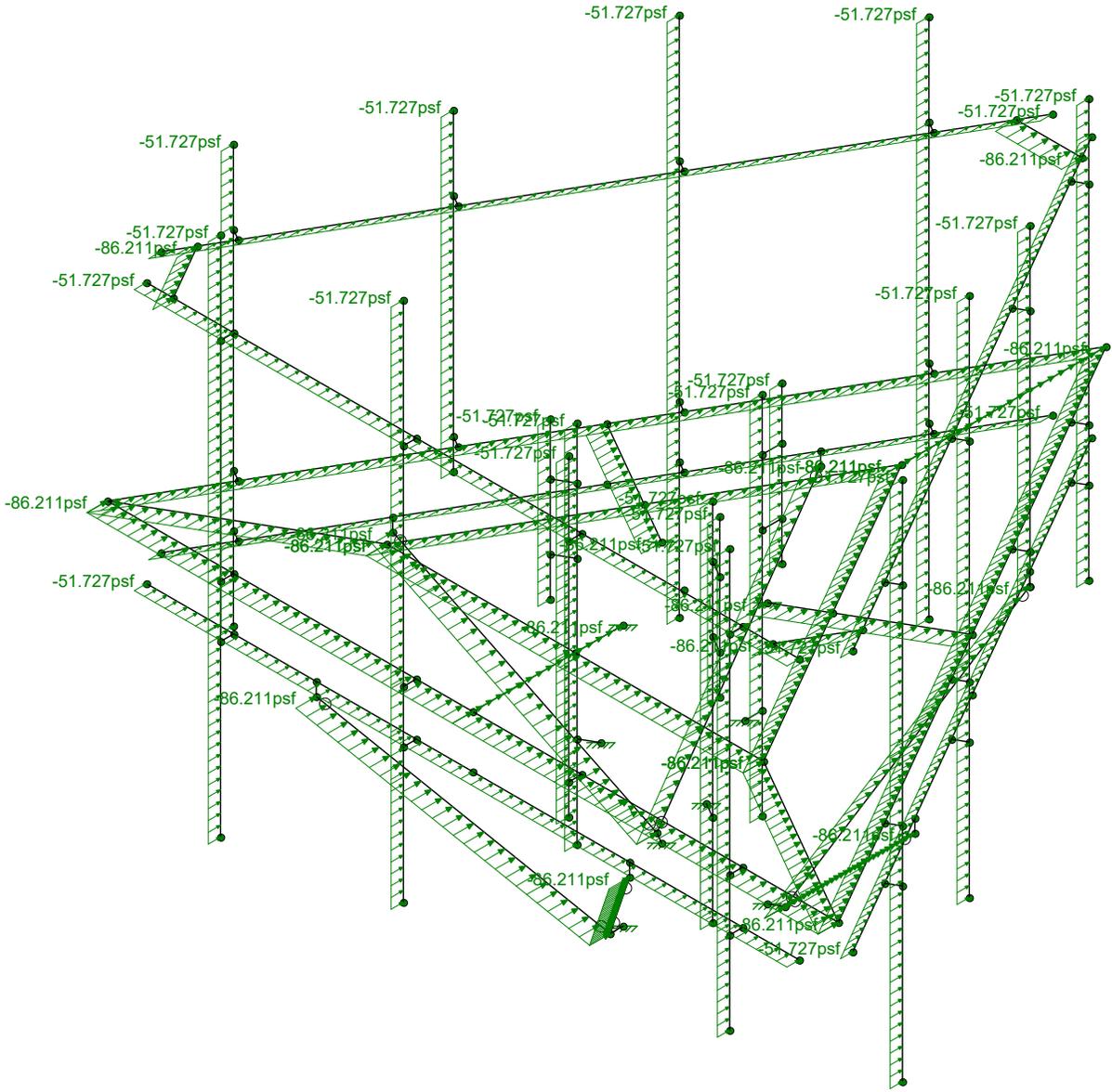
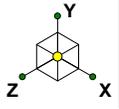
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Wind Loading 60

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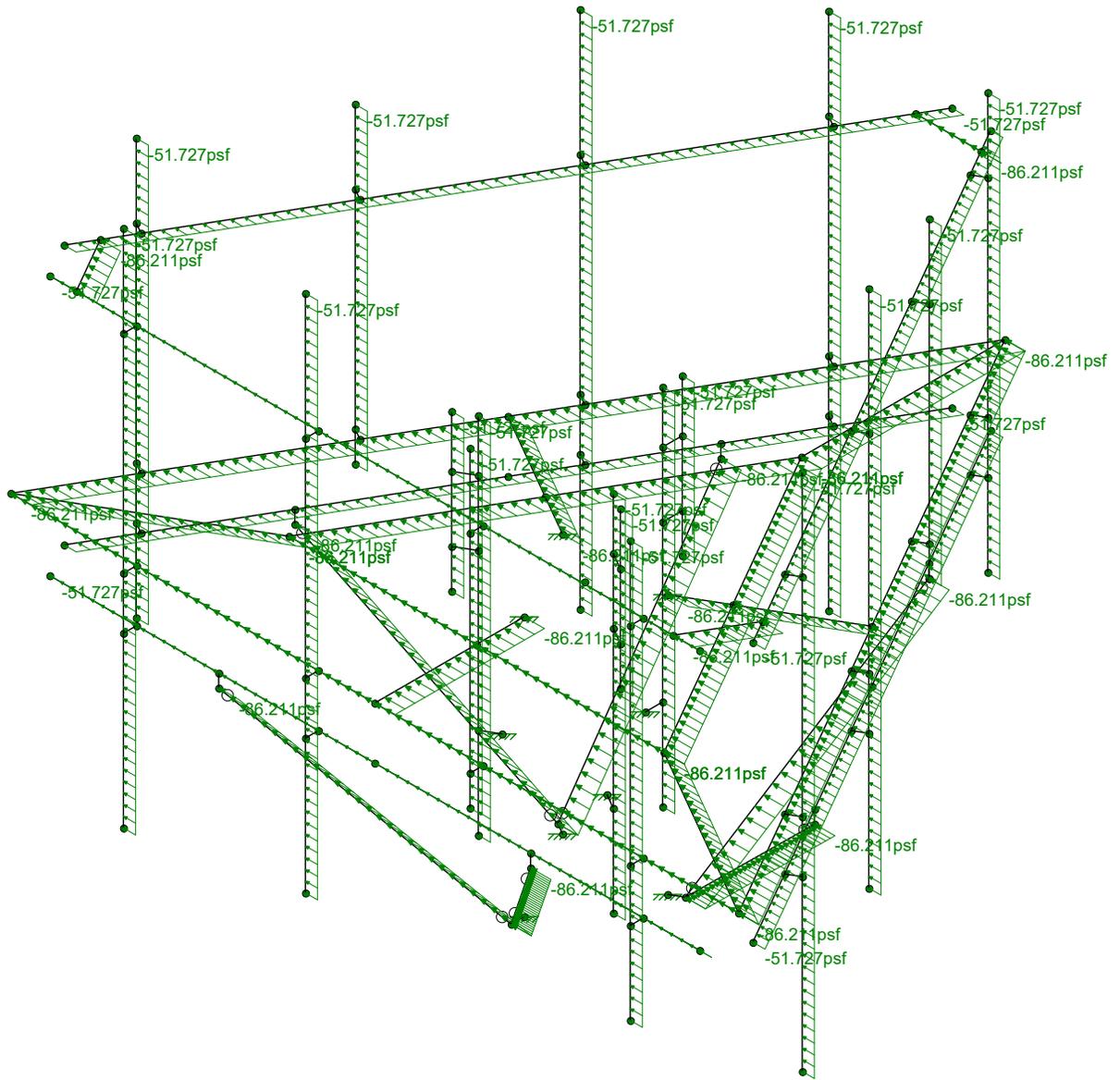
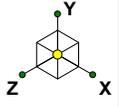


Loads: BLC 14, Distr. Wind Load Z

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1039-Z0001-B

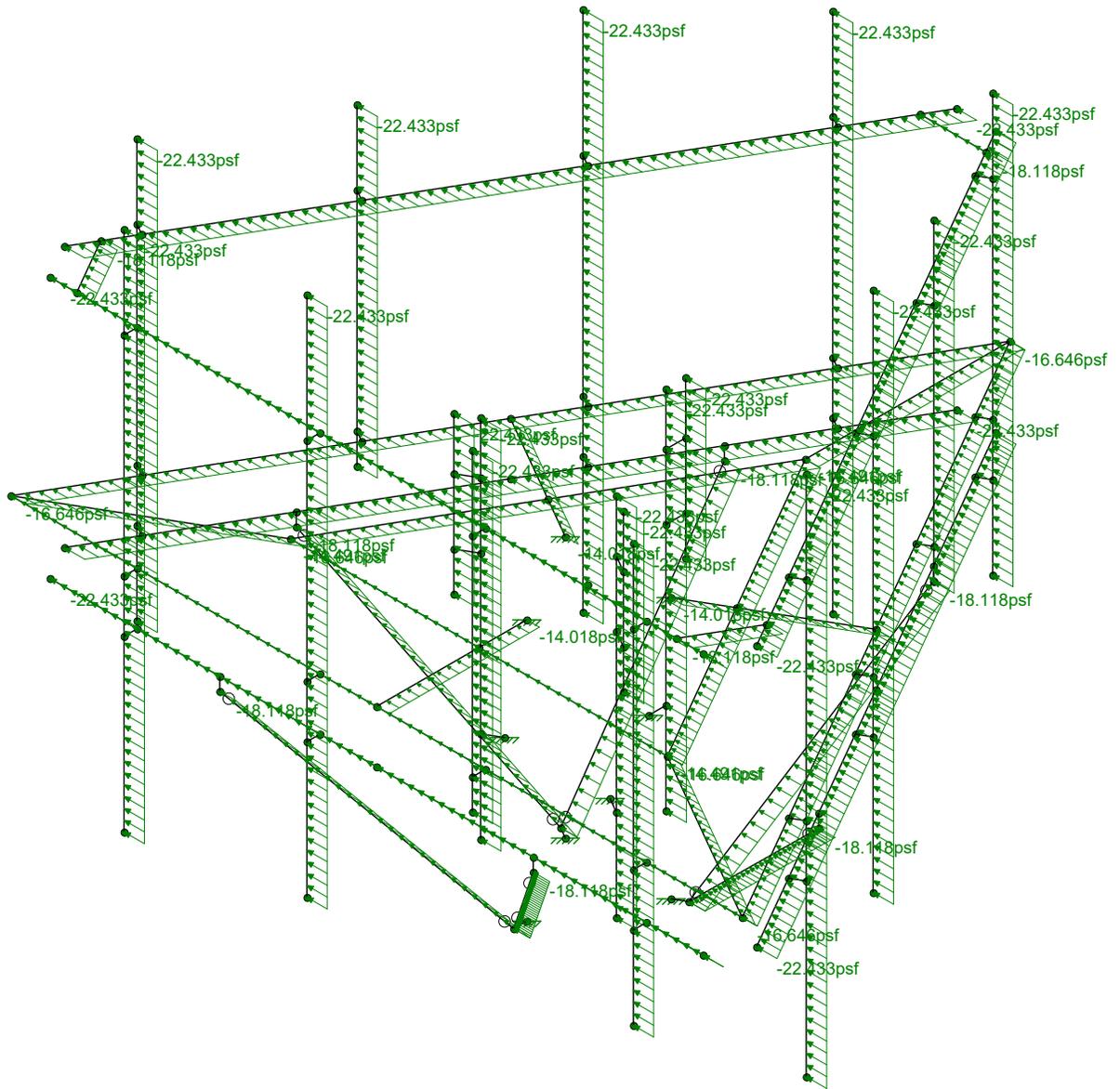
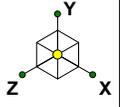
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Loads: BLC 15, Distr. Wind Load X

| | | |
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| Infinigy Engineering, PLLC | 842861 | Dist. Wind Loading 90 |
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Loads: BLC 30, Distr. Ice Wind Load X

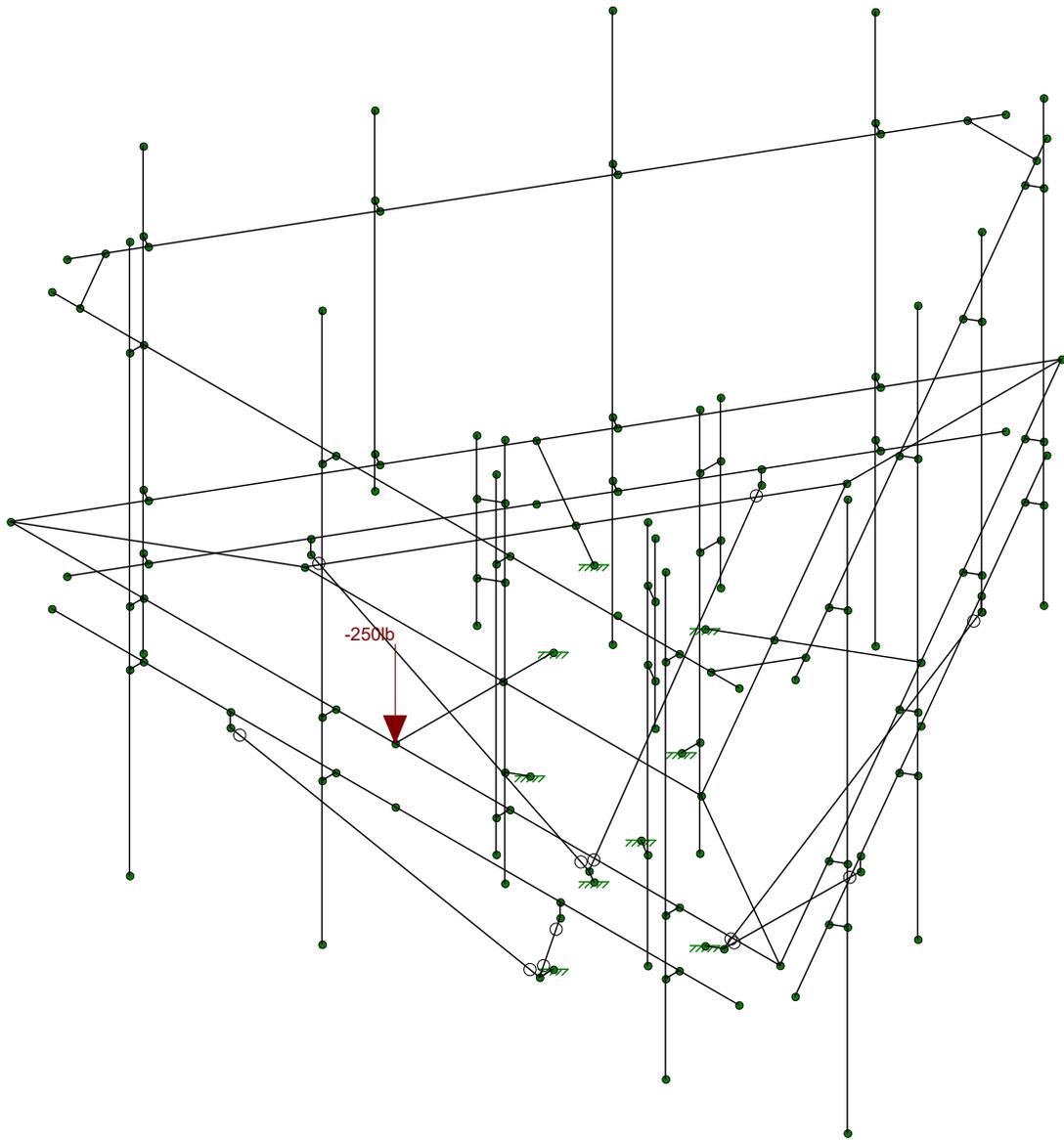
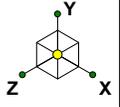
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Dist. Ice Wind Loading 90

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Loads: BLC 33, Service Live Loads

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AM

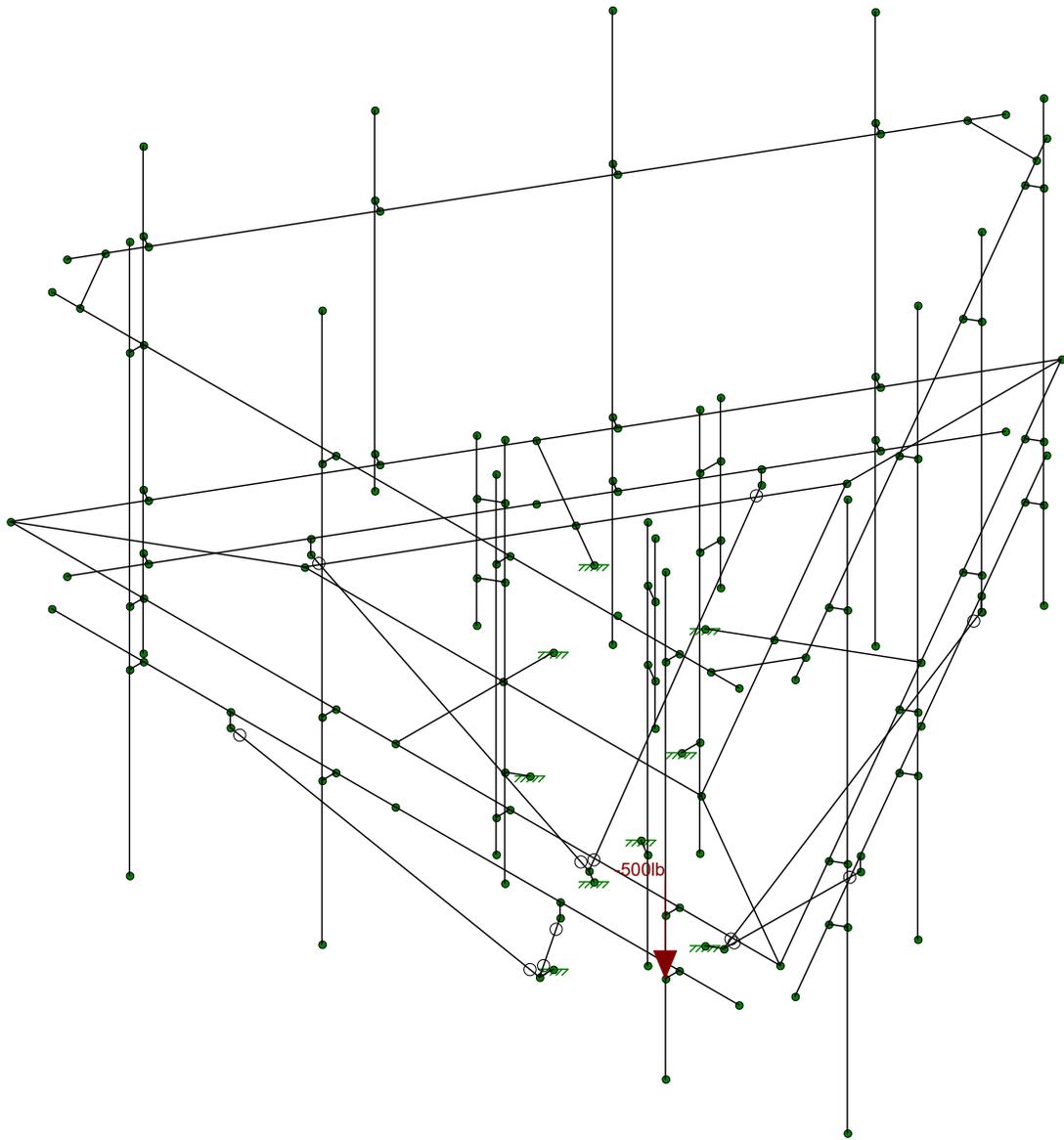
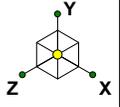
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Service

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Loads: BLC 34, Maintenance Load 1

Infinigy Engineering, PLLC

AM

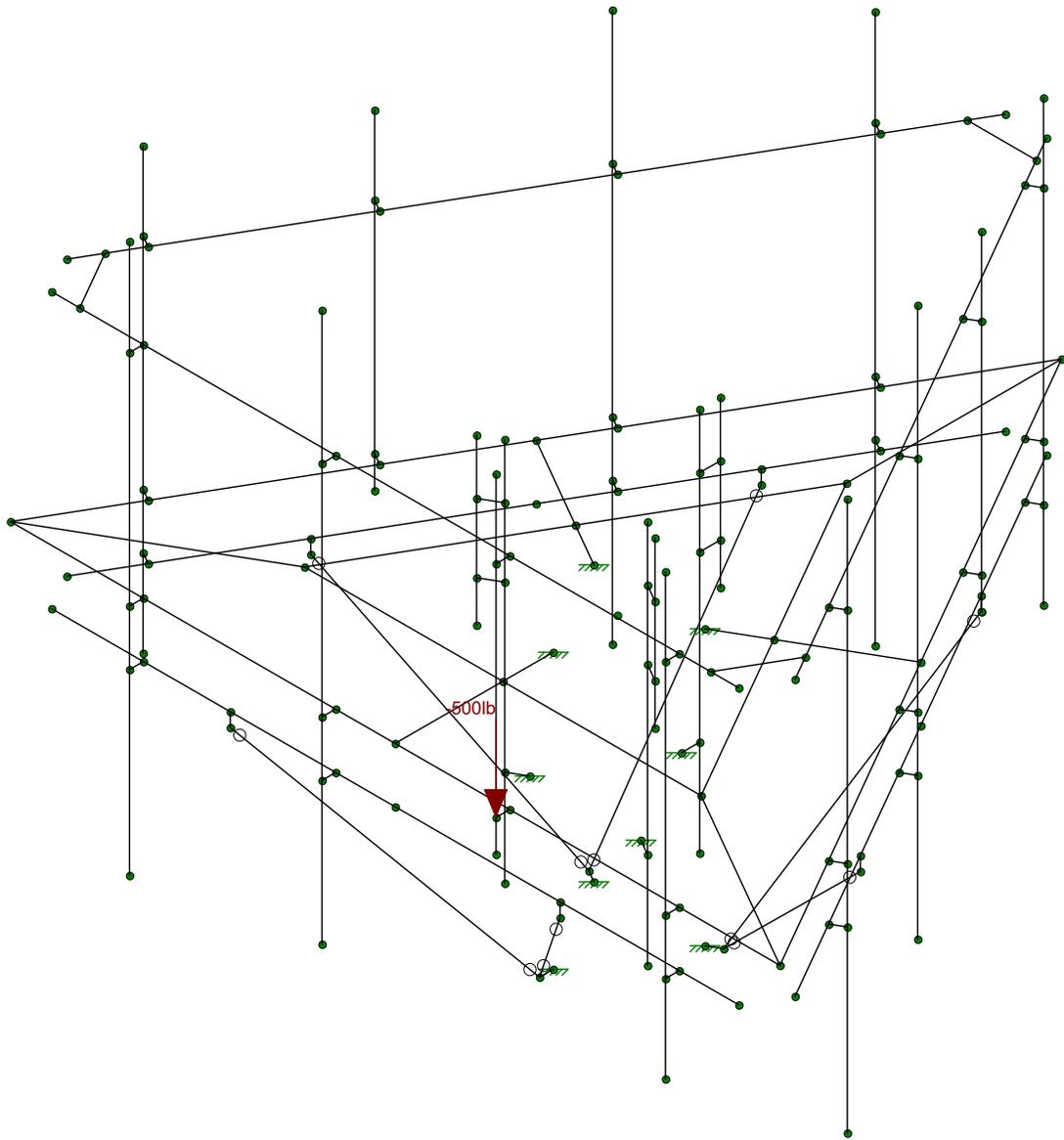
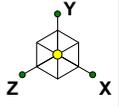
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Maintenance Load 1

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Loads: BLC 35, Maintenance Load 2

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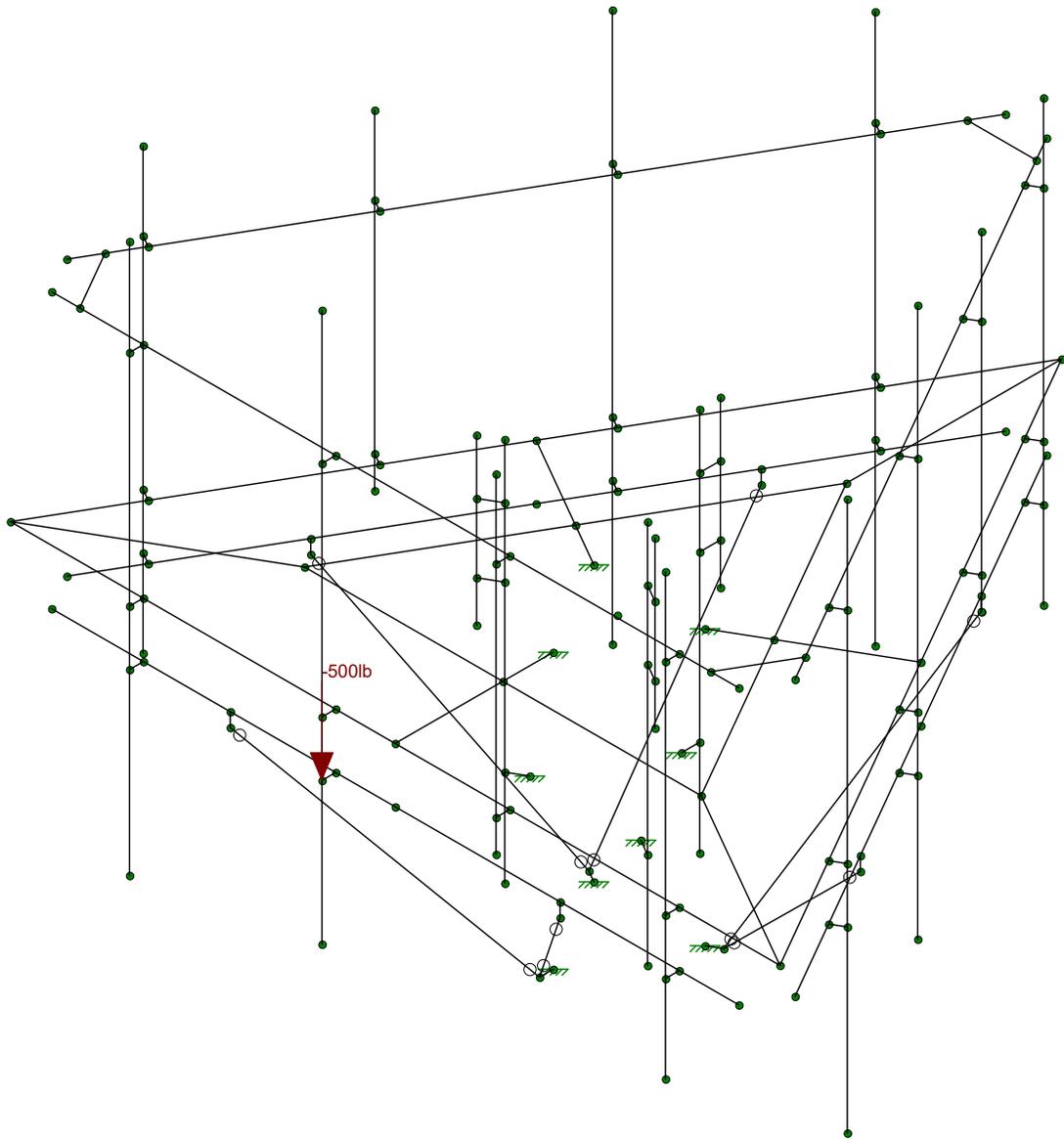
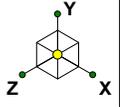
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Maintenance Load 2

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Loads: BLC 36, Maintenance Load 3

Infinigy Engineering, PLLC

AM

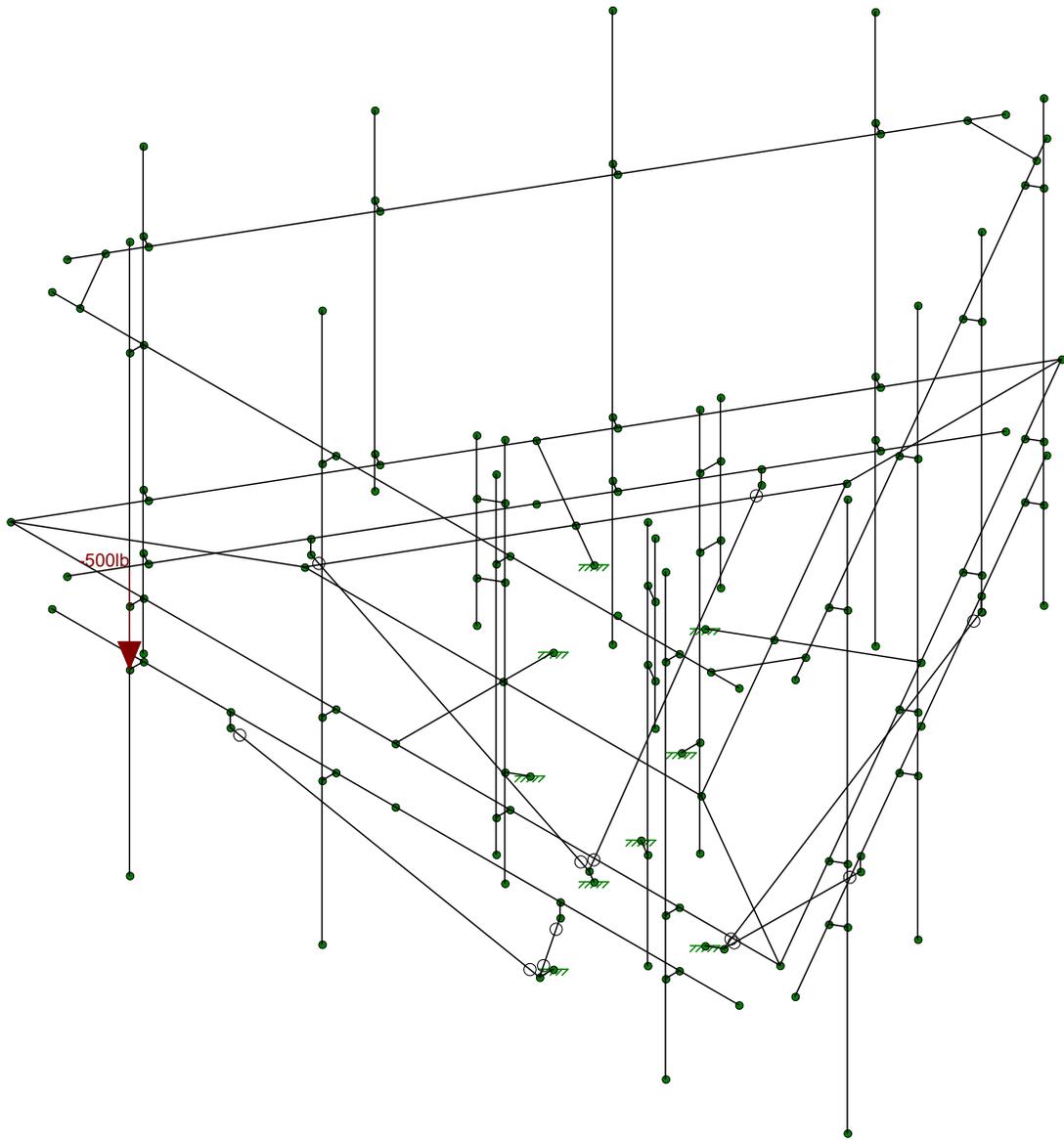
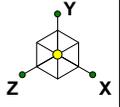
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Maintenance Load 3

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Loads: BLC 37, Maintenance Load 4

Infinigy Engineering, PLLC

AM

1039-Z0001-B

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Maintenance Load 4

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APPENDIX B
SOFTWARE INPUT CALCULATIONS

Program Inputs

| PROJECT INFORMATION | |
|---------------------|-----------------|
| Client: | Crown Castle |
| Carrier: | AT&T Mobility |
| Engineer: | Andrew Gloriani |

| SITE INFORMATION | |
|------------------------|--------------------------|
| Risk Category: | II |
| Exposure Category: | C |
| Topo Factor Procedure: | Method 1, Category 1 |
| Site Class: | D - Stiff Soil (Assumed) |
| Ground Elevation: | 12.74 ft *Rev H |

| MOUNT INFORMATION | |
|-------------------|-----------|
| Mount Type: | Platform |
| Num Sectors: | 3 |
| Centerline AGL: | 103.00 ft |
| Tower Height AGL: | 96.83 ft |

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

| FACTORS | |
|----------------------------------|-------------------|
| Directionality Fact. (K_d): | 0.950 |
| Ground Ele. Factor (K_e): | 1.000 *Rev H Only |
| Rooftop Speed-Up (K_s): | 1.000 *Rev H Only |
| Topographic Factor (K_{zt}): | 1.000 |
| Gust Effect Factor (G_h): | 1.000 |

| CODE STANDARDS | |
|----------------|-----------|
| Building Code: | 2018 IBC |
| TIA Standard: | TIA-222-H |
| ASCE Standard: | ASCE 7-16 |

| WIND AND ICE DATA | |
|-------------------------------|------------|
| Ultimate Wind (V_{ult}): | 118 mph |
| Design Wind (V): | N/A mph |
| Ice Wind (V_{ice}): | 50 mph |
| Base Ice Thickness (t_i): | 1.5 in |
| Flat Pressure: | 86.211 psf |
| Round Pressure: | 51.727 psf |
| Ice Wind Pressure: | 9.287 psf |

| SEISMIC DATA | |
|-----------------------------------|---------|
| Short-Period Accel. (S_s): | 0.193 g |
| 1-Second Accel. (S_1): | 0.055 g |
| Short-Period Design (S_{DS}): | 0.206 |
| 1-Second Design (S_{D1}): | 0.088 |
| Short-Period Coeff. (F_a): | 1.600 |
| 1-Second Coeff. (F_v): | 2.400 |
| Amplification Factor (A_s): | 3.000 |
| Response Mod. Coeff. (R): | 2.000 |



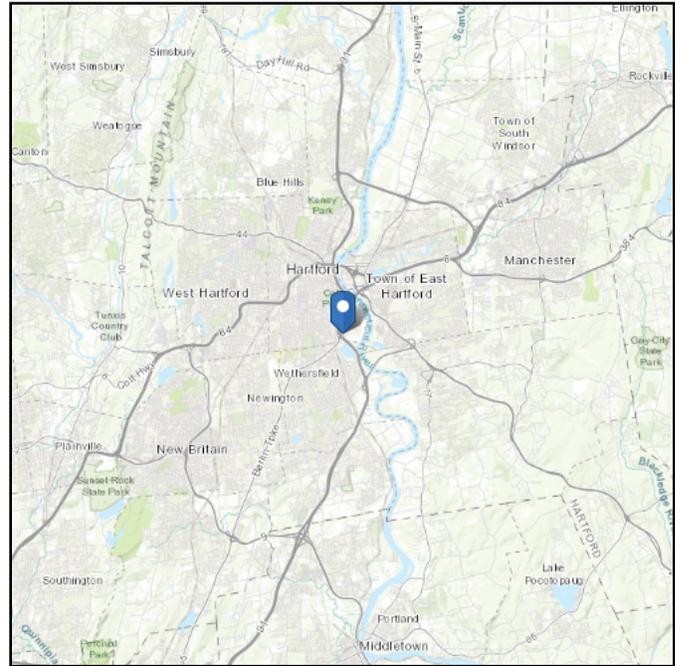
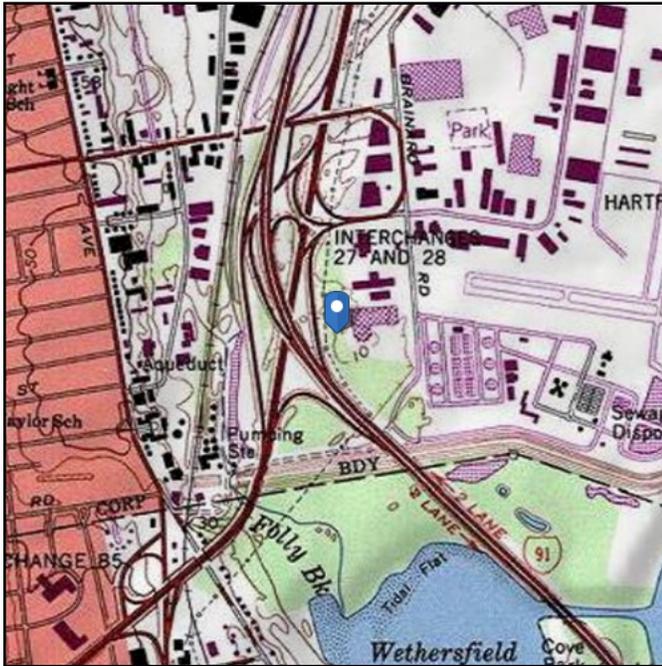
Infinigy Load Calculator V2.1.6

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 12.74 ft (NAVD 88)
Latitude: 41.732978
Longitude: -72.662075



Wind

Results:

| | |
|--------------|----------|
| Wind Speed: | 118 Vmph |
| 10-year MRI | 75 Vmph |
| 25-year MRI | 84 Vmph |
| 50-year MRI | 90 Vmph |
| 100-year MRI | 97 Vmph |

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Mon Sep 13 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

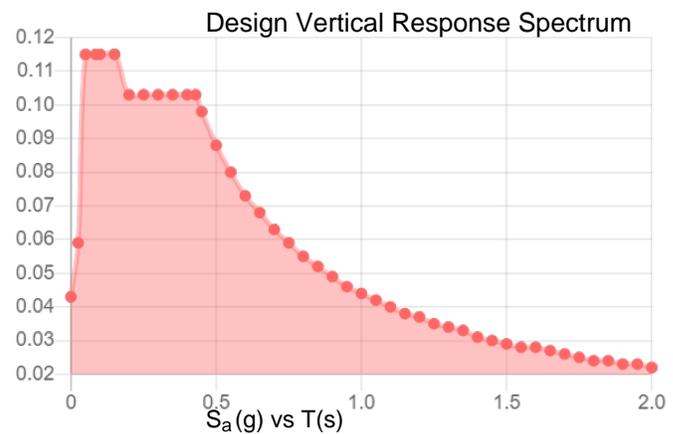
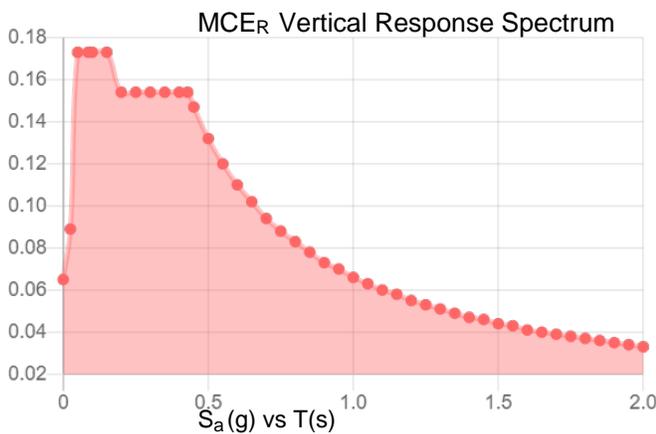
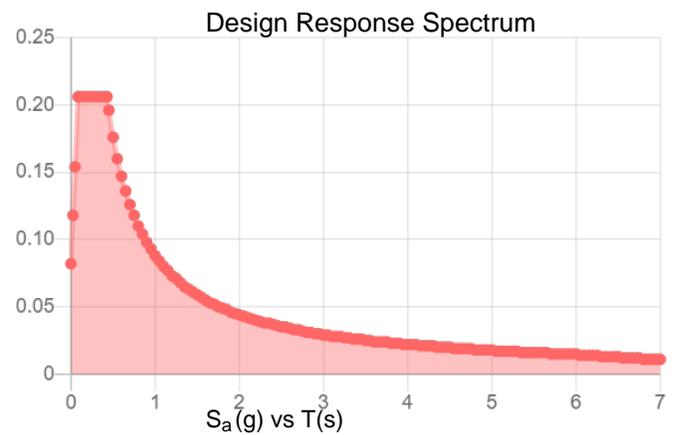
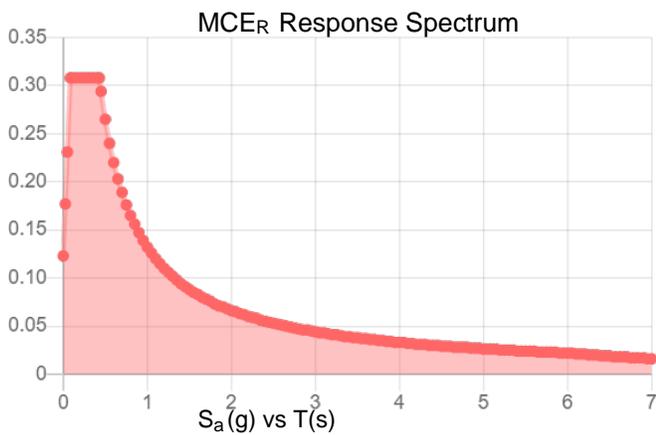
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Stiff Soil

Results:

| | | | |
|------------|-------|--------------------|-------|
| S_s : | 0.193 | S_{D1} : | 0.088 |
| S_1 : | 0.055 | T_L : | 6 |
| F_a : | 1.6 | PGA : | 0.104 |
| F_v : | 2.4 | PGA _M : | 0.166 |
| S_{MS} : | 0.308 | F_{PGA} : | 1.591 |
| S_{M1} : | 0.132 | I_e : | 1 |
| S_{DS} : | 0.206 | C_v : | 0.7 |

Seismic Design Category B



Data Accessed: Mon Sep 13 2021
Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.50 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Mon Sep 13 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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APPENDIX C
SOFTWARE ANALYSIS OUTPUT

Member Primary Data

| | Label | I Joint | J Joint | K Joint | Rotate(d... | Section/Shape | Type | Design List | Material | Design Ru... |
|----|-------|---------|---------|---------|-------------|--------------------|--------|----------------|-----------|--------------|
| 1 | H1 | N2 | N3 | | 270 | Horizontals | Beam | Single Angle | A36 Gr.36 | Typical |
| 2 | M2 | N4 | N3 | | 180 | Corner Horizontals | Beam | Double Angl... | A36 Gr.36 | Typical |
| 3 | M3 | N5 | N2 | | 180 | Corner Horizontals | Beam | Double Angl... | A36 Gr.36 | Typical |
| 4 | M4 | N4 | N5 | | 270 | Horizontals | Beam | Single Angle | A36 Gr.36 | Typical |
| 5 | H3 | N3 | N7 | | 270 | Horizontals | Beam | Single Angle | A36 Gr.36 | Typical |
| 6 | H2 | N7 | N2 | | 270 | Horizontals | Beam | Single Angle | A36 Gr.36 | Typical |
| 7 | M7 | N5 | N8 | | 270 | Horizontals | Beam | Single Angle | A36 Gr.36 | Typical |
| 8 | M8 | N8 | N4 | | 270 | Horizontals | Beam | Single Angle | A36 Gr.36 | Typical |
| 9 | M9 | N8 | N7 | | 180 | Corner Horizontals | Beam | Double Angl... | A36 Gr.36 | Typical |
| 10 | S1 | N9 | N1 | | 90 | Standoff 1 | Beam | Channel | A36 Gr.36 | Typical |
| 11 | HR1 | N11 | N12 | | 270 | Handrail Pipe | Beam | Pipe | A53 Gr.B | Typical |
| 12 | M12 | N14 | N13 | | 90 | Handrail Angle | Beam | Single Angle | A36 Gr.36 | Typical |
| 13 | M13 | N18 | N17 | | | RIGID | None | None | RIGID | Typical |
| 14 | M14 | N16 | N15 | | | RIGID | None | None | RIGID | Typical |
| 15 | MP1 | N19 | N20 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 16 | HR3 | N21 | N22 | | 270 | Handrail Pipe | Beam | Pipe | A53 Gr.B | Typical |
| 17 | HR2 | N23 | N24 | | 270 | Handrail Pipe | Beam | Pipe | A53 Gr.B | Typical |
| 18 | M18 | N25 | N26 | | 90 | Handrail Angle | Beam | Single Angle | A36 Gr.36 | Typical |
| 19 | M19 | N27 | N28 | | 90 | Handrail Angle | Beam | Single Angle | A36 Gr.36 | Typical |
| 20 | S3 | N29 | N30 | | 90 | Standoff 1 | Beam | Channel | A36 Gr.36 | Typical |
| 21 | S2 | N31 | N32 | | 90 | Standoff 1 | Beam | Channel | A36 Gr.36 | Typical |
| 22 | M22 | N38 | N37 | | | RIGID | None | None | RIGID | Typical |
| 23 | M23 | N36 | N35 | | | RIGID | None | None | RIGID | Typical |
| 24 | MP2 | N39 | N40 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 25 | M25 | N44 | N41 | | | RIGID | None | None | RIGID | Typical |
| 26 | M26 | N43 | N42 | | | RIGID | None | None | RIGID | Typical |
| 27 | MP3 | N45 | N46 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 28 | M28 | N49 | N48 | | | RIGID | None | None | RIGID | Typical |
| 29 | M29 | N50 | N47 | | | RIGID | None | None | RIGID | Typical |
| 30 | MP4 | N51 | N52 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 31 | MP12 | N66 | N76 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 32 | M32 | N58 | N57 | | | RIGID | None | None | RIGID | Typical |
| 33 | M33 | N56 | N55 | | | RIGID | None | None | RIGID | Typical |
| 34 | M34 | N68 | N67 | | | RIGID | None | None | RIGID | Typical |
| 35 | MP9 | N59 | N60 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 36 | M36 | N62 | N53 | | | RIGID | None | None | RIGID | Typical |
| 37 | M37 | N61 | N54 | | | RIGID | None | None | RIGID | Typical |
| 38 | MP10 | N63 | N64 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 39 | M39 | N69 | N65 | | | RIGID | None | None | RIGID | Typical |
| 40 | MP11 | N70 | N71 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 41 | M41 | N74 | N73 | | | RIGID | None | None | RIGID | Typical |
| 42 | M42 | N75 | N72 | | | RIGID | None | None | RIGID | Typical |
| 43 | MP8 | N90 | N100 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 44 | M44 | N82 | N81 | | | RIGID | None | None | RIGID | Typical |
| 45 | M45 | N80 | N79 | | | RIGID | None | None | RIGID | Typical |
| 46 | M46 | N92 | N91 | | | RIGID | None | None | RIGID | Typical |
| 47 | MP5 | N83 | N84 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 48 | M48 | N86 | N77 | | | RIGID | None | None | RIGID | Typical |
| 49 | M49 | N85 | N78 | | | RIGID | None | None | RIGID | Typical |
| 50 | MP6 | N87 | N88 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 51 | M51 | N93 | N89 | | | RIGID | None | None | RIGID | Typical |
| 52 | MP7 | N94 | N95 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 53 | M53 | N98 | N97 | | | RIGID | None | None | RIGID | Typical |
| 54 | M54 | N99 | N96 | | | RIGID | None | None | RIGID | Typical |
| 55 | M55 | N101 | N102 | | | RIGID | None | None | RIGID | Typical |
| 56 | M56 | N103 | N104 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |

Member Primary Data (Continued)

| | Label | I Joint | J Joint | K Joint | Rotate(d... | Section/Shape | Type | Design List | Material | Design Ru... |
|----|-------|---------|---------|---------|-------------|---------------------|--------|--------------|-----------|--------------|
| 57 | M57 | N105 | N106 | | | RIGID | None | None | RIGID | Typical |
| 58 | M58 | N107 | N108 | | | RIGID | None | None | RIGID | Typical |
| 59 | M59 | N109 | N110 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 60 | M60 | N115 | N116 | | | RIGID | None | None | RIGID | Typical |
| 61 | M61 | N111 | N112 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 62 | M62 | N113 | N114 | | | RIGID | None | None | RIGID | Typical |
| 63 | M63 | N117 | N118 | | | RIGID | None | None | RIGID | Typical |
| 64 | M64 | N119 | N120 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 65 | M65 | N125 | N126 | | | RIGID | None | None | RIGID | Typical |
| 66 | M66 | N121 | N122 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 67 | M67 | N123 | N124 | | | RIGID | None | None | RIGID | Typical |
| 68 | M68 | N127 | N128 | | | RIGID | None | None | RIGID | Typical |
| 69 | M69 | N129 | N130 | | | Mount Pipe 2.0 | Column | Pipe | A53 Gr.B | Typical |
| 70 | M70 | N134 | N133 | | | RIGID | None | None | RIGID | Typical |
| 71 | M71 | N136 | N135 | | | RIGID | None | None | RIGID | Typical |
| 72 | M72 | N138 | N137 | | | RIGID | None | None | RIGID | Typical |
| 73 | RH1 | N131 | N132 | | | Proposed Horizontal | Beam | Pipe | A53 Gr.B | Typical |
| 74 | M74 | N139 | N140 | | | RIGID | None | None | RIGID | Typical |
| 75 | M75 | N142 | N144 | | | RIGID | None | None | RIGID | Typical |
| 76 | M76 | N143 | N145 | | | RIGID | None | None | RIGID | Typical |
| 77 | K2 | N144 | N140 | | 90 | Kicker | Beam | Single Angle | A36 Gr.36 | Typical |
| 78 | K1 | N145 | N140 | | 180 | Kicker | Beam | Single Angle | A36 Gr.36 | Typical |
| 79 | M79 | N150 | N149 | | | RIGID | None | None | RIGID | Typical |
| 80 | M80 | N152 | N151 | | | RIGID | None | None | RIGID | Typical |
| 81 | M81 | N154 | N153 | | | RIGID | None | None | RIGID | Typical |
| 82 | RH3 | N147 | N148 | | | Proposed Horizontal | Beam | Pipe | A53 Gr.B | Typical |
| 83 | M83 | N155 | N156 | | | RIGID | None | None | RIGID | Typical |
| 84 | M84 | N158 | N160 | | | RIGID | None | None | RIGID | Typical |
| 85 | M85 | N159 | N161 | | | RIGID | None | None | RIGID | Typical |
| 86 | K6 | N160 | N156 | | 90 | Kicker | Beam | Single Angle | A36 Gr.36 | Typical |
| 87 | K5 | N161 | N156 | | 180 | Kicker | Beam | Single Angle | A36 Gr.36 | Typical |
| 88 | M88 | N166 | N165 | | | RIGID | None | None | RIGID | Typical |
| 89 | M89 | N168 | N167 | | | RIGID | None | None | RIGID | Typical |
| 90 | M90 | N170 | N169 | | | RIGID | None | None | RIGID | Typical |
| 91 | RH2 | N163 | N164 | | | Proposed Horizontal | Beam | Pipe | A53 Gr.B | Typical |
| 92 | M92 | N171 | N172 | | | RIGID | None | None | RIGID | Typical |
| 93 | M93 | N174 | N176 | | | RIGID | None | None | RIGID | Typical |
| 94 | M94 | N175 | N177 | | | RIGID | None | None | RIGID | Typical |
| 95 | K4 | N176 | N172 | | 90 | Kicker | Beam | Single Angle | A36 Gr.36 | Typical |
| 96 | K3 | N177 | N172 | | 180 | Kicker | Beam | Single Angle | A36 Gr.36 | Typical |

Material Takeoff

| | Material | Size | Pieces | Length[in] | Weight[LB] |
|----|------------------|---------------|--------|------------|------------|
| 1 | General | | | | |
| 2 | RIGID | | 51 | 165 | 0 |
| 3 | Total General | | 51 | 165 | 0 |
| 4 | | | | | |
| 5 | Hot Rolled Steel | | | | |
| 6 | A36 Gr.36 | C5.25x4x0.375 | 3 | 103.5 | 137.573 |
| 7 | A36 Gr.36 | L2.5x2.5x3 | 6 | 394.1 | 100.677 |
| 8 | A36 Gr.36 | L2.5x2.5x4 | 3 | 45.4 | 15.311 |
| 9 | A36 Gr.36 | L3X3X4 | 6 | 763.8 | 311.877 |
| 10 | A36 Gr.36 | LL3x3x4x0 | 3 | 141 | 115.15 |
| 11 | A53 Gr.B | PIPE 2.0 | 24 | 2484 | 718.463 |
| 12 | Total HR Steel | | 45 | 3931.7 | 1399.051 |

Basic Load Cases

| BLC Description | Category | X Gravity | Y Gravity | Z Gravity | Joint | Point | Distribut... | Area(Me... | Surface(Plate/Wall) |
|---------------------------|----------|-----------|-----------|-----------|-------|-------|--------------|------------|---------------------|
| 1 Self Weight | DL | | -1 | | | 60 | | 3 | |
| 2 Wind Load AZI 0 | WLZ | | | | | 120 | | | |
| 3 Wind Load AZI 30 | None | | | | | 120 | | | |
| 4 Wind Load AZI 60 | None | | | | | 120 | | | |
| 5 Wind Load AZI 90 | WLX | | | | | 120 | | | |
| 6 Wind Load AZI 120 | None | | | | | 120 | | | |
| 7 Wind Load AZI 150 | None | | | | | 120 | | | |
| 8 Wind Load AZI 180 | None | | | | | 120 | | | |
| 9 Wind Load AZI 210 | None | | | | | 120 | | | |
| 10 Wind Load AZI 240 | None | | | | | 120 | | | |
| 11 Wind Load AZI 270 | None | | | | | 120 | | | |
| 12 Wind Load AZI 300 | None | | | | | 120 | | | |
| 13 Wind Load AZI 330 | None | | | | | 120 | | | |
| 14 Distr. Wind Load Z | WLZ | | | | | | 96 | | |
| 15 Distr. Wind Load X | WLX | | | | | | 96 | | |
| 16 Ice Weight | OL1 | | | | | 60 | 96 | 3 | |
| 17 Ice Wind Load AZI ... | OL2 | | | | | 120 | | | |
| 18 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 19 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 20 Ice Wind Load AZI ... | OL3 | | | | | 120 | | | |
| 21 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 22 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 23 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 24 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 25 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 26 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 27 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 28 Ice Wind Load AZI ... | None | | | | | 120 | | | |
| 29 Distr. Ice Wind Loa... | OL2 | | | | | | 96 | | |
| 30 Distr. Ice Wind Loa... | OL3 | | | | | | 96 | | |
| 31 Seismic Load Z | ELZ | | | -309 | | 60 | | | |
| 32 Seismic Load X | ELX | -309 | | | | 60 | | | |
| 33 Service Live Loads | LL | | | | 1 | | | | |
| 34 Maintenance Load 1 | LL | | | | 1 | | | | |
| 35 Maintenance Load 2 | LL | | | | 1 | | | | |
| 36 Maintenance Load 3 | LL | | | | 1 | | | | |
| 37 Maintenance Load 4 | LL | | | | 1 | | | | |
| 38 Maintenance Load 5 | LL | | | | 1 | | | | |
| 39 Maintenance Load 6 | LL | | | | 1 | | | | |
| 40 Maintenance Load 7 | LL | | | | 1 | | | | |
| 41 Maintenance Load 8 | LL | | | | 1 | | | | |
| 42 Maintenance Load 9 | LL | | | | 1 | | | | |
| 43 Maintenance Load ... | LL | | | | 1 | | | | |
| 44 Maintenance Load ... | LL | | | | 1 | | | | |
| 45 Maintenance Load ... | LL | | | | 1 | | | | |
| 46 BLC 1 Transient Ar... | None | | | | | | 30 | | |
| 47 BLC 16 Transient ... | None | | | | | | 30 | | |

Load Combinations

| Description | Solve | PDelta | SRSS | BLC Factor | BLC Fa... | B...Fa... | B...Fa... | B...Fa... | B...Fa... | B...Fa... | B...Fa... | B...Fa... | B...Fa... | B...Fa... | B...Fa... |
|----------------------|-------|--------|------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 1.4DL | Yes | Y | | 1 | 1.4 | | | | | | | | | | |
| 2 1.2DL + 1WL AZI 0 | Yes | Y | | 1 | 1.2 | 2 | 1 | 14 | 1 | 15 | | | | | |
| 3 1.2DL + 1WL AZI 30 | Yes | Y | | 1 | 1.2 | 3 | 1 | 14 | .866 | 15 | .5 | | | | |
| 4 1.2DL + 1WL AZI 60 | Yes | Y | | 1 | 1.2 | 4 | 1 | 14 | .5 | 15 | .866 | | | | |

Load Combinations (Continued)

| | Description | Solve | PDelta | SRSS | BLC | Factor | BLC | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... |
|----|---------------------------|-------|--------|------|-----|--------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 5 | 1.2DL + 1WL AZI 90 | Yes | Y | | 1 | 1.2 | 5 | 1 | 14 | 15 | 1 | | | | | |
| 6 | 1.2DL + 1WL AZI 120 | Yes | Y | | 1 | 1.2 | 6 | 1 | 14 | -5 | 15 | .866 | | | | |
| 7 | 1.2DL + 1WL AZI 150 | Yes | Y | | 1 | 1.2 | 7 | 1 | 14 | -8 | 15 | .5 | | | | |
| 8 | 1.2DL + 1WL AZI 180 | Yes | Y | | 1 | 1.2 | 8 | 1 | 14 | -1 | 15 | | | | | |
| 9 | 1.2DL + 1WL AZI 210 | Yes | Y | | 1 | 1.2 | 9 | 1 | 14 | -8 | 15 | -.5 | | | | |
| 10 | 1.2DL + 1WL AZI 240 | Yes | Y | | 1 | 1.2 | 10 | 1 | 14 | -5 | 15 | -.8 | | | | |
| 11 | 1.2DL + 1WL AZI 270 | Yes | Y | | 1 | 1.2 | 11 | 1 | 14 | | 15 | -1 | | | | |
| 12 | 1.2DL + 1WL AZI 300 | Yes | Y | | 1 | 1.2 | 12 | 1 | 14 | .5 | 15 | -.8 | | | | |
| 13 | 1.2DL + 1WL AZI 330 | Yes | Y | | 1 | 1.2 | 13 | 1 | 14 | .866 | 15 | -.5 | | | | |
| 14 | 0.9DL + 1WL AZI 0 | Yes | Y | | 1 | .9 | 2 | 1 | 14 | 1 | 15 | | | | | |
| 15 | 0.9DL + 1WL AZI 30 | Yes | Y | | 1 | .9 | 3 | 1 | 14 | .866 | 15 | .5 | | | | |
| 16 | 0.9DL + 1WL AZI 60 | Yes | Y | | 1 | .9 | 4 | 1 | 14 | .5 | 15 | .866 | | | | |
| 17 | 0.9DL + 1WL AZI 90 | Yes | Y | | 1 | .9 | 5 | 1 | 14 | | 15 | 1 | | | | |
| 18 | 0.9DL + 1WL AZI 120 | Yes | Y | | 1 | .9 | 6 | 1 | 14 | -.5 | 15 | .866 | | | | |
| 19 | 0.9DL + 1WL AZI 150 | Yes | Y | | 1 | .9 | 7 | 1 | 14 | -8 | 15 | .5 | | | | |
| 20 | 0.9DL + 1WL AZI 180 | Yes | Y | | 1 | .9 | 8 | 1 | 14 | -1 | 15 | | | | | |
| 21 | 0.9DL + 1WL AZI 210 | Yes | Y | | 1 | .9 | 9 | 1 | 14 | -8 | 15 | -.5 | | | | |
| 22 | 0.9DL + 1WL AZI 240 | Yes | Y | | 1 | .9 | 10 | 1 | 14 | -.5 | 15 | -.8 | | | | |
| 23 | 0.9DL + 1WL AZI 270 | Yes | Y | | 1 | .9 | 11 | 1 | 14 | | 15 | -1 | | | | |
| 24 | 0.9DL + 1WL AZI 300 | Yes | Y | | 1 | .9 | 12 | 1 | 14 | .5 | 15 | -.8 | | | | |
| 25 | 0.9DL + 1WL AZI 330 | Yes | Y | | 1 | .9 | 13 | 1 | 14 | .866 | 15 | -.5 | | | | |
| 26 | 1.2D + 1.0Di | Yes | Y | | 1 | 1.2 | 16 | 1 | | | | | | | | |
| 27 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 17 | 1 | 29 | 1 | 30 | | | |
| 28 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 18 | 1 | 29 | .866 | 30 | .5 | | |
| 29 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 19 | 1 | 29 | .5 | 30 | .866 | | |
| 30 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 20 | 1 | 29 | | 30 | 1 | | |
| 31 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 21 | 1 | 29 | -.5 | 30 | .866 | | |
| 32 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 22 | 1 | 29 | -.8 | 30 | .5 | | |
| 33 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 23 | 1 | 29 | -1 | 30 | | | |
| 34 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 24 | 1 | 29 | -.8 | 30 | -.5 | | |
| 35 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 25 | 1 | 29 | -.5 | 30 | -.8 | | |
| 36 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 26 | 1 | 29 | | 30 | -1 | | |
| 37 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 27 | 1 | 29 | .5 | 30 | -.8 | | |
| 38 | 1.2D + 1.0Di + 1.0Wi A... | Yes | Y | | 1 | 1.2 | 16 | 1 | 28 | 1 | 29 | .866 | 30 | -.5 | | |
| 39 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | 1 | 32 | | | | | | | |
| 40 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | .866 | 32 | .5 | | | | | | |
| 41 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | .5 | 32 | .866 | | | | | | |
| 42 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | | 32 | 1 | | | | | | |
| 43 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | -.5 | 32 | .866 | | | | | | |
| 44 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | -.8 | 32 | .5 | | | | | | |
| 45 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | -1 | 32 | | | | | | | |
| 46 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | -.8 | 32 | -.5 | | | | | | |
| 47 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | -.5 | 32 | -.8 | | | | | | |
| 48 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | | 32 | -1 | | | | | | |
| 49 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | .5 | 32 | -.8 | | | | | | |
| 50 | (1.2 + 0.2Sds)DL + 1.0... | Yes | Y | | 1 | 1.241 | 31 | .866 | 32 | -.5 | | | | | | |
| 51 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | 1 | 32 | | | | | | | |
| 52 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | .866 | 32 | .5 | | | | | | |
| 53 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | .5 | 32 | .866 | | | | | | |
| 54 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | | 32 | 1 | | | | | | |
| 55 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | -.5 | 32 | .866 | | | | | | |
| 56 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | -.8 | 32 | .5 | | | | | | |
| 57 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | -1 | 32 | | | | | | | |
| 58 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | -.8 | 32 | -.5 | | | | | | |
| 59 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | -.5 | 32 | -.8 | | | | | | |
| 60 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | | 32 | -1 | | | | | | |
| 61 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | .5 | 32 | -.8 | | | | | | |

Load Combinations (Continued)

| | Description | Solve | PDelta | SRSS | BLC | Factor | BLC | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... |
|-----|---------------------------|-------|--------|------|-----|--------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 62 | (0.9 - 0.2Sds)DL + 1.0... | Yes | Y | | 1 | .859 | 31 | .866 | 32 | -.5 | | | | | |
| 63 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 2 | .259 | 14 | .259 | 15 | | 33 | 1.5 | |
| 64 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 3 | .259 | 14 | .224 | 15 | .129 | 33 | 1.5 | |
| 65 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 4 | .259 | 14 | .129 | 15 | .224 | 33 | 1.5 | |
| 66 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 5 | .259 | 14 | | 15 | .259 | 33 | 1.5 | |
| 67 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 6 | .259 | 14 | -.1... | 15 | .224 | 33 | 1.5 | |
| 68 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 7 | .259 | 14 | -.2... | 15 | .129 | 33 | 1.5 | |
| 69 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 8 | .259 | 14 | -.2... | 15 | | 33 | 1.5 | |
| 70 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 9 | .259 | 14 | -.2... | 15 | -.1... | 33 | 1.5 | |
| 71 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 10 | .259 | 14 | -.1... | 15 | -.2... | 33 | 1.5 | |
| 72 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 11 | .259 | 14 | | 15 | -.2... | 33 | 1.5 | |
| 73 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 12 | .259 | 14 | .129 | 15 | -.2... | 33 | 1.5 | |
| 74 | 1.0DL + 1.5LL + 1.0SW... | Yes | Y | | 1 | 1 | 13 | .259 | 14 | .224 | 15 | -.1... | 33 | 1.5 | |
| 75 | 1.2DL + 1.5LL | Yes | Y | | 1 | 1.2 | 33 | 1.5 | | | | | | | |
| 76 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 2 | .065 | 14 | .065 | 15 | | |
| 77 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | |
| 78 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | |
| 79 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 5 | .065 | 14 | | 15 | .065 | |
| 80 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | |
| 81 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | |
| 82 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | |
| 83 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | |
| 84 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | |
| 85 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | |
| 86 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | |
| 87 | 1.2DL + 1.5LM-MP1 + ... | Yes | Y | | 1 | 1.2 | 34 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | |
| 88 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 2 | .065 | 14 | .065 | 15 | | |
| 89 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | |
| 90 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | |
| 91 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 5 | .065 | 14 | | 15 | .065 | |
| 92 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | |
| 93 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | |
| 94 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | |
| 95 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | |
| 96 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | |
| 97 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | |
| 98 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | |
| 99 | 1.2DL + 1.5LM-MP2 + ... | Yes | Y | | 1 | 1.2 | 35 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | |
| 100 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 2 | .065 | 14 | .065 | 15 | | |
| 101 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | |
| 102 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | |
| 103 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 5 | .065 | 14 | | 15 | .065 | |
| 104 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | |
| 105 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | |
| 106 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | |
| 107 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | |
| 108 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | |
| 109 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | |
| 110 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | |
| 111 | 1.2DL + 1.5LM-MP3 + ... | Yes | Y | | 1 | 1.2 | 36 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | |
| 112 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 2 | .065 | 14 | .065 | 15 | | |
| 113 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | |
| 114 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | |
| 115 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 5 | .065 | 14 | | 15 | .065 | |
| 116 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | |
| 117 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | |
| 118 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | |

Load Combinations (Continued)

| | Description | Solve | PDelta | SRSS | BLC | Factor | BLC | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... |
|-----|-------------------------|-------|--------|------|-----|--------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 119 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 120 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 121 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 122 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 123 | 1.2DL + 1.5LM-MP4 + ... | Yes | Y | | 1 | 1.2 | 37 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 124 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 125 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 126 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 127 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |
| 128 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 129 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 130 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 131 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 132 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 133 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 134 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 135 | 1.2DL + 1.5LM-MP5 + ... | Yes | Y | | 1 | 1.2 | 38 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 136 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 137 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 138 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 139 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |
| 140 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 141 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 142 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 143 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 144 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 145 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 146 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 147 | 1.2DL + 1.5LM-MP6 + ... | Yes | Y | | 1 | 1.2 | 39 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 148 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 149 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 150 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 151 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |
| 152 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 153 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 154 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 155 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 156 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 157 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 158 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 159 | 1.2DL + 1.5LM-MP7 + ... | Yes | Y | | 1 | 1.2 | 40 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 160 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 161 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 162 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 163 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |
| 164 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 165 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 166 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 167 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 168 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 169 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 170 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 171 | 1.2DL + 1.5LM-MP8 + ... | Yes | Y | | 1 | 1.2 | 41 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 172 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 173 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 174 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 175 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |

Load Combinations (Continued)

| | Description | Solve | PDelta | SRSS | BLC | Factor | BLC | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... | Fa...B... |
|-----|-------------------------|-------|--------|------|-----|--------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 176 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 177 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 178 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 179 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 180 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 181 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 182 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 183 | 1.2DL + 1.5LM-MP9 + ... | Yes | Y | | 1 | 1.2 | 42 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 184 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 185 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 186 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 187 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |
| 188 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 189 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 190 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 191 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 192 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 193 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 194 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 195 | 1.2DL + 1.5LM-MP10 +... | Yes | Y | | 1 | 1.2 | 43 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 196 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 197 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 198 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 199 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |
| 200 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 201 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 202 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 203 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 204 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 205 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 206 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |
| 207 | 1.2DL + 1.5LM-MP11 +... | Yes | Y | | 1 | 1.2 | 44 | 1.5 | 13 | .065 | 14 | .056 | 15 | -.0... | | |
| 208 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 2 | .065 | 14 | .065 | 15 | | | |
| 209 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 3 | .065 | 14 | .056 | 15 | .032 | | |
| 210 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 4 | .065 | 14 | .032 | 15 | .056 | | |
| 211 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 5 | .065 | 14 | | 15 | .065 | | |
| 212 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 6 | .065 | 14 | -.0... | 15 | .056 | | |
| 213 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 7 | .065 | 14 | -.0... | 15 | .032 | | |
| 214 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 8 | .065 | 14 | -.0... | 15 | | | |
| 215 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 9 | .065 | 14 | -.0... | 15 | -.0... | | |
| 216 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 10 | .065 | 14 | -.0... | 15 | -.0... | | |
| 217 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 11 | .065 | 14 | | 15 | -.0... | | |
| 218 | 1.2DL + 1.5LM-MP12 +... | Yes | Y | | 1 | 1.2 | 45 | 1.5 | 12 | .065 | 14 | .032 | 15 | -.0... | | |

Envelope Joint Reactions

| | Joint | | X [lb] | LC | Y [lb] | LC | Z [lb] | LC | MX [lb-ft] | LC | MY [lb-ft] | LC | MZ [lb-ft] | LC |
|---|-------|-----|-----------|----|----------|----|-----------|----|------------|----|------------|----|------------|----|
| 1 | N9 | max | 3408.975 | 5 | 1728.309 | 28 | 1469.231 | 14 | -555.708 | 20 | 2573.094 | 4 | 220.176 | 6 |
| 2 | | min | -3273.798 | 23 | 303.302 | 20 | -2025.557 | 8 | -4056.146 | 27 | -2489.506 | 22 | -204.428 | 24 |
| 3 | N29 | max | 2313.182 | 16 | 1732.893 | 32 | 3388.856 | 2 | 2081.936 | 33 | 3363.591 | 10 | 3513.87 | 31 |
| 4 | | min | -2856.512 | 10 | 288.78 | 24 | -3233.461 | 20 | 207.754 | 25 | -3287.271 | 16 | 407.612 | 24 |
| 5 | N31 | max | 2660.939 | 6 | 1732.461 | 36 | 3593.667 | 2 | 2029.714 | 34 | 3408.274 | 12 | -448.077 | 17 |
| 6 | | min | -2251.802 | 24 | 286.419 | 16 | -3203.243 | 20 | 131.437 | 15 | -3324.7 | 18 | -3546.127 | 36 |
| 7 | N101 | max | 267.036 | 17 | 534.408 | 31 | 349.334 | 2 | 1004.687 | 14 | 192.695 | 19 | 839.606 | 11 |
| 8 | | min | -267.038 | 11 | 136.904 | 61 | -349.332 | 20 | -1108.139 | 8 | -192.696 | 13 | -662.669 | 17 |
| 9 | N113 | max | 399.454 | 17 | 595.656 | 27 | 437.752 | 14 | 988.738 | 13 | 216.264 | 11 | 990.253 | 11 |

Envelope Joint Reactions (Continued)

| Joint | | X [lb] | LC | Y [lb] | LC | Z [lb] | LC | MX [lb-ft] | LC | MY [lb-ft] | LC | MZ [lb-ft] | LC | |
|-------|---------|--------|-----------|--------|-----------|--------|-----------|------------|----------|------------|----------|------------|-----------|----|
| 10 | | min | -399.454 | 23 | 143.174 | 57 | -437.752 | 8 | -780.29 | 19 | -216.264 | 5 | -990.253 | 5 |
| 11 | N123 | max | 328.758 | 17 | 534.408 | 32 | 287.615 | 2 | 796.861 | 15 | 192.685 | 3 | 895.805 | 23 |
| 12 | | min | -328.76 | 11 | 136.904 | 62 | -287.615 | 20 | -900.367 | 9 | -192.685 | 21 | -1072.296 | 5 |
| 13 | N139 | max | 257.09 | 24 | 2060.613 | 33 | 1377.798 | 33 | 162.335 | 14 | 64.767 | 24 | .363 | 23 |
| 14 | | min | -501.399 | 115 | -647.517 | 14 | -346.291 | 14 | -513.826 | 33 | -125.763 | 115 | -.436 | 5 |
| 15 | N155 | max | 1344.344 | 36 | 2061.062 | 37 | 240.236 | 20 | 256.852 | 37 | 68.237 | 15 | 445.162 | 37 |
| 16 | | min | -340.769 | 17 | -653.059 | 18 | -543.459 | 136 | -81.845 | 18 | -126.003 | 131 | -141.828 | 18 |
| 17 | N171 | max | 297.615 | 22 | 2062.663 | 29 | 308.167 | 21 | 257.298 | 29 | 68.943 | 20 | 142.549 | 22 |
| 18 | | min | -1048.192 | 29 | -656.603 | 22 | -966.635 | 28 | -82.359 | 22 | -126.033 | 172 | -445.364 | 29 |
| 19 | Totals: | max | 7702.105 | 5 | 12396.539 | 37 | 7929.757 | 2 | | | | | | |
| 20 | | min | -7702.104 | 11 | 3030.245 | 53 | -7929.752 | 20 | | | | | | |

Hot Rolled Steel Section Sets

| | Label | Shape | Type | Design List | Material | Design R... | A [in ²] | I _{yy} [in ⁴] | I _{zz} [in ⁴] | J [in ⁴] |
|---|---------------------|---------------|--------|----------------------|-----------|-------------|----------------------|------------------------------------|------------------------------------|----------------------|
| 1 | Horizontals | L3X3X4 | Beam | Single Angle | A36 Gr.36 | Typical | 1.44 | 1.23 | 1.23 | .031 |
| 2 | Standoff 1 | C5.25x4x0.375 | Beam | Channel | A36 Gr.36 | Typical | 4.688 | 7.568 | 20.707 | .207 |
| 3 | Mount Pipe 2.0 | PIPE 2.0 | Column | Pipe | A53 Gr.B | Typical | 1.02 | .627 | .627 | 1.25 |
| 4 | Angle Kickers | L2.5x2.5x3 | VBrace | Single Angle | A36 Gr.36 | Typical | .901 | .535 | .535 | .011 |
| 5 | Corner Horizontals | LL3x3x4x0 | Beam | Double Angle (No ... | A36 Gr.36 | Typical | 2.88 | 4.5 | 2.46 | .063 |
| 6 | Handrail Pipe | PIPE 2.0 | Beam | Pipe | A53 Gr.B | Typical | 1.02 | .627 | .627 | 1.25 |
| 7 | Handrail Angle | L2.5x2.5x4 | Beam | Single Angle | A36 Gr.36 | Typical | 1.19 | .692 | .692 | .026 |
| 8 | Kicker | L2.5x2.5x3 | Beam | Single Angle | A36 Gr.36 | Typical | .901 | .535 | .535 | .011 |
| 9 | Proposed Horizontal | PIPE 2.0 | Beam | Pipe | A53 Gr.B | Typical | 1.02 | .627 | .627 | 1.25 |

Joint Boundary Conditions

| Joint 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 | N9 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 2 | N29 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 3 | N31 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 4 | N101 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 5 | N113 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 6 | N123 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 7 | N139 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 8 | N140 | | | | | |
| 9 | N155 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 10 | N156 | | | | | |
| 11 | N171 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 12 | N172 | | | | | |

Member Advanced Data

| | Label | I Release | J Release | I Offset[in] | J Offset[in] | T/C Only | Physical | Defl Rat... | Analysis ... | Inactive | Seismic... |
|----|-------|-----------|-----------|--------------|--------------|----------|----------|-------------|--------------|----------|------------|
| 1 | H1 | | | | | | Yes | Default | | | None |
| 2 | M2 | | | | | | Yes | | | | None |
| 3 | M3 | | | | | | Yes | | | | None |
| 4 | M4 | | | | | | Yes | Default | | | None |
| 5 | H3 | | | | | | Yes | Default | | | None |
| 6 | H2 | | | | | | Yes | Default | | | None |
| 7 | M7 | | | | | | Yes | Default | | | None |
| 8 | M8 | | | | | | Yes | Default | | | None |
| 9 | M9 | | | | | | Yes | | | | None |
| 10 | S1 | | | | | | Yes | Default | +z | | None |
| 11 | HR1 | | | | | | Yes | Default | | | None |

Member Advanced Data (Continued)

| | Label | I Release | J Release | I Offset[in] | J Offset[in] | T/C Only | Physical | Defl Rat... | Analysis ... | Inactive | Seismic... |
|----|-------|-----------|-----------|--------------|--------------|----------|----------|-------------|--------------|----------|------------|
| 12 | M12 | | | | | | Yes | Default | | | None |
| 13 | M13 | | | | | | Yes | ** NA ** | | | None |
| 14 | M14 | | | | | | Yes | ** NA ** | | | None |
| 15 | MP1 | | | | | | Yes | ** NA ** | | | None |
| 16 | HR3 | | | | | | Yes | Default | | | None |
| 17 | HR2 | | | | | | Yes | Default | | | None |
| 18 | M18 | | | | | | Yes | Default | | | None |
| 19 | M19 | | | | | | Yes | Default | | | None |
| 20 | S3 | | | | | | Yes | Default | +z | | None |
| 21 | S2 | | | | | | Yes | Default | +z | | None |
| 22 | M22 | | | | | | Yes | ** NA ** | | | None |
| 23 | M23 | | | | | | Yes | ** NA ** | | | None |
| 24 | MP2 | | | | | | Yes | ** NA ** | | | None |
| 25 | M25 | | | | | | Yes | ** NA ** | | | None |
| 26 | M26 | | | | | | Yes | ** NA ** | | | None |
| 27 | MP3 | | | | | | Yes | ** NA ** | | | None |
| 28 | M28 | | | | | | Yes | ** NA ** | | | None |
| 29 | M29 | | | | | | Yes | ** NA ** | | | None |
| 30 | MP4 | | | | | | Yes | ** NA ** | | | None |
| 31 | MP12 | | | | | | Yes | ** NA ** | | | None |
| 32 | M32 | | | | | | Yes | ** NA ** | | | None |
| 33 | M33 | | | | | | Yes | ** NA ** | | | None |
| 34 | M34 | | | | | | Yes | ** NA ** | | | None |
| 35 | MP9 | | | | | | Yes | ** NA ** | | | None |
| 36 | M36 | | | | | | Yes | ** NA ** | | | None |
| 37 | M37 | | | | | | Yes | ** NA ** | | | None |
| 38 | MP10 | | | | | | Yes | ** NA ** | | | None |
| 39 | M39 | | | | | | Yes | ** NA ** | | | None |
| 40 | MP11 | | | | | | Yes | ** NA ** | | | None |
| 41 | M41 | | | | | | Yes | ** NA ** | | | None |
| 42 | M42 | | | | | | Yes | ** NA ** | | | None |
| 43 | MP8 | | | | | | Yes | ** NA ** | | | None |
| 44 | M44 | | | | | | Yes | ** NA ** | | | None |
| 45 | M45 | | | | | | Yes | ** NA ** | | | None |
| 46 | M46 | | | | | | Yes | ** NA ** | | | None |
| 47 | MP5 | | | | | | Yes | ** NA ** | | | None |
| 48 | M48 | | | | | | Yes | ** NA ** | | | None |
| 49 | M49 | | | | | | Yes | ** NA ** | | | None |
| 50 | MP6 | | | | | | Yes | ** NA ** | | | None |
| 51 | M51 | | | | | | Yes | ** NA ** | | | None |
| 52 | MP7 | | | | | | Yes | ** NA ** | | | None |
| 53 | M53 | | | | | | Yes | ** NA ** | | | None |
| 54 | M54 | | | | | | Yes | ** NA ** | | | None |
| 55 | M55 | | | | | | Yes | ** NA ** | | | None |
| 56 | M56 | | | | | | Yes | ** NA ** | | | None |
| 57 | M57 | | | | | | Yes | ** NA ** | | | None |
| 58 | M58 | | | | | | Yes | ** NA ** | | | None |
| 59 | M59 | | | | | | Yes | ** NA ** | | | None |
| 60 | M60 | | | | | | Yes | ** NA ** | | | None |
| 61 | M61 | | | | | | Yes | ** NA ** | | | None |
| 62 | M62 | | | | | | Yes | ** NA ** | | | None |
| 63 | M63 | | | | | | Yes | ** NA ** | | | None |
| 64 | M64 | | | | | | Yes | ** NA ** | | | None |
| 65 | M65 | | | | | | Yes | ** NA ** | | | None |
| 66 | M66 | | | | | | Yes | ** NA ** | | | None |
| 67 | M67 | | | | | | Yes | ** NA ** | | | None |
| 68 | M68 | | | | | | Yes | ** NA ** | | | None |

Member Advanced Data (Continued)

| | Label | I Release | J Release | I Offset[in] | J Offset[in] | T/C Only | Physical | Defl Rat... | Analysis ... | Inactive | Seismic... |
|----|-------|-----------|-----------|--------------|--------------|----------|----------|-------------|--------------|----------|------------|
| 69 | M69 | | | | | | Yes | ** NA ** | | | None |
| 70 | M70 | | | | | | Yes | ** NA ** | | | None |
| 71 | M71 | | | | | | Yes | ** NA ** | | | None |
| 72 | M72 | | | | | | Yes | ** NA ** | | | None |
| 73 | RH1 | | | | | | Yes | | | | None |
| 74 | M74 | | | | | | Yes | ** NA ** | | | None |
| 75 | M75 | | | | | | Yes | ** NA ** | | | None |
| 76 | M76 | | | | | | Yes | ** NA ** | | | None |
| 77 | K2 | BenPIN | BenPIN | | | | Yes | Default | | | None |
| 78 | K1 | BenPIN | BenPIN | | | | Yes | Default | | | None |
| 79 | M79 | | | | | | Yes | ** NA ** | | | None |
| 80 | M80 | | | | | | Yes | ** NA ** | | | None |
| 81 | M81 | | | | | | Yes | ** NA ** | | | None |
| 82 | RH3 | | | | | | Yes | | | | None |
| 83 | M83 | | | | | | Yes | ** NA ** | | | None |
| 84 | M84 | | | | | | Yes | ** NA ** | | | None |
| 85 | M85 | | | | | | Yes | ** NA ** | | | None |
| 86 | K6 | BenPIN | BenPIN | | | | Yes | Default | | | None |
| 87 | K5 | BenPIN | BenPIN | | | | Yes | Default | | | None |
| 88 | M88 | | | | | | Yes | ** NA ** | | | None |
| 89 | M89 | | | | | | Yes | ** NA ** | | | None |
| 90 | M90 | | | | | | Yes | ** NA ** | | | None |
| 91 | RH2 | | | | | | Yes | | | | None |
| 92 | M92 | | | | | | Yes | ** NA ** | | | None |
| 93 | M93 | | | | | | Yes | ** NA ** | | | None |
| 94 | M94 | | | | | | Yes | ** NA ** | | | None |
| 95 | K4 | BenPIN | BenPIN | | | | Yes | Default | | | None |
| 96 | K3 | BenPIN | BenPIN | | | | Yes | Default | | | None |

Hot Rolled Steel Design Parameters

| | Label | Shape | Length[in] | Lbyy[in] | Lbzz[in] | Lcomp top[in] | Lcomp bot[in] | L-torq... | Kyy | Kzz | Cb | Function |
|----|-------|----------------|------------|----------|----------|---------------|---------------|-----------|-----|-----|----|----------|
| 1 | H1 | Horizontals | 168 | Segment | Segment | Segment | Segment | Segm... | | | | Lateral |
| 2 | M2 | Corner Hori... | 47 | | | Lbyy | | | | | | Lateral |
| 3 | M3 | Corner Hori... | 47 | | | Lbyy | | | | | | Lateral |
| 4 | M4 | Horizontals | 86.594 | | | Lbyy | | | | | | Lateral |
| 5 | H3 | Horizontals | 168 | Segment | Segment | Segment | Segment | Segm... | | | | Lateral |
| 6 | H2 | Horizontals | 168 | Segment | Segment | Segment | Segment | Segm... | | | | Lateral |
| 7 | M7 | Horizontals | 86.594 | | | Lbyy | | | | | | Lateral |
| 8 | M8 | Horizontals | 86.594 | | | Lbyy | | | | | | Lateral |
| 9 | M9 | Corner Hori... | 47 | | | Lbyy | | | | | | Lateral |
| 10 | S1 | Standoff 1 | 34.5 | | | Lbyy | | | | | | Lateral |
| 11 | HR1 | Handrail Pipe | 150 | 84 | 84 | Lbyy | | | | | | Lateral |
| 12 | M12 | Handrail An... | 15.124 | | | Lbyy | | | | | | Lateral |
| 13 | MP1 | Mount Pipe ... | 96 | | | | | | | | | Lateral |
| 14 | HR3 | Handrail Pipe | 150 | 84 | 84 | Lbyy | | | | | | Lateral |
| 15 | HR2 | Handrail Pipe | 150 | 84 | 84 | Lbyy | | | | | | Lateral |
| 16 | M18 | Handrail An... | 15.124 | | | Lbyy | | | | | | Lateral |
| 17 | M19 | Handrail An... | 15.124 | | | Lbyy | | | | | | Lateral |
| 18 | S3 | Standoff 1 | 34.5 | | | Lbyy | | | | | | Lateral |
| 19 | S2 | Standoff 1 | 34.5 | | | Lbyy | | | | | | Lateral |
| 20 | MP2 | Mount Pipe ... | 72 | | | | | | | | | Lateral |
| 21 | MP3 | Mount Pipe ... | 120 | | | | | | | | | Lateral |
| 22 | MP4 | Mount Pipe ... | 120 | | | | | | | | | Lateral |
| 23 | MP12 | Mount Pipe ... | 120 | | | | | | | | | Lateral |
| 24 | MP9 | Mount Pipe ... | 96 | | | | | | | | | Lateral |

Hot Rolled Steel Design Parameters (Continued)

| | Label | Shape | Length[in] | Lbyy[in] | Lbzz[in] | Lcomp top[in] | Lcomp bot[in] | L-torq... | Kyy | Kzz | Cb | Function |
|----|-------|----------------|------------|----------|----------|---------------|---------------|-----------|-----|-----|----|----------|
| 25 | MP10 | Mount Pipe ... | 72 | | | | | | | | | Lateral |
| 26 | MP11 | Mount Pipe ... | 120 | | | | | | | | | Lateral |
| 27 | MP8 | Mount Pipe ... | 120 | | | | | | | | | Lateral |
| 28 | MP5 | Mount Pipe ... | 96 | | | | | | | | | Lateral |
| 29 | MP6 | Mount Pipe ... | 72 | | | | | | | | | Lateral |
| 30 | MP7 | Mount Pipe ... | 120 | | | | | | | | | Lateral |
| 31 | M56 | Mount Pipe ... | 84 | | | | Lbyy | | | | | Lateral |
| 32 | M59 | Mount Pipe ... | 36 | | | | Lbyy | | | | | Lateral |
| 33 | M61 | Mount Pipe ... | 84 | | | | Lbyy | | | | | Lateral |
| 34 | M64 | Mount Pipe ... | 36 | | | | Lbyy | | | | | Lateral |
| 35 | M66 | Mount Pipe ... | 84 | | | | Lbyy | | | | | Lateral |
| 36 | M69 | Mount Pipe ... | 36 | | | | Lbyy | | | | | Lateral |
| 37 | RH1 | Proposed H... | 150 | | | | Lbyy | | | | | Lateral |
| 38 | K2 | Kicker | 65.675 | | | | Lbyy | | | | | Lateral |
| 39 | K1 | Kicker | 65.675 | | | | Lbyy | | | | | Lateral |
| 40 | RH3 | Proposed H... | 150 | | | | Lbyy | | | | | Lateral |
| 41 | K6 | Kicker | 65.675 | | | | Lbyy | | | | | Lateral |
| 42 | K5 | Kicker | 65.675 | | | | Lbyy | | | | | Lateral |
| 43 | RH2 | Proposed H... | 150 | | | | Lbyy | | | | | Lateral |
| 44 | K4 | Kicker | 65.675 | | | | Lbyy | | | | | Lateral |
| 45 | K3 | Kicker | 65.675 | | | | Lbyy | | | | | Lateral |

Hot Rolled Steel Properties

| | Label | E [ksi] | G [ksi] | Nu | Ther... | Density[lb/ft^3] | Yield[ksi] | Ry | Fu[ksi] | Rt |
|---|----------------|---------|---------|----|---------|------------------|------------|-----|---------|-----|
| 1 | A992 | 29000 | 11154 | .3 | .65 | 490 | 50 | 1.1 | 65 | 1.1 |
| 2 | A36 Gr.36 | 29000 | 11154 | .3 | .65 | 490 | 36 | 1.5 | 58 | 1.2 |
| 3 | A572 Gr.50 | 29000 | 11154 | .3 | .65 | 490 | 50 | 1.1 | 65 | 1.1 |
| 4 | A500 Gr.B RND | 29000 | 11154 | .3 | .65 | 527 | 42 | 1.4 | 58 | 1.3 |
| 5 | A500 Gr.B Rect | 29000 | 11154 | .3 | .65 | 527 | 46 | 1.4 | 58 | 1.3 |
| 6 | A53 Gr.B | 29000 | 11154 | .3 | .65 | 490 | 35 | 1.6 | 60 | 1.2 |
| 7 | A1085 | 29000 | 11154 | .3 | .65 | 490 | 50 | 1.4 | 65 | 1.3 |
| 8 | FRP | 2800 | 450 | .5 | .44 | 114 | 7 | 1 | 7 | 1.1 |

Joint Loads and Enforced Displacements (BLC 33 : Service Live Loads)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb... |
|---|-------------|-------|-----------|--|
| 1 | N1 | L | Y | -250 |

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb... |
|---|-------------|-------|-----------|--|
| 1 | N133 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb... |
|---|-------------|-------|-----------|--|
| 1 | N35 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb... |
|---|-------------|-------|-----------|--|
| 1 | N135 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb... |
|---|-------------|-------|-----------|--|
| 1 | N137 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Load 5)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N153 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Load 6)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N149 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 40 : Maintenance Load 7)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N54 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 41 : Maintenance Load 8)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N151 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 42 : Maintenance Load 9)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N169 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 43 : Maintenance Load 10)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N165 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 44 : Maintenance Load 11)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N78 | L | Y | -500 |

Joint Loads and Enforced Displacements (BLC 45 : Maintenance Load 12)

| | Joint Label | L,D,M | Direction | Magnitude[(lb,lb-ft), (in,rad), (lb...] |
|---|-------------|-------|-----------|---|
| 1 | N167 | L | Y | -500 |

Member Point Loads (BLC 1 : Self Weight)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | Y | -51.9 | 6 |
| 2 | MP4 | Y | -51.9 | 72 |
| 3 | MP3 | Y | -33.1 | 18 |
| 4 | MP3 | Y | -33.1 | 46 |
| 5 | MP3 | Y | -41.89 | 58 |
| 6 | MP3 | Y | -41.89 | 89 |
| 7 | MP1 | Y | -54.3 | 6 |
| 8 | MP1 | Y | -54.3 | 66 |
| 9 | M56 | Y | -9.45 | 60 |
| 10 | M56 | Y | -9.45 | 60 |
| 11 | M59 | Y | -26.45 | 18 |
| 12 | M59 | Y | -26.45 | 18 |
| 13 | M59 | Y | -26.45 | 18 |
| 14 | M59 | Y | -26.45 | 18 |
| 15 | MP1 | Y | -26.5 | 12 |
| 16 | MP1 | Y | -26.5 | 30 |
| 17 | MP4 | Y | -35.5 | 42 |
| 18 | MP4 | Y | -35.5 | 60 |
| 19 | MP1 | Y | -29.95 | 12 |
| 20 | MP1 | Y | -29.95 | 29 |

Member Point Loads (BLC 1 : Self Weight) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 21 | M61 | Y | -13.1 | 60 |
| 22 | M61 | Y | -13.1 | 60 |
| 23 | MP8 | Y | -51.9 | 6 |
| 24 | MP8 | Y | -51.9 | 72 |
| 25 | MP7 | Y | -33.1 | 18 |
| 26 | MP7 | Y | -33.1 | 46 |
| 27 | MP7 | Y | -41.89 | 58 |
| 28 | MP7 | Y | -41.89 | 89 |
| 29 | MP5 | Y | -54.3 | 6 |
| 30 | MP5 | Y | -54.3 | 66 |
| 31 | M66 | Y | -9.45 | 60 |
| 32 | M66 | Y | -9.45 | 60 |
| 33 | M69 | Y | -26.45 | 18 |
| 34 | M69 | Y | -26.45 | 18 |
| 35 | M69 | Y | -26.45 | 18 |
| 36 | M69 | Y | -26.45 | 18 |
| 37 | MP5 | Y | -26.5 | 12 |
| 38 | MP5 | Y | -26.5 | 30 |
| 39 | MP8 | Y | -35.5 | 42 |
| 40 | MP8 | Y | -35.5 | 60 |
| 41 | MP5 | Y | -29.95 | 12 |
| 42 | MP5 | Y | -29.95 | 29 |
| 43 | MP12 | Y | -51.9 | 6 |
| 44 | MP12 | Y | -51.9 | 72 |
| 45 | MP11 | Y | -33.1 | 18 |
| 46 | MP11 | Y | -33.1 | 46 |
| 47 | MP11 | Y | -41.89 | 58 |
| 48 | MP11 | Y | -41.89 | 89 |
| 49 | MP9 | Y | -54.3 | 6 |
| 50 | MP9 | Y | -54.3 | 66 |
| 51 | M64 | Y | -26.45 | 18 |
| 52 | M64 | Y | -26.45 | 18 |
| 53 | M64 | Y | -26.45 | 18 |
| 54 | M64 | Y | -26.45 | 18 |
| 55 | MP9 | Y | -26.5 | 12 |
| 56 | MP9 | Y | -26.5 | 30 |
| 57 | MP12 | Y | -35.5 | 42 |
| 58 | MP12 | Y | -35.5 | 60 |
| 59 | MP9 | Y | -29.95 | 12 |
| 60 | MP9 | Y | -29.95 | 29 |

Member Point Loads (BLC 2 : Wind Load AZI 0)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 0 | 6 |
| 2 | MP4 | Z | -246.02 | 6 |
| 3 | MP4 | X | 0 | 72 |
| 4 | MP4 | Z | -246.02 | 72 |
| 5 | MP3 | X | 0 | 18 |
| 6 | MP3 | Z | -71.16 | 18 |
| 7 | MP3 | X | 0 | 46 |
| 8 | MP3 | Z | -71.16 | 46 |
| 9 | MP3 | X | 0 | 58 |
| 10 | MP3 | Z | -78.58 | 58 |
| 11 | MP3 | X | 0 | 89 |
| 12 | MP3 | Z | -78.58 | 89 |
| 13 | MP1 | X | 0 | 6 |

Member Point Loads (BLC 2 : Wind Load AZI 0) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in, %] |
|----|--------------|-----------|-------------------|-----------------|
| 14 | MP1 | Z | -237.23 | 6 |
| 15 | MP1 | X | 0 | 66 |
| 16 | MP1 | Z | -237.23 | 66 |
| 17 | M56 | X | 0 | 60 |
| 18 | M56 | Z | -17.74 | 60 |
| 19 | M56 | X | 0 | 60 |
| 20 | M56 | Z | -17.74 | 60 |
| 21 | M59 | X | 0 | 18 |
| 22 | M59 | Z | -52.87 | 18 |
| 23 | M59 | X | 0 | 18 |
| 24 | M59 | Z | -52.87 | 18 |
| 25 | M59 | X | 0 | 18 |
| 26 | M59 | Z | -52.87 | 18 |
| 27 | M59 | X | 0 | 18 |
| 28 | M59 | Z | -52.87 | 18 |
| 29 | MP1 | X | 0 | 12 |
| 30 | MP1 | Z | -53.09 | 12 |
| 31 | MP1 | X | 0 | 30 |
| 32 | MP1 | Z | -53.09 | 30 |
| 33 | MP4 | X | 0 | 42 |
| 34 | MP4 | Z | -38.16 | 42 |
| 35 | MP4 | X | 0 | 60 |
| 36 | MP4 | Z | -38.16 | 60 |
| 37 | MP1 | X | 0 | 12 |
| 38 | MP1 | Z | -35.67 | 12 |
| 39 | MP1 | X | 0 | 29 |
| 40 | MP1 | Z | -35.67 | 29 |
| 41 | M61 | X | 0 | 60 |
| 42 | M61 | Z | -92.81 | 60 |
| 43 | M61 | X | 0 | 60 |
| 44 | M61 | Z | -92.81 | 60 |
| 45 | MP8 | X | 0 | 6 |
| 46 | MP8 | Z | -159.78 | 6 |
| 47 | MP8 | X | 0 | 72 |
| 48 | MP8 | Z | -159.78 | 72 |
| 49 | MP7 | X | 0 | 18 |
| 50 | MP7 | Z | -41.84 | 18 |
| 51 | MP7 | X | 0 | 46 |
| 52 | MP7 | Z | -41.84 | 46 |
| 53 | MP7 | X | 0 | 58 |
| 54 | MP7 | Z | -59.41 | 58 |
| 55 | MP7 | X | 0 | 89 |
| 56 | MP7 | Z | -59.41 | 89 |
| 57 | MP5 | X | 0 | 6 |
| 58 | MP5 | Z | -120.56 | 6 |
| 59 | MP5 | X | 0 | 66 |
| 60 | MP5 | Z | -120.56 | 66 |
| 61 | M66 | X | 0 | 60 |
| 62 | M66 | Z | -17.74 | 60 |
| 63 | M66 | X | 0 | 60 |
| 64 | M66 | Z | -17.74 | 60 |
| 65 | M69 | X | 0 | 18 |
| 66 | M69 | Z | -37.44 | 18 |
| 67 | M69 | X | 0 | 18 |
| 68 | M69 | Z | -37.44 | 18 |
| 69 | M69 | X | 0 | 18 |
| 70 | M69 | Z | -37.44 | 18 |

Member Point Loads (BLC 2 : Wind Load AZI 0) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 71 | M69 | X | 0 | 18 |
| 72 | M69 | Z | -37.44 | 18 |
| 73 | MP5 | X | 0 | 12 |
| 74 | MP5 | Z | -37.49 | 12 |
| 75 | MP5 | X | 0 | 30 |
| 76 | MP5 | Z | -37.49 | 30 |
| 77 | MP8 | X | 0 | 42 |
| 78 | MP8 | Z | -30.03 | 42 |
| 79 | MP8 | X | 0 | 60 |
| 80 | MP8 | Z | -30.03 | 60 |
| 81 | MP5 | X | 0 | 12 |
| 82 | MP5 | Z | -24.29 | 12 |
| 83 | MP5 | X | 0 | 29 |
| 84 | MP5 | Z | -24.29 | 29 |
| 85 | MP12 | X | 0 | 6 |
| 86 | MP12 | Z | -159.78 | 6 |
| 87 | MP12 | X | 0 | 72 |
| 88 | MP12 | Z | -159.78 | 72 |
| 89 | MP11 | X | 0 | 18 |
| 90 | MP11 | Z | -41.84 | 18 |
| 91 | MP11 | X | 0 | 46 |
| 92 | MP11 | Z | -41.84 | 46 |
| 93 | MP11 | X | 0 | 58 |
| 94 | MP11 | Z | -59.41 | 58 |
| 95 | MP11 | X | 0 | 89 |
| 96 | MP11 | Z | -59.41 | 89 |
| 97 | MP9 | X | 0 | 6 |
| 98 | MP9 | Z | -120.56 | 6 |
| 99 | MP9 | X | 0 | 66 |
| 100 | MP9 | Z | -120.56 | 66 |
| 101 | M64 | X | 0 | 18 |
| 102 | M64 | Z | -37.44 | 18 |
| 103 | M64 | X | 0 | 18 |
| 104 | M64 | Z | -37.44 | 18 |
| 105 | M64 | X | 0 | 18 |
| 106 | M64 | Z | -37.44 | 18 |
| 107 | M64 | X | 0 | 18 |
| 108 | M64 | Z | -37.44 | 18 |
| 109 | MP9 | X | 0 | 12 |
| 110 | MP9 | Z | -37.49 | 12 |
| 111 | MP9 | X | 0 | 30 |
| 112 | MP9 | Z | -37.49 | 30 |
| 113 | MP12 | X | 0 | 42 |
| 114 | MP12 | Z | -30.03 | 42 |
| 115 | MP12 | X | 0 | 60 |
| 116 | MP12 | Z | -30.03 | 60 |
| 117 | MP9 | X | 0 | 12 |
| 118 | MP9 | Z | -24.29 | 12 |
| 119 | MP9 | X | 0 | 29 |
| 120 | MP9 | Z | -24.29 | 29 |

Member Point Loads (BLC 3 : Wind Load AZI 30)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|---|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -108.64 | 6 |
| 2 | MP4 | Z | -188.17 | 6 |
| 3 | MP4 | X | -108.64 | 72 |

Member Point Loads (BLC 3 : Wind Load AZI 30) (Continued)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 4 | MP4 | Z | -188.17 | 72 |
| 5 | MP3 | X | -30.69 | 18 |
| 6 | MP3 | Z | -53.16 | 18 |
| 7 | MP3 | X | -30.69 | 46 |
| 8 | MP3 | Z | -53.16 | 46 |
| 9 | MP3 | X | -36.09 | 58 |
| 10 | MP3 | Z | -62.51 | 58 |
| 11 | MP3 | X | -36.09 | 89 |
| 12 | MP3 | Z | -62.51 | 89 |
| 13 | MP1 | X | -99.17 | 6 |
| 14 | MP1 | Z | -171.77 | 6 |
| 15 | MP1 | X | -99.17 | 66 |
| 16 | MP1 | Z | -171.77 | 66 |
| 17 | M56 | X | -8.87 | 60 |
| 18 | M56 | Z | -15.37 | 60 |
| 19 | M56 | X | -8.87 | 60 |
| 20 | M56 | Z | -15.37 | 60 |
| 21 | M59 | X | -23.86 | 18 |
| 22 | M59 | Z | -41.33 | 18 |
| 23 | M59 | X | -23.86 | 18 |
| 24 | M59 | Z | -41.33 | 18 |
| 25 | M59 | X | -23.86 | 18 |
| 26 | M59 | Z | -41.33 | 18 |
| 27 | M59 | X | -23.86 | 18 |
| 28 | M59 | Z | -41.33 | 18 |
| 29 | MP1 | X | -23.95 | 12 |
| 30 | MP1 | Z | -41.48 | 12 |
| 31 | MP1 | X | -23.95 | 30 |
| 32 | MP1 | Z | -41.48 | 30 |
| 33 | MP4 | X | -17.73 | 42 |
| 34 | MP4 | Z | -30.7 | 42 |
| 35 | MP4 | X | -17.73 | 60 |
| 36 | MP4 | Z | -30.7 | 60 |
| 37 | MP1 | X | -15.94 | 12 |
| 38 | MP1 | Z | -27.6 | 12 |
| 39 | MP1 | X | -15.94 | 29 |
| 40 | MP1 | Z | -27.6 | 29 |
| 41 | M61 | X | -41.44 | 60 |
| 42 | M61 | Z | -71.78 | 60 |
| 43 | M61 | X | -41.44 | 60 |
| 44 | M61 | Z | -71.78 | 60 |
| 45 | MP8 | X | -108.64 | 6 |
| 46 | MP8 | Z | -188.17 | 6 |
| 47 | MP8 | X | -108.64 | 72 |
| 48 | MP8 | Z | -188.17 | 72 |
| 49 | MP7 | X | -30.69 | 18 |
| 50 | MP7 | Z | -53.16 | 18 |
| 51 | MP7 | X | -30.69 | 46 |
| 52 | MP7 | Z | -53.16 | 46 |
| 53 | MP7 | X | -36.09 | 58 |
| 54 | MP7 | Z | -62.51 | 58 |
| 55 | MP7 | X | -36.09 | 89 |
| 56 | MP7 | Z | -62.51 | 89 |
| 57 | MP5 | X | -99.17 | 6 |
| 58 | MP5 | Z | -171.77 | 6 |
| 59 | MP5 | X | -99.17 | 66 |
| 60 | MP5 | Z | -171.77 | 66 |

Member Point Loads (BLC 3 : Wind Load AZI 30) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 61 | M66 | X | -8.87 | 60 |
| 62 | M66 | Z | -15.37 | 60 |
| 63 | M66 | X | -8.87 | 60 |
| 64 | M66 | Z | -15.37 | 60 |
| 65 | M69 | X | -23.86 | 18 |
| 66 | M69 | Z | -41.33 | 18 |
| 67 | M69 | X | -23.86 | 18 |
| 68 | M69 | Z | -41.33 | 18 |
| 69 | M69 | X | -23.86 | 18 |
| 70 | M69 | Z | -41.33 | 18 |
| 71 | M69 | X | -23.86 | 18 |
| 72 | M69 | Z | -41.33 | 18 |
| 73 | MP5 | X | -23.95 | 12 |
| 74 | MP5 | Z | -41.48 | 12 |
| 75 | MP5 | X | -23.95 | 30 |
| 76 | MP5 | Z | -41.48 | 30 |
| 77 | MP8 | X | -17.73 | 42 |
| 78 | MP8 | Z | -30.7 | 42 |
| 79 | MP8 | X | -17.73 | 60 |
| 80 | MP8 | Z | -30.7 | 60 |
| 81 | MP5 | X | -15.94 | 12 |
| 82 | MP5 | Z | -27.6 | 12 |
| 83 | MP5 | X | -15.94 | 29 |
| 84 | MP5 | Z | -27.6 | 29 |
| 85 | MP12 | X | -65.52 | 6 |
| 86 | MP12 | Z | -113.48 | 6 |
| 87 | MP12 | X | -65.52 | 72 |
| 88 | MP12 | Z | -113.48 | 72 |
| 89 | MP11 | X | -16.03 | 18 |
| 90 | MP11 | Z | -27.77 | 18 |
| 91 | MP11 | X | -16.03 | 46 |
| 92 | MP11 | Z | -27.77 | 46 |
| 93 | MP11 | X | -26.51 | 58 |
| 94 | MP11 | Z | -45.91 | 58 |
| 95 | MP11 | X | -26.51 | 89 |
| 96 | MP11 | Z | -45.91 | 89 |
| 97 | MP9 | X | -40.83 | 6 |
| 98 | MP9 | Z | -70.72 | 6 |
| 99 | MP9 | X | -40.83 | 66 |
| 100 | MP9 | Z | -70.72 | 66 |
| 101 | M64 | X | -16.15 | 18 |
| 102 | M64 | Z | -27.96 | 18 |
| 103 | M64 | X | -16.15 | 18 |
| 104 | M64 | Z | -27.96 | 18 |
| 105 | M64 | X | -16.15 | 18 |
| 106 | M64 | Z | -27.96 | 18 |
| 107 | M64 | X | -16.15 | 18 |
| 108 | M64 | Z | -27.96 | 18 |
| 109 | MP9 | X | -16.15 | 12 |
| 110 | MP9 | Z | -27.96 | 12 |
| 111 | MP9 | X | -16.15 | 30 |
| 112 | MP9 | Z | -27.96 | 30 |
| 113 | MP12 | X | -13.66 | 42 |
| 114 | MP12 | Z | -23.65 | 42 |
| 115 | MP12 | X | -13.66 | 60 |
| 116 | MP12 | Z | -23.65 | 60 |
| 117 | MP9 | X | -10.25 | 12 |

Member Point Loads (BLC 3 : Wind Load AZI 30) (Continued)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in, %] |
|-----|--------------|-----------|---------------------|-----------------|
| 118 | MP9 | Z | -17.75 | 12 |
| 119 | MP9 | X | -10.25 | 29 |
| 120 | MP9 | Z | -17.75 | 29 |

Member Point Loads (BLC 4 : Wind Load AZI 60)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in, %] |
|----|--------------|-----------|---------------------|-----------------|
| 1 | MP4 | X | -138.37 | 6 |
| 2 | MP4 | Z | -79.89 | 6 |
| 3 | MP4 | X | -138.37 | 72 |
| 4 | MP4 | Z | -79.89 | 72 |
| 5 | MP3 | X | -36.23 | 18 |
| 6 | MP3 | Z | -20.92 | 18 |
| 7 | MP3 | X | -36.23 | 46 |
| 8 | MP3 | Z | -20.92 | 46 |
| 9 | MP3 | X | -51.45 | 58 |
| 10 | MP3 | Z | -29.7 | 58 |
| 11 | MP3 | X | -51.45 | 89 |
| 12 | MP3 | Z | -29.7 | 89 |
| 13 | MP1 | X | -104.4 | 6 |
| 14 | MP1 | Z | -60.28 | 6 |
| 15 | MP1 | X | -104.4 | 66 |
| 16 | MP1 | Z | -60.28 | 66 |
| 17 | M56 | X | -15.37 | 60 |
| 18 | M56 | Z | -8.87 | 60 |
| 19 | M56 | X | -15.37 | 60 |
| 20 | M56 | Z | -8.87 | 60 |
| 21 | M59 | X | -32.42 | 18 |
| 22 | M59 | Z | -18.72 | 18 |
| 23 | M59 | X | -32.42 | 18 |
| 24 | M59 | Z | -18.72 | 18 |
| 25 | M59 | X | -32.42 | 18 |
| 26 | M59 | Z | -18.72 | 18 |
| 27 | M59 | X | -32.42 | 18 |
| 28 | M59 | Z | -18.72 | 18 |
| 29 | MP1 | X | -32.47 | 12 |
| 30 | MP1 | Z | -18.75 | 12 |
| 31 | MP1 | X | -32.47 | 30 |
| 32 | MP1 | Z | -18.75 | 30 |
| 33 | MP4 | X | -26 | 42 |
| 34 | MP4 | Z | -15.01 | 42 |
| 35 | MP4 | X | -26 | 60 |
| 36 | MP4 | Z | -15.01 | 60 |
| 37 | MP1 | X | -21.03 | 12 |
| 38 | MP1 | Z | -12.14 | 12 |
| 39 | MP1 | X | -21.03 | 29 |
| 40 | MP1 | Z | -12.14 | 29 |
| 41 | M61 | X | -54.57 | 60 |
| 42 | M61 | Z | -31.51 | 60 |
| 43 | M61 | X | -54.57 | 60 |
| 44 | M61 | Z | -31.51 | 60 |
| 45 | MP8 | X | -213.06 | 6 |
| 46 | MP8 | Z | -123.01 | 6 |
| 47 | MP8 | X | -213.06 | 72 |
| 48 | MP8 | Z | -123.01 | 72 |
| 49 | MP7 | X | -61.63 | 18 |
| 50 | MP7 | Z | -35.58 | 18 |

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in.-%] |
|-----|--------------|-----------|-------------------|-----------------|
| 51 | MP7 | X | -61.63 | 46 |
| 52 | MP7 | Z | -35.58 | 46 |
| 53 | MP7 | X | -68.05 | 58 |
| 54 | MP7 | Z | -39.29 | 58 |
| 55 | MP7 | X | -68.05 | 89 |
| 56 | MP7 | Z | -39.29 | 89 |
| 57 | MP5 | X | -205.45 | 6 |
| 58 | MP5 | Z | -118.62 | 6 |
| 59 | MP5 | X | -205.45 | 66 |
| 60 | MP5 | Z | -118.62 | 66 |
| 61 | M66 | X | -15.37 | 60 |
| 62 | M66 | Z | -8.87 | 60 |
| 63 | M66 | X | -15.37 | 60 |
| 64 | M66 | Z | -8.87 | 60 |
| 65 | M69 | X | -45.79 | 18 |
| 66 | M69 | Z | -26.44 | 18 |
| 67 | M69 | X | -45.79 | 18 |
| 68 | M69 | Z | -26.44 | 18 |
| 69 | M69 | X | -45.79 | 18 |
| 70 | M69 | Z | -26.44 | 18 |
| 71 | M69 | X | -45.79 | 18 |
| 72 | M69 | Z | -26.44 | 18 |
| 73 | MP5 | X | -45.98 | 12 |
| 74 | MP5 | Z | -26.55 | 12 |
| 75 | MP5 | X | -45.98 | 30 |
| 76 | MP5 | Z | -26.55 | 30 |
| 77 | MP8 | X | -33.05 | 42 |
| 78 | MP8 | Z | -19.08 | 42 |
| 79 | MP8 | X | -33.05 | 60 |
| 80 | MP8 | Z | -19.08 | 60 |
| 81 | MP5 | X | -30.89 | 12 |
| 82 | MP5 | Z | -17.83 | 12 |
| 83 | MP5 | X | -30.89 | 29 |
| 84 | MP5 | Z | -17.83 | 29 |
| 85 | MP12 | X | -138.37 | 6 |
| 86 | MP12 | Z | -79.89 | 6 |
| 87 | MP12 | X | -138.37 | 72 |
| 88 | MP12 | Z | -79.89 | 72 |
| 89 | MP11 | X | -36.23 | 18 |
| 90 | MP11 | Z | -20.92 | 18 |
| 91 | MP11 | X | -36.23 | 46 |
| 92 | MP11 | Z | -20.92 | 46 |
| 93 | MP11 | X | -51.45 | 58 |
| 94 | MP11 | Z | -29.7 | 58 |
| 95 | MP11 | X | -51.45 | 89 |
| 96 | MP11 | Z | -29.7 | 89 |
| 97 | MP9 | X | -104.4 | 6 |
| 98 | MP9 | Z | -60.28 | 6 |
| 99 | MP9 | X | -104.4 | 66 |
| 100 | MP9 | Z | -60.28 | 66 |
| 101 | M64 | X | -32.42 | 18 |
| 102 | M64 | Z | -18.72 | 18 |
| 103 | M64 | X | -32.42 | 18 |
| 104 | M64 | Z | -18.72 | 18 |
| 105 | M64 | X | -32.42 | 18 |
| 106 | M64 | Z | -18.72 | 18 |
| 107 | M64 | X | -32.42 | 18 |

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 108 | M64 | Z | -18.72 | 18 |
| 109 | MP9 | X | -32.47 | 12 |
| 110 | MP9 | Z | -18.75 | 12 |
| 111 | MP9 | X | -32.47 | 30 |
| 112 | MP9 | Z | -18.75 | 30 |
| 113 | MP12 | X | -26 | 42 |
| 114 | MP12 | Z | -15.01 | 42 |
| 115 | MP12 | X | -26 | 60 |
| 116 | MP12 | Z | -15.01 | 60 |
| 117 | MP9 | X | -21.03 | 12 |
| 118 | MP9 | Z | -12.14 | 12 |
| 119 | MP9 | X | -21.03 | 29 |
| 120 | MP9 | Z | -12.14 | 29 |

Member Point Loads (BLC 5 : Wind Load AZI 90)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -131.03 | 6 |
| 2 | MP4 | Z | 0 | 6 |
| 3 | MP4 | X | -131.03 | 72 |
| 4 | MP4 | Z | 0 | 72 |
| 5 | MP3 | X | -32.06 | 18 |
| 6 | MP3 | Z | 0 | 18 |
| 7 | MP3 | X | -32.06 | 46 |
| 8 | MP3 | Z | 0 | 46 |
| 9 | MP3 | X | -53.02 | 58 |
| 10 | MP3 | Z | 0 | 58 |
| 11 | MP3 | X | -53.02 | 89 |
| 12 | MP3 | Z | 0 | 89 |
| 13 | MP1 | X | -81.66 | 6 |
| 14 | MP1 | Z | 0 | 6 |
| 15 | MP1 | X | -81.66 | 66 |
| 16 | MP1 | Z | 0 | 66 |
| 17 | M56 | X | -17.74 | 60 |
| 18 | M56 | Z | 0 | 60 |
| 19 | M56 | X | -17.74 | 60 |
| 20 | M56 | Z | 0 | 60 |
| 21 | M59 | X | -32.29 | 18 |
| 22 | M59 | Z | 0 | 18 |
| 23 | M59 | X | -32.29 | 18 |
| 24 | M59 | Z | 0 | 18 |
| 25 | M59 | X | -32.29 | 18 |
| 26 | M59 | Z | 0 | 18 |
| 27 | M59 | X | -32.29 | 18 |
| 28 | M59 | Z | 0 | 18 |
| 29 | MP1 | X | -32.29 | 12 |
| 30 | MP1 | Z | 0 | 12 |
| 31 | MP1 | X | -32.29 | 30 |
| 32 | MP1 | Z | 0 | 30 |
| 33 | MP4 | X | -27.31 | 42 |
| 34 | MP4 | Z | 0 | 42 |
| 35 | MP4 | X | -27.31 | 60 |
| 36 | MP4 | Z | 0 | 60 |
| 37 | MP1 | X | -20.49 | 12 |
| 38 | MP1 | Z | 0 | 12 |
| 39 | MP1 | X | -20.49 | 29 |
| 40 | MP1 | Z | 0 | 29 |

Member Point Loads (BLC 5 : Wind Load AZI 90) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in.-%] |
|----|--------------|-----------|-------------------|-----------------|
| 41 | M61 | X | -53.08 | 60 |
| 42 | M61 | Z | 0 | 60 |
| 43 | M61 | X | -53.08 | 60 |
| 44 | M61 | Z | 0 | 60 |
| 45 | MP8 | X | -217.28 | 6 |
| 46 | MP8 | Z | 0 | 6 |
| 47 | MP8 | X | -217.28 | 72 |
| 48 | MP8 | Z | 0 | 72 |
| 49 | MP7 | X | -61.38 | 18 |
| 50 | MP7 | Z | 0 | 18 |
| 51 | MP7 | X | -61.38 | 46 |
| 52 | MP7 | Z | 0 | 46 |
| 53 | MP7 | X | -72.19 | 58 |
| 54 | MP7 | Z | 0 | 58 |
| 55 | MP7 | X | -72.19 | 89 |
| 56 | MP7 | Z | 0 | 89 |
| 57 | MP5 | X | -198.34 | 6 |
| 58 | MP5 | Z | 0 | 6 |
| 59 | MP5 | X | -198.34 | 66 |
| 60 | MP5 | Z | 0 | 66 |
| 61 | M66 | X | -17.74 | 60 |
| 62 | M66 | Z | 0 | 60 |
| 63 | M66 | X | -17.74 | 60 |
| 64 | M66 | Z | 0 | 60 |
| 65 | M69 | X | -47.73 | 18 |
| 66 | M69 | Z | 0 | 18 |
| 67 | M69 | X | -47.73 | 18 |
| 68 | M69 | Z | 0 | 18 |
| 69 | M69 | X | -47.73 | 18 |
| 70 | M69 | Z | 0 | 18 |
| 71 | M69 | X | -47.73 | 18 |
| 72 | M69 | Z | 0 | 18 |
| 73 | MP5 | X | -47.89 | 12 |
| 74 | MP5 | Z | 0 | 12 |
| 75 | MP5 | X | -47.89 | 30 |
| 76 | MP5 | Z | 0 | 30 |
| 77 | MP8 | X | -35.45 | 42 |
| 78 | MP8 | Z | 0 | 42 |
| 79 | MP8 | X | -35.45 | 60 |
| 80 | MP8 | Z | 0 | 60 |
| 81 | MP5 | X | -31.87 | 12 |
| 82 | MP5 | Z | 0 | 12 |
| 83 | MP5 | X | -31.87 | 29 |
| 84 | MP5 | Z | 0 | 29 |
| 85 | MP12 | X | -217.28 | 6 |
| 86 | MP12 | Z | 0 | 6 |
| 87 | MP12 | X | -217.28 | 72 |
| 88 | MP12 | Z | 0 | 72 |
| 89 | MP11 | X | -61.38 | 18 |
| 90 | MP11 | Z | 0 | 18 |
| 91 | MP11 | X | -61.38 | 46 |
| 92 | MP11 | Z | 0 | 46 |
| 93 | MP11 | X | -72.19 | 58 |
| 94 | MP11 | Z | 0 | 58 |
| 95 | MP11 | X | -72.19 | 89 |
| 96 | MP11 | Z | 0 | 89 |
| 97 | MP9 | X | -198.34 | 6 |

Member Point Loads (BLC 5 : Wind Load AZI 90) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 98 | MP9 | Z | 0 | 6 |
| 99 | MP9 | X | -198.34 | 66 |
| 100 | MP9 | Z | 0 | 66 |
| 101 | M64 | X | -47.73 | 18 |
| 102 | M64 | Z | 0 | 18 |
| 103 | M64 | X | -47.73 | 18 |
| 104 | M64 | Z | 0 | 18 |
| 105 | M64 | X | -47.73 | 18 |
| 106 | M64 | Z | 0 | 18 |
| 107 | M64 | X | -47.73 | 18 |
| 108 | M64 | Z | 0 | 18 |
| 109 | MP9 | X | -47.89 | 12 |
| 110 | MP9 | Z | 0 | 12 |
| 111 | MP9 | X | -47.89 | 30 |
| 112 | MP9 | Z | 0 | 30 |
| 113 | MP12 | X | -35.45 | 42 |
| 114 | MP12 | Z | 0 | 42 |
| 115 | MP12 | X | -35.45 | 60 |
| 116 | MP12 | Z | 0 | 60 |
| 117 | MP9 | X | -31.87 | 12 |
| 118 | MP9 | Z | 0 | 12 |
| 119 | MP9 | X | -31.87 | 29 |
| 120 | MP9 | Z | 0 | 29 |

Member Point Loads (BLC 6 : Wind Load AZI 120)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -138.37 | 6 |
| 2 | MP4 | Z | 79.89 | 6 |
| 3 | MP4 | X | -138.37 | 72 |
| 4 | MP4 | Z | 79.89 | 72 |
| 5 | MP3 | X | -36.23 | 18 |
| 6 | MP3 | Z | 20.92 | 18 |
| 7 | MP3 | X | -36.23 | 46 |
| 8 | MP3 | Z | 20.92 | 46 |
| 9 | MP3 | X | -51.45 | 58 |
| 10 | MP3 | Z | 29.7 | 58 |
| 11 | MP3 | X | -51.45 | 89 |
| 12 | MP3 | Z | 29.7 | 89 |
| 13 | MP1 | X | -104.4 | 6 |
| 14 | MP1 | Z | 60.28 | 6 |
| 15 | MP1 | X | -104.4 | 66 |
| 16 | MP1 | Z | 60.28 | 66 |
| 17 | M56 | X | -15.37 | 60 |
| 18 | M56 | Z | 8.87 | 60 |
| 19 | M56 | X | -15.37 | 60 |
| 20 | M56 | Z | 8.87 | 60 |
| 21 | M59 | X | -32.42 | 18 |
| 22 | M59 | Z | 18.72 | 18 |
| 23 | M59 | X | -32.42 | 18 |
| 24 | M59 | Z | 18.72 | 18 |
| 25 | M59 | X | -32.42 | 18 |
| 26 | M59 | Z | 18.72 | 18 |
| 27 | M59 | X | -32.42 | 18 |
| 28 | M59 | Z | 18.72 | 18 |
| 29 | MP1 | X | -32.47 | 12 |
| 30 | MP1 | Z | 18.75 | 12 |

Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 31 | MP1 | X | -32.47 | 30 |
| 32 | MP1 | Z | 18.75 | 30 |
| 33 | MP4 | X | -26 | 42 |
| 34 | MP4 | Z | 15.01 | 42 |
| 35 | MP4 | X | -26 | 60 |
| 36 | MP4 | Z | 15.01 | 60 |
| 37 | MP1 | X | -21.03 | 12 |
| 38 | MP1 | Z | 12.14 | 12 |
| 39 | MP1 | X | -21.03 | 29 |
| 40 | MP1 | Z | 12.14 | 29 |
| 41 | M61 | X | -54.57 | 60 |
| 42 | M61 | Z | 31.51 | 60 |
| 43 | M61 | X | -54.57 | 60 |
| 44 | M61 | Z | 31.51 | 60 |
| 45 | MP8 | X | -138.37 | 6 |
| 46 | MP8 | Z | 79.89 | 6 |
| 47 | MP8 | X | -138.37 | 72 |
| 48 | MP8 | Z | 79.89 | 72 |
| 49 | MP7 | X | -36.23 | 18 |
| 50 | MP7 | Z | 20.92 | 18 |
| 51 | MP7 | X | -36.23 | 46 |
| 52 | MP7 | Z | 20.92 | 46 |
| 53 | MP7 | X | -51.45 | 58 |
| 54 | MP7 | Z | 29.7 | 58 |
| 55 | MP7 | X | -51.45 | 89 |
| 56 | MP7 | Z | 29.7 | 89 |
| 57 | MP5 | X | -104.4 | 6 |
| 58 | MP5 | Z | 60.28 | 6 |
| 59 | MP5 | X | -104.4 | 66 |
| 60 | MP5 | Z | 60.28 | 66 |
| 61 | M66 | X | -15.37 | 60 |
| 62 | M66 | Z | 8.87 | 60 |
| 63 | M66 | X | -15.37 | 60 |
| 64 | M66 | Z | 8.87 | 60 |
| 65 | M69 | X | -32.42 | 18 |
| 66 | M69 | Z | 18.72 | 18 |
| 67 | M69 | X | -32.42 | 18 |
| 68 | M69 | Z | 18.72 | 18 |
| 69 | M69 | X | -32.42 | 18 |
| 70 | M69 | Z | 18.72 | 18 |
| 71 | M69 | X | -32.42 | 18 |
| 72 | M69 | Z | 18.72 | 18 |
| 73 | MP5 | X | -32.47 | 12 |
| 74 | MP5 | Z | 18.75 | 12 |
| 75 | MP5 | X | -32.47 | 30 |
| 76 | MP5 | Z | 18.75 | 30 |
| 77 | MP8 | X | -26 | 42 |
| 78 | MP8 | Z | 15.01 | 42 |
| 79 | MP8 | X | -26 | 60 |
| 80 | MP8 | Z | 15.01 | 60 |
| 81 | MP5 | X | -21.03 | 12 |
| 82 | MP5 | Z | 12.14 | 12 |
| 83 | MP5 | X | -21.03 | 29 |
| 84 | MP5 | Z | 12.14 | 29 |
| 85 | MP12 | X | -213.06 | 6 |
| 86 | MP12 | Z | 123.01 | 6 |
| 87 | MP12 | X | -213.06 | 72 |

Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 88 | MP12 | Z | 123.01 | 72 |
| 89 | MP11 | X | -61.63 | 18 |
| 90 | MP11 | Z | 35.58 | 18 |
| 91 | MP11 | X | -61.63 | 46 |
| 92 | MP11 | Z | 35.58 | 46 |
| 93 | MP11 | X | -68.05 | 58 |
| 94 | MP11 | Z | 39.29 | 58 |
| 95 | MP11 | X | -68.05 | 89 |
| 96 | MP11 | Z | 39.29 | 89 |
| 97 | MP9 | X | -205.45 | 6 |
| 98 | MP9 | Z | 118.62 | 6 |
| 99 | MP9 | X | -205.45 | 66 |
| 100 | MP9 | Z | 118.62 | 66 |
| 101 | M64 | X | -45.79 | 18 |
| 102 | M64 | Z | 26.44 | 18 |
| 103 | M64 | X | -45.79 | 18 |
| 104 | M64 | Z | 26.44 | 18 |
| 105 | M64 | X | -45.79 | 18 |
| 106 | M64 | Z | 26.44 | 18 |
| 107 | M64 | X | -45.79 | 18 |
| 108 | M64 | Z | 26.44 | 18 |
| 109 | MP9 | X | -45.98 | 12 |
| 110 | MP9 | Z | 26.55 | 12 |
| 111 | MP9 | X | -45.98 | 30 |
| 112 | MP9 | Z | 26.55 | 30 |
| 113 | MP12 | X | -33.05 | 42 |
| 114 | MP12 | Z | 19.08 | 42 |
| 115 | MP12 | X | -33.05 | 60 |
| 116 | MP12 | Z | 19.08 | 60 |
| 117 | MP9 | X | -30.89 | 12 |
| 118 | MP9 | Z | 17.83 | 12 |
| 119 | MP9 | X | -30.89 | 29 |
| 120 | MP9 | Z | 17.83 | 29 |

Member Point Loads (BLC 7 : Wind Load AZI 150)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -108.64 | 6 |
| 2 | MP4 | Z | 188.17 | 6 |
| 3 | MP4 | X | -108.64 | 72 |
| 4 | MP4 | Z | 188.17 | 72 |
| 5 | MP3 | X | -30.69 | 18 |
| 6 | MP3 | Z | 53.16 | 18 |
| 7 | MP3 | X | -30.69 | 46 |
| 8 | MP3 | Z | 53.16 | 46 |
| 9 | MP3 | X | -36.09 | 58 |
| 10 | MP3 | Z | 62.51 | 58 |
| 11 | MP3 | X | -36.09 | 89 |
| 12 | MP3 | Z | 62.51 | 89 |
| 13 | MP1 | X | -99.17 | 6 |
| 14 | MP1 | Z | 171.77 | 6 |
| 15 | MP1 | X | -99.17 | 66 |
| 16 | MP1 | Z | 171.77 | 66 |
| 17 | M56 | X | -8.87 | 60 |
| 18 | M56 | Z | 15.37 | 60 |
| 19 | M56 | X | -8.87 | 60 |
| 20 | M56 | Z | 15.37 | 60 |

Member Point Loads (BLC 7 : Wind Load AZI 150) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 21 | M59 | X | -23.86 | 18 |
| 22 | M59 | Z | 41.33 | 18 |
| 23 | M59 | X | -23.86 | 18 |
| 24 | M59 | Z | 41.33 | 18 |
| 25 | M59 | X | -23.86 | 18 |
| 26 | M59 | Z | 41.33 | 18 |
| 27 | M59 | X | -23.86 | 18 |
| 28 | M59 | Z | 41.33 | 18 |
| 29 | MP1 | X | -23.95 | 12 |
| 30 | MP1 | Z | 41.48 | 12 |
| 31 | MP1 | X | -23.95 | 30 |
| 32 | MP1 | Z | 41.48 | 30 |
| 33 | MP4 | X | -17.73 | 42 |
| 34 | MP4 | Z | 30.7 | 42 |
| 35 | MP4 | X | -17.73 | 60 |
| 36 | MP4 | Z | 30.7 | 60 |
| 37 | MP1 | X | -15.94 | 12 |
| 38 | MP1 | Z | 27.6 | 12 |
| 39 | MP1 | X | -15.94 | 29 |
| 40 | MP1 | Z | 27.6 | 29 |
| 41 | M61 | X | -41.44 | 60 |
| 42 | M61 | Z | 71.78 | 60 |
| 43 | M61 | X | -41.44 | 60 |
| 44 | M61 | Z | 71.78 | 60 |
| 45 | MP8 | X | -65.52 | 6 |
| 46 | MP8 | Z | 113.48 | 6 |
| 47 | MP8 | X | -65.52 | 72 |
| 48 | MP8 | Z | 113.48 | 72 |
| 49 | MP7 | X | -16.03 | 18 |
| 50 | MP7 | Z | 27.77 | 18 |
| 51 | MP7 | X | -16.03 | 46 |
| 52 | MP7 | Z | 27.77 | 46 |
| 53 | MP7 | X | -26.51 | 58 |
| 54 | MP7 | Z | 45.91 | 58 |
| 55 | MP7 | X | -26.51 | 89 |
| 56 | MP7 | Z | 45.91 | 89 |
| 57 | MP5 | X | -40.83 | 6 |
| 58 | MP5 | Z | 70.72 | 6 |
| 59 | MP5 | X | -40.83 | 66 |
| 60 | MP5 | Z | 70.72 | 66 |
| 61 | M66 | X | -8.87 | 60 |
| 62 | M66 | Z | 15.37 | 60 |
| 63 | M66 | X | -8.87 | 60 |
| 64 | M66 | Z | 15.37 | 60 |
| 65 | M69 | X | -16.15 | 18 |
| 66 | M69 | Z | 27.96 | 18 |
| 67 | M69 | X | -16.15 | 18 |
| 68 | M69 | Z | 27.96 | 18 |
| 69 | M69 | X | -16.15 | 18 |
| 70 | M69 | Z | 27.96 | 18 |
| 71 | M69 | X | -16.15 | 18 |
| 72 | M69 | Z | 27.96 | 18 |
| 73 | MP5 | X | -16.15 | 12 |
| 74 | MP5 | Z | 27.96 | 12 |
| 75 | MP5 | X | -16.15 | 30 |
| 76 | MP5 | Z | 27.96 | 30 |
| 77 | MP8 | X | -13.66 | 42 |

Member Point Loads (BLC 7 : Wind Load AZI 150) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 78 | MP8 | Z | 23.65 | 42 |
| 79 | MP8 | X | -13.66 | 60 |
| 80 | MP8 | Z | 23.65 | 60 |
| 81 | MP5 | X | -10.25 | 12 |
| 82 | MP5 | Z | 17.75 | 12 |
| 83 | MP5 | X | -10.25 | 29 |
| 84 | MP5 | Z | 17.75 | 29 |
| 85 | MP12 | X | -108.64 | 6 |
| 86 | MP12 | Z | 188.17 | 6 |
| 87 | MP12 | X | -108.64 | 72 |
| 88 | MP12 | Z | 188.17 | 72 |
| 89 | MP11 | X | -30.69 | 18 |
| 90 | MP11 | Z | 53.16 | 18 |
| 91 | MP11 | X | -30.69 | 46 |
| 92 | MP11 | Z | 53.16 | 46 |
| 93 | MP11 | X | -36.09 | 58 |
| 94 | MP11 | Z | 62.51 | 58 |
| 95 | MP11 | X | -36.09 | 89 |
| 96 | MP11 | Z | 62.51 | 89 |
| 97 | MP9 | X | -99.17 | 6 |
| 98 | MP9 | Z | 171.77 | 6 |
| 99 | MP9 | X | -99.17 | 66 |
| 100 | MP9 | Z | 171.77 | 66 |
| 101 | M64 | X | -23.86 | 18 |
| 102 | M64 | Z | 41.33 | 18 |
| 103 | M64 | X | -23.86 | 18 |
| 104 | M64 | Z | 41.33 | 18 |
| 105 | M64 | X | -23.86 | 18 |
| 106 | M64 | Z | 41.33 | 18 |
| 107 | M64 | X | -23.86 | 18 |
| 108 | M64 | Z | 41.33 | 18 |
| 109 | MP9 | X | -23.95 | 12 |
| 110 | MP9 | Z | 41.48 | 12 |
| 111 | MP9 | X | -23.95 | 30 |
| 112 | MP9 | Z | 41.48 | 30 |
| 113 | MP12 | X | -17.73 | 42 |
| 114 | MP12 | Z | 30.7 | 42 |
| 115 | MP12 | X | -17.73 | 60 |
| 116 | MP12 | Z | 30.7 | 60 |
| 117 | MP9 | X | -15.94 | 12 |
| 118 | MP9 | Z | 27.6 | 12 |
| 119 | MP9 | X | -15.94 | 29 |
| 120 | MP9 | Z | 27.6 | 29 |

Member Point Loads (BLC 8 : Wind Load AZI 180)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 0 | 6 |
| 2 | MP4 | Z | 246.02 | 6 |
| 3 | MP4 | X | 0 | 72 |
| 4 | MP4 | Z | 246.02 | 72 |
| 5 | MP3 | X | 0 | 18 |
| 6 | MP3 | Z | 71.16 | 18 |
| 7 | MP3 | X | 0 | 46 |
| 8 | MP3 | Z | 71.16 | 46 |
| 9 | MP3 | X | 0 | 58 |
| 10 | MP3 | Z | 78.58 | 58 |

Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 11 | MP3 | X | 0 | 89 |
| 12 | MP3 | Z | 78.58 | 89 |
| 13 | MP1 | X | 0 | 6 |
| 14 | MP1 | Z | 237.23 | 6 |
| 15 | MP1 | X | 0 | 66 |
| 16 | MP1 | Z | 237.23 | 66 |
| 17 | M56 | X | 0 | 60 |
| 18 | M56 | Z | 17.74 | 60 |
| 19 | M56 | X | 0 | 60 |
| 20 | M56 | Z | 17.74 | 60 |
| 21 | M59 | X | 0 | 18 |
| 22 | M59 | Z | 52.87 | 18 |
| 23 | M59 | X | 0 | 18 |
| 24 | M59 | Z | 52.87 | 18 |
| 25 | M59 | X | 0 | 18 |
| 26 | M59 | Z | 52.87 | 18 |
| 27 | M59 | X | 0 | 18 |
| 28 | M59 | Z | 52.87 | 18 |
| 29 | MP1 | X | 0 | 12 |
| 30 | MP1 | Z | 53.09 | 12 |
| 31 | MP1 | X | 0 | 30 |
| 32 | MP1 | Z | 53.09 | 30 |
| 33 | MP4 | X | 0 | 42 |
| 34 | MP4 | Z | 38.16 | 42 |
| 35 | MP4 | X | 0 | 60 |
| 36 | MP4 | Z | 38.16 | 60 |
| 37 | MP1 | X | 0 | 12 |
| 38 | MP1 | Z | 35.67 | 12 |
| 39 | MP1 | X | 0 | 29 |
| 40 | MP1 | Z | 35.67 | 29 |
| 41 | M61 | X | 0 | 60 |
| 42 | M61 | Z | 92.81 | 60 |
| 43 | M61 | X | 0 | 60 |
| 44 | M61 | Z | 92.81 | 60 |
| 45 | MP8 | X | 0 | 6 |
| 46 | MP8 | Z | 159.78 | 6 |
| 47 | MP8 | X | 0 | 72 |
| 48 | MP8 | Z | 159.78 | 72 |
| 49 | MP7 | X | 0 | 18 |
| 50 | MP7 | Z | 41.84 | 18 |
| 51 | MP7 | X | 0 | 46 |
| 52 | MP7 | Z | 41.84 | 46 |
| 53 | MP7 | X | 0 | 58 |
| 54 | MP7 | Z | 59.41 | 58 |
| 55 | MP7 | X | 0 | 89 |
| 56 | MP7 | Z | 59.41 | 89 |
| 57 | MP5 | X | 0 | 6 |
| 58 | MP5 | Z | 120.56 | 6 |
| 59 | MP5 | X | 0 | 66 |
| 60 | MP5 | Z | 120.56 | 66 |
| 61 | M66 | X | 0 | 60 |
| 62 | M66 | Z | 17.74 | 60 |
| 63 | M66 | X | 0 | 60 |
| 64 | M66 | Z | 17.74 | 60 |
| 65 | M69 | X | 0 | 18 |
| 66 | M69 | Z | 37.44 | 18 |
| 67 | M69 | X | 0 | 18 |

Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 68 | M69 | Z | 37.44 | 18 |
| 69 | M69 | X | 0 | 18 |
| 70 | M69 | Z | 37.44 | 18 |
| 71 | M69 | X | 0 | 18 |
| 72 | M69 | Z | 37.44 | 18 |
| 73 | MP5 | X | 0 | 12 |
| 74 | MP5 | Z | 37.49 | 12 |
| 75 | MP5 | X | 0 | 30 |
| 76 | MP5 | Z | 37.49 | 30 |
| 77 | MP8 | X | 0 | 42 |
| 78 | MP8 | Z | 30.03 | 42 |
| 79 | MP8 | X | 0 | 60 |
| 80 | MP8 | Z | 30.03 | 60 |
| 81 | MP5 | X | 0 | 12 |
| 82 | MP5 | Z | 24.29 | 12 |
| 83 | MP5 | X | 0 | 29 |
| 84 | MP5 | Z | 24.29 | 29 |
| 85 | MP12 | X | 0 | 6 |
| 86 | MP12 | Z | 159.78 | 6 |
| 87 | MP12 | X | 0 | 72 |
| 88 | MP12 | Z | 159.78 | 72 |
| 89 | MP11 | X | 0 | 18 |
| 90 | MP11 | Z | 41.84 | 18 |
| 91 | MP11 | X | 0 | 46 |
| 92 | MP11 | Z | 41.84 | 46 |
| 93 | MP11 | X | 0 | 58 |
| 94 | MP11 | Z | 59.41 | 58 |
| 95 | MP11 | X | 0 | 89 |
| 96 | MP11 | Z | 59.41 | 89 |
| 97 | MP9 | X | 0 | 6 |
| 98 | MP9 | Z | 120.56 | 6 |
| 99 | MP9 | X | 0 | 66 |
| 100 | MP9 | Z | 120.56 | 66 |
| 101 | M64 | X | 0 | 18 |
| 102 | M64 | Z | 37.44 | 18 |
| 103 | M64 | X | 0 | 18 |
| 104 | M64 | Z | 37.44 | 18 |
| 105 | M64 | X | 0 | 18 |
| 106 | M64 | Z | 37.44 | 18 |
| 107 | M64 | X | 0 | 18 |
| 108 | M64 | Z | 37.44 | 18 |
| 109 | MP9 | X | 0 | 12 |
| 110 | MP9 | Z | 37.49 | 12 |
| 111 | MP9 | X | 0 | 30 |
| 112 | MP9 | Z | 37.49 | 30 |
| 113 | MP12 | X | 0 | 42 |
| 114 | MP12 | Z | 30.03 | 42 |
| 115 | MP12 | X | 0 | 60 |
| 116 | MP12 | Z | 30.03 | 60 |
| 117 | MP9 | X | 0 | 12 |
| 118 | MP9 | Z | 24.29 | 12 |
| 119 | MP9 | X | 0 | 29 |
| 120 | MP9 | Z | 24.29 | 29 |

Member Point Loads (BLC 9 : Wind Load AZI 210)

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

Member Point Loads (BLC 9 : Wind Load AZI 210) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in.-%] |
|----|--------------|-----------|---------------------|-----------------|
| 1 | MP4 | X | 108.64 | 6 |
| 2 | MP4 | Z | 188.17 | 6 |
| 3 | MP4 | X | 108.64 | 72 |
| 4 | MP4 | Z | 188.17 | 72 |
| 5 | MP3 | X | 30.69 | 18 |
| 6 | MP3 | Z | 53.16 | 18 |
| 7 | MP3 | X | 30.69 | 46 |
| 8 | MP3 | Z | 53.16 | 46 |
| 9 | MP3 | X | 36.09 | 58 |
| 10 | MP3 | Z | 62.51 | 58 |
| 11 | MP3 | X | 36.09 | 89 |
| 12 | MP3 | Z | 62.51 | 89 |
| 13 | MP1 | X | 99.17 | 6 |
| 14 | MP1 | Z | 171.77 | 6 |
| 15 | MP1 | X | 99.17 | 66 |
| 16 | MP1 | Z | 171.77 | 66 |
| 17 | M56 | X | 8.87 | 60 |
| 18 | M56 | Z | 15.37 | 60 |
| 19 | M56 | X | 8.87 | 60 |
| 20 | M56 | Z | 15.37 | 60 |
| 21 | M59 | X | 23.86 | 18 |
| 22 | M59 | Z | 41.33 | 18 |
| 23 | M59 | X | 23.86 | 18 |
| 24 | M59 | Z | 41.33 | 18 |
| 25 | M59 | X | 23.86 | 18 |
| 26 | M59 | Z | 41.33 | 18 |
| 27 | M59 | X | 23.86 | 18 |
| 28 | M59 | Z | 41.33 | 18 |
| 29 | MP1 | X | 23.95 | 12 |
| 30 | MP1 | Z | 41.48 | 12 |
| 31 | MP1 | X | 23.95 | 30 |
| 32 | MP1 | Z | 41.48 | 30 |
| 33 | MP4 | X | 17.73 | 42 |
| 34 | MP4 | Z | 30.7 | 42 |
| 35 | MP4 | X | 17.73 | 60 |
| 36 | MP4 | Z | 30.7 | 60 |
| 37 | MP1 | X | 15.94 | 12 |
| 38 | MP1 | Z | 27.6 | 12 |
| 39 | MP1 | X | 15.94 | 29 |
| 40 | MP1 | Z | 27.6 | 29 |
| 41 | M61 | X | 41.44 | 60 |
| 42 | M61 | Z | 71.78 | 60 |
| 43 | M61 | X | 41.44 | 60 |
| 44 | M61 | Z | 71.78 | 60 |
| 45 | MP8 | X | 108.64 | 6 |
| 46 | MP8 | Z | 188.17 | 6 |
| 47 | MP8 | X | 108.64 | 72 |
| 48 | MP8 | Z | 188.17 | 72 |
| 49 | MP7 | X | 30.69 | 18 |
| 50 | MP7 | Z | 53.16 | 18 |
| 51 | MP7 | X | 30.69 | 46 |
| 52 | MP7 | Z | 53.16 | 46 |
| 53 | MP7 | X | 36.09 | 58 |
| 54 | MP7 | Z | 62.51 | 58 |
| 55 | MP7 | X | 36.09 | 89 |
| 56 | MP7 | Z | 62.51 | 89 |
| 57 | MP5 | X | 99.17 | 6 |

Member Point Loads (BLC 9 : Wind Load AZI 210) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 58 | MP5 | Z | 171.77 | 6 |
| 59 | MP5 | X | 99.17 | 66 |
| 60 | MP5 | Z | 171.77 | 66 |
| 61 | M66 | X | 8.87 | 60 |
| 62 | M66 | Z | 15.37 | 60 |
| 63 | M66 | X | 8.87 | 60 |
| 64 | M66 | Z | 15.37 | 60 |
| 65 | M69 | X | 23.86 | 18 |
| 66 | M69 | Z | 41.33 | 18 |
| 67 | M69 | X | 23.86 | 18 |
| 68 | M69 | Z | 41.33 | 18 |
| 69 | M69 | X | 23.86 | 18 |
| 70 | M69 | Z | 41.33 | 18 |
| 71 | M69 | X | 23.86 | 18 |
| 72 | M69 | Z | 41.33 | 18 |
| 73 | MP5 | X | 23.95 | 12 |
| 74 | MP5 | Z | 41.48 | 12 |
| 75 | MP5 | X | 23.95 | 30 |
| 76 | MP5 | Z | 41.48 | 30 |
| 77 | MP8 | X | 17.73 | 42 |
| 78 | MP8 | Z | 30.7 | 42 |
| 79 | MP8 | X | 17.73 | 60 |
| 80 | MP8 | Z | 30.7 | 60 |
| 81 | MP5 | X | 15.94 | 12 |
| 82 | MP5 | Z | 27.6 | 12 |
| 83 | MP5 | X | 15.94 | 29 |
| 84 | MP5 | Z | 27.6 | 29 |
| 85 | MP12 | X | 65.52 | 6 |
| 86 | MP12 | Z | 113.48 | 6 |
| 87 | MP12 | X | 65.52 | 72 |
| 88 | MP12 | Z | 113.48 | 72 |
| 89 | MP11 | X | 16.03 | 18 |
| 90 | MP11 | Z | 27.77 | 18 |
| 91 | MP11 | X | 16.03 | 46 |
| 92 | MP11 | Z | 27.77 | 46 |
| 93 | MP11 | X | 26.51 | 58 |
| 94 | MP11 | Z | 45.91 | 58 |
| 95 | MP11 | X | 26.51 | 89 |
| 96 | MP11 | Z | 45.91 | 89 |
| 97 | MP9 | X | 40.83 | 6 |
| 98 | MP9 | Z | 70.72 | 6 |
| 99 | MP9 | X | 40.83 | 66 |
| 100 | MP9 | Z | 70.72 | 66 |
| 101 | M64 | X | 16.15 | 18 |
| 102 | M64 | Z | 27.96 | 18 |
| 103 | M64 | X | 16.15 | 18 |
| 104 | M64 | Z | 27.96 | 18 |
| 105 | M64 | X | 16.15 | 18 |
| 106 | M64 | Z | 27.96 | 18 |
| 107 | M64 | X | 16.15 | 18 |
| 108 | M64 | Z | 27.96 | 18 |
| 109 | MP9 | X | 16.15 | 12 |
| 110 | MP9 | Z | 27.96 | 12 |
| 111 | MP9 | X | 16.15 | 30 |
| 112 | MP9 | Z | 27.96 | 30 |
| 113 | MP12 | X | 13.66 | 42 |
| 114 | MP12 | Z | 23.65 | 42 |

Member Point Loads (BLC 9 : Wind Load AZI 210) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in, %] |
|-----|--------------|-----------|---------------------|-----------------|
| 115 | MP12 | X | 13.66 | 60 |
| 116 | MP12 | Z | 23.65 | 60 |
| 117 | MP9 | X | 10.25 | 12 |
| 118 | MP9 | Z | 17.75 | 12 |
| 119 | MP9 | X | 10.25 | 29 |
| 120 | MP9 | Z | 17.75 | 29 |

Member Point Loads (BLC 10 : Wind Load AZI 240)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in, %] |
|----|--------------|-----------|---------------------|-----------------|
| 1 | MP4 | X | 138.37 | 6 |
| 2 | MP4 | Z | 79.89 | 6 |
| 3 | MP4 | X | 138.37 | 72 |
| 4 | MP4 | Z | 79.89 | 72 |
| 5 | MP3 | X | 36.23 | 18 |
| 6 | MP3 | Z | 20.92 | 18 |
| 7 | MP3 | X | 36.23 | 46 |
| 8 | MP3 | Z | 20.92 | 46 |
| 9 | MP3 | X | 51.45 | 58 |
| 10 | MP3 | Z | 29.7 | 58 |
| 11 | MP3 | X | 51.45 | 89 |
| 12 | MP3 | Z | 29.7 | 89 |
| 13 | MP1 | X | 104.4 | 6 |
| 14 | MP1 | Z | 60.28 | 6 |
| 15 | MP1 | X | 104.4 | 66 |
| 16 | MP1 | Z | 60.28 | 66 |
| 17 | M56 | X | 15.37 | 60 |
| 18 | M56 | Z | 8.87 | 60 |
| 19 | M56 | X | 15.37 | 60 |
| 20 | M56 | Z | 8.87 | 60 |
| 21 | M59 | X | 32.42 | 18 |
| 22 | M59 | Z | 18.72 | 18 |
| 23 | M59 | X | 32.42 | 18 |
| 24 | M59 | Z | 18.72 | 18 |
| 25 | M59 | X | 32.42 | 18 |
| 26 | M59 | Z | 18.72 | 18 |
| 27 | M59 | X | 32.42 | 18 |
| 28 | M59 | Z | 18.72 | 18 |
| 29 | MP1 | X | 32.47 | 12 |
| 30 | MP1 | Z | 18.75 | 12 |
| 31 | MP1 | X | 32.47 | 30 |
| 32 | MP1 | Z | 18.75 | 30 |
| 33 | MP4 | X | 26 | 42 |
| 34 | MP4 | Z | 15.01 | 42 |
| 35 | MP4 | X | 26 | 60 |
| 36 | MP4 | Z | 15.01 | 60 |
| 37 | MP1 | X | 21.03 | 12 |
| 38 | MP1 | Z | 12.14 | 12 |
| 39 | MP1 | X | 21.03 | 29 |
| 40 | MP1 | Z | 12.14 | 29 |
| 41 | M61 | X | 54.57 | 60 |
| 42 | M61 | Z | 31.51 | 60 |
| 43 | M61 | X | 54.57 | 60 |
| 44 | M61 | Z | 31.51 | 60 |
| 45 | MP8 | X | 213.06 | 6 |
| 46 | MP8 | Z | 123.01 | 6 |
| 47 | MP8 | X | 213.06 | 72 |

Member Point Loads (BLC 10 : Wind Load AZI 240) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|-----|--------------|-----------|-------------------|----------------|
| 48 | MP8 | Z | 123.01 | 72 |
| 49 | MP7 | X | 61.63 | 18 |
| 50 | MP7 | Z | 35.58 | 18 |
| 51 | MP7 | X | 61.63 | 46 |
| 52 | MP7 | Z | 35.58 | 46 |
| 53 | MP7 | X | 68.05 | 58 |
| 54 | MP7 | Z | 39.29 | 58 |
| 55 | MP7 | X | 68.05 | 89 |
| 56 | MP7 | Z | 39.29 | 89 |
| 57 | MP5 | X | 205.45 | 6 |
| 58 | MP5 | Z | 118.62 | 6 |
| 59 | MP5 | X | 205.45 | 66 |
| 60 | MP5 | Z | 118.62 | 66 |
| 61 | M66 | X | 15.37 | 60 |
| 62 | M66 | Z | 8.87 | 60 |
| 63 | M66 | X | 15.37 | 60 |
| 64 | M66 | Z | 8.87 | 60 |
| 65 | M69 | X | 45.79 | 18 |
| 66 | M69 | Z | 26.44 | 18 |
| 67 | M69 | X | 45.79 | 18 |
| 68 | M69 | Z | 26.44 | 18 |
| 69 | M69 | X | 45.79 | 18 |
| 70 | M69 | Z | 26.44 | 18 |
| 71 | M69 | X | 45.79 | 18 |
| 72 | M69 | Z | 26.44 | 18 |
| 73 | MP5 | X | 45.98 | 12 |
| 74 | MP5 | Z | 26.55 | 12 |
| 75 | MP5 | X | 45.98 | 30 |
| 76 | MP5 | Z | 26.55 | 30 |
| 77 | MP8 | X | 33.05 | 42 |
| 78 | MP8 | Z | 19.08 | 42 |
| 79 | MP8 | X | 33.05 | 60 |
| 80 | MP8 | Z | 19.08 | 60 |
| 81 | MP5 | X | 30.89 | 12 |
| 82 | MP5 | Z | 17.83 | 12 |
| 83 | MP5 | X | 30.89 | 29 |
| 84 | MP5 | Z | 17.83 | 29 |
| 85 | MP12 | X | 138.37 | 6 |
| 86 | MP12 | Z | 79.89 | 6 |
| 87 | MP12 | X | 138.37 | 72 |
| 88 | MP12 | Z | 79.89 | 72 |
| 89 | MP11 | X | 36.23 | 18 |
| 90 | MP11 | Z | 20.92 | 18 |
| 91 | MP11 | X | 36.23 | 46 |
| 92 | MP11 | Z | 20.92 | 46 |
| 93 | MP11 | X | 51.45 | 58 |
| 94 | MP11 | Z | 29.7 | 58 |
| 95 | MP11 | X | 51.45 | 89 |
| 96 | MP11 | Z | 29.7 | 89 |
| 97 | MP9 | X | 104.4 | 6 |
| 98 | MP9 | Z | 60.28 | 6 |
| 99 | MP9 | X | 104.4 | 66 |
| 100 | MP9 | Z | 60.28 | 66 |
| 101 | M64 | X | 32.42 | 18 |
| 102 | M64 | Z | 18.72 | 18 |
| 103 | M64 | X | 32.42 | 18 |
| 104 | M64 | Z | 18.72 | 18 |

Member Point Loads (BLC 10 : Wind Load AZI 240) (Continued)

| | Member Label | Direction | Magnitude[lb.,lb-ft] | Location[in, %] |
|-----|--------------|-----------|----------------------|-----------------|
| 105 | M64 | X | 32.42 | 18 |
| 106 | M64 | Z | 18.72 | 18 |
| 107 | M64 | X | 32.42 | 18 |
| 108 | M64 | Z | 18.72 | 18 |
| 109 | MP9 | X | 32.47 | 12 |
| 110 | MP9 | Z | 18.75 | 12 |
| 111 | MP9 | X | 32.47 | 30 |
| 112 | MP9 | Z | 18.75 | 30 |
| 113 | MP12 | X | 26 | 42 |
| 114 | MP12 | Z | 15.01 | 42 |
| 115 | MP12 | X | 26 | 60 |
| 116 | MP12 | Z | 15.01 | 60 |
| 117 | MP9 | X | 21.03 | 12 |
| 118 | MP9 | Z | 12.14 | 12 |
| 119 | MP9 | X | 21.03 | 29 |
| 120 | MP9 | Z | 12.14 | 29 |

Member Point Loads (BLC 11 : Wind Load AZI 270)

| | Member Label | Direction | Magnitude[lb.,lb-ft] | Location[in, %] |
|----|--------------|-----------|----------------------|-----------------|
| 1 | MP4 | X | 131.03 | 6 |
| 2 | MP4 | Z | 0 | 6 |
| 3 | MP4 | X | 131.03 | 72 |
| 4 | MP4 | Z | 0 | 72 |
| 5 | MP3 | X | 32.06 | 18 |
| 6 | MP3 | Z | 0 | 18 |
| 7 | MP3 | X | 32.06 | 46 |
| 8 | MP3 | Z | 0 | 46 |
| 9 | MP3 | X | 53.02 | 58 |
| 10 | MP3 | Z | 0 | 58 |
| 11 | MP3 | X | 53.02 | 89 |
| 12 | MP3 | Z | 0 | 89 |
| 13 | MP1 | X | 81.66 | 6 |
| 14 | MP1 | Z | 0 | 6 |
| 15 | MP1 | X | 81.66 | 66 |
| 16 | MP1 | Z | 0 | 66 |
| 17 | M56 | X | 17.74 | 60 |
| 18 | M56 | Z | 0 | 60 |
| 19 | M56 | X | 17.74 | 60 |
| 20 | M56 | Z | 0 | 60 |
| 21 | M59 | X | 32.29 | 18 |
| 22 | M59 | Z | 0 | 18 |
| 23 | M59 | X | 32.29 | 18 |
| 24 | M59 | Z | 0 | 18 |
| 25 | M59 | X | 32.29 | 18 |
| 26 | M59 | Z | 0 | 18 |
| 27 | M59 | X | 32.29 | 18 |
| 28 | M59 | Z | 0 | 18 |
| 29 | MP1 | X | 32.29 | 12 |
| 30 | MP1 | Z | 0 | 12 |
| 31 | MP1 | X | 32.29 | 30 |
| 32 | MP1 | Z | 0 | 30 |
| 33 | MP4 | X | 27.31 | 42 |
| 34 | MP4 | Z | 0 | 42 |
| 35 | MP4 | X | 27.31 | 60 |
| 36 | MP4 | Z | 0 | 60 |
| 37 | MP1 | X | 20.49 | 12 |

Member Point Loads (BLC 11 : Wind Load AZI 270) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|----|--------------|-----------|-------------------|----------------|
| 38 | MP1 | Z | 0 | 12 |
| 39 | MP1 | X | 20.49 | 29 |
| 40 | MP1 | Z | 0 | 29 |
| 41 | M61 | X | 53.08 | 60 |
| 42 | M61 | Z | 0 | 60 |
| 43 | M61 | X | 53.08 | 60 |
| 44 | M61 | Z | 0 | 60 |
| 45 | MP8 | X | 217.28 | 6 |
| 46 | MP8 | Z | 0 | 6 |
| 47 | MP8 | X | 217.28 | 72 |
| 48 | MP8 | Z | 0 | 72 |
| 49 | MP7 | X | 61.38 | 18 |
| 50 | MP7 | Z | 0 | 18 |
| 51 | MP7 | X | 61.38 | 46 |
| 52 | MP7 | Z | 0 | 46 |
| 53 | MP7 | X | 72.19 | 58 |
| 54 | MP7 | Z | 0 | 58 |
| 55 | MP7 | X | 72.19 | 89 |
| 56 | MP7 | Z | 0 | 89 |
| 57 | MP5 | X | 198.34 | 6 |
| 58 | MP5 | Z | 0 | 6 |
| 59 | MP5 | X | 198.34 | 66 |
| 60 | MP5 | Z | 0 | 66 |
| 61 | M66 | X | 17.74 | 60 |
| 62 | M66 | Z | 0 | 60 |
| 63 | M66 | X | 17.74 | 60 |
| 64 | M66 | Z | 0 | 60 |
| 65 | M69 | X | 47.73 | 18 |
| 66 | M69 | Z | 0 | 18 |
| 67 | M69 | X | 47.73 | 18 |
| 68 | M69 | Z | 0 | 18 |
| 69 | M69 | X | 47.73 | 18 |
| 70 | M69 | Z | 0 | 18 |
| 71 | M69 | X | 47.73 | 18 |
| 72 | M69 | Z | 0 | 18 |
| 73 | MP5 | X | 47.89 | 12 |
| 74 | MP5 | Z | 0 | 12 |
| 75 | MP5 | X | 47.89 | 30 |
| 76 | MP5 | Z | 0 | 30 |
| 77 | MP8 | X | 35.45 | 42 |
| 78 | MP8 | Z | 0 | 42 |
| 79 | MP8 | X | 35.45 | 60 |
| 80 | MP8 | Z | 0 | 60 |
| 81 | MP5 | X | 31.87 | 12 |
| 82 | MP5 | Z | 0 | 12 |
| 83 | MP5 | X | 31.87 | 29 |
| 84 | MP5 | Z | 0 | 29 |
| 85 | MP12 | X | 217.28 | 6 |
| 86 | MP12 | Z | 0 | 6 |
| 87 | MP12 | X | 217.28 | 72 |
| 88 | MP12 | Z | 0 | 72 |
| 89 | MP11 | X | 61.38 | 18 |
| 90 | MP11 | Z | 0 | 18 |
| 91 | MP11 | X | 61.38 | 46 |
| 92 | MP11 | Z | 0 | 46 |
| 93 | MP11 | X | 72.19 | 58 |
| 94 | MP11 | Z | 0 | 58 |

Member Point Loads (BLC 11 : Wind Load AZI 270) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in, %] |
|-----|--------------|-----------|---------------------|-----------------|
| 95 | MP11 | X | 72.19 | 89 |
| 96 | MP11 | Z | 0 | 89 |
| 97 | MP9 | X | 198.34 | 6 |
| 98 | MP9 | Z | 0 | 6 |
| 99 | MP9 | X | 198.34 | 66 |
| 100 | MP9 | Z | 0 | 66 |
| 101 | M64 | X | 47.73 | 18 |
| 102 | M64 | Z | 0 | 18 |
| 103 | M64 | X | 47.73 | 18 |
| 104 | M64 | Z | 0 | 18 |
| 105 | M64 | X | 47.73 | 18 |
| 106 | M64 | Z | 0 | 18 |
| 107 | M64 | X | 47.73 | 18 |
| 108 | M64 | Z | 0 | 18 |
| 109 | MP9 | X | 47.89 | 12 |
| 110 | MP9 | Z | 0 | 12 |
| 111 | MP9 | X | 47.89 | 30 |
| 112 | MP9 | Z | 0 | 30 |
| 113 | MP12 | X | 35.45 | 42 |
| 114 | MP12 | Z | 0 | 42 |
| 115 | MP12 | X | 35.45 | 60 |
| 116 | MP12 | Z | 0 | 60 |
| 117 | MP9 | X | 31.87 | 12 |
| 118 | MP9 | Z | 0 | 12 |
| 119 | MP9 | X | 31.87 | 29 |
| 120 | MP9 | Z | 0 | 29 |

Member Point Loads (BLC 12 : Wind Load AZI 300)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in, %] |
|----|--------------|-----------|---------------------|-----------------|
| 1 | MP4 | X | 138.37 | 6 |
| 2 | MP4 | Z | -79.89 | 6 |
| 3 | MP4 | X | 138.37 | 72 |
| 4 | MP4 | Z | -79.89 | 72 |
| 5 | MP3 | X | 36.23 | 18 |
| 6 | MP3 | Z | -20.92 | 18 |
| 7 | MP3 | X | 36.23 | 46 |
| 8 | MP3 | Z | -20.92 | 46 |
| 9 | MP3 | X | 51.45 | 58 |
| 10 | MP3 | Z | -29.7 | 58 |
| 11 | MP3 | X | 51.45 | 89 |
| 12 | MP3 | Z | -29.7 | 89 |
| 13 | MP1 | X | 104.4 | 6 |
| 14 | MP1 | Z | -60.28 | 6 |
| 15 | MP1 | X | 104.4 | 66 |
| 16 | MP1 | Z | -60.28 | 66 |
| 17 | M56 | X | 15.37 | 60 |
| 18 | M56 | Z | -8.87 | 60 |
| 19 | M56 | X | 15.37 | 60 |
| 20 | M56 | Z | -8.87 | 60 |
| 21 | M59 | X | 32.42 | 18 |
| 22 | M59 | Z | -18.72 | 18 |
| 23 | M59 | X | 32.42 | 18 |
| 24 | M59 | Z | -18.72 | 18 |
| 25 | M59 | X | 32.42 | 18 |
| 26 | M59 | Z | -18.72 | 18 |
| 27 | M59 | X | 32.42 | 18 |

Member Point Loads (BLC 12 : Wind Load AZI 300) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|----|--------------|-----------|-------------------|----------------|
| 28 | M59 | Z | -18.72 | 18 |
| 29 | MP1 | X | 32.47 | 12 |
| 30 | MP1 | Z | -18.75 | 12 |
| 31 | MP1 | X | 32.47 | 30 |
| 32 | MP1 | Z | -18.75 | 30 |
| 33 | MP4 | X | 26 | 42 |
| 34 | MP4 | Z | -15.01 | 42 |
| 35 | MP4 | X | 26 | 60 |
| 36 | MP4 | Z | -15.01 | 60 |
| 37 | MP1 | X | 21.03 | 12 |
| 38 | MP1 | Z | -12.14 | 12 |
| 39 | MP1 | X | 21.03 | 29 |
| 40 | MP1 | Z | -12.14 | 29 |
| 41 | M61 | X | 54.57 | 60 |
| 42 | M61 | Z | -31.51 | 60 |
| 43 | M61 | X | 54.57 | 60 |
| 44 | M61 | Z | -31.51 | 60 |
| 45 | MP8 | X | 138.37 | 6 |
| 46 | MP8 | Z | -79.89 | 6 |
| 47 | MP8 | X | 138.37 | 72 |
| 48 | MP8 | Z | -79.89 | 72 |
| 49 | MP7 | X | 36.23 | 18 |
| 50 | MP7 | Z | -20.92 | 18 |
| 51 | MP7 | X | 36.23 | 46 |
| 52 | MP7 | Z | -20.92 | 46 |
| 53 | MP7 | X | 51.45 | 58 |
| 54 | MP7 | Z | -29.7 | 58 |
| 55 | MP7 | X | 51.45 | 89 |
| 56 | MP7 | Z | -29.7 | 89 |
| 57 | MP5 | X | 104.4 | 6 |
| 58 | MP5 | Z | -60.28 | 6 |
| 59 | MP5 | X | 104.4 | 66 |
| 60 | MP5 | Z | -60.28 | 66 |
| 61 | M66 | X | 15.37 | 60 |
| 62 | M66 | Z | -8.87 | 60 |
| 63 | M66 | X | 15.37 | 60 |
| 64 | M66 | Z | -8.87 | 60 |
| 65 | M69 | X | 32.42 | 18 |
| 66 | M69 | Z | -18.72 | 18 |
| 67 | M69 | X | 32.42 | 18 |
| 68 | M69 | Z | -18.72 | 18 |
| 69 | M69 | X | 32.42 | 18 |
| 70 | M69 | Z | -18.72 | 18 |
| 71 | M69 | X | 32.42 | 18 |
| 72 | M69 | Z | -18.72 | 18 |
| 73 | MP5 | X | 32.47 | 12 |
| 74 | MP5 | Z | -18.75 | 12 |
| 75 | MP5 | X | 32.47 | 30 |
| 76 | MP5 | Z | -18.75 | 30 |
| 77 | MP8 | X | 26 | 42 |
| 78 | MP8 | Z | -15.01 | 42 |
| 79 | MP8 | X | 26 | 60 |
| 80 | MP8 | Z | -15.01 | 60 |
| 81 | MP5 | X | 21.03 | 12 |
| 82 | MP5 | Z | -12.14 | 12 |
| 83 | MP5 | X | 21.03 | 29 |
| 84 | MP5 | Z | -12.14 | 29 |

Member Point Loads (BLC 12 : Wind Load AZI 300) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 85 | MP12 | X | 213.06 | 6 |
| 86 | MP12 | Z | -123.01 | 6 |
| 87 | MP12 | X | 213.06 | 72 |
| 88 | MP12 | Z | -123.01 | 72 |
| 89 | MP11 | X | 61.63 | 18 |
| 90 | MP11 | Z | -35.58 | 18 |
| 91 | MP11 | X | 61.63 | 46 |
| 92 | MP11 | Z | -35.58 | 46 |
| 93 | MP11 | X | 68.05 | 58 |
| 94 | MP11 | Z | -39.29 | 58 |
| 95 | MP11 | X | 68.05 | 89 |
| 96 | MP11 | Z | -39.29 | 89 |
| 97 | MP9 | X | 205.45 | 6 |
| 98 | MP9 | Z | -118.62 | 6 |
| 99 | MP9 | X | 205.45 | 66 |
| 100 | MP9 | Z | -118.62 | 66 |
| 101 | M64 | X | 45.79 | 18 |
| 102 | M64 | Z | -26.44 | 18 |
| 103 | M64 | X | 45.79 | 18 |
| 104 | M64 | Z | -26.44 | 18 |
| 105 | M64 | X | 45.79 | 18 |
| 106 | M64 | Z | -26.44 | 18 |
| 107 | M64 | X | 45.79 | 18 |
| 108 | M64 | Z | -26.44 | 18 |
| 109 | MP9 | X | 45.98 | 12 |
| 110 | MP9 | Z | -26.55 | 12 |
| 111 | MP9 | X | 45.98 | 30 |
| 112 | MP9 | Z | -26.55 | 30 |
| 113 | MP12 | X | 33.05 | 42 |
| 114 | MP12 | Z | -19.08 | 42 |
| 115 | MP12 | X | 33.05 | 60 |
| 116 | MP12 | Z | -19.08 | 60 |
| 117 | MP9 | X | 30.89 | 12 |
| 118 | MP9 | Z | -17.83 | 12 |
| 119 | MP9 | X | 30.89 | 29 |
| 120 | MP9 | Z | -17.83 | 29 |

Member Point Loads (BLC 13 : Wind Load AZI 330)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 108.64 | 6 |
| 2 | MP4 | Z | -188.17 | 6 |
| 3 | MP4 | X | 108.64 | 72 |
| 4 | MP4 | Z | -188.17 | 72 |
| 5 | MP3 | X | 30.69 | 18 |
| 6 | MP3 | Z | -53.16 | 18 |
| 7 | MP3 | X | 30.69 | 46 |
| 8 | MP3 | Z | -53.16 | 46 |
| 9 | MP3 | X | 36.09 | 58 |
| 10 | MP3 | Z | -62.51 | 58 |
| 11 | MP3 | X | 36.09 | 89 |
| 12 | MP3 | Z | -62.51 | 89 |
| 13 | MP1 | X | 99.17 | 6 |
| 14 | MP1 | Z | -171.77 | 6 |
| 15 | MP1 | X | 99.17 | 66 |
| 16 | MP1 | Z | -171.77 | 66 |
| 17 | M56 | X | 8.87 | 60 |

Member Point Loads (BLC 13 : Wind Load AZI 330) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 18 | M56 | Z | -15.37 | 60 |
| 19 | M56 | X | 8.87 | 60 |
| 20 | M56 | Z | -15.37 | 60 |
| 21 | M59 | X | 23.86 | 18 |
| 22 | M59 | Z | -41.33 | 18 |
| 23 | M59 | X | 23.86 | 18 |
| 24 | M59 | Z | -41.33 | 18 |
| 25 | M59 | X | 23.86 | 18 |
| 26 | M59 | Z | -41.33 | 18 |
| 27 | M59 | X | 23.86 | 18 |
| 28 | M59 | Z | -41.33 | 18 |
| 29 | MP1 | X | 23.95 | 12 |
| 30 | MP1 | Z | -41.48 | 12 |
| 31 | MP1 | X | 23.95 | 30 |
| 32 | MP1 | Z | -41.48 | 30 |
| 33 | MP4 | X | 17.73 | 42 |
| 34 | MP4 | Z | -30.7 | 42 |
| 35 | MP4 | X | 17.73 | 60 |
| 36 | MP4 | Z | -30.7 | 60 |
| 37 | MP1 | X | 15.94 | 12 |
| 38 | MP1 | Z | -27.6 | 12 |
| 39 | MP1 | X | 15.94 | 29 |
| 40 | MP1 | Z | -27.6 | 29 |
| 41 | M61 | X | 41.44 | 60 |
| 42 | M61 | Z | -71.78 | 60 |
| 43 | M61 | X | 41.44 | 60 |
| 44 | M61 | Z | -71.78 | 60 |
| 45 | MP8 | X | 65.52 | 6 |
| 46 | MP8 | Z | -113.48 | 6 |
| 47 | MP8 | X | 65.52 | 72 |
| 48 | MP8 | Z | -113.48 | 72 |
| 49 | MP7 | X | 16.03 | 18 |
| 50 | MP7 | Z | -27.77 | 18 |
| 51 | MP7 | X | 16.03 | 46 |
| 52 | MP7 | Z | -27.77 | 46 |
| 53 | MP7 | X | 26.51 | 58 |
| 54 | MP7 | Z | -45.91 | 58 |
| 55 | MP7 | X | 26.51 | 89 |
| 56 | MP7 | Z | -45.91 | 89 |
| 57 | MP5 | X | 40.83 | 6 |
| 58 | MP5 | Z | -70.72 | 6 |
| 59 | MP5 | X | 40.83 | 66 |
| 60 | MP5 | Z | -70.72 | 66 |
| 61 | M66 | X | 8.87 | 60 |
| 62 | M66 | Z | -15.37 | 60 |
| 63 | M66 | X | 8.87 | 60 |
| 64 | M66 | Z | -15.37 | 60 |
| 65 | M69 | X | 16.15 | 18 |
| 66 | M69 | Z | -27.96 | 18 |
| 67 | M69 | X | 16.15 | 18 |
| 68 | M69 | Z | -27.96 | 18 |
| 69 | M69 | X | 16.15 | 18 |
| 70 | M69 | Z | -27.96 | 18 |
| 71 | M69 | X | 16.15 | 18 |
| 72 | M69 | Z | -27.96 | 18 |
| 73 | MP5 | X | 16.15 | 12 |
| 74 | MP5 | Z | -27.96 | 12 |

Member Point Loads (BLC 13 : Wind Load AZI 330) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 75 | MP5 | X | 16.15 | 30 |
| 76 | MP5 | Z | -27.96 | 30 |
| 77 | MP8 | X | 13.66 | 42 |
| 78 | MP8 | Z | -23.65 | 42 |
| 79 | MP8 | X | 13.66 | 60 |
| 80 | MP8 | Z | -23.65 | 60 |
| 81 | MP5 | X | 10.25 | 12 |
| 82 | MP5 | Z | -17.75 | 12 |
| 83 | MP5 | X | 10.25 | 29 |
| 84 | MP5 | Z | -17.75 | 29 |
| 85 | MP12 | X | 108.64 | 6 |
| 86 | MP12 | Z | -188.17 | 6 |
| 87 | MP12 | X | 108.64 | 72 |
| 88 | MP12 | Z | -188.17 | 72 |
| 89 | MP11 | X | 30.69 | 18 |
| 90 | MP11 | Z | -53.16 | 18 |
| 91 | MP11 | X | 30.69 | 46 |
| 92 | MP11 | Z | -53.16 | 46 |
| 93 | MP11 | X | 36.09 | 58 |
| 94 | MP11 | Z | -62.51 | 58 |
| 95 | MP11 | X | 36.09 | 89 |
| 96 | MP11 | Z | -62.51 | 89 |
| 97 | MP9 | X | 99.17 | 6 |
| 98 | MP9 | Z | -171.77 | 6 |
| 99 | MP9 | X | 99.17 | 66 |
| 100 | MP9 | Z | -171.77 | 66 |
| 101 | M64 | X | 23.86 | 18 |
| 102 | M64 | Z | -41.33 | 18 |
| 103 | M64 | X | 23.86 | 18 |
| 104 | M64 | Z | -41.33 | 18 |
| 105 | M64 | X | 23.86 | 18 |
| 106 | M64 | Z | -41.33 | 18 |
| 107 | M64 | X | 23.86 | 18 |
| 108 | M64 | Z | -41.33 | 18 |
| 109 | MP9 | X | 23.95 | 12 |
| 110 | MP9 | Z | -41.48 | 12 |
| 111 | MP9 | X | 23.95 | 30 |
| 112 | MP9 | Z | -41.48 | 30 |
| 113 | MP12 | X | 17.73 | 42 |
| 114 | MP12 | Z | -30.7 | 42 |
| 115 | MP12 | X | 17.73 | 60 |
| 116 | MP12 | Z | -30.7 | 60 |
| 117 | MP9 | X | 15.94 | 12 |
| 118 | MP9 | Z | -27.6 | 12 |
| 119 | MP9 | X | 15.94 | 29 |
| 120 | MP9 | Z | -27.6 | 29 |

Member Point Loads (BLC 16 : Ice Weight)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|---|--------------|-----------|---------------------|----------------|
| 1 | MP4 | Y | -147.896 | 6 |
| 2 | MP4 | Y | -147.896 | 72 |
| 3 | MP3 | Y | -49.721 | 18 |
| 4 | MP3 | Y | -49.721 | 46 |
| 5 | MP3 | Y | -64.263 | 58 |
| 6 | MP3 | Y | -64.263 | 89 |
| 7 | MP1 | Y | -142.787 | 6 |

Member Point Loads (BLC 16 : Ice Weight) (Continued)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 8 | MP1 | Y | -142.787 | 66 |
| 9 | M56 | Y | -44.338 | 60 |
| 10 | M56 | Y | -44.338 | 60 |
| 11 | M59 | Y | -41.854 | 18 |
| 12 | M59 | Y | -41.854 | 18 |
| 13 | M59 | Y | -41.854 | 18 |
| 14 | M59 | Y | -41.854 | 18 |
| 15 | MP1 | Y | -41.956 | 12 |
| 16 | MP1 | Y | -41.956 | 30 |
| 17 | MP4 | Y | -36.885 | 42 |
| 18 | MP4 | Y | -36.885 | 60 |
| 19 | MP1 | Y | -32.046 | 12 |
| 20 | MP1 | Y | -32.046 | 29 |
| 21 | M61 | Y | -70.582 | 60 |
| 22 | M61 | Y | -70.582 | 60 |
| 23 | MP8 | Y | -147.896 | 6 |
| 24 | MP8 | Y | -147.896 | 72 |
| 25 | MP7 | Y | -49.721 | 18 |
| 26 | MP7 | Y | -49.721 | 46 |
| 27 | MP7 | Y | -64.263 | 58 |
| 28 | MP7 | Y | -64.263 | 89 |
| 29 | MP5 | Y | -142.787 | 6 |
| 30 | MP5 | Y | -142.787 | 66 |
| 31 | M66 | Y | -44.338 | 60 |
| 32 | M66 | Y | -44.338 | 60 |
| 33 | M69 | Y | -41.854 | 18 |
| 34 | M69 | Y | -41.854 | 18 |
| 35 | M69 | Y | -41.854 | 18 |
| 36 | M69 | Y | -41.854 | 18 |
| 37 | MP5 | Y | -41.956 | 12 |
| 38 | MP5 | Y | -41.956 | 30 |
| 39 | MP8 | Y | -36.885 | 42 |
| 40 | MP8 | Y | -36.885 | 60 |
| 41 | MP5 | Y | -32.046 | 12 |
| 42 | MP5 | Y | -32.046 | 29 |
| 43 | MP12 | Y | -147.896 | 6 |
| 44 | MP12 | Y | -147.896 | 72 |
| 45 | MP11 | Y | -49.721 | 18 |
| 46 | MP11 | Y | -49.721 | 46 |
| 47 | MP11 | Y | -64.263 | 58 |
| 48 | MP11 | Y | -64.263 | 89 |
| 49 | MP9 | Y | -142.787 | 6 |
| 50 | MP9 | Y | -142.787 | 66 |
| 51 | M64 | Y | -41.854 | 18 |
| 52 | M64 | Y | -41.854 | 18 |
| 53 | M64 | Y | -41.854 | 18 |
| 54 | M64 | Y | -41.854 | 18 |
| 55 | MP9 | Y | -41.956 | 12 |
| 56 | MP9 | Y | -41.956 | 30 |
| 57 | MP12 | Y | -36.885 | 42 |
| 58 | MP12 | Y | -36.885 | 60 |
| 59 | MP9 | Y | -32.046 | 12 |
| 60 | MP9 | Y | -32.046 | 29 |

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

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

Member Point Loads (BLC 17 : Ice Wind Load AZI 0) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 0 | 6 |
| 2 | MP4 | Z | -22.22 | 6 |
| 3 | MP4 | X | 0 | 72 |
| 4 | MP4 | Z | -22.22 | 72 |
| 5 | MP3 | X | 0 | 18 |
| 6 | MP3 | Z | -7.24 | 18 |
| 7 | MP3 | X | 0 | 46 |
| 8 | MP3 | Z | -7.24 | 46 |
| 9 | MP3 | X | 0 | 58 |
| 10 | MP3 | Z | -7.91 | 58 |
| 11 | MP3 | X | 0 | 89 |
| 12 | MP3 | Z | -7.91 | 89 |
| 13 | MP1 | X | 0 | 6 |
| 14 | MP1 | Z | -24.23 | 6 |
| 15 | MP1 | X | 0 | 66 |
| 16 | MP1 | Z | -24.23 | 66 |
| 17 | M56 | X | 0 | 60 |
| 18 | M56 | Z | -5.09 | 60 |
| 19 | M56 | X | 0 | 60 |
| 20 | M56 | Z | -5.09 | 60 |
| 21 | M59 | X | 0 | 18 |
| 22 | M59 | Z | -5.9 | 18 |
| 23 | M59 | X | 0 | 18 |
| 24 | M59 | Z | -5.9 | 18 |
| 25 | M59 | X | 0 | 18 |
| 26 | M59 | Z | -5.9 | 18 |
| 27 | M59 | X | 0 | 18 |
| 28 | M59 | Z | -5.9 | 18 |
| 29 | MP1 | X | 0 | 12 |
| 30 | MP1 | Z | -5.91 | 12 |
| 31 | MP1 | X | 0 | 30 |
| 32 | MP1 | Z | -5.91 | 30 |
| 33 | MP4 | X | 0 | 42 |
| 34 | MP4 | Z | -4.26 | 42 |
| 35 | MP4 | X | 0 | 60 |
| 36 | MP4 | Z | -4.26 | 60 |
| 37 | MP1 | X | 0 | 12 |
| 38 | MP1 | Z | -4.02 | 12 |
| 39 | MP1 | X | 0 | 29 |
| 40 | MP1 | Z | -4.02 | 29 |
| 41 | M61 | X | 0 | 60 |
| 42 | M61 | Z | -9.1 | 60 |
| 43 | M61 | X | 0 | 60 |
| 44 | M61 | Z | -9.1 | 60 |
| 45 | MP8 | X | 0 | 6 |
| 46 | MP8 | Z | -16.73 | 6 |
| 47 | MP8 | X | 0 | 72 |
| 48 | MP8 | Z | -16.73 | 72 |
| 49 | MP7 | X | 0 | 18 |
| 50 | MP7 | Z | -5.53 | 18 |
| 51 | MP7 | X | 0 | 46 |
| 52 | MP7 | Z | -5.53 | 46 |
| 53 | MP7 | X | 0 | 58 |
| 54 | MP7 | Z | -6.65 | 58 |
| 55 | MP7 | X | 0 | 89 |
| 56 | MP7 | Z | -6.65 | 89 |
| 57 | MP5 | X | 0 | 6 |

Member Point Loads (BLC 17 : Ice Wind Load AZI 0) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 58 | MP5 | Z | -17.45 | 6 |
| 59 | MP5 | X | 0 | 66 |
| 60 | MP5 | Z | -17.45 | 66 |
| 61 | M66 | X | 0 | 60 |
| 62 | M66 | Z | -5.09 | 60 |
| 63 | M66 | X | 0 | 60 |
| 64 | M66 | Z | -5.09 | 60 |
| 65 | M69 | X | 0 | 18 |
| 66 | M69 | Z | -5.14 | 18 |
| 67 | M69 | X | 0 | 18 |
| 68 | M69 | Z | -5.14 | 18 |
| 69 | M69 | X | 0 | 18 |
| 70 | M69 | Z | -5.14 | 18 |
| 71 | M69 | X | 0 | 18 |
| 72 | M69 | Z | -5.14 | 18 |
| 73 | MP5 | X | 0 | 12 |
| 74 | MP5 | Z | -5.14 | 12 |
| 75 | MP5 | X | 0 | 30 |
| 76 | MP5 | Z | -5.14 | 30 |
| 77 | MP8 | X | 0 | 42 |
| 78 | MP8 | Z | -3.87 | 42 |
| 79 | MP8 | X | 0 | 60 |
| 80 | MP8 | Z | -3.87 | 60 |
| 81 | MP5 | X | 0 | 12 |
| 82 | MP5 | Z | -3.43 | 12 |
| 83 | MP5 | X | 0 | 29 |
| 84 | MP5 | Z | -3.43 | 29 |
| 85 | MP12 | X | 0 | 6 |
| 86 | MP12 | Z | -16.73 | 6 |
| 87 | MP12 | X | 0 | 72 |
| 88 | MP12 | Z | -16.73 | 72 |
| 89 | MP11 | X | 0 | 18 |
| 90 | MP11 | Z | -5.53 | 18 |
| 91 | MP11 | X | 0 | 46 |
| 92 | MP11 | Z | -5.53 | 46 |
| 93 | MP11 | X | 0 | 58 |
| 94 | MP11 | Z | -6.65 | 58 |
| 95 | MP11 | X | 0 | 89 |
| 96 | MP11 | Z | -6.65 | 89 |
| 97 | MP9 | X | 0 | 6 |
| 98 | MP9 | Z | -17.45 | 6 |
| 99 | MP9 | X | 0 | 66 |
| 100 | MP9 | Z | -17.45 | 66 |
| 101 | M64 | X | 0 | 18 |
| 102 | M64 | Z | -5.14 | 18 |
| 103 | M64 | X | 0 | 18 |
| 104 | M64 | Z | -5.14 | 18 |
| 105 | M64 | X | 0 | 18 |
| 106 | M64 | Z | -5.14 | 18 |
| 107 | M64 | X | 0 | 18 |
| 108 | M64 | Z | -5.14 | 18 |
| 109 | MP9 | X | 0 | 12 |
| 110 | MP9 | Z | -5.14 | 12 |
| 111 | MP9 | X | 0 | 30 |
| 112 | MP9 | Z | -5.14 | 30 |
| 113 | MP12 | X | 0 | 42 |
| 114 | MP12 | Z | -3.87 | 42 |

Member Point Loads (BLC 17 : Ice Wind Load AZI 0) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 115 | MP12 | X | 0 | 60 |
| 116 | MP12 | Z | -3.87 | 60 |
| 117 | MP9 | X | 0 | 12 |
| 118 | MP9 | Z | -3.43 | 12 |
| 119 | MP9 | X | 0 | 29 |
| 120 | MP9 | Z | -3.43 | 29 |

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -10.2 | 6 |
| 2 | MP4 | Z | -17.66 | 6 |
| 3 | MP4 | X | -10.2 | 72 |
| 4 | MP4 | Z | -17.66 | 72 |
| 5 | MP3 | X | -3.33 | 18 |
| 6 | MP3 | Z | -5.77 | 18 |
| 7 | MP3 | X | -3.33 | 46 |
| 8 | MP3 | Z | -5.77 | 46 |
| 9 | MP3 | X | -3.74 | 58 |
| 10 | MP3 | Z | -6.48 | 58 |
| 11 | MP3 | X | -3.74 | 89 |
| 12 | MP3 | Z | -6.48 | 89 |
| 13 | MP1 | X | -10.98 | 6 |
| 14 | MP1 | Z | -19.02 | 6 |
| 15 | MP1 | X | -10.98 | 66 |
| 16 | MP1 | Z | -19.02 | 66 |
| 17 | M56 | X | -2.55 | 60 |
| 18 | M56 | Z | -4.41 | 60 |
| 19 | M56 | X | -2.55 | 60 |
| 20 | M56 | Z | -4.41 | 60 |
| 21 | M59 | X | -2.82 | 18 |
| 22 | M59 | Z | -4.89 | 18 |
| 23 | M59 | X | -2.82 | 18 |
| 24 | M59 | Z | -4.89 | 18 |
| 25 | M59 | X | -2.82 | 18 |
| 26 | M59 | Z | -4.89 | 18 |
| 27 | M59 | X | -2.82 | 18 |
| 28 | M59 | Z | -4.89 | 18 |
| 29 | MP1 | X | -2.83 | 12 |
| 30 | MP1 | Z | -4.89 | 12 |
| 31 | MP1 | X | -2.83 | 30 |
| 32 | MP1 | Z | -4.89 | 30 |
| 33 | MP4 | X | -2.07 | 42 |
| 34 | MP4 | Z | -3.58 | 42 |
| 35 | MP4 | X | -2.07 | 60 |
| 36 | MP4 | Z | -3.58 | 60 |
| 37 | MP1 | X | -1.91 | 12 |
| 38 | MP1 | Z | -3.31 | 12 |
| 39 | MP1 | X | -1.91 | 29 |
| 40 | MP1 | Z | -3.31 | 29 |
| 41 | M61 | X | -4.2 | 60 |
| 42 | M61 | Z | -7.28 | 60 |
| 43 | M61 | X | -4.2 | 60 |
| 44 | M61 | Z | -7.28 | 60 |
| 45 | MP8 | X | -10.2 | 6 |
| 46 | MP8 | Z | -17.66 | 6 |
| 47 | MP8 | X | -10.2 | 72 |

Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 48 | MP8 | Z | -17.66 | 72 |
| 49 | MP7 | X | -3.33 | 18 |
| 50 | MP7 | Z | -5.77 | 18 |
| 51 | MP7 | X | -3.33 | 46 |
| 52 | MP7 | Z | -5.77 | 46 |
| 53 | MP7 | X | -3.74 | 58 |
| 54 | MP7 | Z | -6.48 | 58 |
| 55 | MP7 | X | -3.74 | 89 |
| 56 | MP7 | Z | -6.48 | 89 |
| 57 | MP5 | X | -10.98 | 6 |
| 58 | MP5 | Z | -19.02 | 6 |
| 59 | MP5 | X | -10.98 | 66 |
| 60 | MP5 | Z | -19.02 | 66 |
| 61 | M66 | X | -2.55 | 60 |
| 62 | M66 | Z | -4.41 | 60 |
| 63 | M66 | X | -2.55 | 60 |
| 64 | M66 | Z | -4.41 | 60 |
| 65 | M69 | X | -2.82 | 18 |
| 66 | M69 | Z | -4.89 | 18 |
| 67 | M69 | X | -2.82 | 18 |
| 68 | M69 | Z | -4.89 | 18 |
| 69 | M69 | X | -2.82 | 18 |
| 70 | M69 | Z | -4.89 | 18 |
| 71 | M69 | X | -2.82 | 18 |
| 72 | M69 | Z | -4.89 | 18 |
| 73 | MP5 | X | -2.83 | 12 |
| 74 | MP5 | Z | -4.89 | 12 |
| 75 | MP5 | X | -2.83 | 30 |
| 76 | MP5 | Z | -4.89 | 30 |
| 77 | MP8 | X | -2.07 | 42 |
| 78 | MP8 | Z | -3.58 | 42 |
| 79 | MP8 | X | -2.07 | 60 |
| 80 | MP8 | Z | -3.58 | 60 |
| 81 | MP5 | X | -1.91 | 12 |
| 82 | MP5 | Z | -3.31 | 12 |
| 83 | MP5 | X | -1.91 | 29 |
| 84 | MP5 | Z | -3.31 | 29 |
| 85 | MP12 | X | -7.45 | 6 |
| 86 | MP12 | Z | -12.91 | 6 |
| 87 | MP12 | X | -7.45 | 72 |
| 88 | MP12 | Z | -12.91 | 72 |
| 89 | MP11 | X | -2.48 | 18 |
| 90 | MP11 | Z | -4.3 | 18 |
| 91 | MP11 | X | -2.48 | 46 |
| 92 | MP11 | Z | -4.3 | 46 |
| 93 | MP11 | X | -3.12 | 58 |
| 94 | MP11 | Z | -5.4 | 58 |
| 95 | MP11 | X | -3.12 | 89 |
| 96 | MP11 | Z | -5.4 | 89 |
| 97 | MP9 | X | -7.59 | 6 |
| 98 | MP9 | Z | -13.15 | 6 |
| 99 | MP9 | X | -7.59 | 66 |
| 100 | MP9 | Z | -13.15 | 66 |
| 101 | M64 | X | -2.44 | 18 |
| 102 | M64 | Z | -4.23 | 18 |
| 103 | M64 | X | -2.44 | 18 |
| 104 | M64 | Z | -4.23 | 18 |

Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 105 | M64 | X | -2.44 | 18 |
| 106 | M64 | Z | -4.23 | 18 |
| 107 | M64 | X | -2.44 | 18 |
| 108 | M64 | Z | -4.23 | 18 |
| 109 | MP9 | X | -2.44 | 12 |
| 110 | MP9 | Z | -4.23 | 12 |
| 111 | MP9 | X | -2.44 | 30 |
| 112 | MP9 | Z | -4.23 | 30 |
| 113 | MP12 | X | -1.87 | 42 |
| 114 | MP12 | Z | -3.24 | 42 |
| 115 | MP12 | X | -1.87 | 60 |
| 116 | MP12 | Z | -3.24 | 60 |
| 117 | MP9 | X | -1.62 | 12 |
| 118 | MP9 | Z | -2.8 | 12 |
| 119 | MP9 | X | -1.62 | 29 |
| 120 | MP9 | Z | -2.8 | 29 |

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -14.49 | 6 |
| 2 | MP4 | Z | -8.37 | 6 |
| 3 | MP4 | X | -14.49 | 72 |
| 4 | MP4 | Z | -8.37 | 72 |
| 5 | MP3 | X | -4.79 | 18 |
| 6 | MP3 | Z | -2.76 | 18 |
| 7 | MP3 | X | -4.79 | 46 |
| 8 | MP3 | Z | -2.76 | 46 |
| 9 | MP3 | X | -5.76 | 58 |
| 10 | MP3 | Z | -3.33 | 58 |
| 11 | MP3 | X | -5.76 | 89 |
| 12 | MP3 | Z | -3.33 | 89 |
| 13 | MP1 | X | -15.11 | 6 |
| 14 | MP1 | Z | -8.72 | 6 |
| 15 | MP1 | X | -15.11 | 66 |
| 16 | MP1 | Z | -8.72 | 66 |
| 17 | M56 | X | -4.41 | 60 |
| 18 | M56 | Z | -2.55 | 60 |
| 19 | M56 | X | -4.41 | 60 |
| 20 | M56 | Z | -2.55 | 60 |
| 21 | M59 | X | -4.45 | 18 |
| 22 | M59 | Z | -2.57 | 18 |
| 23 | M59 | X | -4.45 | 18 |
| 24 | M59 | Z | -2.57 | 18 |
| 25 | M59 | X | -4.45 | 18 |
| 26 | M59 | Z | -2.57 | 18 |
| 27 | M59 | X | -4.45 | 18 |
| 28 | M59 | Z | -2.57 | 18 |
| 29 | MP1 | X | -4.45 | 12 |
| 30 | MP1 | Z | -2.57 | 12 |
| 31 | MP1 | X | -4.45 | 30 |
| 32 | MP1 | Z | -2.57 | 30 |
| 33 | MP4 | X | -3.35 | 42 |
| 34 | MP4 | Z | -1.93 | 42 |
| 35 | MP4 | X | -3.35 | 60 |
| 36 | MP4 | Z | -1.93 | 60 |
| 37 | MP1 | X | -2.97 | 12 |

Member Point Loads (BLC 19 : Ice Wind Load AZI 60) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|----|--------------|-----------|-------------------|----------------|
| 38 | MP1 | Z | -1.71 | 12 |
| 39 | MP1 | X | -2.97 | 29 |
| 40 | MP1 | Z | -1.71 | 29 |
| 41 | M61 | X | -6.07 | 60 |
| 42 | M61 | Z | -3.51 | 60 |
| 43 | M61 | X | -6.07 | 60 |
| 44 | M61 | Z | -3.51 | 60 |
| 45 | MP8 | X | -19.25 | 6 |
| 46 | MP8 | Z | -11.11 | 6 |
| 47 | MP8 | X | -19.25 | 72 |
| 48 | MP8 | Z | -11.11 | 72 |
| 49 | MP7 | X | -6.27 | 18 |
| 50 | MP7 | Z | -3.62 | 18 |
| 51 | MP7 | X | -6.27 | 46 |
| 52 | MP7 | Z | -3.62 | 46 |
| 53 | MP7 | X | -6.85 | 58 |
| 54 | MP7 | Z | -3.95 | 58 |
| 55 | MP7 | X | -6.85 | 89 |
| 56 | MP7 | Z | -3.95 | 89 |
| 57 | MP5 | X | -20.98 | 6 |
| 58 | MP5 | Z | -12.11 | 6 |
| 59 | MP5 | X | -20.98 | 66 |
| 60 | MP5 | Z | -12.11 | 66 |
| 61 | M66 | X | -4.41 | 60 |
| 62 | M66 | Z | -2.55 | 60 |
| 63 | M66 | X | -4.41 | 60 |
| 64 | M66 | Z | -2.55 | 60 |
| 65 | M69 | X | -5.11 | 18 |
| 66 | M69 | Z | -2.95 | 18 |
| 67 | M69 | X | -5.11 | 18 |
| 68 | M69 | Z | -2.95 | 18 |
| 69 | M69 | X | -5.11 | 18 |
| 70 | M69 | Z | -2.95 | 18 |
| 71 | M69 | X | -5.11 | 18 |
| 72 | M69 | Z | -2.95 | 18 |
| 73 | MP5 | X | -5.12 | 12 |
| 74 | MP5 | Z | -2.95 | 12 |
| 75 | MP5 | X | -5.12 | 30 |
| 76 | MP5 | Z | -2.95 | 30 |
| 77 | MP8 | X | -3.69 | 42 |
| 78 | MP8 | Z | -2.13 | 42 |
| 79 | MP8 | X | -3.69 | 60 |
| 80 | MP8 | Z | -2.13 | 60 |
| 81 | MP5 | X | -3.48 | 12 |
| 82 | MP5 | Z | -2.01 | 12 |
| 83 | MP5 | X | -3.48 | 29 |
| 84 | MP5 | Z | -2.01 | 29 |
| 85 | MP12 | X | -14.49 | 6 |
| 86 | MP12 | Z | -8.37 | 6 |
| 87 | MP12 | X | -14.49 | 72 |
| 88 | MP12 | Z | -8.37 | 72 |
| 89 | MP11 | X | -4.79 | 18 |
| 90 | MP11 | Z | -2.76 | 18 |
| 91 | MP11 | X | -4.79 | 46 |
| 92 | MP11 | Z | -2.76 | 46 |
| 93 | MP11 | X | -5.76 | 58 |
| 94 | MP11 | Z | -3.33 | 58 |

Member Point Loads (BLC 19 : Ice Wind Load AZI 60) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 95 | MP11 | X | -5.76 | 89 |
| 96 | MP11 | Z | -3.33 | 89 |
| 97 | MP9 | X | -15.11 | 6 |
| 98 | MP9 | Z | -8.72 | 6 |
| 99 | MP9 | X | -15.11 | 66 |
| 100 | MP9 | Z | -8.72 | 66 |
| 101 | M64 | X | -4.45 | 18 |
| 102 | M64 | Z | -2.57 | 18 |
| 103 | M64 | X | -4.45 | 18 |
| 104 | M64 | Z | -2.57 | 18 |
| 105 | M64 | X | -4.45 | 18 |
| 106 | M64 | Z | -2.57 | 18 |
| 107 | M64 | X | -4.45 | 18 |
| 108 | M64 | Z | -2.57 | 18 |
| 109 | MP9 | X | -4.45 | 12 |
| 110 | MP9 | Z | -2.57 | 12 |
| 111 | MP9 | X | -4.45 | 30 |
| 112 | MP9 | Z | -2.57 | 30 |
| 113 | MP12 | X | -3.35 | 42 |
| 114 | MP12 | Z | -1.93 | 42 |
| 115 | MP12 | X | -3.35 | 60 |
| 116 | MP12 | Z | -1.93 | 60 |
| 117 | MP9 | X | -2.97 | 12 |
| 118 | MP9 | Z | -1.71 | 12 |
| 119 | MP9 | X | -2.97 | 29 |
| 120 | MP9 | Z | -1.71 | 29 |

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -14.9 | 6 |
| 2 | MP4 | Z | 0 | 6 |
| 3 | MP4 | X | -14.9 | 72 |
| 4 | MP4 | Z | 0 | 72 |
| 5 | MP3 | X | -4.96 | 18 |
| 6 | MP3 | Z | 0 | 18 |
| 7 | MP3 | X | -4.96 | 46 |
| 8 | MP3 | Z | 0 | 46 |
| 9 | MP3 | X | -6.23 | 58 |
| 10 | MP3 | Z | 0 | 58 |
| 11 | MP3 | X | -6.23 | 89 |
| 12 | MP3 | Z | 0 | 89 |
| 13 | MP1 | X | -15.19 | 6 |
| 14 | MP1 | Z | 0 | 6 |
| 15 | MP1 | X | -15.19 | 66 |
| 16 | MP1 | Z | 0 | 66 |
| 17 | M56 | X | -5.09 | 60 |
| 18 | M56 | Z | 0 | 60 |
| 19 | M56 | X | -5.09 | 60 |
| 20 | M56 | Z | 0 | 60 |
| 21 | M59 | X | -4.88 | 18 |
| 22 | M59 | Z | 0 | 18 |
| 23 | M59 | X | -4.88 | 18 |
| 24 | M59 | Z | 0 | 18 |
| 25 | M59 | X | -4.88 | 18 |
| 26 | M59 | Z | 0 | 18 |
| 27 | M59 | X | -4.88 | 18 |

Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|----|--------------|-----------|-------------------|----------------|
| 28 | M59 | Z | 0 | 18 |
| 29 | MP1 | X | -4.88 | 12 |
| 30 | MP1 | Z | 0 | 12 |
| 31 | MP1 | X | -4.88 | 30 |
| 32 | MP1 | Z | 0 | 30 |
| 33 | MP4 | X | -3.74 | 42 |
| 34 | MP4 | Z | 0 | 42 |
| 35 | MP4 | X | -3.74 | 60 |
| 36 | MP4 | Z | 0 | 60 |
| 37 | MP1 | X | -3.23 | 12 |
| 38 | MP1 | Z | 0 | 12 |
| 39 | MP1 | X | -3.23 | 29 |
| 40 | MP1 | Z | 0 | 29 |
| 41 | M61 | X | -6.32 | 60 |
| 42 | M61 | Z | 0 | 60 |
| 43 | M61 | X | -6.32 | 60 |
| 44 | M61 | Z | 0 | 60 |
| 45 | MP8 | X | -20.39 | 6 |
| 46 | MP8 | Z | 0 | 6 |
| 47 | MP8 | X | -20.39 | 72 |
| 48 | MP8 | Z | 0 | 72 |
| 49 | MP7 | X | -6.67 | 18 |
| 50 | MP7 | Z | 0 | 18 |
| 51 | MP7 | X | -6.67 | 46 |
| 52 | MP7 | Z | 0 | 46 |
| 53 | MP7 | X | -7.49 | 58 |
| 54 | MP7 | Z | 0 | 58 |
| 55 | MP7 | X | -7.49 | 89 |
| 56 | MP7 | Z | 0 | 89 |
| 57 | MP5 | X | -21.97 | 6 |
| 58 | MP5 | Z | 0 | 6 |
| 59 | MP5 | X | -21.97 | 66 |
| 60 | MP5 | Z | 0 | 66 |
| 61 | M66 | X | -5.09 | 60 |
| 62 | M66 | Z | 0 | 60 |
| 63 | M66 | X | -5.09 | 60 |
| 64 | M66 | Z | 0 | 60 |
| 65 | M69 | X | -5.64 | 18 |
| 66 | M69 | Z | 0 | 18 |
| 67 | M69 | X | -5.64 | 18 |
| 68 | M69 | Z | 0 | 18 |
| 69 | M69 | X | -5.64 | 18 |
| 70 | M69 | Z | 0 | 18 |
| 71 | M69 | X | -5.64 | 18 |
| 72 | M69 | Z | 0 | 18 |
| 73 | MP5 | X | -5.65 | 12 |
| 74 | MP5 | Z | 0 | 12 |
| 75 | MP5 | X | -5.65 | 30 |
| 76 | MP5 | Z | 0 | 30 |
| 77 | MP8 | X | -4.13 | 42 |
| 78 | MP8 | Z | 0 | 42 |
| 79 | MP8 | X | -4.13 | 60 |
| 80 | MP8 | Z | 0 | 60 |
| 81 | MP5 | X | -3.82 | 12 |
| 82 | MP5 | Z | 0 | 12 |
| 83 | MP5 | X | -3.82 | 29 |
| 84 | MP5 | Z | 0 | 29 |

Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 85 | MP12 | X | -20.39 | 6 |
| 86 | MP12 | Z | 0 | 6 |
| 87 | MP12 | X | -20.39 | 72 |
| 88 | MP12 | Z | 0 | 72 |
| 89 | MP11 | X | -6.67 | 18 |
| 90 | MP11 | Z | 0 | 18 |
| 91 | MP11 | X | -6.67 | 46 |
| 92 | MP11 | Z | 0 | 46 |
| 93 | MP11 | X | -7.49 | 58 |
| 94 | MP11 | Z | 0 | 58 |
| 95 | MP11 | X | -7.49 | 89 |
| 96 | MP11 | Z | 0 | 89 |
| 97 | MP9 | X | -21.97 | 6 |
| 98 | MP9 | Z | 0 | 6 |
| 99 | MP9 | X | -21.97 | 66 |
| 100 | MP9 | Z | 0 | 66 |
| 101 | M64 | X | -5.64 | 18 |
| 102 | M64 | Z | 0 | 18 |
| 103 | M64 | X | -5.64 | 18 |
| 104 | M64 | Z | 0 | 18 |
| 105 | M64 | X | -5.64 | 18 |
| 106 | M64 | Z | 0 | 18 |
| 107 | M64 | X | -5.64 | 18 |
| 108 | M64 | Z | 0 | 18 |
| 109 | MP9 | X | -5.65 | 12 |
| 110 | MP9 | Z | 0 | 12 |
| 111 | MP9 | X | -5.65 | 30 |
| 112 | MP9 | Z | 0 | 30 |
| 113 | MP12 | X | -4.13 | 42 |
| 114 | MP12 | Z | 0 | 42 |
| 115 | MP12 | X | -4.13 | 60 |
| 116 | MP12 | Z | 0 | 60 |
| 117 | MP9 | X | -3.82 | 12 |
| 118 | MP9 | Z | 0 | 12 |
| 119 | MP9 | X | -3.82 | 29 |
| 120 | MP9 | Z | 0 | 29 |

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -14.49 | 6 |
| 2 | MP4 | Z | 8.37 | 6 |
| 3 | MP4 | X | -14.49 | 72 |
| 4 | MP4 | Z | 8.37 | 72 |
| 5 | MP3 | X | -4.79 | 18 |
| 6 | MP3 | Z | 2.76 | 18 |
| 7 | MP3 | X | -4.79 | 46 |
| 8 | MP3 | Z | 2.76 | 46 |
| 9 | MP3 | X | -5.76 | 58 |
| 10 | MP3 | Z | 3.33 | 58 |
| 11 | MP3 | X | -5.76 | 89 |
| 12 | MP3 | Z | 3.33 | 89 |
| 13 | MP1 | X | -15.11 | 6 |
| 14 | MP1 | Z | 8.72 | 6 |
| 15 | MP1 | X | -15.11 | 66 |
| 16 | MP1 | Z | 8.72 | 66 |
| 17 | M56 | X | -4.41 | 60 |

Member Point Loads (BLC 21 : Ice Wind Load AZI 120) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 18 | M56 | Z | 2.55 | 60 |
| 19 | M56 | X | -4.41 | 60 |
| 20 | M56 | Z | 2.55 | 60 |
| 21 | M59 | X | -4.45 | 18 |
| 22 | M59 | Z | 2.57 | 18 |
| 23 | M59 | X | -4.45 | 18 |
| 24 | M59 | Z | 2.57 | 18 |
| 25 | M59 | X | -4.45 | 18 |
| 26 | M59 | Z | 2.57 | 18 |
| 27 | M59 | X | -4.45 | 18 |
| 28 | M59 | Z | 2.57 | 18 |
| 29 | MP1 | X | -4.45 | 12 |
| 30 | MP1 | Z | 2.57 | 12 |
| 31 | MP1 | X | -4.45 | 30 |
| 32 | MP1 | Z | 2.57 | 30 |
| 33 | MP4 | X | -3.35 | 42 |
| 34 | MP4 | Z | 1.93 | 42 |
| 35 | MP4 | X | -3.35 | 60 |
| 36 | MP4 | Z | 1.93 | 60 |
| 37 | MP1 | X | -2.97 | 12 |
| 38 | MP1 | Z | 1.71 | 12 |
| 39 | MP1 | X | -2.97 | 29 |
| 40 | MP1 | Z | 1.71 | 29 |
| 41 | M61 | X | -6.07 | 60 |
| 42 | M61 | Z | 3.51 | 60 |
| 43 | M61 | X | -6.07 | 60 |
| 44 | M61 | Z | 3.51 | 60 |
| 45 | MP8 | X | -14.49 | 6 |
| 46 | MP8 | Z | 8.37 | 6 |
| 47 | MP8 | X | -14.49 | 72 |
| 48 | MP8 | Z | 8.37 | 72 |
| 49 | MP7 | X | -4.79 | 18 |
| 50 | MP7 | Z | 2.76 | 18 |
| 51 | MP7 | X | -4.79 | 46 |
| 52 | MP7 | Z | 2.76 | 46 |
| 53 | MP7 | X | -5.76 | 58 |
| 54 | MP7 | Z | 3.33 | 58 |
| 55 | MP7 | X | -5.76 | 89 |
| 56 | MP7 | Z | 3.33 | 89 |
| 57 | MP5 | X | -15.11 | 6 |
| 58 | MP5 | Z | 8.72 | 6 |
| 59 | MP5 | X | -15.11 | 66 |
| 60 | MP5 | Z | 8.72 | 66 |
| 61 | M66 | X | -4.41 | 60 |
| 62 | M66 | Z | 2.55 | 60 |
| 63 | M66 | X | -4.41 | 60 |
| 64 | M66 | Z | 2.55 | 60 |
| 65 | M69 | X | -4.45 | 18 |
| 66 | M69 | Z | 2.57 | 18 |
| 67 | M69 | X | -4.45 | 18 |
| 68 | M69 | Z | 2.57 | 18 |
| 69 | M69 | X | -4.45 | 18 |
| 70 | M69 | Z | 2.57 | 18 |
| 71 | M69 | X | -4.45 | 18 |
| 72 | M69 | Z | 2.57 | 18 |
| 73 | MP5 | X | -4.45 | 12 |
| 74 | MP5 | Z | 2.57 | 12 |

Member Point Loads (BLC 21 : Ice Wind Load AZI 120) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 75 | MP5 | X | -4.45 | 30 |
| 76 | MP5 | Z | 2.57 | 30 |
| 77 | MP8 | X | -3.35 | 42 |
| 78 | MP8 | Z | 1.93 | 42 |
| 79 | MP8 | X | -3.35 | 60 |
| 80 | MP8 | Z | 1.93 | 60 |
| 81 | MP5 | X | -2.97 | 12 |
| 82 | MP5 | Z | 1.71 | 12 |
| 83 | MP5 | X | -2.97 | 29 |
| 84 | MP5 | Z | 1.71 | 29 |
| 85 | MP12 | X | -19.25 | 6 |
| 86 | MP12 | Z | 11.11 | 6 |
| 87 | MP12 | X | -19.25 | 72 |
| 88 | MP12 | Z | 11.11 | 72 |
| 89 | MP11 | X | -6.27 | 18 |
| 90 | MP11 | Z | 3.62 | 18 |
| 91 | MP11 | X | -6.27 | 46 |
| 92 | MP11 | Z | 3.62 | 46 |
| 93 | MP11 | X | -6.85 | 58 |
| 94 | MP11 | Z | 3.95 | 58 |
| 95 | MP11 | X | -6.85 | 89 |
| 96 | MP11 | Z | 3.95 | 89 |
| 97 | MP9 | X | -20.98 | 6 |
| 98 | MP9 | Z | 12.11 | 6 |
| 99 | MP9 | X | -20.98 | 66 |
| 100 | MP9 | Z | 12.11 | 66 |
| 101 | M64 | X | -5.11 | 18 |
| 102 | M64 | Z | 2.95 | 18 |
| 103 | M64 | X | -5.11 | 18 |
| 104 | M64 | Z | 2.95 | 18 |
| 105 | M64 | X | -5.11 | 18 |
| 106 | M64 | Z | 2.95 | 18 |
| 107 | M64 | X | -5.11 | 18 |
| 108 | M64 | Z | 2.95 | 18 |
| 109 | MP9 | X | -5.12 | 12 |
| 110 | MP9 | Z | 2.95 | 12 |
| 111 | MP9 | X | -5.12 | 30 |
| 112 | MP9 | Z | 2.95 | 30 |
| 113 | MP12 | X | -3.69 | 42 |
| 114 | MP12 | Z | 2.13 | 42 |
| 115 | MP12 | X | -3.69 | 60 |
| 116 | MP12 | Z | 2.13 | 60 |
| 117 | MP9 | X | -3.48 | 12 |
| 118 | MP9 | Z | 2.01 | 12 |
| 119 | MP9 | X | -3.48 | 29 |
| 120 | MP9 | Z | 2.01 | 29 |

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|---|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | -10.2 | 6 |
| 2 | MP4 | Z | 17.66 | 6 |
| 3 | MP4 | X | -10.2 | 72 |
| 4 | MP4 | Z | 17.66 | 72 |
| 5 | MP3 | X | -3.33 | 18 |
| 6 | MP3 | Z | 5.77 | 18 |
| 7 | MP3 | X | -3.33 | 46 |

Member Point Loads (BLC 22 : Ice Wind Load AZI 150) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|----|--------------|-----------|-------------------|----------------|
| 8 | MP3 | Z | 5.77 | 46 |
| 9 | MP3 | X | -3.74 | 58 |
| 10 | MP3 | Z | 6.48 | 58 |
| 11 | MP3 | X | -3.74 | 89 |
| 12 | MP3 | Z | 6.48 | 89 |
| 13 | MP1 | X | -10.98 | 6 |
| 14 | MP1 | Z | 19.02 | 6 |
| 15 | MP1 | X | -10.98 | 66 |
| 16 | MP1 | Z | 19.02 | 66 |
| 17 | M56 | X | -2.55 | 60 |
| 18 | M56 | Z | 4.41 | 60 |
| 19 | M56 | X | -2.55 | 60 |
| 20 | M56 | Z | 4.41 | 60 |
| 21 | M59 | X | -2.82 | 18 |
| 22 | M59 | Z | 4.89 | 18 |
| 23 | M59 | X | -2.82 | 18 |
| 24 | M59 | Z | 4.89 | 18 |
| 25 | M59 | X | -2.82 | 18 |
| 26 | M59 | Z | 4.89 | 18 |
| 27 | M59 | X | -2.82 | 18 |
| 28 | M59 | Z | 4.89 | 18 |
| 29 | MP1 | X | -2.83 | 12 |
| 30 | MP1 | Z | 4.89 | 12 |
| 31 | MP1 | X | -2.83 | 30 |
| 32 | MP1 | Z | 4.89 | 30 |
| 33 | MP4 | X | -2.07 | 42 |
| 34 | MP4 | Z | 3.58 | 42 |
| 35 | MP4 | X | -2.07 | 60 |
| 36 | MP4 | Z | 3.58 | 60 |
| 37 | MP1 | X | -1.91 | 12 |
| 38 | MP1 | Z | 3.31 | 12 |
| 39 | MP1 | X | -1.91 | 29 |
| 40 | MP1 | Z | 3.31 | 29 |
| 41 | M61 | X | -4.2 | 60 |
| 42 | M61 | Z | 7.28 | 60 |
| 43 | M61 | X | -4.2 | 60 |
| 44 | M61 | Z | 7.28 | 60 |
| 45 | MP8 | X | -7.45 | 6 |
| 46 | MP8 | Z | 12.91 | 6 |
| 47 | MP8 | X | -7.45 | 72 |
| 48 | MP8 | Z | 12.91 | 72 |
| 49 | MP7 | X | -2.48 | 18 |
| 50 | MP7 | Z | 4.3 | 18 |
| 51 | MP7 | X | -2.48 | 46 |
| 52 | MP7 | Z | 4.3 | 46 |
| 53 | MP7 | X | -3.12 | 58 |
| 54 | MP7 | Z | 5.4 | 58 |
| 55 | MP7 | X | -3.12 | 89 |
| 56 | MP7 | Z | 5.4 | 89 |
| 57 | MP5 | X | -7.59 | 6 |
| 58 | MP5 | Z | 13.15 | 6 |
| 59 | MP5 | X | -7.59 | 66 |
| 60 | MP5 | Z | 13.15 | 66 |
| 61 | M66 | X | -2.55 | 60 |
| 62 | M66 | Z | 4.41 | 60 |
| 63 | M66 | X | -2.55 | 60 |
| 64 | M66 | Z | 4.41 | 60 |

Member Point Loads (BLC 22 : Ice Wind Load AZI 150) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 65 | M69 | X | -2.44 | 18 |
| 66 | M69 | Z | 4.23 | 18 |
| 67 | M69 | X | -2.44 | 18 |
| 68 | M69 | Z | 4.23 | 18 |
| 69 | M69 | X | -2.44 | 18 |
| 70 | M69 | Z | 4.23 | 18 |
| 71 | M69 | X | -2.44 | 18 |
| 72 | M69 | Z | 4.23 | 18 |
| 73 | MP5 | X | -2.44 | 12 |
| 74 | MP5 | Z | 4.23 | 12 |
| 75 | MP5 | X | -2.44 | 30 |
| 76 | MP5 | Z | 4.23 | 30 |
| 77 | MP8 | X | -1.87 | 42 |
| 78 | MP8 | Z | 3.24 | 42 |
| 79 | MP8 | X | -1.87 | 60 |
| 80 | MP8 | Z | 3.24 | 60 |
| 81 | MP5 | X | -1.62 | 12 |
| 82 | MP5 | Z | 2.8 | 12 |
| 83 | MP5 | X | -1.62 | 29 |
| 84 | MP5 | Z | 2.8 | 29 |
| 85 | MP12 | X | -10.2 | 6 |
| 86 | MP12 | Z | 17.66 | 6 |
| 87 | MP12 | X | -10.2 | 72 |
| 88 | MP12 | Z | 17.66 | 72 |
| 89 | MP11 | X | -3.33 | 18 |
| 90 | MP11 | Z | 5.77 | 18 |
| 91 | MP11 | X | -3.33 | 46 |
| 92 | MP11 | Z | 5.77 | 46 |
| 93 | MP11 | X | -3.74 | 58 |
| 94 | MP11 | Z | 6.48 | 58 |
| 95 | MP11 | X | -3.74 | 89 |
| 96 | MP11 | Z | 6.48 | 89 |
| 97 | MP9 | X | -10.98 | 6 |
| 98 | MP9 | Z | 19.02 | 6 |
| 99 | MP9 | X | -10.98 | 66 |
| 100 | MP9 | Z | 19.02 | 66 |
| 101 | M64 | X | -2.82 | 18 |
| 102 | M64 | Z | 4.89 | 18 |
| 103 | M64 | X | -2.82 | 18 |
| 104 | M64 | Z | 4.89 | 18 |
| 105 | M64 | X | -2.82 | 18 |
| 106 | M64 | Z | 4.89 | 18 |
| 107 | M64 | X | -2.82 | 18 |
| 108 | M64 | Z | 4.89 | 18 |
| 109 | MP9 | X | -2.83 | 12 |
| 110 | MP9 | Z | 4.89 | 12 |
| 111 | MP9 | X | -2.83 | 30 |
| 112 | MP9 | Z | 4.89 | 30 |
| 113 | MP12 | X | -2.07 | 42 |
| 114 | MP12 | Z | 3.58 | 42 |
| 115 | MP12 | X | -2.07 | 60 |
| 116 | MP12 | Z | 3.58 | 60 |
| 117 | MP9 | X | -1.91 | 12 |
| 118 | MP9 | Z | 3.31 | 12 |
| 119 | MP9 | X | -1.91 | 29 |
| 120 | MP9 | Z | 3.31 | 29 |

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in.-%] |
|----|--------------|-----------|---------------------|-----------------|
| 1 | MP4 | X | 0 | 6 |
| 2 | MP4 | Z | 22.22 | 6 |
| 3 | MP4 | X | 0 | 72 |
| 4 | MP4 | Z | 22.22 | 72 |
| 5 | MP3 | X | 0 | 18 |
| 6 | MP3 | Z | 7.24 | 18 |
| 7 | MP3 | X | 0 | 46 |
| 8 | MP3 | Z | 7.24 | 46 |
| 9 | MP3 | X | 0 | 58 |
| 10 | MP3 | Z | 7.91 | 58 |
| 11 | MP3 | X | 0 | 89 |
| 12 | MP3 | Z | 7.91 | 89 |
| 13 | MP1 | X | 0 | 6 |
| 14 | MP1 | Z | 24.23 | 6 |
| 15 | MP1 | X | 0 | 66 |
| 16 | MP1 | Z | 24.23 | 66 |
| 17 | M56 | X | 0 | 60 |
| 18 | M56 | Z | 5.09 | 60 |
| 19 | M56 | X | 0 | 60 |
| 20 | M56 | Z | 5.09 | 60 |
| 21 | M59 | X | 0 | 18 |
| 22 | M59 | Z | 5.9 | 18 |
| 23 | M59 | X | 0 | 18 |
| 24 | M59 | Z | 5.9 | 18 |
| 25 | M59 | X | 0 | 18 |
| 26 | M59 | Z | 5.9 | 18 |
| 27 | M59 | X | 0 | 18 |
| 28 | M59 | Z | 5.9 | 18 |
| 29 | MP1 | X | 0 | 12 |
| 30 | MP1 | Z | 5.91 | 12 |
| 31 | MP1 | X | 0 | 30 |
| 32 | MP1 | Z | 5.91 | 30 |
| 33 | MP4 | X | 0 | 42 |
| 34 | MP4 | Z | 4.26 | 42 |
| 35 | MP4 | X | 0 | 60 |
| 36 | MP4 | Z | 4.26 | 60 |
| 37 | MP1 | X | 0 | 12 |
| 38 | MP1 | Z | 4.02 | 12 |
| 39 | MP1 | X | 0 | 29 |
| 40 | MP1 | Z | 4.02 | 29 |
| 41 | M61 | X | 0 | 60 |
| 42 | M61 | Z | 9.1 | 60 |
| 43 | M61 | X | 0 | 60 |
| 44 | M61 | Z | 9.1 | 60 |
| 45 | MP8 | X | 0 | 6 |
| 46 | MP8 | Z | 16.73 | 6 |
| 47 | MP8 | X | 0 | 72 |
| 48 | MP8 | Z | 16.73 | 72 |
| 49 | MP7 | X | 0 | 18 |
| 50 | MP7 | Z | 5.53 | 18 |
| 51 | MP7 | X | 0 | 46 |
| 52 | MP7 | Z | 5.53 | 46 |
| 53 | MP7 | X | 0 | 58 |
| 54 | MP7 | Z | 6.65 | 58 |
| 55 | MP7 | X | 0 | 89 |
| 56 | MP7 | Z | 6.65 | 89 |
| 57 | MP5 | X | 0 | 6 |

Member Point Loads (BLC 23 : Ice Wind Load AZI 180) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|-----|--------------|-----------|-------------------|----------------|
| 58 | MP5 | Z | 17.45 | 6 |
| 59 | MP5 | X | 0 | 66 |
| 60 | MP5 | Z | 17.45 | 66 |
| 61 | M66 | X | 0 | 60 |
| 62 | M66 | Z | 5.09 | 60 |
| 63 | M66 | X | 0 | 60 |
| 64 | M66 | Z | 5.09 | 60 |
| 65 | M69 | X | 0 | 18 |
| 66 | M69 | Z | 5.14 | 18 |
| 67 | M69 | X | 0 | 18 |
| 68 | M69 | Z | 5.14 | 18 |
| 69 | M69 | X | 0 | 18 |
| 70 | M69 | Z | 5.14 | 18 |
| 71 | M69 | X | 0 | 18 |
| 72 | M69 | Z | 5.14 | 18 |
| 73 | MP5 | X | 0 | 12 |
| 74 | MP5 | Z | 5.14 | 12 |
| 75 | MP5 | X | 0 | 30 |
| 76 | MP5 | Z | 5.14 | 30 |
| 77 | MP8 | X | 0 | 42 |
| 78 | MP8 | Z | 3.87 | 42 |
| 79 | MP8 | X | 0 | 60 |
| 80 | MP8 | Z | 3.87 | 60 |
| 81 | MP5 | X | 0 | 12 |
| 82 | MP5 | Z | 3.43 | 12 |
| 83 | MP5 | X | 0 | 29 |
| 84 | MP5 | Z | 3.43 | 29 |
| 85 | MP12 | X | 0 | 6 |
| 86 | MP12 | Z | 16.73 | 6 |
| 87 | MP12 | X | 0 | 72 |
| 88 | MP12 | Z | 16.73 | 72 |
| 89 | MP11 | X | 0 | 18 |
| 90 | MP11 | Z | 5.53 | 18 |
| 91 | MP11 | X | 0 | 46 |
| 92 | MP11 | Z | 5.53 | 46 |
| 93 | MP11 | X | 0 | 58 |
| 94 | MP11 | Z | 6.65 | 58 |
| 95 | MP11 | X | 0 | 89 |
| 96 | MP11 | Z | 6.65 | 89 |
| 97 | MP9 | X | 0 | 6 |
| 98 | MP9 | Z | 17.45 | 6 |
| 99 | MP9 | X | 0 | 66 |
| 100 | MP9 | Z | 17.45 | 66 |
| 101 | M64 | X | 0 | 18 |
| 102 | M64 | Z | 5.14 | 18 |
| 103 | M64 | X | 0 | 18 |
| 104 | M64 | Z | 5.14 | 18 |
| 105 | M64 | X | 0 | 18 |
| 106 | M64 | Z | 5.14 | 18 |
| 107 | M64 | X | 0 | 18 |
| 108 | M64 | Z | 5.14 | 18 |
| 109 | MP9 | X | 0 | 12 |
| 110 | MP9 | Z | 5.14 | 12 |
| 111 | MP9 | X | 0 | 30 |
| 112 | MP9 | Z | 5.14 | 30 |
| 113 | MP12 | X | 0 | 42 |
| 114 | MP12 | Z | 3.87 | 42 |

Member Point Loads (BLC 23 : Ice Wind Load AZI 180) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 115 | MP12 | X | 0 | 60 |
| 116 | MP12 | Z | 3.87 | 60 |
| 117 | MP9 | X | 0 | 12 |
| 118 | MP9 | Z | 3.43 | 12 |
| 119 | MP9 | X | 0 | 29 |
| 120 | MP9 | Z | 3.43 | 29 |

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 10.2 | 6 |
| 2 | MP4 | Z | 17.66 | 6 |
| 3 | MP4 | X | 10.2 | 72 |
| 4 | MP4 | Z | 17.66 | 72 |
| 5 | MP3 | X | 3.33 | 18 |
| 6 | MP3 | Z | 5.77 | 18 |
| 7 | MP3 | X | 3.33 | 46 |
| 8 | MP3 | Z | 5.77 | 46 |
| 9 | MP3 | X | 3.74 | 58 |
| 10 | MP3 | Z | 6.48 | 58 |
| 11 | MP3 | X | 3.74 | 89 |
| 12 | MP3 | Z | 6.48 | 89 |
| 13 | MP1 | X | 10.98 | 6 |
| 14 | MP1 | Z | 19.02 | 6 |
| 15 | MP1 | X | 10.98 | 66 |
| 16 | MP1 | Z | 19.02 | 66 |
| 17 | M56 | X | 2.55 | 60 |
| 18 | M56 | Z | 4.41 | 60 |
| 19 | M56 | X | 2.55 | 60 |
| 20 | M56 | Z | 4.41 | 60 |
| 21 | M59 | X | 2.82 | 18 |
| 22 | M59 | Z | 4.89 | 18 |
| 23 | M59 | X | 2.82 | 18 |
| 24 | M59 | Z | 4.89 | 18 |
| 25 | M59 | X | 2.82 | 18 |
| 26 | M59 | Z | 4.89 | 18 |
| 27 | M59 | X | 2.82 | 18 |
| 28 | M59 | Z | 4.89 | 18 |
| 29 | MP1 | X | 2.83 | 12 |
| 30 | MP1 | Z | 4.89 | 12 |
| 31 | MP1 | X | 2.83 | 30 |
| 32 | MP1 | Z | 4.89 | 30 |
| 33 | MP4 | X | 2.07 | 42 |
| 34 | MP4 | Z | 3.58 | 42 |
| 35 | MP4 | X | 2.07 | 60 |
| 36 | MP4 | Z | 3.58 | 60 |
| 37 | MP1 | X | 1.91 | 12 |
| 38 | MP1 | Z | 3.31 | 12 |
| 39 | MP1 | X | 1.91 | 29 |
| 40 | MP1 | Z | 3.31 | 29 |
| 41 | M61 | X | 4.2 | 60 |
| 42 | M61 | Z | 7.28 | 60 |
| 43 | M61 | X | 4.2 | 60 |
| 44 | M61 | Z | 7.28 | 60 |
| 45 | MP8 | X | 10.2 | 6 |
| 46 | MP8 | Z | 17.66 | 6 |
| 47 | MP8 | X | 10.2 | 72 |

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|-----|--------------|-----------|-------------------|----------------|
| 48 | MP8 | Z | 17.66 | 72 |
| 49 | MP7 | X | 3.33 | 18 |
| 50 | MP7 | Z | 5.77 | 18 |
| 51 | MP7 | X | 3.33 | 46 |
| 52 | MP7 | Z | 5.77 | 46 |
| 53 | MP7 | X | 3.74 | 58 |
| 54 | MP7 | Z | 6.48 | 58 |
| 55 | MP7 | X | 3.74 | 89 |
| 56 | MP7 | Z | 6.48 | 89 |
| 57 | MP5 | X | 10.98 | 6 |
| 58 | MP5 | Z | 19.02 | 6 |
| 59 | MP5 | X | 10.98 | 66 |
| 60 | MP5 | Z | 19.02 | 66 |
| 61 | M66 | X | 2.55 | 60 |
| 62 | M66 | Z | 4.41 | 60 |
| 63 | M66 | X | 2.55 | 60 |
| 64 | M66 | Z | 4.41 | 60 |
| 65 | M69 | X | 2.82 | 18 |
| 66 | M69 | Z | 4.89 | 18 |
| 67 | M69 | X | 2.82 | 18 |
| 68 | M69 | Z | 4.89 | 18 |
| 69 | M69 | X | 2.82 | 18 |
| 70 | M69 | Z | 4.89 | 18 |
| 71 | M69 | X | 2.82 | 18 |
| 72 | M69 | Z | 4.89 | 18 |
| 73 | MP5 | X | 2.83 | 12 |
| 74 | MP5 | Z | 4.89 | 12 |
| 75 | MP5 | X | 2.83 | 30 |
| 76 | MP5 | Z | 4.89 | 30 |
| 77 | MP8 | X | 2.07 | 42 |
| 78 | MP8 | Z | 3.58 | 42 |
| 79 | MP8 | X | 2.07 | 60 |
| 80 | MP8 | Z | 3.58 | 60 |
| 81 | MP5 | X | 1.91 | 12 |
| 82 | MP5 | Z | 3.31 | 12 |
| 83 | MP5 | X | 1.91 | 29 |
| 84 | MP5 | Z | 3.31 | 29 |
| 85 | MP12 | X | 7.45 | 6 |
| 86 | MP12 | Z | 12.91 | 6 |
| 87 | MP12 | X | 7.45 | 72 |
| 88 | MP12 | Z | 12.91 | 72 |
| 89 | MP11 | X | 2.48 | 18 |
| 90 | MP11 | Z | 4.3 | 18 |
| 91 | MP11 | X | 2.48 | 46 |
| 92 | MP11 | Z | 4.3 | 46 |
| 93 | MP11 | X | 3.12 | 58 |
| 94 | MP11 | Z | 5.4 | 58 |
| 95 | MP11 | X | 3.12 | 89 |
| 96 | MP11 | Z | 5.4 | 89 |
| 97 | MP9 | X | 7.59 | 6 |
| 98 | MP9 | Z | 13.15 | 6 |
| 99 | MP9 | X | 7.59 | 66 |
| 100 | MP9 | Z | 13.15 | 66 |
| 101 | M64 | X | 2.44 | 18 |
| 102 | M64 | Z | 4.23 | 18 |
| 103 | M64 | X | 2.44 | 18 |
| 104 | M64 | Z | 4.23 | 18 |

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in, %] |
|-----|--------------|-----------|---------------------|-----------------|
| 105 | M64 | X | 2.44 | 18 |
| 106 | M64 | Z | 4.23 | 18 |
| 107 | M64 | X | 2.44 | 18 |
| 108 | M64 | Z | 4.23 | 18 |
| 109 | MP9 | X | 2.44 | 12 |
| 110 | MP9 | Z | 4.23 | 12 |
| 111 | MP9 | X | 2.44 | 30 |
| 112 | MP9 | Z | 4.23 | 30 |
| 113 | MP12 | X | 1.87 | 42 |
| 114 | MP12 | Z | 3.24 | 42 |
| 115 | MP12 | X | 1.87 | 60 |
| 116 | MP12 | Z | 3.24 | 60 |
| 117 | MP9 | X | 1.62 | 12 |
| 118 | MP9 | Z | 2.8 | 12 |
| 119 | MP9 | X | 1.62 | 29 |
| 120 | MP9 | Z | 2.8 | 29 |

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in, %] |
|----|--------------|-----------|---------------------|-----------------|
| 1 | MP4 | X | 14.49 | 6 |
| 2 | MP4 | Z | 8.37 | 6 |
| 3 | MP4 | X | 14.49 | 72 |
| 4 | MP4 | Z | 8.37 | 72 |
| 5 | MP3 | X | 4.79 | 18 |
| 6 | MP3 | Z | 2.76 | 18 |
| 7 | MP3 | X | 4.79 | 46 |
| 8 | MP3 | Z | 2.76 | 46 |
| 9 | MP3 | X | 5.76 | 58 |
| 10 | MP3 | Z | 3.33 | 58 |
| 11 | MP3 | X | 5.76 | 89 |
| 12 | MP3 | Z | 3.33 | 89 |
| 13 | MP1 | X | 15.11 | 6 |
| 14 | MP1 | Z | 8.72 | 6 |
| 15 | MP1 | X | 15.11 | 66 |
| 16 | MP1 | Z | 8.72 | 66 |
| 17 | M56 | X | 4.41 | 60 |
| 18 | M56 | Z | 2.55 | 60 |
| 19 | M56 | X | 4.41 | 60 |
| 20 | M56 | Z | 2.55 | 60 |
| 21 | M59 | X | 4.45 | 18 |
| 22 | M59 | Z | 2.57 | 18 |
| 23 | M59 | X | 4.45 | 18 |
| 24 | M59 | Z | 2.57 | 18 |
| 25 | M59 | X | 4.45 | 18 |
| 26 | M59 | Z | 2.57 | 18 |
| 27 | M59 | X | 4.45 | 18 |
| 28 | M59 | Z | 2.57 | 18 |
| 29 | MP1 | X | 4.45 | 12 |
| 30 | MP1 | Z | 2.57 | 12 |
| 31 | MP1 | X | 4.45 | 30 |
| 32 | MP1 | Z | 2.57 | 30 |
| 33 | MP4 | X | 3.35 | 42 |
| 34 | MP4 | Z | 1.93 | 42 |
| 35 | MP4 | X | 3.35 | 60 |
| 36 | MP4 | Z | 1.93 | 60 |
| 37 | MP1 | X | 2.97 | 12 |

Member Point Loads (BLC 25 : Ice Wind Load AZI 240) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|----|--------------|-----------|-------------------|----------------|
| 38 | MP1 | Z | 1.71 | 12 |
| 39 | MP1 | X | 2.97 | 29 |
| 40 | MP1 | Z | 1.71 | 29 |
| 41 | M61 | X | 6.07 | 60 |
| 42 | M61 | Z | 3.51 | 60 |
| 43 | M61 | X | 6.07 | 60 |
| 44 | M61 | Z | 3.51 | 60 |
| 45 | MP8 | X | 19.25 | 6 |
| 46 | MP8 | Z | 11.11 | 6 |
| 47 | MP8 | X | 19.25 | 72 |
| 48 | MP8 | Z | 11.11 | 72 |
| 49 | MP7 | X | 6.27 | 18 |
| 50 | MP7 | Z | 3.62 | 18 |
| 51 | MP7 | X | 6.27 | 46 |
| 52 | MP7 | Z | 3.62 | 46 |
| 53 | MP7 | X | 6.85 | 58 |
| 54 | MP7 | Z | 3.95 | 58 |
| 55 | MP7 | X | 6.85 | 89 |
| 56 | MP7 | Z | 3.95 | 89 |
| 57 | MP5 | X | 20.98 | 6 |
| 58 | MP5 | Z | 12.11 | 6 |
| 59 | MP5 | X | 20.98 | 66 |
| 60 | MP5 | Z | 12.11 | 66 |
| 61 | M66 | X | 4.41 | 60 |
| 62 | M66 | Z | 2.55 | 60 |
| 63 | M66 | X | 4.41 | 60 |
| 64 | M66 | Z | 2.55 | 60 |
| 65 | M69 | X | 5.11 | 18 |
| 66 | M69 | Z | 2.95 | 18 |
| 67 | M69 | X | 5.11 | 18 |
| 68 | M69 | Z | 2.95 | 18 |
| 69 | M69 | X | 5.11 | 18 |
| 70 | M69 | Z | 2.95 | 18 |
| 71 | M69 | X | 5.11 | 18 |
| 72 | M69 | Z | 2.95 | 18 |
| 73 | MP5 | X | 5.12 | 12 |
| 74 | MP5 | Z | 2.95 | 12 |
| 75 | MP5 | X | 5.12 | 30 |
| 76 | MP5 | Z | 2.95 | 30 |
| 77 | MP8 | X | 3.69 | 42 |
| 78 | MP8 | Z | 2.13 | 42 |
| 79 | MP8 | X | 3.69 | 60 |
| 80 | MP8 | Z | 2.13 | 60 |
| 81 | MP5 | X | 3.48 | 12 |
| 82 | MP5 | Z | 2.01 | 12 |
| 83 | MP5 | X | 3.48 | 29 |
| 84 | MP5 | Z | 2.01 | 29 |
| 85 | MP12 | X | 14.49 | 6 |
| 86 | MP12 | Z | 8.37 | 6 |
| 87 | MP12 | X | 14.49 | 72 |
| 88 | MP12 | Z | 8.37 | 72 |
| 89 | MP11 | X | 4.79 | 18 |
| 90 | MP11 | Z | 2.76 | 18 |
| 91 | MP11 | X | 4.79 | 46 |
| 92 | MP11 | Z | 2.76 | 46 |
| 93 | MP11 | X | 5.76 | 58 |
| 94 | MP11 | Z | 3.33 | 58 |

Member Point Loads (BLC 25 : Ice Wind Load AZI 240) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 95 | MP11 | X | 5.76 | 89 |
| 96 | MP11 | Z | 3.33 | 89 |
| 97 | MP9 | X | 15.11 | 6 |
| 98 | MP9 | Z | 8.72 | 6 |
| 99 | MP9 | X | 15.11 | 66 |
| 100 | MP9 | Z | 8.72 | 66 |
| 101 | M64 | X | 4.45 | 18 |
| 102 | M64 | Z | 2.57 | 18 |
| 103 | M64 | X | 4.45 | 18 |
| 104 | M64 | Z | 2.57 | 18 |
| 105 | M64 | X | 4.45 | 18 |
| 106 | M64 | Z | 2.57 | 18 |
| 107 | M64 | X | 4.45 | 18 |
| 108 | M64 | Z | 2.57 | 18 |
| 109 | MP9 | X | 4.45 | 12 |
| 110 | MP9 | Z | 2.57 | 12 |
| 111 | MP9 | X | 4.45 | 30 |
| 112 | MP9 | Z | 2.57 | 30 |
| 113 | MP12 | X | 3.35 | 42 |
| 114 | MP12 | Z | 1.93 | 42 |
| 115 | MP12 | X | 3.35 | 60 |
| 116 | MP12 | Z | 1.93 | 60 |
| 117 | MP9 | X | 2.97 | 12 |
| 118 | MP9 | Z | 1.71 | 12 |
| 119 | MP9 | X | 2.97 | 29 |
| 120 | MP9 | Z | 1.71 | 29 |

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 14.9 | 6 |
| 2 | MP4 | Z | 0 | 6 |
| 3 | MP4 | X | 14.9 | 72 |
| 4 | MP4 | Z | 0 | 72 |
| 5 | MP3 | X | 4.96 | 18 |
| 6 | MP3 | Z | 0 | 18 |
| 7 | MP3 | X | 4.96 | 46 |
| 8 | MP3 | Z | 0 | 46 |
| 9 | MP3 | X | 6.23 | 58 |
| 10 | MP3 | Z | 0 | 58 |
| 11 | MP3 | X | 6.23 | 89 |
| 12 | MP3 | Z | 0 | 89 |
| 13 | MP1 | X | 15.19 | 6 |
| 14 | MP1 | Z | 0 | 6 |
| 15 | MP1 | X | 15.19 | 66 |
| 16 | MP1 | Z | 0 | 66 |
| 17 | M56 | X | 5.09 | 60 |
| 18 | M56 | Z | 0 | 60 |
| 19 | M56 | X | 5.09 | 60 |
| 20 | M56 | Z | 0 | 60 |
| 21 | M59 | X | 4.88 | 18 |
| 22 | M59 | Z | 0 | 18 |
| 23 | M59 | X | 4.88 | 18 |
| 24 | M59 | Z | 0 | 18 |
| 25 | M59 | X | 4.88 | 18 |
| 26 | M59 | Z | 0 | 18 |
| 27 | M59 | X | 4.88 | 18 |

Member Point Loads (BLC 26 : Ice Wind Load AZI 270) (Continued)

| | Member Label | Direction | Magnitude[lb.-ft] | Location[in,%] |
|----|--------------|-----------|-------------------|----------------|
| 28 | M59 | Z | 0 | 18 |
| 29 | MP1 | X | 4.88 | 12 |
| 30 | MP1 | Z | 0 | 12 |
| 31 | MP1 | X | 4.88 | 30 |
| 32 | MP1 | Z | 0 | 30 |
| 33 | MP4 | X | 3.74 | 42 |
| 34 | MP4 | Z | 0 | 42 |
| 35 | MP4 | X | 3.74 | 60 |
| 36 | MP4 | Z | 0 | 60 |
| 37 | MP1 | X | 3.23 | 12 |
| 38 | MP1 | Z | 0 | 12 |
| 39 | MP1 | X | 3.23 | 29 |
| 40 | MP1 | Z | 0 | 29 |
| 41 | M61 | X | 6.32 | 60 |
| 42 | M61 | Z | 0 | 60 |
| 43 | M61 | X | 6.32 | 60 |
| 44 | M61 | Z | 0 | 60 |
| 45 | MP8 | X | 20.39 | 6 |
| 46 | MP8 | Z | 0 | 6 |
| 47 | MP8 | X | 20.39 | 72 |
| 48 | MP8 | Z | 0 | 72 |
| 49 | MP7 | X | 6.67 | 18 |
| 50 | MP7 | Z | 0 | 18 |
| 51 | MP7 | X | 6.67 | 46 |
| 52 | MP7 | Z | 0 | 46 |
| 53 | MP7 | X | 7.49 | 58 |
| 54 | MP7 | Z | 0 | 58 |
| 55 | MP7 | X | 7.49 | 89 |
| 56 | MP7 | Z | 0 | 89 |
| 57 | MP5 | X | 21.97 | 6 |
| 58 | MP5 | Z | 0 | 6 |
| 59 | MP5 | X | 21.97 | 66 |
| 60 | MP5 | Z | 0 | 66 |
| 61 | M66 | X | 5.09 | 60 |
| 62 | M66 | Z | 0 | 60 |
| 63 | M66 | X | 5.09 | 60 |
| 64 | M66 | Z | 0 | 60 |
| 65 | M69 | X | 5.64 | 18 |
| 66 | M69 | Z | 0 | 18 |
| 67 | M69 | X | 5.64 | 18 |
| 68 | M69 | Z | 0 | 18 |
| 69 | M69 | X | 5.64 | 18 |
| 70 | M69 | Z | 0 | 18 |
| 71 | M69 | X | 5.64 | 18 |
| 72 | M69 | Z | 0 | 18 |
| 73 | MP5 | X | 5.65 | 12 |
| 74 | MP5 | Z | 0 | 12 |
| 75 | MP5 | X | 5.65 | 30 |
| 76 | MP5 | Z | 0 | 30 |
| 77 | MP8 | X | 4.13 | 42 |
| 78 | MP8 | Z | 0 | 42 |
| 79 | MP8 | X | 4.13 | 60 |
| 80 | MP8 | Z | 0 | 60 |
| 81 | MP5 | X | 3.82 | 12 |
| 82 | MP5 | Z | 0 | 12 |
| 83 | MP5 | X | 3.82 | 29 |
| 84 | MP5 | Z | 0 | 29 |

Member Point Loads (BLC 26 : Ice Wind Load AZI 270) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 85 | MP12 | X | 20.39 | 6 |
| 86 | MP12 | Z | 0 | 6 |
| 87 | MP12 | X | 20.39 | 72 |
| 88 | MP12 | Z | 0 | 72 |
| 89 | MP11 | X | 6.67 | 18 |
| 90 | MP11 | Z | 0 | 18 |
| 91 | MP11 | X | 6.67 | 46 |
| 92 | MP11 | Z | 0 | 46 |
| 93 | MP11 | X | 7.49 | 58 |
| 94 | MP11 | Z | 0 | 58 |
| 95 | MP11 | X | 7.49 | 89 |
| 96 | MP11 | Z | 0 | 89 |
| 97 | MP9 | X | 21.97 | 6 |
| 98 | MP9 | Z | 0 | 6 |
| 99 | MP9 | X | 21.97 | 66 |
| 100 | MP9 | Z | 0 | 66 |
| 101 | M64 | X | 5.64 | 18 |
| 102 | M64 | Z | 0 | 18 |
| 103 | M64 | X | 5.64 | 18 |
| 104 | M64 | Z | 0 | 18 |
| 105 | M64 | X | 5.64 | 18 |
| 106 | M64 | Z | 0 | 18 |
| 107 | M64 | X | 5.64 | 18 |
| 108 | M64 | Z | 0 | 18 |
| 109 | MP9 | X | 5.65 | 12 |
| 110 | MP9 | Z | 0 | 12 |
| 111 | MP9 | X | 5.65 | 30 |
| 112 | MP9 | Z | 0 | 30 |
| 113 | MP12 | X | 4.13 | 42 |
| 114 | MP12 | Z | 0 | 42 |
| 115 | MP12 | X | 4.13 | 60 |
| 116 | MP12 | Z | 0 | 60 |
| 117 | MP9 | X | 3.82 | 12 |
| 118 | MP9 | Z | 0 | 12 |
| 119 | MP9 | X | 3.82 | 29 |
| 120 | MP9 | Z | 0 | 29 |

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 14.49 | 6 |
| 2 | MP4 | Z | -8.37 | 6 |
| 3 | MP4 | X | 14.49 | 72 |
| 4 | MP4 | Z | -8.37 | 72 |
| 5 | MP3 | X | 4.79 | 18 |
| 6 | MP3 | Z | -2.76 | 18 |
| 7 | MP3 | X | 4.79 | 46 |
| 8 | MP3 | Z | -2.76 | 46 |
| 9 | MP3 | X | 5.76 | 58 |
| 10 | MP3 | Z | -3.33 | 58 |
| 11 | MP3 | X | 5.76 | 89 |
| 12 | MP3 | Z | -3.33 | 89 |
| 13 | MP1 | X | 15.11 | 6 |
| 14 | MP1 | Z | -8.72 | 6 |
| 15 | MP1 | X | 15.11 | 66 |
| 16 | MP1 | Z | -8.72 | 66 |
| 17 | M56 | X | 4.41 | 60 |

Member Point Loads (BLC 27 : Ice Wind Load AZI 300) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 18 | M56 | Z | -2.55 | 60 |
| 19 | M56 | X | 4.41 | 60 |
| 20 | M56 | Z | -2.55 | 60 |
| 21 | M59 | X | 4.45 | 18 |
| 22 | M59 | Z | -2.57 | 18 |
| 23 | M59 | X | 4.45 | 18 |
| 24 | M59 | Z | -2.57 | 18 |
| 25 | M59 | X | 4.45 | 18 |
| 26 | M59 | Z | -2.57 | 18 |
| 27 | M59 | X | 4.45 | 18 |
| 28 | M59 | Z | -2.57 | 18 |
| 29 | MP1 | X | 4.45 | 12 |
| 30 | MP1 | Z | -2.57 | 12 |
| 31 | MP1 | X | 4.45 | 30 |
| 32 | MP1 | Z | -2.57 | 30 |
| 33 | MP4 | X | 3.35 | 42 |
| 34 | MP4 | Z | -1.93 | 42 |
| 35 | MP4 | X | 3.35 | 60 |
| 36 | MP4 | Z | -1.93 | 60 |
| 37 | MP1 | X | 2.97 | 12 |
| 38 | MP1 | Z | -1.71 | 12 |
| 39 | MP1 | X | 2.97 | 29 |
| 40 | MP1 | Z | -1.71 | 29 |
| 41 | M61 | X | 6.07 | 60 |
| 42 | M61 | Z | -3.51 | 60 |
| 43 | M61 | X | 6.07 | 60 |
| 44 | M61 | Z | -3.51 | 60 |
| 45 | MP8 | X | 14.49 | 6 |
| 46 | MP8 | Z | -8.37 | 6 |
| 47 | MP8 | X | 14.49 | 72 |
| 48 | MP8 | Z | -8.37 | 72 |
| 49 | MP7 | X | 4.79 | 18 |
| 50 | MP7 | Z | -2.76 | 18 |
| 51 | MP7 | X | 4.79 | 46 |
| 52 | MP7 | Z | -2.76 | 46 |
| 53 | MP7 | X | 5.76 | 58 |
| 54 | MP7 | Z | -3.33 | 58 |
| 55 | MP7 | X | 5.76 | 89 |
| 56 | MP7 | Z | -3.33 | 89 |
| 57 | MP5 | X | 15.11 | 6 |
| 58 | MP5 | Z | -8.72 | 6 |
| 59 | MP5 | X | 15.11 | 66 |
| 60 | MP5 | Z | -8.72 | 66 |
| 61 | M66 | X | 4.41 | 60 |
| 62 | M66 | Z | -2.55 | 60 |
| 63 | M66 | X | 4.41 | 60 |
| 64 | M66 | Z | -2.55 | 60 |
| 65 | M69 | X | 4.45 | 18 |
| 66 | M69 | Z | -2.57 | 18 |
| 67 | M69 | X | 4.45 | 18 |
| 68 | M69 | Z | -2.57 | 18 |
| 69 | M69 | X | 4.45 | 18 |
| 70 | M69 | Z | -2.57 | 18 |
| 71 | M69 | X | 4.45 | 18 |
| 72 | M69 | Z | -2.57 | 18 |
| 73 | MP5 | X | 4.45 | 12 |
| 74 | MP5 | Z | -2.57 | 12 |

Member Point Loads (BLC 27 : Ice Wind Load AZI 300) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 75 | MP5 | X | 4.45 | 30 |
| 76 | MP5 | Z | -2.57 | 30 |
| 77 | MP8 | X | 3.35 | 42 |
| 78 | MP8 | Z | -1.93 | 42 |
| 79 | MP8 | X | 3.35 | 60 |
| 80 | MP8 | Z | -1.93 | 60 |
| 81 | MP5 | X | 2.97 | 12 |
| 82 | MP5 | Z | -1.71 | 12 |
| 83 | MP5 | X | 2.97 | 29 |
| 84 | MP5 | Z | -1.71 | 29 |
| 85 | MP12 | X | 19.25 | 6 |
| 86 | MP12 | Z | -11.11 | 6 |
| 87 | MP12 | X | 19.25 | 72 |
| 88 | MP12 | Z | -11.11 | 72 |
| 89 | MP11 | X | 6.27 | 18 |
| 90 | MP11 | Z | -3.62 | 18 |
| 91 | MP11 | X | 6.27 | 46 |
| 92 | MP11 | Z | -3.62 | 46 |
| 93 | MP11 | X | 6.85 | 58 |
| 94 | MP11 | Z | -3.95 | 58 |
| 95 | MP11 | X | 6.85 | 89 |
| 96 | MP11 | Z | -3.95 | 89 |
| 97 | MP9 | X | 20.98 | 6 |
| 98 | MP9 | Z | -12.11 | 6 |
| 99 | MP9 | X | 20.98 | 66 |
| 100 | MP9 | Z | -12.11 | 66 |
| 101 | M64 | X | 5.11 | 18 |
| 102 | M64 | Z | -2.95 | 18 |
| 103 | M64 | X | 5.11 | 18 |
| 104 | M64 | Z | -2.95 | 18 |
| 105 | M64 | X | 5.11 | 18 |
| 106 | M64 | Z | -2.95 | 18 |
| 107 | M64 | X | 5.11 | 18 |
| 108 | M64 | Z | -2.95 | 18 |
| 109 | MP9 | X | 5.12 | 12 |
| 110 | MP9 | Z | -2.95 | 12 |
| 111 | MP9 | X | 5.12 | 30 |
| 112 | MP9 | Z | -2.95 | 30 |
| 113 | MP12 | X | 3.69 | 42 |
| 114 | MP12 | Z | -2.13 | 42 |
| 115 | MP12 | X | 3.69 | 60 |
| 116 | MP12 | Z | -2.13 | 60 |
| 117 | MP9 | X | 3.48 | 12 |
| 118 | MP9 | Z | -2.01 | 12 |
| 119 | MP9 | X | 3.48 | 29 |
| 120 | MP9 | Z | -2.01 | 29 |

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|---|--------------|-----------|---------------------|----------------|
| 1 | MP4 | X | 10.2 | 6 |
| 2 | MP4 | Z | -17.66 | 6 |
| 3 | MP4 | X | 10.2 | 72 |
| 4 | MP4 | Z | -17.66 | 72 |
| 5 | MP3 | X | 3.33 | 18 |
| 6 | MP3 | Z | -5.77 | 18 |
| 7 | MP3 | X | 3.33 | 46 |

Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 8 | MP3 | Z | -5.77 | 46 |
| 9 | MP3 | X | 3.74 | 58 |
| 10 | MP3 | Z | -6.48 | 58 |
| 11 | MP3 | X | 3.74 | 89 |
| 12 | MP3 | Z | -6.48 | 89 |
| 13 | MP1 | X | 10.98 | 6 |
| 14 | MP1 | Z | -19.02 | 6 |
| 15 | MP1 | X | 10.98 | 66 |
| 16 | MP1 | Z | -19.02 | 66 |
| 17 | M56 | X | 2.55 | 60 |
| 18 | M56 | Z | -4.41 | 60 |
| 19 | M56 | X | 2.55 | 60 |
| 20 | M56 | Z | -4.41 | 60 |
| 21 | M59 | X | 2.82 | 18 |
| 22 | M59 | Z | -4.89 | 18 |
| 23 | M59 | X | 2.82 | 18 |
| 24 | M59 | Z | -4.89 | 18 |
| 25 | M59 | X | 2.82 | 18 |
| 26 | M59 | Z | -4.89 | 18 |
| 27 | M59 | X | 2.82 | 18 |
| 28 | M59 | Z | -4.89 | 18 |
| 29 | MP1 | X | 2.83 | 12 |
| 30 | MP1 | Z | -4.89 | 12 |
| 31 | MP1 | X | 2.83 | 30 |
| 32 | MP1 | Z | -4.89 | 30 |
| 33 | MP4 | X | 2.07 | 42 |
| 34 | MP4 | Z | -3.58 | 42 |
| 35 | MP4 | X | 2.07 | 60 |
| 36 | MP4 | Z | -3.58 | 60 |
| 37 | MP1 | X | 1.91 | 12 |
| 38 | MP1 | Z | -3.31 | 12 |
| 39 | MP1 | X | 1.91 | 29 |
| 40 | MP1 | Z | -3.31 | 29 |
| 41 | M61 | X | 4.2 | 60 |
| 42 | M61 | Z | -7.28 | 60 |
| 43 | M61 | X | 4.2 | 60 |
| 44 | M61 | Z | -7.28 | 60 |
| 45 | MP8 | X | 7.45 | 6 |
| 46 | MP8 | Z | -12.91 | 6 |
| 47 | MP8 | X | 7.45 | 72 |
| 48 | MP8 | Z | -12.91 | 72 |
| 49 | MP7 | X | 2.48 | 18 |
| 50 | MP7 | Z | -4.3 | 18 |
| 51 | MP7 | X | 2.48 | 46 |
| 52 | MP7 | Z | -4.3 | 46 |
| 53 | MP7 | X | 3.12 | 58 |
| 54 | MP7 | Z | -5.4 | 58 |
| 55 | MP7 | X | 3.12 | 89 |
| 56 | MP7 | Z | -5.4 | 89 |
| 57 | MP5 | X | 7.59 | 6 |
| 58 | MP5 | Z | -13.15 | 6 |
| 59 | MP5 | X | 7.59 | 66 |
| 60 | MP5 | Z | -13.15 | 66 |
| 61 | M66 | X | 2.55 | 60 |
| 62 | M66 | Z | -4.41 | 60 |
| 63 | M66 | X | 2.55 | 60 |
| 64 | M66 | Z | -4.41 | 60 |

Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|-----|--------------|-----------|---------------------|----------------|
| 65 | M69 | X | 2.44 | 18 |
| 66 | M69 | Z | -4.23 | 18 |
| 67 | M69 | X | 2.44 | 18 |
| 68 | M69 | Z | -4.23 | 18 |
| 69 | M69 | X | 2.44 | 18 |
| 70 | M69 | Z | -4.23 | 18 |
| 71 | M69 | X | 2.44 | 18 |
| 72 | M69 | Z | -4.23 | 18 |
| 73 | MP5 | X | 2.44 | 12 |
| 74 | MP5 | Z | -4.23 | 12 |
| 75 | MP5 | X | 2.44 | 30 |
| 76 | MP5 | Z | -4.23 | 30 |
| 77 | MP8 | X | 1.87 | 42 |
| 78 | MP8 | Z | -3.24 | 42 |
| 79 | MP8 | X | 1.87 | 60 |
| 80 | MP8 | Z | -3.24 | 60 |
| 81 | MP5 | X | 1.62 | 12 |
| 82 | MP5 | Z | -2.8 | 12 |
| 83 | MP5 | X | 1.62 | 29 |
| 84 | MP5 | Z | -2.8 | 29 |
| 85 | MP12 | X | 10.2 | 6 |
| 86 | MP12 | Z | -17.66 | 6 |
| 87 | MP12 | X | 10.2 | 72 |
| 88 | MP12 | Z | -17.66 | 72 |
| 89 | MP11 | X | 3.33 | 18 |
| 90 | MP11 | Z | -5.77 | 18 |
| 91 | MP11 | X | 3.33 | 46 |
| 92 | MP11 | Z | -5.77 | 46 |
| 93 | MP11 | X | 3.74 | 58 |
| 94 | MP11 | Z | -6.48 | 58 |
| 95 | MP11 | X | 3.74 | 89 |
| 96 | MP11 | Z | -6.48 | 89 |
| 97 | MP9 | X | 10.98 | 6 |
| 98 | MP9 | Z | -19.02 | 6 |
| 99 | MP9 | X | 10.98 | 66 |
| 100 | MP9 | Z | -19.02 | 66 |
| 101 | M64 | X | 2.82 | 18 |
| 102 | M64 | Z | -4.89 | 18 |
| 103 | M64 | X | 2.82 | 18 |
| 104 | M64 | Z | -4.89 | 18 |
| 105 | M64 | X | 2.82 | 18 |
| 106 | M64 | Z | -4.89 | 18 |
| 107 | M64 | X | 2.82 | 18 |
| 108 | M64 | Z | -4.89 | 18 |
| 109 | MP9 | X | 2.83 | 12 |
| 110 | MP9 | Z | -4.89 | 12 |
| 111 | MP9 | X | 2.83 | 30 |
| 112 | MP9 | Z | -4.89 | 30 |
| 113 | MP12 | X | 2.07 | 42 |
| 114 | MP12 | Z | -3.58 | 42 |
| 115 | MP12 | X | 2.07 | 60 |
| 116 | MP12 | Z | -3.58 | 60 |
| 117 | MP9 | X | 1.91 | 12 |
| 118 | MP9 | Z | -3.31 | 12 |
| 119 | MP9 | X | 1.91 | 29 |
| 120 | MP9 | Z | -3.31 | 29 |

Member Point Loads (BLC 31 : Seismic Load Z)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 1 | MP4 | Z | -16.027 | 6 |
| 2 | MP4 | Z | -16.027 | 72 |
| 3 | MP3 | Z | -10.221 | 18 |
| 4 | MP3 | Z | -10.221 | 46 |
| 5 | MP3 | Z | -12.936 | 58 |
| 6 | MP3 | Z | -12.936 | 89 |
| 7 | MP1 | Z | -16.768 | 6 |
| 8 | MP1 | Z | -16.768 | 66 |
| 9 | M56 | Z | -2.918 | 60 |
| 10 | M56 | Z | -2.918 | 60 |
| 11 | M59 | Z | -8.168 | 18 |
| 12 | M59 | Z | -8.168 | 18 |
| 13 | M59 | Z | -8.168 | 18 |
| 14 | M59 | Z | -8.168 | 18 |
| 15 | MP1 | Z | -8.183 | 12 |
| 16 | MP1 | Z | -8.183 | 30 |
| 17 | MP4 | Z | -10.962 | 42 |
| 18 | MP4 | Z | -10.962 | 60 |
| 19 | MP1 | Z | -9.249 | 12 |
| 20 | MP1 | Z | -9.249 | 29 |
| 21 | M61 | Z | -4.045 | 60 |
| 22 | M61 | Z | -4.045 | 60 |
| 23 | MP8 | Z | -16.027 | 6 |
| 24 | MP8 | Z | -16.027 | 72 |
| 25 | MP7 | Z | -10.221 | 18 |
| 26 | MP7 | Z | -10.221 | 46 |
| 27 | MP7 | Z | -12.936 | 58 |
| 28 | MP7 | Z | -12.936 | 89 |
| 29 | MP5 | Z | -16.768 | 6 |
| 30 | MP5 | Z | -16.768 | 66 |
| 31 | M66 | Z | -2.918 | 60 |
| 32 | M66 | Z | -2.918 | 60 |
| 33 | M69 | Z | -8.168 | 18 |
| 34 | M69 | Z | -8.168 | 18 |
| 35 | M69 | Z | -8.168 | 18 |
| 36 | M69 | Z | -8.168 | 18 |
| 37 | MP5 | Z | -8.183 | 12 |
| 38 | MP5 | Z | -8.183 | 30 |
| 39 | MP8 | Z | -10.962 | 42 |
| 40 | MP8 | Z | -10.962 | 60 |
| 41 | MP5 | Z | -9.249 | 12 |
| 42 | MP5 | Z | -9.249 | 29 |
| 43 | MP12 | Z | -16.027 | 6 |
| 44 | MP12 | Z | -16.027 | 72 |
| 45 | MP11 | Z | -10.221 | 18 |
| 46 | MP11 | Z | -10.221 | 46 |
| 47 | MP11 | Z | -12.936 | 58 |
| 48 | MP11 | Z | -12.936 | 89 |
| 49 | MP9 | Z | -16.768 | 6 |
| 50 | MP9 | Z | -16.768 | 66 |
| 51 | M64 | Z | -8.168 | 18 |
| 52 | M64 | Z | -8.168 | 18 |
| 53 | M64 | Z | -8.168 | 18 |
| 54 | M64 | Z | -8.168 | 18 |
| 55 | MP9 | Z | -8.183 | 12 |
| 56 | MP9 | Z | -8.183 | 30 |
| 57 | MP12 | Z | -10.962 | 42 |

Member Point Loads (BLC 31 : Seismic Load Z) (Continued)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in, %] |
|----|--------------|-----------|---------------------|-----------------|
| 58 | MP12 | Z | -10.962 | 60 |
| 59 | MP9 | Z | -9.249 | 12 |
| 60 | MP9 | Z | -9.249 | 29 |

Member Point Loads (BLC 32 : Seismic Load X)

| | Member Label | Direction | Magnitude[lb,lb-ft] | Location[in, %] |
|----|--------------|-----------|---------------------|-----------------|
| 1 | MP4 | X | -16.027 | 6 |
| 2 | MP4 | X | -16.027 | 72 |
| 3 | MP3 | X | -10.221 | 18 |
| 4 | MP3 | X | -10.221 | 46 |
| 5 | MP3 | X | -12.936 | 58 |
| 6 | MP3 | X | -12.936 | 89 |
| 7 | MP1 | X | -16.768 | 6 |
| 8 | MP1 | X | -16.768 | 66 |
| 9 | M56 | X | -2.918 | 60 |
| 10 | M56 | X | -2.918 | 60 |
| 11 | M59 | X | -8.168 | 18 |
| 12 | M59 | X | -8.168 | 18 |
| 13 | M59 | X | -8.168 | 18 |
| 14 | M59 | X | -8.168 | 18 |
| 15 | MP1 | X | -8.183 | 12 |
| 16 | MP1 | X | -8.183 | 30 |
| 17 | MP4 | X | -10.962 | 42 |
| 18 | MP4 | X | -10.962 | 60 |
| 19 | MP1 | X | -9.249 | 12 |
| 20 | MP1 | X | -9.249 | 29 |
| 21 | M61 | X | -4.045 | 60 |
| 22 | M61 | X | -4.045 | 60 |
| 23 | MP8 | X | -16.027 | 6 |
| 24 | MP8 | X | -16.027 | 72 |
| 25 | MP7 | X | -10.221 | 18 |
| 26 | MP7 | X | -10.221 | 46 |
| 27 | MP7 | X | -12.936 | 58 |
| 28 | MP7 | X | -12.936 | 89 |
| 29 | MP5 | X | -16.768 | 6 |
| 30 | MP5 | X | -16.768 | 66 |
| 31 | M66 | X | -2.918 | 60 |
| 32 | M66 | X | -2.918 | 60 |
| 33 | M69 | X | -8.168 | 18 |
| 34 | M69 | X | -8.168 | 18 |
| 35 | M69 | X | -8.168 | 18 |
| 36 | M69 | X | -8.168 | 18 |
| 37 | MP5 | X | -8.183 | 12 |
| 38 | MP5 | X | -8.183 | 30 |
| 39 | MP8 | X | -10.962 | 42 |
| 40 | MP8 | X | -10.962 | 60 |
| 41 | MP5 | X | -9.249 | 12 |
| 42 | MP5 | X | -9.249 | 29 |
| 43 | MP12 | X | -16.027 | 6 |
| 44 | MP12 | X | -16.027 | 72 |
| 45 | MP11 | X | -10.221 | 18 |
| 46 | MP11 | X | -10.221 | 46 |
| 47 | MP11 | X | -12.936 | 58 |
| 48 | MP11 | X | -12.936 | 89 |
| 49 | MP9 | X | -16.768 | 6 |
| 50 | MP9 | X | -16.768 | 66 |

Member Point Loads (BLC 32 : Seismic Load X) (Continued)

| | Member Label | Direction | Magnitude[lb.lb-ft] | Location[in,%] |
|----|--------------|-----------|---------------------|----------------|
| 51 | M64 | X | -8.168 | 18 |
| 52 | M64 | X | -8.168 | 18 |
| 53 | M64 | X | -8.168 | 18 |
| 54 | M64 | X | -8.168 | 18 |
| 55 | MP9 | X | -8.183 | 12 |
| 56 | MP9 | X | -8.183 | 30 |
| 57 | MP12 | X | -10.962 | 42 |
| 58 | MP12 | X | -10.962 | 60 |
| 59 | MP9 | X | -9.249 | 12 |
| 60 | MP9 | X | -9.249 | 29 |

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

| | Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|----|--------------|-----------|-----------------|---------------|----------------|--------------|
| 1 | H1 | SZ | -86.211 | -86.211 | 0 | %100 |
| 2 | M2 | SZ | -86.211 | -86.211 | 0 | %100 |
| 3 | M3 | SZ | -86.211 | -86.211 | 0 | %100 |
| 4 | M4 | SZ | -86.211 | -86.211 | 0 | %100 |
| 5 | H3 | SZ | -86.211 | -86.211 | 0 | %100 |
| 6 | H2 | SZ | -86.211 | -86.211 | 0 | %100 |
| 7 | M7 | SZ | -86.211 | -86.211 | 0 | %100 |
| 8 | M8 | SZ | -86.211 | -86.211 | 0 | %100 |
| 9 | M9 | SZ | -86.211 | -86.211 | 0 | %100 |
| 10 | S1 | SZ | -86.211 | -86.211 | 0 | %100 |
| 11 | HR1 | SZ | -51.727 | -51.727 | 0 | %100 |
| 12 | M12 | SZ | -86.211 | -86.211 | 0 | %100 |
| 13 | M13 | SZ | 0 | 0 | 0 | %100 |
| 14 | M14 | SZ | 0 | 0 | 0 | %100 |
| 15 | MP1 | SZ | -51.727 | -51.727 | 0 | %100 |
| 16 | HR3 | SZ | -51.727 | -51.727 | 0 | %100 |
| 17 | HR2 | SZ | -51.727 | -51.727 | 0 | %100 |
| 18 | M18 | SZ | -86.211 | -86.211 | 0 | %100 |
| 19 | M19 | SZ | -86.211 | -86.211 | 0 | %100 |
| 20 | S3 | SZ | -86.211 | -86.211 | 0 | %100 |
| 21 | S2 | SZ | -86.211 | -86.211 | 0 | %100 |
| 22 | M22 | SZ | 0 | 0 | 0 | %100 |
| 23 | M23 | SZ | 0 | 0 | 0 | %100 |
| 24 | MP2 | SZ | -51.727 | -51.727 | 0 | %100 |
| 25 | M25 | SZ | 0 | 0 | 0 | %100 |
| 26 | M26 | SZ | 0 | 0 | 0 | %100 |
| 27 | MP3 | SZ | -51.727 | -51.727 | 0 | %100 |
| 28 | M28 | SZ | 0 | 0 | 0 | %100 |
| 29 | M29 | SZ | 0 | 0 | 0 | %100 |
| 30 | MP4 | SZ | -51.727 | -51.727 | 0 | %100 |
| 31 | MP12 | SZ | -51.727 | -51.727 | 0 | %100 |
| 32 | M32 | SZ | 0 | 0 | 0 | %100 |
| 33 | M33 | SZ | 0 | 0 | 0 | %100 |
| 34 | M34 | SZ | 0 | 0 | 0 | %100 |
| 35 | MP9 | SZ | -51.727 | -51.727 | 0 | %100 |
| 36 | M36 | SZ | 0 | 0 | 0 | %100 |
| 37 | M37 | SZ | 0 | 0 | 0 | %100 |
| 38 | MP10 | SZ | -51.727 | -51.727 | 0 | %100 |
| 39 | M39 | SZ | 0 | 0 | 0 | %100 |
| 40 | MP11 | SZ | -51.727 | -51.727 | 0 | %100 |
| 41 | M41 | SZ | 0 | 0 | 0 | %100 |
| 42 | M42 | SZ | 0 | 0 | 0 | %100 |

Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 43 | MP8 | SZ | -51.727 | -51.727 | 0 %100 |
| 44 | M44 | SZ | 0 | 0 | 0 %100 |
| 45 | M45 | SZ | 0 | 0 | 0 %100 |
| 46 | M46 | SZ | 0 | 0 | 0 %100 |
| 47 | MP5 | SZ | -51.727 | -51.727 | 0 %100 |
| 48 | M48 | SZ | 0 | 0 | 0 %100 |
| 49 | M49 | SZ | 0 | 0 | 0 %100 |
| 50 | MP6 | SZ | -51.727 | -51.727 | 0 %100 |
| 51 | M51 | SZ | 0 | 0 | 0 %100 |
| 52 | MP7 | SZ | -51.727 | -51.727 | 0 %100 |
| 53 | M53 | SZ | 0 | 0 | 0 %100 |
| 54 | M54 | SZ | 0 | 0 | 0 %100 |
| 55 | M55 | SZ | 0 | 0 | 0 %100 |
| 56 | M56 | SZ | -51.727 | -51.727 | 0 %100 |
| 57 | M57 | SZ | 0 | 0 | 0 %100 |
| 58 | M58 | SZ | 0 | 0 | 0 %100 |
| 59 | M59 | SZ | -51.727 | -51.727 | 0 %100 |
| 60 | M60 | SZ | 0 | 0 | 0 %100 |
| 61 | M61 | SZ | -51.727 | -51.727 | 0 %100 |
| 62 | M62 | SZ | 0 | 0 | 0 %100 |
| 63 | M63 | SZ | 0 | 0 | 0 %100 |
| 64 | M64 | SZ | -51.727 | -51.727 | 0 %100 |
| 65 | M65 | SZ | 0 | 0 | 0 %100 |
| 66 | M66 | SZ | -51.727 | -51.727 | 0 %100 |
| 67 | M67 | SZ | 0 | 0 | 0 %100 |
| 68 | M68 | SZ | 0 | 0 | 0 %100 |
| 69 | M69 | SZ | -51.727 | -51.727 | 0 %100 |
| 70 | M70 | SZ | 0 | 0 | 0 %100 |
| 71 | M71 | SZ | 0 | 0 | 0 %100 |
| 72 | M72 | SZ | 0 | 0 | 0 %100 |
| 73 | RH1 | SZ | -51.727 | -51.727 | 0 %100 |
| 74 | M74 | SZ | 0 | 0 | 0 %100 |
| 75 | M75 | SZ | 0 | 0 | 0 %100 |
| 76 | M76 | SZ | 0 | 0 | 0 %100 |
| 77 | K2 | SZ | -86.211 | -86.211 | 0 %100 |
| 78 | K1 | SZ | -86.211 | -86.211 | 0 %100 |
| 79 | M79 | SZ | 0 | 0 | 0 %100 |
| 80 | M80 | SZ | 0 | 0 | 0 %100 |
| 81 | M81 | SZ | 0 | 0 | 0 %100 |
| 82 | RH3 | SZ | -51.727 | -51.727 | 0 %100 |
| 83 | M83 | SZ | 0 | 0 | 0 %100 |
| 84 | M84 | SZ | 0 | 0 | 0 %100 |
| 85 | M85 | SZ | 0 | 0 | 0 %100 |
| 86 | K6 | SZ | -86.211 | -86.211 | 0 %100 |
| 87 | K5 | SZ | -86.211 | -86.211 | 0 %100 |
| 88 | M88 | SZ | 0 | 0 | 0 %100 |
| 89 | M89 | SZ | 0 | 0 | 0 %100 |
| 90 | M90 | SZ | 0 | 0 | 0 %100 |
| 91 | RH2 | SZ | -51.727 | -51.727 | 0 %100 |
| 92 | M92 | SZ | 0 | 0 | 0 %100 |
| 93 | M93 | SZ | 0 | 0 | 0 %100 |
| 94 | M94 | SZ | 0 | 0 | 0 %100 |
| 95 | K4 | SZ | -86.211 | -86.211 | 0 %100 |
| 96 | K3 | SZ | -86.211 | -86.211 | 0 %100 |

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
|--------------|-----------|-----------------|---------------|----------------|--------------|

Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 1 | H1 | SX | -86.211 | -86.211 | 0 %100 |
| 2 | M2 | SX | -86.211 | -86.211 | 0 %100 |
| 3 | M3 | SX | -86.211 | -86.211 | 0 %100 |
| 4 | M4 | SX | -86.211 | -86.211 | 0 %100 |
| 5 | H3 | SX | -86.211 | -86.211 | 0 %100 |
| 6 | H2 | SX | -86.211 | -86.211 | 0 %100 |
| 7 | M7 | SX | -86.211 | -86.211 | 0 %100 |
| 8 | M8 | SX | -86.211 | -86.211 | 0 %100 |
| 9 | M9 | SX | -86.211 | -86.211 | 0 %100 |
| 10 | S1 | SX | -86.211 | -86.211 | 0 %100 |
| 11 | HR1 | SX | -51.727 | -51.727 | 0 %100 |
| 12 | M12 | SX | -86.211 | -86.211 | 0 %100 |
| 13 | M13 | SX | 0 | 0 | 0 %100 |
| 14 | M14 | SX | 0 | 0 | 0 %100 |
| 15 | MP1 | SX | -51.727 | -51.727 | 0 %100 |
| 16 | HR3 | SX | -51.727 | -51.727 | 0 %100 |
| 17 | HR2 | SX | -51.727 | -51.727 | 0 %100 |
| 18 | M18 | SX | -86.211 | -86.211 | 0 %100 |
| 19 | M19 | SX | -86.211 | -86.211 | 0 %100 |
| 20 | S3 | SX | -86.211 | -86.211 | 0 %100 |
| 21 | S2 | SX | -86.211 | -86.211 | 0 %100 |
| 22 | M22 | SX | 0 | 0 | 0 %100 |
| 23 | M23 | SX | 0 | 0 | 0 %100 |
| 24 | MP2 | SX | -51.727 | -51.727 | 0 %100 |
| 25 | M25 | SX | 0 | 0 | 0 %100 |
| 26 | M26 | SX | 0 | 0 | 0 %100 |
| 27 | MP3 | SX | -51.727 | -51.727 | 0 %100 |
| 28 | M28 | SX | 0 | 0 | 0 %100 |
| 29 | M29 | SX | 0 | 0 | 0 %100 |
| 30 | MP4 | SX | -51.727 | -51.727 | 0 %100 |
| 31 | MP12 | SX | -51.727 | -51.727 | 0 %100 |
| 32 | M32 | SX | 0 | 0 | 0 %100 |
| 33 | M33 | SX | 0 | 0 | 0 %100 |
| 34 | M34 | SX | 0 | 0 | 0 %100 |
| 35 | MP9 | SX | -51.727 | -51.727 | 0 %100 |
| 36 | M36 | SX | 0 | 0 | 0 %100 |
| 37 | M37 | SX | 0 | 0 | 0 %100 |
| 38 | MP10 | SX | -51.727 | -51.727 | 0 %100 |
| 39 | M39 | SX | 0 | 0 | 0 %100 |
| 40 | MP11 | SX | -51.727 | -51.727 | 0 %100 |
| 41 | M41 | SX | 0 | 0 | 0 %100 |
| 42 | M42 | SX | 0 | 0 | 0 %100 |
| 43 | MP8 | SX | -51.727 | -51.727 | 0 %100 |
| 44 | M44 | SX | 0 | 0 | 0 %100 |
| 45 | M45 | SX | 0 | 0 | 0 %100 |
| 46 | M46 | SX | 0 | 0 | 0 %100 |
| 47 | MP5 | SX | -51.727 | -51.727 | 0 %100 |
| 48 | M48 | SX | 0 | 0 | 0 %100 |
| 49 | M49 | SX | 0 | 0 | 0 %100 |
| 50 | MP6 | SX | -51.727 | -51.727 | 0 %100 |
| 51 | M51 | SX | 0 | 0 | 0 %100 |
| 52 | MP7 | SX | -51.727 | -51.727 | 0 %100 |
| 53 | M53 | SX | 0 | 0 | 0 %100 |
| 54 | M54 | SX | 0 | 0 | 0 %100 |
| 55 | M55 | SX | 0 | 0 | 0 %100 |
| 56 | M56 | SX | -51.727 | -51.727 | 0 %100 |
| 57 | M57 | SX | 0 | 0 | 0 %100 |

Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 58 | M58 | SX | 0 | 0 | %100 |
| 59 | M59 | SX | -51.727 | -51.727 | %100 |
| 60 | M60 | SX | 0 | 0 | %100 |
| 61 | M61 | SX | -51.727 | -51.727 | %100 |
| 62 | M62 | SX | 0 | 0 | %100 |
| 63 | M63 | SX | 0 | 0 | %100 |
| 64 | M64 | SX | -51.727 | -51.727 | %100 |
| 65 | M65 | SX | 0 | 0 | %100 |
| 66 | M66 | SX | -51.727 | -51.727 | %100 |
| 67 | M67 | SX | 0 | 0 | %100 |
| 68 | M68 | SX | 0 | 0 | %100 |
| 69 | M69 | SX | -51.727 | -51.727 | %100 |
| 70 | M70 | SX | 0 | 0 | %100 |
| 71 | M71 | SX | 0 | 0 | %100 |
| 72 | M72 | SX | 0 | 0 | %100 |
| 73 | RH1 | SX | -51.727 | -51.727 | %100 |
| 74 | M74 | SX | 0 | 0 | %100 |
| 75 | M75 | SX | 0 | 0 | %100 |
| 76 | M76 | SX | 0 | 0 | %100 |
| 77 | K2 | SX | -86.211 | -86.211 | %100 |
| 78 | K1 | SX | -86.211 | -86.211 | %100 |
| 79 | M79 | SX | 0 | 0 | %100 |
| 80 | M80 | SX | 0 | 0 | %100 |
| 81 | M81 | SX | 0 | 0 | %100 |
| 82 | RH3 | SX | -51.727 | -51.727 | %100 |
| 83 | M83 | SX | 0 | 0 | %100 |
| 84 | M84 | SX | 0 | 0 | %100 |
| 85 | M85 | SX | 0 | 0 | %100 |
| 86 | K6 | SX | -86.211 | -86.211 | %100 |
| 87 | K5 | SX | -86.211 | -86.211 | %100 |
| 88 | M88 | SX | 0 | 0 | %100 |
| 89 | M89 | SX | 0 | 0 | %100 |
| 90 | M90 | SX | 0 | 0 | %100 |
| 91 | RH2 | SX | -51.727 | -51.727 | %100 |
| 92 | M92 | SX | 0 | 0 | %100 |
| 93 | M93 | SX | 0 | 0 | %100 |
| 94 | M94 | SX | 0 | 0 | %100 |
| 95 | K4 | SX | -86.211 | -86.211 | %100 |
| 96 | K3 | SX | -86.211 | -86.211 | %100 |

Member Distributed Loads (BLC 16 : Ice Weight)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 1 | H1 | Y | -12.164 | -12.164 | %100 |
| 2 | M2 | Y | -15.773 | -15.773 | %100 |
| 3 | M3 | Y | -15.773 | -15.773 | %100 |
| 4 | M4 | Y | -12.164 | -12.164 | %100 |
| 5 | H3 | Y | -12.164 | -12.164 | %100 |
| 6 | H2 | Y | -12.164 | -12.164 | %100 |
| 7 | M7 | Y | -12.164 | -12.164 | %100 |
| 8 | M8 | Y | -12.164 | -12.164 | %100 |
| 9 | M9 | Y | -15.773 | -15.773 | %100 |
| 10 | S1 | Y | -17.005 | -17.005 | %100 |
| 11 | HR1 | Y | -8.329 | -8.329 | %100 |
| 12 | M12 | Y | -10.712 | -10.712 | %100 |
| 13 | M13 | Y | -3.452 | -3.452 | %100 |
| 14 | M14 | Y | -3.452 | -3.452 | %100 |

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 15 | MP1 | Y | -8.329 | -8.329 | 0 %100 |
| 16 | HR3 | Y | -8.329 | -8.329 | 0 %100 |
| 17 | HR2 | Y | -8.329 | -8.329 | 0 %100 |
| 18 | M18 | Y | -10.712 | -10.712 | 0 %100 |
| 19 | M19 | Y | -10.712 | -10.712 | 0 %100 |
| 20 | S3 | Y | -17.005 | -17.005 | 0 %100 |
| 21 | S2 | Y | -17.005 | -17.005 | 0 %100 |
| 22 | M22 | Y | -3.452 | -3.452 | 0 %100 |
| 23 | M23 | Y | -3.452 | -3.452 | 0 %100 |
| 24 | MP2 | Y | -8.329 | -8.329 | 0 %100 |
| 25 | M25 | Y | -3.452 | -3.452 | 0 %100 |
| 26 | M26 | Y | -3.452 | -3.452 | 0 %100 |
| 27 | MP3 | Y | -8.329 | -8.329 | 0 %100 |
| 28 | M28 | Y | -3.452 | -3.452 | 0 %100 |
| 29 | M29 | Y | -3.452 | -3.452 | 0 %100 |
| 30 | MP4 | Y | -8.329 | -8.329 | 0 %100 |
| 31 | MP12 | Y | -8.329 | -8.329 | 0 %100 |
| 32 | M32 | Y | -3.452 | -3.452 | 0 %100 |
| 33 | M33 | Y | -3.452 | -3.452 | 0 %100 |
| 34 | M34 | Y | -3.452 | -3.452 | 0 %100 |
| 35 | MP9 | Y | -8.329 | -8.329 | 0 %100 |
| 36 | M36 | Y | -3.452 | -3.452 | 0 %100 |
| 37 | M37 | Y | -3.452 | -3.452 | 0 %100 |
| 38 | MP10 | Y | -8.329 | -8.329 | 0 %100 |
| 39 | M39 | Y | -3.452 | -3.452 | 0 %100 |
| 40 | MP11 | Y | -8.329 | -8.329 | 0 %100 |
| 41 | M41 | Y | -3.452 | -3.452 | 0 %100 |
| 42 | M42 | Y | -3.452 | -3.452 | 0 %100 |
| 43 | MP8 | Y | -8.329 | -8.329 | 0 %100 |
| 44 | M44 | Y | -3.452 | -3.452 | 0 %100 |
| 45 | M45 | Y | -3.452 | -3.452 | 0 %100 |
| 46 | M46 | Y | -3.452 | -3.452 | 0 %100 |
| 47 | MP5 | Y | -8.329 | -8.329 | 0 %100 |
| 48 | M48 | Y | -3.452 | -3.452 | 0 %100 |
| 49 | M49 | Y | -3.452 | -3.452 | 0 %100 |
| 50 | MP6 | Y | -8.329 | -8.329 | 0 %100 |
| 51 | M51 | Y | -3.452 | -3.452 | 0 %100 |
| 52 | MP7 | Y | -8.329 | -8.329 | 0 %100 |
| 53 | M53 | Y | -3.452 | -3.452 | 0 %100 |
| 54 | M54 | Y | -3.452 | -3.452 | 0 %100 |
| 55 | M55 | Y | -3.452 | -3.452 | 0 %100 |
| 56 | M56 | Y | -8.329 | -8.329 | 0 %100 |
| 57 | M57 | Y | -3.452 | -3.452 | 0 %100 |
| 58 | M58 | Y | -3.452 | -3.452 | 0 %100 |
| 59 | M59 | Y | -8.329 | -8.329 | 0 %100 |
| 60 | M60 | Y | -3.452 | -3.452 | 0 %100 |
| 61 | M61 | Y | -8.329 | -8.329 | 0 %100 |
| 62 | M62 | Y | -3.452 | -3.452 | 0 %100 |
| 63 | M63 | Y | -3.452 | -3.452 | 0 %100 |
| 64 | M64 | Y | -8.329 | -8.329 | 0 %100 |
| 65 | M65 | Y | -3.452 | -3.452 | 0 %100 |
| 66 | M66 | Y | -8.329 | -8.329 | 0 %100 |
| 67 | M67 | Y | -3.452 | -3.452 | 0 %100 |
| 68 | M68 | Y | -3.452 | -3.452 | 0 %100 |
| 69 | M69 | Y | -8.329 | -8.329 | 0 %100 |
| 70 | M70 | Y | -3.452 | -3.452 | 0 %100 |
| 71 | M71 | Y | -3.452 | -3.452 | 0 %100 |

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 72 | M72 | Y | -3.452 | -3.452 | 0 %100 |
| 73 | RH1 | Y | -8.329 | -8.329 | 0 %100 |
| 74 | M74 | Y | -3.452 | -3.452 | 0 %100 |
| 75 | M75 | Y | -3.452 | -3.452 | 0 %100 |
| 76 | M76 | Y | -3.452 | -3.452 | 0 %100 |
| 77 | K2 | Y | -10.712 | -10.712 | 0 %100 |
| 78 | K1 | Y | -10.712 | -10.712 | 0 %100 |
| 79 | M79 | Y | -3.452 | -3.452 | 0 %100 |
| 80 | M80 | Y | -3.452 | -3.452 | 0 %100 |
| 81 | M81 | Y | -3.452 | -3.452 | 0 %100 |
| 82 | RH3 | Y | -8.329 | -8.329 | 0 %100 |
| 83 | M83 | Y | -3.452 | -3.452 | 0 %100 |
| 84 | M84 | Y | -3.452 | -3.452 | 0 %100 |
| 85 | M85 | Y | -3.452 | -3.452 | 0 %100 |
| 86 | K6 | Y | -10.712 | -10.712 | 0 %100 |
| 87 | K5 | Y | -10.712 | -10.712 | 0 %100 |
| 88 | M88 | Y | -3.452 | -3.452 | 0 %100 |
| 89 | M89 | Y | -3.452 | -3.452 | 0 %100 |
| 90 | M90 | Y | -3.452 | -3.452 | 0 %100 |
| 91 | RH2 | Y | -8.329 | -8.329 | 0 %100 |
| 92 | M92 | Y | -3.452 | -3.452 | 0 %100 |
| 93 | M93 | Y | -3.452 | -3.452 | 0 %100 |
| 94 | M94 | Y | -3.452 | -3.452 | 0 %100 |
| 95 | K4 | Y | -10.712 | -10.712 | 0 %100 |
| 96 | K3 | Y | -10.712 | -10.712 | 0 %100 |

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 1 | H1 | SZ | -16.646 | -16.646 | 0 %100 |
| 2 | M2 | SZ | -14.491 | -14.491 | 0 %100 |
| 3 | M3 | SZ | -14.491 | -14.491 | 0 %100 |
| 4 | M4 | SZ | -16.646 | -16.646 | 0 %100 |
| 5 | H3 | SZ | -16.646 | -16.646 | 0 %100 |
| 6 | H2 | SZ | -16.646 | -16.646 | 0 %100 |
| 7 | M7 | SZ | -16.646 | -16.646 | 0 %100 |
| 8 | M8 | SZ | -16.646 | -16.646 | 0 %100 |
| 9 | M9 | SZ | -14.491 | -14.491 | 0 %100 |
| 10 | S1 | SZ | -14.018 | -14.018 | 0 %100 |
| 11 | HR1 | SZ | -22.433 | -22.433 | 0 %100 |
| 12 | M12 | SZ | -18.118 | -18.118 | 0 %100 |
| 13 | M13 | SZ | 0 | 0 | 0 %100 |
| 14 | M14 | SZ | 0 | 0 | 0 %100 |
| 15 | MP1 | SZ | -22.433 | -22.433 | 0 %100 |
| 16 | HR3 | SZ | -22.433 | -22.433 | 0 %100 |
| 17 | HR2 | SZ | -22.433 | -22.433 | 0 %100 |
| 18 | M18 | SZ | -18.118 | -18.118 | 0 %100 |
| 19 | M19 | SZ | -18.118 | -18.118 | 0 %100 |
| 20 | S3 | SZ | -14.018 | -14.018 | 0 %100 |
| 21 | S2 | SZ | -14.018 | -14.018 | 0 %100 |
| 22 | M22 | SZ | 0 | 0 | 0 %100 |
| 23 | M23 | SZ | 0 | 0 | 0 %100 |
| 24 | MP2 | SZ | -22.433 | -22.433 | 0 %100 |
| 25 | M25 | SZ | 0 | 0 | 0 %100 |
| 26 | M26 | SZ | 0 | 0 | 0 %100 |
| 27 | MP3 | SZ | -22.433 | -22.433 | 0 %100 |
| 28 | M28 | SZ | 0 | 0 | 0 %100 |

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 29 | M29 | SZ | 0 | 0 | %100 |
| 30 | MP4 | SZ | -22.433 | -22.433 | 0 |
| 31 | MP12 | SZ | -22.433 | -22.433 | 0 |
| 32 | M32 | SZ | 0 | 0 | %100 |
| 33 | M33 | SZ | 0 | 0 | %100 |
| 34 | M34 | SZ | 0 | 0 | %100 |
| 35 | MP9 | SZ | -22.433 | -22.433 | 0 |
| 36 | M36 | SZ | 0 | 0 | %100 |
| 37 | M37 | SZ | 0 | 0 | %100 |
| 38 | MP10 | SZ | -22.433 | -22.433 | 0 |
| 39 | M39 | SZ | 0 | 0 | %100 |
| 40 | MP11 | SZ | -22.433 | -22.433 | 0 |
| 41 | M41 | SZ | 0 | 0 | %100 |
| 42 | M42 | SZ | 0 | 0 | %100 |
| 43 | MP8 | SZ | -22.433 | -22.433 | 0 |
| 44 | M44 | SZ | 0 | 0 | %100 |
| 45 | M45 | SZ | 0 | 0 | %100 |
| 46 | M46 | SZ | 0 | 0 | %100 |
| 47 | MP5 | SZ | -22.433 | -22.433 | 0 |
| 48 | M48 | SZ | 0 | 0 | %100 |
| 49 | M49 | SZ | 0 | 0 | %100 |
| 50 | MP6 | SZ | -22.433 | -22.433 | 0 |
| 51 | M51 | SZ | 0 | 0 | %100 |
| 52 | MP7 | SZ | -22.433 | -22.433 | 0 |
| 53 | M53 | SZ | 0 | 0 | %100 |
| 54 | M54 | SZ | 0 | 0 | %100 |
| 55 | M55 | SZ | 0 | 0 | %100 |
| 56 | M56 | SZ | -22.433 | -22.433 | 0 |
| 57 | M57 | SZ | 0 | 0 | %100 |
| 58 | M58 | SZ | 0 | 0 | %100 |
| 59 | M59 | SZ | -22.433 | -22.433 | 0 |
| 60 | M60 | SZ | 0 | 0 | %100 |
| 61 | M61 | SZ | -22.433 | -22.433 | 0 |
| 62 | M62 | SZ | 0 | 0 | %100 |
| 63 | M63 | SZ | 0 | 0 | %100 |
| 64 | M64 | SZ | -22.433 | -22.433 | 0 |
| 65 | M65 | SZ | 0 | 0 | %100 |
| 66 | M66 | SZ | -22.433 | -22.433 | 0 |
| 67 | M67 | SZ | 0 | 0 | %100 |
| 68 | M68 | SZ | 0 | 0 | %100 |
| 69 | M69 | SZ | -22.433 | -22.433 | 0 |
| 70 | M70 | SZ | 0 | 0 | %100 |
| 71 | M71 | SZ | 0 | 0 | %100 |
| 72 | M72 | SZ | 0 | 0 | %100 |
| 73 | RH1 | SZ | -22.433 | -22.433 | 0 |
| 74 | M74 | SZ | 0 | 0 | %100 |
| 75 | M75 | SZ | 0 | 0 | %100 |
| 76 | M76 | SZ | 0 | 0 | %100 |
| 77 | K2 | SZ | -18.118 | -18.118 | 0 |
| 78 | K1 | SZ | -18.118 | -18.118 | 0 |
| 79 | M79 | SZ | 0 | 0 | %100 |
| 80 | M80 | SZ | 0 | 0 | %100 |
| 81 | M81 | SZ | 0 | 0 | %100 |
| 82 | RH3 | SZ | -22.433 | -22.433 | 0 |
| 83 | M83 | SZ | 0 | 0 | %100 |
| 84 | M84 | SZ | 0 | 0 | %100 |
| 85 | M85 | SZ | 0 | 0 | %100 |

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 86 | K6 | SZ | -18.118 | -18.118 | 0 %100 |
| 87 | K5 | SZ | -18.118 | -18.118 | 0 %100 |
| 88 | M88 | SZ | 0 | 0 | 0 %100 |
| 89 | M89 | SZ | 0 | 0 | 0 %100 |
| 90 | M90 | SZ | 0 | 0 | 0 %100 |
| 91 | RH2 | SZ | -22.433 | -22.433 | 0 %100 |
| 92 | M92 | SZ | 0 | 0 | 0 %100 |
| 93 | M93 | SZ | 0 | 0 | 0 %100 |
| 94 | M94 | SZ | 0 | 0 | 0 %100 |
| 95 | K4 | SZ | -18.118 | -18.118 | 0 %100 |
| 96 | K3 | SZ | -18.118 | -18.118 | 0 %100 |

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 1 | H1 | SX | -16.646 | -16.646 | 0 %100 |
| 2 | M2 | SX | -14.491 | -14.491 | 0 %100 |
| 3 | M3 | SX | -14.491 | -14.491 | 0 %100 |
| 4 | M4 | SX | -16.646 | -16.646 | 0 %100 |
| 5 | H3 | SX | -16.646 | -16.646 | 0 %100 |
| 6 | H2 | SX | -16.646 | -16.646 | 0 %100 |
| 7 | M7 | SX | -16.646 | -16.646 | 0 %100 |
| 8 | M8 | SX | -16.646 | -16.646 | 0 %100 |
| 9 | M9 | SX | -14.491 | -14.491 | 0 %100 |
| 10 | S1 | SX | -14.018 | -14.018 | 0 %100 |
| 11 | HR1 | SX | -22.433 | -22.433 | 0 %100 |
| 12 | M12 | SX | -18.118 | -18.118 | 0 %100 |
| 13 | M13 | SX | 0 | 0 | 0 %100 |
| 14 | M14 | SX | 0 | 0 | 0 %100 |
| 15 | MP1 | SX | -22.433 | -22.433 | 0 %100 |
| 16 | HR3 | SX | -22.433 | -22.433 | 0 %100 |
| 17 | HR2 | SX | -22.433 | -22.433 | 0 %100 |
| 18 | M18 | SX | -18.118 | -18.118 | 0 %100 |
| 19 | M19 | SX | -18.118 | -18.118 | 0 %100 |
| 20 | S3 | SX | -14.018 | -14.018 | 0 %100 |
| 21 | S2 | SX | -14.018 | -14.018 | 0 %100 |
| 22 | M22 | SX | 0 | 0 | 0 %100 |
| 23 | M23 | SX | 0 | 0 | 0 %100 |
| 24 | MP2 | SX | -22.433 | -22.433 | 0 %100 |
| 25 | M25 | SX | 0 | 0 | 0 %100 |
| 26 | M26 | SX | 0 | 0 | 0 %100 |
| 27 | MP3 | SX | -22.433 | -22.433 | 0 %100 |
| 28 | M28 | SX | 0 | 0 | 0 %100 |
| 29 | M29 | SX | 0 | 0 | 0 %100 |
| 30 | MP4 | SX | -22.433 | -22.433 | 0 %100 |
| 31 | MP12 | SX | -22.433 | -22.433 | 0 %100 |
| 32 | M32 | SX | 0 | 0 | 0 %100 |
| 33 | M33 | SX | 0 | 0 | 0 %100 |
| 34 | M34 | SX | 0 | 0 | 0 %100 |
| 35 | MP9 | SX | -22.433 | -22.433 | 0 %100 |
| 36 | M36 | SX | 0 | 0 | 0 %100 |
| 37 | M37 | SX | 0 | 0 | 0 %100 |
| 38 | MP10 | SX | -22.433 | -22.433 | 0 %100 |
| 39 | M39 | SX | 0 | 0 | 0 %100 |
| 40 | MP11 | SX | -22.433 | -22.433 | 0 %100 |
| 41 | M41 | SX | 0 | 0 | 0 %100 |
| 42 | M42 | SX | 0 | 0 | 0 %100 |

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
| 43 | MP8 | SX | -22.433 | -22.433 | 0 %100 |
| 44 | M44 | SX | 0 | 0 | 0 %100 |
| 45 | M45 | SX | 0 | 0 | 0 %100 |
| 46 | M46 | SX | 0 | 0 | 0 %100 |
| 47 | MP5 | SX | -22.433 | -22.433 | 0 %100 |
| 48 | M48 | SX | 0 | 0 | 0 %100 |
| 49 | M49 | SX | 0 | 0 | 0 %100 |
| 50 | MP6 | SX | -22.433 | -22.433 | 0 %100 |
| 51 | M51 | SX | 0 | 0 | 0 %100 |
| 52 | MP7 | SX | -22.433 | -22.433 | 0 %100 |
| 53 | M53 | SX | 0 | 0 | 0 %100 |
| 54 | M54 | SX | 0 | 0 | 0 %100 |
| 55 | M55 | SX | 0 | 0 | 0 %100 |
| 56 | M56 | SX | -22.433 | -22.433 | 0 %100 |
| 57 | M57 | SX | 0 | 0 | 0 %100 |
| 58 | M58 | SX | 0 | 0 | 0 %100 |
| 59 | M59 | SX | -22.433 | -22.433 | 0 %100 |
| 60 | M60 | SX | 0 | 0 | 0 %100 |
| 61 | M61 | SX | -22.433 | -22.433 | 0 %100 |
| 62 | M62 | SX | 0 | 0 | 0 %100 |
| 63 | M63 | SX | 0 | 0 | 0 %100 |
| 64 | M64 | SX | -22.433 | -22.433 | 0 %100 |
| 65 | M65 | SX | 0 | 0 | 0 %100 |
| 66 | M66 | SX | -22.433 | -22.433 | 0 %100 |
| 67 | M67 | SX | 0 | 0 | 0 %100 |
| 68 | M68 | SX | 0 | 0 | 0 %100 |
| 69 | M69 | SX | -22.433 | -22.433 | 0 %100 |
| 70 | M70 | SX | 0 | 0 | 0 %100 |
| 71 | M71 | SX | 0 | 0 | 0 %100 |
| 72 | M72 | SX | 0 | 0 | 0 %100 |
| 73 | RH1 | SX | -22.433 | -22.433 | 0 %100 |
| 74 | M74 | SX | 0 | 0 | 0 %100 |
| 75 | M75 | SX | 0 | 0 | 0 %100 |
| 76 | M76 | SX | 0 | 0 | 0 %100 |
| 77 | K2 | SX | -18.118 | -18.118 | 0 %100 |
| 78 | K1 | SX | -18.118 | -18.118 | 0 %100 |
| 79 | M79 | SX | 0 | 0 | 0 %100 |
| 80 | M80 | SX | 0 | 0 | 0 %100 |
| 81 | M81 | SX | 0 | 0 | 0 %100 |
| 82 | RH3 | SX | -22.433 | -22.433 | 0 %100 |
| 83 | M83 | SX | 0 | 0 | 0 %100 |
| 84 | M84 | SX | 0 | 0 | 0 %100 |
| 85 | M85 | SX | 0 | 0 | 0 %100 |
| 86 | K6 | SX | -18.118 | -18.118 | 0 %100 |
| 87 | K5 | SX | -18.118 | -18.118 | 0 %100 |
| 88 | M88 | SX | 0 | 0 | 0 %100 |
| 89 | M89 | SX | 0 | 0 | 0 %100 |
| 90 | M90 | SX | 0 | 0 | 0 %100 |
| 91 | RH2 | SX | -22.433 | -22.433 | 0 %100 |
| 92 | M92 | SX | 0 | 0 | 0 %100 |
| 93 | M93 | SX | 0 | 0 | 0 %100 |
| 94 | M94 | SX | 0 | 0 | 0 %100 |
| 95 | K4 | SX | -18.118 | -18.118 | 0 %100 |
| 96 | K3 | SX | -18.118 | -18.118 | 0 %100 |

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|--------------|-----------|-----------------|---------------|----------------|--------------|
|--------------|-----------|-----------------|---------------|----------------|--------------|

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads) (Continued)

| | Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|----|--------------|-----------|-----------------|---------------|----------------|--------------|
| 1 | H1 | Y | -0.368 | -0.909 | 0 | 28 |
| 2 | H1 | Y | -0.909 | -1.272 | 28 | 56 |
| 3 | H1 | Y | -1.272 | -1.364 | 56 | 84 |
| 4 | H1 | Y | -1.364 | -1.272 | 84 | 112 |
| 5 | H1 | Y | -1.272 | -0.909 | 112 | 140 |
| 6 | H1 | Y | -0.909 | -0.368 | 140 | 168 |
| 7 | M2 | Y | -2.982 | -1.666 | 0 | 23.5 |
| 8 | M2 | Y | -1.666 | -0.349 | 23.5 | 47 |
| 9 | M3 | Y | -2.982 | -1.666 | 0 | 23.5 |
| 10 | M3 | Y | -1.666 | -0.349 | 23.5 | 47 |
| 11 | M4 | Y | -1.31 | -1.31 | .104 | 86.49 |
| 12 | S1 | Y | -3.157 | -3.157 | 11 | 34.5 |
| 13 | H3 | Y | -0.368 | -0.909 | 0 | 28 |
| 14 | H3 | Y | -0.909 | -1.272 | 28 | 56 |
| 15 | H3 | Y | -1.272 | -1.364 | 56 | 84 |
| 16 | H3 | Y | -1.364 | -1.272 | 84 | 112 |
| 17 | H3 | Y | -1.272 | -0.909 | 112 | 140 |
| 18 | H3 | Y | -0.909 | -0.368 | 140 | 168 |
| 19 | M8 | Y | -1.31 | -1.31 | .104 | 86.49 |
| 20 | M9 | Y | -2.982 | -1.666 | 0 | 23.5 |
| 21 | M9 | Y | -1.666 | -0.349 | 23.5 | 47 |
| 22 | S3 | Y | -3.157 | -3.157 | 11 | 34.5 |
| 23 | H2 | Y | -0.368 | -0.909 | 0 | 28 |
| 24 | H2 | Y | -0.909 | -1.272 | 28 | 56 |
| 25 | H2 | Y | -1.272 | -1.364 | 56 | 84 |
| 26 | H2 | Y | -1.364 | -1.272 | 84 | 112 |
| 27 | H2 | Y | -1.272 | -0.909 | 112 | 140 |
| 28 | H2 | Y | -0.909 | -0.368 | 140 | 168 |
| 29 | M7 | Y | -1.31 | -1.31 | .104 | 86.49 |
| 30 | S2 | Y | -3.157 | -3.157 | 11 | 34.5 |

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads)

| | Member Label | Direction | Start Magnitude | End Magnitude | Start Location | End Location |
|----|--------------|-----------|-----------------|---------------|----------------|--------------|
| 1 | H1 | Y | -3.303 | -8.158 | 0 | 28 |
| 2 | H1 | Y | -8.158 | -11.412 | 28 | 56 |
| 3 | H1 | Y | -11.412 | -12.238 | 56 | 84 |
| 4 | H1 | Y | -12.238 | -11.412 | 84 | 112 |
| 5 | H1 | Y | -11.412 | -8.158 | 112 | 140 |
| 6 | H1 | Y | -8.158 | -3.303 | 140 | 168 |
| 7 | M2 | Y | -26.751 | -14.943 | 0 | 23.5 |
| 8 | M2 | Y | -14.943 | -3.135 | 23.5 | 47 |
| 9 | M3 | Y | -26.751 | -14.943 | 0 | 23.5 |
| 10 | M3 | Y | -14.943 | -3.135 | 23.5 | 47 |
| 11 | M4 | Y | -11.748 | -11.748 | .104 | 86.49 |
| 12 | S1 | Y | -28.323 | -28.323 | 11 | 34.5 |
| 13 | H3 | Y | -3.303 | -8.158 | 0 | 28 |
| 14 | H3 | Y | -8.158 | -11.412 | 28 | 56 |
| 15 | H3 | Y | -11.412 | -12.238 | 56 | 84 |
| 16 | H3 | Y | -12.238 | -11.412 | 84 | 112 |
| 17 | H3 | Y | -11.412 | -8.158 | 112 | 140 |
| 18 | H3 | Y | -8.158 | -3.303 | 140 | 168 |
| 19 | M8 | Y | -11.748 | -11.748 | .104 | 86.49 |
| 20 | M9 | Y | -26.751 | -14.943 | 0 | 23.5 |
| 21 | M9 | Y | -14.943 | -3.135 | 23.5 | 47 |
| 22 | S3 | Y | -28.323 | -28.323 | 11 | 34.5 |
| 23 | H2 | Y | -3.303 | -8.158 | 0 | 28 |

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

| Member Label | Direction | Start Magnitude | End Magnitude | Start Location[in] | End Location[in] |
|--------------|-----------|-----------------|---------------|--------------------|------------------|
| 24 | H2 | Y | -8.158 | -11.412 | 28 56 |
| 25 | H2 | Y | -11.412 | -12.238 | 56 84 |
| 26 | H2 | Y | -12.238 | -11.412 | 84 112 |
| 27 | H2 | Y | -11.412 | -8.158 | 112 140 |
| 28 | H2 | Y | -8.158 | -3.303 | 140 168 |
| 29 | M7 | Y | -11.748 | -11.748 | .104 86.49 |
| 30 | S2 | Y | -28.323 | -28.323 | 11 34.5 |

Member Area Loads (BLC 1 : Self Weight)

| Joint A | Joint B | Joint C | Joint D | Direction | Distribution | Magnitude[psf] | |
|---------|---------|---------|---------|-----------|--------------|----------------|-------|
| 1 | N2 | N5 | N4 | N3 | Y | Two Way | -1.75 |
| 2 | N4 | N8 | N7 | N3 | Y | Two Way | -1.75 |
| 3 | N8 | N5 | N2 | N7 | Y | Two Way | -1.75 |

Member Area Loads (BLC 16 : Ice Weight)

| Joint A | Joint B | Joint C | Joint D | Direction | Distribution | Magnitude[psf] | |
|---------|---------|---------|---------|-----------|--------------|----------------|-------|
| 1 | N2 | N5 | N4 | N3 | Y | Two Way | -15.7 |
| 2 | N4 | N8 | N7 | N3 | Y | Two Way | -15.7 |
| 3 | N8 | N5 | N2 | N7 | Y | Two Way | -15.7 |

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

| Member | Shape | Code Check | Loc[in] | LC | Shear Check | Loc[in] | Dir | LC | phi* | phi* | phi* | phi* | Eqn | |
|--------|-------|--------------|---------|---------|-------------|---------|--------|----|------|------|--------|------|-------|-------|
| 1 | H1 | L3X3X4 | .826 | 84 | 8 | .201 | 84 | y | 2 | 4237 | .46656 | 1688 | .3755 | H2-1 |
| 2 | H3 | L3X3X4 | .805 | 84 | 12 | .199 | 84 | y | 6 | 4237 | .46656 | 1688 | .3755 | H2-1 |
| 3 | H2 | L3X3X4 | .798 | 84 | 4 | .199 | 84 | y | 10 | 4545 | .46656 | 1688 | .3755 | H2-1 |
| 4 | M61 | PIPE 2.0 | .602 | 63 | 12 | .091 | 63 | | 6 | 1785 | .32130 | 1871 | .1871 | H1... |
| 5 | M66 | PIPE 2.0 | .589 | 63 | 4 | .082 | 63 | | 3 | 1785 | .32130 | 1871 | .1871 | H1... |
| 6 | M56 | PIPE 2.0 | .589 | 63 | 8 | .082 | 63 | | 13 | 1785 | .32130 | 1871 | .1871 | H1... |
| 7 | MP3 | PIPE 2.0 | .545 | 77.5 | 8 | .170 | 77.5 | | 8 | 9836 | .32130 | 1871 | .1871 | H1... |
| 8 | MP11 | PIPE 2.0 | .533 | 77.5 | 12 | .164 | 77.5 | | 12 | 9836 | .32130 | 1871 | .1871 | H1... |
| 9 | MP7 | PIPE 2.0 | .532 | 77.5 | 4 | .165 | 77.5 | | 5 | 9836 | .32130 | 1871 | .1871 | H1... |
| 10 | RH3 | PIPE 2.0 | .505 | 135.937 | 38 | .194 | 37.5 | | 37 | 6295 | .32130 | 1871 | .1871 | H1... |
| 11 | RH1 | PIPE 2.0 | .504 | 135.938 | 34 | .195 | 37.5 | | 33 | 6295 | .32130 | 1871 | .1871 | H1... |
| 12 | RH2 | PIPE 2.0 | .503 | 135.937 | 30 | .195 | 37.5 | | 29 | 6295 | .32130 | 1871 | .1871 | H1... |
| 13 | MP10 | PIPE 2.0 | .457 | 64.5 | 10 | .110 | 64.5 | | 7 | 2086 | .32130 | 1871 | .1871 | H1... |
| 14 | MP6 | PIPE 2.0 | .454 | 64.5 | 2 | .113 | 64.5 | | 11 | 2086 | .32130 | 1871 | .1871 | H1... |
| 15 | MP2 | PIPE 2.0 | .449 | 64.5 | 6 | .113 | 64.5 | | 3 | 2086 | .32130 | 1871 | .1871 | H1... |
| 16 | MP9 | PIPE 2.0 | .446 | 77 | 38 | .206 | 65 | | 12 | 1491 | .32130 | 1871 | .1871 | H1... |
| 17 | MP1 | PIPE 2.0 | .445 | 77 | 34 | .208 | 65 | | 8 | 1491 | .32130 | 1871 | .1871 | H1... |
| 18 | MP5 | PIPE 2.0 | .444 | 77 | 30 | .208 | 65 | | 4 | 1491 | .32130 | 1871 | .1871 | H1... |
| 19 | MP8 | PIPE 2.0 | .436 | 68.75 | 6 | .216 | 70 | | 3 | 9836 | .32130 | 1871 | .1871 | H1... |
| 20 | MP12 | PIPE 2.0 | .433 | 68.75 | 2 | .218 | 70 | | 11 | 9836 | .32130 | 1871 | .1871 | H1... |
| 21 | MP4 | PIPE 2.0 | .424 | 68.75 | 10 | .218 | 70 | | 7 | 9836 | .32130 | 1871 | .1871 | H1... |
| 22 | HR2 | PIPE 2.0 | .403 | 18.75 | 5 | .255 | 143.75 | | 9 | 1785 | .32130 | 1871 | .1871 | H1... |
| 23 | HR3 | PIPE 2.0 | .402 | 18.75 | 13 | .258 | 143.75 | | 5 | 1785 | .32130 | 1871 | .1871 | H1... |
| 24 | HR1 | PIPE 2.0 | .401 | 18.75 | 9 | .255 | 143.75 | | 13 | 1785 | .32130 | 1871 | .1871 | H1... |
| 25 | S3 | C5.25x4x0... | .391 | 0 | 34 | .148 | 10.781 | y | 9 | 1358 | .1518 | 1232 | 2486 | H1... |
| 26 | S2 | C5.25x4x0... | .390 | 0 | 38 | .147 | 10.781 | y | 13 | 1358 | .1518 | 1232 | 2486 | H1... |
| 27 | S1 | C5.25x4x0... | .379 | 0 | 30 | .132 | 10.781 | y | 5 | 1358 | .1518 | 1232 | 2486 | H1... |
| 28 | M18 | L2.5x2.5x4 | .345 | 15.124 | 11 | .170 | 15.124 | z | 9 | 3660 | .38556 | 1113 | .2537 | H2-1 |
| 29 | M19 | L2.5x2.5x4 | .341 | 15.124 | 3 | .170 | 15.124 | z | 13 | 3660 | .38556 | 1113 | .2537 | H2-1 |
| 30 | M12 | L2.5x2.5x4 | .327 | 15.124 | 7 | .170 | 15.124 | z | 5 | 3660 | .38556 | 1113 | .2537 | H2-1 |
| 31 | M7 | L3X3X4 | .274 | 43.297 | 31 | .014 | 43.297 | z | 38 | 1484 | .46656 | 1688 | .3185 | H2-1 |

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

| Member | Shape | Code Check | Loc[in] | LC | Shear Check | Loc[in] | Dir | LC | phi* | phi* | phi* | phi* | Eqn | |
|--------|-------|------------|---------|--------|-------------|---------|--------|----|------|-------|-------|-------|-------|------|
| 32 | M8 | L3X3X4 | .274 | 43.297 | 27 | .014 | 43.297 | z | 34 | 1484. | 46656 | 1688. | 3186. | H2-1 |
| 33 | M4 | L3X3X4 | .272 | 43.297 | 34 | .014 | 43.297 | z | 30 | 1484. | 46656 | 1688. | 3184. | H2-1 |
| 34 | K4 | L2.5x2.5x3 | .243 | 32.838 | 4 | .015 | 0 | z | 27 | 1096. | 2919. | 872. | 1575. | H2-1 |
| 35 | K6 | L2.5x2.5x3 | .222 | 32.838 | 12 | .015 | 0 | z | 35 | 1096. | 2919. | 872. | 1575. | H2-1 |
| 36 | K2 | L2.5x2.5x3 | .222 | 33.522 | 32 | .015 | 65.675 | z | 31 | 1096. | 2919. | 872. | 1575. | H2-1 |
| 37 | K5 | L2.5x2.5x3 | .208 | 32.838 | 12 | .013 | 65.675 | z | 5 | 1096. | 2919. | 872. | 1575. | H2-1 |
| 38 | K3 | L2.5x2.5x3 | .188 | 32.838 | 3 | .013 | 65.675 | z | 8 | 1096. | 2919. | 872. | 1575. | H2-1 |
| 39 | K1 | L2.5x2.5x3 | .183 | 32.838 | 8 | .013 | 65.675 | y | 36 | 1096. | 2919. | 872. | 1575. | H2-1 |
| 40 | M9 | LL3x3x4x0 | .156 | 47 | 11 | .015 | 0 | z | 5 | 7637. | 93312 | 6480 | 4360. | H1-1 |
| 41 | M2 | LL3x3x4x0 | .151 | 47 | 7 | .013 | 0 | y | 83 | 7637. | 93312 | 6480 | 4360. | H1-1 |
| 42 | M3 | LL3x3x4x0 | .151 | 47 | 3 | .013 | 0 | y | 187 | 7637. | 93312 | 6480 | 4360. | H1-1 |
| 43 | M64 | PIPE 2.0 | .067 | 27 | 12 | .024 | 27 | | 12 | 2884. | 32130 | 1871. | 1871. | H1-1 |
| 44 | M69 | PIPE 2.0 | .067 | 27 | 4 | .024 | 27 | | 4 | 2884. | 32130 | 1871. | 1871. | H1-1 |
| 45 | M59 | PIPE 2.0 | .067 | 27 | 8 | .024 | 27 | | 8 | 2884. | 32130 | 1871. | 1871. | H1-1 |

APPENDIX D
ADDITIONAL CALCUATIONS

Bolt Calculation Tool, V1.5.1

| PROJECT DATA | |
|-------------------------|------------------------|
| Site Name: | EAST HARTFORD HOCHANUM |
| Site Number: | 842861 |
| Connection Description: | Standoff to Tower Top |

| MAXIMUM BOLT LOADS | | |
|--------------------|---------|-----|
| Bolt Tension: | 8663.65 | lbs |
| Bolt Shear: | 8857.33 | lbs |

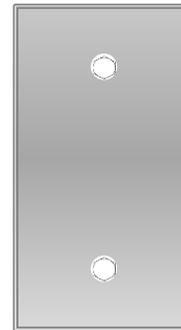
| WORST CASE BOLT LOADS ¹ | | |
|------------------------------------|---------|-----|
| Bolt Tension: | 3028.68 | lbs |
| Bolt Shear: | 8857.33 | lbs |

| BOLT PROPERTIES | | |
|-------------------|------|----|
| Bolt Type: | Bolt | - |
| Bolt Diameter: | 0.75 | in |
| Bolt Grade: | A325 | - |
| # of Bolts: | 2 | - |
| Threads Excluded? | No | - |

¹ Worst case bolt loads correspond to Load combination #10 on member S3 in RISA-3D, which causes the maximum demand on the bolts.

| Member Information |
|-----------------------|
| I nodes of S1, S3, S2 |

| BOLT CHECK | | |
|--------------------------------|----------|-------|
| Tensile Strength | 30101.39 | |
| Shear Strength | 19880.39 | |
| Max Tensile Usage | 28.8% | |
| Max Shear Usage | 44.6% | |
| Interaction Check (Worst Case) | 0.21 | ≤1.05 |
| Result | Pass | |



Bolt Calculation Tool, V1.5.1

| PROJECT DATA | |
|-------------------------|------------------------|
| Site Name: | EAST HARTFORD HOCHANUM |
| Site Number: | 842861 |
| Connection Description: | Kicker to Collar Mount |

| MAXIMUM BOLT LOADS | | |
|--------------------|--------|-----|
| Bolt Tension: | 268.12 | lbs |
| Bolt Shear: | 521.11 | lbs |

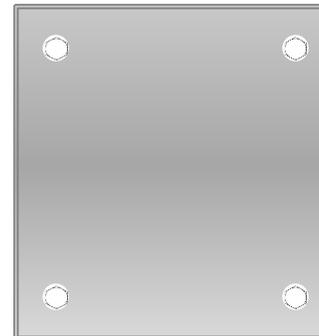
| WORST CASE BOLT LOADS ¹ | | |
|------------------------------------|--------|-----|
| Bolt Tension: | 0.00 | lbs |
| Bolt Shear: | 521.11 | lbs |

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

¹ Worst case bolt loads correspond to Load combination #29 on member M92 in RISA-3D, which causes the maximum demand on the bolts.

| Member Information |
|--------------------------|
| I nodes of M74, M83, M92 |

| BOLT CHECK | | |
|--------------------------------|----------|-------|
| Tensile Strength | 20340.15 | |
| Shear Strength | 13805.83 | |
| Max Tensile Usage | 1.3% | |
| Max Shear Usage | 3.8% | |
| Interaction Check (Worst Case) | 0.00 | ≤1.05 |
| Result | Pass | |



APPENDIX E

MOUNT MODIFICATION DESIGN DRAWINGS (MDD) / SUPPLEMENTAL DRAWINGS

GENERAL NOTES:

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

STEEL CONSTRUCTION NOTES:

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

CONCRETE CONSTRUCTION NOTES:

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

FIBER REINFORCED POLYMER (FRP) NOTES:

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

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

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

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

WOOD CONSTRUCTION NOTES:

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

MASONRY CONSTRUCTION NOTES:

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

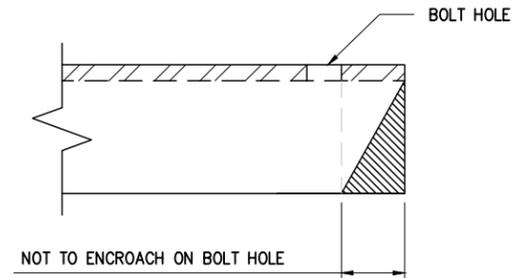
TOWER PLUMB & TENSION NOTES:

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

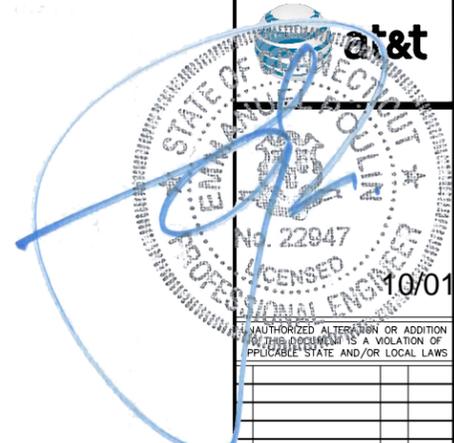
SPECIAL INSPECTIONS NOTES:

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

MAXIMUM ALLOWABLE ANGLE CLIP



INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793



10/01/21

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Drawn: DMB Date: 09/30/21
Designed: AM Date: 09/30/21
Checked: AG Date: 09/30/21

Project Number:
1039-Z0001-B

Project Title:
BU# 842861

EAST HARTFORD HOCHANUM

223 BRAINARD ROAD
HARTFORD, CT 06114

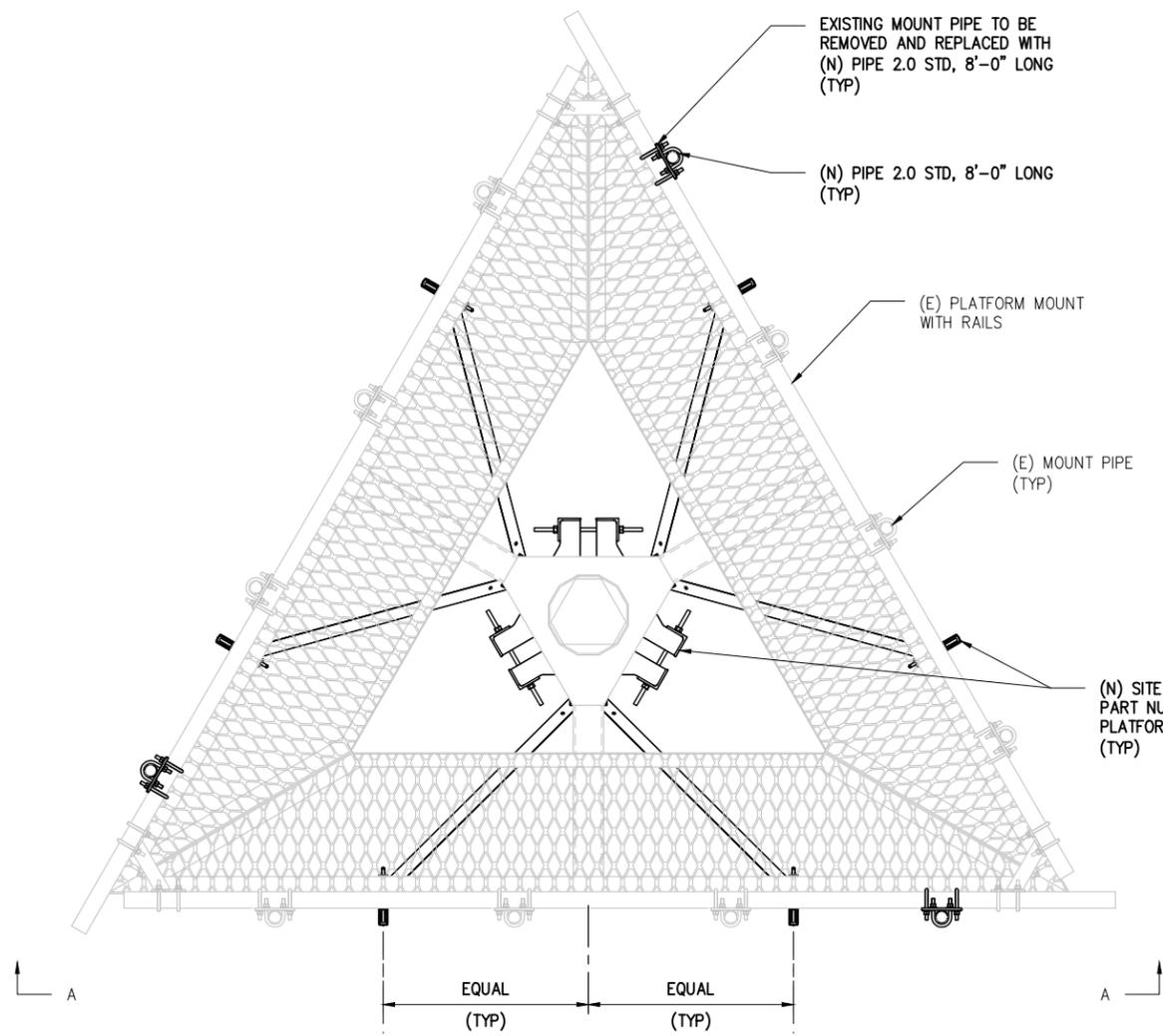
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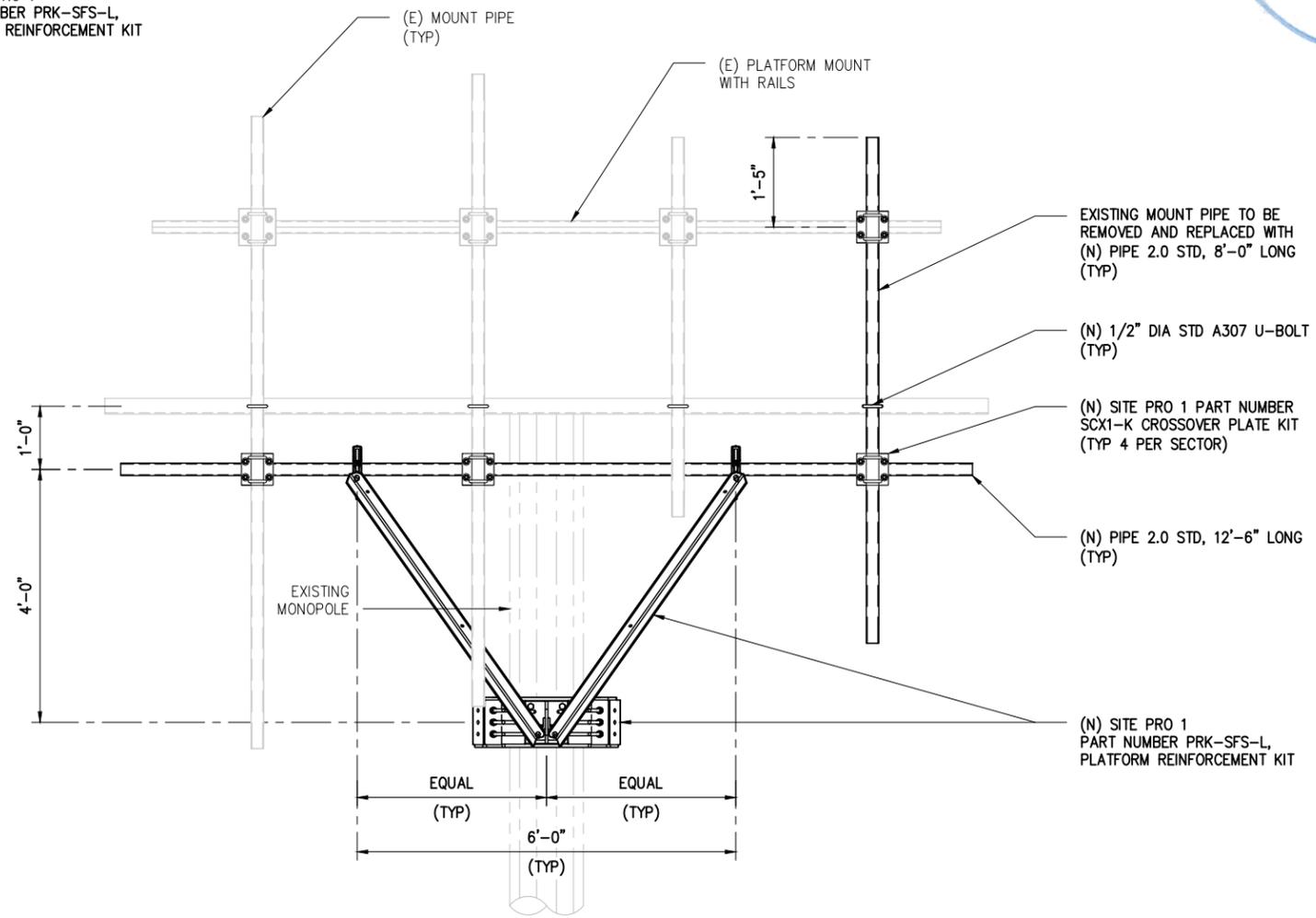
Drawing Scale:
AS NOTED
Date:
09/30/21

Drawing Title
GENERAL NOTES

Drawing Number
S-1

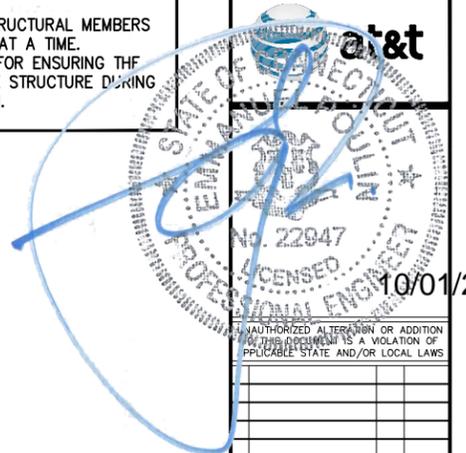


1 PLAN VIEW
SCALE: NOT TO SCALE



2 SECTION A-A
SCALE: NOT TO SCALE

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



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Project Number: 1039-Z0001-B
Project Title: BU# 842861

EAST HARTFORD HOCHANUM
223 BRAINARD ROAD
HARTFORD, CT 06114

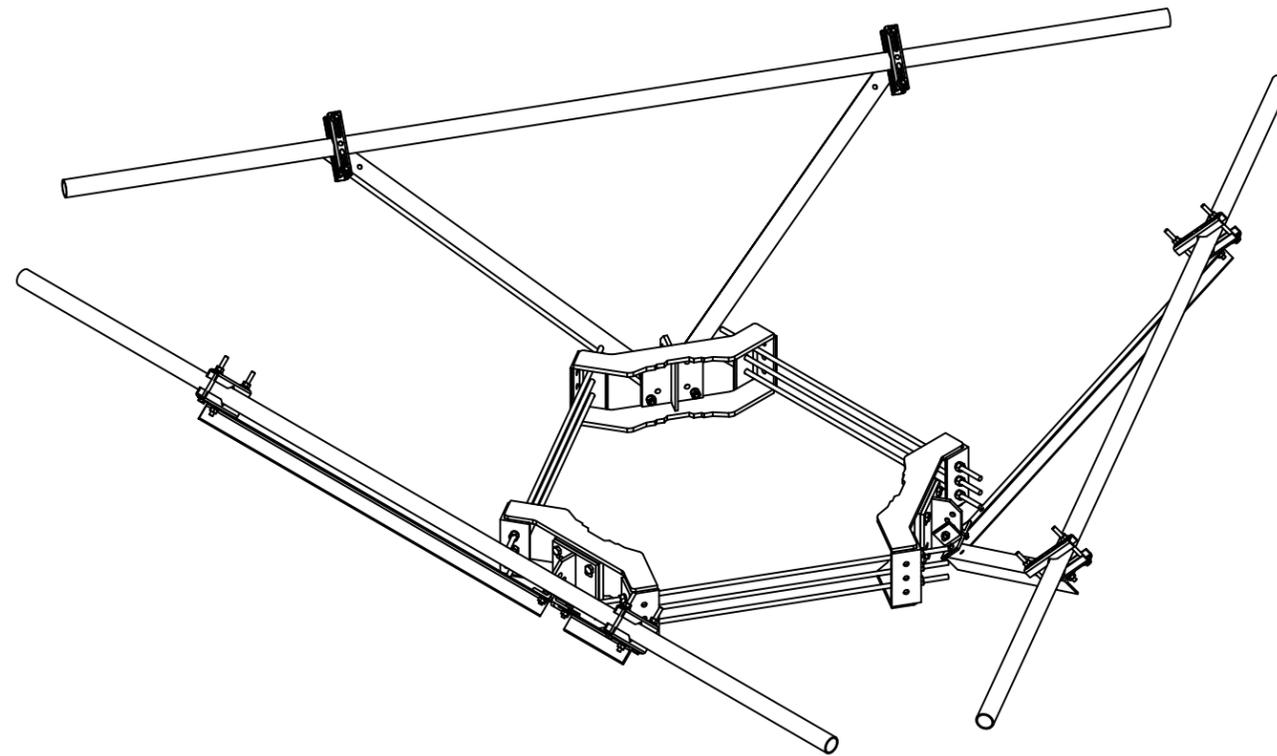
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Drawing Scale: AS NOTED
Date: 09/30/21

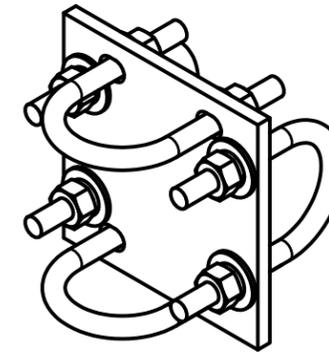
Drawing Title
MOUNT MODIFICATION DETAILS

Drawing Number
S-2

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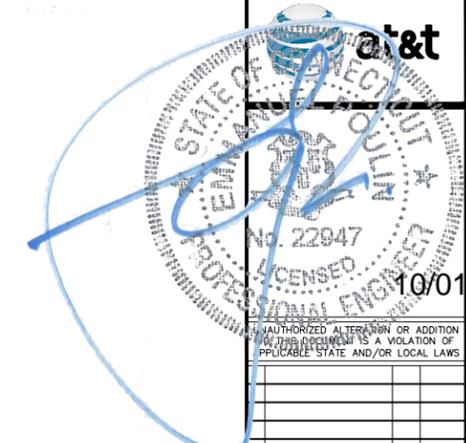
1 SITE PRO 1 P/N PRK-SFS-L
 -- SCALE: NOT TO SCALE



2 SITE PRO 1 P/N SCX1-K
 -- SCALE: NOT TO SCALE

INFINIGY

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 Albany, NY 12205
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Project Number: 1039-20001-B

Project Title: BU# 842861

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 223 BRAINARD ROAD
 HARTFORD, CT 06114

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Drawing Title
REQUIRED PARTS

Drawing Number
S-3

Exhibit F

Power Density/RF Emissions Report

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

AT&T Existing Facility

Site ID: CTL05126

842861

223 Brainard Road
Hartford, Connecticut 06114

February 24, 2022

EBI Project Number: 6222000318

| Site Compliance Summary | |
|---|------------------|
| Compliance Status: | COMPLIANT |
| Site total MPE% of FCC general population allowable limit: | 65.07% |

February 24, 2022

AT&T

Emissions Analysis for Site: CTL05126 - 842861

EBI Consulting was directed to analyze the proposed AT&T facility located at **223 Brainard Road in Hartford, Connecticut** for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed AT&T Wireless antenna facility located at 223 Brainard Road in Hartford, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower. For power density calculations, the broadcast footprint of the AIR6449 antenna has been considered. Due to the beamforming nature of this antenna, the actual beam locations vary depending on demand and are narrow in nature. Using the broadcast footprint accounts for the potential location of beams at any given time.

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

- 1) 4 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 2) 4 LTE FN channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 4 5G channels (850 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 4) 4 LTE / 5G channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 5) 4 LTE / 5G channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 6) 4 LTE channels (WCS Band – 2300 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 25 Watts per Channel.

- 7) 2 C-Band Channels (3700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 144.58 Watts per Channel.
- 8) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 9) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 10) The antennas used in this modeling are the Kathrein 800-10965 for the 700 MHz / 2100 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6EA-K for the 700 MHz / 850 MHz / 1900 MHz / 2300 MHz channel(s) in Sector A, the Kathrein 800-10965 for the 700 MHz / 2100 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6EA-K for the 700 MHz / 850 MHz / 1900 MHz / 2300 MHz channel(s) in Sector B, the Kathrein 800-10965 for the 700 MHz / 2100 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6EA-K for the 700 MHz / 850 MHz / 1900 MHz / 2300 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 11) The antenna mounting height centerline of the proposed antennas is 103 feet above ground level (AGL).
- 12) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

13) All calculations were done with respect to uncontrolled / general population threshold limits.

AT&T Site Inventory and Power Data

| | | | | | |
|---------------------|---|---------------------|---|---------------------|---|
| Sector: | A | Sector: | B | Sector: | C |
| Antenna #: | 1 | Antenna #: | 1 | Antenna #: | 1 |
| Make / Model: | Kathrein 800-10965 | Make / Model: | Kathrein 800-10965 | Make / Model: | Kathrein 800-10965 |
| Frequency Bands: | 700 MHz / 2100 MHz | Frequency Bands: | 700 MHz / 2100 MHz | Frequency Bands: | 700 MHz / 2100 MHz |
| Gain: | 12.65 dBd / 15.95 dBd | Gain: | 12.65 dBd / 15.95 dBd | Gain: | 12.65 dBd / 15.95 dBd |
| Height (AGL): | 103 feet | Height (AGL): | 103 feet | Height (AGL): | 103 feet |
| Channel Count: | 8 | Channel Count: | 8 | Channel Count: | 8 |
| Total TX Power (W): | 320.00 Watts | Total TX Power (W): | 320.00 Watts | Total TX Power (W): | 320.00 Watts |
| ERP (W): | 9,242.04 | ERP (W): | 9,242.04 | ERP (W): | 9,242.04 |
| Antenna A1 MPE %: | 4.82% | Antenna B1 MPE %: | 4.82% | Antenna C1 MPE %: | 4.82% |
| Antenna #: | 2 | Antenna #: | 2 | Antenna #: | 2 |
| Make / Model: | Ericsson AIR 6419 | Make / Model: | Ericsson AIR 6419 | Make / Model: | Ericsson AIR 6419 |
| Frequency Bands: | 3700 MHz | Frequency Bands: | 3700 MHz | Frequency Bands: | 3700 MHz |
| Gain: | 23.45 dBd | Gain: | 23.45 dBd | Gain: | 23.45 dBd |
| Height (AGL): | 103 feet | Height (AGL): | 103 feet | Height (AGL): | 103 feet |
| Channel Count: | 1 | Channel Count: | 1 | Channel Count: | 1 |
| Total TX Power (W): | 144.58 Watts | Total TX Power (W): | 144.58 Watts | Total TX Power (W): | 144.58 Watts |
| ERP (W): | 31,996.92 | ERP (W): | 31,996.92 | ERP (W): | 31,996.92 |
| Antenna A2 MPE %: | 12.23% | Antenna B2 MPE %: | 12.23% | Antenna C2 MPE %: | 12.23% |
| Antenna #: | 3 | Antenna #: | 3 | Antenna #: | 3 |
| Make / Model: | Ericsson AIR 6449 | Make / Model: | Ericsson AIR 6449 | Make / Model: | Ericsson AIR 6449 |
| Frequency Bands: | 3700 MHz | Frequency Bands: | 3700 MHz | Frequency Bands: | 3700 MHz |
| Gain: | 23.45 dBd | Gain: | 23.45 dBd | Gain: | 23.45 dBd |
| Height (AGL): | 103 feet | Height (AGL): | 103 feet | Height (AGL): | 103 feet |
| Channel Count: | 1 | Channel Count: | 1 | Channel Count: | 1 |
| Total TX Power (W): | 144.58 Watts | Total TX Power (W): | 144.58 Watts | Total TX Power (W): | 144.58 Watts |
| ERP (W): | 31,996.92 | ERP (W): | 31,996.92 | ERP (W): | 31,996.92 |
| Antenna A3 MPE %: | 12.23% | Antenna B3 MPE %: | 12.23% | Antenna C3 MPE %: | 12.23% |
| Antenna #: | 4 | Antenna #: | 4 | Antenna #: | 4 |
| Make / Model: | CCI DMP65R-BU6EA-K | Make / Model: | CCI DMP65R-BU6EA-K | Make / Model: | CCI DMP65R-BU6EA-K |
| Frequency Bands: | 700 MHz / 850 MHz / 1900 MHz / 2300 MHz | Frequency Bands: | 700 MHz / 850 MHz / 1900 MHz / 2300 MHz | Frequency Bands: | 700 MHz / 850 MHz / 1900 MHz / 2300 MHz |
| Gain: | 11.65 dBd / 11.95 dBd / 14.85 dBd / 15.65 dBd | Gain: | 11.65 dBd / 11.95 dBd / 14.85 dBd / 15.65 dBd | Gain: | 11.65 dBd / 11.95 dBd / 14.85 dBd / 15.65 dBd |
| Height (AGL): | 103 feet | Height (AGL): | 103 feet | Height (AGL): | 103 feet |
| Channel Count: | 16 | Channel Count: | 16 | Channel Count: | 16 |
| Total TX Power (W): | 580.00 Watts | Total TX Power (W): | 580.00 Watts | Total TX Power (W): | 580.00 Watts |
| ERP (W): | 13,406.98 | ERP (W): | 13,406.98 | ERP (W): | 13,406.98 |
| Antenna A4 MPE %: | 6.87% | Antenna B4 MPE %: | 6.87% | Antenna C4 MPE %: | 6.87% |

- An adjusted power reduction factor of 0.32 was applied to the AIR 6449 antennas per guidance from AT&T.

- Specifications were not available for the Ericsson AIR 6419 antenna. Per AT&T, specifications for the AIR 6449 antenna were used to model the 6419 due to its similarity.

| Site Composite MPE % | |
|---------------------------|---------------|
| Carrier | MPE % |
| AT&T (Max at Sector A): | 36.14% |
| Verizon | 28.59% |
| Clearwire | 0.34% |
| Site Total MPE % : | 65.07% |

| AT&T MPE % Per Sector | |
|---------------------------|---------------|
| AT&T Sector A Total: | 36.14% |
| AT&T Sector B Total: | 36.14% |
| AT&T Sector C Total: | 36.14% |
| | |
| Site Total MPE % : | 65.07% |

AT&T Maximum MPE Power Values (Sector A)

| AT&T Frequency Band / Technology (Sector A) | # Channels | Watts ERP (Per Channel) | Height (feet) | Total Power Density ($\mu\text{W}/\text{cm}^2$) | Frequency (MHz) | Allowable MPE ($\mu\text{W}/\text{cm}^2$) | Calculated % MPE |
|---|------------|-------------------------|---------------|---|-----------------|---|------------------|
| AT&T 700 MHz LTE FN | 4 | 736.31 | 103.0 | 11.25 | 700 MHz LTE FN | 467 | 2.41% |
| AT&T 2100 MHz LTE/5G | 4 | 1574.20 | 103.0 | 24.06 | 2100 MHz LTE/5G | 1000 | 2.41% |
| AT&T 3700 MHz C-Band | 1 | 31996.92 | 103.0 | 122.26 | 3700 MHz C-Band | 1000 | 12.23% |
| AT&T 3700 MHz C-Band | 1 | 31996.92 | 103.0 | 122.26 | 3700 MHz C-Band | 1000 | 12.23% |
| AT&T 700 MHz LTE | 4 | 584.87 | 103.0 | 8.94 | 700 MHz LTE | 467 | 1.91% |
| AT&T 850 MHz 5G | 4 | 626.70 | 103.0 | 9.58 | 850 MHz 5G | 567 | 1.69% |
| AT&T 1900 MHz LTE/5G | 4 | 1221.97 | 103.0 | 18.68 | 1900 MHz LTE/5G | 1000 | 1.87% |
| AT&T 2300 MHz LTE | 4 | 918.21 | 103.0 | 14.03 | 2300 MHz LTE | 1000 | 1.40% |
| | | | | | | Total: | 36.14% |

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

Summary

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

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

| AT&T Sector | Power Density Value (%) |
|-----------------------------------|-------------------------|
| Sector A: | 36.14% |
| Sector B: | 36.14% |
| Sector C: | 36.14% |
| AT&T Maximum MPE % (Sector A): | 36.14% |
| | |
| Site Total: | 65.07% |
| | |
| Site Compliance Status: | COMPLIANT |

The anticipated composite MPE value for this site assuming all carriers present is **65.07%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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