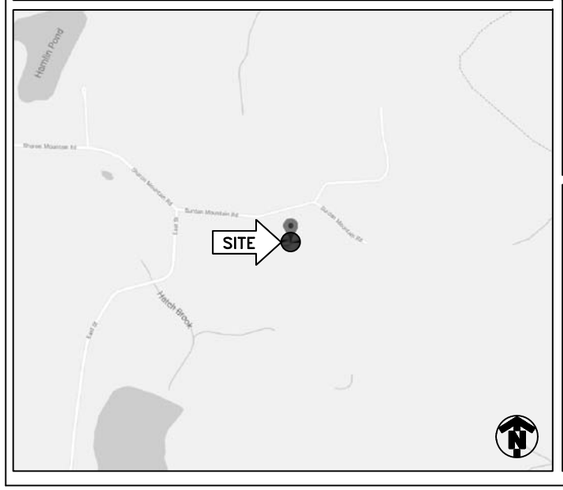
SHEET INDEX

DRIVING DIRECTIONS

FROM 550 COCHITUATE RD.:

GET ON I-90 WEST/MASSACHUETTS TURNPIKE. HEAD NORTHEAST TOWARD LEGGATT MCCALL CONN. TURN LEFT ONTO LEGGATT MCCALL CONN. CONTINUE ONTO BURR STREET. TURN LEFT ONTO COCHITUATE ROAD. USE THE RIGHT LANE TO TAKE THE RAMP TO I-90 EAST/MASSPIKE WEST/SPRINGFIELD/BOSTON. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-90 WEST/MASSACHUETTS TURNPIKE/WORCESTER/SPRINGFIELD AND MERGE ONTO I-90 WEST/MASSACHUETTS TURNPIKE. FOLLOW I-90 WEST/MASSACHUETTS TURNPIKE AND I-84 TO STATE HWY 508 IN FARMINGTON. TAKE EXIT 39 FROM I-84. MERGE ONTO I-90 WEST/MASSACHUETTS TURNPIKE. USE THE RIGHT 2 LANES TO TAKE EXIT 9 FOR I-84 TOWARD US-20/HARTFORD/NEW YORK CITY. CONTINUE ONTO I-84. USE THE RIGHT 2 LANES TO TAKE EXIT 39 TOWARD FARMINGTON/CT-4. FOLLOW CT-4 WEST AND EAST STREET TO SURDAN MOUNTAIN ROAD IN SHARON. CONTINUE ONTO STATE HWY 508. STATE HWY 508. STATE HWY 508 TURNS SLIGHTLY RIGHT AND BECOMES CT-4 WEST. SLIGHT RIGHT TO STAY ON CT-4 WEST. TURN LEFT ONTO CT-4. TURN RIGHT ONTO CT-4 WEST/BRIDGE PARK ROAD. TURN LEFT ONTO EAST MAIN STREET. TURN RIGHT ONTO EAST ELM STREET. CONTINUE ONTO MIGEON AVE. CONTINUE ONTO CT-4 WEST/GOSHEN ROAD. AT THE TRAFFIC CIRCLE, CONTINUE STRAIGHT ONTO CT-4. TURN LEFT ONTO CT-4 WEST. CONTINUE STRAIGHT TO STAY ON CT-4 WEST. TURN RIGHT ONTO EAST STREET. TURN RIGHT ONTO SURDAN MOUNTAIN ROAD.

LOCATION MAP



PROJECT

LTE 2C/3C/4C/5C/RETROFIT

SITE NAME

SHARON SURDAN MT ROAD

CELL SITE ID

CTL01235

FA SITE NUMBER

10050790

PACE ID

MRCTB041738/MRCTB041519/MRCTB041585
MRCTB041434/MRCTB041358

SITE ADDRESS

7 SURDAN MOUNTAIN ROAD
SHARON, CT 06069

STRUCTURE TYPE

SELF SUPPORT

PROJECT TEAM

smartlink

PROJECT MANAGER

INFINIGY

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

ENGINEER

SCOPE OF WORK (PER LTE RFDS, DATED 06/07/2019 V1.00):

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- FACILITY HAS NO PLUMBING OR REFRIGERANTS.
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

TOWER
- REMOVE (6) PANEL ANTENNAS
- INSTALL (6) PANEL ANTENNAS
- REMOVE (3) RRUS-11 B12
- INSTALL (3) B14 4478
- INSTALL (3) 4449 B5/B12
- INSTALL (3) 8843 B2/B66A
- INSTALL (1) DC9 SQUID WITH (1) FIBER AND (3) DC CABLES

GROUND
- SWAP DUS WITH 6630
- ADD XMU
- ADD IDLe CABLE
- ADD 6630 FOR 5G

PROJECT SUMMARY

SITE NAME:	SHARON SURDAN MT ROAD	
CELL SITE ID:	CTL01235	
FA SITE #:	10050790	
SITE ADDRESS:	7 SURDAN MOUNTAIN ROAD SHARON, CT 06069	
COUNTY:	LITCHFIELD	
SITE COORDINATES: LATITUDE:	41.8620500° N	(NAD 83)
LONGITUDE:	73.3996269° W	(NAD 83)
RAD CENTER	±150'	(AGL)
LANDLORD:	DANIEL SOULE EXECUTIVE DIRECTOR LITCHFIELD COUNTY DISPATCH INC. 111 WATERS STREET TORRINGTON, CT 06790 (860) 626-7523 (860) 671-5555 (MOBILE)	
APPLICANT:	AT&T MOBILITY 550 COCHITUATE RD. FRAMINGHAM, MA 01701	
CLIENT REPRESENTATIVE:	SMARTLINK, LLC 85 RANGEWAY RD., BUILDING 3, SUITE 102 NORTH BILLERICA, MA 01862	
CONTACT:	EDWARD WEISSMAN (917)528-1857	
ENGINEER:	INFINIGY 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205	
CONTACT:	ALEX WELLER (518) 690-0790	
BUILDING CODE:	2018 CT STATE BUILDING CODE 2015 INTERNATIONAL BUILDING CODE ANSI/TIA-222 G 2015 INTERNATIONAL PLUMBING CODE 2015 INTERNATIONAL MECHANICAL CODE 2015 INTERNATIONAL ENERGY CONSERVATION CODE 2017 NFPA 70	
ELECTRICAL CODE:	NATIONAL ELECTRICAL CODE (LATEST EDITION)	

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

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CONNECTICUT, CONTACT CALL BEFORE YOU DIG
TOLL FREE: 1-800-922-4455 OR
www.cbyd.com
CONNECTICUT STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

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at&t

STATE OF CONNECTICUT
JOHN S. STEVENS
09/25/2019
24705
LICENSED PROFESSIONAL ENGINEER

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SHARON, CT 06069

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 09/25/19

CD

Drawing Title
TITLE PAGE

Drawing Number
T1

GENERAL NOTES

PART 1 – GENERAL REQUIREMENTS

1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC").
D. AND NFPA 101 (LIFE SAFETY CODE).
E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM).
F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).

1.2 DEFINITIONS:
A: WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
B: COMPANY: AT&T CORPORATION
C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
D: CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
E: THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.

1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.

1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.

1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.

1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.

1.7 NOTICE TO PROCEED:
A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE AT&T WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – EXECUTION

2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.

2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.

2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
A. CONTRACTOR SHALL PROCURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY AT&T TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.

2.5 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

PART 3 – RECEIPT OF MATERIAL & EQUIPMENT

3.1 RECEIPT OF MATERIAL AND EQUIPMENT: CONTRACTOR IS RESPONSIBLE FOR AT&T PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO AT&T OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

PART 4 – GENERAL REQUIREMENTS FOR CONSTRUCTION

4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.

4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.

4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION.

4.5 CONDUCT TESTING AS REQUIRED HEREIN.

PART 5 – TESTS AND INSPECTIONS

5.1 TESTS AND INSPECTIONS:
A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.

B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.

C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.

D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.

E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.

F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.

G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

PART 6 – TRENCHING AND BACKFILLING

6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.

A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.

B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL DIGGING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.

C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.

E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.

F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOLID SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.

G. BACKFILLING OF TRENCHES. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTLING THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH
F	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
T	TRANSFORMER
M	KILOWATT HOUR METER
JB	JUNCTION BOX
PB	PULL BOX TO NEC/TELCO STANDARDS
----------	UNDERGROUND UTILITIES
●	EXOTHERMIC WELD CONNECTION
■	MECHANICAL CONNECTION
OR ⊗	GROUND ROD
OR ⊠	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	120AC DUPLEX RECEPTACLE
G	GROUND CONDUCTOR
	DC POWER AND FIBER OPTIC TRUNK CABLES
	DC POWER CABLES
# / #	REPRESENTS DETAIL NUMBER / REF. DRAWING NUMBER

ABBREVIATIONS

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SST	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TYP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
C	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RGS	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TTLNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
EMT	ELECTRICAL METALLIC TUBING
AGL	ABOVE GROUND LEVEL

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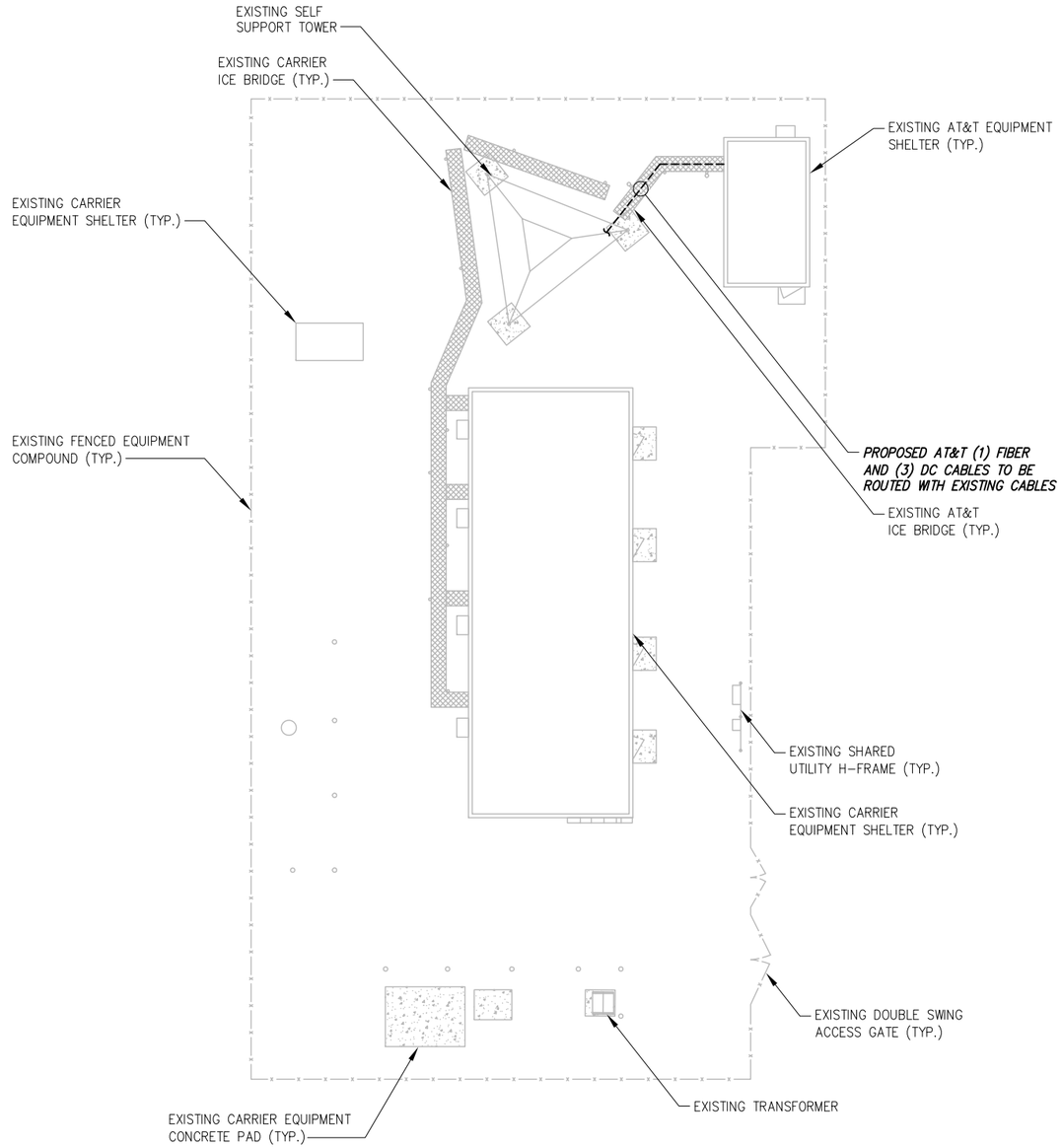
Drawing Title
GENERAL NOTES

Drawing Number
C1



BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.

TRUE NORTH

1 SITE PLAN
SCALE: AS NOTED

GRAPHIC SCALE:
20' 10' 0 10' 20'
SCALE (11x17): 1" = 20'-0"
SCALE (22x34): 1" = 10'-0"

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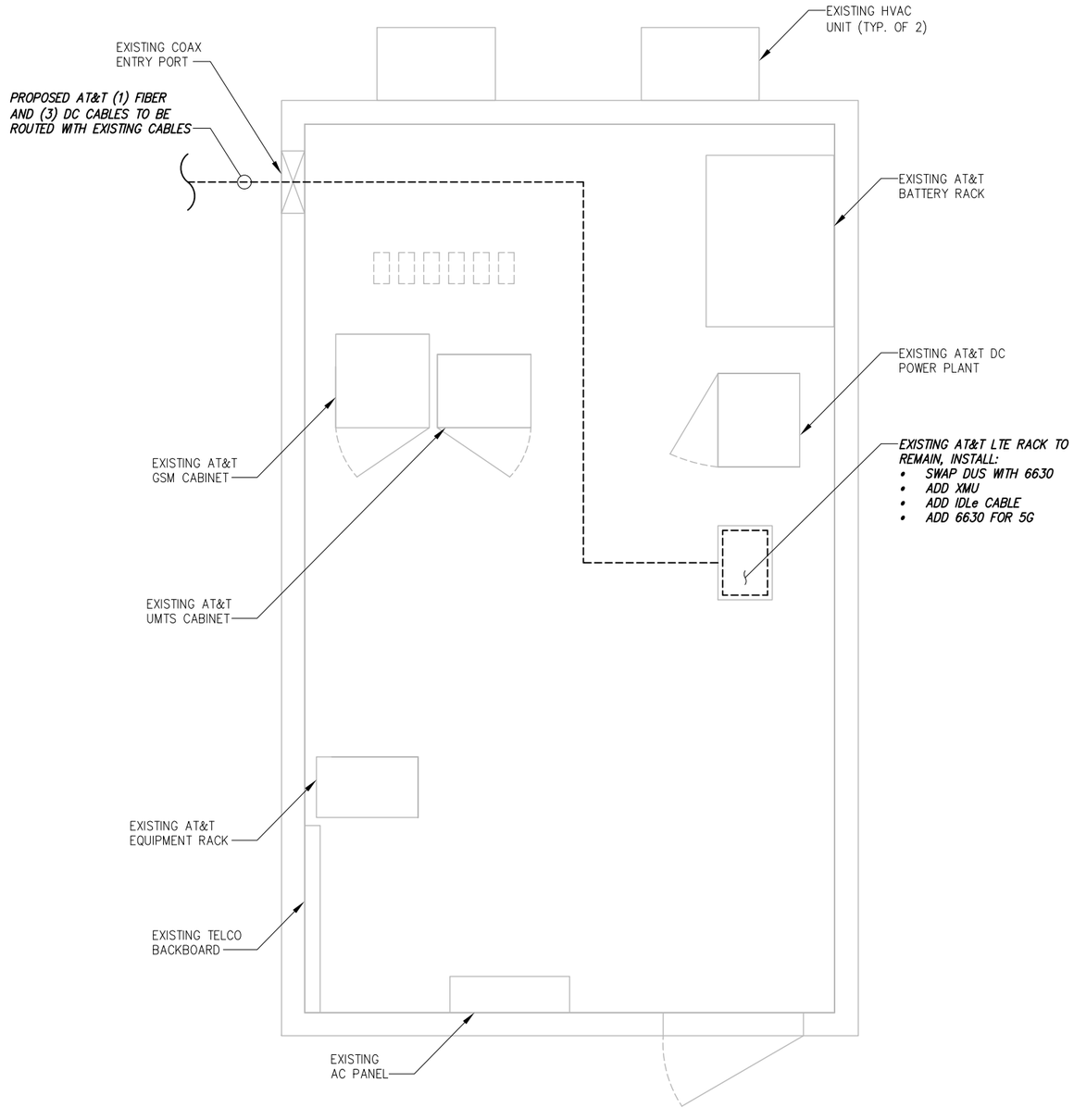
OVERALL SITE PLAN

Drawing Number
C2



2 ENLARGED EQUIPMENT PLAN
SCALE: AS NOTED

GRAPHIC SCALE:

3' 1'-6" 0 1'-6" 3'

SCALE (11x17): 1" = 3'-0"
SCALE (22x34): 1" = 1'-6"

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Drawing Scale:
AS NOTED
Date:
09/25/19

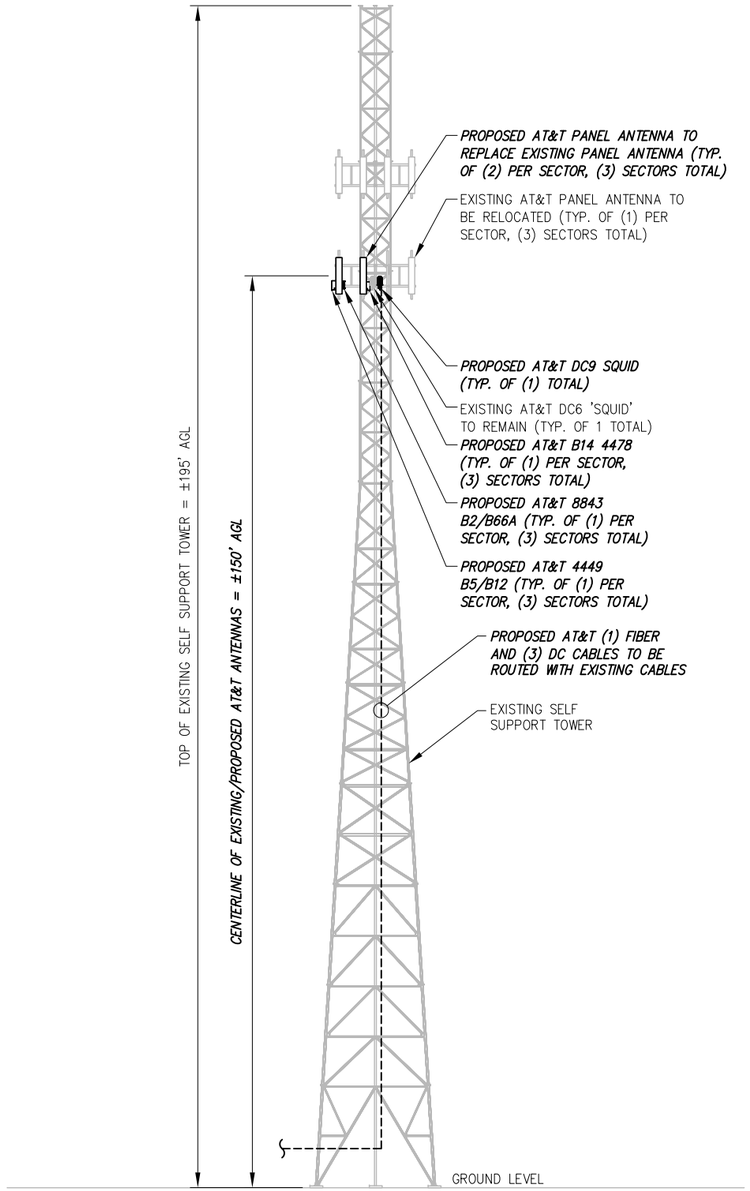
CD

Drawing Title
ENLARGED SITE PLAN

Drawing Number
C2A

NOTE:
- *INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER LOADING FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY REGARDING ITS EXISTING OR PROPOSED LOADING. FINAL INSTALLATION TO COMPLY STRUCTURAL ANALYSIS.*
- *FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'MOUNT ANALYSIS REPORT' COMPLETED BY INFINIGY, DATED 08/29/19.*

NOTE:
- 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
- 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS



1 ELEVATION VIEW
NOT TO SCALE

FINAL ANTENNA CONFIGURATION & CABLE SCHEDULE BASED ON LTE RFDS DATED 06/07/19, V 1.00

SECTOR	ANTENNA POSITION	ANTENNA STATUS & TECHNOLOGY	ANTENNA MANF/MODEL	TMA/ DIPLEXER	RRUS	AZIMUTH	ANTENNA ℄ HEIGHT	CABLE FEEDER TYPE	CABLE FEEDER LENGTH	RAYCAP UNIT
ALPHA	A-1	(E) UMTS 850	POWERWAVE 7770	(2) (E) LGP21401	--	30°	±150'	(2) (E) 1-5/8" COAX CABLES	±220'	(1) (E) DC6 'SQUID', (1) (P) DC9 'SQUID'
	A-2	--	--	--	--	--	--	(2) (E) 1-5/8" COAX CABLES	--	
	A-3	*(P) LTE 700/AWS*	*CCI DMP65R-BU6DA*	--	*(1) (P) B14 4478*	*40°*	*±150'*	(1) (E) FIBER CABLE (2) (E) DC CABLES	--	
	A-4	*(P) LTE 700 /850/1900 /5G 850*	*CCI DMP65R-BU6DA*	--	*(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A*	*40°*	*±150'*	SEE A-3 FOR CABLE INFORMATION	--	
BETA	B-1	(E) UMTS 850	POWERWAVE 7770	(2) (E) LGP21401	--	150°	±150'	(2) (E) 1-5/8" COAX CABLES	±220'	
	B-2	--	--	--	--	--	--	(2) (E) 1-5/8" COAX CABLES	--	
	B-3	*(P) LTE 700/AWS*	*CCI DMP65R-BU6DA*	--	*(1) (P) B14 4478*	*150°*	*±150'*	*(1) (P) FIBER CABLE (3) (P) DC CABLES*	--	
	B-4	*(P) LTE 700 /850/1900 /5G 850*	*CCI DMP65R-BU6DA*	--	*(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A*	*150°*	*±150'*	SEE A-3 FOR CABLE INFORMATION	--	
GAMMA	G-1	(E) UMTS 850	POWERWAVE 7770	(2) (E) LGP21401	--	270°	±150'	(2) (E) 1-5/8" COAX CABLES	±220'	
	G-2	--	--	--	--	--	--	(2) (E) 1-5/8" COAX CABLES	--	
	G-3	*(P) LTE 700/AWS*	*CCI DMP65R-BU4DA*	--	*(1) (P) B14 4478*	*270°*	*±150'*	SEE A-3 FOR CABLE INFORMATION	--	
	G-4	*(P) LTE 700 /850/1900 /5G 850*	*CCI DMP65R-BU4DA*	--	*(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A*	*270°*	*±150'*	SEE A-3 FOR CABLE INFORMATION	--	

2 AT&T ANTENNA SCHEDULE
NOT TO SCALE

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Fax # (518) 690-0793

at&t

STATE OF CONNECTICUT
JOHN S. STEVENS
09/25/2019
24705
LICENSED PROFESSIONAL ENGINEER

No.	Submittal / Revision	App'd	Date
1	ISSUED FOR PERMIT	BMM	09/25/19
0	ISSUED FOR REVIEW	BMM	09/12/19

Drawn: BMM Date: 09/12/19
Designed: ASW Date: 09/12/19
Checked: AJD Date: 09/12/19

Project Number: 499-006

Project Title:
SHARON SURDAN
MT ROAD
CTL01235
FA# 10050790
7 SURDAN MOUNTAIN ROAD
SHARON, CT 06069

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 09/25/19
CD

Drawing Title
ELEVATION VIEW

Drawing Number
C3

NOTE:
- 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
- 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS

NOTE:
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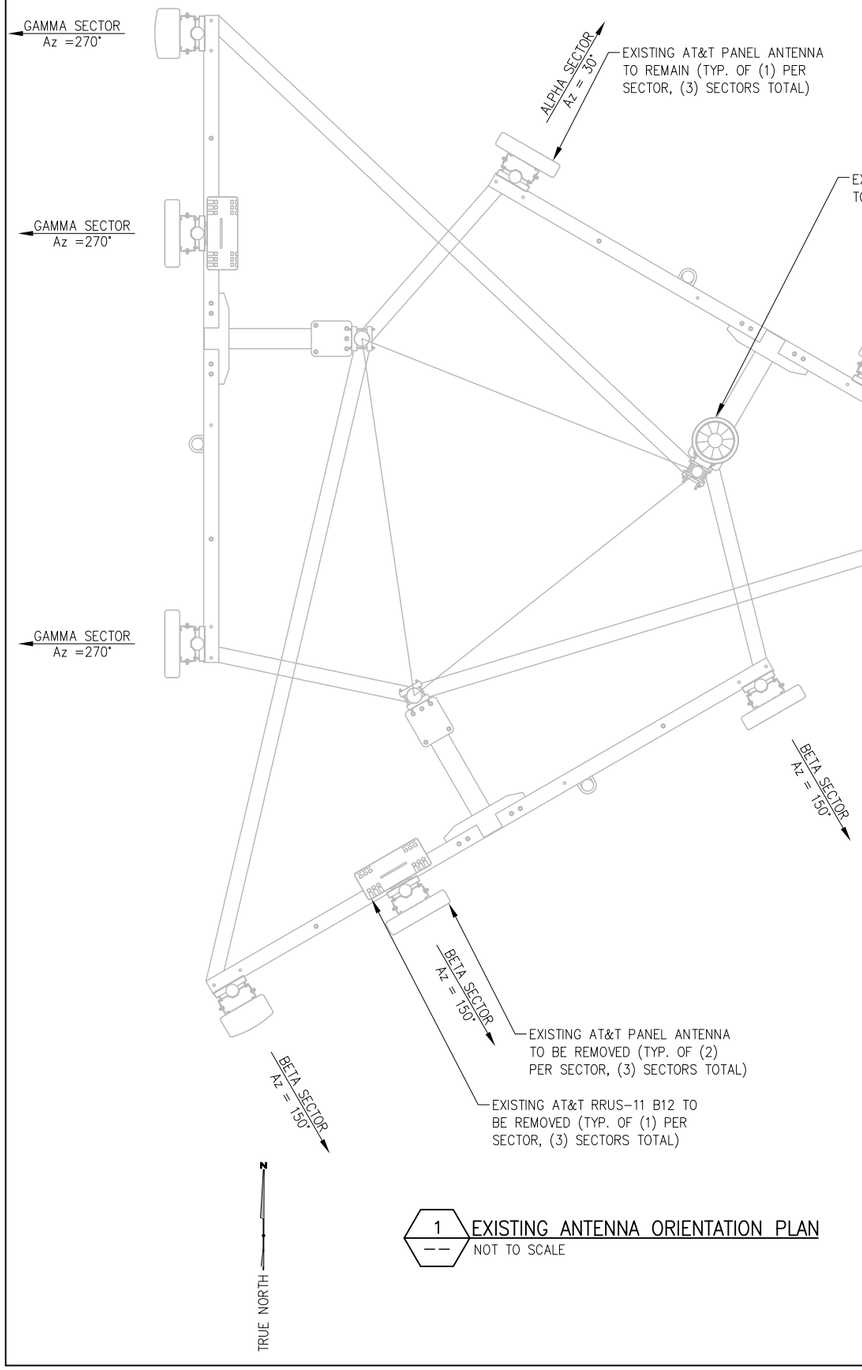
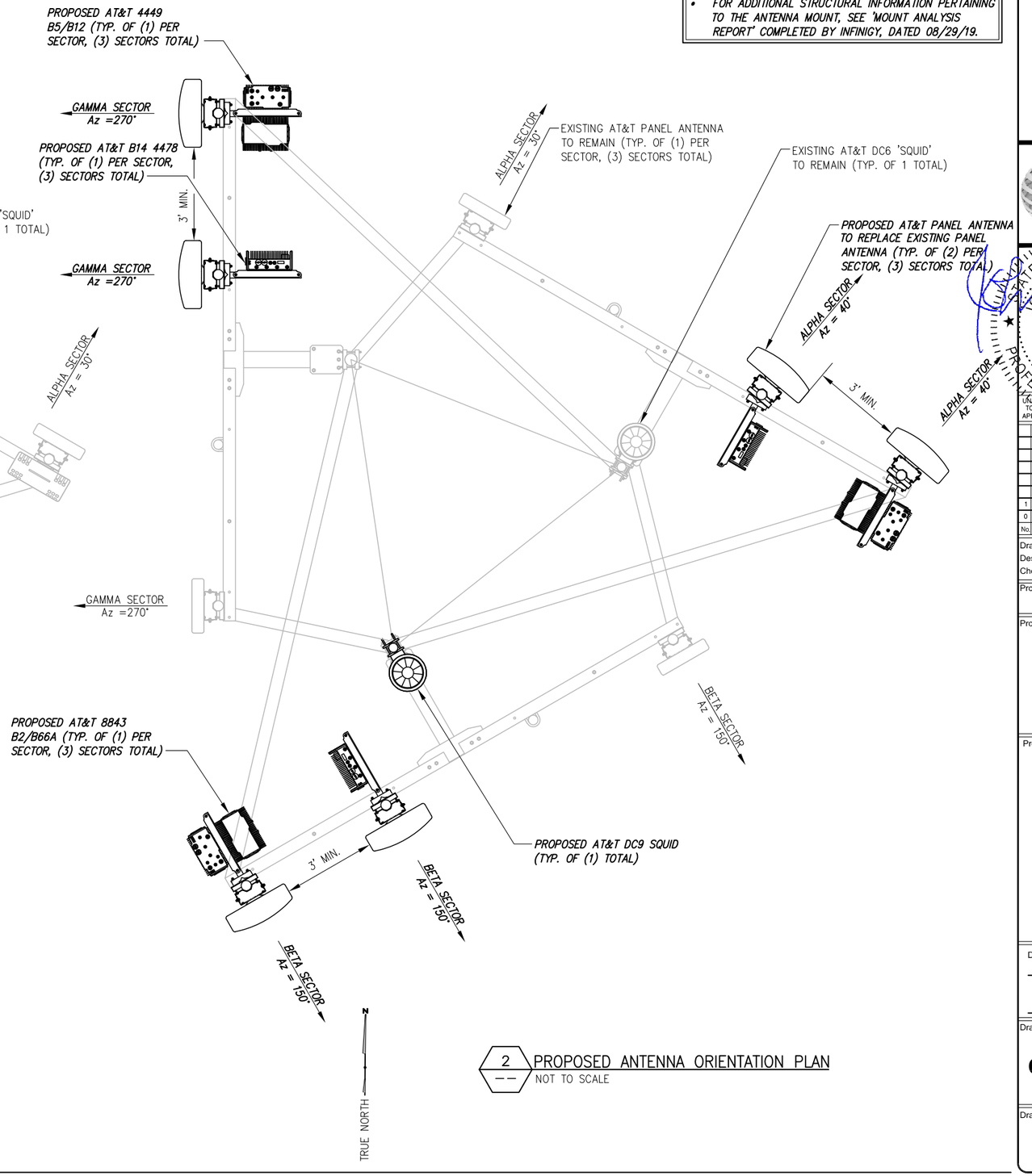
- *FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'MOUNT ANALYSIS REPORT' COMPLETED BY INFINIGY, DATED 08/29/19.*



1 EXISTING ANTENNA ORIENTATION PLAN
NOT TO SCALE



2 PROPOSED ANTENNA ORIENTATION PLAN
NOT TO SCALE

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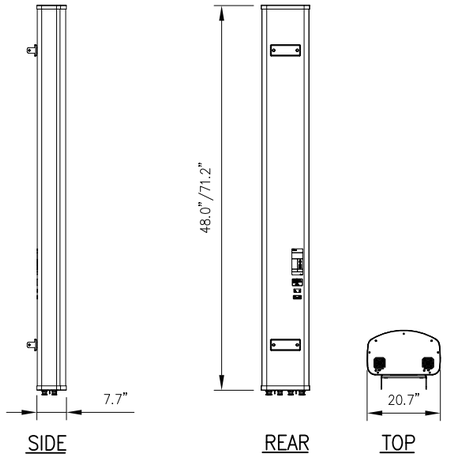
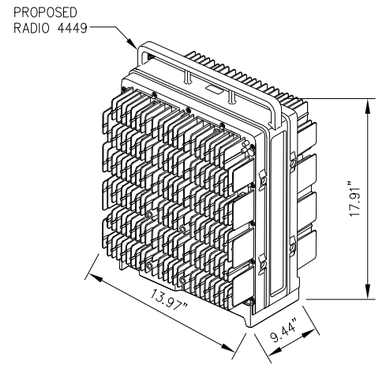
Drawing Title
ANTENNA ORIENTATION PLAN

Drawing Number
C4



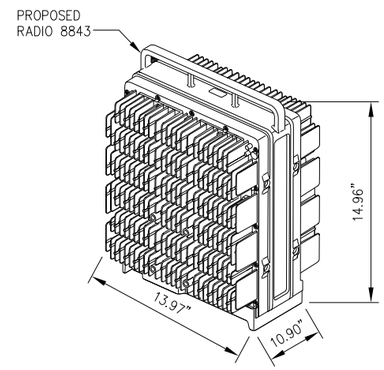
CCI MODEL NO.:	DMP65R-BU4DA/DMP65R-BU6A
RADOME MATERIAL:	FIBERGLASS
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	48.0"x20.7"x7.7"/71.2"x20.7"x7.7"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	67.9 LBS/79.4 LBS
CONNECTOR:	7-16 DIN FEMALE

1 ANTENNA DETAIL
NOT TO SCALE



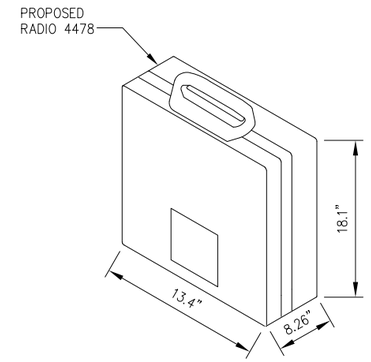
RADIO 4449 SPECIFICATIONS
- HxWxD, (INCHES) : 17.91"x13.97"x9.44"
- WEIGHT (LBS) : 70.54
- COLOR : GRAY

2 ERICSSON RADIO 4449 DETAIL
NOT TO SCALE



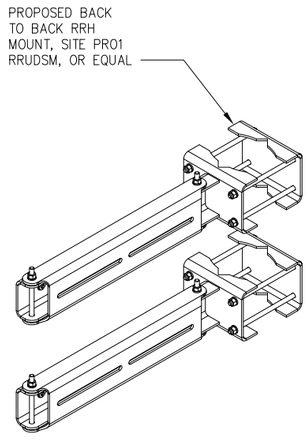
RADIO 8843 SPECIFICATIONS
- HxWxD, (INCHES) : 14.96"x13.97"x10.90"
- WEIGHT (LBS) : 71.87
- COLOR : GRAY

3 ERICSSON RADIO 8843 DETAIL
NOT TO SCALE

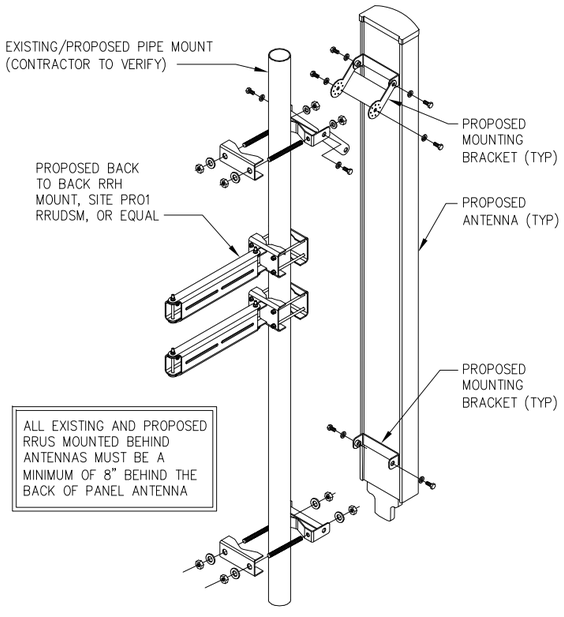


RADIO 4478-B14 SPECIFICATIONS
- HxWxD, (INCHES) : 18.1"x13.4"x8.26"
- WEIGHT (LBS) : 59.5
- COLOR : GRAY
- MOUNTING BRACKET: SXK1250244/1

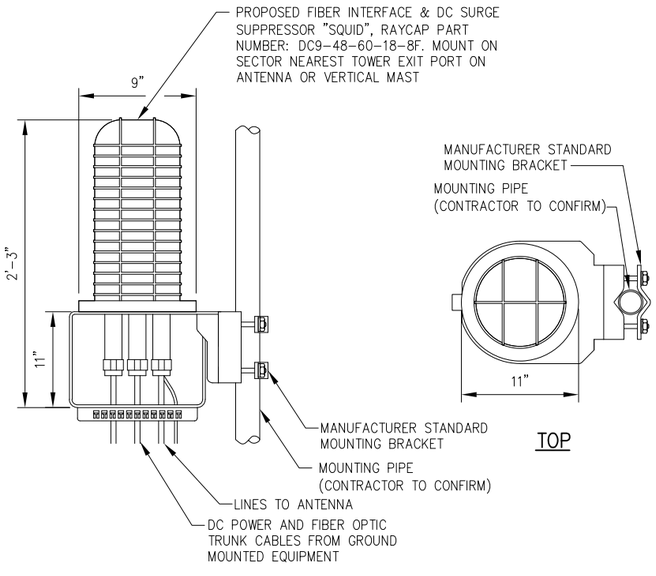
4 ERICSSON RADIO 4478-B14 DETAIL
NOT TO SCALE



5 BACK TO BACK PIPE MOUNT DETAIL
NOT TO SCALE



6 ANTENNA MOUNTING DETAIL
NOT TO SCALE



7 SQUID DETAIL
NOT TO SCALE

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STATE OF CONNECTICUT
JOHN S. STEVENS
09/25/2019
24705
LICENSED PROFESSIONAL ENGINEER

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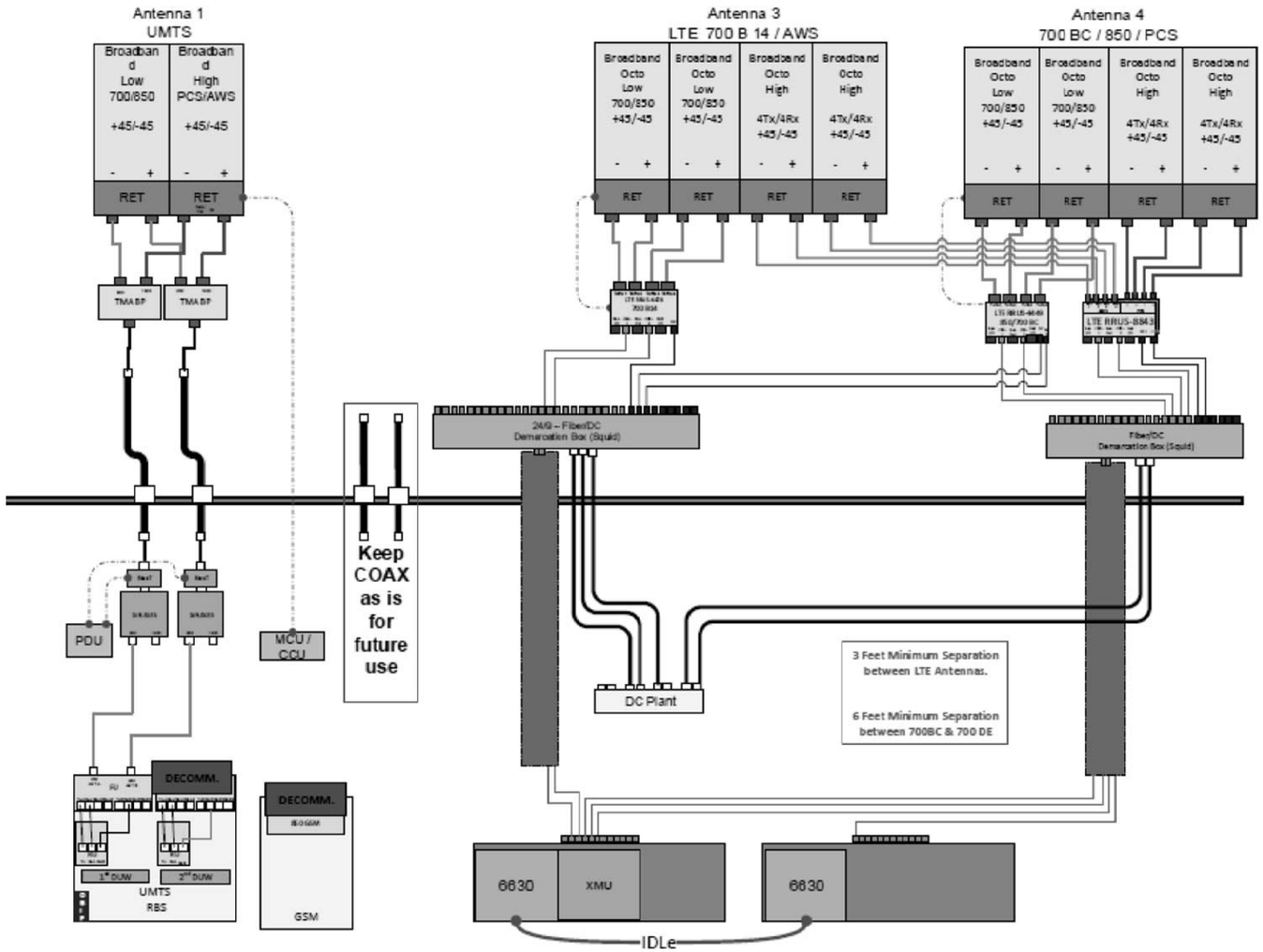
Date: 09/25/19
CD

Drawing Title
EQUIPMENT DETAILS

Drawing Number
C5



ALPHA/BETA/GAMMA

1 PLUMBING DIAGRAM (FINAL CONFIGURATION)
NOT TO SCALE

*BASED ON LTE RFDS, DATED 06/07/2019, V1.00

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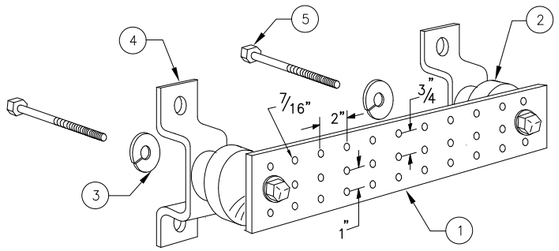
Drawing Title
PLUMBING DIAGRAM

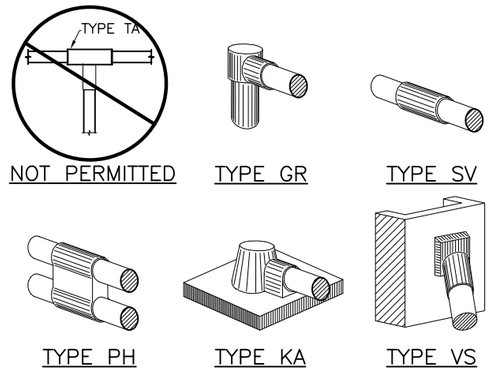
Drawing Number
C6



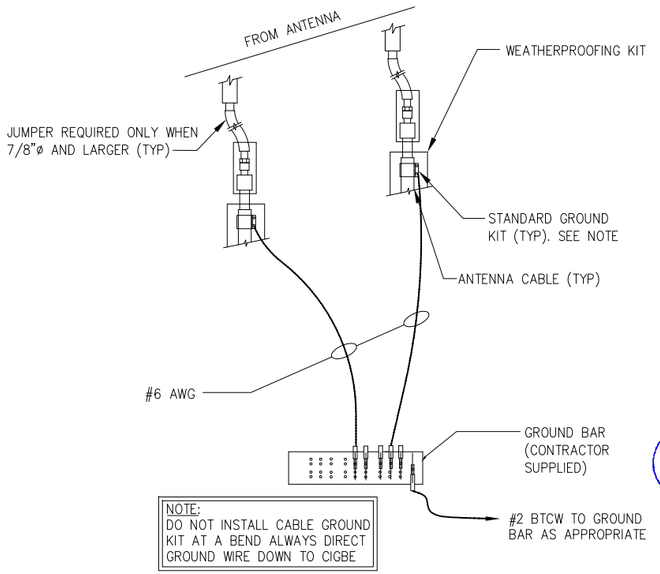
LEGEND

1 – SOLID TINNED COPPER GROUND BAR, 1/4"x 4"x 20" MIN., NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2 – INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4
3 – 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8
4 – WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056
5 – 5/8-11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1
6 – GROUND BAR SHALL BE SIZED TO ACCOMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
7 – GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
8 – GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
9 – HARDWARE DIAMETER SHALL BE MINIMUM 3/8"

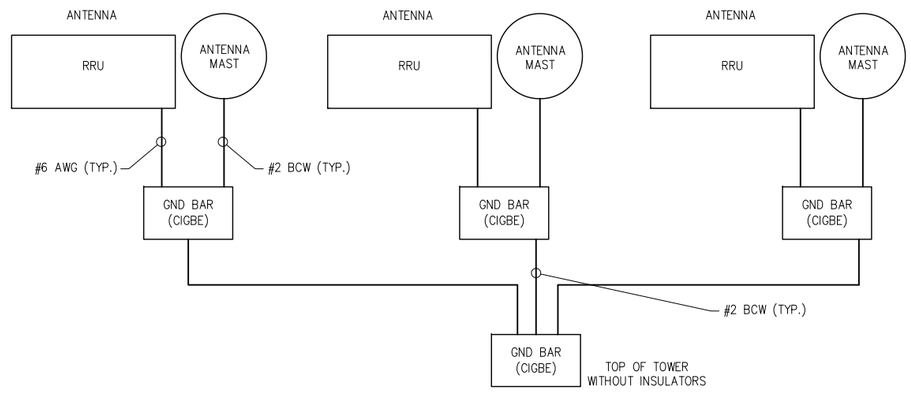
1 — GROUND BAR
NOT TO SCALE



2 — CADWELDS (TYPICAL)
NOT TO SCALE



3 — CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS
NOT TO SCALE



4 — SCHEMATIC DIAGRAM GROUNDING SYSTEM
NOT TO SCALE

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7 SURDAN MOUNTAIN ROAD
SHARON, CT 06069

Prepared For: smartlink

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CD

Drawing Title
GROUNDING DETAILS

Drawing Number
C7

INFINIGY

FROM ZERO TO INFINIGY

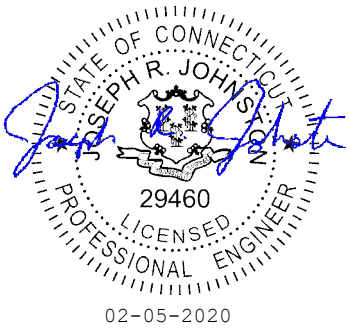
the solutions are endless

Structural Analysis Report

February 4, 2020

AT&T Site Name	Sharon Surdan Mt. Road
AT&T Site Number	CTL01235
FA#	10050790
PACE IDs	MRCTB041738, MRCTB041519, MRCTB041585, MRCTB041434, MRCTB041358
Infinigy Job Number	1106-A0001-B
Client	Smartlink
Carrier	AT&T
Site Location	7 Surdan Mt. Road, Sharon, CT, 06069 41° 51’ 43.38” N NAD83 73° 23’ 58.6566” W NAD83
Structural Type	195.0 ft. Self Support Tower
Structural Usage Ratio	Sufficient Capacity – 83.3%
Overall Result	**Pass**

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The tower and foundations are therefore deemed adequate to support the existing and proposed loading configuration as listed in this report.



Jordan Everson, E.I.T.
Project Engineer II

Contents

Introduction

Infinigy Engineering has been requested to perform a structural analysis on the existing 195.0 ft. self support tower. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The tower was analyzed using tnxTower version 8.0.5.0 analysis software.

Supporting Documentation

Construction Drawings	Infinigy Engineering, Site Name: Sharon Surdan Mt. Road, dated October 22, 2019
Proposed Loading	AT&T RFDS, Site Name: Sharon Surdan Mt Rd., dated August 26, 2019
Structural Analysis Report	Centek Engineering, Project No. 19027.16, dated April 29, 2019
Tower Mapping	Infinigy Engineering, Site Number: CTL01235, dated January 27, 2020
Tower Manufacturer Drawings	Pirod Inc, Site Number: CTL01235, dated October 10, 1998

Analysis Code Requirements

Wind Speed	89 mph (3-Second Gust, V_{ASD}) / 115 mph (3-Second Gust, V_{ULT})
Wind Speed w/ ice	40 mph (3-Second Gust, V_{ASD}) w/ 0.75” ice
TIA Revision	ANSI/TIA-222-G
Adopted IBC	2015 IBC / 2018 Connecticut State Building Code
Risk Category	II
Exposure Category	C
Topographic Category	1
Calculated Crest Height	0 ft.
Spectral Response	S_s = 0.180 g / S_1 = 0.065 g
Site Class	D-Stiff Soil (Assumed)

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The tower and foundations are therefore deemed adequate to support the existing and proposed loading as listed in this report.

Jordan Everson, E.I.T.
Project Engineer II | **INFINIGY**
40 W Baseline Rd, Suite 219, Tempe, AZ 85283
(M) 402-880-3002
jeverson@infinigy.com | www.infinigy.com

Existing & Reserved Loading

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
194.0	194.0	1	Dipole	(1) Standoff	(1) 7/8	--
193.0	193.0	1	RFS/Celwave PA6-65AC	(1) Pipe Mount	(1) WE-65	--
185.0	190.0	1	9’ Omni	(1) Standoff	(1) 1-5/8 (1) 7/8	--
	180.0	1	Commscope DB222-A			
180.0	188.0	1	Kathrein OGT9-840N	(1) Platform	(5) 1-5/8 (2) 7/8 (1) 1/2	--
	186.0	1	Commscope DB222-A			
	181.0	1	Filter Box			
	180.0	2	Sinclair SC479-HF1LDF			
		1	Sinclair SE414-SWBP4LDF			
		1	Bird 432-83H-01-T			
	175.0	1	10’ Omni (Inverted)			
	174.0	1	Telewave ANT150D6-9			
		1	12’ Omni (Inverted)			
172.0	179.0	1	Antel BCD-87077	(1) Standoff	(1) 7/8	--
170.0	180.0	1	PD220	(1) Standoff	(1) 7/8	--
168.0	173.0	1	12’ Omni	(1) Standoff	(1) 7/8	--
165.0	165.0	6	Antel LPA-80080/4CF	(3) Sector Frames	(12) 1-5/8	--
		6	Antel LPA-185080/8CFx2			
150.0	150.0	6	Powerwave 7770	(3) Sector Frames	(12) 1-5/8 (2) DC Cables (1) Fiber	AT&T
		2	KMW AM-X-CD-16-65-00T-RET			
		1	Kathrein 880-10764			
		12	Powerwave 7020			
		18	Powerwave LGP 13519			
		1	Powerwave 7070			
		6	Powerwave LGP 21401			
		3	Ericsson RRUS-11 B12			
		1	Raycap DC6-48-60-18-8F			
138.0	138.0	3	RFS/Celwave APX16DWV-16DWV-S-E-A20	(3) Sector Frames	(3) 1-5/8	--
		3	RFS/Celwave APXVAARR24_43-U-NA20			
		3	Ericsson RRUS 11			
		3	Ericsson RRUS B71/B12			
132.0	133.0	1	Sinclair SD210	(1) Standoff	(1) 7/8	--

Existing & Reserved Loading Cont.

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
124.0	128.0	1	Andrew DB586-Y	(1) Standoff	(2) 7/8	--
	124.0	1	TTA			
	123.0	1	Andrew DB586-Y			
119.0	119.0	1	DB212-A	(2) Standoff	(1) 7/8	--
100.0	107.0	1	DB205-L	(1) Standoff (1) Pipe Mount	(1) 7/8 (1) WE-65	--
	100.0	1	RFS/Celwave PA6-65AC			
83.0	92.0	1	DB224-A	(1) Standoff	(1) 1/2	--
78.0	88.0	1	RFS/Celwave PD220-2	(2) Standoff	(3) 1/2	--
	73.0	1	12’ Omni			
	68.0	1	Andrew DB432-A			
15.0	15.0	1	Channel Master 1.2M	(1) Standoff	(2) 1/4	--

To Be Removed Loading

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
150.0	150.0	3	Powerwave 7770	--	--	AT&T
		2	KMW AM-X-CD-16-65-00T-RET			
		1	Kathrein 880-10764			
		6	Powerwave 7020			
		12	Powerwave LGP 13519			
		3	Ericsson RRUS-11 B12			

Proposed Loading

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
150.0	150.0	4	CCI DMP65R-BU6DA	--	(4) DC Cables (2) Fiber	AT&T
		2	CCI DMP65R-BU4DA			
		3	Ericsson RRUS 4449 B5/B12			
		3	Ericsson RRUS 4478 B14			
		3	Ericsson RRUS 8843 B2/B66A			
		2	Raycap DC6-48-60-18-8C-EV			

Final Configuration

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
194.0	194.0	1	Dipole	(1) Standoff	(1) 7/8	--
193.0	193.0	1	RFS/Celwave PA6-65AC	(1) Pipe Mount	(1) WE-65	--
185.0	190.0	1	9’ Omni	(1) Standoff	(1) 1-5/8 (1) 7/8	--
	180.0	1	Commscope DB222-A			
180.0	188.0	1	Kathrein OGT9-840N	(1) Platform	(5) 1-5/8 (2) 7/8 (1) 1/2	--
	186.0	1	Commscope DB222-A			
	181.0	1	Filter Box			
	180.0	2	Sinclair SC479-HF1LDF			
		1	Sinclair SE414-SWBP4LDF			
		1	Bird 432-83H-01-T			
	175.0	1	10’ Omni (Inverted)			
	174.0	1	Telewave ANT150D6-9			
		1	12’ Omni (Inverted)			
172.0	179.0	1	Antel BCD-87077	(1) Standoff	(1) 7/8	--
170.0	180.0	1	PD220	(1) Standoff	(1) 7/8	--
168.0	173.0	1	12’ Omni	(1) Standoff	(1) 7/8	--
165.0	165.0	6	Antel LPA-80080/4CF	(3) Sector Frames	(12) 1-5/8	--
		6	Antel LPA-185080/8CFx2			

Final Configuration Cont.

RAD Center (ft)	Mount Center (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
150.0	150.0	3	Powerwave 7770	(3) Sector Frames	(12) 1-5/8 (6) DC Cables (3) Fiber	AT&T
		4	CCI DMP65R-BU6DA			
		2	CCI DMP65R-BU4DA			
		6	Powerwave 7020			
		6	Powerwave LGP 13519			
		1	Powerwave 7070			
		6	Powerwave LGP 21401			
		3	Ericsson RRUS 4449 B5/B12			
		3	Ericsson RRUS 4478 B14			
		3	Ericsson RRUS 8843 B2/B66A			
		1	Raycap DC6-48-60-18-8F			
		2	Raycap DC6-48-60-18-8C-EV			
138.0	138.0	3	RFS/Celwave APX16DWV-16DWV-S-E-A20	(3) Sector Frames	(3) 1-5/8	--
		3	RFS/Celwave APXVAARR24_43-U-NA20			
		3	Ericsson RRUS 11			
		3	Ericsson RRUS B71/B12			
132.0	133.0	1	Sinclair SD210	(1) Standoff	(1) 7/8	--
124.0	128.0	1	Andrew DB586-Y	(1) Standoff	(2) 7/8	--
	124.0	1	TTA			
	123.0	1	Andrew DB586-Y			
119.0	119.0	1	DB212-A	(2) Standoff	(1) 7/8	--
100.0	107.0	1	DB205-L	(1) Standoff (1) Pipe Mount	(1) 7/8 (1) WE-65	--
	100.0	1	RFS/Celwave PA6-65AC			
83.0	92.0	1	DB224-A	(1) Standoff	(1) 1/2	--
78.0	88.0	1	RFS/Celwave PD220-2	(2) Standoff	(3) 1/2	--
	73.0	1	12’ Omni			
	68.0	1	Andrew DB432-A			
15.0	15.0	1	Channel Master 1.2M	(1) Standoff	(2) 1/4	--

Structure Usages

Bot Girt (T2)	15.6%	Pass
Top Girt (T7)	45.3%	Pass
Leg (T9)	71.7%	Pass
Diagonal (T4)	83.3%	Pass
Bolt Check	83.3%	Pass
Anchor Rods	74.0%	Pass
RATING =	**83.3%**	**Pass**

Foundation Reactions

Reaction Data	Analysis Reactions	Design Reactions
Leg Compression (kip)	374.0	431.4
Leg Uplift (kip)	333.0	396.4
Leg Shear (kip)	39.0	68.7
Global Moment (kip-ft)	5,086.0	7,168.4

Tower base reactions are acceptable when compared to the allowable reactions listed in the original design drawings by Pirod Inc., Site Number: CTL01235, dated October 10, 1998. These reactions are assumed to be accurate and applicable to the site.

Deflection, Twist, and Sway

Antenna Elevation (ft)	Deflection (in)	Twist (^{o})	Sway (^{o})
150.0	4.183	0.067	0.285

*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural deflection limit is 3% of structure height.
*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural twist and sway limit is 4 degrees.
*Per ANSI/TIA-222-G Section 2.8.3 deflection, Twist, and sway values were calculated using a basic 3-second gust wind speed of 60 mph.
*It is the responsibility of the client to ensure their proposed and/or existing equipment will meet ANSI/TIA-222-G Annex D or other appropriate microwave signal degradation limits based on the provided values above.

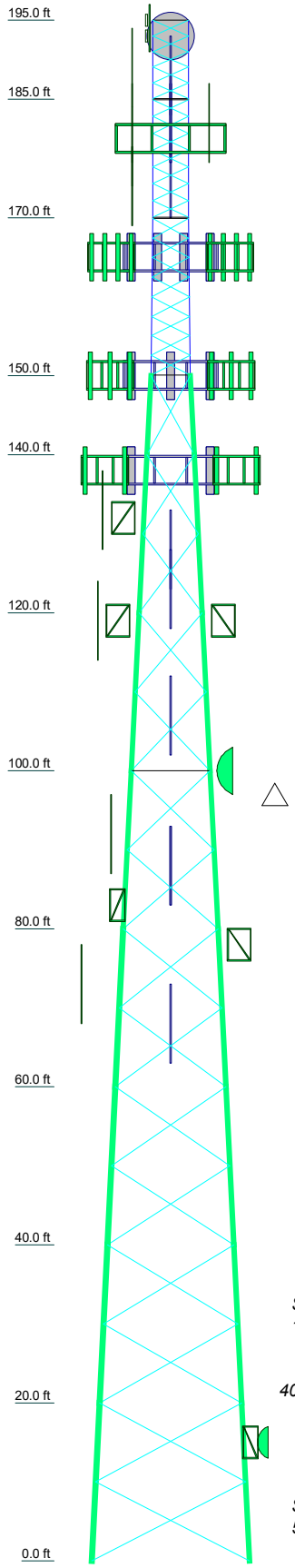
Assumptions and Limitations

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

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

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

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11		
Legs	SR 1 3/4	SR 2	SR 2 1/4	A	Pirod 105217	Pirod 105218	Pirod 105218	Pirod 105219	Pirod 105219	Pirod 105220	Pirod 105220		
Leg Grade	A572-50												
Diagonals	SR 7/8		SR 1	B	L 3 x 3 x 3/16	L 3 x 3 x 1/4	L 3 x 3 x 1/4	L 3 x 3 x 5/16	L 3 x 3 x 1/4	L 3.5 x 3.5 x 5/16	L 4 x 4 x 1/4		
Diagonal Grade	A572-50			A36	A572-50			A36	A572-50	A36	A572-50		
Top Girts	C		SR 1		N.A.		L 3 x 3 x 3/16	N.A.	N.A.				
Bottom Girts	SR 7/8		SR 1					N.A.					
Face Width (ft)	4.5		8 @ 2.47917	5	6	8	10	12	14	16	18	20	
# Panels @ (ft)	5 @ 1.98333	7 @ 2.11905						15 @ 10					
Weight (K)	0.7	1.0	1.6	1.4	2.6	3.2	3.4	4.7	4.6	5.8	5.8	34.6	



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Pirod 105245	C	L 3 x 3 x 5/16
B	L2 1/2x2 1/2x3/16		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-G Standard.
2. Tower designed for a 89 mph basic wind in accordance with the TIA-222-G Standard.
3. Tower is also designed for a 40 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Structure Class II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 88.2%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 323 K
SHEAR: 33 K

UPLIFT: -281 K
SHEAR: 29 K

AXIAL 201 K
SHEAR 12 K *MOMENT 1451 kip-ft*
TORQUE 10 kip-ft
40 mph WIND - 0.7500 in ICE

AXIAL 71 K
SHEAR 50 K *MOMENT 5184 kip-ft*
TORQUE 51 kip-ft
REACTIONS - 89 mph WIND

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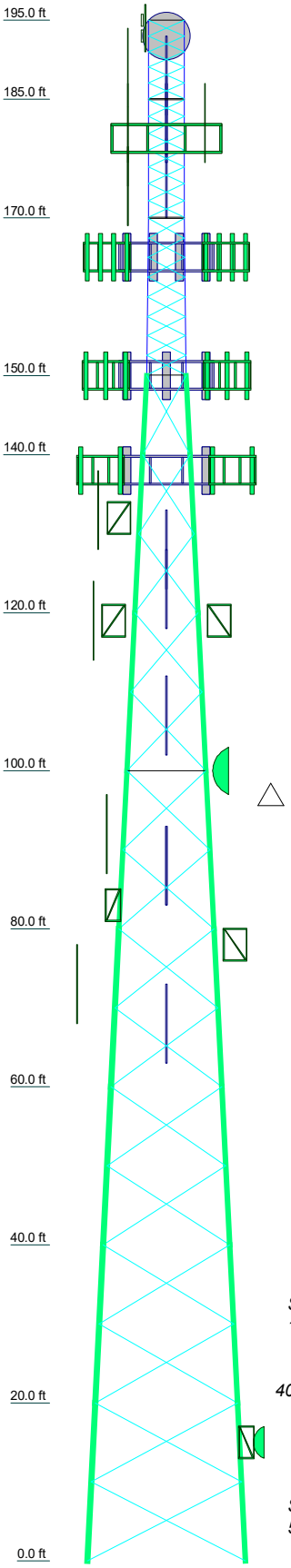
Job: *CTL01235*			
Project: *1106-A0001-B*			
Client: Smartlink	Drawn by: jeverson		App'd:
Code: TIA-222-G	Date: 02/03/20		Scale: NTS
Path:			Dwg No. E-1

Section	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	Pirod 105220		Pirod 105219		Pirod 105218		Pirod 105217	A	SR 2 1/4	SR 2	SR 1 3/4
Leg Grade	A572-50										
Diagonals	L 4 x 4 x 1/4	L 3.5 x 3.5 x 5/16	L 3 x 3 x 1/4	L 3 x 3 x 5/16	L 3 x 3 x 1/4	L 3 x 3 x 3/16		B	SR 1	SR 7/8	
Diagonal Grade	A572-50	A36	A572-50	A36	A572-50			A36			
Top Girts		N.A.			L 3 x 3 x 3/16			N.A.		SR 1	C
Bottom Girts				N.A.						SR 1	SR 7/8
Face Width (ft)	20	18	16	14	12	10	8	6	5	4.5	
# Panels @ (ft)					15 @ 10				8 @ 2.47917	7 @ 2.11905	5 @ 1.98333
Weight (K)	34.6	5.8	4.6	4.7	3.4	3.2	2.6	1.4	1.6	1.0	0.7



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Dipole	194	RRUS 4478 B14	150
Standoff	194	RRUS 4478 B14	150
Pipe Mount	193	RRUS 4478 B14	150
PA6-65AC	193	RRUS 4449 B5/B12	150
9' x 3" Omni	184	RRUS 4449 B5/B12	150
DB222-A	184	RRUS 4449 B5/B12	150
Standoff Mount	184	DC6-48-60-18-8F	150
OGT9-840	180	DC6-48-60-18-8C-EV	150
SC479-HF1LDF	180	DC6-48-60-18-8C-EV	150
SC479-HF1LDF	180	Sector Frames	150
SE414-SWBP4LDF(D00) w/ Mount Pipe	180	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	138
432-83H-01-T	180	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	138
DB222-A	180		
ANT150D6-9	180	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	138
10' x 3" Omni	180		
12' x 3" Omni	180	APXVAARR24_43-U-NA20 w/ Mount Pipe	138
Filter Box	180		
(4) Mount Pipes	180	APXVAARR24_43-U-NA20 w/ Mount Pipe	138
(4) Mount Pipes	180	APXVAARR24_43-U-NA20 w/ Mount Pipe	138
(4) Mount Pipes	180		
Platform Mount	180	(2) RRUS 11	138
BCD87077	172	(2) RRUS 11	138
Standoff Mount	172	(2) RRUS 11	138
PD220	170	RRUS 4449 B71/B12	138
6' Standoff	170	RRUS 4449 B71/B12	138
12' x 3" Omni	168	RRUS 4449 B71/B12	138
Standoff Mount	168	Sector Frames	138
(2) LPA-80080/4CF w/ Mount Pipe	165	SRL110A	132
(2) LPA-80080/4CF w/ Mount Pipe	165	6' Standoff	132
(2) LPA-80080/4CF w/ Mount Pipe	165	DB586-Y	124
(2) LPA-185080/8CFx2 w/ Mount Pipe	165	DB586-Y	124
(2) LPA-185080/8CFx2 w/ Mount Pipe	165	Top Tower Amplifier	124
(2) LPA-185080/8CFx2 w/ Mount Pipe	165	6' Standoff	124
Sector Frames	165	6' Standoff	119
7770.00 w/ Mount Pipe	150	DB212-1	119
7770.00 w/ Mount Pipe	150	6' Standoff	119
7770.00 w/ Mount Pipe	150	Pipe Mount	100
(2) DMP65R-BU6D w/ Mount Pipe	150	DB205-L	100
(2) DMP65R-BU6D w/ Mount Pipe	150	Ice Bridge	100
(2) DMP65R-BU4D w/ Mount Pipe	150	6' Standoff	100
(2) 7020.00	150	PA6-65AC	100
(2) 7020.00	150	PD220	83
(2) 7020.00	150	Standoff Mount	83
(2) LGP13519	150	DB224	83
(2) LGP13519	150	PD220	78
(2) LGP13519	150	DB432-A	78
7070	150	12' x 3" Omni	78
(2) LGP21401	150	6' Standoff	78
(2) LGP21401	150	6' Standoff	78
(2) LGP21401	150	Standoff Mount	15
RRUS 8843 B2/B66A	150	1.2M	15
RRUS 8843 B2/B66A	150		
RRUS 8843 B2/B66A	150		

ALL REA
ARE FAC

MAX. CO
DOWN
SHEAR

UPLIF
SHEAR

AXI
201

SHEAR
12 K

TORQUE
40 mph WIND -

AXIAL
71

SHEAR
50 K

TORQUE
REACTIONS - 85 mph WIND

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Pirod 105245	C	L 3 x 3 x 5/16
B	L2 1/2x2 1/2x3/16		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-G Standard.
2. Tower designed for a 89 mph basic wind in accordance with the TIA-222-G Standard.
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4. Deflections are based upon a 60 mph wind.
5. Tower Structure Class II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 88.2%

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Job: ***CTL01235***			
Project: ***1106-A0001-B***			
Client: Smartlink	Drawn by: jeverson	App'd:	
Code: TIA-222-G	Date: 02/03/20	Scale: NTS	
Path:		Dwg No. E-1	

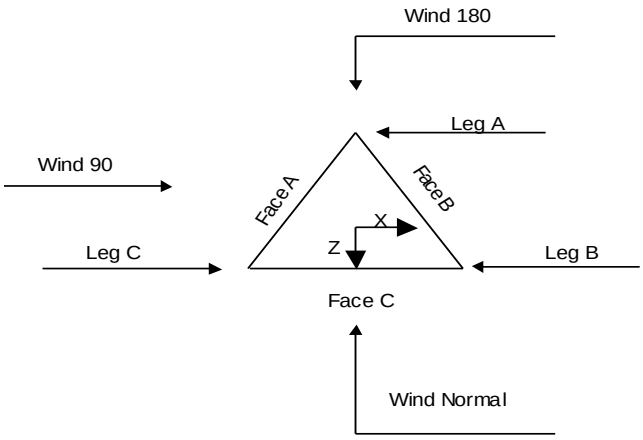
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 195.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 4.50 ft at the top and 20.00 ft at the base.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Basic wind speed of 89 mph.
Structure Class II.
Exposure Category C.
Topographic Category 1.
Crest Height 0.00 ft.
Nominal ice thickness of 0.7500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 40 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Horizontals		Assume Legs Pinned	√	Calculate Redundant Bracing Forces
	Consider Moments - Diagonals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Use Moment Magnification	√	Use Clear Spans For Wind Area	√	SR Leg Bolts Resist Compression
√	Use Code Stress Ratios	√	Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Safety Factors - Guys		Retension Guys To Initial Tension		Offset Girt At Foundation
	Escalate Ice	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Always Use Max Kz	√	Use Azimuth Dish Coefficients	√	Include Angle Block Shear Check
	Use Special Wind Profile	√	Project Wind Area of Appurt.		Use TIA-222-G Bracing Resist. Exemption
√	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Use TIA-222-G Tension Splice Exemption
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination		Poles
√	Secondary Horizontal Braces Leg	√	Sort Capacity Reports By Component		Include Shear-Torsion Interaction
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Always Use Sub-Critical Flow
√	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Use Top Mounted Sockets
	SR Members Are Concentric		Ignore KL/ry For 60 Deg. Angle Legs		Pole Without Linear Attachments
					Pole With Shroud Or No Appurtenances
					Outside and Inside Corner Radii Are Known



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	195.00-185.00			4.50	1	10.00
T2	185.00-170.00			4.50	1	15.00
T3	170.00-150.00			4.50	1	20.00
T4	150.00-140.00			5.00	1	10.00
T5	140.00-120.00			6.00	1	20.00
T6	120.00-100.00			8.00	1	20.00
T7	100.00-80.00			10.00	1	20.00
T8	80.00-60.00			12.00	1	20.00
T9	60.00-40.00			14.00	1	20.00
T10	40.00-20.00			16.00	1	20.00
T11	20.00-0.00			18.00	1	20.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	195.00-185.00	2.17	X Brace	No	Steps	8.0160	8.0160
T2	185.00-170.00	2.28	X Brace	No	Steps	8.0160	8.0160
T3	170.00-150.00	2.34	X Brace	No	Steps	7.4880	7.4880
T4	150.00-140.00	10.00	X Brace	No	No	0.0000	0.0000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T5	140.00-120.00	10.00	X Brace	No	No	0.0000	0.0000
T6	120.00-100.00	10.00	X Brace	No	No	0.0000	0.0000
T7	100.00-80.00	10.00	X Brace	No	No	0.0000	0.0000
T8	80.00-60.00	10.00	X Brace	No	No	0.0000	0.0000
T9	60.00-40.00	10.00	X Brace	No	No	0.0000	0.0000
T10	40.00-20.00	10.00	X Brace	No	No	0.0000	0.0000
T11	20.00-0.00	10.00	X Brace	No	No	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 195.00-185.00	Solid Round	1 3/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 185.00-170.00	Solid Round	2	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 170.00-150.00	Solid Round	2 1/4	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T4 150.00-140.00	Truss Leg	Pirod 105245	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T5 140.00-120.00	Truss Leg	Pirod 105217	A572-50 (50 ksi)	Single Angle	L 3 x 3 x 3/16	A572-50 (50 ksi)
T6 120.00-100.00	Truss Leg	Pirod 105218	A572-50 (50 ksi)	Single Angle	L 3 x 3 x 1/4	A572-50 (50 ksi)
T7 100.00-80.00	Truss Leg	Pirod 105218	A572-50 (50 ksi)	Single Angle	L 3 x 3 x 1/4	A572-50 (50 ksi)
T8 80.00-60.00	Truss Leg	Pirod 105219	A572-50 (50 ksi)	Single Angle	L 3 x 3 x 5/16	A36 (36 ksi)
T9 60.00-40.00	Truss Leg	Pirod 105219	A572-50 (50 ksi)	Single Angle	L3 1/2x3 /12x1/4	A572-50 (50 ksi)
T10 40.00-20.00	Truss Leg	Pirod 105220	A572-50 (50 ksi)	Single Angle	L 3.5 x 3.5 x 5/16	A36 (36 ksi)
T11 20.00-0.00	Truss Leg	Pirod 105220	A572-50 (50 ksi)	Single Angle	L 4 x 4 x 1/4	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 195.00-185.00	Single Angle	L 3 x 3 x 5/16	A36 (36 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 185.00-170.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T3 170.00-150.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T7 100.00-80.00	Single Angle	L 3 x 3 x 3/16	A36 (36 ksi)	Flat Bar		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

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
T1 195.00-185.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000	36.0000
T2 185.00-170.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000	36.0000
T3 170.00-150.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000	36.0000
T4 150.00-140.00	1.78	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T5 140.00-120.00	3.22	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T6 120.00-100.00	3.22	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T7 100.00-80.00	3.22	0.5000	A36 (36 ksi)	1	1.38	1.05	36.0000	36.0000	36.0000
T8 80.00-60.00	3.22	0.5000	A36 (36 ksi)	1	1.33	1.05	36.0000	36.0000	36.0000
T9 60.00-40.00	3.22	0.5000	A36 (36 ksi)	1	1.33	1.05	36.0000	36.0000	36.0000
T10 40.00-20.00	3.22	0.5000	A36 (36 ksi)	1	1.3	1.05	36.0000	36.0000	36.0000
T11 20.00-0.00	3.22	0.5000	A36 (36 ksi)	1	1.3	1.05	36.0000	36.0000	36.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	K Single Diags X	K Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T1	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1
195.00-185.00				1	1	1	1	1	1	1	1	1	1	1	1
T2	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1
185.00-170.00				1	1	1	1	1	1	1	1	1	1	1	1
T3	No	Yes	1	1	1	1	1	1	1	1	1	1	1	1	1
170.00-150.00				1	1	1	1	1	1	1	1	1	1	1	1
T4	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
150.00-140.00				1	1	1	1	1	1	1	1	1	1	1	1
T5	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
140.00-120.00				1	1	1	1	1	1	1	1	1	1	1	1
T6	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
120.00-100.00				1	1	1	1	1	1	1	1	1	1	1	1
T7	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
100.00-80.00				1	1	1	1	1	1	1	1	1	1	1	1
T8	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
80.00-60.00				1	1	1	1	1	1	1	1	1	1	1	1
T9	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
60.00-40.00				1	1	1	1	1	1	1	1	1	1	1	1
T10	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
40.00-20.00				1	1	1	1	1	1	1	1	1	1	1	1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T11 20.00-0.00	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Truss-Leg K Factors: Truss-Legs Used As Leg Members — Leg Panels	X Brace Diagonals	Z Brace Diagonals	Truss-Legs Used As Inner Members — Leg Panels	X Brace Diagonals	Z Brace Diagonals
T4 150.00-140.00	1	1	1	1	0.5	0.85
T5 140.00-120.00	1	1	1	1	0.5	0.85
T6 120.00-100.00	1	1	1	1	0.5	0.85
T7 100.00-80.00	1	1	1	1	0.5	0.85
T8 80.00-60.00	1	1	1	1	0.5	0.85
T9 60.00-40.00	1	1	1	1	0.5	0.85
T10 40.00-20.00	1	1	1	1	0.5	0.85
T11 20.00-0.00	1	1	1	1	0.5	0.85

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	U	Diagonal Net Width Deduct in	U	Top Girt Net Width Deduct in	U	Bottom Girt Net Width Deduct in	U	Mid Girt Net Width Deduct in	U	Long Horizontal Net Width Deduct in	U	Short Horizontal Net Width Deduct in	U
T1 195.00-185.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 185.00-170.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 170.00-150.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 150.00-140.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 140.00-120.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T6 120.00-100.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 100.00-80.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 80.00-60.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 60.00-40.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 40.00-20.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 20.00-0.00	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 195.00-185.00	Sleeve DS	0.6250 A325N	5	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 185.00-170.00	Sleeve DS	0.7500 A325N	5	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 170.00-150.00	Flange	1.0000 A325N	6	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 150.00-140.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 140.00-120.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 120.00-100.00	Flange	1.0000 A325N	6	1.0000 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T7 100.00-80.00	Flange	1.0000 A325N	6	1.0000 A325N	1	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T8 80.00-60.00	Flange	1.2500 A325N	6	1.2500 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T9 60.00-40.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T10 40.00-20.00	Flange	1.2500 A325N	6	1.2500 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T11 20.00-0.00	Flange	1.2500 A687	6	1.2500 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
1/2	A	No	No	Ar (CaAa)	192.00 - 5.00	3.0000	-0.42	1	1	0.5800	0.5800		0.25

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
7/8	A	No	No	Ar (CaAa)	192.00 - 5.00	2.0000	-0.445	3	3	1.1000	1.1000		0.54
7/8	B	No	No	Ar (CaAa)	192.00 - 5.00	2.0000	-0.44	3	3	1.1000	1.1000		0.54
7/8	B	No	No	Ar (CaAa)	192.00 - 5.00	2.0000	-0.31	2	1	1.1000	1.1000		0.54
WE65	B	No	No	Ar (CaAa)	192.00 - 5.00	1.0000	-0.42	1	1	1.5836	1.5836		0.53
LDF2-50 (3/8 FOAM)	B	No	No	Ar (CaAa)	192.00 - 5.00	2.0000	-0.375	2	2	0.4400	0.4400		0.08
LDF2-50 (3/8 FOAM)	B	No	No	Ar (CaAa)	192.00 - 5.00	1.0000	-0.33	1	1	0.4400	0.4400		0.08
***													
1 5/8	B	No	No	Ar (CaAa)	182.00 - 5.00	2.0000	-0.355	4	2	1.9800	1.9800		1.04
1 5/8	B	No	No	Ar (CaAa)	182.00 - 5.00	2.0000	-0.47	2	2	1.9800	1.9800		1.04
1/2	B	No	No	Ar (CaAa)	182.00 - 5.00	4.0000	-0.45	1	1	0.5800	0.5800		0.25
***													
1 5/8	A	No	No	Ar (CaAa)	165.00 - 5.00	2.0000	-0.365	9	5	1.9800	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	165.00 - 5.00	2.0000	-0.42	1	1	1.9800	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	165.00 - 5.00	4.5000	-0.45	1	1	1.9800	1.9800		1.04
1 5/8	A	No	No	Ar (CaAa)	165.00 - 5.00	2.0000	-0.47	1	1	1.9800	1.9800		1.04
***													
CR50 1873 (1-5/8 FOAM)	C	No	No	Ar (CaAa)	150.00 - 5.00	-7.0000	0.44	12	6	1.9800	1.9800		0.83
#8 AWG Copper Wire	C	No	No	Ar (CaAa)	150.00 - 5.00	0.0000	0.48	2	2	0.2500	0.2500		0.05
#8 AWG Copper Wire	C	No	No	Ar (CaAa)	150.00 - 5.00	0.0000	0.46	4	4	0.2500	0.2500		0.05
RG6-Fiber	C	No	No	Ar (CaAa)	150.00 - 5.00	0.0000	0.47	1	1	0.5000	0.5000		1.00
RG6-Fiber	C	No	No	Ar (CaAa)	150.00 - 5.00	0.0000	0.5	2	2	0.5000	0.5000		1.00
***													
1 5/8	B	No	No	Ar (CaAa)	138.00 - 5.00	-4.0000	-0.45	3	3	1.9800	1.9800		1.04
***													
7/8	C	No	No	Ar (CaAa)	130.00 - 5.00	-1.0000	-0.48	1	1	1.1000	1.1000		0.54
7/8	C	No	No	Ar (CaAa)	130.00 - 5.00	-2.0000	-0.47	1	1	1.1000	1.1000		0.54
7/8	C	No	No	Ar (CaAa)	130.00 - 5.00	-4.0000	-0.45	1	1	1.1000	1.1000		0.54
***													
7/8	C	No	No	Ar (CaAa)	110.00 - 5.00	-3.0000	-0.46	1	1	1.1000	1.1000		0.54
***													
WE65	B	No	No	Ar (CaAa)	100.00 - 5.00	2.0000	-0.405	1	1	1.5836	1.5836		0.53
***													
1/2	B	No	No	Ar (CaAa)	90.00 - 5.00	2.0000	-0.385	2	2	0.5800	0.5800		0.25
***													
1/2	B	No	No	Ar (CaAa)	70.00 - 5.00	3.0000	-0.31	2	2	0.5800	0.5800		0.25
***													

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF1-50A ***	C	No	No	Ar (CaAa)	15.00 - 5.00	-5.0000	-0.43	2	2	0.3500	0.3500		0.06
Feedline Ladder (Af)	A	No	No	Af (CaAa)	192.00 - 5.00	1.0000	-0.45	1	1	3.0000	3.0000		8.40
Feedline Ladder (Af)	B	No	No	Af (CaAa)	192.00 - 5.00	1.0000	-0.45	1	1	3.0000	3.0000		8.40
Feedline Ladder (Af)	C	No	No	Af (CaAa)	130.00 - 5.00	-1.0000	-0.45	1	1	3.0000	3.0000		8.40

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	195.00-185.00	A	0.000	0.000	6.216	0.000	0.07
		B	0.000	0.000	9.383	0.000	0.08
		C	0.000	0.000	0.000	0.000	0.00
T2	185.00-170.00	A	0.000	0.000	13.320	0.000	0.15
		B	0.000	0.000	35.057	0.000	0.26
		C	0.000	0.000	0.000	0.000	0.00
T3	170.00-150.00	A	0.000	0.000	53.400	0.000	0.39
		B	0.000	0.000	51.727	0.000	0.37
		C	0.000	0.000	0.000	0.000	0.00
T4	150.00-140.00	A	0.000	0.000	32.640	0.000	0.23
		B	0.000	0.000	25.864	0.000	0.18
		C	0.000	0.000	26.760	0.000	0.13
T5	140.00-120.00	A	0.000	0.000	65.280	0.000	0.46
		B	0.000	0.000	62.419	0.000	0.42
		C	0.000	0.000	61.820	0.000	0.37
T6	120.00-100.00	A	0.000	0.000	65.280	0.000	0.46
		B	0.000	0.000	63.607	0.000	0.43
		C	0.000	0.000	71.220	0.000	0.47
T7	100.00-80.00	A	0.000	0.000	65.280	0.000	0.46
		B	0.000	0.000	67.934	0.000	0.45
		C	0.000	0.000	72.320	0.000	0.48
T8	80.00-60.00	A	0.000	0.000	65.280	0.000	0.46
		B	0.000	0.000	70.254	0.000	0.46
		C	0.000	0.000	72.320	0.000	0.48
T9	60.00-40.00	A	0.000	0.000	65.280	0.000	0.46
		B	0.000	0.000	71.414	0.000	0.46
		C	0.000	0.000	72.320	0.000	0.48
T10	40.00-20.00	A	0.000	0.000	65.280	0.000	0.46
		B	0.000	0.000	71.414	0.000	0.46
		C	0.000	0.000	72.320	0.000	0.48
T11	20.00-0.00	A	0.000	0.000	48.960	0.000	0.34
		B	0.000	0.000	53.561	0.000	0.35
		C	0.000	0.000	54.940	0.000	0.36

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_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	195.00-185.00	A	1.787	0.000	0.000	17.841	0.000	0.29
		B		0.000	0.000	34.164	0.000	0.49
		C		0.000	0.000	0.000	0.000	0.00
T2	185.00-170.00	A	1.775	0.000	0.000	38.096	0.000	0.63
		B		0.000	0.000	114.473	0.000	1.69
		C		0.000	0.000	0.000	0.000	0.00
T3	170.00-150.00	A	1.757	0.000	0.000	118.994	0.000	2.25
		B		0.000	0.000	165.557	0.000	2.45
		C		0.000	0.000	0.000	0.000	0.00
T4	150.00-140.00	A	1.739	0.000	0.000	70.622	0.000	1.35
		B		0.000	0.000	82.343	0.000	1.21
		C		0.000	0.000	60.716	0.000	1.11
T5	140.00-120.00	A	1.720	0.000	0.000	140.614	0.000	2.68
		B		0.000	0.000	196.131	0.000	2.85
		C		0.000	0.000	142.901	0.000	2.61
T6	120.00-100.00	A	1.692	0.000	0.000	139.665	0.000	2.64
		B		0.000	0.000	198.103	0.000	2.85
		C		0.000	0.000	168.095	0.000	3.03
T7	100.00-80.00	A	1.658	0.000	0.000	138.545	0.000	2.60
		B		0.000	0.000	213.965	0.000	3.00
		C		0.000	0.000	170.849	0.000	3.04
T8	80.00-60.00	A	1.617	0.000	0.000	137.175	0.000	2.55
		B		0.000	0.000	226.978	0.000	3.05
		C		0.000	0.000	168.731	0.000	2.98
T9	60.00-40.00	A	1.564	0.000	0.000	135.395	0.000	2.48
		B		0.000	0.000	230.798	0.000	3.01
		C		0.000	0.000	165.978	0.000	2.90
T10	40.00-20.00	A	1.486	0.000	0.000	132.806	0.000	2.38
		B		0.000	0.000	224.959	0.000	2.86
		C		0.000	0.000	161.973	0.000	2.79
T11	20.00-0.00	A	1.331	0.000	0.000	95.754	0.000	1.65
		B		0.000	0.000	160.039	0.000	1.93
		C		0.000	0.000	121.498	0.000	1.96

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	195.00-185.00	-2.9354	-5.1634	-2.0350	-4.7484
T2	185.00-170.00	-1.7694	-11.1641	-1.5943	-9.5269
T3	170.00-150.00	-7.2117	-6.7659	-5.3599	-7.4874
T4	150.00-140.00	-11.3809	-2.9709	-6.9153	-2.3784
T5	140.00-120.00	-12.0076	-4.1722	-9.4974	-4.3030
T6	120.00-100.00	-12.9547	-4.0610	-10.8042	-4.6296
T7	100.00-80.00	-13.5433	-4.8973	-9.4998	-5.1591
T8	80.00-60.00	-15.5216	-5.9600	-12.4322	-7.7725
T9	60.00-40.00	-16.7543	-6.5839	-14.1927	-9.3672
T10	40.00-20.00	-18.2564	-7.0675	-16.2887	-10.5947
T11	20.00-0.00	-15.6829	-6.0200	-14.1405	-9.1853

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	1/2	185.00 - 192.00	0.6000	0.4497
T1	2	7/8	185.00 - 192.00	0.6000	0.4497
T1	3	7/8	185.00 - 192.00	0.6000	0.4497
T1	4	7/8	185.00 - 192.00	0.6000	0.4497
T1	5	WE65	185.00 - 192.00	0.6000	0.4497
T1	6	LDF2-50 (3/8 FOAM)	185.00 - 192.00	0.6000	0.4497
T1	7	LDF2-50 (3/8 FOAM)	185.00 - 192.00	0.6000	0.4497
T1	40	Feedline Ladder (Af)	185.00 - 192.00	0.6000	0.4497
T1	41	Feedline Ladder (Af)	185.00 - 192.00	0.6000	0.4497
T2	1	1/2	170.00 - 185.00	0.6000	0.4808
T2	2	7/8	170.00 - 185.00	0.6000	0.4808
T2	3	7/8	170.00 - 185.00	0.6000	0.4808
T2	4	7/8	170.00 - 185.00	0.6000	0.4808
T2	5	WE65	170.00 - 185.00	0.6000	0.4808
T2	6	LDF2-50 (3/8 FOAM)	170.00 - 185.00	0.6000	0.4808
T2	7	LDF2-50 (3/8 FOAM)	170.00 - 185.00	0.6000	0.4808
T2	9	1 5/8	170.00 - 182.00	0.6000	0.4808
T2	10	1 5/8	170.00 - 182.00	0.6000	0.4808
T2	11	1/2	170.00 - 182.00	0.6000	0.4808
T2	40	Feedline Ladder (Af)	170.00 - 185.00	0.6000	0.4808
T2	41	Feedline Ladder (Af)	170.00 - 185.00	0.6000	0.4808
T3	1	1/2	150.00 - 170.00	0.6000	0.4908
T3	2	7/8	150.00 - 170.00	0.6000	0.4908
T3	3	7/8	150.00 - 170.00	0.6000	0.4908
T3	4	7/8	150.00 - 170.00	0.6000	0.4908
T3	5	WE65	150.00 - 170.00	0.6000	0.4908
T3	6	LDF2-50 (3/8 FOAM)	150.00 - 170.00	0.6000	0.4908
T3	7	LDF2-50 (3/8 FOAM)	150.00 - 170.00	0.6000	0.4908
T3	9	1 5/8	150.00 - 170.00	0.6000	0.4908
T3	10	1 5/8	150.00 -	0.6000	0.4908

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T3	11	1/2	150.00 - 170.00	0.6000	0.4908
T3	13	1 5/8	150.00 - 170.00	0.6000	0.4908
T3	14	1 5/8	150.00 - 165.00	0.6000	0.4908
T3	15	1 5/8	150.00 - 165.00	0.6000	0.4908
T3	16	1 5/8	150.00 - 165.00	0.6000	0.4908
T3	40	Feedline Ladder (Af)	150.00 - 165.00	0.6000	0.4908
T3	41	Feedline Ladder (Af)	150.00 - 170.00	0.6000	0.4908
T4	1	1/2	140.00 - 170.00	0.6000	0.2810
T4	2	7/8	140.00 - 150.00	0.6000	0.2810
T4	3	7/8	140.00 - 150.00	0.6000	0.2810
T4	4	7/8	140.00 - 150.00	0.6000	0.2810
T4	5	WE65	140.00 - 150.00	0.6000	0.2810
T4	6	LDF2-50 (3/8 FOAM)	140.00 - 150.00	0.6000	0.2810
T4	7	LDF2-50 (3/8 FOAM)	140.00 - 150.00	0.6000	0.2810
T4	9	1 5/8	140.00 - 150.00	0.6000	0.2810
T4	10	1 5/8	140.00 - 150.00	0.6000	0.2810
T4	11	1/2	140.00 - 150.00	0.6000	0.2810
T4	13	1 5/8	140.00 - 150.00	0.6000	0.2810
T4	14	1 5/8	140.00 - 150.00	0.6000	0.2810
T4	15	1 5/8	140.00 - 150.00	0.6000	0.2810
T4	16	1 5/8	140.00 - 150.00	0.6000	0.2810
T4	18	CR50 1873 (1-5/8 FOAM)	140.00 - 150.00	0.6000	0.2810
T4	19	#8 AWG Copper Wire	140.00 - 150.00	0.6000	0.2810
T4	20	#8 AWG Copper Wire	140.00 - 150.00	0.6000	0.2810
T4	21	RG6-Fiber	140.00 - 150.00	0.6000	0.2810
T4	22	RG6-Fiber	140.00 - 150.00	0.6000	0.2810
T4	40	Feedline Ladder (Af)	140.00 - 150.00	0.6000	0.2810
T4	41	Feedline Ladder (Af)	140.00 - 150.00	0.6000	0.2810
T5	1	1/2	120.00 - 140.00	0.6000	0.4137
T5	2	7/8	120.00 - 140.00	0.6000	0.4137
T5	3	7/8	120.00 -	0.6000	0.4137

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	4	7/8	140.00 120.00 -	0.6000	0.4137
T5	5	WE65	140.00 120.00 -	0.6000	0.4137
T5	6	LDF2-50 (3/8 FOAM)	140.00 120.00 -	0.6000	0.4137
T5	7	LDF2-50 (3/8 FOAM)	140.00 120.00 -	0.6000	0.4137
T5	9	1 5/8	140.00 120.00 -	0.6000	0.4137
T5	10	1 5/8	140.00 120.00 -	0.6000	0.4137
T5	11	1/2	140.00 120.00 -	0.6000	0.4137
T5	13	1 5/8	140.00 120.00 -	0.6000	0.4137
T5	14	1 5/8	140.00 120.00 -	0.6000	0.4137
T5	15	1 5/8	140.00 120.00 -	0.6000	0.4137
T5	16	1 5/8	140.00 120.00 -	0.6000	0.4137
T5	18	CR50 1873 (1-5/8 FOAM)	140.00 120.00 -	0.6000	0.4137
T5	19	#8 AWG Copper Wire	140.00 120.00 -	0.6000	0.4137
T5	20	#8 AWG Copper Wire	140.00 120.00 -	0.6000	0.4137
T5	21	RG6-Fiber	140.00 120.00 -	0.6000	0.4137
T5	22	RG6-Fiber	140.00 120.00 -	0.6000	0.4137
T5	24	1 5/8	140.00 120.00 -	0.6000	0.4137
T5	26	7/8	138.00 120.00 -	0.6000	0.4137
T5	27	7/8	130.00 120.00 -	0.6000	0.4137
T5	28	7/8	130.00 120.00 -	0.6000	0.4137
T5	40	Feedline Ladder (Af)	130.00 120.00 -	0.6000	0.4137
T5	41	Feedline Ladder (Af)	140.00 120.00 -	0.6000	0.4137
T5	42	Feedline Ladder (Af)	140.00 120.00 -	0.6000	0.4137
T6	1	1/2	130.00 100.00 -	0.6000	0.5099
T6	2	7/8	120.00 100.00 -	0.6000	0.5099
T6	3	7/8	120.00 100.00 -	0.6000	0.5099
T6	4	7/8	120.00 100.00 -	0.6000	0.5099
T6	5	WE65	120.00 100.00 -	0.6000	0.5099
T6	6	LDF2-50 (3/8 FOAM)	120.00 100.00 -	0.6000	0.5099
T6	7	LDF2-50 (3/8 FOAM)	120.00 100.00 -	0.6000	0.5099
T6	9	1 5/8	120.00 100.00 -	0.6000	0.5099

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T6	10	1 5/8	120.00 100.00 - 120.00	0.6000	0.5099
T6	11	1/2	100.00 - 120.00	0.6000	0.5099
T6	13	1 5/8	100.00 - 120.00	0.6000	0.5099
T6	14	1 5/8	100.00 - 120.00	0.6000	0.5099
T6	15	1 5/8	100.00 - 120.00	0.6000	0.5099
T6	16	1 5/8	100.00 - 120.00	0.6000	0.5099
T6	18	CR50 1873 (1-5/8 FOAM)	100.00 - 120.00	0.6000	0.5099
T6	19	#8 AWG Copper Wire	100.00 - 120.00	0.6000	0.5099
T6	20	#8 AWG Copper Wire	100.00 - 120.00	0.6000	0.5099
T6	21	RG6-Fiber	100.00 - 120.00	0.6000	0.5099
T6	22	RG6-Fiber	100.00 - 120.00	0.6000	0.5099
T6	24	1 5/8	100.00 - 120.00	0.6000	0.5099
T6	26	7/8	100.00 - 120.00	0.6000	0.5099
T6	27	7/8	100.00 - 120.00	0.6000	0.5099
T6	28	7/8	100.00 - 120.00	0.6000	0.5099
T6	30	7/8	100.00 - 110.00	0.6000	0.5099
T6	40	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.5099
T6	41	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.5099
T6	42	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.5099
T7	1	1/2	80.00 - 100.00	0.6000	0.4214
T7	2	7/8	80.00 - 100.00	0.6000	0.4214
T7	3	7/8	80.00 - 100.00	0.6000	0.4214
T7	4	7/8	80.00 - 100.00	0.6000	0.4214
T7	5	WE65	80.00 - 100.00	0.6000	0.4214
T7	6	LDF2-50 (3/8 FOAM)	80.00 - 100.00	0.6000	0.4214
T7	7	LDF2-50 (3/8 FOAM)	80.00 - 100.00	0.6000	0.4214
T7	9	1 5/8	80.00 - 100.00	0.6000	0.4214
T7	10	1 5/8	80.00 - 100.00	0.6000	0.4214
T7	11	1/2	80.00 - 100.00	0.6000	0.4214
T7	13	1 5/8	80.00 - 100.00	0.6000	0.4214
T7	14	1 5/8	80.00 - 100.00	0.6000	0.4214
T7	15	1 5/8	80.00 - 100.00	0.6000	0.4214
T7	16	1 5/8	80.00 - 100.00	0.6000	0.4214
T7	18	CR50 1873 (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.4214
T7	19	#8 AWG Copper Wire	80.00 - 100.00	0.6000	0.4214
T7	20	#8 AWG Copper Wire	80.00 - 100.00	0.6000	0.4214
T7	21	RG6-Fiber	80.00 - 100.00	0.6000	0.4214
T7	22	RG6-Fiber	80.00 - 100.00	0.6000	0.4214
T7	24	1 5/8	80.00 - 100.00	0.6000	0.4214
T7	26	7/8	80.00 - 100.00	0.6000	0.4214
T7	27	7/8	80.00 - 100.00	0.6000	0.4214
T7	28	7/8	80.00 - 100.00	0.6000	0.4214

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T7	30	7/8	80.00 - 100.00	0.6000	0.4214
T7	32	WE65	80.00 - 100.00	0.6000	0.4214
T7	34	1/2	80.00 - 90.00	0.6000	0.4214
T7	40	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.4214
T7	41	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.4214
T7	42	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.4214
T8	1	1/2	60.00 - 80.00	0.6000	0.5228
T8	2	7/8	60.00 - 80.00	0.6000	0.5228
T8	3	7/8	60.00 - 80.00	0.6000	0.5228
T8	4	7/8	60.00 - 80.00	0.6000	0.5228
T8	5	WE65	60.00 - 80.00	0.6000	0.5228
T8	6	LDF2-50 (3/8 FOAM)	60.00 - 80.00	0.6000	0.5228
T8	7	LDF2-50 (3/8 FOAM)	60.00 - 80.00	0.6000	0.5228
T8	9	1 5/8	60.00 - 80.00	0.6000	0.5228
T8	10	1 5/8	60.00 - 80.00	0.6000	0.5228
T8	11	1/2	60.00 - 80.00	0.6000	0.5228
T8	13	1 5/8	60.00 - 80.00	0.6000	0.5228
T8	14	1 5/8	60.00 - 80.00	0.6000	0.5228
T8	15	1 5/8	60.00 - 80.00	0.6000	0.5228
T8	16	1 5/8	60.00 - 80.00	0.6000	0.5228
T8	18	CR50 1873 (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.5228
T8	19	#8 AWG Copper Wire	60.00 - 80.00	0.6000	0.5228
T8	20	#8 AWG Copper Wire	60.00 - 80.00	0.6000	0.5228
T8	21	RG6-Fiber	60.00 - 80.00	0.6000	0.5228
T8	22	RG6-Fiber	60.00 - 80.00	0.6000	0.5228
T8	24	1 5/8	60.00 - 80.00	0.6000	0.5228
T8	26	7/8	60.00 - 80.00	0.6000	0.5228
T8	27	7/8	60.00 - 80.00	0.6000	0.5228
T8	28	7/8	60.00 - 80.00	0.6000	0.5228
T8	30	7/8	60.00 - 80.00	0.6000	0.5228
T8	32	WE65	60.00 - 80.00	0.6000	0.5228
T8	34	1/2	60.00 - 80.00	0.6000	0.5228
T8	36	1/2	60.00 - 70.00	0.6000	0.5228
T8	40	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.5228
T8	41	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.5228
T8	42	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.5228
T9	1	1/2	40.00 - 60.00	0.6000	0.5639
T9	2	7/8	40.00 - 60.00	0.6000	0.5639
T9	3	7/8	40.00 - 60.00	0.6000	0.5639
T9	4	7/8	40.00 - 60.00	0.6000	0.5639
T9	5	WE65	40.00 - 60.00	0.6000	0.5639
T9	6	LDF2-50 (3/8 FOAM)	40.00 - 60.00	0.6000	0.5639
T9	7	LDF2-50 (3/8 FOAM)	40.00 - 60.00	0.6000	0.5639
T9	9	1 5/8	40.00 - 60.00	0.6000	0.5639
T9	10	1 5/8	40.00 - 60.00	0.6000	0.5639
T9	11	1/2	40.00 - 60.00	0.6000	0.5639
T9	13	1 5/8	40.00 - 60.00	0.6000	0.5639
T9	14	1 5/8	40.00 - 60.00	0.6000	0.5639
T9	15	1 5/8	40.00 - 60.00	0.6000	0.5639
T9	16	1 5/8	40.00 - 60.00	0.6000	0.5639
T9	18	CR50 1873 (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.5639
T9	19	#8 AWG Copper Wire	40.00 - 60.00	0.6000	0.5639
T9	20	#8 AWG Copper Wire	40.00 - 60.00	0.6000	0.5639
T9	21	RG6-Fiber	40.00 - 60.00	0.6000	0.5639
T9	22	RG6-Fiber	40.00 - 60.00	0.6000	0.5639
T9	24	1 5/8	40.00 - 60.00	0.6000	0.5639
T9	26	7/8	40.00 - 60.00	0.6000	0.5639
T9	27	7/8	40.00 - 60.00	0.6000	0.5639
T9	28	7/8	40.00 - 60.00	0.6000	0.5639
T9	30	7/8	40.00 - 60.00	0.6000	0.5639
T9	32	WE65	40.00 - 60.00	0.6000	0.5639
T9	34	1/2	40.00 - 60.00	0.6000	0.5639

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T9	36	1/2	40.00 - 60.00	0.6000	0.5639
T9	40	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.5639
T9	41	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.5639
T9	42	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.5639
T10	1	1/2	20.00 - 40.00	0.6000	0.6000
T10	2	7/8	20.00 - 40.00	0.6000	0.6000
T10	3	7/8	20.00 - 40.00	0.6000	0.6000
T10	4	7/8	20.00 - 40.00	0.6000	0.6000
T10	5	WE65	20.00 - 40.00	0.6000	0.6000
T10	6	LDF2-50 (3/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T10	7	LDF2-50 (3/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T10	9	1 5/8	20.00 - 40.00	0.6000	0.6000
T10	10	1 5/8	20.00 - 40.00	0.6000	0.6000
T10	11	1/2	20.00 - 40.00	0.6000	0.6000
T10	13	1 5/8	20.00 - 40.00	0.6000	0.6000
T10	14	1 5/8	20.00 - 40.00	0.6000	0.6000
T10	15	1 5/8	20.00 - 40.00	0.6000	0.6000
T10	16	1 5/8	20.00 - 40.00	0.6000	0.6000
T10	18	CR50 1873 (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T10	19	#8 AWG Copper Wire	20.00 - 40.00	0.6000	0.6000
T10	20	#8 AWG Copper Wire	20.00 - 40.00	0.6000	0.6000
T10	21	RG6-Fiber	20.00 - 40.00	0.6000	0.6000
T10	22	RG6-Fiber	20.00 - 40.00	0.6000	0.6000
T10	24	1 5/8	20.00 - 40.00	0.6000	0.6000
T10	26	7/8	20.00 - 40.00	0.6000	0.6000
T10	27	7/8	20.00 - 40.00	0.6000	0.6000
T10	28	7/8	20.00 - 40.00	0.6000	0.6000
T10	30	7/8	20.00 - 40.00	0.6000	0.6000
T10	32	WE65	20.00 - 40.00	0.6000	0.6000
T10	34	1/2	20.00 - 40.00	0.6000	0.6000
T10	36	1/2	20.00 - 40.00	0.6000	0.6000
T10	40	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T10	41	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T10	42	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	1	1/2	5.00 - 20.00	0.6000	0.6000
T11	2	7/8	5.00 - 20.00	0.6000	0.6000
T11	3	7/8	5.00 - 20.00	0.6000	0.6000
T11	4	7/8	5.00 - 20.00	0.6000	0.6000
T11	5	WE65	5.00 - 20.00	0.6000	0.6000
T11	6	LDF2-50 (3/8 FOAM)	5.00 - 20.00	0.6000	0.6000
T11	7	LDF2-50 (3/8 FOAM)	5.00 - 20.00	0.6000	0.6000
T11	9	1 5/8	5.00 - 20.00	0.6000	0.6000
T11	10	1 5/8	5.00 - 20.00	0.6000	0.6000
T11	11	1/2	5.00 - 20.00	0.6000	0.6000
T11	13	1 5/8	5.00 - 20.00	0.6000	0.6000
T11	14	1 5/8	5.00 - 20.00	0.6000	0.6000
T11	15	1 5/8	5.00 - 20.00	0.6000	0.6000
T11	16	1 5/8	5.00 - 20.00	0.6000	0.6000
T11	18	CR50 1873 (1-5/8 FOAM)	5.00 - 20.00	0.6000	0.6000
T11	19	#8 AWG Copper Wire	5.00 - 20.00	0.6000	0.6000
T11	20	#8 AWG Copper Wire	5.00 - 20.00	0.6000	0.6000
T11	21	RG6-Fiber	5.00 - 20.00	0.6000	0.6000
T11	22	RG6-Fiber	5.00 - 20.00	0.6000	0.6000
T11	24	1 5/8	5.00 - 20.00	0.6000	0.6000
T11	26	7/8	5.00 - 20.00	0.6000	0.6000
T11	27	7/8	5.00 - 20.00	0.6000	0.6000
T11	28	7/8	5.00 - 20.00	0.6000	0.6000
T11	30	7/8	5.00 - 20.00	0.6000	0.6000
T11	32	WE65	5.00 - 20.00	0.6000	0.6000
T11	34	1/2	5.00 - 20.00	0.6000	0.6000
T11	36	1/2	5.00 - 20.00	0.6000	0.6000
T11	38	LDF1-50A	5.00 - 15.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T11	40	Feedline Ladder (Af)	5.00 - 20.00	0.6000	0.6000
T11	41	Feedline Ladder (Af)	5.00 - 20.00	0.6000	0.6000
T11	42	Feedline Ladder (Af)	5.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Dipole	C	From Leg	0.50	0.000	194.00	No Ice	0.90	0.90	0.01
			0.00			1/2" Ice	1.52	1.52	0.01
			0.00			1" Ice	2.00	2.00	0.03
Side Arm	C	From Face	3.00	0.000	194.00	No Ice	2.60	3.41	0.20
			0.00			1/2" Ice	4.21	7.18	0.30
			0.00			1" Ice	5.82	10.95	0.40
***									
Pipe Mount	A	From Leg	0.67	0.000	193.00	No Ice	1.32	1.32	0.07
			0.00			1/2" Ice	1.58	1.58	0.08
			0.00			1" Ice	1.84	1.84	0.09
***									
Standoff Mount	C	From Leg	2.00	0.000	184.00	No Ice	0.81	3.31	0.06
			0.00			1/2" Ice	1.30	5.00	0.08
			0.00			1" Ice	1.79	6.69	0.11
9' x 3" Omni	C	From Leg	3.00	0.000	184.00	No Ice	2.70	2.70	0.03
			0.00			1/2" Ice	3.63	3.63	0.05
			5.00			1" Ice	4.33	4.33	0.08
DB222-A	C	From Leg	3.00	0.000	184.00	No Ice	1.60	1.60	0.02
			0.00			1/2" Ice	2.88	2.88	0.02
			-5.00			1" Ice	4.16	4.16	0.03
***									
Platform Mount	C	None		0.000	180.00	No Ice	24.04	24.04	1.65
						1/2" Ice	28.93	28.93	2.17
						1" Ice	33.82	33.82	2.69
OGT9-840	A	From Leg	3.00	0.000	180.00	No Ice	2.27	2.27	0.02
			0.00			1/2" Ice	3.44	3.44	0.04
			8.00			1" Ice	4.61	4.61	0.06
SC479-HF1LDF	A	From Leg	3.00	0.000	180.00	No Ice	5.03	5.03	0.03
			0.00			1/2" Ice	6.51	6.51	0.07
			2.00			1" Ice	8.00	8.00	0.11
SC479-HF1LDF	B	From Leg	3.00	0.000	180.00	No Ice	5.03	5.03	0.03
			0.00			1/2" Ice	6.51	6.51	0.07
			2.00			1" Ice	8.00	8.00	0.11
SE414-SWBP4LDF(D00) w/ Mount Pipe	C	From Leg	3.00	0.000	180.00	No Ice	2.13	5.56	0.03
			0.00			1/2" Ice	2.53	6.28	0.07
			2.00			1" Ice	2.92	6.96	0.11
432-83H-01-T	A	From Leg	3.00	0.000	180.00	No Ice	1.40	0.82	0.03
			0.00			1/2" Ice	1.55	0.94	0.04
			2.00			1" Ice	1.70	1.06	0.05
DB222-A	A	From Leg	3.00	0.000	180.00	No Ice	1.60	1.60	0.02
			0.00			1/2" Ice	2.88	2.88	0.02
			3.00			1" Ice	4.16	4.16	0.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
ANT150D6-9	C	From Leg	3.00 0.00 -6.00	0.000	180.00	No Ice 1/2" Ice 1" Ice	3.84 6.42 9.00	3.84 6.42 9.00	0.00 0.00 0.00
10' x 3" Omni	A	From Leg	3.00 0.00 -5.00	0.000	180.00	No Ice 1/2" Ice 1" Ice	3.00 4.03 5.03	3.00 4.03 5.03	0.05 0.07 0.10
12' x 3" Omni	C	From Leg	3.00 0.00 -6.00	0.000	180.00	No Ice 1/2" Ice 1" Ice	3.60 4.83 6.08	3.60 4.83 6.08	0.03 0.05 0.08
Filter Box	C	From Leg	3.00 0.00 1.00	0.000	180.00	No Ice 1/2" Ice 1" Ice	3.00 3.21 3.44	1.20 1.25 1.50	0.04 0.06 0.09
(4) Mount Pipes	A	From Leg	3.00 0.00 0.00	0.000	180.00	No Ice 1/2" Ice 1" Ice	1.20 1.80 2.17	1.20 1.80 2.17	0.02 0.02 0.04
(4) Mount Pipes	B	From Leg	3.00 0.00 0.00	0.000	180.00	No Ice 1/2" Ice 1" Ice	1.20 1.80 2.17	1.20 1.80 2.17	0.02 0.02 0.04
(4) Mount Pipes	C	From Leg	3.00 0.00 0.00	0.000	180.00	No Ice 1/2" Ice 1" Ice	1.20 1.80 2.17	1.20 1.80 2.17	0.02 0.02 0.04
***									
Standoff Mount	A	From Leg	2.00 0.00 0.00	0.000	172.00	No Ice 1/2" Ice 1" Ice	0.81 1.30 1.79	3.31 5.00 6.69	0.06 0.08 0.11
BCD87077	A	From Leg	4.00 0.00 7.00	0.000	172.00	No Ice 1/2" Ice 1" Ice	3.06 4.24 5.42	3.06 4.24 5.42	0.03 0.04 0.05
***									
6' Standoff	B	From Leg	3.00 0.00 0.00	0.000	170.00	No Ice 1/2" Ice 1" Ice	2.60 4.21 5.82	3.41 7.18 10.95	0.20 0.30 0.40
PD220	B	From Leg	6.00 0.00 10.00	0.000	170.00	No Ice 1/2" Ice 1" Ice	3.08 5.30 7.54	3.08 5.30 7.54	0.02 0.05 0.09
***									
Standoff Mount	A	From Leg	1.50 0.00 0.00	0.000	168.00	No Ice 1/2" Ice 1" Ice	1.78 2.24 2.70	3.79 4.47 5.15	0.13 0.15 0.18
12' x 3" Omni	A	From Leg	3.00 0.00 0.00	5.000	168.00	No Ice 1/2" Ice 1" Ice	3.60 4.83 6.08	3.60 4.83 6.08	0.03 0.05 0.08
***									
Sector Frames	C	None		0.000	165.00	No Ice 1/2" Ice 1" Ice	23.83 33.88 43.93	23.83 33.88 43.93	1.10 1.58 2.05
(2) LPA-80080/4CF w/ Mount Pipe	A	From Leg	3.00 0.00 0.00	0.000	165.00	No Ice 1/2" Ice 1" Ice	2.86 3.22 3.59	6.57 7.19 7.84	0.03 0.08 0.13
(2) LPA-80080/4CF w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.000	165.00	No Ice 1/2" Ice 1" Ice	2.86 3.22 3.59	6.57 7.19 7.84	0.03 0.08 0.13
(2) LPA-80080/4CF w/ Mount Pipe	C	From Leg	3.00 0.00 0.00	0.000	165.00	No Ice 1/2" Ice 1" Ice	2.86 3.22 3.59	6.57 7.19 7.84	0.03 0.08 0.13
(2) LPA-185080/8CFx2 w/ Mount Pipe	A	From Leg	3.00 0.00	0.000	165.00	No Ice 1/2" Ice	2.33 2.69	3.96 4.57	0.03 0.06

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00				1" Ice	3.06	5.18	0.09
(2) LPA-185080/8CFx2 w/ Mount Pipe	B	From Leg	3.00		0.000	165.00	No Ice	2.33	3.96	0.03
			0.00				1/2" Ice	2.69	4.57	0.06
			0.00				1" Ice	3.06	5.18	0.09
(2) LPA-185080/8CFx2 w/ Mount Pipe	C	From Leg	3.00		0.000	165.00	No Ice	2.33	3.96	0.03
			0.00				1/2" Ice	2.69	4.57	0.06
			0.00				1" Ice	3.06	5.18	0.09
***										
Sector Frames	C	None			0.000	150.00	No Ice	22.33	22.33	1.03
							1/2" Ice	31.80	31.80	1.48
							1" Ice	41.27	41.27	1.92
7770.00 w/ Mount Pipe	A	From Leg	3.00		0.000	150.00	No Ice	5.75	4.25	0.06
			0.00				1/2" Ice	6.18	5.01	0.10
			0.00				1" Ice	6.61	5.71	0.16
7770.00 w/ Mount Pipe	B	From Leg	3.00		0.000	150.00	No Ice	5.75	4.25	0.06
			0.00				1/2" Ice	6.18	5.01	0.10
			0.00				1" Ice	6.61	5.71	0.16
7770.00 w/ Mount Pipe	C	From Leg	3.00		0.000	150.00	No Ice	5.75	4.25	0.06
			0.00				1/2" Ice	6.18	5.01	0.10
			0.00				1" Ice	6.61	5.71	0.16
(2) DMP65R-BU6D w/ Mount Pipe	A	From Leg	3.00		0.000	150.00	No Ice	12.95	7.26	0.10
			0.00				1/2" Ice	13.55	8.43	0.20
			0.00				1" Ice	14.11	9.31	0.30
(2) DMP65R-BU6D w/ Mount Pipe	B	From Leg	3.00		0.000	150.00	No Ice	12.95	7.26	0.10
			0.00				1/2" Ice	13.55	8.43	0.20
			0.00				1" Ice	14.11	9.31	0.30
(2) DMP65R-BU4D w/ Mount Pipe	C	From Leg	3.00		0.000	150.00	No Ice	8.52	4.69	0.09
			0.00				1/2" Ice	8.96	5.31	0.15
			0.00				1" Ice	9.42	5.93	0.22
(2) 7020.00	A	From Leg	3.00		0.000	150.00	No Ice	0.10	0.17	0.00
			0.00				1/2" Ice	0.15	0.24	0.01
			0.00				1" Ice	0.20	0.31	0.01
(2) 7020.00	B	From Leg	3.00		0.000	150.00	No Ice	0.10	0.17	0.00
			0.00				1/2" Ice	0.15	0.24	0.01
			0.00				1" Ice	0.20	0.31	0.01
(2) 7020.00	C	From Leg	3.00		0.000	150.00	No Ice	0.10	0.17	0.00
			0.00				1/2" Ice	0.15	0.24	0.01
			0.00				1" Ice	0.20	0.31	0.01
(2) LGP13519	A	From Leg	3.00		0.000	150.00	No Ice	0.29	0.18	0.01
			0.00				1/2" Ice	0.36	0.24	0.01
			0.00				1" Ice	0.44	0.31	0.01
(2) LGP13519	B	From Leg	3.00		0.000	150.00	No Ice	0.29	0.18	0.01
			0.00				1/2" Ice	0.36	0.24	0.01
			0.00				1" Ice	0.44	0.31	0.01
(2) LGP13519	C	From Leg	3.00		0.000	150.00	No Ice	0.29	0.18	0.01
			0.00				1/2" Ice	0.36	0.24	0.01
			0.00				1" Ice	0.44	0.31	0.01
7070	A	From Leg	3.00		0.000	150.00	No Ice	1.29	0.35	0.00
			0.00				1/2" Ice	1.44	0.47	0.01
			0.00				1" Ice	1.61	0.60	0.02
(2) LGP21401	A	From Leg	3.00		0.000	150.00	No Ice	1.10	0.21	0.01
			0.00				1/2" Ice	1.24	0.27	0.02
			0.00				1" Ice	1.38	0.35	0.03
(2) LGP21401	B	From Leg	3.00		0.000	150.00	No Ice	1.10	0.21	0.01
			0.00				1/2" Ice	1.24	0.27	0.02
			0.00				1" Ice	1.38	0.35	0.03
(2) LGP21401	C	From Leg	3.00		0.000	150.00	No Ice	1.10	0.21	0.01

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00				1/2" Ice	1.24	0.27	0.02
			0.00				1" Ice	1.38	0.35	0.03
RRUS 8843 B2/B66A	A	From Leg	3.00		0.000	150.00	No Ice	1.64	1.35	0.07
			0.00				1/2" Ice	1.80	1.50	0.09
			0.00				1" Ice	1.97	1.65	0.11
RRUS 8843 B2/B66A	B	From Leg	3.00		0.000	150.00	No Ice	1.64	1.35	0.07
			0.00				1/2" Ice	1.80	1.50	0.09
			0.00				1" Ice	1.97	1.65	0.11
RRUS 8843 B2/B66A	C	From Leg	3.00		0.000	150.00	No Ice	1.64	1.35	0.07
			0.00				1/2" Ice	1.80	1.50	0.09
			0.00				1" Ice	1.97	1.65	0.11
RRUS 4478 B14	A	From Leg	3.00		0.000	150.00	No Ice	1.84	1.06	0.06
			0.00				1/2" Ice	2.01	1.20	0.08
			0.00				1" Ice	2.19	1.34	0.09
RRUS 4478 B14	B	From Leg	3.00		0.000	150.00	No Ice	1.84	1.06	0.06
			0.00				1/2" Ice	2.01	1.20	0.08
			0.00				1" Ice	2.19	1.34	0.09
RRUS 4478 B14	C	From Leg	3.00		0.000	150.00	No Ice	1.84	1.06	0.06
			0.00				1/2" Ice	2.01	1.20	0.08
			0.00				1" Ice	2.19	1.34	0.09
RRUS 4449 B5/B12	A	From Leg	3.00		0.000	150.00	No Ice	1.97	1.41	0.07
			0.00				1/2" Ice	2.14	1.56	0.09
			0.00				1" Ice	2.33	1.73	0.11
RRUS 4449 B5/B12	B	From Leg	3.00		0.000	150.00	No Ice	1.97	1.41	0.07
			0.00				1/2" Ice	2.14	1.56	0.09
			0.00				1" Ice	2.33	1.73	0.11
RRUS 4449 B5/B12	C	From Leg	3.00		0.000	150.00	No Ice	1.97	1.41	0.07
			0.00				1/2" Ice	2.14	1.56	0.09
			0.00				1" Ice	2.33	1.73	0.11
DC6-48-60-18-8F	A	From Leg	3.00		0.000	150.00	No Ice	0.79	0.79	0.02
			0.00				1/2" Ice	1.27	1.27	0.04
			0.00				1" Ice	1.45	1.45	0.05
DC6-48-60-18-8C-EV	B	From Leg	3.00		0.000	150.00	No Ice	2.74	2.74	0.03
			0.00				1/2" Ice	2.96	2.96	0.05
			0.00				1" Ice	3.20	3.20	0.08
DC6-48-60-18-8C-EV	C	From Leg	3.00		0.000	150.00	No Ice	2.74	2.74	0.03
			0.00				1/2" Ice	2.96	2.96	0.05
			0.00				1" Ice	3.20	3.20	0.08
Mount Pipes	A	From Leg	3.00		0.000	150.00	No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.80	1.80	0.02
			0.00				1" Ice	2.17	2.17	0.04
Mount Pipes	B	From Leg	3.00		0.000	150.00	No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.80	1.80	0.02
			0.00				1" Ice	2.17	2.17	0.04
Mount Pipes	C	From Leg	3.00		0.000	150.00	No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.80	1.80	0.02
			0.00				1" Ice	2.17	2.17	0.04
***										
Sector Frames	A	None			0.000	138.00	No Ice	17.82	17.82	0.80
							1/2" Ice	25.01	25.01	1.14
							1" Ice	32.20	32.20	1.48
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	A	From Leg	3.00		0.000	138.00	No Ice	6.29	2.76	0.06
			0.00				1/2" Ice	6.86	3.27	0.11
			0.00				1" Ice	7.45	3.79	0.16
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	B	From Leg	3.00		0.000	138.00	No Ice	6.29	2.76	0.06
			0.00				1/2" Ice	6.86	3.27	0.11
			0.00				1" Ice	7.45	3.79	0.16

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	C	From Leg	3.00		0.000	138.00	No Ice	6.29	2.76	0.06
			0.00				1/2" Ice	6.86	3.27	0.11
			0.00				1" Ice	7.45	3.79	0.16
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	3.00		0.000	138.00	No Ice	14.69	6.87	0.19
			0.00				1/2" Ice	15.46	7.55	0.31
			0.00				1" Ice	16.23	8.25	0.46
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	3.00		0.000	138.00	No Ice	14.69	6.87	0.19
			0.00				1/2" Ice	15.46	7.55	0.31
			0.00				1" Ice	16.23	8.25	0.46
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	3.00		0.000	138.00	No Ice	14.69	6.87	0.19
			0.00				1/2" Ice	15.46	7.55	0.31
			0.00				1" Ice	16.23	8.25	0.46
(2) RRUS 11	A	From Leg	3.00		0.000	138.00	No Ice	2.78	1.19	0.05
			0.00				1/2" Ice	2.99	1.33	0.07
			0.00				1" Ice	3.21	1.49	0.09
(2) RRUS 11	B	From Leg	3.00		0.000	138.00	No Ice	2.78	1.19	0.05
			0.00				1/2" Ice	2.99	1.33	0.07
			0.00				1" Ice	3.21	1.49	0.09
(2) RRUS 11	C	From Leg	3.00		0.000	138.00	No Ice	2.78	1.19	0.05
			0.00				1/2" Ice	2.99	1.33	0.07
			0.00				1" Ice	3.21	1.49	0.09
RRUS 4449 B71/B12	A	From Leg	3.00		0.000	138.00	No Ice	1.97	1.41	0.07
			0.00				1/2" Ice	2.14	1.56	0.09
			0.00				1" Ice	2.33	1.73	0.11
RRUS 4449 B71/B12	B	From Leg	3.00		0.000	138.00	No Ice	1.97	1.41	0.07
			0.00				1/2" Ice	2.14	1.56	0.09
			0.00				1" Ice	2.33	1.73	0.11
RRUS 4449 B71/B12	C	From Leg	3.00		0.000	138.00	No Ice	1.97	1.41	0.07
			0.00				1/2" Ice	2.14	1.56	0.09
			0.00				1" Ice	2.33	1.73	0.11
Mount Pipes	A	From Leg	3.00		0.000	138.00	No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.80	1.80	0.02
			0.00				1" Ice	2.17	2.17	0.04
Mount Pipes	B	From Leg	3.00		0.000	138.00	No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.80	1.80	0.02
			0.00				1" Ice	2.17	2.17	0.04
Mount Pipes	C	From Leg	3.00		0.000	138.00	No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.80	1.80	0.02
			0.00				1" Ice	2.17	2.17	0.04
***										
Side Arm	C	From Leg	3.00		0.000	132.00	No Ice	2.60	3.41	0.20
			0.00				1/2" Ice	4.21	7.18	0.30
			0.00				1" Ice	5.82	10.95	0.40
SRL110A	C	From Leg	6.00		0.000	132.00	No Ice	9.00	9.00	0.03
			0.00				1/2" Ice	10.58	10.58	0.09
			1.00				1" Ice	12.16	12.16	0.14
***										
Side Arm	A	From Leg	3.00		0.000	124.00	No Ice	2.60	3.41	0.20
			0.00				1/2" Ice	4.21	7.18	0.30
			0.00				1" Ice	5.82	10.95	0.40
DB586-Y	A	From Leg	6.00		0.000	124.00	No Ice	1.07	0.61	0.01
			0.00				1/2" Ice	2.00	1.31	0.01
			4.00				1" Ice	2.93	2.02	0.01
DB586-Y	A	From Leg	6.00		0.000	124.00	No Ice	1.07	0.61	0.01
			0.00				1/2" Ice	2.00	1.31	0.01
			-1.00				1" Ice	2.93	2.02	0.01
Top Tower Amplifier	A	From Leg	3.00		0.000	124.00	No Ice	2.04	2.04	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1/2" Ice	2.23	2.23	0.04
			0.00			1" Ice	2.42	2.42	0.06
***									
Side Arm	B	From Leg	3.00	0.000	119.00	No Ice	2.60	3.41	0.20
			0.00			1/2" Ice	4.21	7.18	0.30
			0.00			1" Ice	5.82	10.95	0.40
Side Arm	C	From Leg	3.00	0.000	119.00	No Ice	2.60	3.41	0.20
			0.00			1/2" Ice	4.21	7.18	0.30
			0.00			1" Ice	5.82	10.95	0.40
DB212-1	C	From Leg	6.00	0.000	119.00	No Ice	4.50	4.50	0.03
			0.00			1/2" Ice	8.10	8.10	0.04
			0.00			1" Ice	11.70	11.70	0.05
***									
Side Arm	A	From Leg	3.00	0.000	100.00	No Ice	2.60	3.41	0.20
			0.00			1/2" Ice	4.21	7.18	0.30
			0.00			1" Ice	5.82	10.95	0.40
Pipe Mount	B	From Leg	0.67	0.000	100.00	No Ice	1.32	1.32	0.07
			0.00			1/2" Ice	1.58	1.58	0.08
			0.00			1" Ice	1.84	1.84	0.09
DB205-L	A	From Leg	6.00	0.000	100.00	No Ice	1.72	1.72	0.04
			0.00			1/2" Ice	3.45	3.45	0.05
			7.00			1" Ice	5.20	5.20	0.08
Ice Bridge	B	From Leg	2.00	0.000	100.00	No Ice	3.73	2.80	0.30
			0.00			1/2" Ice	4.39	3.30	0.55
			3.00			1" Ice	5.05	3.80	0.80
***									
Standoff Mount	C	From Leg	1.00	0.000	83.00	No Ice	1.78	2.97	0.11
			0.00			1/2" Ice	2.24	3.57	0.13
			0.00			1" Ice	2.70	4.17	0.16
DB224	C	From Leg	2.00	0.000	83.00	No Ice	3.15	3.15	0.03
			0.00			1/2" Ice	5.67	5.67	0.04
			9.00			1" Ice	8.19	8.19	0.05
PD220	A	From Leg	2.00	0.000	83.00	No Ice	3.08	3.08	0.02
			0.00			1/2" Ice	5.30	5.30	0.05
			5.00			1" Ice	7.54	7.54	0.09
***									
Side Arm	A	From Leg	3.00	0.000	78.00	No Ice	2.60	3.41	0.20
			0.00			1/2" Ice	4.21	7.18	0.30
			0.00			1" Ice	5.82	10.95	0.40
Side Arm	B	From Leg	3.00	0.000	78.00	No Ice	2.60	3.41	0.20
			0.00			1/2" Ice	4.21	7.18	0.30
			0.00			1" Ice	5.82	10.95	0.40
PD220	A	From Leg	6.00	0.000	78.00	No Ice	3.08	3.08	0.02
			0.00			1/2" Ice	5.30	5.30	0.05
			10.00			1" Ice	7.54	7.54	0.09
DB432-A	A	From Leg	1.50	0.000	78.00	No Ice	0.30	0.30	0.01
			0.00			1/2" Ice	0.54	0.54	0.01
			-10.00			1" Ice	0.78	0.78	0.01
12' x 3" Omni	C	From Leg	6.00	0.000	78.00	No Ice	3.60	3.60	0.03
			0.00			1/2" Ice	4.83	4.83	0.05
			-5.00			1" Ice	6.08	6.08	0.08
***									
Standoff Mount	B	From Leg	1.00	0.000	15.00	No Ice	1.78	2.97	0.11
			0.00			1/2" Ice	2.24	3.57	0.13
			0.00			1" Ice	2.70	4.17	0.16

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft²	Weight K
PA6-65AC	A	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	-10.000		193.00	6.00	No Ice 1/2" Ice 1" Ice	28.27 29.05 29.83	0.09 0.24 0.39
***											
PA6-65AC	B	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	-50.000		100.00	6.00	No Ice 1/2" Ice 1" Ice	28.27 29.05 29.83	0.09 0.24 0.39
***											
1.2M	B	Paraboloid w/o Radome	From Leg	2.00 0.00 0.00	40.000		15.00	4.00	No Ice 1/2" Ice 1" Ice	12.17 13.09 14.01	0.17 0.23 0.30

Truss-Leg Properties

Section Designation	Area in²	Area Ice in²	Self Weight K	Ice Weight K	Equiv. Diameter in	Equiv. Diameter Ice in	Leg Area in²
Pirod 105245	1097.1653	3193.6269	0.68	0.62	7.6192	22.1780	5.3014
Pirod 105217	2307.7631	6205.0364	0.59	1.16	8.0131	21.5453	5.3014
Pirod 105218	2436.9191	6256.7622	0.73	1.15	8.4615	21.7249	7.2158
Pirod 105218	2436.9191	6232.8519	0.73	1.11	8.4615	21.6418	7.2158
Pirod 105219	2597.9095	6275.5761	1.09	1.06	9.0205	21.7902	9.4248
Pirod 105219	2597.9095	6237.5146	1.09	1.01	9.0205	21.6580	9.4248
Pirod 105220	2735.0688	6254.1238	1.26	0.96	9.4968	21.7157	11.9282
Pirod 105220	2735.0688	6144.1645	1.26	0.82	9.4968	21.3339	11.9282

Force Totals

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Leg Weight	22.87					
Bracing Weight	10.35					
Total Member Self-Weight	33.22			-1.92	16.22	
Gusset Weight	1.49					
Total Weight	57.55			-1.92	16.22	
Wind 0 deg - No Ice		-0.02	-37.61	-3778.34	16.83	-31.80
Wind 30 deg - No Ice		17.64	-31.01	-3127.76	-1775.45	-27.54
Wind 60 deg - No Ice		29.76	-17.46	-1784.78	-3013.84	-20.93
Wind 90 deg - No Ice		35.33	0.52	89.19	-3580.20	-13.35
Wind 120 deg - No Ice		31.85	19.25	2014.25	-3185.54	7.96
Wind 150 deg - No Ice		18.34	32.07	3293.23	-1834.89	34.84
Wind 180 deg - No Ice		-0.33	36.78	3767.97	26.86	29.03
Wind 210 deg - No Ice		-17.97	31.39	3226.22	1797.06	25.15

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Wind 240 deg - No Ice		-31.13	18.60	1929.85	3141.89	19.64
Wind 270 deg - No Ice		-35.62	-0.14	-24.61	3633.94	11.46
Wind 300 deg - No Ice		-31.36	-17.64	-1792.20	3213.13	-9.60
Wind 330 deg - No Ice		-18.65	-31.66	-3207.15	1910.63	-33.95
Member Ice	45.43					
Gusset Ice	1.18					
Total Weight Ice	184.36			-29.31	131.29	
Wind 0 deg - Ice		-0.00	-14.27	-1485.43	131.19	-10.39
Wind 30 deg - Ice		7.02	-12.21	-1276.22	-589.26	-10.90
Wind 60 deg - Ice		12.14	-7.05	-752.66	-1114.35	-10.79
Wind 90 deg - Ice		14.11	0.11	-9.36	-1318.89	-7.21
Wind 120 deg - Ice		12.34	7.29	733.70	-1132.09	1.38
Wind 150 deg - Ice		7.08	12.30	1242.99	-595.13	8.57
Wind 180 deg - Ice		-0.08	14.17	1431.50	133.86	9.78
Wind 210 deg - Ice		-7.09	12.29	1240.26	849.40	10.39
Wind 240 deg - Ice		-12.37	7.26	723.98	1392.76	10.52
Wind 270 deg - Ice		-14.17	-0.03	-34.15	1586.18	6.82
Wind 300 deg - Ice		-12.31	-6.98	-745.39	1398.89	-1.70
Wind 330 deg - Ice		-7.15	-12.21	-1281.68	867.30	-8.34
Total Weight	57.55			-1.92	16.22	
Wind 0 deg - Service		-0.01	-17.09	-1715.47	-4.75	-14.45
Wind 30 deg - Service		8.02	-14.09	-1419.79	-819.32	-12.52
Wind 60 deg - Service		13.53	-7.94	-809.42	-1382.15	-9.51
Wind 90 deg - Service		16.06	0.23	42.28	-1639.56	-6.07
Wind 120 deg - Service		14.47	8.75	917.19	-1460.19	3.62
Wind 150 deg - Service		8.34	14.57	1498.48	-846.33	15.84
Wind 180 deg - Service		-0.15	16.72	1714.24	-0.19	13.19
Wind 210 deg - Service		-8.17	14.26	1468.02	804.34	11.43
Wind 240 deg - Service		-14.15	8.45	878.84	1415.55	8.93
Wind 270 deg - Service		-16.19	-0.06	-9.44	1639.18	5.21
Wind 300 deg - Service		-14.25	-8.02	-812.79	1447.93	-4.36
Wind 330 deg - Service		-8.48	-14.39	-1455.87	855.96	-15.43

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice

Comb. No.	Description
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 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
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
T1	195 - 185	Leg	Max Tension	15	3.91	0.12	0.45
			Max. Compression	10	-3.97	-0.05	-0.09
			Max. Mx	22	-1.40	-0.40	-0.16
			Max. My	14	-2.45	0.05	0.47
			Max. Vy	22	-0.72	0.08	0.04
			Max. Vx	14	0.86	-0.02	-0.10
		Diagonal	Max Tension	14	1.28	0.00	0.00
			Max. Compression	10	-1.22	0.00	0.00
			Max. Mx	31	0.14	-0.01	-0.00
			Max. My	22	-1.06	-0.00	0.00
			Max. Vy	33	0.01	-0.01	-0.00
			Max. Vx	22	0.00	0.00	0.00
		Top Girt	Max Tension	11	0.13	0.00	0.00
			Max. Compression	10	-0.11	0.00	0.00
			Max. Mx	26	-0.03	-0.05	0.00
			Max. My	4	-0.01	0.00	-0.00
			Max. Vy	26	-0.05	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
		Bottom Girt	Max Tension	14	0.60	0.00	0.00
			Max. Compression	11	-0.50	0.00	0.00
			Max. Mx	26	0.03	0.02	0.00
			Max. My	4	0.02	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	26	-0.02	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
T2	185 - 170	Leg	Max Tension	15	21.04	-0.03	1.20
			Max. Compression	10	-22.32	-0.29	-0.27
			Max. Mx	8	1.91	1.14	0.14
			Max. My	14	18.15	-0.03	1.21
			Max. Vy	8	2.21	-0.33	-0.05
			Max. Vx	14	2.39	0.05	-0.38
		Diagonal	Max Tension	4	3.62	0.00	0.00
			Max. Compression	4	-3.60	0.00	0.00
			Max. Mx	29	0.90	-0.01	-0.00
			Max. My	4	-3.58	-0.00	-0.00
			Max. Vy	29	0.01	-0.01	-0.00
			Max. Vx	4	0.00	-0.00	-0.00
		Top Girt	Max Tension	10	0.60	0.00	0.00
			Max. Compression	14	-0.69	0.00	0.00
			Max. Mx	26	-0.01	0.02	0.00
			Max. My	4	-0.02	0.00	0.00
			Max. Vy	26	-0.02	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
		Bottom Girt	Max Tension	14	1.33	0.00	0.00
			Max. Compression	10	-1.31	0.00	0.00
			Max. Mx	26	0.03	0.02	0.00
			Max. My	4	0.10	0.00	0.00
			Max. Vy	26	-0.02	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
T3	170 - 150	Leg	Max Tension	15	60.91	0.61	0.00
			Max. Compression	10	-65.08	2.48	0.26
			Max. Mx	10	-65.08	2.48	0.26
			Max. My	8	1.99	-0.20	1.70
			Max. Vy	10	-4.99	2.48	0.26
			Max. Vx	20	2.47	0.09	-1.14
		Diagonal	Max Tension	4	4.52	0.00	0.00
			Max. Compression	4	-4.57	0.00	0.00
			Max. Mx	27	0.93	-0.01	0.00
			Max. My	4	-3.83	-0.00	-0.00
			Max. Vy	27	0.01	-0.01	-0.00
			Max. Vx	4	0.00	-0.00	-0.00
		Top Girt	Max Tension	10	1.46	0.00	0.00
			Max. Compression	14	-1.51	0.00	0.00
			Max. Mx	26	-0.02	0.02	0.00
			Max. My	4	-0.09	0.00	0.00
			Max. Vy	26	-0.02	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
		Bottom Girt	Max Tension	14	0.42	0.00	0.00
			Max. Compression	11	-0.38	0.00	0.00
			Max. Mx	26	0.07	0.03	0.00
			Max. My	4	0.02	0.00	0.00
			Max. Vy	26	0.02	0.00	0.00
			Max. Vx	4	-0.00	0.00	0.00
T4	150 - 140	Leg	Max Tension	15	67.65	-2.34	-0.09
			Max. Compression	10	-72.88	4.12	0.96
			Max. Mx	14	65.63	-4.61	0.07
			Max. My	12	-10.20	0.02	-6.37
			Max. Vy	22	-1.09	-2.26	-0.22
			Max. Vx	8	0.79	-0.12	1.14
		Diagonal	Max Tension	7	7.62	0.00	0.00
			Max. Compression	18	-7.80	0.00	0.00
			Max. Mx	14	5.66	0.05	0.00
			Max. My	4	-7.58	-0.03	0.04
			Max. Vy	37	0.03	0.04	-0.01

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	4	-0.01	0.00	0.00
T5	140 - 120	Leg	Max Tension	15	108.57	-4.46	0.04
			Max. Compression	10	-119.08	5.61	0.42
			Max. Mx	10	-119.08	5.61	0.42
			Max. My	12	-11.39	0.02	-6.37
			Max. Vy	6	-0.82	-4.19	0.50
			Max. Vx	12	-1.07	0.02	-6.37
		Diagonal	Max Tension	4	8.93	0.00	0.00
			Max. Compression	4	-9.39	0.00	0.00
			Max. Mx	10	6.27	0.11	0.00
			Max. My	4	-8.97	-0.05	0.03
			Max. Vy	35	-0.05	0.09	-0.01
			Max. Vx	4	-0.01	0.00	0.00
T6	120 - 100	Leg	Max Tension	15	146.95	-3.91	0.05
			Max. Compression	10	-161.31	6.83	-0.04
			Max. Mx	10	-161.31	6.83	-0.04
			Max. My	12	-15.47	-0.21	-7.28
			Max. Vy	10	-0.48	6.83	-0.04
			Max. Vx	12	-0.87	-0.21	-7.28
		Diagonal	Max Tension	15	9.45	0.00	0.00
			Max. Compression	2	-10.29	0.00	0.00
			Max. Mx	10	5.82	0.12	0.01
			Max. My	13	-6.74	-0.05	-0.03
			Max. Vy	36	0.06	0.10	-0.02
			Max. Vx	12	0.00	-0.04	-0.03
T7	100 - 80	Leg	Max Tension	15	185.91	-3.81	0.04
			Max. Compression	10	-205.15	6.15	0.18
			Max. Mx	10	-181.78	6.83	-0.04
			Max. My	12	-16.84	-0.35	-8.17
			Max. Vy	18	0.98	6.52	-0.38
			Max. Vx	12	0.94	-0.35	-8.17
		Diagonal	Max Tension	4	9.67	0.00	0.00
			Max. Compression	2	-9.93	0.00	0.00
			Max. Mx	35	1.57	0.13	-0.02
			Max. My	4	-9.41	-0.04	0.04
			Max. Vy	37	0.07	0.12	-0.02
			Max. Vx	4	-0.01	0.00	0.00
		Top Girt	Max Tension	14	4.33	0.00	0.00
			Max. Compression	11	-3.67	0.00	0.00
			Max. Mx	26	1.27	-0.21	0.00
			Max. My	27	1.53	0.00	0.01
			Max. Vy	26	-0.08	0.00	0.00
			Max. Vx	27	-0.00	0.00	0.00
T8	80 - 60	Leg	Max Tension	15	222.81	-5.13	-0.03
			Max. Compression	10	-246.56	4.92	0.29
			Max. Mx	10	-225.37	6.15	0.18
			Max. My	12	-20.27	0.10	-5.04
			Max. Vy	18	0.32	5.96	-0.34
			Max. Vx	24	0.28	0.24	4.57
		Diagonal	Max Tension	4	10.42	0.00	0.00
			Max. Compression	4	-10.73	0.00	0.00
			Max. Mx	35	1.33	0.16	-0.02
			Max. My	4	-10.57	-0.00	0.02
			Max. Vy	37	0.08	0.15	0.02
			Max. Vx	35	-0.01	0.00	0.00
T9	60 - 40	Leg	Max Tension	15	258.30	-4.90	-0.03
			Max. Compression	10	-286.57	5.69	0.19
			Max. Mx	10	-286.57	5.69	0.19
			Max. My	12	-22.56	0.10	-5.86
			Max. Vy	11	-0.20	5.67	0.19
			Max. Vx	24	-0.25	0.08	5.78

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Diagonal	Max Tension	4	10.88	0.00	0.00
			Max. Compression	4	-11.29	0.00	0.00
			Max. Mx	35	1.45	0.20	-0.03
			Max. My	35	-0.00	0.17	-0.03
			Max. Vy	37	0.10	0.20	-0.02
			Max. Vx	35	-0.01	0.00	0.00
T10	40 - 20	Leg	Max Tension	15	292.38	-5.18	-0.05
			Max. Compression	2	-326.14	5.32	-0.14
			Max. Mx	37	25.00	-6.16	0.03
			Max. My	12	-23.06	0.10	-5.86
			Max. Vy	29	0.76	-5.93	0.07
			Max. Vx	12	-0.30	-0.02	-4.81
		Diagonal	Max Tension	4	11.63	0.00	0.00
			Max. Compression	4	-12.02	0.00	0.00
			Max. Mx	35	2.40	0.24	-0.03
			Max. My	29	-1.65	0.20	0.03
			Max. Vy	37	0.12	0.24	0.03
			Max. Vx	29	0.01	0.00	0.00
T11	20 - 0	Leg	Max Tension	15	324.22	-5.31	-0.03
			Max. Compression	2	-363.98	-0.00	-0.00
			Max. Mx	35	-145.98	8.45	0.11
			Max. My	12	-26.73	-0.36	-9.10
			Max. Vy	29	-1.26	-5.93	0.07
			Max. Vx	12	-1.05	-0.36	-9.10
		Diagonal	Max Tension	5	12.47	0.00	0.00
			Max. Compression	2	-13.49	0.00	0.00
			Max. Mx	35	-0.18	0.29	-0.04
			Max. My	29	-4.36	0.25	0.04
			Max. Vy	37	0.12	0.29	0.04
			Max. Vx	29	-0.01	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	365.53	32.13	-19.51
	Max. H_x	18	365.53	32.13	-19.51
	Max. H_z	7	-308.47	-28.06	17.33
	Min. Vert	7	-308.47	-28.06	17.33
	Min. H_x	7	-308.47	-28.06	17.33
	Min. H_z	18	365.53	32.13	-19.51
Leg B	Max. Vert	10	373.63	-33.56	-18.86
	Max. H_x	23	-323.70	30.09	16.82
	Max. H_z	23	-323.70	30.09	16.82
	Min. Vert	23	-323.70	30.09	16.82
	Min. H_x	10	373.63	-33.56	-18.86
	Min. H_z	10	373.63	-33.56	-18.86
Leg A	Max. Vert	2	374.39	-1.46	38.83
	Max. H_x	19	-162.02	3.42	-17.22
	Max. H_z	2	374.39	-1.46	38.83
	Min. Vert	15	-332.68	1.43	-35.30
	Min. H_x	9	8.89	-3.32	0.74
	Min. H_z	15	-332.68	1.43	-35.30

Tower Mast Reaction Summary

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead Only	57.55	0.00	0.00	-1.92	16.22	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	69.06	-0.03	-60.18	-6085.83	20.88	-51.03
0.9 Dead+1.6 Wind 0 deg - No Ice	51.80	-0.03	-60.18	-6074.80	15.92	-51.00
1.2 Dead+1.6 Wind 30 deg - No Ice	69.06	28.22	-49.62	-5037.99	-2866.50	-44.20
0.9 Dead+1.6 Wind 30 deg - No Ice	51.80	28.22	-49.62	-5028.73	-2866.47	-44.16
1.2 Dead+1.6 Wind 60 deg - No Ice	69.06	47.62	-27.94	-2874.81	-4861.61	-33.60
0.9 Dead+1.6 Wind 60 deg - No Ice	51.80	47.62	-27.94	-2869.21	-4858.14	-33.57
1.2 Dead+1.6 Wind 90 deg - No Ice	69.06	56.52	0.83	144.78	-5774.11	-21.41
0.9 Dead+1.6 Wind 90 deg - No Ice	51.80	56.52	0.83	145.01	-5769.05	-21.41
1.2 Dead+1.6 Wind 120 deg - No Ice	69.06	50.96	30.81	3246.46	-5137.95	12.80
0.9 Dead+1.6 Wind 120 deg - No Ice	51.80	50.96	30.81	3241.25	-5134.08	12.78
1.2 Dead+1.6 Wind 150 deg - No Ice	69.06	29.35	51.31	5306.69	-2962.04	55.90
0.9 Dead+1.6 Wind 150 deg - No Ice	51.80	29.35	51.31	5297.99	-2961.90	55.87
1.2 Dead+1.6 Wind 180 deg - No Ice	69.06	-0.53	58.85	6071.25	36.53	46.61
0.9 Dead+1.6 Wind 180 deg - No Ice	51.80	-0.53	58.85	6061.26	31.67	46.57
1.2 Dead+1.6 Wind 210 deg - No Ice	69.06	-28.75	50.22	5198.60	2887.95	40.37
0.9 Dead+1.6 Wind 210 deg - No Ice	51.80	-28.75	50.22	5190.08	2878.24	40.33
1.2 Dead+1.6 Wind 240 deg - No Ice	69.06	-49.82	29.75	3110.21	5054.58	31.55
0.9 Dead+1.6 Wind 240 deg - No Ice	51.80	-49.82	29.75	3105.28	5041.09	31.52
1.2 Dead+1.6 Wind 270 deg - No Ice	69.06	-56.99	-0.22	-39.31	5847.54	18.41
0.9 Dead+1.6 Wind 270 deg - No Ice	51.80	-56.99	-0.22	-38.57	5832.59	18.40
1.2 Dead+1.6 Wind 300 deg - No Ice	69.06	-50.18	-28.22	-2886.60	5169.71	-15.39
0.9 Dead+1.6 Wind 300 deg - No Ice	51.80	-50.18	-28.22	-2880.98	5155.91	-15.39
1.2 Dead+1.6 Wind 330 deg - No Ice	69.06	-29.85	-50.65	-5165.81	3071.55	-54.46
0.9 Dead+1.6 Wind 330 deg - No Ice	51.80	-29.85	-50.65	-5156.30	3061.37	-54.43
1.2 Dead+1.0 Ice+1.0 Temp	195.87	0.00	0.00	-30.66	137.25	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	195.87	-0.00	-14.27	-1517.37	137.43	-10.63
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	195.87	7.02	-12.21	-1303.79	-598.17	-11.16
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	195.87	12.14	-7.05	-769.34	-1134.26	-10.99

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	195.87	14.11	0.11	-10.18	-1343.14	-7.28
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	195.87	12.34	7.29	748.68	-1152.34	1.44
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	195.87	7.08	12.30	1268.59	-604.10	8.74
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	195.87	-0.08	14.17	1460.96	139.98	10.03
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	195.87	-7.09	12.29	1265.77	870.44	10.65
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	195.87	-12.37	7.26	738.67	1425.29	10.72
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	195.87	-14.17	-0.03	-35.78	1622.91	6.90
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	195.87	-12.31	-6.98	-761.91	1431.71	-1.74
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	195.87	-7.15	-12.21	-1309.45	888.97	-8.51
Dead+Wind 0 deg - Service	57.55	-0.01	-17.09	-1728.09	16.64	-14.49
Dead+Wind 30 deg - Service	57.55	8.02	-14.09	-1430.74	-802.60	-12.56
Dead+Wind 60 deg - Service	57.55	13.53	-7.94	-816.94	-1368.67	-9.54
Dead+Wind 90 deg - Service	57.55	16.06	0.23	39.79	-1627.57	-6.07
Dead+Wind 120 deg - Service	57.55	14.47	8.75	919.82	-1447.10	3.63
Dead+Wind 150 deg - Service	57.55	8.34	14.57	1504.38	-829.74	15.86
Dead+Wind 180 deg - Service	57.55	-0.15	16.72	1721.33	21.11	13.23
Dead+Wind 210 deg - Service	57.55	-8.17	14.26	1473.74	830.19	11.48
Dead+Wind 240 deg - Service	57.55	-14.15	8.45	881.19	1444.95	8.96
Dead+Wind 270 deg - Service	57.55	-16.19	-0.06	-12.41	1669.94	5.22
Dead+Wind 300 deg - Service	57.55	-14.25	-8.02	-820.32	1477.60	-4.37
Dead+Wind 330 deg - Service	57.55	-8.48	-14.39	-1467.05	882.25	-15.45

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-57.55	0.00	0.00	57.55	0.00	0.000%
2	-0.03	-69.06	-60.18	0.03	69.06	60.18	0.000%
3	-0.03	-51.80	-60.18	0.03	51.80	60.18	0.000%
4	28.22	-69.06	-49.62	-28.22	69.06	49.62	0.000%
5	28.22	-51.80	-49.62	-28.22	51.80	49.62	0.000%
6	47.62	-69.06	-27.94	-47.62	69.06	27.94	0.000%
7	47.62	-51.80	-27.94	-47.62	51.80	27.94	0.000%
8	56.52	-69.06	0.83	-56.52	69.06	-0.83	0.000%
9	56.52	-51.80	0.83	-56.52	51.80	-0.83	0.000%
10	50.96	-69.06	30.81	-50.96	69.06	-30.81	0.000%
11	50.96	-51.80	30.81	-50.96	51.80	-30.81	0.000%
12	29.35	-69.06	51.31	-29.35	69.06	-51.31	0.000%
13	29.35	-51.80	51.31	-29.35	51.80	-51.31	0.000%
14	-0.53	-69.06	58.85	0.53	69.06	-58.85	0.000%
15	-0.53	-51.80	58.85	0.53	51.80	-58.85	0.000%
16	-28.75	-69.06	50.22	28.75	69.06	-50.22	0.000%
17	-28.75	-51.80	50.22	28.75	51.80	-50.22	0.000%
18	-49.82	-69.06	29.76	49.82	69.06	-29.75	0.000%
19	-49.82	-51.80	29.76	49.82	51.80	-29.75	0.000%
20	-56.99	-69.06	-0.22	56.99	69.06	0.22	0.000%
21	-56.99	-51.80	-0.22	56.99	51.80	0.22	0.000%
22	-50.18	-69.06	-28.22	50.18	69.06	28.22	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
23	-50.18	-51.80	-28.22	50.18	51.80	28.22	0.000%
24	-29.85	-69.06	-50.65	29.85	69.06	50.65	0.000%
25	-29.85	-51.80	-50.65	29.85	51.80	50.65	0.000%
26	0.00	-195.87	0.00	-0.00	195.87	-0.00	0.000%
27	-0.00	-195.87	-14.27	0.00	195.87	14.27	0.000%
28	7.02	-195.87	-12.21	-7.02	195.87	12.21	0.000%
29	12.14	-195.87	-7.05	-12.14	195.87	7.05	0.000%
30	14.11	-195.87	0.11	-14.11	195.87	-0.11	0.000%
31	12.34	-195.87	7.29	-12.34	195.87	-7.29	0.000%
32	7.08	-195.87	12.30	-7.08	195.87	-12.30	0.000%
33	-0.08	-195.87	14.17	0.08	195.87	-14.17	0.000%
34	-7.09	-195.87	12.29	7.09	195.87	-12.29	0.000%
35	-12.37	-195.87	7.26	12.37	195.87	-7.26	0.000%
36	-14.17	-195.87	-0.03	14.17	195.87	0.03	0.000%
37	-12.31	-195.87	-6.98	12.31	195.87	6.98	0.000%
38	-7.15	-195.87	-12.21	7.15	195.87	12.21	0.000%
39	-0.01	-57.55	-17.09	0.01	57.55	17.09	0.000%
40	8.02	-57.55	-14.09	-8.02	57.55	14.09	0.000%
41	13.53	-57.55	-7.94	-13.53	57.55	7.94	0.000%
42	16.06	-57.55	0.23	-16.06	57.55	-0.23	0.000%
43	14.47	-57.55	8.75	-14.47	57.55	-8.75	0.000%
44	8.34	-57.55	14.57	-8.34	57.55	-14.57	0.000%
45	-0.15	-57.55	16.72	0.15	57.55	-16.72	0.000%
46	-8.17	-57.55	14.26	8.17	57.55	-14.26	0.000%
47	-14.15	-57.55	8.45	14.15	57.55	-8.45	0.000%
48	-16.19	-57.55	-0.06	16.19	57.55	0.06	0.000%
49	-14.25	-57.55	-8.02	14.25	57.55	8.02	0.000%
50	-8.48	-57.55	-14.39	8.48	57.55	14.39	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	4	0.00000001	0.00000129
3	Yes	4	0.00000001	0.00000086
4	Yes	4	0.00000001	0.00000132
5	Yes	4	0.00000001	0.00000069
6	Yes	4	0.00000001	0.00000149
7	Yes	4	0.00000001	0.00000082
8	Yes	4	0.00000001	0.00000175
9	Yes	4	0.00000001	0.00000123
10	Yes	4	0.00000001	0.00000102
11	Yes	4	0.00000001	0.00000066
12	Yes	4	0.00000001	0.00000193
13	Yes	4	0.00000001	0.00000145
14	Yes	4	0.00000001	0.00000146
15	Yes	4	0.00000001	0.00000073
16	Yes	4	0.00000001	0.00000126
17	Yes	4	0.00000001	0.00000001
18	Yes	4	0.00000001	0.00000138
19	Yes	4	0.00000001	0.00000100
20	Yes	4	0.00000001	0.00000164
21	Yes	4	0.00000001	0.00000111
22	Yes	4	0.00000001	0.00000138
23	Yes	4	0.00000001	0.00000001

24	Yes	4	0.00000001	0.00000187
25	Yes	4	0.00000001	0.00000135
26	Yes	4	0.00000001	0.00000378
27	Yes	4	0.00000001	0.00002596
28	Yes	4	0.00000001	0.00002539
29	Yes	4	0.00000001	0.00002502
30	Yes	4	0.00000001	0.00002408
31	Yes	4	0.00000001	0.00002392
32	Yes	4	0.00000001	0.00002472
33	Yes	4	0.00000001	0.00002569
34	Yes	4	0.00000001	0.00002600
35	Yes	4	0.00000001	0.00002635
36	Yes	4	0.00000001	0.00002702
37	Yes	4	0.00000001	0.00002748
38	Yes	4	0.00000001	0.00002693
39	Yes	4	0.00000001	0.00000001
40	Yes	4	0.00000001	0.00000001
41	Yes	4	0.00000001	0.00000001
42	Yes	4	0.00000001	0.00000001
43	Yes	4	0.00000001	0.00000001
44	Yes	4	0.00000001	0.00000001
45	Yes	4	0.00000001	0.00000001
46	Yes	4	0.00000001	0.00000001
47	Yes	4	0.00000001	0.00000001
48	Yes	4	0.00000001	0.00000001
49	Yes	4	0.00000001	0.00000001
50	Yes	4	0.00000001	0.00000001

Maximum Tower Deflections - Service Wind

Section No.	*Elevation*	*Horz. Deflection*	*Gov. Load Comb.*	*Tilt*	*Twist*
	ft	*in*		°	°
T1	195 - 185	7.325	45	0.340	0.134
T2	185 - 170	6.604	45	0.339	0.126
T3	170 - 150	5.518	45	0.326	0.096
T4	150 - 140	4.183	45	0.285	0.067
T5	140 - 120	3.589	45	0.263	0.053
T6	120 - 100	2.562	45	0.211	0.038
T7	100 - 80	1.743	45	0.169	0.029
T8	80 - 60	1.100	39	0.125	0.021
T9	60 - 40	0.624	39	0.091	0.015
T10	40 - 20	0.289	39	0.056	0.009
T11	20 - 0	0.088	39	0.028	0.005

Critical Deflections and Radius of Curvature - Service Wind

Elevation	*Appurtenance*	*Gov. Load Comb.*	*Deflection*	*Tilt*	*Twist*	*Radius of Curvature*
ft			*in*	°	°	*ft*
194.00	Dipole	45	7.253	0.340	0.134	153398
193.00	PA6-65AC	45	7.181	0.340	0.133	153398
184.00	Standoff Mount	45	6.531	0.338	0.125	110288
180.00	Platform Mount	45	6.239	0.336	0.117	431346
172.00	Standoff Mount	45	5.660	0.329	0.100	40187
170.00	6' Standoff	45	5.518	0.326	0.096	34317

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
168.00	Standoff Mount	45	5.376	0.323	0.092	31429
165.00	Sector Frames	45	5.168	0.318	0.087	29400
150.00	Sector Frames	45	4.183	0.285	0.067	23470
138.00	Sector Frames	45	3.477	0.258	0.050	22260
132.00	Side Arm	45	3.152	0.242	0.045	22159
124.00	Side Arm	45	2.750	0.221	0.040	22048
119.00	Side Arm	45	2.517	0.209	0.037	22421
100.00	PA6-65AC	45	1.743	0.169	0.029	29251
83.00	Standoff Mount	39	1.185	0.131	0.022	27138
78.00	Side Arm	39	1.045	0.121	0.020	27441
15.00	1.2M	39	0.059	0.021	0.004	46784

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	195 - 185	25.940	14	1.208	0.473
T2	185 - 170	23.380	14	1.202	0.445
T3	170 - 150	19.524	14	1.159	0.337
T4	150 - 140	14.795	12	1.009	0.237
T5	140 - 120	12.692	12	0.930	0.186
T6	120 - 100	9.057	12	0.747	0.133
T7	100 - 80	6.159	12	0.599	0.101
T8	80 - 60	3.877	12	0.443	0.074
T9	60 - 40	2.196	2	0.320	0.054
T10	40 - 20	1.018	2	0.196	0.033
T11	20 - 0	0.310	2	0.098	0.016

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
194.00	Dipole	14	25.685	1.207	0.471	44488
193.00	PA6-65AC	14	25.430	1.207	0.469	44488
184.00	Standoff Mount	14	23.122	1.201	0.439	32774
180.00	Platform Mount	14	22.087	1.194	0.413	124946
172.00	Standoff Mount	14	20.030	1.168	0.352	11216
170.00	6' Standoff	14	19.524	1.159	0.337	9573
168.00	Standoff Mount	14	19.023	1.147	0.324	8765
165.00	Sector Frames	14	18.283	1.128	0.307	8199
150.00	Sector Frames	12	14.795	1.009	0.237	6549
138.00	Sector Frames	12	12.294	0.913	0.177	6244
132.00	Side Arm	12	11.146	0.858	0.159	6227
124.00	Side Arm	12	9.722	0.782	0.141	6210
119.00	Side Arm	12	8.895	0.739	0.131	6322
100.00	PA6-65AC	12	6.159	0.599	0.101	8236
83.00	Standoff Mount	12	4.180	0.465	0.078	7665
78.00	Side Arm	12	3.683	0.429	0.072	7750
15.00	1.2M	2	0.206	0.074	0.012	13243

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	195	Leg	A325N	0.6250	5	0.79	24.85	0.032 ✔	1	Bolt DS
T2	185	Leg	A325N	0.7500	5	4.46	35.78	0.125 ✔	1	Bolt DS
T3	170	Leg	A325N	1.0000	6	10.15	53.01	0.191 ✔	1	Bolt Tension
T4	150	Leg	A325N	1.0000	6	11.28	53.01	0.213 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	7.62	9.14	0.833 ✔	1	Member Block Shear
T5	140	Leg	A325N	1.0000	6	18.10	53.01	0.341 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	8.93	11.43	0.782 ✔	1	Member Block Shear
T6	120	Leg	A325N	1.0000	6	24.49	53.01	0.462 ✔	1	Bolt Tension
		Diagonal	A325X	1.0000	1	9.45	15.23	0.621 ✔	1	Member Block Shear
T7	100	Leg	A325N	1.0000	6	30.98	53.01	0.584 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	9.67	15.23	0.634 ✔	1	Member Block Shear
		Top Girt	A325N	1.0000	1	4.33	10.16	0.426 ✔	1	Member Block Shear
T8	80	Leg	A325N	1.2500	6	37.13	82.83	0.448 ✔	1	Bolt Tension
		Diagonal	A325X	1.2500	1	10.42	17.14	0.608 ✔	1	Member Block Shear
T9	60	Leg	A325N	1.2500	6	43.05	82.83	0.520 ✔	1	Bolt Tension
		Diagonal	A325N	1.2500	1	10.88	18.59	0.585 ✔	1	Member Block Shear
T10	40	Leg	A325N	1.2500	6	48.73	82.83	0.588 ✔	1	Bolt Tension
		Diagonal	A325X	1.2500	1	11.63	20.54	0.566 ✔	1	Member Block Shear
T11	20	Leg	A687	1.2500	6	54.04	96.64	0.559 ✔	1	Bolt Tension
		Diagonal	A325X	1.2500	1	12.47	18.59	0.671 ✔	1	Member Block Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	1 3/4	10.00	2.17	59.4 K=1.00	2.4053	-3.18	83.62	0.038 [1] ✔
T2	185 - 170	2	15.00	2.28	54.7	3.1416	-19.95	113.63	0.176 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
					K=1.00				✔
T3	170 - 150	2 1/4	20.00	2.34	50.0	3.9761	-61.91	149.02	0.415 [1]
					K=1.00				✔
T4	150 - 140	Pirod 105245	10.02	10.02	37.8	5.3014	-72.88	214.86	0.339 [1]
					K=1.00				✔
T5	140 - 120	Pirod 105217	20.03	10.02	37.8	5.3014	-119.08	214.86	0.554 [1]
					K=1.00				✔
T6	120 - 100	Pirod 105218	20.03	10.02	32.4	7.2158	-161.31	300.68	0.536 [1]
					K=1.00				✔
T7	100 - 80	Pirod 105218	20.03	10.02	32.4	7.2158	-205.15	300.68	0.682 [1]
					K=1.00				✔
T8	80 - 60	Pirod 105219	20.03	10.02	28.4	9.4248	-246.56	399.87	0.617 [1]
					K=1.00				✔
T9	60 - 40	Pirod 105219	20.03	10.02	28.4	9.4248	-286.57	399.87	0.717 [1]
					K=1.00				✔
T10	40 - 20	Pirod 105220	20.03	10.02	25.2	11.9282	-326.14	512.38	0.637 [1]
					K=1.00				✔
T11	20 - 0	Pirod 105220	20.03	10.02	25.2	11.9282	-363.99	512.38	0.710 [1]
					K=1.00				✔

[1] P_u / ϕP_n controls

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in^2	V_u K	ϕV_n K	Stress Ratio
T4	150 - 140	0.5	1.47	141.2	238.57	0.1963	1.09	2.49	0.437 ✔
T5	140 - 120	0.5	1.47	141.2	238.57	0.1963	1.07	2.49	0.430 ✔
T6	120 - 100	0.5	1.46	140.0	324.71	0.1963	0.88	2.53	0.347 ✔
T7	100 - 80	0.5	1.46	140.0	324.71	0.1963	1.13	2.53	0.445 ✔
T8	80 - 60	0.625	1.45	111.1	424.12	0.3068	0.35	5.81	0.060 ✔
T9	60 - 40	0.625	1.45	111.1	424.12	0.3068	0.26	5.81	0.046 ✔
T10	40 - 20	0.625	1.43	110.2	536.77	0.3068	0.76	5.87	0.129 ✔
T11	20 - 0	0.625	1.43	110.2	536.77	0.3068	1.26	5.87	0.214 ✔

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	7/8	4.99	2.42	119.3 K=0.90	0.6013	-1.22	9.55	0.128 [1] ✔
T2	185 - 170	7/8	5.04	2.43	119.9 K=0.90	0.6013	-3.60	9.45	0.381 [1] ✔
T3	170 - 150	1	5.48	2.65	114.6 K=0.90	0.7854	-4.57	13.51	0.338 [1] ✔
T4	150 - 140	L2 1/2x2 1/2x3/16	11.42	5.02	121.8 K=1.00	0.9020	-7.80	13.38	0.583 [1] ✔
T5	140 - 120	L 3 x 3 x 3/16	12.50	5.67	115.6 K=1.01	1.0898	-9.39	18.14	0.518 [1] ✔
T6	120 - 100	L 3 x 3 x 1/4	13.80	6.37	129.0 K=1.00	1.4375	-10.29	19.51	0.527 [1] ✔
T7	100 - 80	L 3 x 3 x 1/4	15.24	7.12	144.3 K=1.00	1.4375	-9.89	15.60	0.634 [1] ✔
T8	80 - 60	L 3 x 3 x 5/16	16.80	7.89	160.8 K=1.00	1.7800	-10.73	15.55	0.690 [1] ✔
T9	60 - 40	L3 1/2x3 /12x1/4	18.45	8.73	151.0 K=1.00	1.6875	-11.29	16.72	0.675 [1] ✔
T10	40 - 20	L 3.5 x 3.5 x 5/16	20.16	9.59	166.8 K=1.00	2.0900	-12.02	16.96	0.709 [1] ✔
T11	20 - 0	L 4 x 4 x 1/4	21.92	10.48	158.2 K=1.00	1.9400	-13.49	17.52	0.770 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	L 3 x 3 x 5/16	4.50	4.35	88.7 K=1.00	1.7800	-0.11	38.11	0.003 [1] ✔
T2	185 - 170	1	4.50	4.33	145.6 K=0.70	0.7854	-0.69	8.37	0.082 [1] ✔
T3	170 - 150	1	4.52	4.33	145.4 K=0.70	0.7854	-1.51	8.39	0.180 [1] ✔
T7	100 - 80	L 3 x 3 x 3/16	10.00	8.67	174.4 K=1.00	1.0898	-3.67	8.09	0.453 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	7/8	4.50	4.35	167.2	0.6013	-0.50	4.86	0.103 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T2	185 - 170	1	4.50	4.33	K=0.70 145.6	0.7854	-1.31	8.37	0.156 [1]
T3	170 - 150	1	4.98	4.80	K=0.70 161.2	0.7854	-0.38	6.83	0.056 [1]
					K=0.70				

[1] $P_u / \phi P_n$ controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	1 3/4	10.00	0.67	18.3	1.7942	3.91	87.47	0.045 [1 #]
T2	185 - 170	2	15.00	0.67	16.0	2.1885	21.04	106.69	0.197 [1 #]
T3	170 - 150	2 1/4	20.00	0.62	13.3	3.9761	60.91	178.92	0.340 [1]
T4	150 - 140	Pirod 105245	10.02	10.02	37.8	5.3014	67.65	238.57	0.284 [1]
T5	140 - 120	Pirod 105217	20.03	10.02	37.8	5.3014	108.57	238.57	0.455 [1]
T6	120 - 100	Pirod 105218	20.03	10.02	32.4	7.2158	146.95	324.71	0.453 [1]
T7	100 - 80	Pirod 105218	20.03	10.02	32.4	7.2158	185.91	324.71	0.573 [1]
T8	80 - 60	Pirod 105219	20.03	10.02	28.4	9.4248	222.81	424.12	0.525 [1]
T9	60 - 40	Pirod 105219	20.03	10.02	28.4	9.4248	258.30	424.12	0.609 [1]
T10	40 - 20	Pirod 105220	20.03	10.02	25.2	11.9282	292.38	536.77	0.545 [1]
T11	20 - 0	Pirod 105220	20.03	10.02	25.2	11.9282	324.22	536.77	0.604 [1]

[1] $P_u / \phi P_n$ controls
[#] Based on net area of leg in section below

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in^2	V_u K	ϕV_n K	Stress Ratio

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n K	A in^2	V_u K	ϕV_n K	Stress Ratio
T4	150 - 140	0.5	1.47	141.2	238.57	0.1963	1.09	2.49	0.437 ✔
T5	140 - 120	0.5	1.47	141.2	238.57	0.1963	1.07	2.49	0.430 ✔
T6	120 - 100	0.5	1.46	140.0	324.71	0.1963	0.88	2.53	0.347 ✔
T7	100 - 80	0.5	1.46	140.0	324.71	0.1963	1.13	2.53	0.445 ✔
T8	80 - 60	0.625	1.45	111.1	424.12	0.3068	0.35	5.81	0.060 ✔
T9	60 - 40	0.625	1.45	111.1	424.12	0.3068	0.26	5.81	0.046 ✔
T10	40 - 20	0.625	1.43	110.2	536.77	0.3068	0.76	5.87	0.129 ✔
T11	20 - 0	0.625	1.43	110.2	536.77	0.3068	1.26	5.87	0.214 ✔

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	7/8	4.99	2.42	132.5	0.6013	1.28	27.06	0.047 [1] ✔
T2	185 - 170	7/8	5.04	2.43	133.2	0.6013	3.62	27.06	0.134 [1] ✔
T3	170 - 150	1	5.48	2.65	127.4	0.7854	4.52	35.34	0.128 [1] ✔
T4	150 - 140	L2 1/2x2 1/2x3/16	11.42	5.02	80.1	0.9020	7.62	29.22	0.261 [1] ✔
T5	140 - 120	L 3 x 3 x 3/16	12.50	5.67	74.5	0.8789	8.93	42.85	0.208 [1] ✔
T6	120 - 100	L 3 x 3 x 1/4	13.80	6.37	84.3	1.1563	9.45	56.37	0.168 [1] ✔
T7	100 - 80	L 3 x 3 x 1/4	15.24	7.12	94.0	1.1563	9.67	56.37	0.171 [1] ✔
T8	80 - 60	L 3 x 3 x 5/16	16.80	7.89	105.4	1.7800	10.42	57.67	0.181 [1] ✔
T9	60 - 40	L3 1/2x3 /12x1/4	18.45	8.73	98.2	1.3438	10.88	65.51	0.166 [1] ✔
T10	40 - 20	L 3.5 x 3.5 x 5/16	20.16	9.59	108.5	2.0900	11.63	67.72	0.172 [1] ✔
T11	20 - 0	L 4 x 4 x 1/4	21.92	10.48	102.4	1.5963	12.47	77.82	0.160 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	L 3 x 3 x 5/16	4.50	4.35	56.7	1.7800	0.13	57.67	0.002 [1] ✔
T2	185 - 170	1	4.50	4.33	208.0	0.7854	0.60	35.34	0.017 [1] ✔
T3	170 - 150	1	4.52	4.33	207.7	0.7854	1.46	35.34	0.041 [1] ✔
T7	100 - 80	L 3 x 3 x 3/16	10.00	8.67	115.0	0.6592	4.33	28.67	0.151 [1] ✔

[1] $P_u / \phi P_n$ controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	195 - 185	7/8	4.50	4.35	238.9	0.6013	0.60	27.06	0.022 [1] ✔
T2	185 - 170	1	4.50	4.33	208.0	0.7854	1.33	35.34	0.038 [1] ✔
T3	170 - 150	1	4.98	4.80	230.3	0.7854	0.42	35.34	0.012 [1] ✔

[1] $P_u / \phi P_n$ controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	195 - 185	Leg	1 3/4	3	3.91	87.47	4.5	Pass
T2	185 - 170	Leg	2	36	21.04	106.69	19.7	Pass
T3	170 - 150	Leg	2 1/4	80	-61.91	149.02	41.5	Pass
T4	150 - 140	Leg	Pirod 105245	138	-70.84	214.86	43.7	Pass
T5	140 - 120	Leg	Pirod 105217	146	-119.08	214.86	55.4	Pass
T6	120 - 100	Leg	Pirod 105218	161	-161.31	300.68	53.6	Pass
T7	100 - 80	Leg	Pirod 105218	176	-205.15	300.68	68.2	Pass
T8	80 - 60	Leg	Pirod 105219	194	-246.56	399.87	61.7	Pass
T9	60 - 40	Leg	Pirod 105219	209	-286.57	399.87	71.7	Pass
T10	40 - 20	Leg	Pirod 105220	225	-326.14	512.38	63.7	Pass
T11	20 - 0	Leg	Pirod 105220	240	-363.99	512.38	71.0	Pass
T1	195 - 185	Diagonal	7/8	12	-1.22	9.55	12.8	Pass
T2	185 - 170	Diagonal	7/8	47	-3.60	9.45	38.1	Pass
T3	170 - 150	Diagonal	1	92	-4.57	13.51	33.8	Pass
T4	150 - 140	Diagonal	L2 1/2x2 1/2x3/16	144	-7.80	13.38	58.3 83.3 (b)	Pass
T5	140 - 120	Diagonal	L 3 x 3 x 3/16	152	-9.39	18.14	51.8 78.2 (b)	Pass
T6	120 - 100	Diagonal	L 3 x 3 x 1/4	167	-10.29	19.51	52.7	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
							62.1 (b)	
T7	100 - 80	Diagonal	L 3 x 3 x 1/4	185	-9.89	15.60	63.4	Pass
							63.4 (b)	
T8	80 - 60	Diagonal	L 3 x 3 x 5/16	200	-10.73	15.55	69.0	Pass
T9	60 - 40	Diagonal	L3 1/2x3 /12x1/4	215	-11.29	16.72	67.5	Pass
T10	40 - 20	Diagonal	L 3.5 x 3.5 x 5/16	230	-12.02	16.96	70.9	Pass
T11	20 - 0	Diagonal	L 4 x 4 x 1/4	245	-13.49	17.52	77.0	Pass
T1	195 - 185	Top Girt	L 3 x 3 x 5/16	6	-0.11	38.11	0.3	Pass
T2	185 - 170	Top Girt	1	37	-0.69	8.37	8.2	Pass
T3	170 - 150	Top Girt	1	82	-1.51	8.39	18.0	Pass
T7	100 - 80	Top Girt	L 3 x 3 x 3/16	180	-3.67	8.09	45.3	Pass
T1	195 - 185	Bottom Girt	7/8	9	-0.50	4.86	10.3	Pass
T2	185 - 170	Bottom Girt	1	42	-1.31	8.37	15.6	Pass
T3	170 - 150	Bottom Girt	1	87	-0.38	6.83	5.6	Pass
							Summary	
						Leg (T9)	71.7	Pass
						Diagonal (T4)	83.3	Pass
						Top Girt (T7)	45.3	Pass
						Bottom Girt (T2)	15.6	Pass
						Bolt Checks	83.3	Pass
						RATING =	**83.3**	**Pass**

Project Information

	CTL01235

Tower Information

Tower Type	Self Support
TIA-222 Rev	G

☑ Load Z Normalization

Applied Loads

	Comp.	Uplift
Axial (k)	374.00	333.00
Shear (k)	39.00	35.00

Anchor Rod Data

Quantity:	6
Diameter (in):	1.25
Material Grade:	A687
Grout Considered:	No
l_{ar} (in):	0
Eta Factor, η:	0.5
Thread Type:	N-Included
Configuration:	Symmetrical

Fy=105 ksi Fu=150 ksi

Anchor Rod Results

Axial, Pu_c (kips)	62.33
Shear, Vu (kips)	6.50
Moment, Mu (kip-in)	-
Axial Cap., φPn_t (kips)	96.90
Shear Cap., ϕVn (kips)	-
Moment Cap., ϕMn (kip-in)	-
Stress Rating	74.0%

Pass

Analysis Date: 2/4/2020

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1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

Mount Analysis Report

August 29, 2019

AT&T Mobility Site Name	Sharon Surdan Mt. Road
AT&T Mobility Site Number	CTL01235
FA Number	10050790
AT&T PTN Number	2051A0Q8KR, 2051A0QAE5, 2051A0Q7V8, 2051A0Q92Q, 2051A0QAHQ
AT&T PACE Number	MRCTB041738, MRCTB041519, MRCTB041585, MRCTB041434, MRCTB041358
Infinigy Job Number	1106-A0001-B
Client	Smartlink
Carrier	AT&T Mobility
Site Location	7 Surdan Mountain Rd. Sharon, CT 6069 41.86205 N NAD83 -73.3996 W NAD83
Mount Centerline EL.	150.0 ft
Mount Type	Sector Frame
Structural Usage Ratio	80.3%
Overall Result	**Pass**

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

Brad Davenport
Structural Program Manager

Contents

Introduction

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

Supporting Documentation

RFDS	RFDS ID #CTL01235, dated June 03, 2019
Construction Drawings	Construction drawing No. 12063.C035, dated December 07, 2012
Site Photos	Sitewalk Photos, dated June 28, 2019

Analysis Code Requirements

Wind Speed	115 mph (3-Second Gust)
Wind Speed w/ Ice	40 mph (3 Second Gust) w/ 1.275" Ice
TIA Revision	ANSI/TIA-222-H
Adopted IBC	2015 IBC / 2018 Connecticut State Building Code
Structure Class	II
Exposure Category	B
Topographic Category	5
Crest Height	399 ft.
Spectral Response	S_s = 0.18 g, S_1 = 0.065 g
Site Class	D

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The mount and connections are therefore deemed adequate to support the existing and proposed loading as listed in this report.

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

Brad Davenport
Structural Program Manager | **INFINIGY**
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(O) 518-690-0790
bdavenport@infinigy.com | www.infinigy.com

Final Configuration Loading

Mount CL (ft)	Vert. O/S (ft)	Rad. HT (ft)	Horiz. O/S (ft)*	Qty	Appurtenance	Carrier
150.0	0.0	150.0	0.5	3	CCI DMP65R-BU6DA	AT&T Mobility
	0.0	150.0	0.5	3	ERICSSON TME-RRUS 4478 B14	
	0.0	150.0	4.33	3	CCI DMP65R-BU6DA	
	0.0	150.0	4.33	3	ERICSSON TME-RADIO 4449	
	0.0	150.0	4.33	3	ERICSSON TME-RADIO 8843	
	0.0	150.0	12.0	3	Powerwave 7770.00	
	0.0	150.0	12.0	6	Powerwave LGP 21401	
	0.0	150.0	-	1	Raycap DC6-48-60-0-8F	
	0.0	150.0	-	1	Raycap DC9-48-60-24-8C-EV	

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

Structure Usages

Horizontals	80.3%	Pass
Standoff	59.9%	Pass
Mount Pipes	64.2%	Pass
Tieback	9.8%	Pass
Max Usage	**80.3%**	**Pass**

Mount Connections

Reaction Data	Design Capacity*	Analysis Reactions	Results
Max Tension (lbs.)	12770.9	3685.6	28.9%
Max Shear (lbs.)	7952.2	865.7	10.9%
Unity Check	--	--	9.5%

***Assumed (4) 1/2" A325 Threaded rods. Contractor to field verify prior to proposed installation.**

Assumptions and Limitations

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

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

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

Program Inputs

Project Information		
Client:	Smartlink	
Carrier:	AT&T Mobility	
Engineer:	BD	

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Infinigy Wind Load Calculator V1.1.2

Code Standards		
Building Code:	2015 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-10	

Mount Information		
Mount Type:	Sector Frame	
Num Sectors:	3	
Centerline AGL:	150.0	ft
Roof Height AGL:	0.0	ft

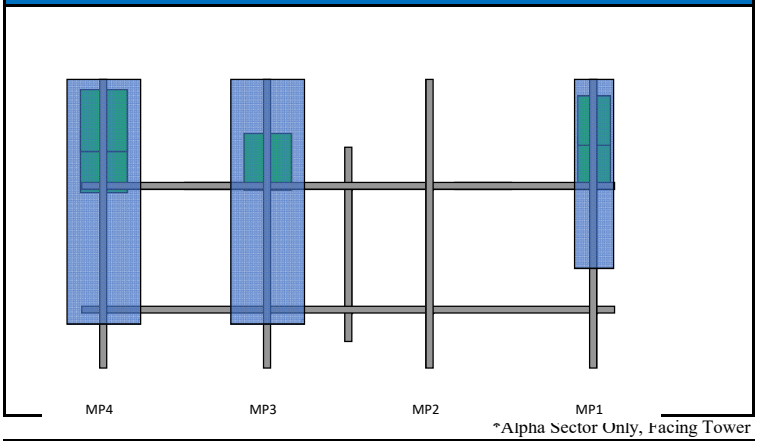
Site Information		
Risk Category:	II	
Exposure Category:	B	
Topo Category:	5	
Site Class:	D - Stiff Soil	
Ground Elevation:	1359	ft

Wind and Ice Data		
Ultimate Wind:	115	mph
Basic Wind:	N/A	mph
Ice Wind:	40	mph
Ice Thickness:	1.275	in

Topographic Data		
Topo Feature:	Escarpment	
Crest Height:	399.0	ft
Slope Distance:	2030.0	ft
Crest Distance:	1100.0	ft

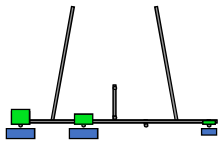
Seismic Data		
S_s:	0.17	g
S_1:	0.05	g
a_p:	1.0	
R_p:	2.50	
Ω_o:	1.0	
S_{DS}:	0.18	
S_{D1}:	0.09	
F_a:	1.60	
F_v:	2.40	

Elevation View



*Alpha Sector Only, Facing Tower

Plan View

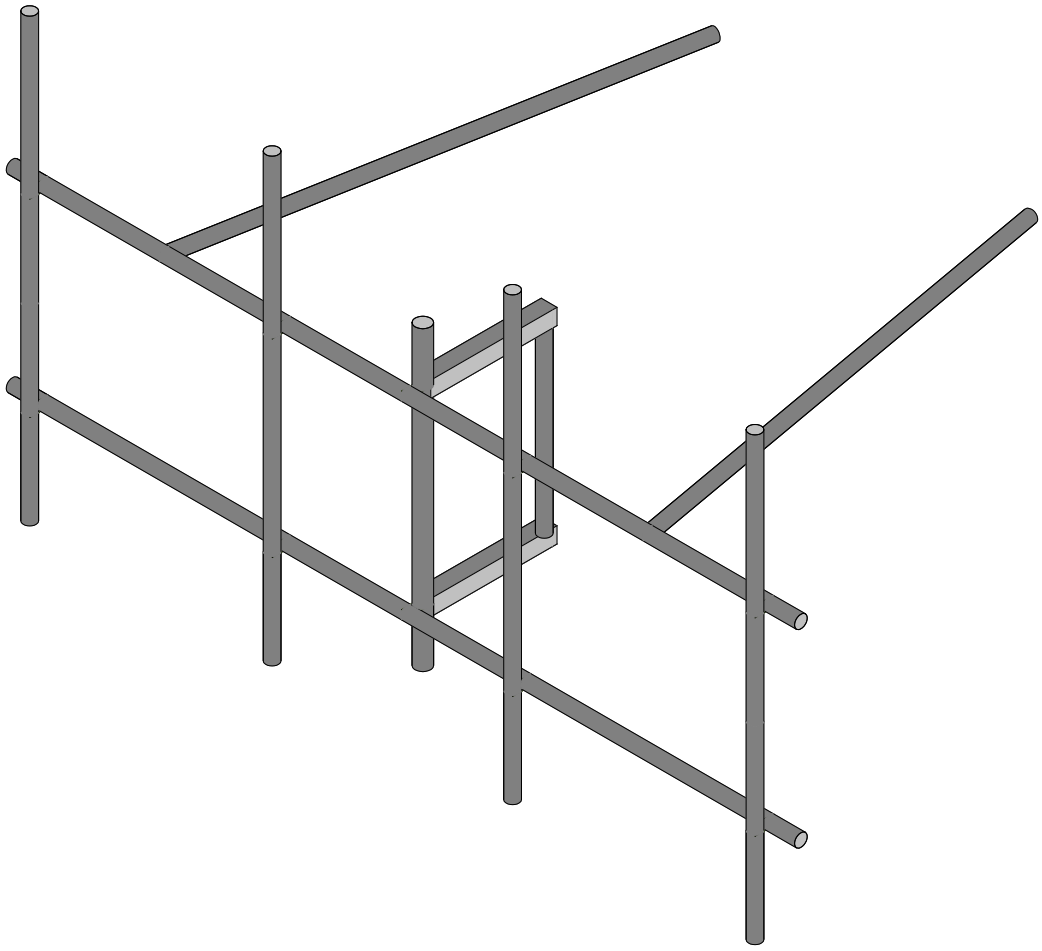


*Alpha Sector Only

Appurtenance Information**

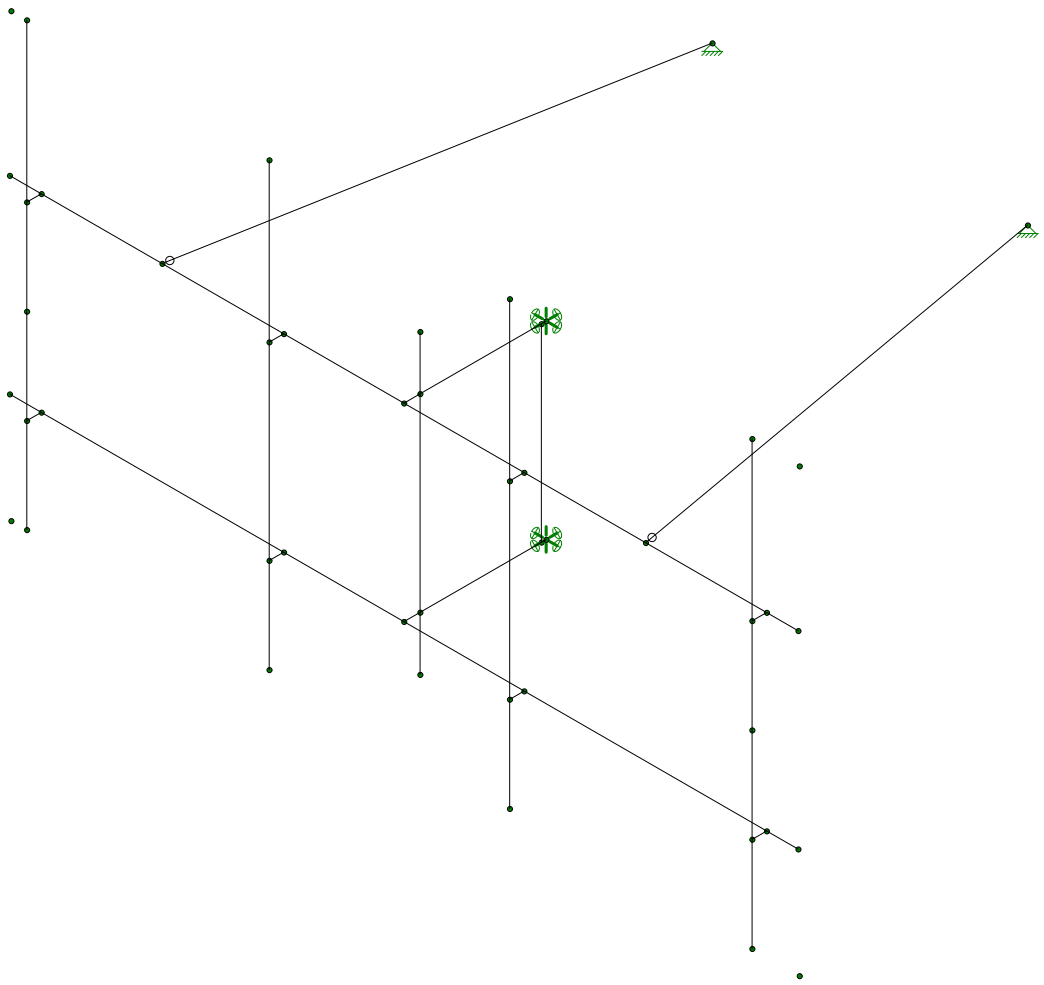
Appurtenance Name	Elevation	Qty.	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
CCI ANTENNAS DMP65R-BU6DA	150.0	3	44.97	12.71	5.62	514.44	227.29	79.40	7.24	MP3
ERICSSON TME-RRUS 4478 B14	150.0	3	44.97	1.84	1.06	74.58	42.85	59.90	5.46	MP3
CCI ANTENNAS DMP65R-BU6DA	150.0	3	44.97	12.71	5.62	514.44	227.29	79.40	7.24	MP4
ERICSSON TME-RADIO 4449	150.0	3	44.97	1.98	1.41	80.14	57.07	70.00	6.38	MP4
ERICSSON TME-RADIO 8843	150.0	3	44.97	1.98	1.70	80.14	68.61	75.00	6.84	MP4
WERWAVE TECHNOLOGIES 7770.	150.0	3	44.97	5.51	2.93	222.97	118.53	35.00	3.19	MP1
RWAVE TECHNOLOGIES TME-LGI	150.0	3	44.97	1.10	0.35	44.69	14.05	14.10	1.29	MP1
RWAVE TECHNOLOGIES TME-LGI	150.0	3	44.97	1.10	0.35	44.69	14.05	14.10	1.29	MP1
RAYCAP TME-DC6-48-60-0-8F	150.0	1	44.97	2.20	2.20	89.05	89.05	32.80	2.99	Leg/Flush
RAYCAP TME-DC9-48-60-24-8C-EV	150.0	1	44.97	2.74	4.78	110.73	193.61	26.20	2.39	Leg/Flush

**Dish calculations differ from those in display



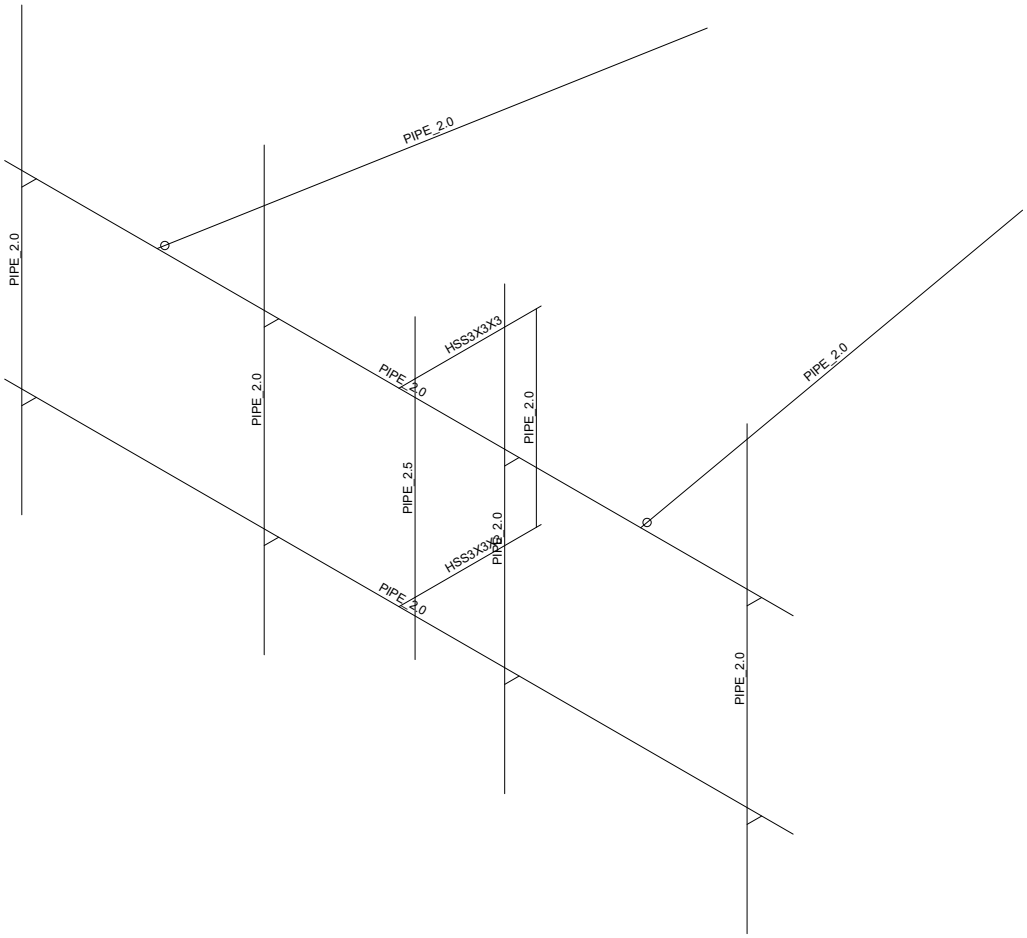
Loads: BLC 41,
Envelope Only Solution

Infinigy	CTL01235	Existing
BD		Aug 29, 2019 at 3:57 PM
1106-A0001-B		CTL01235_loaded.r3d



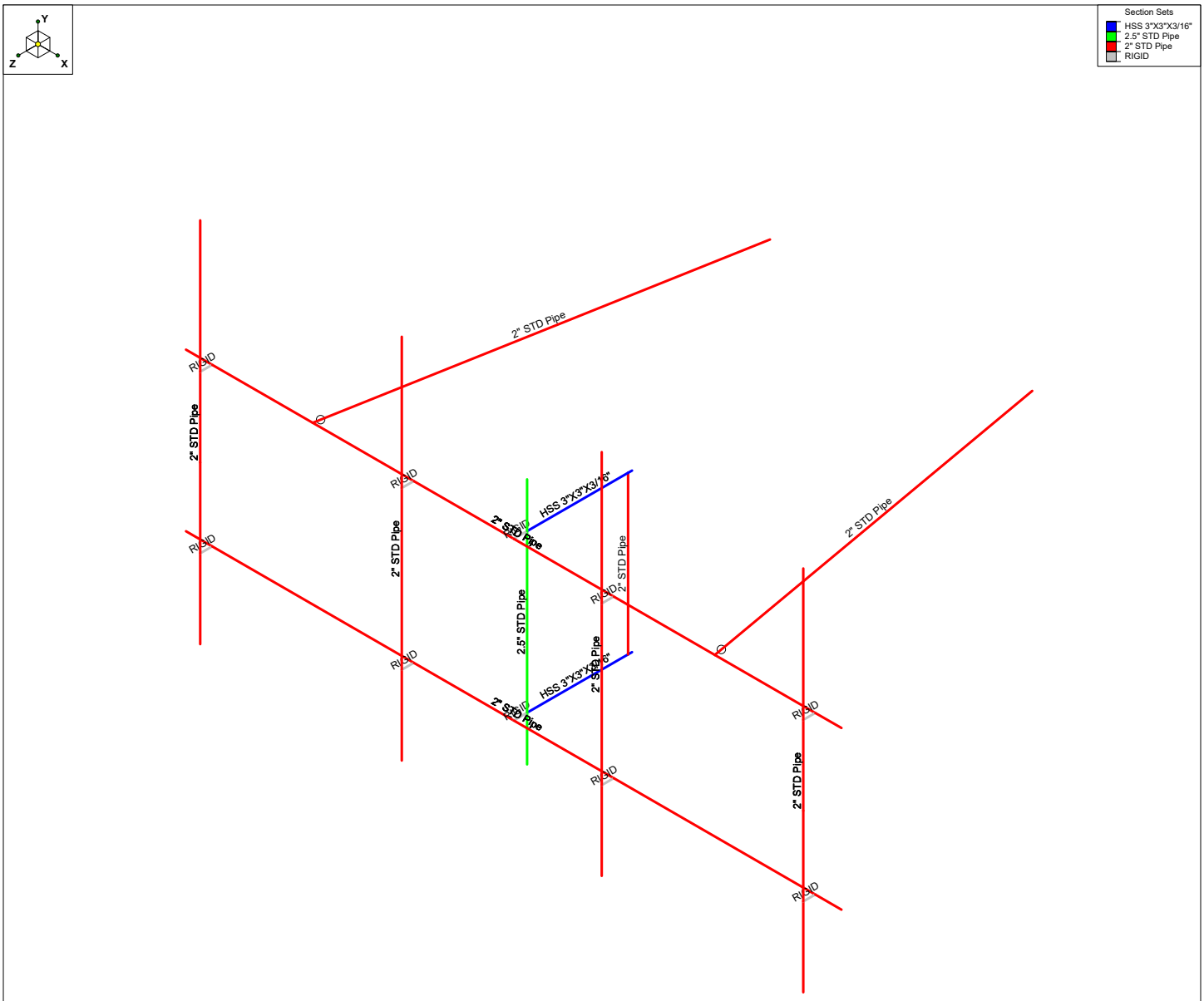
Loads: BLC 41,
Envelope Only Solution

Infinigy	CTL01235	Wire Frame
BD		Aug 29, 2019 at 3:58 PM
1106-A0001-B		CTL01235_loaded.r3d



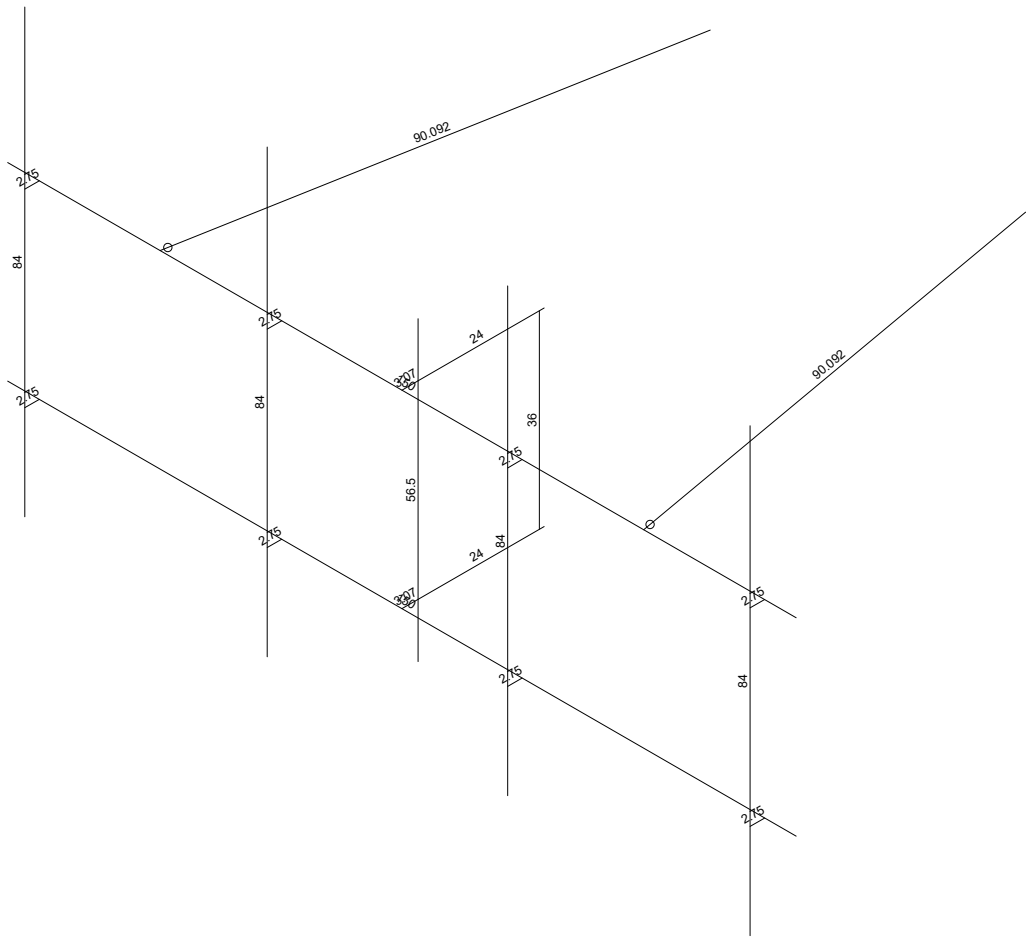
Loads: BLC 41,
Envelope Only Solution

Infinigy	CTL01235	Member Shape
BD		Aug 29, 2019 at 3:59 PM
1106-A0001-B		CTL01235_loaded.r3d



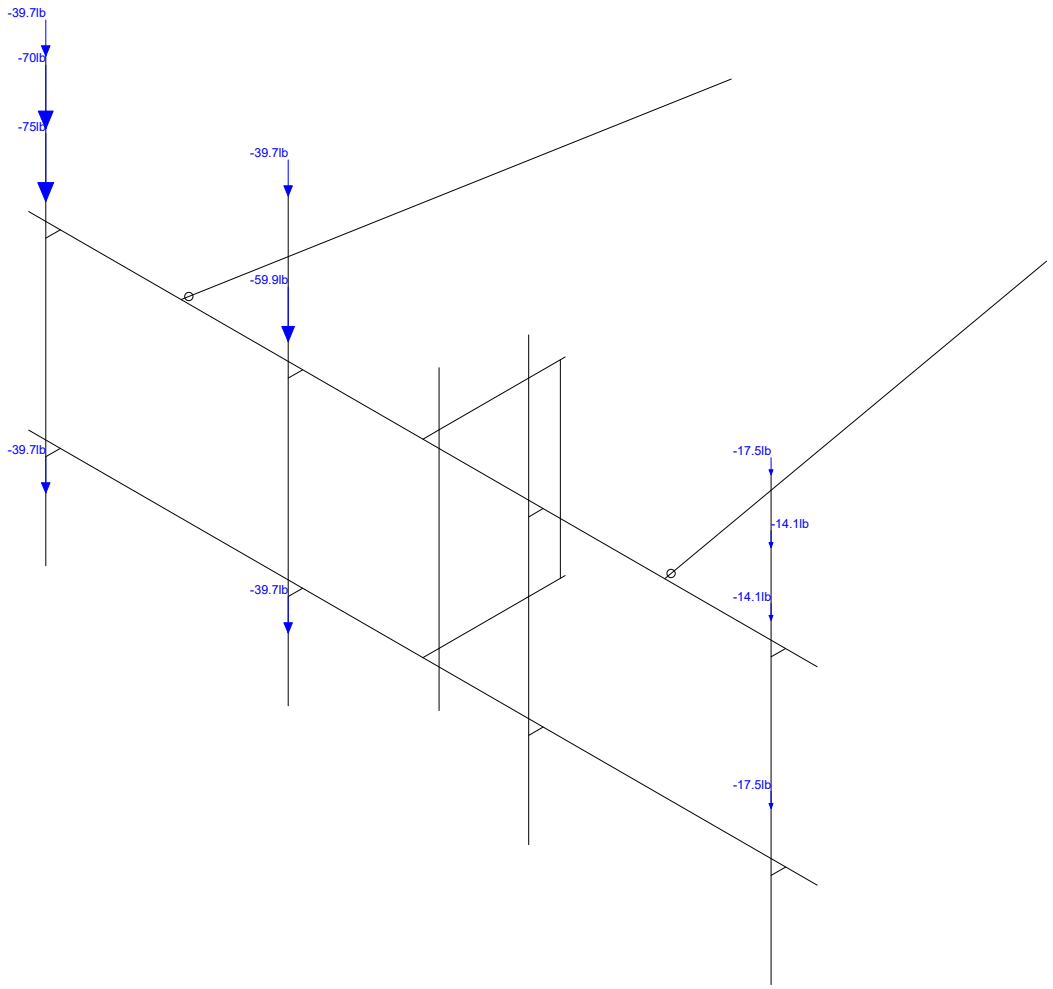
Loads: BLC 41,
Envelope Only Solution

Infinigy	CTL01235	Section Set
BD		Aug 29, 2019 at 4:01 PM
1106-A0001-B		CTL01235_loaded.r3d



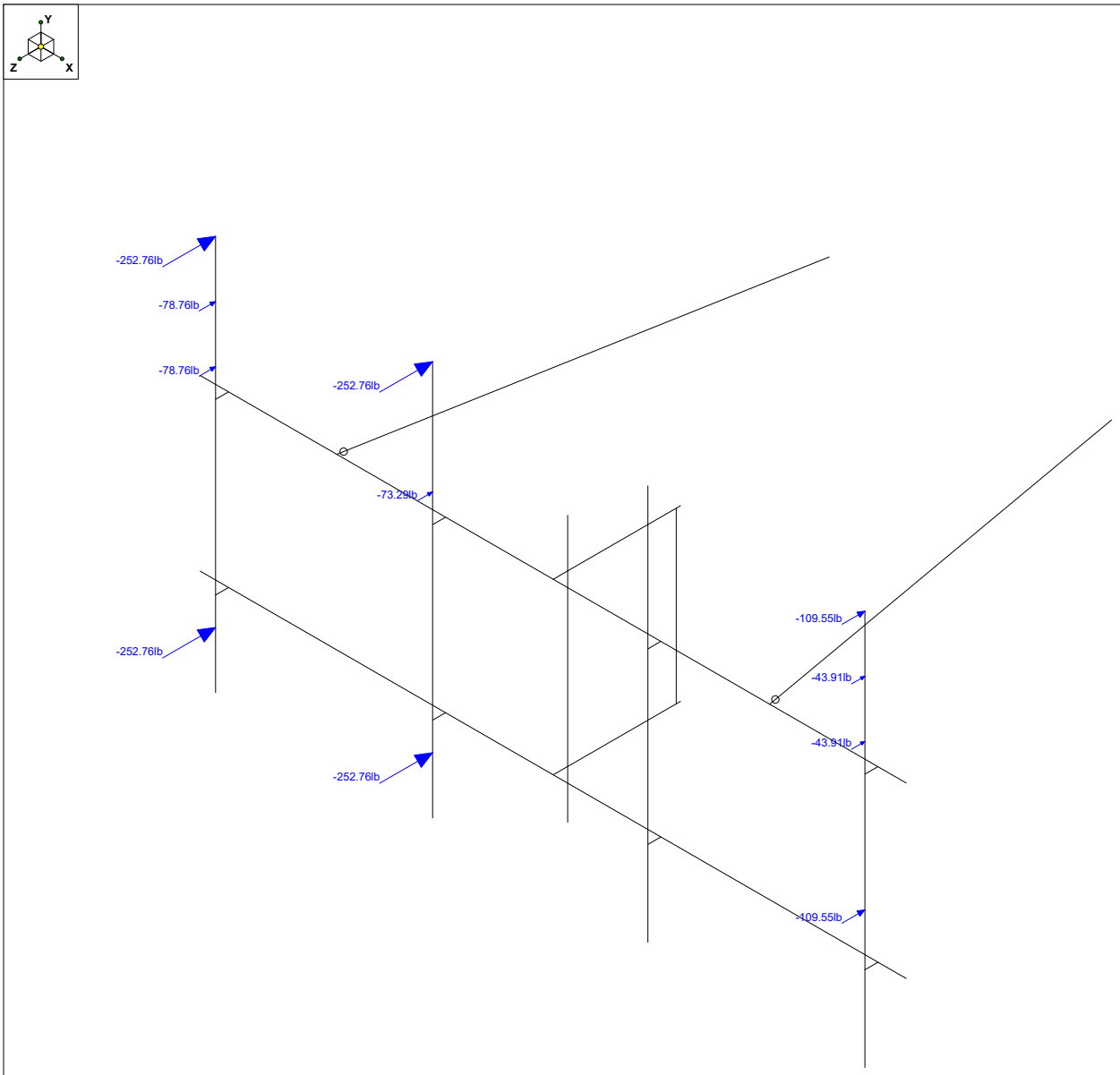
Member Length (in) Displayed
Loads: BLC 41,
Envelope Only Solution

Infinigy	CTL01235	Member Length
BD		Aug 29, 2019 at 4:01 PM
1106-A0001-B		CTL01235_loaded.r3d



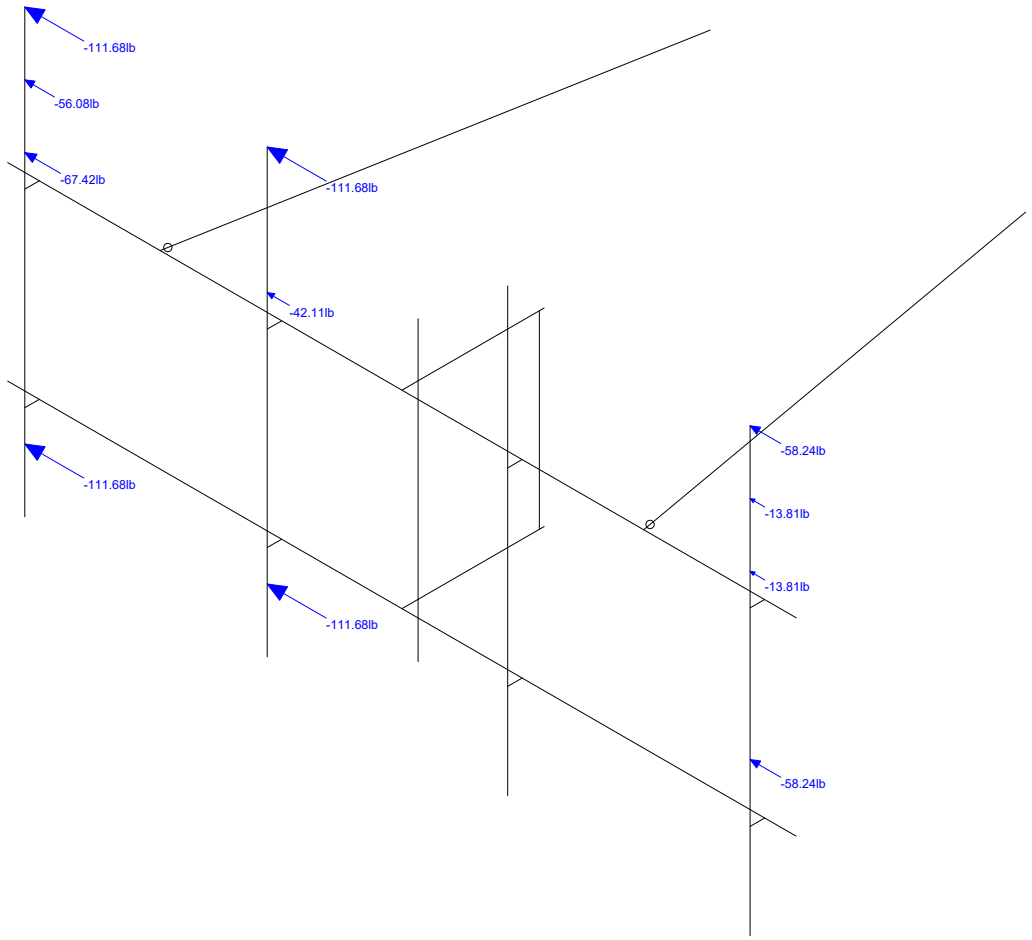
Loads: BLC 1, Self Weight
Envelope Only Solution

Infinigy	CTL01235	Self Weight
BD		Aug 29, 2019 at 4:02 PM
1106-A0001-B		CTL01235_loaded.r3d



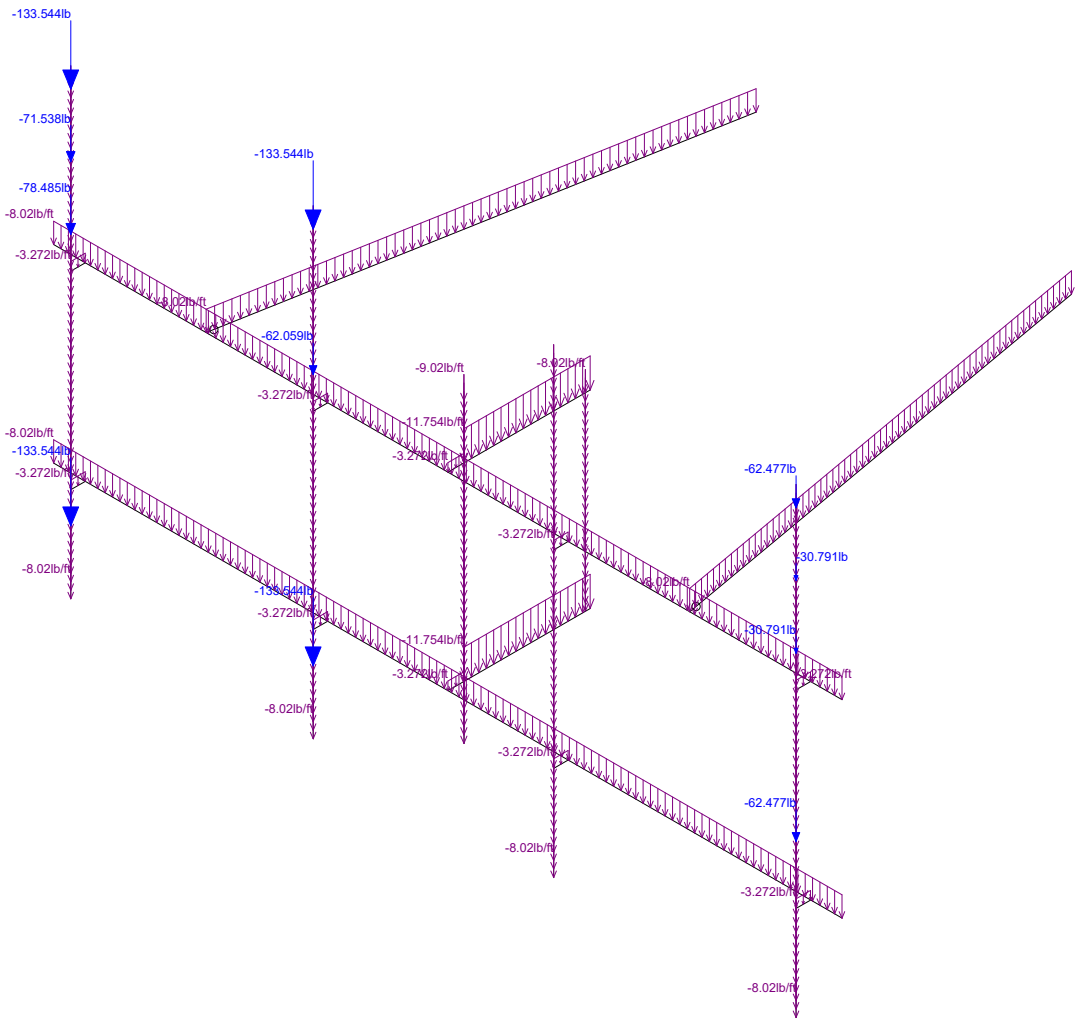
Loads: BLC 2, Wind Load AZI 0
Envelope Only Solution

Infinigy	CTL01235	Wind Load 000
BD		Aug 29, 2019 at 4:03 PM
1106-A0001-B		CTL01235_loaded.r3d



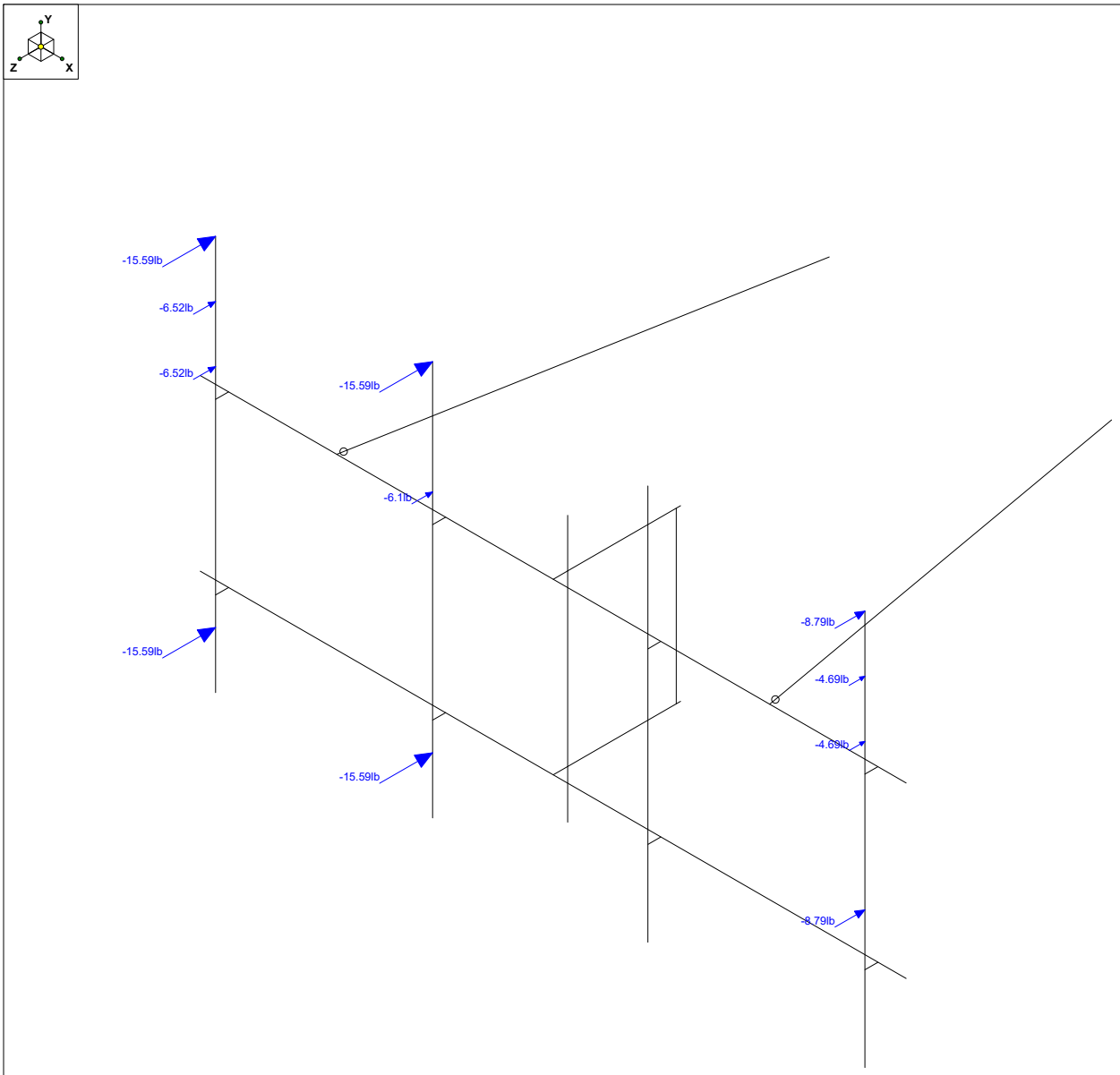
Loads: BLC 5, Wind Load AZI 90
Envelope Only Solution

Infinigy	CTL01235	Wind Load 090
BD		Aug 29, 2019 at 4:04 PM
1106-A0001-B		CTL01235_loaded.r3d



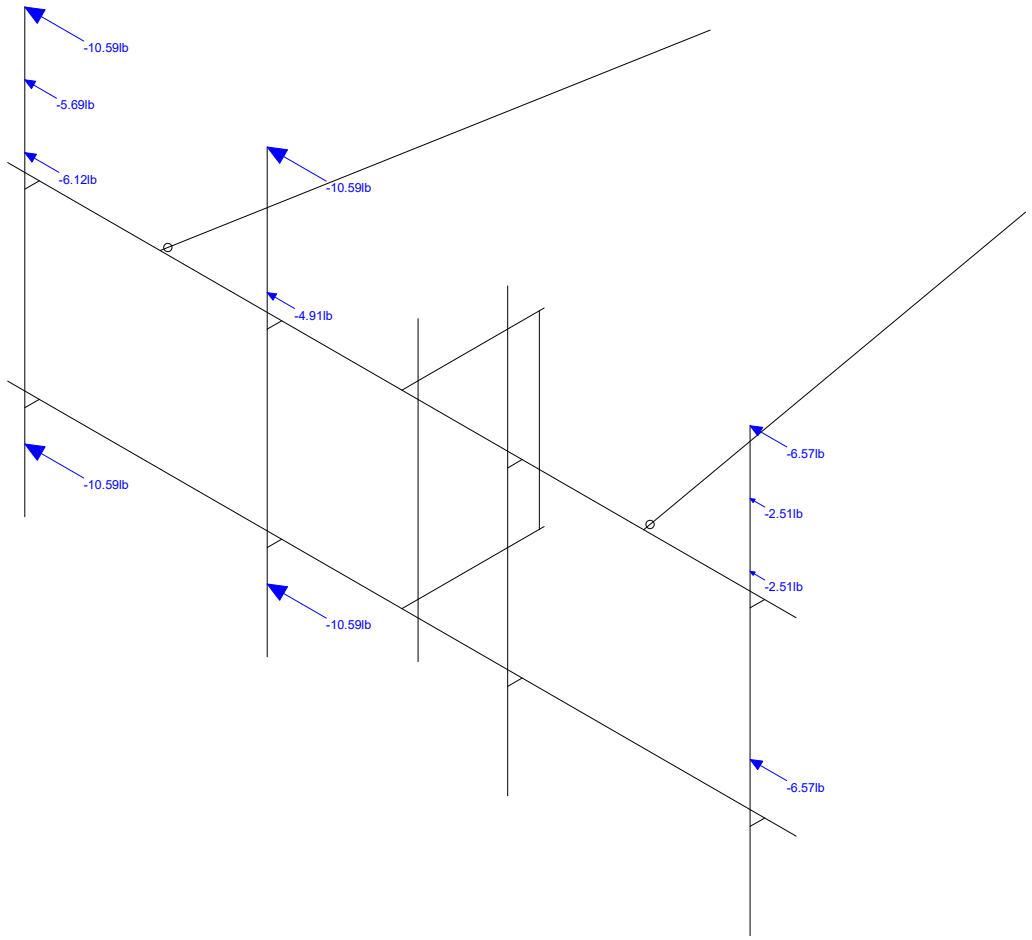
Loads: BLC 16, Ice Weight
Envelope Only Solution

Infinigy	CTL01235	Ice Weight
BD		Aug 29, 2019 at 4:08 PM
1106-A0001-B		CTL01235_loaded.r3d



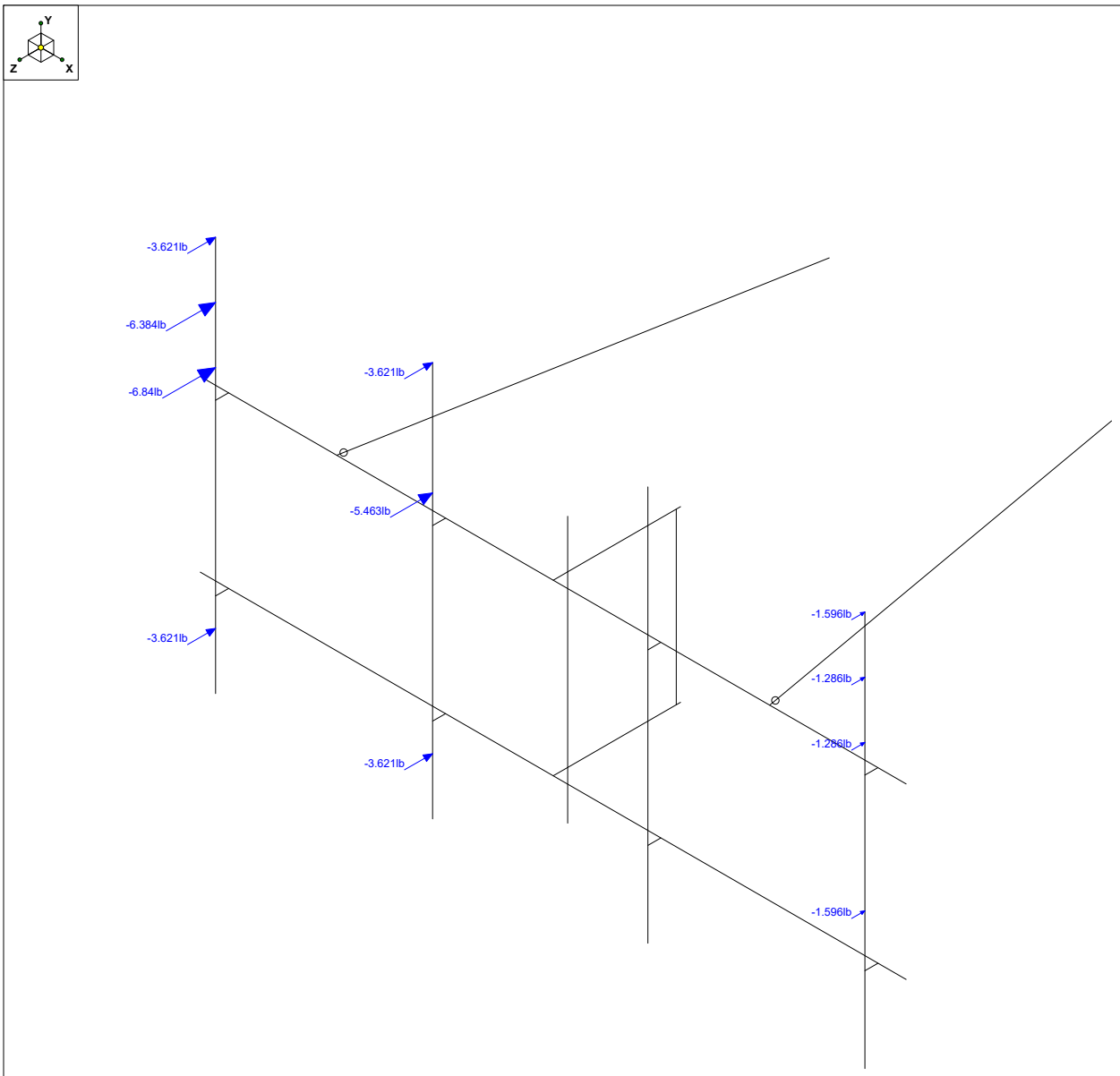
Loads: BLC 17, Ice Wind Load AZI 0
Envelope Only Solution

Infinigy	CTL01235	Wind + Ice 000
BD		Aug 29, 2019 at 4:11 PM
1106-A0001-B		CTL01235_loaded.r3d



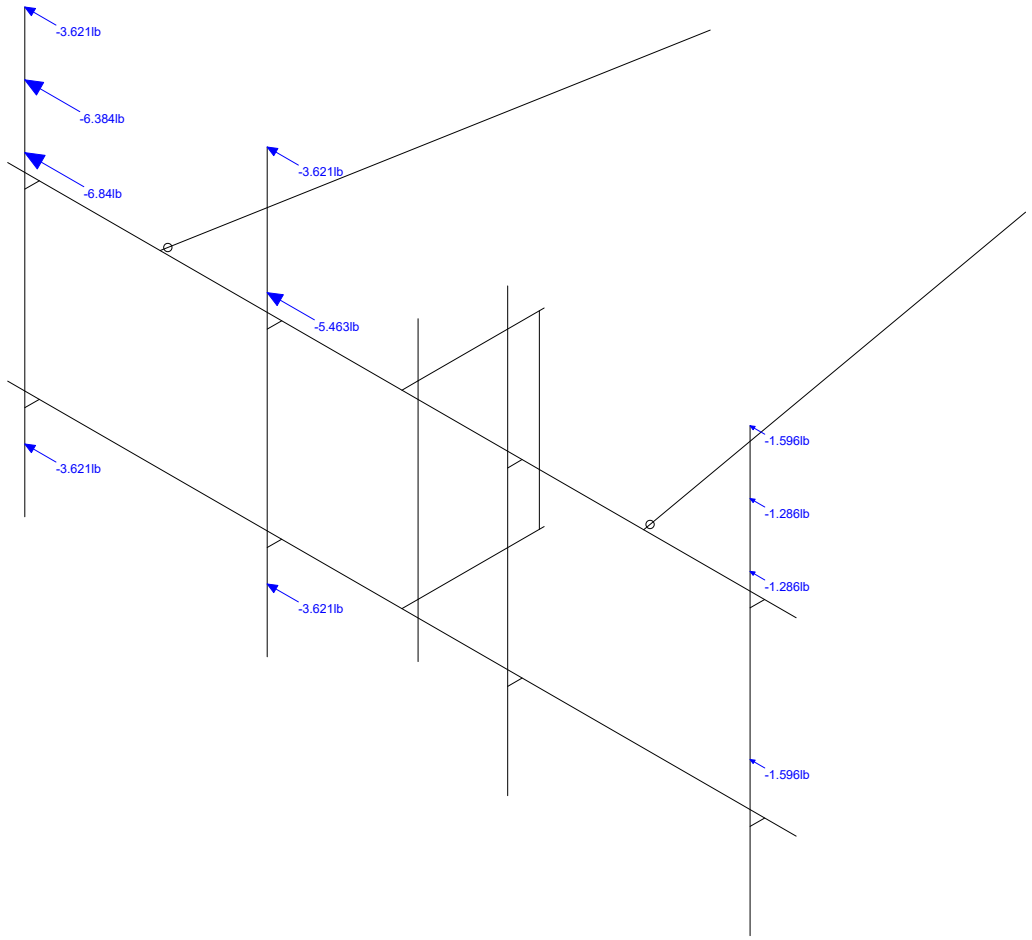
Loads: BLC 20, Ice Wind Load AZI 90
Envelope Only Solution

Infinigy	CTL01235	Wind + Ice 090
BD		Aug 29, 2019 at 4:11 PM
1106-A0001-B		CTL01235_loaded.r3d



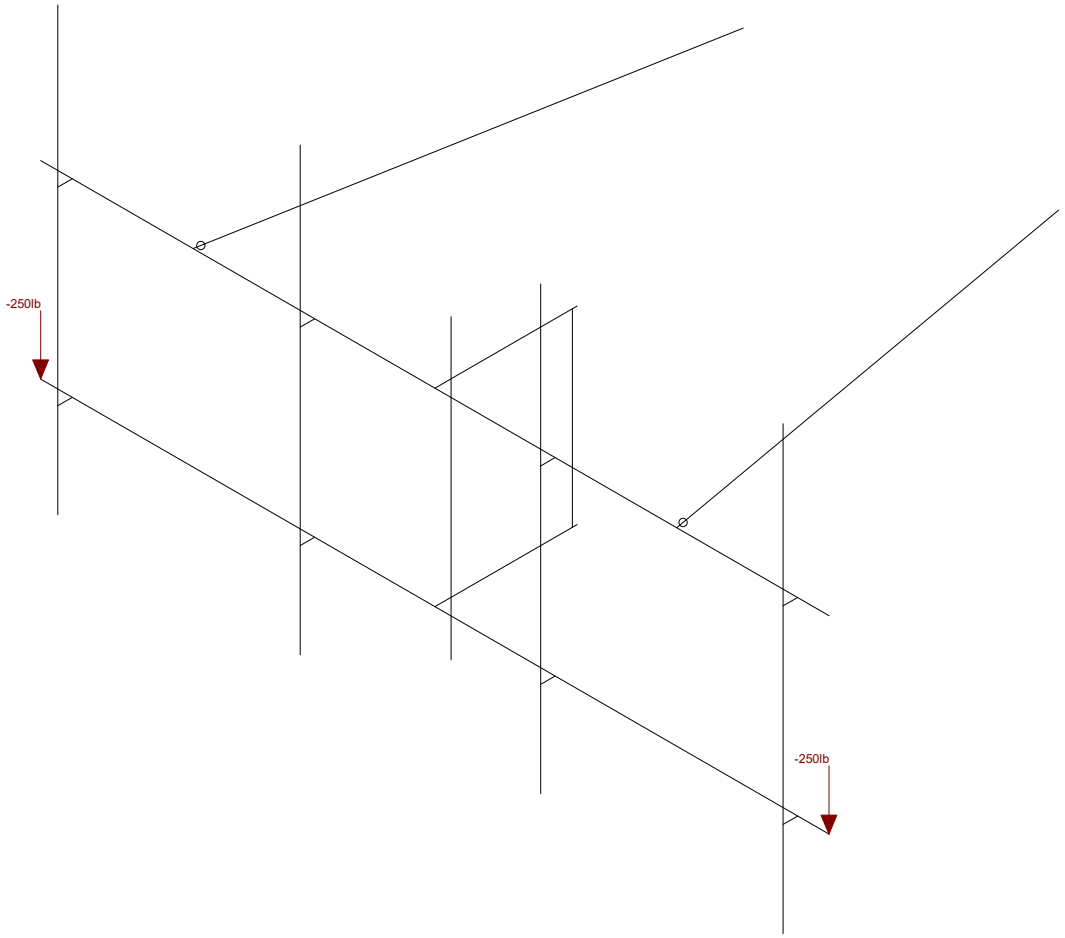
Loads: BLC 31, Seismic Load Z
Envelope Only Solution

Infinigy	CTL01235	Seismic Load 000
BD		Aug 29, 2019 at 4:11 PM
1106-A0001-B		CTL01235_loaded.r3d



Loads: BLC 32, Seismic Load X
Envelope Only Solution

Infinigy	CTL01235	Seismic Load 090
BD		Aug 29, 2019 at 4:12 PM
1106-A0001-B		CTL01235_loaded.r3d



Loads: BLC 33, Service Live Loads
Envelope Only Solution

Infinigy	CTL01235	Service Load
BD		Aug 29, 2019 at 4:12 PM
1106-A0001-B		CTL01235_loaded.r3d

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rules
1	M4	N12	N10			2" STD Pipe	Beam	None	A53 Gr.B	Typical
2	M5	N11	N9			2" STD Pipe	Beam	None	A53 Gr.B	Typical
3	M6	N25	N26			2.5" STD Pipe	Beam	None	A53 Gr.B	Typical
4	M7	N2	N1			2" STD Pipe	Beam	None	A53 Gr.B	Typical
5	M8	N49	N29			2" STD Pipe	Beam	None	A53 Gr.B	Typical
6	M9	N50	N30			2" STD Pipe	Beam	None	A53 Gr.B	Typical
7	M10	N4	N32			HSS 3"X3"X3/16"	Beam	None	A53 Gr.B	Typical
8	M11	N3	N31			HSS 3"X3"X3/16"	Beam	None	A53 Gr.B	Typical
9	M12	N18	N36			RIGID	None	None	RIGID	Typical
10	M13	N17	N35			RIGID	None	None	RIGID	Typical
11	M16	N16	N34			RIGID	None	None	RIGID	Typical
12	M17	N15	N33			RIGID	None	None	RIGID	Typical
13	M18	N6	N4			RIGID	None	None	RIGID	Typical
14	M19	N5	N3			RIGID	None	None	RIGID	Typical
15	M18A	N38	N42A			RIGID	None	None	RIGID	Typical
16	M19A	N37	N41A			RIGID	None	None	RIGID	Typical
17	M21	N44A	N48			RIGID	None	None	RIGID	Typical
18	M22	N43A	N47			RIGID	None	None	RIGID	Typical
19	MP1	N22	N23			2" STD Pipe	Beam	None	A53 Gr.B	Typical
20	MP2	N46	N45			2" STD Pipe	Beam	None	A53 Gr.B	Typical
21	MP3	N40A	N39A			2" STD Pipe	Beam	None	A53 Gr.B	Typical
22	MP4	N20	N19			2" STD Pipe	Beam	None	A53 Gr.B	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M4	2" STD Pipe	150									Lateral
2	M5	2" STD Pipe	150									Lateral
3	M6	2.5" STD Pi...	56.5									Lateral
4	M7	2" STD Pipe	36			Lbyy						Lateral
5	M8	2" STD Pipe	90.092			Lbyy						Lateral
6	M9	2" STD Pipe	90.092			Lbyy						Lateral
7	M10	HSS 3"X3"...	24			Lbyy						Lateral
8	M11	HSS 3"X3"...	24									Lateral
9	MP1	2" STD Pipe	84									Lateral
10	MP2	2" STD Pipe	84									Lateral
11	MP3	2" STD Pipe	84									Lateral
12	MP4	2" STD Pipe	84									Lateral

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M4						Yes				None
2	M5						Yes				None
3	M6						Yes				None
4	M7						Yes				None
5	M8	BenPIN					Yes				None
6	M9	BenPIN					Yes				None
7	M10						Yes				None
8	M11						Yes				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...
9	M12						Yes	** NA **			None
10	M13						Yes	** NA **			None
11	M16						Yes	** NA **			None
12	M17						Yes	** NA **			None
13	M18						Yes	** NA **			None
14	M19						Yes	** NA **			None
15	M18A						Yes	** NA **			None
16	M19A						Yes	** NA **			None
17	M21						Yes	** NA **			None
18	M22						Yes	** NA **			None
19	MP1						Yes				None
20	MP2						Yes				None
21	MP3						Yes				None
22	MP4						Yes				None

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	HSS 3"X3"X3/16"	HSS3X3X3	Beam	None	A53 Gr.B	Typical	1.89	2.46	2.46	4.03
2	2.5" STD Pipe	PIPE_2.5	Beam	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	2" STD Pipe	PIPE_2.0	Beam	None	A53 Gr.B	Typical	1.02	.627	.627	1.25

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Member)	Surface(Plate/Wall)
1	Self Weight	DL		-1			11			
2	Wind Load AZI 0	WLZ					22			
3	Wind Load AZI 30	None					22			
4	Wind Load AZI 60	None					22			
5	Wind Load AZI 90	WLX					22			
6	Wind Load AZI 120	None					22			
7	Wind Load AZI 150	None					22			
8	Wind Load AZI 180	None					22			
9	Wind Load AZI 210	None					22			
10	Wind Load AZI 240	None					22			
11	Wind Load AZI 270	None					22			
12	Wind Load AZI 300	None					22			
13	Wind Load AZI 330	None					22			
14	Distr. Wind Load Z	WLZ						22		
15	Distr. Wind Load X	WLX						22		
16	Ice Weight	OL1					11	22		
17	Ice Wind Load AZI 0	OL2					22			
18	Ice Wind Load AZI 30	None					22			
19	Ice Wind Load AZI 60	None					22			
20	Ice Wind Load AZI 90	OL3					22			
21	Ice Wind Load AZI 120	None					22			
22	Ice Wind Load AZI 150	None					22			
23	Ice Wind Load AZI 180	None					22			
24	Ice Wind Load AZI 210	None					22			
25	Ice Wind Load AZI 240	None					22			
26	Ice Wind Load AZI 270	None					22			

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Member)	Surface(Plate/Wall)
27	Ice Wind Load AZI 300	None					22			
28	Ice Wind Load AZI 330	None					22			
29	Distr. Ice Wind Load Z	OL2						22		
30	Distr. Ice Wind Load X	OL3						22		
31	Seismic Load Z	ELZ			-.091		11			
32	Seismic Load X	ELX	-.091				11			
33	Service Live Loads	LL				2				
34	Maintenance Load 1	LL				1				
35	Maintenance Load 2	LL				1				
36	Maintenance Load 3	LL				1				
37	Maintenance Load 4	LL				1				

Load Combinations

	Description	So..	PD..	SR..	B...	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														
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 AZI 0	Yes	Y		1	1.2	16	1	17	1	29	1	30													
28	1.2D + 1.0Di +1.0Wi AZI 30	Yes	Y		1	1.2	16	1	18	1	29	.866	30	.5												
29	1.2D + 1.0Di +1.0Wi AZI 60	Yes	Y		1	1.2	16	1	19	1	29	.5	30	.866												
30	1.2D + 1.0Di +1.0Wi AZI 90	Yes	Y		1	1.2	16	1	20	1	29		30	1												
31	1.2D + 1.0Di +1.0Wi AZI 120	Yes	Y		1	1.2	16	1	21	1	29	-.5	30	.866												
32	1.2D + 1.0Di +1.0Wi AZI 150	Yes	Y		1	1.2	16	1	22	1	29	-.8...	30	.5												
33	1.2D + 1.0Di +1.0Wi AZI 180	Yes	Y		1	1.2	16	1	23	1	29	-1	30													
34	1.2D + 1.0Di +1.0Wi AZI 210	Yes	Y		1	1.2	16	1	24	1	29	-.8...	30	-.5												
35	1.2D + 1.0Di +1.0Wi AZI 240	Yes	Y		1	1.2	16	1	25	1	29	-.5	30	-.8...												
36	1.2D + 1.0Di +1.0Wi AZI 270	Yes	Y		1	1.2	16	1	26	1	29		30	-1												

Load Combinations (Continued)

	Description	So..	PD...	SR..	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
37	1.2D + 1.0Di +1.0Wi AZI 300	Yes	Y		1	1.2	16	1	27	1	29	.5	30	-.8...												
38	1.2D + 1.0Di +1.0Wi AZI 330	Yes	Y		1	1.2	16	1	28	1	29	.866	30	-.5												
39	(1.2 + 0.2Sds)DL + 1.0E AZI 0	Yes	Y		1	1.2...	31	1	32																	
40	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	.866	32	.5																
41	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	.5	32	.866																
42	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31		32	1																
43	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	-.5	32	.866																
44	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	-.8...	32	.5																
45	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	-1	32																	
46	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	-.8...	32	-.5																
47	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	-.5	32	-.8...																
48	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31		32	-1																
49	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	.5	32	-.8...																
50	(1.2 + 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	1.2...	31	.866	32	-.5																
51	(0.9 - 0.2Sds)DL + 1.0E AZI 0	Yes	Y		1	.864	31	1	32																	
52	(0.9 - 0.2Sds)DL + 1.0E AZI 30	Yes	Y		1	.864	31	.866	32	.5																
53	(0.9 - 0.2Sds)DL + 1.0E AZI 60	Yes	Y		1	.864	31	.5	32	.866																
54	(0.9 - 0.2Sds)DL + 1.0E AZI 90	Yes	Y		1	.864	31		32	1																
55	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31	-.5	32	.866																
56	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31	-.8...	32	.5																
57	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31	-1	32																	
58	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31	-.8...	32	-.5																
59	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31	-.5	32	-.8...																
60	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31		32	-1																
61	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31	.5	32	-.8...																
62	(0.9 - 0.2Sds)DL + 1.0E AZI ...	Yes	Y		1	.864	31	.866	32	-.5																
63	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	2	.277	14	.277	15															
64	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	3	.277	14	.24	15	.139														
65	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	4	.277	14	.139	15	.24														
66	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	5	.277	14		15	.277														
67	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	6	.277	14	-.1...	15	.24														
68	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	7	.277	14	-.24	15	.139														
69	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	8	.277	14	-.2...	15															
70	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	9	.277	14	-.24	15	-.1...														
71	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	10	.277	14	-.1...	15	-.24														
72	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	11	.277	14		15	-.2...														
73	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	12	.277	14	.139	15	-.24														
74	1.0DL + 1.0SWL (60 mph) A...	Yes	Y		1	1	13	.277	14	.24	15	-.1...														
75	1.2DL + 1.5LL	Yes	Y		1	1.2	33	1.5																		
76	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	2	.069	14	.069	15													
77	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	3	.069	14	.06	15	.035												
78	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	4	.069	14	.035	15	.06												
79	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	5	.069	14		15	.069												
80	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	6	.069	14	-.0...	15	.06												
81	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	7	.069	14	-.06	15	.035												
82	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	8	.069	14	-.0...	15													
83	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	9	.069	14	-.06	15	-.0...												
84	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	10	.069	14	-.0...	15	-.06												
85	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	11	.069	14		15	-.0...												
86	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	12	.069	14	.035	15	-.06												
87	1.2DL + 1.5LM-MP1 + 1SWL...	Yes	Y		1	1.2	34	1.5	13	.069	14	.06	15	-.0...												
88	1.2DL + 1.5LM-MP2 + 1SWL...	Yes	Y		1	1.2	35	1.5	2	.069	14	.069	15													

Load Combinations (Continued)

	Description	So..	PD...	SR..	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
89	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	3	.069	14	.06	15	.035										
90	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	4	.069	14	.035	15	.06										
91	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	5	.069	14		15	.069										
92	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	6	.069	14	-.0...	15	.06										
93	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	7	.069	14	-.06	15	.035										
94	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	8	.069	14	-.0...	15											
95	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	9	.069	14	-.06	15	-.0...										
96	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	10	.069	14	-.0...	15	-.06										
97	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	11	.069	14		15	-.0...										
98	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	12	.069	14	.035	15	-.06										
99	1.2DL + 1.5LM-MP2 + 1SWL..	Yes	Y		1	1.2	35	1.5	13	.069	14	.06	15	-.0...										
100	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	2	.069	14	.069	15											
101	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	3	.069	14	.06	15	.035										
102	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	4	.069	14	.035	15	.06										
103	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	5	.069	14		15	.069										
104	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	6	.069	14	-.0...	15	.06										
105	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	7	.069	14	-.06	15	.035										
106	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	8	.069	14	-.0...	15											
107	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	9	.069	14	-.06	15	-.0...										
108	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	10	.069	14	-.0...	15	-.06										
109	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	11	.069	14		15	-.0...										
110	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	12	.069	14	.035	15	-.06										
111	1.2DL + 1.5LM-MP3 + 1SWL..	Yes	Y		1	1.2	36	1.5	13	.069	14	.06	15	-.0...										
112	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	2	.069	14	.069	15											
113	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	3	.069	14	.06	15	.035										
114	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	4	.069	14	.035	15	.06										
115	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	5	.069	14		15	.069										
116	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	6	.069	14	-.0...	15	.06										
117	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	7	.069	14	-.06	15	.035										
118	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	8	.069	14	-.0...	15											
119	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	9	.069	14	-.06	15	-.0...										
120	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	10	.069	14	-.0...	15	-.06										
121	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	11	.069	14		15	-.0...										
122	1.2DL + 1.5LM-MP4 + 1SWL..	Yes	Y		1	1.2	37	1.5	12	.069	14	.035	15	-.06										

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	N29	Reaction	Reaction	Reaction			
2	N30	Reaction	Reaction	Reaction			
3	N32	Reaction	Reaction	Reaction	Reaction		Reaction
4	N31	Reaction	Reaction	Reaction	Reaction		Reaction

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	N29	max	283.931	8	47.292	34	1578.358	14	0	122	0	122	0	122
2		min	-285.948	14	6.335	15	-1585.492	8	0	1	0	1	0	1
3	N30	max	132.334	25	45.8	38	833.719	25	0	122	0	122	0	122
4		min	-127.941	7	10.718	19	-839.411	7	0	1	0	1	0	1
5	N32	max	1381.29	4	1198.625	27	111.813	20	-295.004	20	0	122	761.258	84

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
6		min	-969.073	22	227.995	20	-861.667	27	-1525.27	27	0	1	-1507.2	114
7	N31	max	495.205	79	1191.622	33	928.897	27	-362.566	14	0	122	763.621	86
8		min	-957.247	121	230.051	14	-88.794	20	-1509.87	28	0	1	-1508.868	114
9	Totals:	max	1385.08	17	2469.379	38	2224.325	14						
10		min	-1385.081	11	625.97	55	-2224.331	8						

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	Y	-39.7	84
2	MP3	Y	-39.7	12
3	MP3	Y	-59.9	60
4	MP4	Y	-39.7	84
5	MP4	Y	-39.7	12
6	MP4	Y	-70	72
7	MP4	Y	-75	60
8	MP1	Y	-17.5	84
9	MP1	Y	-17.5	29
10	MP1	Y	-14.1	72
11	MP1	Y	-14.1	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	0	84
2	MP3	Z	-252.76	84
3	MP3	X	0	12
4	MP3	Z	-252.76	12
5	MP3	X	0	60
6	MP3	Z	-73.29	60
7	MP4	X	0	84
8	MP4	Z	-252.76	84
9	MP4	X	0	12
10	MP4	Z	-252.76	12
11	MP4	X	0	72
12	MP4	Z	-78.76	72
13	MP4	X	0	60
14	MP4	Z	-78.76	60
15	MP1	X	0	84
16	MP1	Z	-109.55	84
17	MP1	X	0	29
18	MP1	Z	-109.55	29
19	MP1	X	0	72
20	MP1	Z	-43.91	72
21	MP1	X	0	60
22	MP1	Z	-43.91	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-108.75	84
2	MP3	Z	-188.35	84

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
3	MP3	X	-108.75	12
4	MP3	Z	-188.35	12
5	MP3	X	-32.75	60
6	MP3	Z	-56.72	60
7	MP4	X	-108.75	84
8	MP4	Z	-188.35	84
9	MP4	X	-108.75	12
10	MP4	Z	-188.35	12
11	MP4	X	-36.54	72
12	MP4	Z	-63.3	72
13	MP4	X	-37.96	60
14	MP4	Z	-65.75	60
15	MP1	X	-48.36	84
16	MP1	Z	-83.76	84
17	MP1	X	-48.36	29
18	MP1	Z	-83.76	29
19	MP1	X	-18.19	72
20	MP1	Z	-31.51	72
21	MP1	X	-18.19	60
22	MP1	Z	-31.51	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-127.26	84
2	MP3	Z	-73.47	84
3	MP3	X	-127.26	12
4	MP3	Z	-73.47	12
5	MP3	X	-43.22	60
6	MP3	Z	-24.95	60
7	MP4	X	-127.26	84
8	MP4	Z	-73.47	84
9	MP4	X	-127.26	12
10	MP4	Z	-73.47	12
11	MP4	X	-53.48	72
12	MP4	Z	-30.88	72
13	MP4	X	-60.84	60
14	MP4	Z	-35.13	60
15	MP1	X	-61.54	84
16	MP1	Z	-35.53	84
17	MP1	X	-61.54	29
18	MP1	Z	-35.53	29
19	MP1	X	-18.48	72
20	MP1	Z	-10.67	72
21	MP1	X	-18.48	60
22	MP1	Z	-10.67	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-111.68	84
2	MP3	Z	0	84
3	MP3	X	-111.68	12

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
4	MP3	Z	0	12
5	MP3	X	-42.11	60
6	MP3	Z	0	60
7	MP4	X	-111.68	84
8	MP4	Z	0	84
9	MP4	X	-111.68	12
10	MP4	Z	0	12
11	MP4	X	-56.08	72
12	MP4	Z	0	72
13	MP4	X	-67.42	60
14	MP4	Z	0	60
15	MP1	X	-58.24	84
16	MP1	Z	0	84
17	MP1	X	-58.24	29
18	MP1	Z	0	29
19	MP1	X	-13.81	72
20	MP1	Z	0	72
21	MP1	X	-13.81	60
22	MP1	Z	0	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-127.26	84
2	MP3	Z	73.47	84
3	MP3	X	-127.26	12
4	MP3	Z	73.47	12
5	MP3	X	-43.22	60
6	MP3	Z	24.95	60
7	MP4	X	-127.26	84
8	MP4	Z	73.47	84
9	MP4	X	-127.26	12
10	MP4	Z	73.47	12
11	MP4	X	-53.48	72
12	MP4	Z	30.88	72
13	MP4	X	-60.84	60
14	MP4	Z	35.13	60
15	MP1	X	-61.54	84
16	MP1	Z	35.53	84
17	MP1	X	-61.54	29
18	MP1	Z	35.53	29
19	MP1	X	-18.48	72
20	MP1	Z	10.67	72
21	MP1	X	-18.48	60
22	MP1	Z	10.67	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-108.75	84
2	MP3	Z	188.35	84
3	MP3	X	-108.75	12
4	MP3	Z	188.35	12

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
5	MP3	X	-32.75	60
6	MP3	Z	56.72	60
7	MP4	X	-108.75	84
8	MP4	Z	188.35	84
9	MP4	X	-108.75	12
10	MP4	Z	188.35	12
11	MP4	X	-36.54	72
12	MP4	Z	63.3	72
13	MP4	X	-37.96	60
14	MP4	Z	65.75	60
15	MP1	X	-48.36	84
16	MP1	Z	83.76	84
17	MP1	X	-48.36	29
18	MP1	Z	83.76	29
19	MP1	X	-18.19	72
20	MP1	Z	31.51	72
21	MP1	X	-18.19	60
22	MP1	Z	31.51	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	0	84
2	MP3	Z	252.76	84
3	MP3	X	0	12
4	MP3	Z	252.76	12
5	MP3	X	0	60
6	MP3	Z	73.29	60
7	MP4	X	0	84
8	MP4	Z	252.76	84
9	MP4	X	0	12
10	MP4	Z	252.76	12
11	MP4	X	0	72
12	MP4	Z	78.76	72
13	MP4	X	0	60
14	MP4	Z	78.76	60
15	MP1	X	0	84
16	MP1	Z	109.55	84
17	MP1	X	0	29
18	MP1	Z	109.55	29
19	MP1	X	0	72
20	MP1	Z	43.91	72
21	MP1	X	0	60
22	MP1	Z	43.91	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	108.75	84
2	MP3	Z	188.35	84
3	MP3	X	108.75	12
4	MP3	Z	188.35	12
5	MP3	X	32.75	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
6	MP3	Z	56.72	60
7	MP4	X	108.75	84
8	MP4	Z	188.35	84
9	MP4	X	108.75	12
10	MP4	Z	188.35	12
11	MP4	X	36.54	72
12	MP4	Z	63.3	72
13	MP4	X	37.96	60
14	MP4	Z	65.75	60
15	MP1	X	48.36	84
16	MP1	Z	83.76	84
17	MP1	X	48.36	29
18	MP1	Z	83.76	29
19	MP1	X	18.19	72
20	MP1	Z	31.51	72
21	MP1	X	18.19	60
22	MP1	Z	31.51	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	127.26	84
2	MP3	Z	73.47	84
3	MP3	X	127.26	12
4	MP3	Z	73.47	12
5	MP3	X	43.22	60
6	MP3	Z	24.95	60
7	MP4	X	127.26	84
8	MP4	Z	73.47	84
9	MP4	X	127.26	12
10	MP4	Z	73.47	12
11	MP4	X	53.48	72
12	MP4	Z	30.88	72
13	MP4	X	60.84	60
14	MP4	Z	35.13	60
15	MP1	X	61.54	84
16	MP1	Z	35.53	84
17	MP1	X	61.54	29
18	MP1	Z	35.53	29
19	MP1	X	18.48	72
20	MP1	Z	10.67	72
21	MP1	X	18.48	60
22	MP1	Z	10.67	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	111.68	84
2	MP3	Z	0	84
3	MP3	X	111.68	12
4	MP3	Z	0	12
5	MP3	X	42.11	60
6	MP3	Z	0	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP4	X	111.68	84
8	MP4	Z	0	84
9	MP4	X	111.68	12
10	MP4	Z	0	12
11	MP4	X	56.08	72
12	MP4	Z	0	72
13	MP4	X	67.42	60
14	MP4	Z	0	60
15	MP1	X	58.24	84
16	MP1	Z	0	84
17	MP1	X	58.24	29
18	MP1	Z	0	29
19	MP1	X	13.81	72
20	MP1	Z	0	72
21	MP1	X	13.81	60
22	MP1	Z	0	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	127.26	84
2	MP3	Z	-73.47	84
3	MP3	X	127.26	12
4	MP3	Z	-73.47	12
5	MP3	X	43.22	60
6	MP3	Z	-24.95	60
7	MP4	X	127.26	84
8	MP4	Z	-73.47	84
9	MP4	X	127.26	12
10	MP4	Z	-73.47	12
11	MP4	X	53.48	72
12	MP4	Z	-30.88	72
13	MP4	X	60.84	60
14	MP4	Z	-35.13	60
15	MP1	X	61.54	84
16	MP1	Z	-35.53	84
17	MP1	X	61.54	29
18	MP1	Z	-35.53	29
19	MP1	X	18.48	72
20	MP1	Z	-10.67	72
21	MP1	X	18.48	60
22	MP1	Z	-10.67	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	108.75	84
2	MP3	Z	-188.35	84
3	MP3	X	108.75	12
4	MP3	Z	-188.35	12
5	MP3	X	32.75	60
6	MP3	Z	-56.72	60
7	MP4	X	108.75	84

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
8	MP4	Z	-188.35	84
9	MP4	X	108.75	12
10	MP4	Z	-188.35	12
11	MP4	X	36.54	72
12	MP4	Z	-63.3	72
13	MP4	X	37.96	60
14	MP4	Z	-65.75	60
15	MP1	X	48.36	84
16	MP1	Z	-83.76	84
17	MP1	X	48.36	29
18	MP1	Z	-83.76	29
19	MP1	X	18.19	72
20	MP1	Z	-31.51	72
21	MP1	X	18.19	60
22	MP1	Z	-31.51	60

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	Y	-133.544	84
2	MP3	Y	-133.544	12
3	MP3	Y	-62.059	60
4	MP4	Y	-133.544	84
5	MP4	Y	-133.544	12
6	MP4	Y	-71.538	72
7	MP4	Y	-78.485	60
8	MP1	Y	-62.477	84
9	MP1	Y	-62.477	29
10	MP1	Y	-30.791	72
11	MP1	Y	-30.791	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	0	84
2	MP3	Z	-15.59	84
3	MP3	X	0	12
4	MP3	Z	-15.59	12
5	MP3	X	0	60
6	MP3	Z	-6.1	60
7	MP4	X	0	84
8	MP4	Z	-15.59	84
9	MP4	X	0	12
10	MP4	Z	-15.59	12
11	MP4	X	0	72
12	MP4	Z	-6.52	72
13	MP4	X	0	60
14	MP4	Z	-6.52	60
15	MP1	X	0	84
16	MP1	Z	-8.79	84
17	MP1	X	0	29
18	MP1	Z	-8.79	29
19	MP1	X	0	72

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
20	MP1	Z	-4.69	72
21	MP1	X	0	60
22	MP1	Z	-4.69	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-7.17	84
2	MP3	Z	-12.42	84
3	MP3	X	-7.17	12
4	MP3	Z	-12.42	12
5	MP3	X	-2.9	60
6	MP3	Z	-5.02	60
7	MP4	X	-7.17	84
8	MP4	Z	-12.42	84
9	MP4	X	-7.17	12
10	MP4	Z	-12.42	12
11	MP4	X	-3.16	72
12	MP4	Z	-5.47	72
13	MP4	X	-3.21	60
14	MP4	Z	-5.56	60
15	MP1	X	-4.12	84
16	MP1	Z	-7.13	84
17	MP1	X	-4.12	29
18	MP1	Z	-7.13	29
19	MP1	X	-2.07	72
20	MP1	Z	-3.59	72
21	MP1	X	-2.07	60
22	MP1	Z	-3.59	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-10.25	84
2	MP3	Z	-5.92	84
3	MP3	X	-10.25	12
4	MP3	Z	-5.92	12
5	MP3	X	-4.51	60
6	MP3	Z	-2.61	60
7	MP4	X	-10.25	84
8	MP4	Z	-5.92	84
9	MP4	X	-10.25	12
10	MP4	Z	-5.92	12
11	MP4	X	-5.11	72
12	MP4	Z	-2.95	72
13	MP4	X	-5.39	60
14	MP4	Z	-3.11	60
15	MP1	X	-6.17	84
16	MP1	Z	-3.56	84
17	MP1	X	-6.17	29
18	MP1	Z	-3.56	29
19	MP1	X	-2.65	72
20	MP1	Z	-1.53	72

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
21	MP1	X	-2.65	60
22	MP1	Z	-1.53	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-10.59	84
2	MP3	Z	0	84
3	MP3	X	-10.59	12
4	MP3	Z	0	12
5	MP3	X	-4.91	60
6	MP3	Z	0	60
7	MP4	X	-10.59	84
8	MP4	Z	0	84
9	MP4	X	-10.59	12
10	MP4	Z	0	12
11	MP4	X	-5.69	72
12	MP4	Z	0	72
13	MP4	X	-6.12	60
14	MP4	Z	0	60
15	MP1	X	-6.57	84
16	MP1	Z	0	84
17	MP1	X	-6.57	29
18	MP1	Z	0	29
19	MP1	X	-2.51	72
20	MP1	Z	0	72
21	MP1	X	-2.51	60
22	MP1	Z	0	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-10.25	84
2	MP3	Z	5.92	84
3	MP3	X	-10.25	12
4	MP3	Z	5.92	12
5	MP3	X	-4.51	60
6	MP3	Z	2.61	60
7	MP4	X	-10.25	84
8	MP4	Z	5.92	84
9	MP4	X	-10.25	12
10	MP4	Z	5.92	12
11	MP4	X	-5.11	72
12	MP4	Z	2.95	72
13	MP4	X	-5.39	60
14	MP4	Z	3.11	60
15	MP1	X	-6.17	84
16	MP1	Z	3.56	84
17	MP1	X	-6.17	29
18	MP1	Z	3.56	29
19	MP1	X	-2.65	72
20	MP1	Z	1.53	72
21	MP1	X	-2.65	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
22	MP1	Z	1.53	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-7.17	84
2	MP3	Z	12.42	84
3	MP3	X	-7.17	12
4	MP3	Z	12.42	12
5	MP3	X	-2.9	60
6	MP3	Z	5.02	60
7	MP4	X	-7.17	84
8	MP4	Z	12.42	84
9	MP4	X	-7.17	12
10	MP4	Z	12.42	12
11	MP4	X	-3.16	72
12	MP4	Z	5.47	72
13	MP4	X	-3.21	60
14	MP4	Z	5.56	60
15	MP1	X	-4.12	84
16	MP1	Z	7.13	84
17	MP1	X	-4.12	29
18	MP1	Z	7.13	29
19	MP1	X	-2.07	72
20	MP1	Z	3.59	72
21	MP1	X	-2.07	60
22	MP1	Z	3.59	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	0	84
2	MP3	Z	15.59	84
3	MP3	X	0	12
4	MP3	Z	15.59	12
5	MP3	X	0	60
6	MP3	Z	6.1	60
7	MP4	X	0	84
8	MP4	Z	15.59	84
9	MP4	X	0	12
10	MP4	Z	15.59	12
11	MP4	X	0	72
12	MP4	Z	6.52	72
13	MP4	X	0	60
14	MP4	Z	6.52	60
15	MP1	X	0	84
16	MP1	Z	8.79	84
17	MP1	X	0	29
18	MP1	Z	8.79	29
19	MP1	X	0	72
20	MP1	Z	4.69	72
21	MP1	X	0	60
22	MP1	Z	4.69	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	7.17	84
2	MP3	Z	12.42	84
3	MP3	X	7.17	12
4	MP3	Z	12.42	12
5	MP3	X	2.9	60
6	MP3	Z	5.02	60
7	MP4	X	7.17	84
8	MP4	Z	12.42	84
9	MP4	X	7.17	12
10	MP4	Z	12.42	12
11	MP4	X	3.16	72
12	MP4	Z	5.47	72
13	MP4	X	3.21	60
14	MP4	Z	5.56	60
15	MP1	X	4.12	84
16	MP1	Z	7.13	84
17	MP1	X	4.12	29
18	MP1	Z	7.13	29
19	MP1	X	2.07	72
20	MP1	Z	3.59	72
21	MP1	X	2.07	60
22	MP1	Z	3.59	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	10.25	84
2	MP3	Z	5.92	84
3	MP3	X	10.25	12
4	MP3	Z	5.92	12
5	MP3	X	4.51	60
6	MP3	Z	2.61	60
7	MP4	X	10.25	84
8	MP4	Z	5.92	84
9	MP4	X	10.25	12
10	MP4	Z	5.92	12
11	MP4	X	5.11	72
12	MP4	Z	2.95	72
13	MP4	X	5.39	60
14	MP4	Z	3.11	60
15	MP1	X	6.17	84
16	MP1	Z	3.56	84
17	MP1	X	6.17	29
18	MP1	Z	3.56	29
19	MP1	X	2.65	72
20	MP1	Z	1.53	72
21	MP1	X	2.65	60
22	MP1	Z	1.53	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	10.59	84

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
2	MP3	Z	0	84
3	MP3	X	10.59	12
4	MP3	Z	0	12
5	MP3	X	4.91	60
6	MP3	Z	0	60
7	MP4	X	10.59	84
8	MP4	Z	0	84
9	MP4	X	10.59	12
10	MP4	Z	0	12
11	MP4	X	5.69	72
12	MP4	Z	0	72
13	MP4	X	6.12	60
14	MP4	Z	0	60
15	MP1	X	6.57	84
16	MP1	Z	0	84
17	MP1	X	6.57	29
18	MP1	Z	0	29
19	MP1	X	2.51	72
20	MP1	Z	0	72
21	MP1	X	2.51	60
22	MP1	Z	0	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	10.25	84
2	MP3	Z	-5.92	84
3	MP3	X	10.25	12
4	MP3	Z	-5.92	12
5	MP3	X	4.51	60
6	MP3	Z	-2.61	60
7	MP4	X	10.25	84
8	MP4	Z	-5.92	84
9	MP4	X	10.25	12
10	MP4	Z	-5.92	12
11	MP4	X	5.11	72
12	MP4	Z	-2.95	72
13	MP4	X	5.39	60
14	MP4	Z	-3.11	60
15	MP1	X	6.17	84
16	MP1	Z	-3.56	84
17	MP1	X	6.17	29
18	MP1	Z	-3.56	29
19	MP1	X	2.65	72
20	MP1	Z	-1.53	72
21	MP1	X	2.65	60
22	MP1	Z	-1.53	60

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	7.17	84
2	MP3	Z	-12.42	84

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
3	MP3	X	7.17	12
4	MP3	Z	-12.42	12
5	MP3	X	2.9	60
6	MP3	Z	-5.02	60
7	MP4	X	7.17	84
8	MP4	Z	-12.42	84
9	MP4	X	7.17	12
10	MP4	Z	-12.42	12
11	MP4	X	3.16	72
12	MP4	Z	-5.47	72
13	MP4	X	3.21	60
14	MP4	Z	-5.56	60
15	MP1	X	4.12	84
16	MP1	Z	-7.13	84
17	MP1	X	4.12	29
18	MP1	Z	-7.13	29
19	MP1	X	2.07	72
20	MP1	Z	-3.59	72
21	MP1	X	2.07	60
22	MP1	Z	-3.59	60

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	Z	-3.621	84
2	MP3	Z	-3.621	12
3	MP3	Z	-5.463	60
4	MP4	Z	-3.621	84
5	MP4	Z	-3.621	12
6	MP4	Z	-6.384	72
7	MP4	Z	-6.84	60
8	MP1	Z	-1.596	84
9	MP1	Z	-1.596	29
10	MP1	Z	-1.286	72
11	MP1	Z	-1.286	60

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	X	-3.621	84
2	MP3	X	-3.621	12
3	MP3	X	-5.463	60
4	MP4	X	-3.621	84
5	MP4	X	-3.621	12
6	MP4	X	-6.384	72
7	MP4	X	-6.84	60
8	MP1	X	-1.596	84
9	MP1	X	-1.596	29
10	MP1	X	-1.286	72
11	MP1	X	-1.286	60

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	N9	L	Y	-250
2	N11	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*s^...
1	N16	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*s^...
1	N45	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*s^...
1	N39A	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*s^...
1	N18	L	Y	-500

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M4	SZ	-53.034	-53.034	0	%100
2	M5	SZ	-53.034	-53.034	0	%100
3	M6	SZ	-53.034	-53.034	0	%100
4	M7	SZ	-53.034	-53.034	0	%100
5	M8	SZ	-53.034	-53.034	0	%100
6	M9	SZ	-53.034	-53.034	0	%100
7	M10	SZ	-88.391	-88.391	0	%100
8	M11	SZ	-88.391	-88.391	0	%100
9	M12	SZ	0	0	0	%100
10	M13	SZ	0	0	0	%100
11	M16	SZ	0	0	0	%100
12	M17	SZ	0	0	0	%100
13	M18	SZ	0	0	0	%100
14	M19	SZ	0	0	0	%100
15	M18A	SZ	0	0	0	%100
16	M19A	SZ	0	0	0	%100
17	M21	SZ	0	0	0	%100
18	M22	SZ	0	0	0	%100
19	MP1	SZ	-53.034	-53.034	0	%100
20	MP2	SZ	-53.034	-53.034	0	%100
21	MP3	SZ	-53.034	-53.034	0	%100
22	MP4	SZ	-53.034	-53.034	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M4	SX	-53.034	-53.034	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
2	M5	SX	-53.034	-53.034	0	%100
3	M6	SX	-53.034	-53.034	0	%100
4	M7	SX	-53.034	-53.034	0	%100
5	M8	SX	-53.034	-53.034	0	%100
6	M9	SX	-53.034	-53.034	0	%100
7	M10	SX	-88.391	-88.391	0	%100
8	M11	SX	-88.391	-88.391	0	%100
9	M12	SX	0	0	0	%100
10	M13	SX	0	0	0	%100
11	M16	SX	0	0	0	%100
12	M17	SX	0	0	0	%100
13	M18	SX	0	0	0	%100
14	M19	SX	0	0	0	%100
15	M18A	SX	0	0	0	%100
16	M19A	SX	0	0	0	%100
17	M21	SX	0	0	0	%100
18	M22	SX	0	0	0	%100
19	MP1	SX	-53.034	-53.034	0	%100
20	MP2	SX	-53.034	-53.034	0	%100
21	MP3	SX	-53.034	-53.034	0	%100
22	MP4	SX	-53.034	-53.034	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M4	Y	-8.02	-8.02	0	%100
2	M5	Y	-8.02	-8.02	0	%100
3	M6	Y	-9.02	-9.02	0	%100
4	M7	Y	-8.02	-8.02	0	%100
5	M8	Y	-8.02	-8.02	0	%100
6	M9	Y	-8.02	-8.02	0	%100
7	M10	Y	-11.754	-11.754	0	%100
8	M11	Y	-11.754	-11.754	0	%100
9	M12	Y	-3.272	-3.272	0	%100
10	M13	Y	-3.272	-3.272	0	%100
11	M16	Y	-3.272	-3.272	0	%100
12	M17	Y	-3.272	-3.272	0	%100
13	M18	Y	-3.272	-3.272	0	%100
14	M19	Y	-3.272	-3.272	0	%100
15	M18A	Y	-3.272	-3.272	0	%100
16	M19A	Y	-3.272	-3.272	0	%100
17	M21	Y	-3.272	-3.272	0	%100
18	M22	Y	-3.272	-3.272	0	%100
19	MP1	Y	-8.02	-8.02	0	%100
20	MP2	Y	-8.02	-8.02	0	%100
21	MP3	Y	-8.02	-8.02	0	%100
22	MP4	Y	-8.02	-8.02	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M4	SZ	-15.527	-15.527	0	%100
2	M5	SZ	-15.527	-15.527	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
3	M6	SZ	-13.962	-13.962	0	%100
4	M7	SZ	-15.527	-15.527	0	%100
5	M8	SZ	-15.527	-15.527	0	%100
6	M9	SZ	-15.527	-15.527	0	%100
7	M10	SZ	-11.566	-11.566	0	%100
8	M11	SZ	-11.566	-11.566	0	%100
9	M12	SZ	0	0	0	%100
10	M13	SZ	0	0	0	%100
11	M16	SZ	0	0	0	%100
12	M17	SZ	0	0	0	%100
13	M18	SZ	0	0	0	%100
14	M19	SZ	0	0	0	%100
15	M18A	SZ	0	0	0	%100
16	M19A	SZ	0	0	0	%100
17	M21	SZ	0	0	0	%100
18	M22	SZ	0	0	0	%100
19	MP1	SZ	-15.527	-15.527	0	%100
20	MP2	SZ	-15.527	-15.527	0	%100
21	MP3	SZ	-15.527	-15.527	0	%100
22	MP4	SZ	-15.527	-15.527	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	M4	SX	-15.527	-15.527	0	%100
2	M5	SX	-15.527	-15.527	0	%100
3	M6	SX	-13.962	-13.962	0	%100
4	M7	SX	-15.527	-15.527	0	%100
5	M8	SX	-15.527	-15.527	0	%100
6	M9	SX	-15.527	-15.527	0	%100
7	M10	SX	-11.566	-11.566	0	%100
8	M11	SX	-11.566	-11.566	0	%100
9	M12	SX	0	0	0	%100
10	M13	SX	0	0	0	%100
11	M16	SX	0	0	0	%100
12	M17	SX	0	0	0	%100
13	M18	SX	0	0	0	%100
14	M19	SX	0	0	0	%100
15	M18A	SX	0	0	0	%100
16	M19A	SX	0	0	0	%100
17	M21	SX	0	0	0	%100
18	M22	SX	0	0	0	%100
19	MP1	SX	-15.527	-15.527	0	%100
20	MP2	SX	-15.527	-15.527	0	%100
21	MP3	SX	-15.527	-15.527	0	%100
22	MP4	SX	-15.527	-15.527	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
No Data to Print ...						

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

	Member	Shape	Code Check	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	M5	PIPE_2.0	.803	75	122	.237	75		8	6295.422	32130	1871.625	1871.625	1....	H1-1a
2	M4	PIPE_2.0	.794	75	4	.196	75		1...	6295.422	32130	1871.625	1871.625	1....	H1-1b
3	MP3	PIPE_2.0	.642	18.375	114	.221	53.375		9	17855.0...	32130	1871.625	1871.625	1....	H1-1b
4	M10	HSS3X3X3	.599	0	114	.406	24	z	1...	58201.6...	59535	5171.25	5171.25	2....	H3-6
5	M11	HSS3X3X3	.578	0	120	.401	23.25	z	1...	58201.6...	59535	5171.25	5171.25	2....	H3-6
6	MP4	PIPE_2.0	.568	53.375	117	.127	53.375		2	17855.0...	32130	1871.625	1871.625	1....	H1-1b
7	MP2	PIPE_2.0	.509	18.375	86	.130	53.375		12	17855.0...	32130	1871.625	1871.625	1....	H1-1b
8	MP1	PIPE_2.0	.462	18.375	83	.088	53.375		2	17855.0...	32130	1871.625	1871.625	1....	H1-1b
9	M6	PIPE_2.5	.304	45.906	114	.316	45.906		1...	42300.8...	50715	3596.25	3596.25	1....	H3-6
10	M7	PIPE_2.0	.114	36	114	.323	36		1...	28843.4...	32130	1871.625	1871.625	2....	H3-6
11	M8	PIPE_2.0	.098	90.092	14	.005	90.092		36	16345.9...	32130	1871.625	1871.625	1....	H1-1b*
12	M9	PIPE_2.0	.058	45.046	12	.005	90.092		36	16345.9...	32130	1871.625	1871.625	1....	H1-1b

Date:	8/29/2019
Client	ATC
Carrier	AT&T Mobility
Engineer:	BD
Site:	CTL01235
Job #:	1106-A0001-B

Code:	LRFD
Bolt Diameter	0.500
Bolt Grade:	A325
Threads Excluded?:	N
Axial (lbs):	3685.61
Shear (lbs):	865.74

Bolt Info:

Yield Strength (F_{yb})	92.0 kips
Ultimate Strength (F_{ub})	120.0 kips
Threads/in (n)	13
Gross Area (A_{gb})	0.196 in²
Net Area (A_{nb})	0.142 in²

Bolt Capacity (1/2" A325 Through Bolt), Total of (4) per Connection				
	Ult Load / Bolt	Factored Load (ϕ=0.75)	# of Bolts	Factor Joint Capacity
Axial (lb)	17027.8	12770.9	1	12771
Shear(lb)	10602.9	7952.2	1	7952

*Assumed (2) A325 bolt per connection. Contractor to field verify diameters before proposed installation.

Interaction Check	
$T/\phi T_n$	28.9%
$V/\phi Vn$	10.9%
≤1.0	9.5%
	OK

INFINIGY

THE SOLUTIONS ARE ENDLESS

Non-Ionizing Radiation Report

Compiled For: Smartlink on behalf of AT&T

Site Name: Sharon Surdan MT Road

Site FA: 10050790

Site ID: CTL01235

7 Surdan Mountain Road, Sharon, CT 06247

Latitude: 41.86205 Longitude: -73.3996269

Structure Type: Self Support

Report Date: October 5, 2019

Status: AT&T will be compliant with FCC rules on RF Exposure with the signage recommendation in section 4 of this report.

Table of Contents

1. Executive Summary:

Smartlink on behalf of AT&T has contracted Infinigy Solutions, LLC to determine whether the site Sharon Surdan MT Road located at 7 Surdan Mountain Road in Sharon, CT Will Be Compliant with all Federal Communications Commission (FCC) rules and regulations for radio frequency (RF) exposure as indicated in **47CFR§1.1310**.

The report incorporates a theoretical RF field analysis in accordance with the FCC Rules and Regulations for all individuals classified as "Occupational or Controlled" and "General Public or Uncontrolled" (see Appendix A and B).

This document and the conclusions herein are based on information provided by Smartlink on behalf of AT&T.

As a result of the analysis, **AT&T Will Be Compliant with FCC rules with the installation of signage recommended in section 4.**

Engineering assumptions were made regarding the collation operator(s). The assumptions were made based upon typical deployment configurations and practices of the operator(s).

All Carriers, All Bands Cumulative Exposure %		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0171
	% Exposure	2.21%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0048
	% Exposure	0.45%

2. Site Summary:

Site Information	
Site Name: Sharon Surdan MT Road	
Site Address: 7 Surdan Mountain Road, Sharon, CT 06069	
Site Type: Self Support	
Compliance Status	Will Be Compliant
Mitigation Required	No
Signage Required	Yes
Barriers Required	No
Access Locked	No
Area Controlled or Uncontrolled	Uncontrolled

3. Site Compliance

This report also incorporates overview of the site information:

- Antenna Inventory Table
- Calculation Tables showing exposure for each carrier transmit frequency
- Total exposure for all carriers existing and proposed at ground level considering the centerline of all antennas and horizontal distance from the tower.
- Maximum Effective Radiated Power Assumed as Worst Case for Calculations used in this study
- Calculations based on flat ground around base of the structure

4. Site Compliance Recommendations

Infinigy recommends the following upon the installation of antennas at the site:

Base of tower

Caution 2 sign.

Note: The above signage recommendation is moot if there is an existing caution 2 sign at the base of the tower.

5. Antenna Inventory Table

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency	Rad Ctr (Ft)	Total ERP Power (Watts)
1	Alpha	AT&T	Powerwave	7770	850	150	321
2a	Alpha	AT&T	CCI	DMP65R-BU6DA	700	150	2951
2a	Alpha	AT&T	CCI	DMP65R-BU6DA	700	150	2951
2b	Alpha	AT&T	CCI	DMP65R-BU6DA	2100	150	3837
3a	Alpha	AT&T	CCI	DMP65R-BU6DA	700	150	1475
3b	Alpha	AT&T	CCI	DMP65R-BU6DA	850	150	1000
3c	Alpha	AT&T	CCI	DMP65R-BU6DA	1900	150	3664
3d	Alpha	AT&T	CCI	DMP65R-BU6DA	850	150	1000
4	Beta	AT&T	Powerwave	7770	850	150	321
5a	Beta	AT&T	CCI	DMP65R-BU6DA	700	150	2951
5b	Beta	AT&T	CCI	DMP65R-BU6DA	2100	150	3837
6a	Beta	AT&T	CCI	DMP65R-BU6DA	700	150	1475
6b	Beta	AT&T	CCI	DMP65R-BU6DA	850	150	1000
6c	Beta	AT&T	CCI	DMP65R-BU6DA	1900	150	3664
6d	Beta	AT&T	CCI	DMP65R-BU6DA	850	150	1000
7	Gamma	AT&T	Powerwave	7770	850	150	321
8a	Gamma	AT&T	CCI	DMP65R-BU6DA	700	150	2951
8b	Gamma	AT&T	CCI	DMP65R-BU6DA	2100	150	3837
9a	Gamma	AT&T	CCI	DMP65R-BU6DA	700	150	1475
9b	Gamma	AT&T	CCI	DMP65R-BU6DA	850	150	1000
9c	Gamma	AT&T	CCI	DMP65R-BU6DA	1900	150	3664
9d	Gamma	AT&T	CCI	DMP65R-BU6DA	850	150	1000
10	Omni	Unknown	Commscope	DB432-A	450	70	100
11	Omni	Unknown	Generic	150 Omni MHz	150	75	100
12	Omni	Unknown	RFS	PD220	150	90	100

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency	Rad Ctr (Ft)	Total ERP Power (Watts)
13	Omni	Unknown	Commscope	DB224	150	94	100
14		CSP	RFS	PA6-65AC	6000	102	1
15	Omni	Unknown	Commscope	DB205-L	33	109	100
16	Omni	Unknown	Commscope	DB212	33	121	100
17	Omni	Unknown	Commscope	DB586-Y	850	125	100
18	Omni	Unknown	Commscope	DB586-Y	850	130	100
19	Omni	Unknown	Sinclair	SRL110A	33	135	100
27	Alpha	Verizon Wireless	Antel	LPA-80080/6CF	850	167	4568
28	Alpha	Verizon Wireless	Antel	LPA-185080-8CF	1900	167	1889
29	Alpha	Verizon Wireless	Antel	LPA-185080-8CF	2100	167	1818
30	Alpha	Verizon Wireless	Antel	LPA-80080/6CF	850	167	2284
31	Beta	Verizon Wireless	Antel	LPA-80080/6CF	850	167	4568
32	Beta	Verizon Wireless	Antel	LPA-185080-8CF	1900	167	1889
33	Beta	Verizon Wireless	Antel	LPA-185080-8CF	2100	167	1818
34	Beta	Verizon Wireless	Antel	LPA-80080/6CF	850	167	2284
35	Gamma	Verizon Wireless	Antel	LPA-80080/6CF	850	167	4568
36	Gamma	Verizon Wireless	Antel	LPA-185080-8CF	1900	167	1889
37	Gamma	Verizon Wireless	Antel	LPA-185080-8CF	2100	167	1818
38	Gamma	Verizon Wireless	Antel	LPA-80080/6CF	850	167	2284
39	Omni	Unknown	Telewave	ANT150D-9	150	173	100
40	Omni	Unknown	Generic	150 Omni MHz	150	174	100
41	Omni	Unknown	Generic	150 Omni MHz	150	175	100
42	Omni	Unknown	Generic	150 Omni MHz	150	175	100
43	Omni	Unknown	Commscope	DB222-A	150	180	100
47	Omni	Unknown	Generic	150 Omni MHz	150	189	100
48	Omni	Unknown	Kathrein-Scala	OGT9-840	850	190	100
49	Omni	Unknown	Generic	150 Omni MHz	150	192	100
50		CSP	RFS	PA6-65AC	6000	194	100
51	Omni	Unknown	Generic	150 Omni MHz	150	196	100

6. RF Guidelines

To ensure safety of company workers, the following points need to be taken into consideration and implemented at wireless sites in accordance with the Carriers policies:

a) Worksite: Any employee at the site should avoid working directly in front of the antenna or in areas predicted to exceed general population exposure limits by 100%. Workers should insist that the transmitters be switched off during the work period.

b) RF Safety Training and Awareness: All employees working in areas exceeding the general population limits should have a basic awareness of RF safety measures. Videos, classroom lectures and online courses are all appropriate training methods on these topics.

c) Site Access: Restricting access to transmitting antenna locations is one of the most important elements of RF safety. This can be done with:
   - Locked doors/gates/ladder access
   - Alarmed doors
   - Restrictive barriers

d) Three-foot Buffer: There is an inverse relationship between the strength of the field and the distance from the antenna. The RF field diminishes with distance from the antenna. Workers should maintain a three-foot distance from the antennas.

e) Antennas: Workers should always assume that the antenna is transmitting and should never stop right in front of the antenna. If someone must pass by an antenna, he/she should move quickly, thus reducing RF exposure.

Attachment 1: AT&T Exposure Analysis

AT&T 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.5**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.64%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.3**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.14%**

AT&T 850 MHz UMTS		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0002**
	% Exposure	**0.04%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0002**
	% Exposure	**0.01%**

AT&T 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

AT&T 850 MHz 5G		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

AT&T 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.27%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.05%**

AT&T 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0028**
	% Exposure	**0.28%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0028**
	% Exposure	**0.06%**

Attachment 2: Verizon Wireless Exposure Analysis

Verizon Wireless 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.23%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.05%**

Verizon Wireless 850 MHz CDMA		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.45%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.10%**

Verizon Wireless 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.11%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.02%**

Verizon Wireless 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.11%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.02%**

Attachment 3: CSP Exposure Analysis

CSP 6000 MHz Microwave		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.00%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.0000%**

Attachment 4: Pagenet Exposure Analysis

Pagenet 900 MHz Paging		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.00%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.0000%**

Attachment 5: Unknown Exposure Analysis

Unknown 33 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.23%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.05%**

Unknown 150 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.4**
	Exposure values at the site (mW/cm^2)	**0.0003**
	% Exposure	**0.07%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0003**
	% Exposure	**0.00%**

Unknown 450 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.4**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.02%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.0017%**

Unknown 850 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.01%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.0023%**

Unknown 6000 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0000**
	% Exposure	**0.00%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0000**
	% Exposure	**0.0000%**

Attachment 6: Combined Exposure Analysis for each Carrier

AT&T All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0103
	% Exposure	1.19%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0103
	% Exposure	0.25%

Verizon Wireless All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0063
	% Exposure	0.90%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0063
	% Exposure	0.19%

CSP All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.000%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.0000%

Pagenet All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.000%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.0000%

Unknown All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0005
	% Exposure	7.05%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0033
	% Exposure	0.01%

7. Appendix A: FCC Guidelines

FCC Policies

The Federal Communications Commission (FCC) in 1996 implemented regulations and policies for analysis of RF propagation to evaluate RF emissions. All the analysis and results of this report are compared with FCC's (Federal Communications Commission) rules to determine whether a site is compliant for Occupational/Controlled or General Public/Uncontrolled exposure. All the analysis of RF propagation is done in terms of a percentage. The limits primarily indicate the power density and are generally expressed in terms of milliwatts per centimeter square, mW/cm^2.

FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the scenario/ situation in which that exposure takes place or the status of the individuals who are subjected to that exposure. The decision as to which tier is applied to a scenario is based on the following definitions:

Occupational / Controlled

These limits apply in situations when someone is exposed to RF energy through his/her occupation, is fully aware of the harmful effects of the RF exposure and has an ability to exercise control over this exposure. Occupational / controlled exposure limits also apply when 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. limits for Occupational/Controlled exposure can be found on Table 1(A).

General Population / Uncontrolled

These limits apply to situations in which the general public may be exposed or in which persons who are exposed because of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure to RF. Therefore, members of the general public would always be considered under this category, for example, in the case of a telecommunications tower that exposes people in a nearby residential area. Exposure limits for General Population/Uncontrolled can be found on Table 1(B).

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

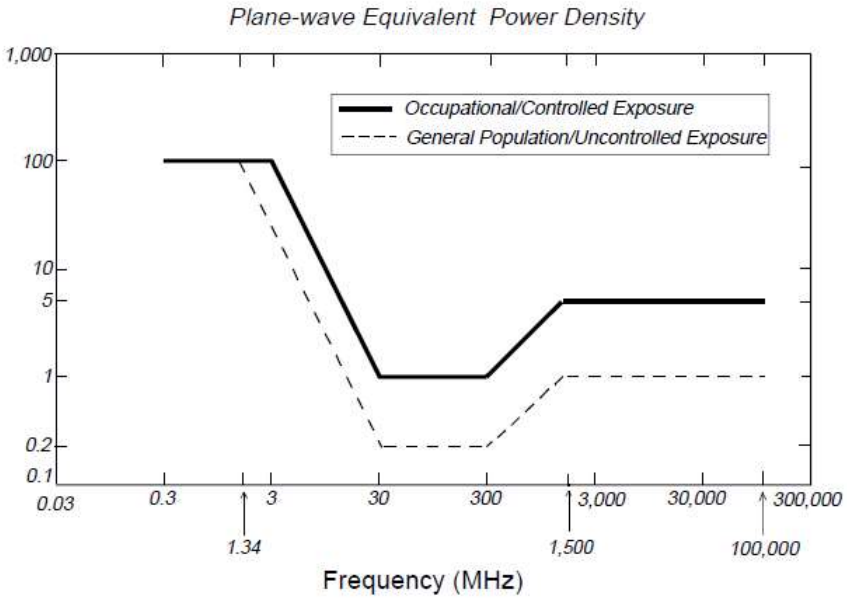
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	$(900/f^2)$*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

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

f = frequency in MHz *Plane-wave equivalent power density

Figure 1. *FCC Limits for Maximum Permissible Exposure (MPE)*



OSHA Statement:

The objective of the OSHA Act is to ensure the safety and health of the working men and women by enforcing certain standards. The act also assists and encourages the states in their efforts to ensure safe and healthy working conditions through means of research, information, education and training in the field of occupational safety and health and for other purposes.

According to OSHA Act section 5, important duties to be considered are:

(a) Each employer

1) Shall furnish to each of his employees' employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious harm to his employees
2) Shall comply with occupational safety and health standards promulgated under this act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

8. Appendix B: Preparer Certification

I, Tim Harris, preparer of this report, certify that I am fully trained and aware of the rules and regulations of both the Federal Communications Commission and the Occupational Safety and Heath Administration regarding Human Exposure to Radio Frequency Radiation. In addition, I have been trained in 1) RF safety and 2) RF modeling using RoofView modeling software.

I certify that the information contained in this report is true and correct to the best of my knowledge.

Timothy A. Harris *10/5/2019*

Signature Date

INFINIGY

THE SOLUTIONS ARE ENDLESS

Non-Ionizing Radiation Report

Compiled For: Smartlink on behalf of AT&T

Site Name: Sharon Surdan MT Road

Site FA: 10050790

Site ID: CTL01235

7 Surdan Mountain Road, Sharon, CT 06247

Latitude: 41.86205 Longitude: -73.3996269

Structure Type: Self Support

Report Date: October 5, 2019

Status: AT&T will be compliant with FCC rules on RF Exposure with the signage recommendation in section 4 of this report.

Table of Contents

1. Executive Summary:

Smartlink on behalf of AT&T has contracted Infinigy Solutions, LLC to determine whether the site Sharon Surdan MT Road located at 7 Surdan Mountain Road in Sharon, CT Will Be Compliant with all Federal Communications Commission (FCC) rules and regulations for radio frequency (RF) exposure as indicated in **47CFR§1.1310**.

The report incorporates a theoretical RF field analysis in accordance with the FCC Rules and Regulations for all individuals classified as "Occupational or Controlled" and "General Public or Uncontrolled" (see Appendix A and B).

This document and the conclusions herein are based on information provided by Smartlink on behalf of AT&T.

As a result of the analysis, **AT&T Will Be Compliant with FCC rules with the installation of signage recommended in section 4.**

Engineering assumptions were made regarding the collation operator(s). The assumptions were made based upon typical deployment configurations and practices of the operator(s).

All Carriers, All Bands Cumulative Exposure %		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0171
	% Exposure	2.21%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0048
	% Exposure	0.45%

2. Site Summary:

Site Information	
Site Name: Sharon Surdan MT Road	
Site Address: 7 Surdan Mountain Road, Sharon, CT 06069	
Site Type: Self Support	
Compliance Status	Will Be Compliant
Mitigation Required	No
Signage Required	Yes
Barriers Required	No
Access Locked	No
Area Controlled or Uncontrolled	Uncontrolled

3. Site Compliance

This report also incorporates overview of the site information:

- Antenna Inventory Table
- Calculation Tables showing exposure for each carrier transmit frequency
- Total exposure for all carriers existing and proposed at ground level considering the centerline of all antennas and horizontal distance from the tower.
- Maximum Effective Radiated Power Assumed as Worst Case for Calculations used in this study
- Calculations based on flat ground around base of the structure

4. Site Compliance Recommendations

Infinigy recommends the following upon the installation of antennas at the site:

Base of tower

Caution 2 sign.

Note: The above signage recommendation is moot if there is an existing caution 2 sign at the base of the tower.

5. Antenna Inventory Table

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency	Rad Ctr (Ft)	Total ERP Power (Watts)
1	Alpha	AT&T	Powerwave	7770	850	150	321
2a	Alpha	AT&T	CCI	DMP65R-BU6DA	700	150	2951
2a	Alpha	AT&T	CCI	DMP65R-BU6DA	700	150	2951
2b	Alpha	AT&T	CCI	DMP65R-BU6DA	2100	150	3837
3a	Alpha	AT&T	CCI	DMP65R-BU6DA	700	150	1475
3b	Alpha	AT&T	CCI	DMP65R-BU6DA	850	150	1000
3c	Alpha	AT&T	CCI	DMP65R-BU6DA	1900	150	3664
3d	Alpha	AT&T	CCI	DMP65R-BU6DA	850	150	1000
4	Beta	AT&T	Powerwave	7770	850	150	321
5a	Beta	AT&T	CCI	DMP65R-BU6DA	700	150	2951
5b	Beta	AT&T	CCI	DMP65R-BU6DA	2100	150	3837
6a	Beta	AT&T	CCI	DMP65R-BU6DA	700	150	1475
6b	Beta	AT&T	CCI	DMP65R-BU6DA	850	150	1000
6c	Beta	AT&T	CCI	DMP65R-BU6DA	1900	150	3664
6d	Beta	AT&T	CCI	DMP65R-BU6DA	850	150	1000
7	Gamma	AT&T	Powerwave	7770	850	150	321
8a	Gamma	AT&T	CCI	DMP65R-BU6DA	700	150	2951
8b	Gamma	AT&T	CCI	DMP65R-BU6DA	2100	150	3837
9a	Gamma	AT&T	CCI	DMP65R-BU6DA	700	150	1475
9b	Gamma	AT&T	CCI	DMP65R-BU6DA	850	150	1000
9c	Gamma	AT&T	CCI	DMP65R-BU6DA	1900	150	3664
9d	Gamma	AT&T	CCI	DMP65R-BU6DA	850	150	1000
10	Omni	Unknown	Commscope	DB432-A	450	70	100
11	Omni	Unknown	Generic	150 Omni MHz	150	75	100
12	Omni	Unknown	RFS	PD220	150	90	100

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency	Rad Ctr (Ft)	Total ERP Power (Watts)
13	Omni	Unknown	Commscope	DB224	150	94	100
14		CSP	RFS	PA6-65AC	6000	102	1
15	Omni	Unknown	Commscope	DB205-L	33	109	100
16	Omni	Unknown	Commscope	DB212	33	121	100
17	Omni	Unknown	Commscope	DB586-Y	850	125	100
18	Omni	Unknown	Commscope	DB586-Y	850	130	100
19	Omni	Unknown	Sinclair	SRL110A	33	135	100
27	Alpha	Verizon Wireless	Antel	LPA-80080/6CF	850	167	4568
28	Alpha	Verizon Wireless	Antel	LPA-185080-8CF	1900	167	1889
29	Alpha	Verizon Wireless	Antel	LPA-185080-8CF	2100	167	1818
30	Alpha	Verizon Wireless	Antel	LPA-80080/6CF	850	167	2284
31	Beta	Verizon Wireless	Antel	LPA-80080/6CF	850	167	4568
32	Beta	Verizon Wireless	Antel	LPA-185080-8CF	1900	167	1889
33	Beta	Verizon Wireless	Antel	LPA-185080-8CF	2100	167	1818
34	Beta	Verizon Wireless	Antel	LPA-80080/6CF	850	167	2284
35	Gamma	Verizon Wireless	Antel	LPA-80080/6CF	850	167	4568
36	Gamma	Verizon Wireless	Antel	LPA-185080-8CF	1900	167	1889
37	Gamma	Verizon Wireless	Antel	LPA-185080-8CF	2100	167	1818
38	Gamma	Verizon Wireless	Antel	LPA-80080/6CF	850	167	2284
39	Omni	Unknown	Telewave	ANT150D-9	150	173	100
40	Omni	Unknown	Generic	150 Omni MHz	150	174	100
41	Omni	Unknown	Generic	150 Omni MHz	150	175	100
42	Omni	Unknown	Generic	150 Omni MHz	150	175	100
43	Omni	Unknown	Commscope	DB222-A	150	180	100
47	Omni	Unknown	Generic	150 Omni MHz	150	189	100
48	Omni	Unknown	Kathrein-Scala	OGT9-840	850	190	100
49	Omni	Unknown	Generic	150 Omni MHz	150	192	100
50		CSP	RFS	PA6-65AC	6000	194	100
51	Omni	Unknown	Generic	150 Omni MHz	150	196	100

6. RF Guidelines

To ensure safety of company workers, the following points need to be taken into consideration and implemented at wireless sites in accordance with the Carriers policies:

a) Worksite: Any employee at the site should avoid working directly in front of the antenna or in areas predicted to exceed general population exposure limits by 100%. Workers should insist that the transmitters be switched off during the work period.

b) RF Safety Training and Awareness: All employees working in areas exceeding the general population limits should have a basic awareness of RF safety measures. Videos, classroom lectures and online courses are all appropriate training methods on these topics.

c) Site Access: Restricting access to transmitting antenna locations is one of the most important elements of RF safety. This can be done with:
   - Locked doors/gates/ladder access
   - Alarmed doors
   - Restrictive barriers

d) Three-foot Buffer: There is an inverse relationship between the strength of the field and the distance from the antenna. The RF field diminishes with distance from the antenna. Workers should maintain a three-foot distance from the antennas.

e) Antennas: Workers should always assume that the antenna is transmitting and should never stop right in front of the antenna. If someone must pass by an antenna, he/she should move quickly, thus reducing RF exposure.

Attachment 1: AT&T Exposure Analysis

AT&T 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.5**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.64%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.3**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.14%**

AT&T 850 MHz UMTS		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0002**
	% Exposure	**0.04%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0002**
	% Exposure	**0.01%**

AT&T 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

AT&T 850 MHz 5G		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

AT&T 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.27%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.05%**

AT&T 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0028**
	% Exposure	**0.28%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0028**
	% Exposure	**0.06%**

Attachment 2: Verizon Wireless Exposure Analysis

Verizon Wireless 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.23%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.05%**

Verizon Wireless 850 MHz CDMA		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.45%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0027**
	% Exposure	**0.10%**

Verizon Wireless 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.11%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.02%**

Verizon Wireless 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.11%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0011**
	% Exposure	**0.02%**

Attachment 3: CSP Exposure Analysis

CSP 6000 MHz Microwave		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.00%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.0000%**

Attachment 4: Pagenet Exposure Analysis

Pagenet 900 MHz Paging		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.00%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.000000**
	% Exposure	**0.0000%**

Attachment 5: Unknown Exposure Analysis

Unknown 33 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.23%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0014**
	% Exposure	**0.05%**

Unknown 150 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.4**
	Exposure values at the site (mW/cm^2)	**0.0003**
	% Exposure	**0.07%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0003**
	% Exposure	**0.00%**

Unknown 450 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.4**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.02%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.0017%**

Unknown 850 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.01%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0001**
	% Exposure	**0.0023%**

Unknown 6000 MHz Land Mobile		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0000**
	% Exposure	**0.00%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0000**
	% Exposure	**0.0000%**

Attachment 6: Combined Exposure Analysis for each Carrier

AT&T All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0103
	% Exposure	1.19%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0103
	% Exposure	0.25%

Verizon Wireless All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0063
	% Exposure	0.90%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0063
	% Exposure	0.19%

CSP All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.000%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.0000%

Pagenet All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.000%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.000000
	% Exposure	0.0000%

Unknown All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0005
	% Exposure	7.05%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0033
	% Exposure	0.01%

7. Appendix A: FCC Guidelines

FCC Policies

The Federal Communications Commission (FCC) in 1996 implemented regulations and policies for analysis of RF propagation to evaluate RF emissions. All the analysis and results of this report are compared with FCC's (Federal Communications Commission) rules to determine whether a site is compliant for Occupational/Controlled or General Public/Uncontrolled exposure. All the analysis of RF propagation is done in terms of a percentage. The limits primarily indicate the power density and are generally expressed in terms of milliwatts per centimeter square, mW/cm^2.

FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the scenario/ situation in which that exposure takes place or the status of the individuals who are subjected to that exposure. The decision as to which tier is applied to a scenario is based on the following definitions:

Occupational / Controlled

These limits apply in situations when someone is exposed to RF energy through his/her occupation, is fully aware of the harmful effects of the RF exposure and has an ability to exercise control over this exposure. Occupational / controlled exposure limits also apply when 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. limits for Occupational/Controlled exposure can be found on Table 1(A).

General Population / Uncontrolled

These limits apply to situations in which the general public may be exposed or in which persons who are exposed because of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure to RF. Therefore, members of the general public would always be considered under this category, for example, in the case of a telecommunications tower that exposes people in a nearby residential area. Exposure limits for General Population/Uncontrolled can be found on Table 1(B).

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

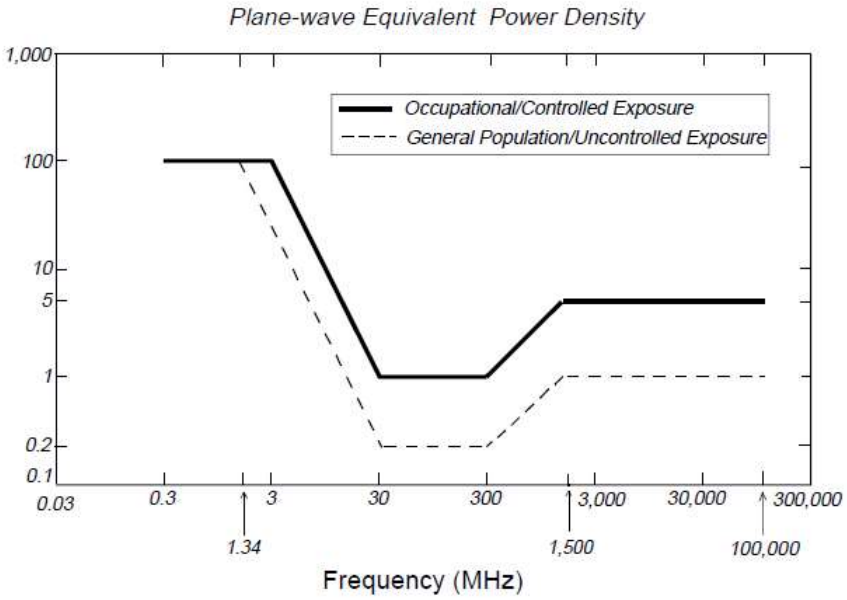
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	$(900/f^2)$*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

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

f = frequency in MHz *Plane-wave equivalent power density

Figure 1. *FCC Limits for Maximum Permissible Exposure (MPE)*



OSHA Statement:

The objective of the OSHA Act is to ensure the safety and health of the working men and women by enforcing certain standards. The act also assists and encourages the states in their efforts to ensure safe and healthy working conditions through means of research, information, education and training in the field of occupational safety and health and for other purposes.

According to OSHA Act section 5, important duties to be considered are:

(a) Each employer

1) Shall furnish to each of his employees' employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious harm to his employees
2) Shall comply with occupational safety and health standards promulgated under this act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

8. Appendix B: Preparer Certification

I, Tim Harris, preparer of this report, certify that I am fully trained and aware of the rules and regulations of both the Federal Communications Commission and the Occupational Safety and Heath Administration regarding Human Exposure to Radio Frequency Radiation. In addition, I have been trained in 1) RF safety and 2) RF modeling using RoofView modeling software.

I certify that the information contained in this report is true and correct to the best of my knowledge.

Timothy A. Harris *10/5/2019*

Signature Date

November 11, 2019

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

Re:	**Notice of Exempt Modification – Antenna and RRU Add**
Property Address:	**7 Surdan Mountain Road. Sharon, CT 06069**
Applicant:	**AT&T Mobility, LLC**

Dear Ms. Bachman:

On behalf of AT&T, please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16- 50j-72(b) (2).

AT&T currently maintains a wireless telecommunications facility consisting of nine (9) wireless telecommunication antennas at an antenna center line height of 150-feet on an existing 195-foot monopole, owned by Daniel Soule, Executive Director, located at 111 Water Street Torrington, CT 06700. AT&T now intends to remove three (3) Power Wave 7770 Panel Antennas, each currently installed in position [1], and swap these for three (3) 4' CCI TPA-65R-BU4AA-K Panel Antennas, each to be installed in position [1], all sectors. Additionally, AT&T intends to remove three (3) KMW AMX-CD-16-65-OOT-RET in position (4). In addition, AT&T intends to remove three (3) RRUS-11. AT&T plans to install (3) B14 4478, (3) 4449 B5/B12, (3) 8843 B2/B66A and install (1) DC9 Squid with (1) Fiber and (3) DC Cables.

Attached is a summary of the planned modifications including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-5I0j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Stanley MacMillian – Building Inspector, Town of Sharon, CT at 63 Main St. Sharon, CT 06069. and Brent Colley – First Selectman Town of Sharon, CT at 63 Main St. Sharon, CT 06069. A copy of this letter is being sent to the property owner, Daniel Soule, Executive Director, located at 111 Water Street Torrington, CT 06700 and Ann Prindle, Landowner, located at 7 Surdan Mountain Sharon, CT 06069. The following is a list of subsequent decisions by the Connecticut Siting Council:

EM-AT&T-005-018-031-055-068-092-111-125-153-162-168-011121 - Edwards and Kelcey on behalf of AT&T Wireless notice of intent to modify existing telecommunications facilities located at twelve sites throughout the State of Connecticut. (7 Surdan Mountain Rd., **Sharon;** Herb Rd., **Sharon**)
EM-CING-125-050329 - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 7 Surdan Mountain Road, **Sharon**, Connecticut.

The planned modifications to AT&T's facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-72(b) (2).

1. The proposed modifications will not result in an increase in the height of the existing tower. AT&T's replacement antennas will be installed at the 150-foot level of the 195-foot self-support tower.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require and extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF

emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in Tab 2.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

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

Sincerely,

Will Noel

CC w/enclosures:
Stanley MacMillian – Building Inspector, Town of Sharon
Brent Colley – First Selectman, Town of Sharon,
Daniel Soule-Property Owner
Ann Prindle- Land Owner

7 SURDAN MOUNTAIN RD

Location	7 SURDAN MOUNTAIN RD	**Mblu**	15/ 2/ / /
Acct#	00173200	**Owner**	PRINDLE ANN ADELE
Assessment	$438,000	**Appraisal**	$625,700
PID	1487	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$403,200	$222,500	$625,700
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$282,200	$155,800	$438,000

Owner of Record

Owner	PRINDLE ANN ADELE	**Sale Price**	$0
Co-Owner		**Certificate**	
		Book & Page	158/ 453
		Sale Date	04/19/2004

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
PRINDLE ANN ADELE	$0		158/ 453	04/19/2004
PRINDLE DARIEN R & ANN ADELE	$0		136/ 456	09/23/1999
PRINDLE DARIEN R & ANN ADELE	$115,000		132/ 861	08/03/1998
PRINDLE DARIEN	$0		98/ 458	10/19/1981

Building Information

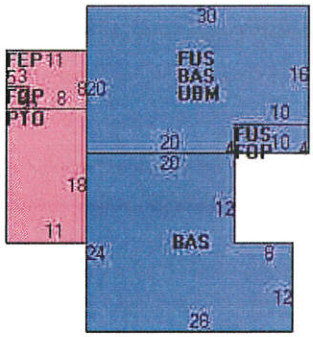
Building 1 : Section 1

Year Built:	1952
Living Area:	1,736
Building Percent Good:	75
Replacement Cost Less Depreciation:	$154,000

Building Attributes

Field	Description
Style	Conventional
Model	Residential
Grade:	C+
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asphalt Shngl.
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average

Building Layout



(http://images.vgsi.com/photos/SharonCTPhotos//Sketches/1487

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1,136	1,136
FUS	Upper Story, Finished	600	600
FEP	Enclosed Porch	79	0
FOP	Open Porch	49	0
PTO	Patio	198	0
UBM	Basement, Unfinished	560	0
		2,622	1,736

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	101
Description	Single Family
Zone	RR
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	9.6
Frontage	
Depth	
Assessed Value	$155,800
Appraised Value	$222,500

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #

BRN1	Barn 1 St.			860 S.F.	$11,600	1
SHD1	Shed			100 S.F.	$1,400	1
GAR1	Garage w/Shop			1254 S.F.	$31,000	1
CELL	Cell Tower site			1 UNITS	$205,200	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$403,200	$222,500	$625,700
2017	$412,700	$264,700	$677,400

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$282,200	$155,800	$438,000
2017	$288,900	$185,300	$474,200

/

85 Rangeway Road, Building 3, Suite 102
Billerica, MA 01862

To: **FILE**

From: **Will Noel**

Date: **2/6/2020**

Subject: **No CSC Original Decision– CTL01235/ FA# 10050790 /MRCTB041434**

Upon review of the "Decisions" section of the CSC website and per conversation with Sharon Connecticut Town Clerk, Linda R. Amerighi, (860)-364-5224, the Connecticut Siting Council Original Decision for 7 Surdan Road could not be obtained.