NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

March 24, 2022

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Share Application
186 Minortown Road, Woodbury, CT 06798
Latitude: 41.567997
Longitude: -73.179680
Site #: 876405_Crown_Dish

Dear Ms. Bachman:

This letter and attachments are submitted on behalf of Dish Wireless LLC. Dish Wireless LLC plans to install antennas and related equipment to the tower site located at 186 Minortown Road, Woodbury, Connecticut.

Dish Wireless LLC proposes to install three (3) 600/1900 MHz 5G antennas and six (6) RRUs, at the 68-foot level of the existing 110-foot monopole, one (1) Fiber cable will also be installed. Dish Wireless LLC equipment cabinets will be placed within a 7' x 5' lease area within the existing fenced compound. Included are plans by NB+C, dated March 1, 2022, Exhibit C. Also included is a structural analysis prepared by Tower Engineering Professionals, dated September 21, 2021, confirming that the existing tower is structurally capable of supporting the proposed equipment. Attached as Exhibit D. The facility was approved by the Connecticut Siting Council, Docket No. 235 on June 19, 2003. Please see attached Exhibit A.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of Dish Wireless LLC intent to share a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A., a copy of this letter is being sent to Barbara Perkinson, First Selectman and William Agresta, Town Planner for the Town of Woodbury, as well as the tower owner (Crown Castle) and property owner (Raymond Hardisty).

The planned modifications of the facility fall squarely within those activities explicitly provided for in R.C.S.A. 16-50j-89.

1. The proposed modification will not result in an increase in the height of the existing structure. The top of the existing tower is 110-feet and the Dish Wireless LLC antennas will be located at a centerline height of 68-feet.

2. The proposed modifications will not result in an increase of the site boundary as depicted on the attached site plan.

NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

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

4. The operation of the proposed antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. The combined site operations will result in a total power density of 38.38% as evidenced by Exhibit F.

Connecticut General Statutes 16-50aa indicates that the Council must approve the shared use of a telecommunications facility provided it finds the shared use is technically, legally, environmentally, and economically feasible and meets public safety concerns. As demonstrated in this letter, Dish Wireless LLC respectfully submits that the shared use of this facility satisfies these criteria.

A. Technical Feasibility. The existing monopole has been deemed structurally capable of supporting Dish Wireless LLC proposed loading. The structural analysis is included as Exhibit D.

B. Legal Feasibility. As referenced above, C.G.S. 16-50aa has been authorized to issue orders approving the shared use of an existing tower such as this monopole in Woodbury. Under the authority granted to the Council, an order of the Council approving the requested shared use would permit Dish Wireless LLC to obtain a building permit for the proposed installation. Further, a Letter of Authorization is included as Exhibit G, authorizing Dish Wireless LLC to file this application for shared use.

C. Environmental Feasibility. The proposed shared use of this facility would have a minimal environmental impact. The installation of Dish Wireless LLC equipment at the 68-foot level of the existing 110-foot tower would have an insignificant visual impact on the area around the tower. Dish Wireless LLC ground equipment would be installed within the existing facility compound. Dish Wireless LLC shared use would therefore not cause any significant alteration in the physical or environmental characteristics of the existing site. Additionally, as evidenced by Exhibit F, the proposed antennas would not increase radio frequency emissions to a level at or above the Federal Communications Commission safety standard.

D. Economic Feasibility. Dish Wireless LLC will be entering into an agreement with the owner of this facility to mutually agreeable terms. As previously mentioned, the Letter of Authorization has been provided by the owner to assist Dish Wireless LLC with this tower sharing application.

E. Public Safety Concerns. As discussed above, the tower is structurally capable of supporting Dish Wireless LLC proposed loading. Dish Wireless LLC is not aware of any public safety concerns relative to the proposed sharing of the existing tower. Dish Wireless LLC intentions of providing new and improved wireless service through the shared use of this facility is expected to enhance the safety and welfare of local residents and individuals traveling through Woodbury.

Sincerely,

Denise Sabo

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com

NORTHEAST SITE SOLUTIONS

Turnkey Wireless Development

Attachments

Cc: Barbara Perkinson, First Selectman
Town of Woodbury
281 Main St South
Woodbury, CT 06798

William Agresta, Town Planner
Town of Woodbury
281 Main St South
Woodbury, CT 06798

Raymond Hardisty, Property Owner
200 Minortown Road
Woodbury, CT 06798

Crown Castle, Tower Owner

Exhibit A

Original Facility Approval

DOCKET NO. 235 - Sprint Spectrum L.P. application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at 186 Minortown Road or Main Street North, North Woodbury, Connecticut.	}	Connecticut Siting Council

June 19, 2003

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes **§** 16-50k, be issued to Sprint Spectrum L.P. d/b/a Sprint PCS for the construction, maintenance and operation of a wireless telecommunications facility at 186 Minortown Road, Woodbury, Connecticut. The Council denies certification of Site B located at Main Street North, Woodbury, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Sprint PCS, AT&T Wireless PCS, LLC and other entities, both public and private, but such tower shall not exceed a height of 100 feet above ground level.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include:

   a. Visual simulations of the monopole and stealth options for a 100-foot tower at the site including a flagpole and tree tower;

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

   c. construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or

economic reasons precluding such tower sharing.

6. If the facility does not initially provide wireless services within one year of completion of construction or ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

7. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.

8. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Waterbury Republican American, and Voices Sunday – The Weekly Star.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
Sprint Spectrum L.P. d/b/a Sprint PCS	Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP CityPlace I, 38th Floor 185 Asylum Street Hartford, CT 06103-6522 860-509-6522
Intervenor	**Its Representative**
AT&T Wireless PCS, LLC d/b/a AT&T Wireless	Daniel F. Leary, Esq. Cuddy & Feder LLP 90 Maple Avenue White Plains, New York 10601 (914) 761-1300
Party	
Anthony J. Vallillo	

Petition No. 678 - Project Summary

Cellco Partnership

North Woodbury, Connecticut

July 13, 2004

Introduction

Cellco Partnership d/b/a as Verizon Wireless (Cellco) seeks to extend the height of a Sprint Spectrum L.P. (Sprint) owned 100-foot monopole located in North Woodbury, Connecticut. The existing tower was approved by the Council on June 19, 2003 under Docket 235. The tower currently supports the antennas of Sprint (100-foor centerline) and AT&T Wireless PCS LLC (90-foot centerline). Cellco is seeking a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the tower extension. A copy of the Petition was provided to the Town. Additionally, Cellco contacted the First Selectman to discuss the proposal. The Town has no comment on the proposed tower extension. Abutting property owners were also notified of the proposed extension. No abutters commented on the proposal.

Proposed Modification

Cellco seeks to extend the height of the approved tower from 100 feet to 110 feet. Cellco would install three flush mounted PCS panel antennas a centerline height of 110 feet, bringing the total height of the facility to 112 feet above ground level. Cellco would expand the compound by 20 feet to the north to accommodate a 12-foot by 30-foot equipment shelter. The proposed compound expansion is within Sprint's 100-foot by 100-foot lease area and would require minimal grading. Additional site clearing would not be required.

Visibility Impact

Extending the tower from 100 feet agl to 110 feet agl would increase visibility from 27-acres to 34-acres within a two-mile radius of the site, mainly as a result of the expansion of existing areas with visibility. In addition, approximately 4 acres of seasonal visibility would occur from the open areas immediately southeast of the site. The extended tower would be seasonally visible from 0.2 miles of North Main Street, 0.1 miles of Minortown Road, and 0.2 miles of Middle Road Turnpike.

Power Density

The conservative worst-case approximation of electromagnetic radiofrequency emissions for telecommunications operations at the site would increase from 22.4% to 24.2% of the applicable standard for uncontrolled environments.

Content Last Modified on 8/31/2004 4:27:37 PM

Exhibit B

Property Card

Town of Woodbury, CT

Property Listing Report

Map Block Lot	Building #	Unique Identifier
025-036		346700

Property Information

Property Location	186 MINORTOWN RD
Mailing Address	200 MINORTOWN ROAD WOODBURY CT 067983009
Land Use	Residential
Zoning Code	OS60
Neighborhood	26

Owner	HARDISTY RAYMOND A
Co-Owner	
Book / Page	281/ 769
Land Class	Vacant Land
Census Tract	3621
Acreage	33.74

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	0	0
Outbuildings	0	0
Land	383013	53140
Total	383013	0

Utility Information

Electric	No
Gas	No
Sewer	No
Public Water	No
Well	No

Primary Construction Details

Year Built	
Building Desc.	
Building Style	
Stories	
Exterior Walls	
Exterior Walls 2	
Interior Walls	
Interior Walls 2	
Interior Floors 1	
Interior Floors 2	

Heating Fuel	
Heating Type	
AC Type	
Bedrooms	
Full Bathrooms	
Half Bathrooms	
Extra Fixtures	
Total Rooms	
Bath Style	
Kitchen Style	
Occupancy	

Building Use	
Building Condition	
Frame Type	
Fireplaces	
Bsmt Gar	
Fin Bsmt Area	
Fin Bsmt Quality	
Building Grade	
Roof Style	
Roof Cover	

Report Created On 3/24/2022

Town of Woodbury, CT

Property Listing Report | Map Block Lot 025-036 | Building # | Unique Identifier 346700

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built

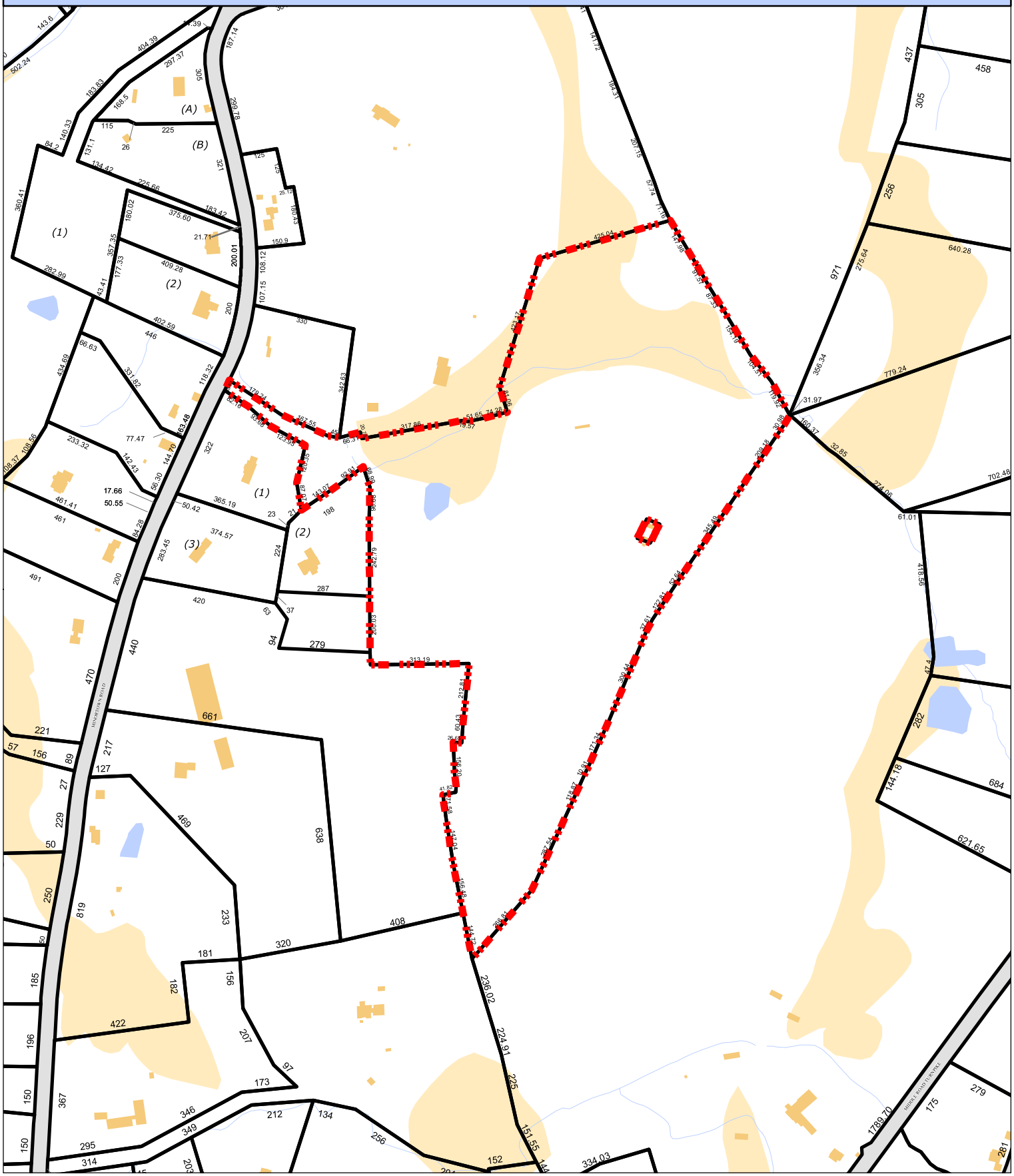
Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
HARDISTY RAYMOND A	281_ 769	10/22/2002	0

Report Created On 3/24/2022

Town of Woodbury, Connecticut - Assessment Parcel Map

Parcel: 025-036 Address: 186 MINORTOWN RD



Approximate Scale: 1 inch = 400 feet

0 200 400 600 800 Feet

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Woodbury and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced: 6/16/2021

Exhibit C

Construction Drawings

DISH Wireless L.L.C. SITE ID:

BOHVN00172A

DISH Wireless L.L.C. SITE ADDRESS:

186 MINORTOWN
WOODBURY, CT 06798

CONNECTICUT CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS

SHEET INDEX

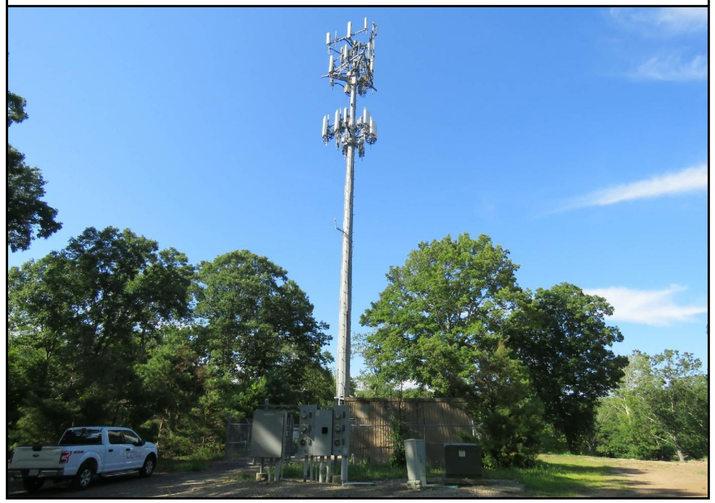
SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

TOWER SCOPE OF WORK:
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
- INSTALL (1) PROPOSED ANTENNA PLATFORM MOUNT
- INSTALL PROPOSED JUMPERS
- INSTALL (6) PROPOSED RRUs (2 PER SECTOR)
- INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
- INSTALL (1) PROPOSED HYBRID CABLE
- INSTALL (3) DOUBLE Z-BRACKETS (1 PER SECTOR)

GROUND SCOPE OF WORK:
- INSTALL (1) PROPOSED METAL PLATFORM
- INSTALL (1) PROPOSED ICE BRIDGE
- INSTALL (1) PROPOSED PPC CABINET
- INSTALL (1) PROPOSED EQUIPMENT CABINET
- INSTALL (1) PROPOSED POWER CONDUIT
- INSTALL (1) PROPOSED TELCO CONDUIT
- INSTALL (1) PROPOSED TELCO-FIBER BOX
- INSTALL (1) PROPOSED GPS UNIT
- INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)
- REMOVE EXISTING ABANDONED PLATFORM

SITE PHOTO



UNDERGROUND SERVICE ALERT CBYD 811
UTILITY NOTIFICATION CENTER OF CONNECTICUT
(800) 922-4455
WWW.CBYD.COM

CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

SITE INFORMATION

PROPERTY OWNER:	HARDISTY RAYMOND A
ADDRESS:	200 MINORTOWN RD WOODBURY, CT 06798
TOWER TYPE:	MONOPOLE
TOWER CO SITE ID:	876405
TOWER APP NUMBER:	553389
COUNTY:	LITCHFIELD
LATITUDE (NAD 83):	41° 34' 4.79" N 41.56799722 N
LONGITUDE (NAD 83):	73° 10' 46.85" W 73.17972222 W
ZONING JURISDICTION:	LITCHFIELD COUNTY
ZONING DISTRICT:	OS-60
PARCEL NUMBER:	025-036
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	II-B
POWER COMPANY:	CONNECTICUT LIGHT & POWER CO
TELEPHONE COMPANY:	TBD

PROJECT DIRECTORY

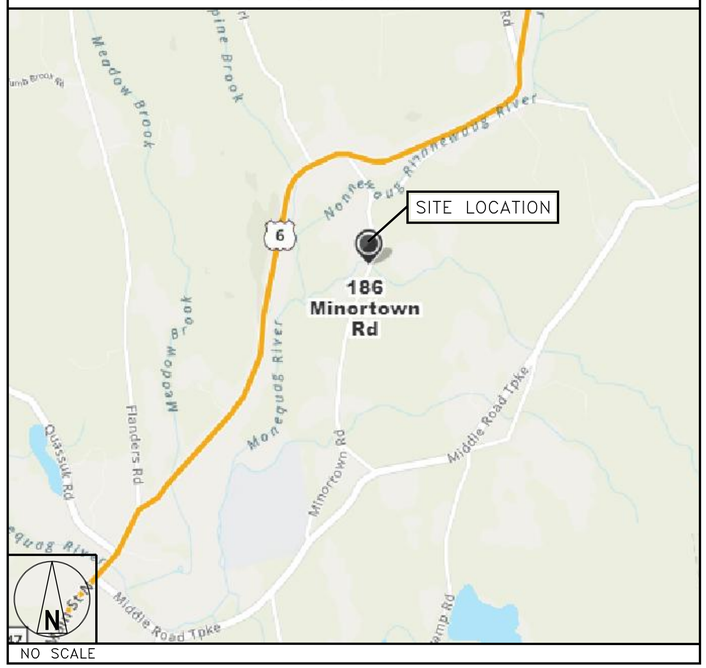
APPLICANT:	DISH WIRELESS, LLC. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120
TOWER OWNER:	CROWN CASTLE USA INC. 2000 CORPORATE DR. CANONSBURG, PA 15317 (877) 486-9377
SITE DESIGNER:	NB+C ENGINEERING SERVICES 8601 SIX FORKS RD, SUITE 540 RALEIGH, NC 27615 (919) 657-9131
SITE ACQUISITION:	CORWIN DIXON CORWIN.DIXON@CROWNCASTLE.COM
CONSTRUCTION MANAGER:	JAVIER SOTO JAVIER.SOTO@DISH.COM
RF ENGINEER:	SYED ZAIDI SYED.ZAIDI@DISH.COM

DIRECTIONS

DIRECTIONS FROM BRADLEY INTERNATIONAL AIRPORT:

START OUT GOING WEST ON SCHOEPHOESTER RD TOWARD LIGHT LN. MAKE A U-TURN AT LIGHT LN ONTO SCHOEPHOESTER RD. TAKE THE 1ST RIGHT ONTO ELLA GRASSO TURNPIKE/CT-75. MERGE ONTO CT-20 E TOWARD I-91/HARTFORD/SPRINGFIELD. MERGE ONTO I-91 S TOWARD HARTFORD. MERGE ONTO I-84 W VIA EXIT 32A TOWARD WATERBURY. TAKE THE CT-64 EXIT, EXIT 17, TOWARD WATERTOWN/MIDDLEBURY/CT-63. STAY STRAIGHT TO GO ONTO CHASE PKWY/CT-64. CONTINUE TO FOLLOW CT-64. TURN RIGHT ONTO MIDDLEBURY RD/CT-64. CONTINUE TO FOLLOW CT-64. CT-64 IS 0.2 MILES PAST UPPER WHITTEMORE RD. TURN RIGHT ONTO MAIN ST/US-6 E. MAIN ST IS 0.2 MILES PAST OLD SHERMAN HILL RD. TURN LEFT ONTO QUASSUK RD. QUASSUK RD IS 0.1 MILES PAST MIDDLE ROAD TURNPIKE. THEN 0.30 MILES.06798, CT, WELCOME TO WOODBURY, CT.

VICINITY MAP



NO SCALE

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

STATE OF CONNECTICUT · KRUPAKARAN KOLANDAIVELU · PEN.0028997 · LICENSED PROFESSIONAL ENGINEER

KRUPAKARAN KOLANDAIVELU, P.E.
STATE OF CONNECTICUT
PROFESSIONAL ENGINEER
LICENSE #PEN.0028997

DRAWN BY:	CHECKED BY:	APPROVED BY:
SN	BRN	TA

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	10/07/2021	ISSUED FOR REVIEW
0	03/01/2022	FOR CONSTRUCTION

A&E PROJECT NUMBER

876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

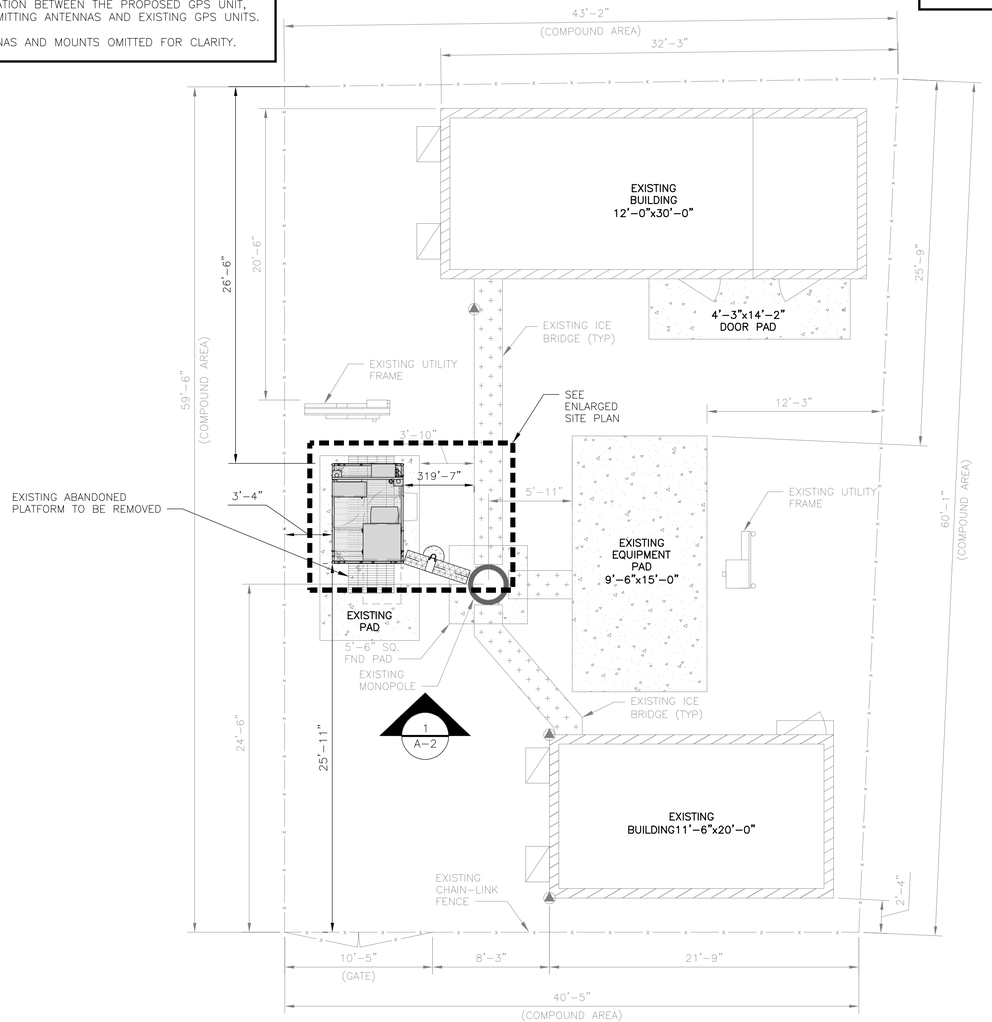
TITLE SHEET

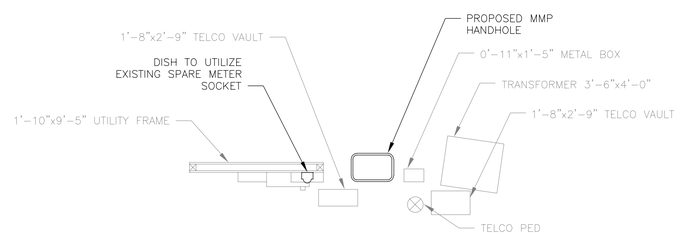
SHEET NUMBER

T-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.





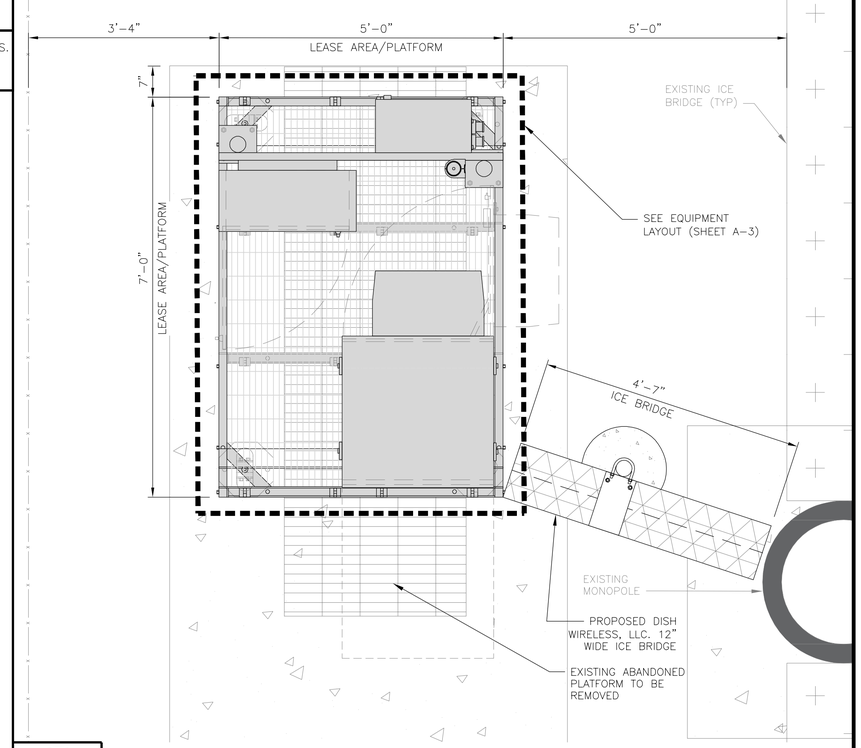
OVERALL SITE PLAN

6' 4' 2' 0 5' 10'
3/16"=1'-0"

1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



ENLARGED SITE PLAN

12" 6" 0 1' 2' 3'
3/4"=1'-0"

2

AERIAL VIEW

3

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

STATE OF CONNECTICUT
PEN.0028997
LICENSED PROFESSIONAL ENGINEER

KRUPAKARAN KOLANDAIVELU, P.E.
STATE OF CONNECTICUT
PROFESSIONAL ENGINEER
LICENSE #PEN.0028997

DRAWN BY:	CHECKED BY:	APPROVED BY:
SN	BRN	TA

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	10/07/2021	ISSUED FOR REVIEW
0	03/01/2022	FOR CONSTRUCTION

A&E PROJECT NUMBER

876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

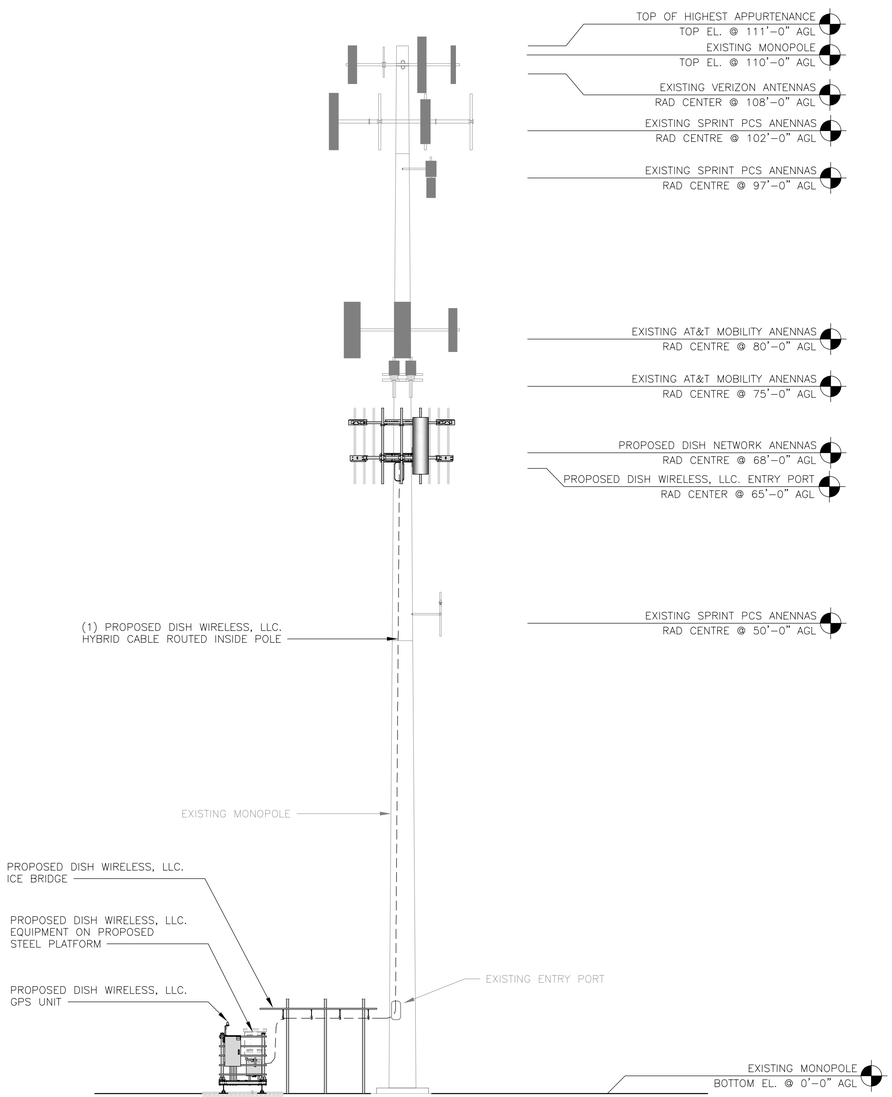
OVERALL AND ENLARGED SITE PLAN

SHEET NUMBER

A-1

NOTES

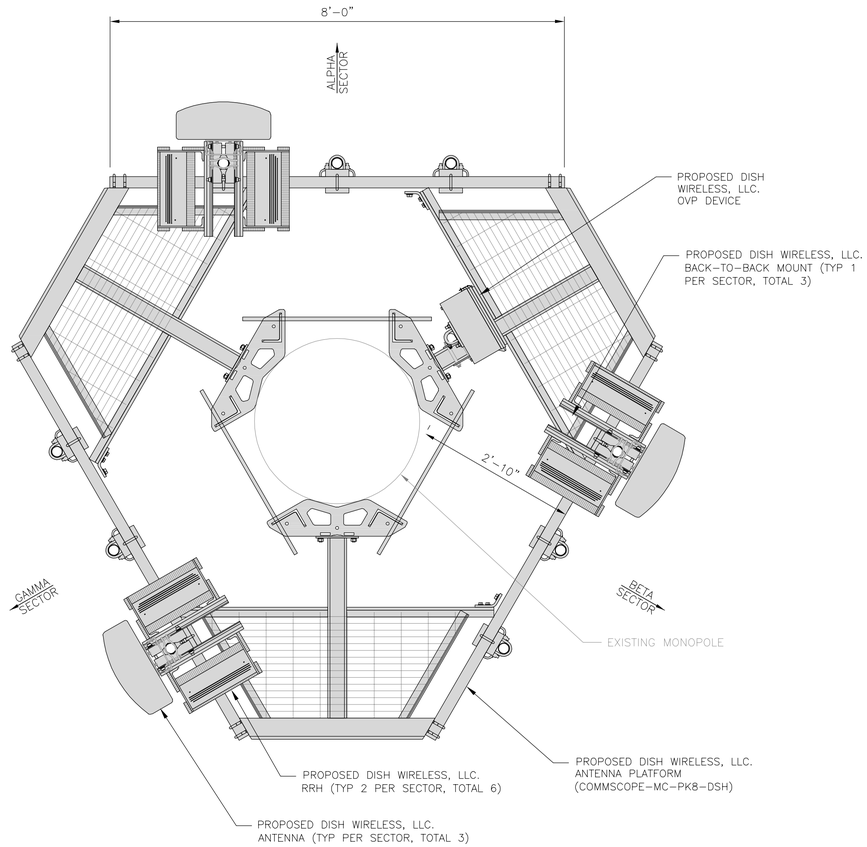
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



PROPOSED NORTH ELEVATION

8' 4' 0 8' 16'
1/8"=1'-0"

1



ANTENNA LAYOUT

12" 6" 0 1' 2' 3'
3/4"=1'-0"

2

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	TECHNOLOGY	SIZE (HxW)	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH
ALPHA	A1	PROPOSED	JMA – MX08FR0665-21	5G	72.0" x 20.0"	0°	68'-0"	(1) HIGH-CAPACITY HYBRID CABLE (102' LONG)
BETA	B1	PROPOSED	JMA – MX08FR0665-21	5G	72.0" x 20.0"	120°	68'-0"	
GAMMA	C1	PROPOSED	JMA – MX08FR0665-21	5G	72.0" x 20.0"	240°	68'-0"	

SECTOR	POSITION	RRH	
		MANUFACTURER – MODEL NUMBER	TECHNOLOGY
ALPHA	A1	FUJITSU – TA08025-B604	5G
	A1	FUJITSU – TA08025-B605	5G
BETA	B1	FUJITSU – TA08025-B604	5G
	B1	FUJITSU – TA08025-B605	5G
GAMMA	C1	FUJITSU – TA08025-B604	5G
	C1	FUJITSU – TA08025-B605	5G

NOTES

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.

ANTENNA SCHEDULE

NO SCALE

3

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

STATE OF CONNECTICUT
KRUPAKARAN KOLANDAIVELU
PEN.0028997
LICENSED PROFESSIONAL ENGINEER

KRUPAKARAN KOLANDAIVELU, P.E.
STATE OF CONNECTICUT
PROFESSIONAL ENGINEER
LICENSE #PEN.0028997

DRAWN BY:	CHECKED BY:	APPROVED BY:
SN	BRN	TA

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	10/07/2021	ISSUED FOR REVIEW
0	03/01/2022	FOR CONSTRUCTION

A&E PROJECT NUMBER

876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

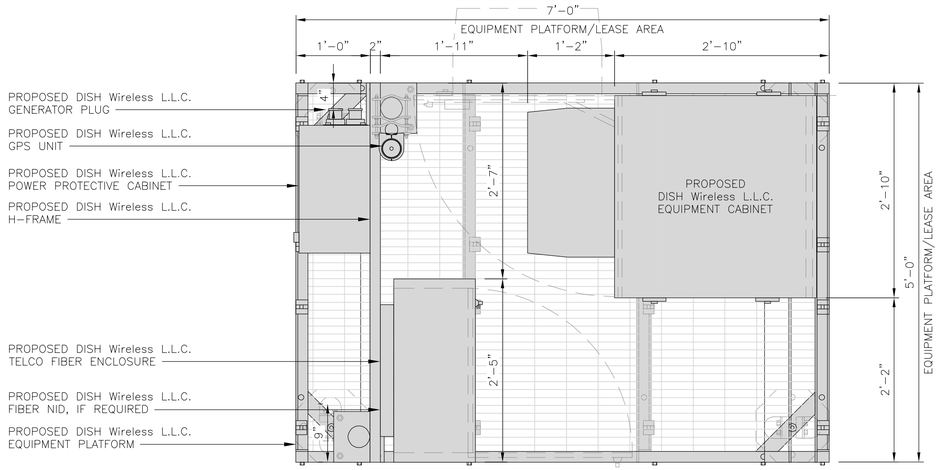
BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

ELEVATION, ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER

A-2



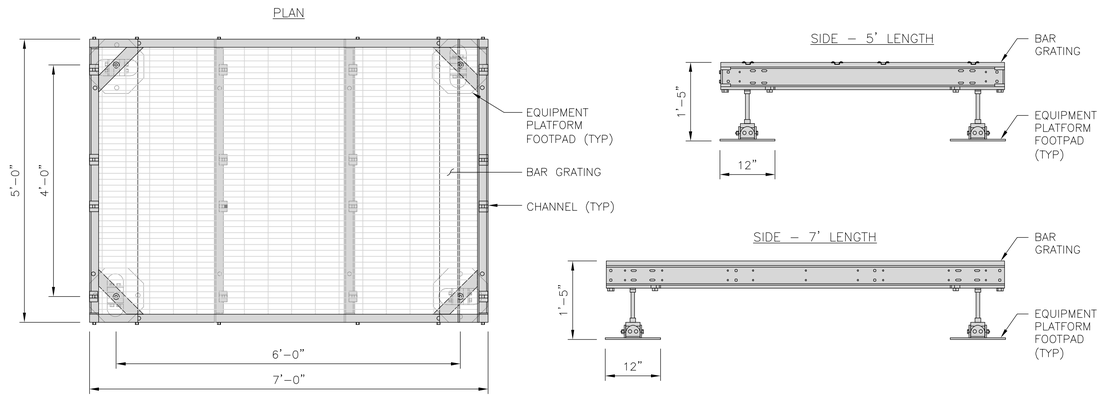
PLATFORM EQUIPMENT PLAN

12" 9" 6" 3" 0 1' 2"
1"=1'-0"

1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

NOTE:
GC TO PROVIDE EXTENDED THREAD FOR PLATFORM IF REQUIRED HEIGHT EXCEEDS 17"

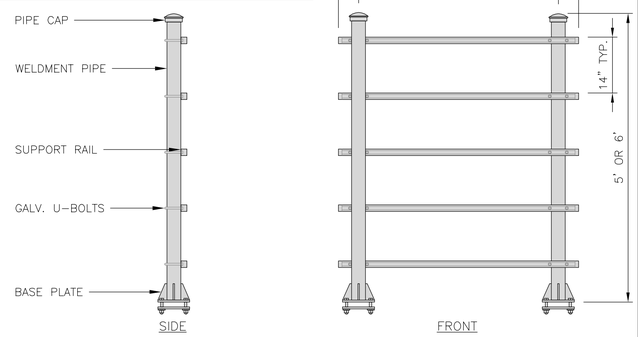


PLATFORM DETAIL

NO SCALE

2

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs



H-FRAME DETAIL

NO SCALE

3

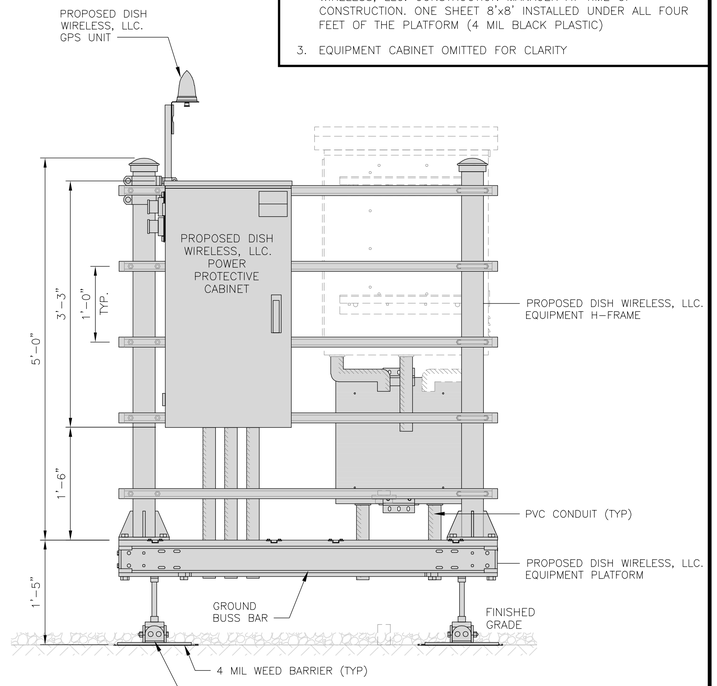
NOT USED

NO SCALE

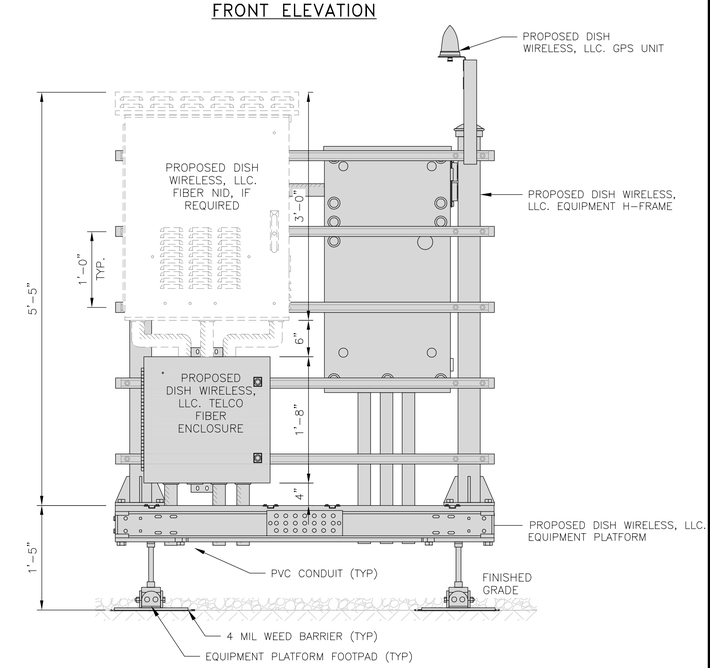
4

NOTES

1. CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
2. WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH WIRELESS, LLC. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
3. EQUIPMENT CABINET OMITTED FOR CLARITY



FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION

12" 9" 6" 3" 0 1' 2"
1"=1'-0"

5

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LITTLETON, CO 80120

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NB+C ENGINEERING SERVICES, LLC.
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WOODBURY, CT 06798

SHEET TITLE

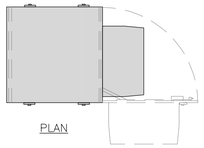
EQUIPMENT PLATFORM AND H-FRAME DETAILS

SHEET NUMBER

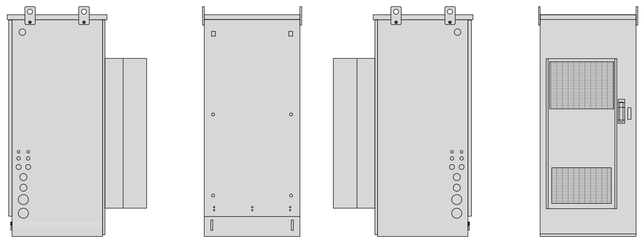
A-3

CHARLES INDUSTRY HEX CUBE–PM639155N4

DIMENSIONS (HxWxD):	74"x32"x32"
POWER PLANT:	–48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	408 LBS



PLAN



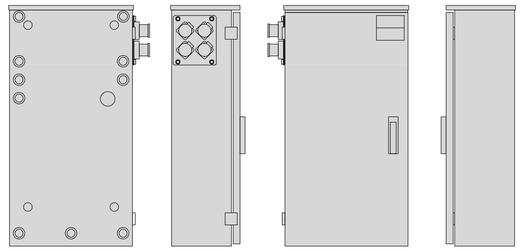
SIDE BACK SIDE FRONT

CABINET DETAIL | NO SCALE | 1

RAYCAP PPC RDIAC–2465–P–240–MTS

ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

TOP



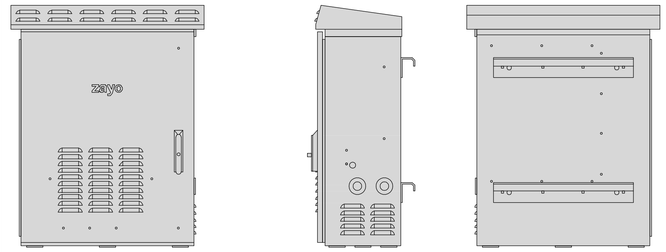
BACK SIDE FRONT SIDE

POWER PROTECTION CABINET (PPC) DETAIL | NO SCALE | 2

ZAYO 5RU CABINET LEFT SWING DOOR ("LIT" SITES)

DIMENSIONS (HxWxD)	36.115"x29"x12.9"
WEIGHT	85 LBS
POWER INPUT	20A, –48VDC

PLAN

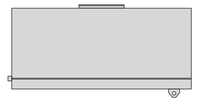


FRONT SIDE BACK

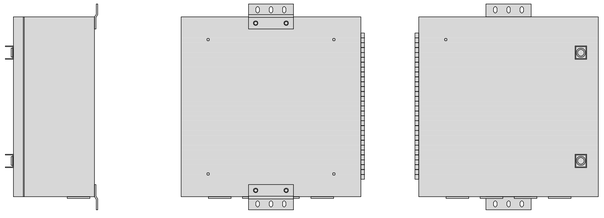
NETWORK INTERFACE UNIT DETAIL | NO SCALE | 3

CHARLES CFIT–PF2020DSH1 FIBER TELCO ENCLOSURE

ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4



FRONT



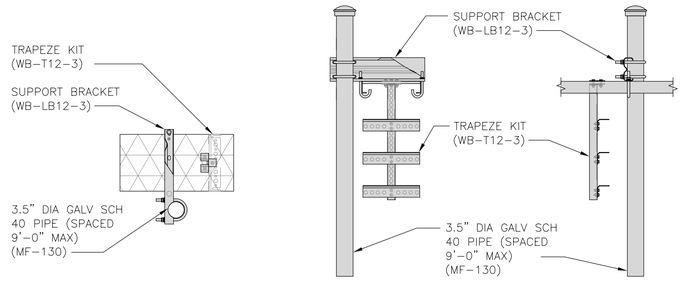
SIDE BACK FRONT

FIBER TELCO ENCLOSURE DETAIL | NO SCALE | 4

COMMSCOPE WB–K110–B WAVEGUIDE BRIDGE KIT

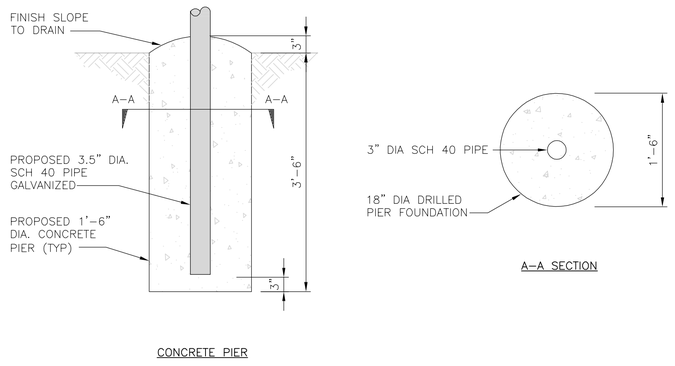
DIMENSIONS (HxL)	160"x10'
WEIGHT/ VOLUME	325.0 LBS
CABLE RUN (QTY)	12

INCLUDED PRODUCTS:
- WB–T12–3 TRAPEZE KIT, 3 RUNGS
- WB–LB12–3 SUPPORT BRACKET
- MF–130 DIRECT BURIAL PIPE COLUMN, 13'–4"



PLAN FRONT SIDE

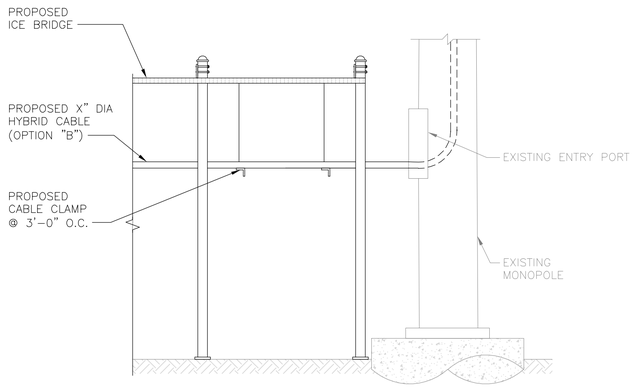
ICE BRIDGE DETAIL | NO SCALE | 5



CONCRETE PIER

A–A SECTION

TYPICAL ICE BRIDGE CONCRETE PIER DETAIL | NO SCALE | 6



HYBRID CABLE RUN | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

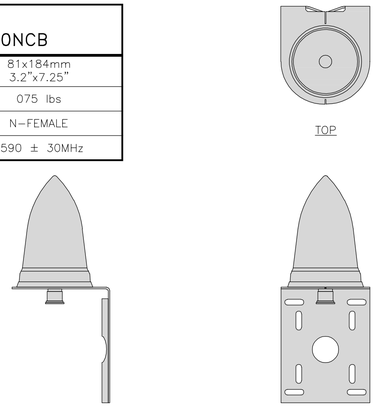
SHEET TITLE

EQUIPMENT DETAILS

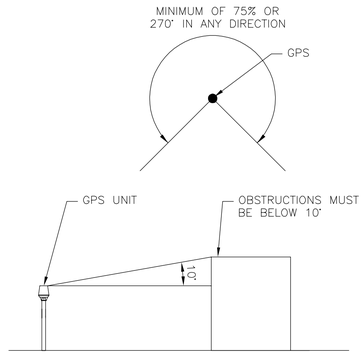
SHEET NUMBER

A-4

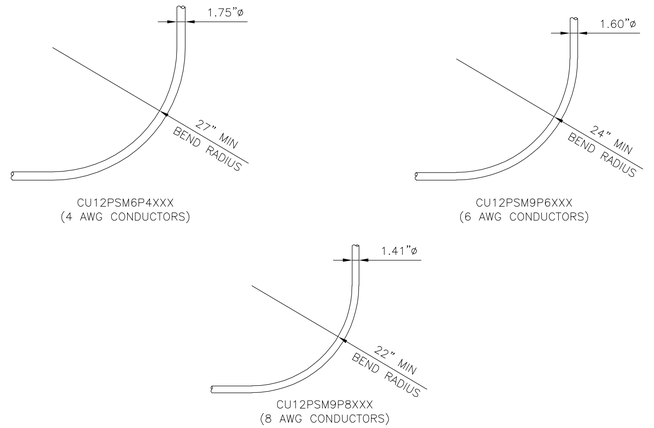
PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



GPS DETAIL | NO SCALE | 1



GPS MINIMUM SKY VIEW REQUIREMENTS | NO SCALE | 2



CABLES UNLIMITED HYBRID CABLE
MINIMUM BEND RADIUSES | NO SCALE | 3

DESC	QTY	
SITE ID #:	d	
TWR TYPE:	d	
HYBRID BEND RADIUS	30"	The preparer must determine the lengths below.
RAD CENTER (ft)	68.0	This is the RAD center for the antennas on towers. For a rooftop, this is the total length of all vertical sections of the hybrid.
ICE BRIDGE HEIGHT (ft)	10.0	This is the height of the bridge coverings.
ICE BRIDGE LENGTH (ft)	4.5	This is the length of the total ice bridge coverings, if more than one ice bridge is used or total horizontal lengths of hybrid if this is inside a building.
LENGTH ACROSS PLATFORM (ft)	6.0	This is the length from the cabinet to the first bend up the ice bridge or inside a radio room.
LENGTH FROM TOWER TOP TO OVP (ft)	6.0	This is the horizontal length from the tower to the OVP at the antenna level or the total horizontal lengths of hybrid on a building or large self supporting tower.
VERTICAL LENGTH OF HYBRID INTO TOWER TOP OVP (ft)	1.0	This is the vertical length of hybrid that comes out to the tower top OVP to the beginning of the first bend that is going into the monopole port.
	LENGTH (ft)	
Additional Excess Hybrid to be added (To be determined by preparer)	0	
Total Hybrid Length to Order (Rounded up to nearest whole number)	102	

HYBRID CABLE CALCULATOR | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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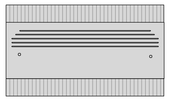
SHEET TITLE
EQUIPMENT DETAILS

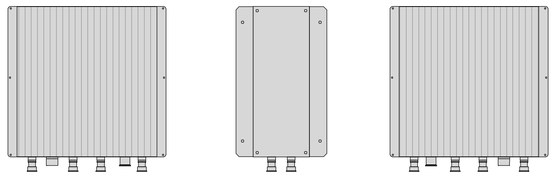
SHEET NUMBER
A-5

FUJITSU TRIPLE BAND TA08025-B605

DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



PLAN

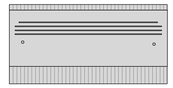


BACK SIDE FRONT

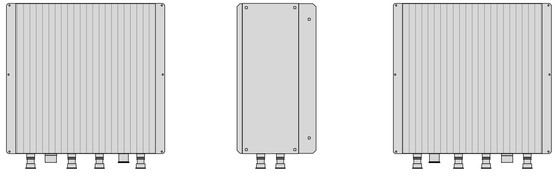
RRH DETAIL | NO SCALE | 1

FUJITSU DUAL BAND TA08025-B604

DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



PLAN



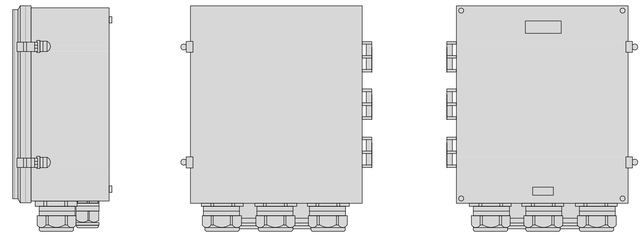
BACK SIDE FRONT

RRH DETAIL | NO SCALE | 2

RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)

DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS

PLAN

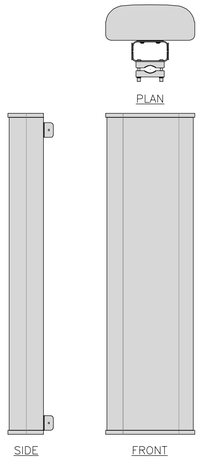


SIDE BACK FRONT

SURGE SUPPRESSION DETAIL (OVP) | NO SCALE | 3

JMA MX08FRO665-21

DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



PLAN

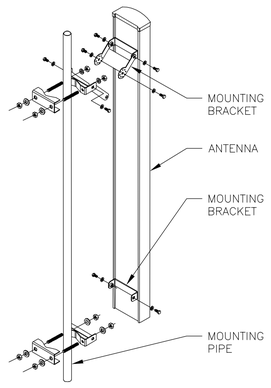
SIDE FRONT

ANTENNA DETAIL | NO SCALE | 4

M04 MOUNTING BRACKET HPA-33R-BUU-H4-K

WIDTH	5"
DEPTH	2"
HEIGHT	8"
TOTAL WEIGHT	1.5 lbs
HOUSING MATERIAL	ASA/ABS/ALUMINUM
RADOME COLOR	LIGHT GRAY
CONNECTOR	1x8-PIN DAISY CHAIN

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

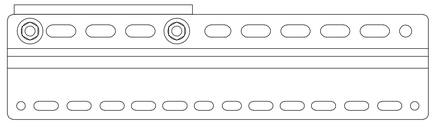


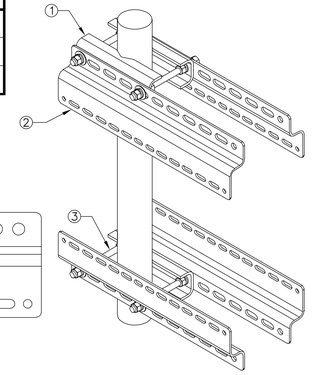
ANTENNA MOUNTING DETAIL | NO SCALE | 5

SABRE DOUBLE Z-BRACKET C10123155

DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"





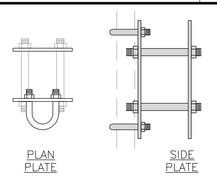
NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

RRH MOUNT DETAIL | NO SCALE | 6

COMMSCOPE XP-2040 CROSSOVER PLATE

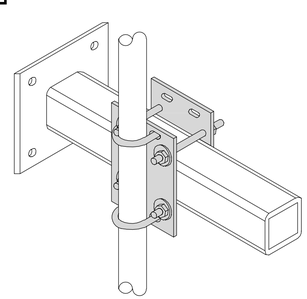
DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



PLAN PLATE SIDE PLATE

PLAN U-BOLT SIDE U-BOLT



RRH/OVP MOUNT DETAIL | NO SCALE | 7

COMMSCOPE MC-PK8-DSH

FACE WIDTH	96"
WEIGHT	1373.08 lbs
NOTE: 15" TO 38" O.D.	

NOTE:
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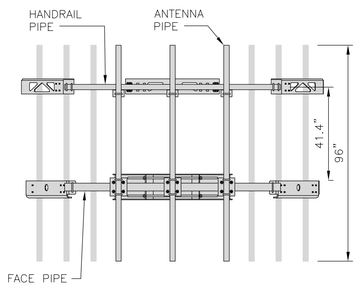
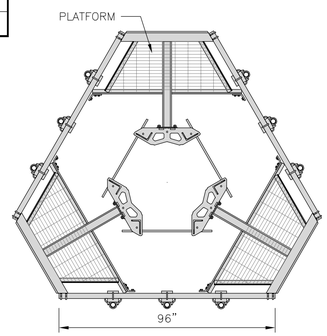
APPROVED EQUIVALENT





ANTENNA PLATFORM DETAIL | NO SCALE | 8

NOT USED | NO SCALE | 9

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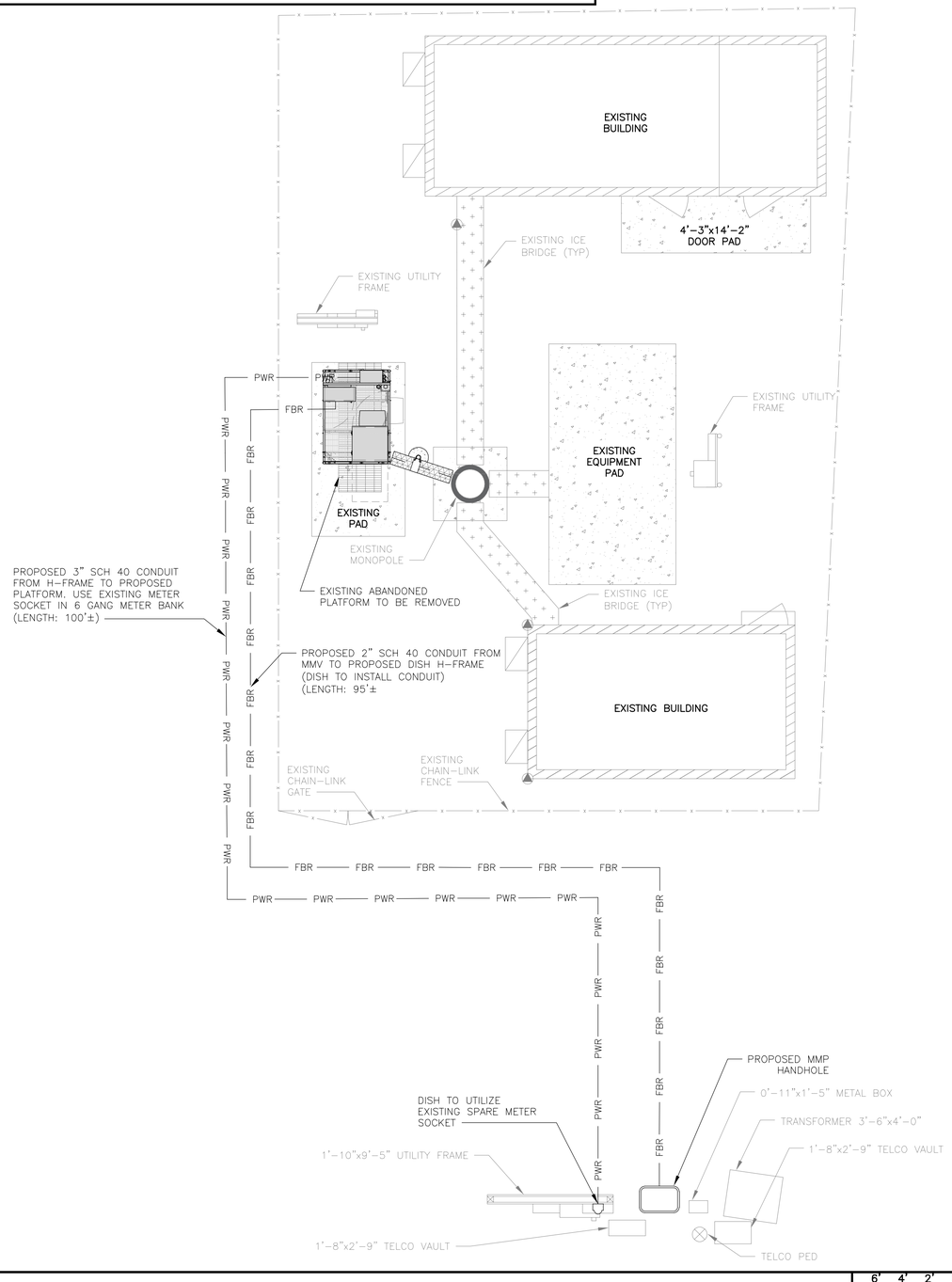
EQUIPMENT DETAILS

SHEET NUMBER

A-6

EASEMENT RIGHTS

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. DUE TO UTILITY EASEMENT RIGHTS SPECIFIED IN THE GROUND LEASE, CUSTOMER MAY INSTALL EQUIPMENT WITHIN SPECIFIED UTILITY EASEMENT AREA. "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 REPRESENT PLANNED ROUTING BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO A SURVEY, EXHIBITS, METES AND BOUNDS OF THE UTILITY EASEMENT, FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS MATERIALLY INCONSISTENT WITH THE "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 AND SAID VARIANCE IS NOT NOTED ON CDS, PLEASE NOTIFY CROWN CASTLE REAL ESTATE AS FURTHER COORDINATION MAY BE NEEDED.



N

UTILITY ROUTE PLAN

6' 4' 2' 0 5' 10'
3/16"=1'-0"

1

DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
13. ALL TRENCHES IN COMPOUND TO BE HAND DUG

ELECTRICAL NOTES

NO SCALE

2

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LICENSE #PEN.0028997

DRAWN BY:	CHECKED BY:	APPROVED BY:
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RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	10/07/2021	ISSUED FOR REVIEW
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A&E PROJECT NUMBER

876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

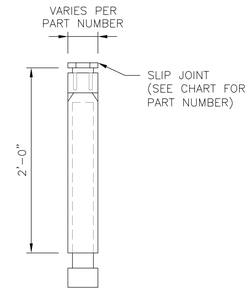
ELECTRICAL/FIBER ROUTE PLAN AND NOTES

SHEET NUMBER

E-1

CARLON EXPANSION FITTINGS

COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"

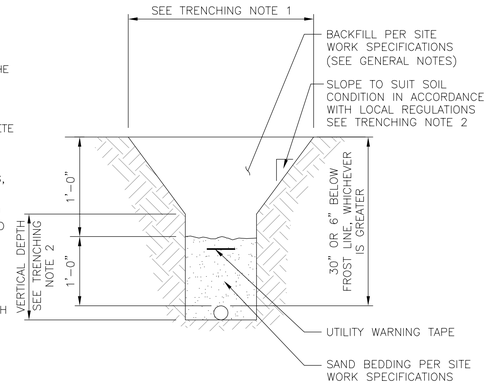


NOTE:
CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

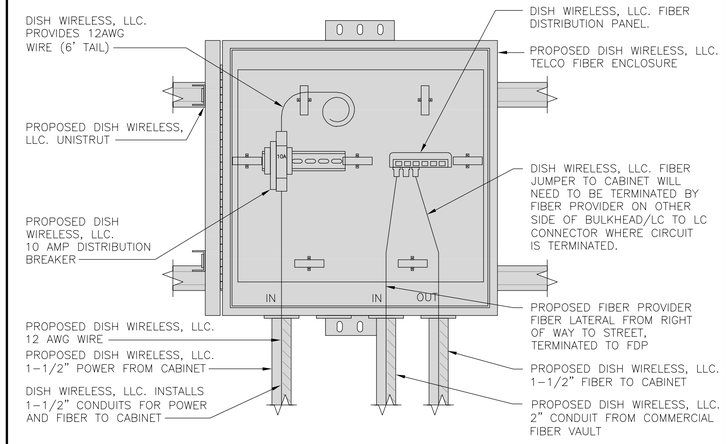
EXPANSION JOINT DETAIL | NO SCALE | 1

TRENCHING NOTES

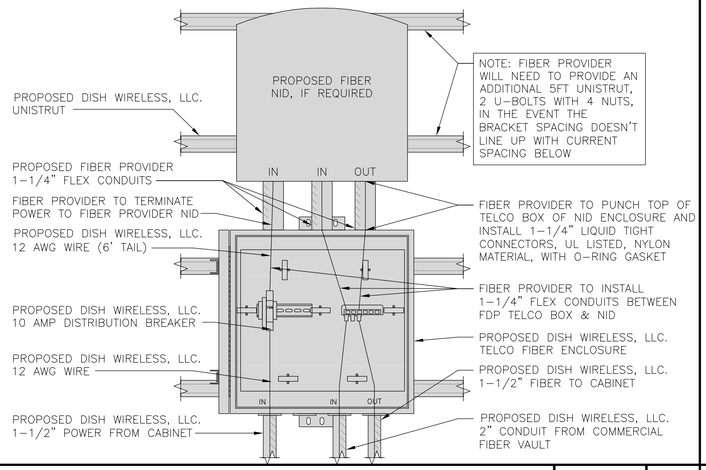
1. CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
2. TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
3. ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.



TYPICAL UNDERGROUND TRENCH DETAIL | NO SCALE | 2



DARK TELCO BOX – INTERIOR WIRING LAYOUT | NO SCALE | 3



LIT TELCO BOX – INTERIOR WIRING LAYOUT (OPTIONAL) | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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DISH WIRELESS, LLC.
PROJECT INFORMATION

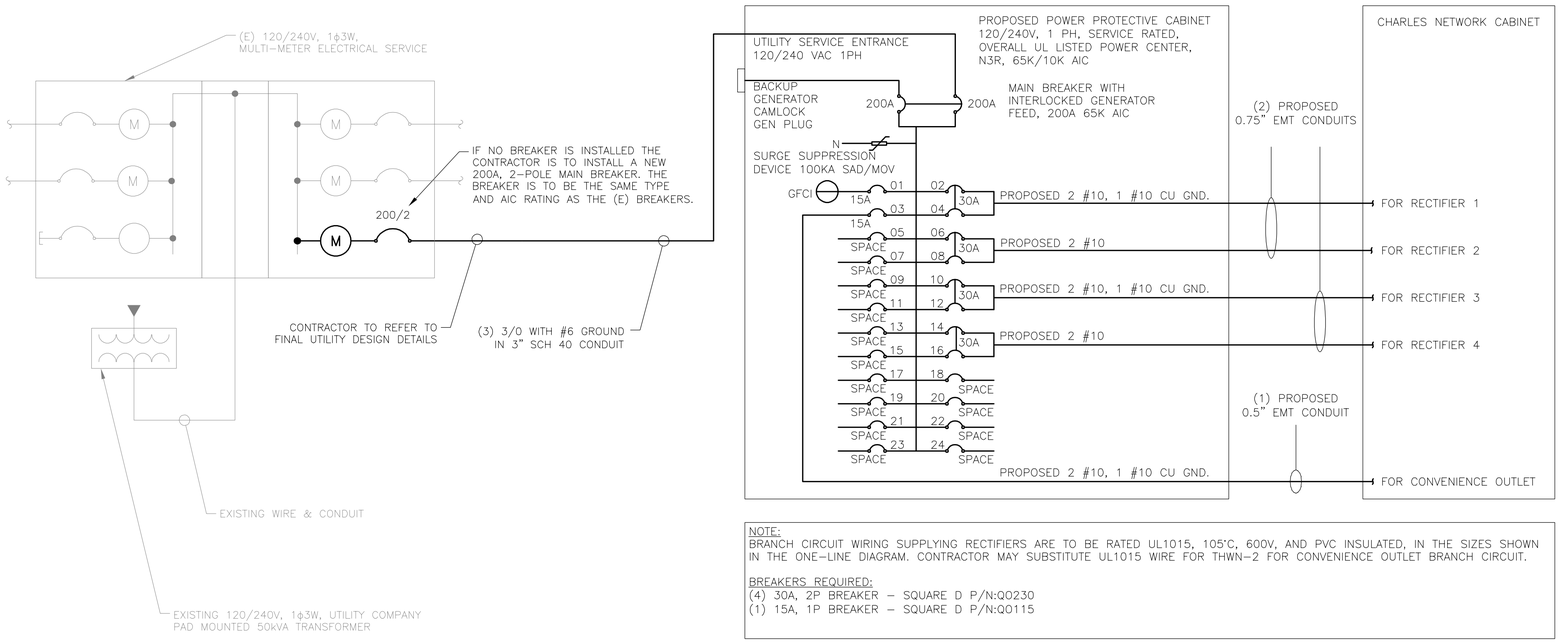
BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-2



NOTE:
BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.

BREAKERS REQUIRED:
(4) 30A, 2P BREAKER – SQUARE D P/N:QO230
(1) 15A, 1P BREAKER – SQUARE D P/N:QO115

NOTES

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATINGS FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND THE ELECTRICAL SYSTEM.

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUIT AND FEEDERS COMPLY WITH THE NEC (LISTED ON T-1) ARTICLE 210.19(A)(1) FPN NO. 4.

THE (2) CONDUITS WITH (4) CURRENT CARRYING CONDUCTORS EACH, SHALL APPLY THE ADJUSTMENT FACTOR OF 80% PER 2014/17 NEC TABLE 310.15(B)(3)(a) OR 2020 NEC TABLE 310.15(C)(1) FOR UL1015 WIRE.

#12 FOR 15A-20A/1P BREAKER: 0.8 x 30A = 24.0A
#10 FOR 25A-30A/2P BREAKER: 0.8 x 40A = 32.0A
#8 FOR 35A-40A/2P BREAKER: 0.8 x 55A = 44.0A
#6 FOR 45A-60A/2P BREAKER: 0.8 x 75A = 60.0A

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358.
0.5" CONDUIT – 0.122 SQ. IN AREA
0.75" CONDUIT – 0.213 SQ. IN AREA
2.0" CONDUIT – 1.316 SQ. IN AREA
3.0" CONDUIT – 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.

#10 – 0.0211 SQ. IN X 2 = 0.0422 SQ. IN
#10 – 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND
TOTAL = 0.0633 SQ. IN

0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (2 CONDUITS): USING UL1015, CU.

#10 – 0.0266 SQ. IN X 4 = 0.1064 SQ. IN
#10 – 0.0082 SQ. IN X 1 = 0.0082 SQ. IN <BARE GROUND
TOTAL = 0.1146 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (5) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.

3/0 – 0.2679 SQ. IN X 3 = 0.8037 SQ. IN
#6 – 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND
TOTAL = 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC ONE-LINE DIAGRAM | NO SCALE | 1

PROPOSED CHARLES PANEL SCHEDULE

LOAD SERVED	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	LOAD SERVED
PPC GFCI OUTLET	180		15A	1	A	2	30A	2880		ABB/GE INFINITY RECTIFIER 1
CHARLES GFCI OUTLET		180	15A	3	B	4			2880	
-SPACE-				5	A	6	30A	2880		ABB/GE INFINITY RECTIFIER 2
-SPACE-				7	B	8			2880	
-SPACE-				9	A	10	30A	2880		ABB/GE INFINITY RECTIFIER 3
-SPACE-				11	B	12			2880	
-SPACE-				13	A	14	30A	2880		ABB/GE INFINITY RECTIFIER 4
-SPACE-				15	B	16			2880	
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS	180	180						11520	11520	
200A MCB, 1ϕ, 24 SPACE, 120/240V			L1		L2					
MB RATING: 65,000 AIC			11700		11700		VOLTAGE AMPS			
			98		98		AMPS			
			98				MAX AMPS			
			123				MAX 125%			

PANEL SCHEDULE | NO SCALE | 2

NOT USED | NO SCALE | 3

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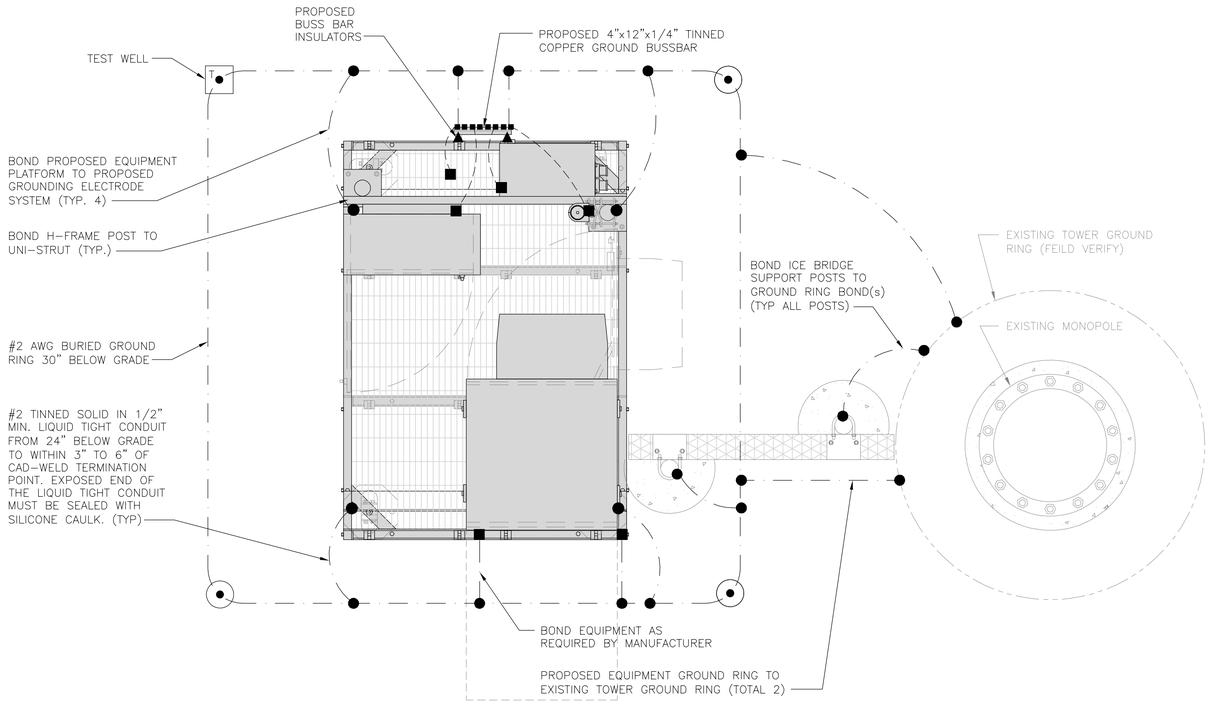
A&E PROJECT NUMBER
876405

DISH WIRELESS, LLC.
PROJECT INFORMATION
BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3

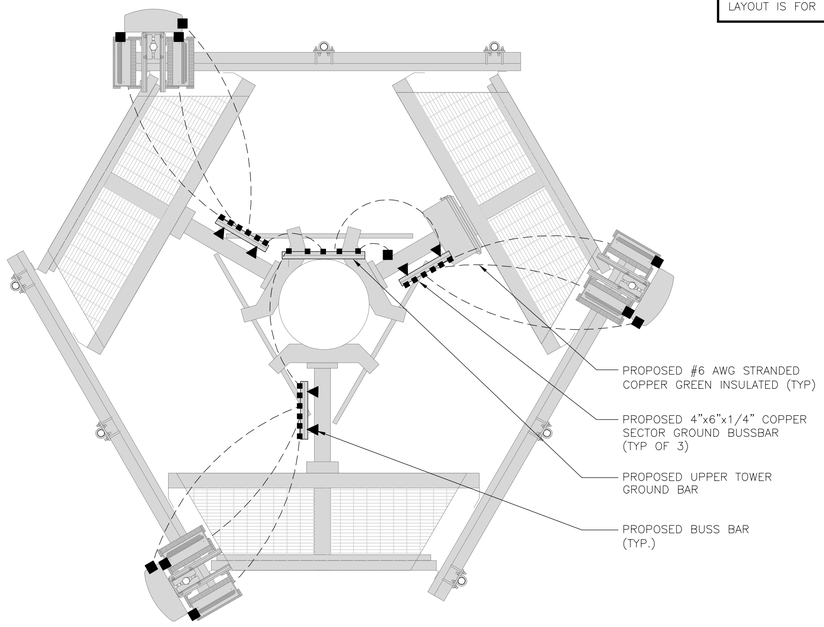


TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE | 1

NOTES

ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE PURPOSES ONLY



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE | 2

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- GROUND BUS BAR
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE
- #6 AWG STRANDED & INSULATED
- #2 AWG SOLID COPPER TINNED
- BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH WIRELESS, LLC. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

(A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.

(B) TOWER GROUND RING: THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.

(C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.

(D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.

(E) GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.

(F) CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.

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

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

(I) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.

(J) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.

(K) INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.

(L) FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.

(M) EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE

(N) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.

(O) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR

(P) TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR.

REFER TO DISH WIRELESS, LLC. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE | 3

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BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

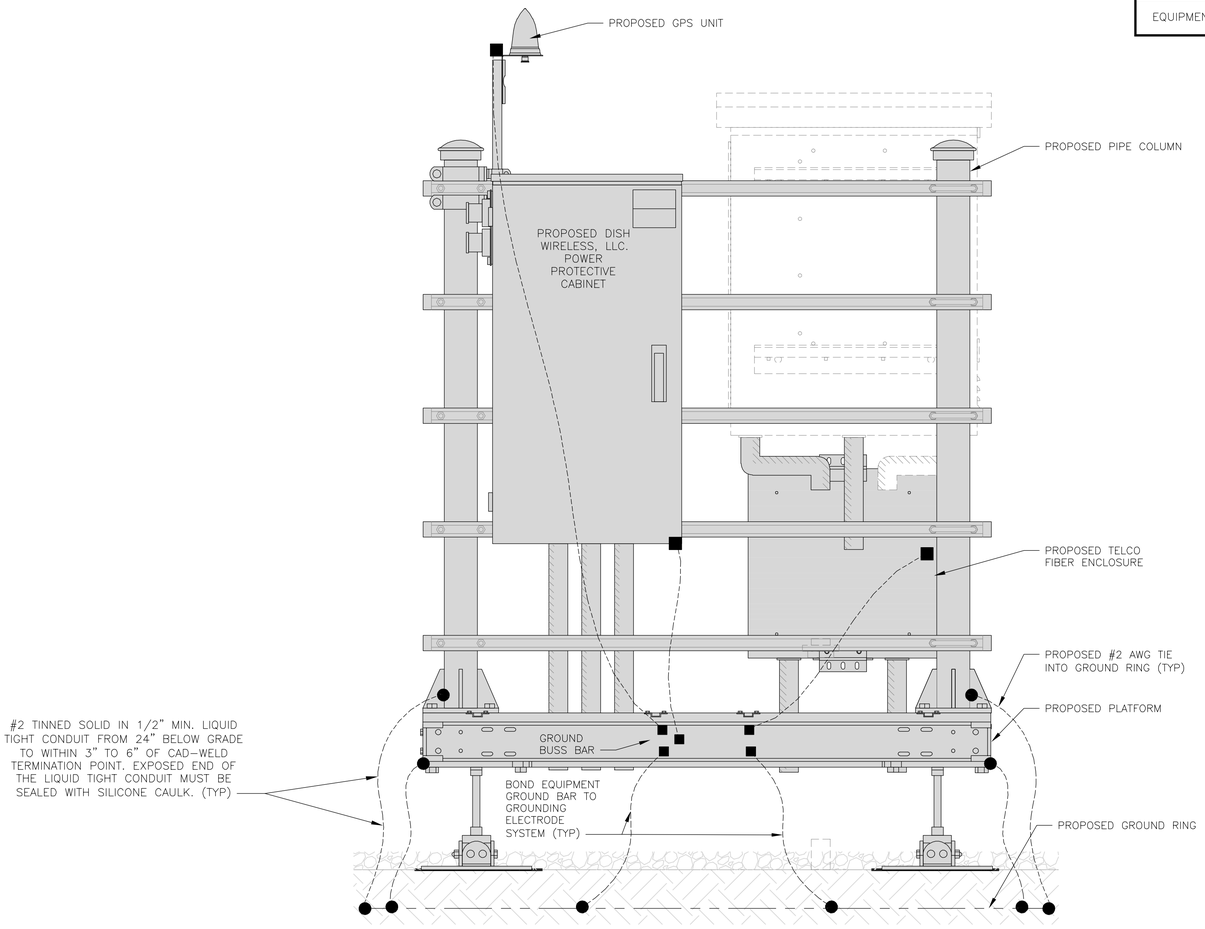
GROUNDING PLANS AND NOTES

SHEET NUMBER

G-1

NOTES

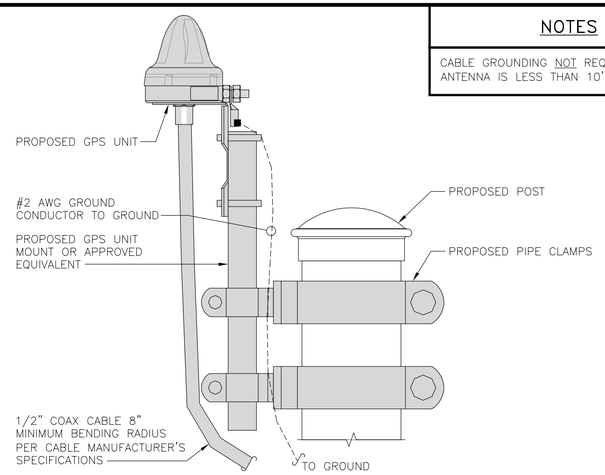
EQUIPMENT CABINET OMITTED FOR CLARITY



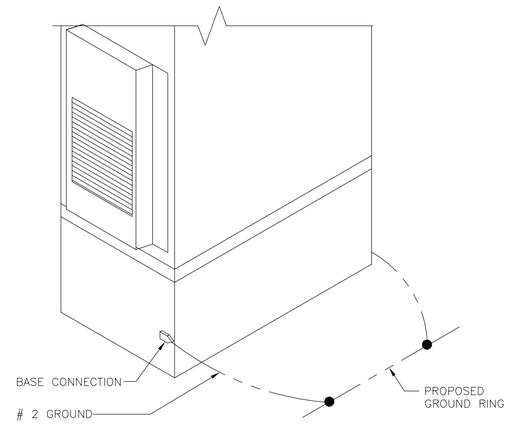
H-FRAME GROUNDING DETAIL | NO SCALE | 1

NOTES

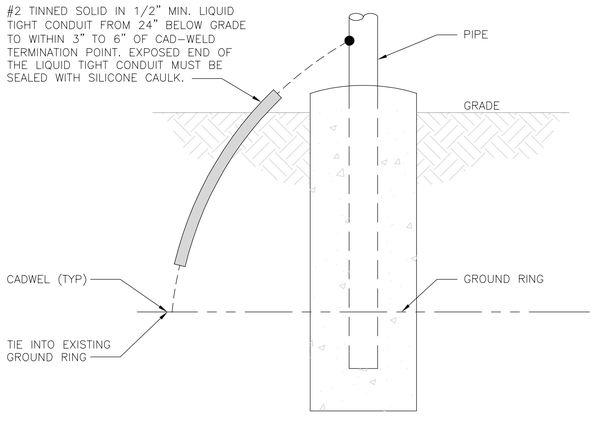
CABLE GROUNDING NOT REQUIRED WHEN ANTENNA IS LESS THAN 10' FROM CABINET



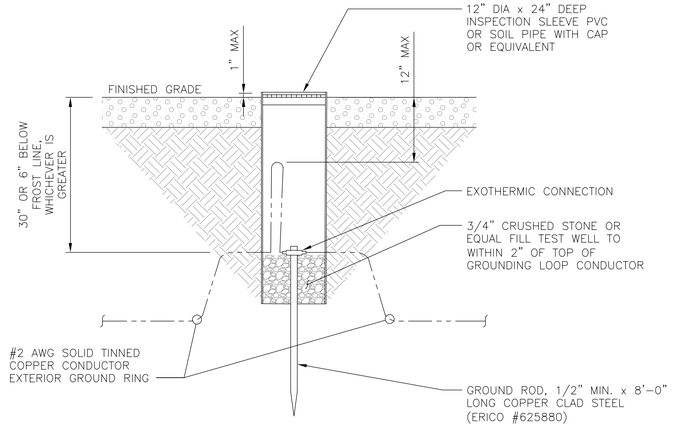
TYPICAL GPS UNIT GROUNDING | NO SCALE | 2



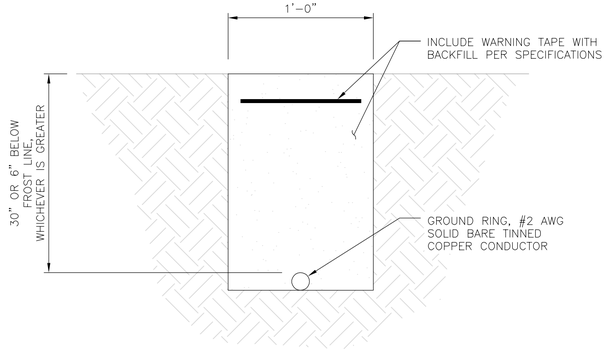
OUTDOOR CABINET GROUNDING | NO SCALE | 3



TRANSITIONING GROUND DETAIL | NO SCALE | 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE | NO SCALE | 5



TYPICAL GROUND RING TRENCH | NO SCALE | 6

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NB+C TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
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RALEIGH, NC 27615
(919) 657-9131

STATE OF CONNECTICUT — KRUPAKARAN KOLANDAIVELU — PEN.0028997 — LICENSED PROFESSIONAL ENGINEER

KRUPAKARAN KOLANDAIVELU, P.E.
STATE OF CONNECTICUT
PROFESSIONAL ENGINEER
LICENSE #PEN.0028997

DRAWN BY:	CHECKED BY:	APPROVED BY:
SN	BRN	TA

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
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0	03/01/2022	FOR CONSTRUCTION

A&E PROJECT NUMBER

876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

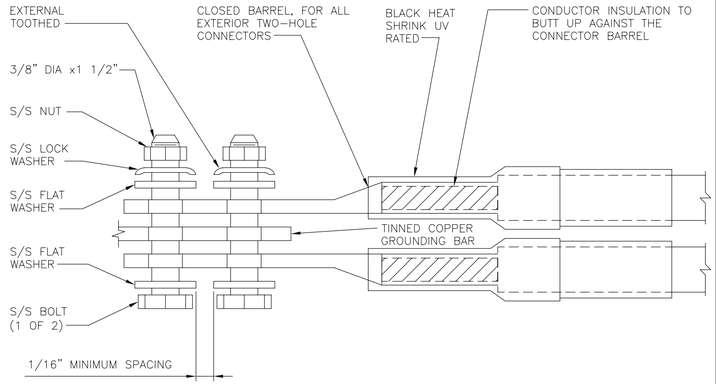
GROUNDING DETAILS

SHEET NUMBER

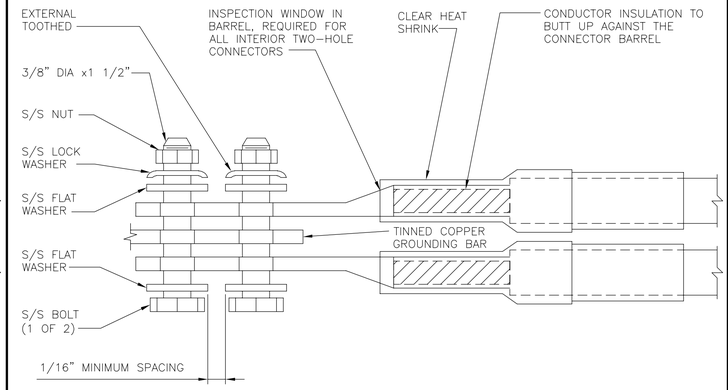
G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR, ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).

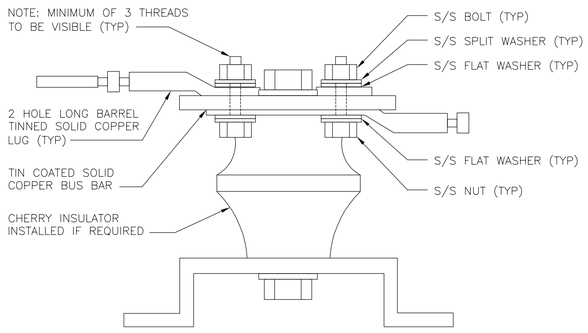
TYPICAL GROUNDING NOTES | NO SCALE | 1



TYPICAL EXTERIOR TWO HOLE LUG | NO SCALE | 2



TYPICAL INTERIOR TWO HOLE LUG | NO SCALE | 3



LUG DETAIL | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

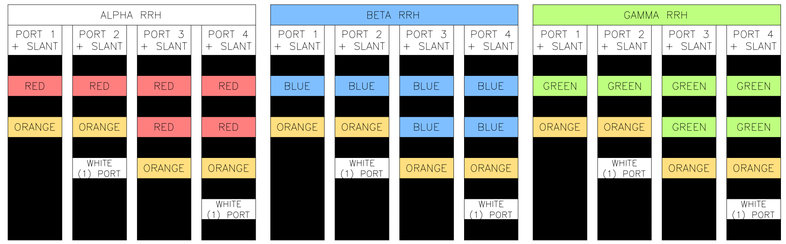
G-3

RF JUMPER COLOR CODING

3/4" TAPE WIDTHS WITH 3/4" SPACING

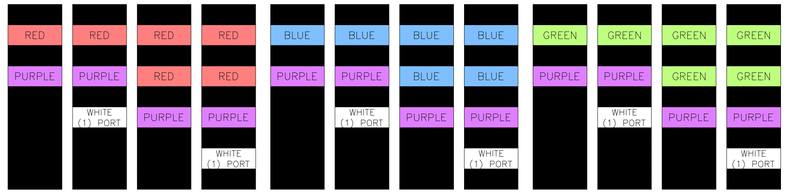
LOW-BAND RRH –
(600MHz N71 BASEBAND) +
(850MHz N26 BAND) +
(700MHz N29 BAND) – OPTIONAL PER MARKET

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)



MID-BAND RRH –
(AWS BANDS N66+N70)

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)

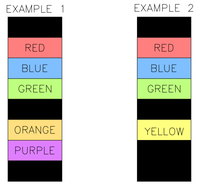


HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED AM LONG WITH FREQUENCY BANDS

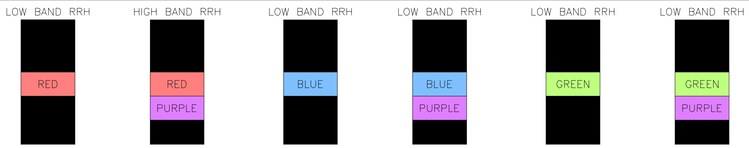
EXAMPLE 1 – HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS

EXAMPLE 2 – HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS



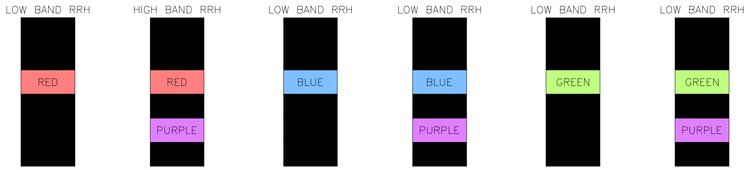
HYBRID/DISCREET CABLES

LOW-BAND RRH FIBER CABLES HAVE SECTOR STRIPE ONLY

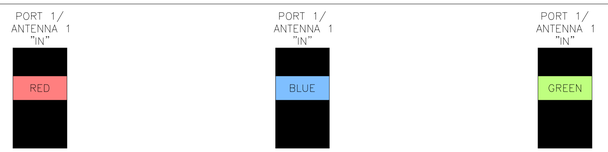


POWER CABLES TO RRHs

LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY



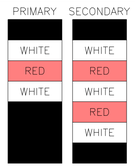
RET MOTORS AT ANTENNAS



MICROWAVE RADIO LINKS

LINKS WILL HAVE A 1.5–2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE. ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO.

MICROWAVE CABINETS WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID'S.



RF CABLE COLOR CODES | NO SCALE | 1

LOW BANDS (N71–N28)
OPTIONAL – (N29)
ORANGE

AWS
(N65+N70+H-BLOCK)
PURPLE

CBRS TECH
(3 GHz)
YELLOW

NEGATIVE SLANT PORT
ON ANTRRH
WHITE

ALPHA SECTOR
RED

BETA SECTOR
BLUE

GAMMA SECTOR
GREEN

COLOR IDENTIFIER | NO SCALE | 2

NOT USED | NO SCALE | 3

NOT USED | NO SCALE | 4

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876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

RF
CABLE COLOR CODES

SHEET NUMBER

RF-1

LEGEND

EXOTHERMIC CONNECTION

MECHANICAL CONNECTION

BUSS BAR INSULATOR

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM — T

EXOTHERMIC WITH INSPECTION SLEEVE

GROUNDING BAR

GROUND ROD

TEST GROUND ROD WITH INSPECTION SLEEVE — T

SINGLE POLE SWITCH

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE — GFCI

FLUORESCENT LIGHTING FIXTURE
(2) TWO LAMPS 48–T8 — F

SMOKE DETECTION (DC) — SD

EMERGENCY LIGHTING (DC)

SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
LED–1–25A400/51K–SR4–120–PE–DDBTXD

CHAIN LINK FENCE — X — X — X — X

WOOD/WROUGHT IRON FENCE

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

ICE BRIDGE

CABLE TRAY

WATER LINE — W — W — W — W — W

UNDERGROUND POWER — UGP — UGP — UGP — UGP — UGP

UNDERGROUND TELCO — UGT — UGT — UGT — UGT — UGT

OVERHEAD POWER — OHP — OHP — OHP — OHP

OVERHEAD TELCO — OHT — OHT — OHT — OHT

UNDERGROUND TELCO/POWER — UGT/P — UGT/P — UGT/P — UGT/P

ABOVE GROUND POWER — AGP — AGP — AGP — AGP — AGP

ABOVE GROUND TELCO — AGT — AGT — AGT — AGT — AGT

ABOVE GROUND TELCO/POWER — AGT/P — AGT/P — AGT/P — AGT/P

WORKPOINT — W.P.

SECTION REFERENCE — XX / X–X

DETAIL REFERENCE — XX / X–X

ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
AC	ALTERNATING CURRENT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGL	ABOVE GROUND LEVEL
AIC	AMPERAGE INTERRUPTION CAPACITY
ALUM	ALUMINUM
ALT	ALTERNATE
ANT	ANTENNA
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BTC	BARE TINNED COPPER CONDUCTOR
BOF	BOTTOM OF FOOTING
CAB	CABINET
CANT	CANTILEVERED
CHG	CHARGING
CLG	CEILING
CLR	CLEAR
COL	COLUMN
COMM	COMMON
CONC	CONCRETE
CONSTR	CONSTRUCTION
DBL	DOUBLE
DC	DIRECT CURRENT
DEPT	DEPARTMENT
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
EC	ELECTRICAL CONDUCTOR
EL.	ELEVATION
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EQ	EQUAL
EXP	EXPANSION
EXT	EXTERIOR
EW	EACH WAY
FAB	FABRICATION
FF	FINISH FLOOR
FG	FINISH GRADE
FIF	FACILITY INTERFACE FRAME
FIN	FINISH(ED)
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FS	FINISH SURFACE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GLB	GLUE LAMINATED BEAM
GLV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HGR	HANGER
HVAC	HEAT/VENTILATION/AIR CONDITIONING
HT	HEIGHT
IGR	INTERIOR GROUND RING
IN	INCH
INT	INTERIOR
LB(S)	POUND(S)
LF	LINEAR FEET
LTE	LONG TERM EVOLUTION
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
NEC	NATIONAL ELECTRIC CODE
NM	NEWTON METERS
NO.	NUMBER
#	NUMBER
NTS	NOT TO SCALE
OC	ON–CENTER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OPNG	OPENING
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION SERVICES
PCU	PRIMARY CONTROL UNIT
PRC	PRIMARY RADIO CABINET
PP	POLARIZING PRESERVING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PWR	POWER CABINET
QTY	QUANTITY
RAD	RADIUS
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	REMOTE ELECTRIC TILT
RF	RADIO FREQUENCY
RMC	RIGID METALLIC CONDUIT
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
RWY	RACEWAY
SCH	SCHEDULE
SHT	SHEET
SIAD	SMART INTEGRATED ACCESS DEVICE
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
TEMP	TEMPORARY
THK	THICKNESS
TMA	TOWER MOUNTED AMPLIFIER
TN	TOE NAIL
TOA	TOP OF ANTENNA
TOC	TOP OF CURB
TOF	TOP OF FOUNDATION
TOP	TOP OF PLATE (PARAPET)
TOS	TOP OF STEEL
TOW	TOP OF WALL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
UPS	UNITERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VIF	VERIFIED IN FIELD
W	WIDE
W/	WITH
WD	WOOD
WP	WEATHERPROOF
WT	WEIGHT

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A&E PROJECT NUMBER

876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH WIRELESS, LLC. AND TOWER OWNER NOC & THE DISH WIRELESS, LLC. AND TOWER OWNER CONSTRUCTION MANAGER.

2. "LOOK UP" – DISH WIRELESS, LLC. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH WIRELESS, LLC. AND DISH WIRELESS, LLC. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.

4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH WIRELESS, LLC. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).

5. ALL SITE WORK TO COMPLY WITH DISH WIRELESS, LLC. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH WIRELESS, LLC. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."

6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH WIRELESS, LLC. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

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

9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.

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

11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.

12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

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

14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.

15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.

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

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

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

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

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

21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

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

GENERAL NOTES:

1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH WIRELESS, LLC.

TOWER OWNER:TOWER OWNER

2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.

4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.

5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.

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

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

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

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

10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.

12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH WIRELESS, LLC. AND TOWER OWNER

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

14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

dish wireless.

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DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.

3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.

4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.

5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:

#4 BARS AND SMALLER 40 ksi

#5 BARS AND LARGER 60 ksi

6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER:
- #6 BARS AND LARGER 2"
- #5 BARS AND SMALLER 1-1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLAB AND WALLS 3/4"
- BEAMS AND COLUMNS 1-1/2"

7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.

2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.

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

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

4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.

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

6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).

7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.

8. TIE WRAPS ARE NOT ALLOWED.

9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.

12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).

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

15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.

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

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

20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.

21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).

22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).

23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.

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

26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH WIRELESS, LLC. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

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

29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH WIRELESS, LLC.".

30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

dish wireless.

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A&E PROJECT NUMBER

876405

DISH WIRELESS, LLC.
PROJECT INFORMATION

BOHVN00172A
186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.

4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.

6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.

7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.

8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.

11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.

19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.

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186 MINORTOWN
WOODBURY, CT 06798

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4

Exhibit D

Structural Analysis Report

Date: **September 21, 2021**

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation:	***DISH Network* Co-Locate**	
	Site Number:	BOHVN00172A
	Site Name:	CT-CCI-T-876405
Crown Castle Designation:	**BU Number:**	876405
	Site Name:	WOODBURY NORTH
	JDE Job Number:	645206
	Work Order Number:	1964072
	Order Number:	553389 Rev. 0
Engineering Firm Designation:	**TEP Project Number:**	25640.597664
Site Data:	**186 Minortown, Woodbury, Litchfield County, CT 06798**	
	Latitude *41° 34' 4.79"*, Longitude *-73° 10' 46.85"*	
	110 Foot - Monopole Tower	

Tower Engineering Professionals is pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above-mentioned tower.

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

LC7: Proposed Equipment Configuration **Sufficient Capacity – 99.4%**

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2015 international Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Gautam Sopal, E.I. / DEN

Respectfully submitted by:

Aaron T. Rucker, P.E.

09/21/2021

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 100-ft monopole tower designed by Engineered Endeavors, Inc. The tower has been modified multiple times in the past to accommodate additional loading. The tower was previously extended 10-ft, bringing the overall tower height to 110-ft.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	118 mph
Exposure Category:	C
Topographic Factor:	1.0
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
68.0	68.0	3	JMA Wireless	MX08FRO665-21 w/ Mount Pipe	1	1-3/8
		3	Fujitsu	TA08025-B604		
		3	Fujitsu	TA08025-B605		
		1	Raycap	RDIDC-9181-PF-48		
		1	Tower Mounts	Commscope MC-PK8-DSH		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
108.0	108.0	6	Commscope	JAHH-65B-R3B w/ Mount Pipe	6 1	1-5/8 1-1/4
		3	VZW	Sub6 Antenna - VZS01 w/ Mount Pipe		
		2	Antel	BXA-80080/4CF w/ Mount Pipe		
		1	Antel	BXA-80063/4CFx5 w/ Mount Pipe		
		3	Commscope	CBC78T-DS-43-2X		
		3	Samsung Telecom.	RFV01U-D1A		
		3	Samsung Telecom.	RFV01U-D2A		
		1	RFS Celwave	DB-C1-12C-24AB-0Z		
		1	Tower Mounts	T-Arm Mount [TA 602-3]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
102.0	102.0	3	RFS Celwave	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	4	1-5/8
		3	RFS Celwave	APXVAALL24_43-U-NA20_TMO w/ Mount Pipe		
		3	Ericsson	AIR6449 B41_T-MOBILE w/ Mount Pipe		
		3	Ericsson	RADIO 4415 B66A_CCIV3		
		3	Ericsson	RADIO 4424 B25_TMO		
		3	Ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		1	Tower Mounts	SitePro1 RMQP-4096-HK		
97.0	97.0	3	Alcatel Lucent	1900MHz RRH (65MHz)	-	-
		3	Alcatel Lucent	800MHZ RRH		
		1	Tower Mounts	Side Arm Mount [SO 701-3]		
80.0	80.0	3	Powerwave Technologies	7770.00 w/ Mount Pipe	12 2 2 2	1-5/8 7/8 3/8 7/16
		4	Cci Antennas	DMP65R-BU6D w/ Mount Pipe		
		2	Cci Antennas	DMP65R-BU4D w/ Mount Pipe		
		6	Powerwave Technologies	LGP21401		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Ericsson	RRUS 4478 B14		
		1	Raycap	DC6-48-60-0-8C-EV		
		1	Raycap	DC6-48-60-18-8F		
		1	Tower Mounts	T-Arm Mount [TA 602-3]		
75.0	75.0	3	Ericsson	RRUS 4449 B5/B12	-	
		1	Tower Mounts	Side Arm Mount [SO 901-3]		
50.0	51.0	1	Lucent	KS24019-L112A	1	1/2
	50.0	1	Tower Mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	2158106	CCISites
Tower Foundation Drawings	1613643	CCISites
Tower Manufacturer Drawings	1614551	CCISites
Post-Modification Inspection	1956156	CCISites
Tower Reinforcement Drawings	2055775	CCISites
Tower Reinforcement Drawings	2177138	CCISites
Post-Modification Inspection	2309564	CCISites
Post-Modification Inspection	3373272	CCISites
Tower Reinforcement Drawings	3382709	CCISites
Post-Modification Inspection	3849745	CCISites

3.1) Analysis Method

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

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are presented in Appendix C.

3.2) Assumptions

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

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)[1,2]

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
110 - 105	Pole	TP13.693x12.7x0.1875	Pole	7.2%	Pass
105 - 100	Pole	TP14.686x13.693x0.1875	Pole	21.6%	Pass
100 - 98.5	Pole	TP14.984x14.686x0.1875	Pole	27.0%	Pass
98.5 - 93.5	Pole	TP16.012x14.984x0.1875	Pole	43.3%	Pass
93.5 - 88.5	Pole	TP17.039x16.012x0.1875	Pole	56.1%	Pass
88.5 - 83.5	Pole	TP18.066x17.039x0.1875	Pole	66.2%	Pass
83.5 - 78.67	Pole	TP19.058x18.066x0.1875	Pole	76.6%	Pass
78.67 - 78.42	Pole + Reinf.	TP19.11x19.058x0.5625	Reinf. 5 Bolt-Shaft Bearing	41.7%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
78.42 - 73.42	Pole + Reinf.	TP20.137x19.11x0.5375	Reinf. 5 Tension Rupture	48.9%	Pass
73.42 - 68.42	Pole + Reinf.	TP21.164x20.137x0.5125	Reinf. 5 Tension Rupture	55.6%	Pass
68.42 - 63.42	Pole + Reinf.	TP22.191x21.164x0.4875	Reinf. 5 Tension Rupture	63.7%	Pass
63.42 - 58.67	Pole + Reinf.	TP23.167x22.191x0.475	Reinf. 5 Bolt-Shaft Bearing	71.1%	Pass
58.67 - 58.42	Pole + Reinf.	TP23.218x23.167x0.475	Reinf. 4 Bolt-Shaft Bearing	71.4%	Pass
58.42 - 53.42	Pole + Reinf.	TP24.246x23.218x0.4625	Reinf. 4 Tension Rupture	77.2%	Pass
53.42 - 50.87	Pole + Reinf.	TP25.54x24.246x0.45	Reinf. 4 Tension Rupture	80.2%	Pass
50.87 - 45.87	Pole + Reinf.	TP25.363x24.395x0.5125	Reinf. 4 Tension Rupture	76.9%	Pass
45.87 - 40.87	Pole + Reinf.	TP26.332x25.363x0.5	Reinf. 4 Tension Rupture	81.2%	Pass
40.87 - 35.87	Pole + Reinf.	TP27.301x26.332x0.4875	Reinf. 4 Tension Rupture	85.0%	Pass
35.87 - 30.87	Pole + Reinf.	TP28.269x27.301x0.475	Reinf. 4 Tension Rupture	88.4%	Pass
30.87 - 28.67	Pole + Reinf.	TP28.696x28.269x0.475	Reinf. 4 Tension Rupture	89.7%	Pass
28.67 - 28.42	Pole + Reinf.	TP28.744x28.696x0.475	Reinf. 7 Tension Rupture	89.9%	Pass
28.42 - 23.42	Pole + Reinf.	TP29.713x28.744x0.4625	Reinf. 7 Tension Rupture	92.7%	Pass
23.42 - 18.42	Pole + Reinf.	TP30.681x29.713x0.4563	Reinf. 7 Tension Rupture	95.2%	Pass
18.42 - 14.17	Pole + Reinf.	TP31.505x30.681x0.45	Reinf. 7 Tension Rupture	97.1%	Pass
14.17 - 13.92	Pole + Reinf.	TP31.553x31.505x0.55	Reinf. 3 Tension Rupture	86.4%	Pass
13.92 - 13.67	Pole + Reinf.	TP31.602x31.553x0.55	Reinf. 3 Tension Rupture	86.5%	Pass
13.67 - 13.42	Pole + Reinf.	TP31.65x31.602x0.4688	Reinf. 6 Tension Rupture	96.3%	Pass
13.42 - 8.42	Pole + Reinf.	TP32.619x31.65x0.4625	Reinf. 6 Tension Rupture	98.4%	Pass
8.42 - 5.75	Pole + Reinf.	TP33.136x32.619x0.4625	Reinf. 6 Tension Rupture	99.4%	Pass
5.75 - 5.5	Pole + Reinf.	TP33.184x33.136x0.525	Reinf. 3 Tension Rupture	89.5%	Pass
5.5 - 3.57	Pole + Reinf.	TP33.558x33.184x0.5875	Reinf. 1 Compression	74.0%	Pass
3.57 - 3.32	Pole + Reinf.	TP33.607x33.558x0.5875	Reinf. 1 Compression	74.1%	Pass
3.32 - 3.17	Pole + Reinf.	TP33.636x33.607x0.5875	Reinf. 1 Compression	74.1%	Pass
3.17 - 2.92	Pole + Reinf.	TP33.684x33.636x0.4938	Reinf. 1 Compression	84.4%	Pass
2.92 - 2.75	Pole + Reinf.	TP33.717x33.684x0.4938	Reinf. 1 Compression	84.5%	Pass
2.75 - 2.5	Pole + Reinf.	TP33.766x33.717x0.4875	Reinf. 1 Compression	84.6%	Pass
2.5 - 0	Pole + Reinf.	TP34.25x33.766x0.4875	Reinf. 1 Compression	85.2%	Pass
				Summary	
			Pole	76.6%	Pass
			Reinforcement	99.4%	Pass
			Overall	**99.4%**	**Pass**

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Flange Connection	98.5	72.2	Pass
1,2	Anchor Rods	-	65.4	Pass
1,2	Base Plate	-	95.3	Pass
1,2	Base Foundation Structural	-	57.1	Pass
1,2	Base Foundation Soil Interaction	-	89.5	Pass

Structure Rating (max from all components) =	99.4%

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

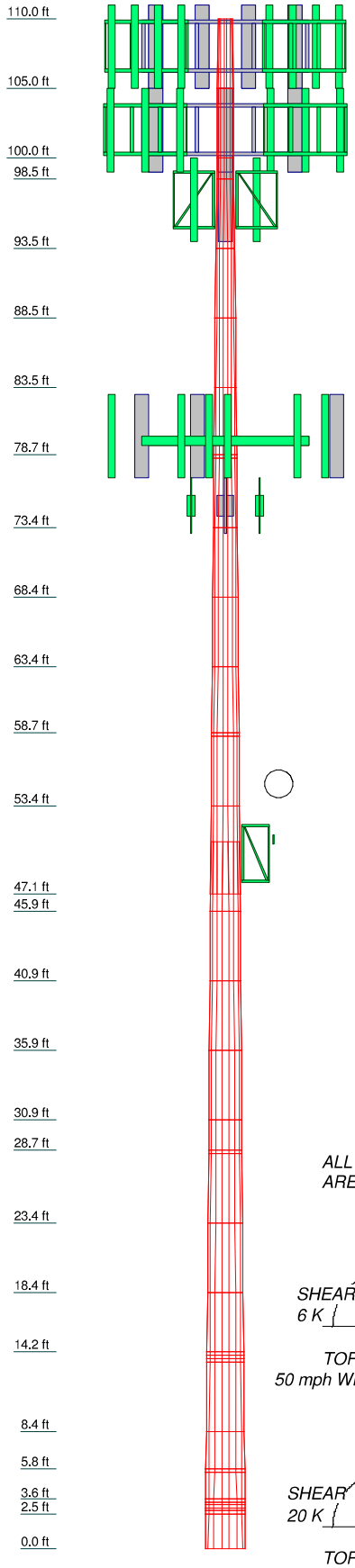
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Length (ft)	5.00	5.00	1.50	5.00	5.00	5.00	4.83	0.25	5.00	5.00	5.00	4.75	0.25	5.00	6.30		5.00	5.00	5.00	5.20	0.25	5.00	5.00	4.25	0.25	5.00	5.00	5.00	2.67	0.25	5.00	5.00	5.00	0.25	5.00	5.00	5.00	2.50
Number of Sides	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Thickness (in)	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.5375	0.5125	0.4875	0.4750	0.4750	0.4625	0.4500	0.5125	0.5000	0.4875	0.4750	0.4750	0.4750	0.4625	0.4562	0.4500	0.4500	0.4500	0.4500	0.4625	0.4625	0.4625	0.4625	0.4625	0.4625	0.4625	0.4625	0.4625	0.4625	0.4625
Socket Length (ft)															3.75																								
Top Dia (in)	12.7000	13.6932	13.6932	14.6863	14.9843	16.0115	17.0387	17.0660	18.0583	19.1096	20.1368	21.1640	22.1913	22.1671	23.2185	24.2457	25.3632	26.3320	27.3006	28.2693	28.2956	28.7445	29.7127	30.6814	30.6814	31.6501	32.6187	32.6187	33.5874	33.5874	34.5560	34.5560	35.5247	35.5247	36.4933	36.4933	37.4620	38.4307
Bot Dia (in)	13.6932	14.6863	14.9843	16.0115	17.0387	18.0660	18.0583	19.1096	20.1368	21.1640	22.1913	23.2185	23.2185	24.2457	25.5400	25.3633	26.3320	27.3006	28.2693	28.2956	29.2643	29.7127	30.6814	31.6501	31.6501	32.6187	33.5874	33.5874	34.5560	34.5560	35.5247	35.5247	36.4933	36.4933	37.4620	38.4307	39.3993	40.3680
Grade	A572-65																																					
Weight (K)	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.0	0.5	0.5	0.5	0.5	0.0	0.5	0.7	0.6	0.6	0.6	0.7	0.3	0.0	0.7	0.7	0.6	0.0	0.0	0.0	0.8	0.4	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.4	11.4



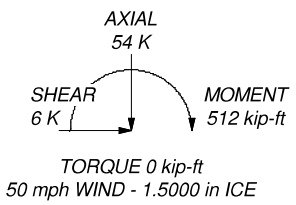
MATERIAL STRENGTH

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

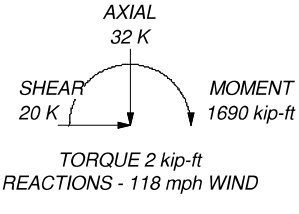
TOWER DESIGN NOTES

1. Tower is located in Litchfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.4%

ALL REACTIONS ARE FACTORED



TORQUE 0 kip-ft
50 mph WIND - 1.5000 in ICE



TORQUE 2 kip-ft
REACTIONS - 118 mph WIND

Tower Engineering Professionals
326 Tryon Rd.
Raleigh, NC 27603
Phone: (919) 661-6351
FAX:

Job: ***Woodbury North (BU 876405)***			
Project: ***TEP No. 25640.597664***			
Client: Crown Castle	Drawn by: kolson	App'd:	
Code: TIA-222-H	Date: 09/21/21	Scale: NTS	
Path: C:\Users\kolson\Desktop\tnx\876405\876405_1964072_LC7.eri		Dwg No. E-1	

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in Litchfield County, Connecticut.
Tower base elevation above sea level: 460.00 ft.
Basic wind speed of 118 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.5000 in.
Ice thickness is considered to increase with height.
Ice density of 56.00 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
TOWER RATING: 99.4%.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Maximum demand-capacity ratio is: 1.05.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	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-H Bracing Resist. Exemption
	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Use TIA-222-H 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

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	110.00-105.00	5.00	0.00	18	12.7000	13.6932	0.1875	0.7500	A572-65 (65 ksi)
L2	105.00-100.00	5.00	0.00	18	13.6932	14.6863	0.1875	0.7500	A572-65 (65 ksi)
L3	100.00-98.50	1.50	0.00	18	14.6863	14.9843	0.1875	0.7500	A572-65 (65 ksi)
L4	98.50-93.50	5.00	0.00	18	14.9843	16.0115	0.1875	0.7500	A572-65 (65 ksi)
L5	93.50-88.50	5.00	0.00	18	16.0115	17.0387	0.1875	0.7500	A572-65 (65 ksi)
L6	88.50-83.50	5.00	0.00	18	17.0387	18.0660	0.1875	0.7500	A572-65 (65 ksi)
L7	83.50-78.67	4.83	0.00	18	18.0660	19.0583	0.1875	0.7500	A572-65 (65 ksi)
L8	78.67-78.42	0.25	0.00	18	19.0583	19.1096	0.5625	2.2500	A572-65 (65 ksi)
L9	78.42-73.42	5.00	0.00	18	19.1096	20.1368	0.5375	2.1500	A572-65 (65 ksi)
L10	73.42-68.42	5.00	0.00	18	20.1368	21.1640	0.5125	2.0500	A572-65 (65 ksi)
L11	68.42-63.42	5.00	0.00	18	21.1640	22.1913	0.4875	1.9500	A572-65 (65 ksi)
L12	63.42-58.67	4.75	0.00	18	22.1913	23.1671	0.4750	1.9000	A572-65 (65 ksi)
L13	58.67-58.42	0.25	0.00	18	23.1671	23.2185	0.4750	1.9000	A572-65 (65 ksi)
L14	58.42-53.42	5.00	0.00	18	23.2185	24.2457	0.4625	1.8500	A572-65 (65 ksi)
L15	53.42-47.12	6.30	3.75	18	24.2457	25.5400	0.4500	1.8000	A572-65 (65 ksi)
L16	47.12-45.87	5.00	0.00	18	24.3946	25.3633	0.5125	2.0500	A572-65 (65 ksi)
L17	45.87-40.87	5.00	0.00	18	25.3633	26.3320	0.5000	2.0000	A572-65 (65 ksi)
L18	40.87-35.87	5.00	0.00	18	26.3320	27.3006	0.4875	1.9500	A572-65 (65 ksi)
L19	35.87-30.87	5.00	0.00	18	27.3006	28.2693	0.4750	1.9000	A572-65 (65 ksi)
L20	30.87-28.67	2.20	0.00	18	28.2693	28.6956	0.4750	1.9000	A572-65 (65 ksi)
L21	28.67-28.42	0.25	0.00	18	28.6956	28.7440	0.4750	1.9000	A572-65 (65 ksi)
L22	28.42-23.42	5.00	0.00	18	28.7440	29.7127	0.4625	1.8500	A572-65 (65 ksi)
L23	23.42-18.42	5.00	0.00	18	29.7127	30.6814	0.4562	1.8250	A572-65 (65 ksi)
L24	18.42-14.17	4.25	0.00	18	30.6814	31.5047	0.4500	1.8000	A572-65 (65 ksi)
L25	14.17-13.92	0.25	0.00	18	31.5047	31.5532	0.5500	2.2000	A572-65 (65 ksi)
L26	13.92-13.67	0.25	0.00	18	31.5532	31.6016	0.5500	2.2000	A572-65 (65 ksi)
L27	13.67-13.42	0.25	0.00	18	31.6016	31.6500	0.4688	1.8750	A572-65 (65 ksi)
L28	13.42-8.42	5.00	0.00	18	31.6500	32.6187	0.4625	1.8500	A572-65 (65 ksi)
L29	8.42-5.75	2.67	0.00	18	32.6187	33.1360	0.4625	1.8500	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L30	5.75-5.50	0.25	0.00	18	33.1360	33.1844	0.5250	2.1000	A572-65 (65 ksi)
L31	5.50-3.57	1.93	0.00	18	33.1844	33.5584	0.5875	2.3500	A572-65 (65 ksi)
L32	3.57-3.32	0.25	0.00	18	33.5584	33.6068	0.5875	2.3500	A572-65 (65 ksi)
L33	3.32-3.17	0.15	0.00	18	33.6068	33.6359	0.5875	2.3500	A572-65 (65 ksi)
L34	3.17-2.92	0.25	0.00	18	33.6359	33.6843	0.4938	1.9750	A572-65 (65 ksi)
L35	2.92-2.75	0.17	0.00	18	33.6843	33.7172	0.4938	1.9750	A572-65 (65 ksi)
L36	2.75-2.50	0.25	0.00	18	33.7172	33.7657	0.4875	1.9500	A572-65 (65 ksi)
L37	2.50-0.00	2.50		18	33.7657	34.2500	0.4875	1.9500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	12.8670	7.4465	147.2916	4.4419	6.4516	22.8302	294.7770	3.7240	1.9052	10.161
	13.8755	8.0376	185.2228	4.7945	6.9561	26.6273	370.6893	4.0195	2.0800	11.093
L2	13.8755	8.0376	185.2228	4.7945	6.9561	26.6273	370.6893	4.0195	2.0800	11.093
	14.8840	8.6286	229.1639	5.1471	7.4607	30.7163	458.6293	4.3151	2.2548	12.026
L3	14.8840	8.6286	229.1639	5.1471	7.4607	30.7163	458.6293	4.3151	2.2548	12.026
	15.1865	8.8059	243.5842	5.2529	7.6120	31.9999	487.4888	4.4038	2.3072	12.305
L4	15.1865	8.8059	243.5842	5.2529	7.6120	31.9999	487.4888	4.4038	2.3072	12.305
	16.2296	9.4173	297.9175	5.6175	8.1339	36.6269	596.2270	4.7095	2.4880	13.269
L5	16.2296	9.4173	297.9175	5.6175	8.1339	36.6269	596.2270	4.7095	2.4880	13.269
	17.2727	10.0286	359.7834	5.9822	8.6557	41.5662	720.0401	5.0152	2.6688	14.234
L6	17.2727	10.0286	359.7834	5.9822	8.6557	41.5662	720.0401	5.0152	2.6688	14.234
	18.3157	10.6399	429.6706	6.3469	9.1775	46.8178	859.9066	5.3210	2.8496	15.198
L7	18.3157	10.6399	429.6706	6.3469	9.1775	46.8178	859.9066	5.3210	2.8496	15.198
	19.3233	11.2305	505.2579	6.6991	9.6816	52.1875	1011.1807	5.6163	3.0243	16.129
L8	19.2655	33.0218	1427.1931	6.5660	9.6816	147.4131	2856.2641	16.5141	2.3643	4.203
	19.3176	33.1135	1439.1157	6.5842	9.7077	148.2450	2880.1250	16.5599	2.3733	4.219
L9	19.3215	31.6845	1380.7233	6.5931	9.7077	142.2300	2763.2634	15.8453	2.4173	4.497
	20.3646	33.4369	1622.7307	6.9578	10.2295	158.6323	3247.5966	16.7216	2.5981	4.834
L10	20.3684	31.9224	1553.1832	6.9666	10.2295	151.8336	3108.4102	15.9642	2.6421	5.155
	21.4115	33.5934	1810.0729	7.3313	10.7513	168.3579	3622.5276	16.7999	2.8229	5.508
L11	21.4153	31.9933	1728.0372	7.3402	10.7513	160.7277	3458.3483	15.9997	2.8669	5.881
	22.4584	33.5828	1998.5929	7.7048	11.2732	177.2877	3999.8157	16.7946	3.0477	6.252
L12	22.4603	32.7405	1950.7135	7.7093	11.2732	173.0405	3903.9939	16.3734	3.0697	6.462
	23.4512	34.2118	2225.6839	8.0557	11.7689	189.1157	4454.2964	17.1091	3.2414	6.824
L13	23.4512	34.2118	2225.6839	8.0557	11.7689	189.1157	4454.2964	17.1091	3.2414	6.824
	23.5034	34.2892	2240.8309	8.0739	11.7950	189.9816	4484.6103	17.1479	3.2505	6.843
L14	23.5053	33.4052	2185.4611	8.0784	11.7950	185.2872	4373.7979	16.7058	3.2725	7.076
	24.5484	34.9131	2494.9807	8.4430	12.3168	202.5670	4993.2444	17.4599	3.4532	7.466
L15	24.5503	33.9874	2431.3784	8.4475	12.3168	197.4031	4865.9561	16.9969	3.4752	7.723
	25.8646	35.8360	2850.0919	8.9070	12.9743	219.6718	5703.9341	17.9214	3.7030	8.229
L16	25.4296	38.8484	2799.3359	8.4781	12.3924	225.8904	5602.3553	19.4279	3.3914	6.617
	25.6755	40.4241	3153.9725	8.8220	12.8845	244.7873	6312.0950	20.2159	3.5619	6.95
L17	25.6774	39.4580	3081.6919	8.8265	12.8845	239.1774	6167.4388	19.7328	3.5839	7.168
	26.6610	40.9953	3456.1004	9.1703	13.3766	258.3685	6916.7485	20.5016	3.7544	7.509
L18	26.6630	39.9898	3374.5920	9.1748	13.3766	252.2751	6753.6245	19.9987	3.7764	7.747

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
	27.6466	41.4886	3768.4457	9.5187	13.8687	271.7225	7541.8500	20.7483	3.9469	8.096
L19	27.6485	40.4437	3676.9566	9.5231	13.8687	265.1257	7358.7514	20.2257	3.9689	8.356
	28.6322	41.9041	4089.8432	9.8670	14.3608	284.7918	8185.0679	20.9560	4.1394	8.715
L20	28.6322	41.9041	4089.8432	9.8670	14.3608	284.7918	8185.0679	20.9560	4.1394	8.715
	29.0650	42.5467	4280.8947	10.0183	14.5773	293.6677	8567.4222	21.2774	4.2144	8.872
L21	29.0650	42.5467	4280.8947	10.0183	14.5773	293.6677	8567.4222	21.2774	4.2144	8.872
	29.1141	42.6197	4302.9740	10.0355	14.6019	294.6850	8611.6099	21.3139	4.2229	8.89
L22	29.1161	41.5165	4195.2982	10.0399	14.6019	287.3109	8396.1166	20.7622	4.2449	9.178
	30.0997	42.9385	4641.3196	10.3838	15.0940	307.4936	9288.7463	21.4733	4.4154	9.547
L23	30.1007	42.3673	4581.5346	10.3860	15.0940	303.5327	9169.0978	21.1877	4.4264	9.702
	31.0843	43.7701	5051.8555	10.7299	15.5861	324.1251	10110.3584	21.8892	4.5969	10.075
L24	31.0852	43.1795	4985.7436	10.7321	15.5861	319.8833	9978.0476	21.5938	4.6079	10.24
	31.9213	44.3555	5404.3156	11.0244	16.0044	337.6767	10815.7424	22.1820	4.7528	10.562
L25	31.9059	54.0377	6541.6706	10.9889	16.0044	408.7418	13091.9488	27.0240	4.5768	8.322
	31.9551	54.1222	6572.4253	11.0061	16.0290	410.0330	13153.4988	27.0663	4.5854	8.337
L26	31.9551	54.1222	6572.4253	11.0061	16.0290	410.0330	13153.4988	27.0663	4.5854	8.337
	32.0043	54.2068	6603.2770	11.0233	16.0536	411.3264	13215.2427	27.1086	4.5939	8.353
L27	32.0168	46.3199	5672.0858	11.0522	16.0536	353.3213	11351.6351	23.1643	4.7369	10.105
	32.0660	46.3919	5698.5995	11.0694	16.0782	354.4297	11404.6975	23.2004	4.7454	10.124
L28	32.0670	45.7825	5625.9999	11.0716	16.0782	349.9143	11259.4026	22.8956	4.7564	10.284
	33.0506	47.2045	6166.6822	11.4155	16.5703	372.1524	12341.4787	23.6068	4.9269	10.653
L29	33.0506	47.2045	6166.6822	11.4155	16.5703	372.1524	12341.4787	23.6068	4.9269	10.653
	33.5758	47.9639	6469.0949	11.5991	16.8331	384.3081	12946.7021	23.9865	5.0179	10.85
L30	33.5662	54.3414	7301.2373	11.5769	16.8331	433.7430	14612.0818	27.1758	4.9079	9.348
	33.6154	54.4221	7333.8171	11.5941	16.8577	435.0426	14677.2843	27.2162	4.9165	9.365
L31	33.6057	60.7843	8159.8644	11.5719	16.8577	484.0438	16330.4658	30.3979	4.8065	8.181
	33.9854	61.4816	8443.8982	11.7047	17.0476	495.3117	16898.9072	30.7466	4.8723	8.293
L32	33.9854	61.4816	8443.8982	11.7047	17.0476	495.3117	16898.9072	30.7466	4.8723	8.293
	34.0346	61.5719	8481.1650	11.7218	17.0723	496.7807	16973.4898	30.7918	4.8808	8.308
L33	34.0346	61.5719	8481.1650	11.7218	17.0723	496.7807	16973.4898	30.7918	4.8808	8.308
	34.0641	61.6261	8503.5781	11.7322	17.0870	497.6632	17018.3455	30.8189	4.8859	8.316
L34	34.0786	51.9391	7207.6165	11.7654	17.0870	421.8184	14424.7169	25.9745	5.0509	10.23
	34.1278	52.0150	7239.2624	11.7826	17.1116	423.0612	14488.0504	26.0124	5.0594	10.247
L35	34.1278	52.0150	7239.2624	11.7826	17.1116	423.0612	14488.0504	26.0124	5.0594	10.247
	34.1612	52.0666	7260.8350	11.7943	17.1283	423.9075	14531.2240	26.0382	5.0652	10.259
L36	34.1622	51.4172	7172.9723	11.7966	17.1283	418.7778	14355.3831	25.7135	5.0762	10.413
	34.2113	51.4921	7204.3830	11.8137	17.1530	420.0083	14418.2457	25.7510	5.0848	10.43
L37	34.2113	51.4921	7204.3830	11.8137	17.1530	420.0083	14418.2457	25.7510	5.0848	10.43
	34.7032	52.2416	7523.5495	11.9857	17.3990	432.4128	15056.9987	26.1257	5.1700	10.605

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 110.00-105.00				1	1	1			
L2 105.00-100.00				1	1	1			
L3 100.00-98.50				1	1	1			
L4 98.50-93.50				1	1	1			
L5 93.50-88.50				1	1	1			
L6 88.50-83.50				1	1	1			
L7 83.50-78.67				1	1	1			
L8 78.67-78.42				1	1	0.851966			
L9 78.42-73.42				1	1	0.862009			
L10 73.42-68.42				1	1	0.876193			
L11 68.42-63.42				1	1	0.894673			

Tower Elevation ft	Gusset Area (per face) ft²	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
L12 63.42-58.67				1	1	0.895199			
L13 58.67-58.42				1	1	0.894069			
L14 58.42-53.42				1	1	0.895601			
L15 53.42-47.12				1	1	0.909153			
L16 47.12-45.87				1	1	0.912277			
L17 45.87-40.87				1	1	0.918316			
L18 40.87-35.87				1	1	0.925923			
L19 35.87-30.87				1	1	0.935086			
L20 30.87-28.67				1	1	0.928912			
L21 28.67-28.42				1	1	0.928222			
L22 28.42-23.42				1	1	0.939232			
L23 23.42-18.42				1	1	0.938949			
L24 18.42-14.17				1	1	0.941287			
L25 14.17-13.92				1	1	0.95543			
L26 13.92-13.67				1	1	0.954649			
L27 13.67-13.42				1	1	0.994499			
L28 13.42-8.42				1	1	0.993662			
L29 8.42-5.75				1	1	0.986488			
L30 5.75-5.50				1	1	0.973951			
L31 5.50-3.57				1	1	1.01862			
L32 3.57-3.32				1	1	1.01775			
L33 3.32-3.17				1	1	1.01723			
L34 3.17-2.92				1	1	0.906582			
L35 2.92-2.75				1	1	0.906186			
L36 2.75-2.50				1	1	0.917042			
L37 2.50-0.00				1	1	0.911243			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
LDF4-50A(1/2)	B	No	Surface Ar (CaAa)	50.00 - 0.00	1	1	0.000 0.000	0.6250		0.15
Mods										
MP3-05 (1.25in)	A	No	Surface Af (CaAa)	8.25 - 0.00	1	1	0.000 0.000	5.3300	14.8400	0.00
***										

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
MP3-05 (1.25in)	C	No	Surface Af (CaAa)	31.17 - 0.00	1	1	0.000 0.000	5.3300	14.8400	0.00
MP3-05 (1.25in)	B	No	Surface Af (CaAa)	31.17 - 0.00	1	1	0.000 0.000	5.3300	14.8400	0.00
***										
MP3-05 (1.25in)	C	No	Surface Af (CaAa)	61.17 - 31.17	1	1	0.000 0.000	5.3300	14.8400	0.00
MP3-05 (1.25in)	B	No	Surface Af (CaAa)	61.17 - 31.17	1	1	0.000 0.000	5.3300	14.8400	0.00
MP3-05 (1.25in)	A	No	Surface Af (CaAa)	61.17 - 31.17	1	1	0.000 0.000	5.3300	14.8400	0.00
***										
MP3-05 (1.25in)	C	No	Surface Af (CaAa)	81.17 - 61.17	1	1	0.000 0.000	5.3300	14.8400	0.00
MP3-05 (1.25in)	B	No	Surface Af (CaAa)	81.17 - 61.17	1	1	0.000 0.000	5.3300	14.8400	0.00
MP3-05 (1.25in)	A	No	Surface Af (CaAa)	81.17 - 61.17	1	1	0.000 0.000	5.3300	14.8400	0.00
***										
MP3-08.5 (1.25")	A	No	Surface Af (CaAa)	16.17 - 0.00	1	1	0.333 0.333	3.8400	13.2800	0.00
MP3-08.5 (1.25")	A	No	Surface Af (CaAa)	16.17 - 0.00	1	1	-0.333 -0.333	3.8400	13.2800	0.00
***										
MP3-05 (1.25in)	A	No	Surface Af (CaAa)	31.17 - 11.17	1	1	0.000 0.000	5.3300	14.8400	0.00
***										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
LDF7-50A(1-5/8)	C	No	No	Inside Pole	108.00 - 0.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
HB158-21U6S24-xxM_TMO(1-5/8)	C	No	No	Inside Pole	102.00 - 0.00	4	No Ice	0.00	2.50
							1/2" Ice	0.00	2.50
							1" Ice	0.00	2.50
							2" Ice	0.00	2.50
LDF7-50A(1-5/8)	C	No	No	Inside Pole	80.00 - 0.00	12	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
WR-VG66ST-BRD(7/8)	C	No	No	Inside Pole	80.00 - 0.00	2	No Ice	0.00	0.91
							1/2" Ice	0.00	0.91
							1" Ice	0.00	0.91
							2" Ice	0.00	0.91
FB-L98B-002-75000(3/8)	C	No	No	Inside Pole	80.00 - 0.00	1	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
2" Flexible Conduit	C	No	No	Inside Pole	80.00 - 0.00	1	No Ice	0.00	0.34
							1/2" Ice	0.00	0.34
							1" Ice	0.00	0.34

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
							2" Ice	0.00	0.34
WR-VG122ST-BRD A(7/16)	C	No	No	Inside Pole	80.00 - 0.00	2	No Ice	0.00	0.14
							1/2" Ice	0.00	0.14
							1" Ice	0.00	0.14
							2" Ice	0.00	0.14
FB-L98B-034-XXX(3/8)	C	No	No	Inside Pole	80.00 - 0.00	1	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
3/8" Ground	C	No	No	Inside Pole	110.00 - 0.00	2	No Ice	0.00	0.22
							1/2" Ice	0.00	0.22
							1" Ice	0.00	0.22
							2" Ice	0.00	0.22
1/2" Ground	C	No	No	Inside Pole	110.00 - 0.00	2	No Ice	0.00	0.52
							1/2" Ice	0.00	0.52
							1" Ice	0.00	0.52
							2" Ice	0.00	0.52
***									
HB114-13U3M12-X XXF(1-1/4)	C	No	No	Inside Pole	108.00 - 0.00	1	No Ice	0.00	0.99
							1/2" Ice	0.00	0.99
							1" Ice	0.00	0.99
							2" Ice	0.00	0.99
***									
CU12PSM9P8XXX(1-3/8)	B	No	No	Inside Pole	68.00 - 0.00	1	No Ice	0.00	1.66
							1/2" Ice	0.00	1.66
							1" Ice	0.00	1.66
							2" Ice	0.00	1.66
***									

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
L1	110.00-105.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.03
L2	105.00-100.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.06
L3	100.00-98.50	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.03
L4	98.50-93.50	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.09
L5	93.50-88.50	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.09
L6	88.50-83.50	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.09
L7	83.50-78.67	A	0.000	0.000	2.221	0.000	0.00
		B	0.000	0.000	2.221	0.000	0.00

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
		C	0.000	0.000	2.221	0.000	0.10
L8	78.67-78.42	A	0.000	0.000	0.222	0.000	0.00
		B	0.000	0.000	0.222	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L9	78.42-73.42	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.442	0.000	0.00
		C	0.000	0.000	4.442	0.000	0.15
L10	73.42-68.42	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.442	0.000	0.00
		C	0.000	0.000	4.442	0.000	0.15
L11	68.42-63.42	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.442	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L12	63.42-58.67	A	0.000	0.000	4.220	0.000	0.00
		B	0.000	0.000	4.220	0.000	0.01
		C	0.000	0.000	4.220	0.000	0.14
L13	58.67-58.42	A	0.000	0.000	0.222	0.000	0.00
		B	0.000	0.000	0.222	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L14	58.42-53.42	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.442	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L15	53.42-47.12	A	0.000	0.000	5.596	0.000	0.00
		B	0.000	0.000	5.777	0.000	0.01
		C	0.000	0.000	5.596	0.000	0.19
L16	47.12-45.87	A	0.000	0.000	1.110	0.000	0.00
		B	0.000	0.000	1.189	0.000	0.00
		C	0.000	0.000	1.110	0.000	0.04
L17	45.87-40.87	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.754	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L18	40.87-35.87	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.754	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L19	35.87-30.87	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.754	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L20	30.87-28.67	A	0.000	0.000	1.954	0.000	0.00
		B	0.000	0.000	2.092	0.000	0.00
		C	0.000	0.000	1.954	0.000	0.07
L21	28.67-28.42	A	0.000	0.000	0.222	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L22	28.42-23.42	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.754	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L23	23.42-18.42	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.754	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L24	18.42-14.17	A	0.000	0.000	6.335	0.000	0.00
		B	0.000	0.000	4.041	0.000	0.01
		C	0.000	0.000	3.775	0.000	0.13
L25	14.17-13.92	A	0.000	0.000	0.542	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L26	13.92-13.67	A	0.000	0.000	0.542	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L27	13.67-13.42	A	0.000	0.000	0.542	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01

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
L28	13.42-8.42	A	0.000	0.000	8.399	0.000	0.00
		B	0.000	0.000	4.754	0.000	0.01
		C	0.000	0.000	4.442	0.000	0.15
L29	8.42-5.75	A	0.000	0.000	5.353	0.000	0.00
		B	0.000	0.000	2.539	0.000	0.00
		C	0.000	0.000	2.372	0.000	0.08
L30	5.75-5.50	A	0.000	0.000	0.514	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L31	5.50-3.57	A	0.000	0.000	3.965	0.000	0.00
		B	0.000	0.000	1.835	0.000	0.00
		C	0.000	0.000	1.714	0.000	0.06
L32	3.57-3.32	A	0.000	0.000	0.514	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L33	3.32-3.17	A	0.000	0.000	0.308	0.000	0.00
		B	0.000	0.000	0.143	0.000	0.00
		C	0.000	0.000	0.133	0.000	0.00
L34	3.17-2.92	A	0.000	0.000	0.514	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L35	2.92-2.75	A	0.000	0.000	0.349	0.000	0.00
		B	0.000	0.000	0.162	0.000	0.00
		C	0.000	0.000	0.151	0.000	0.01
L36	2.75-2.50	A	0.000	0.000	0.514	0.000	0.00
		B	0.000	0.000	0.238	0.000	0.00
		C	0.000	0.000	0.222	0.000	0.01
L37	2.50-0.00	A	0.000	0.000	5.136	0.000	0.00
		B	0.000	0.000	2.377	0.000	0.00
		C	0.000	0.000	2.221	0.000	0.07

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
L1	110.00-105.00	A	1.435	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.03
L2	105.00-100.00	A	1.428	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.06
L3	100.00-98.50	A	1.423	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.03
L4	98.50-93.50	A	1.419	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.09
L5	93.50-88.50	A	1.411	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.09
L6	88.50-83.50	A	1.403	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.09
L7	83.50-78.67	A	1.395	0.000	0.000	2.918	0.000	0.03
		B		0.000	0.000	2.918	0.000	0.03
		C		0.000	0.000	2.918	0.000	0.13
L8	78.67-78.42	A	1.390	0.000	0.000	0.292	0.000	0.00

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
		B		0.000	0.000	0.292	0.000	0.00
		C		0.000	0.000	0.292	0.000	0.01
L9	78.42-73.42	A	1.386	0.000	0.000	5.827	0.000	0.05
		B		0.000	0.000	5.827	0.000	0.05
		C		0.000	0.000	5.827	0.000	0.20
L10	73.42-68.42	A	1.376	0.000	0.000	5.818	0.000	0.05
		B		0.000	0.000	5.818	0.000	0.05
		C		0.000	0.000	5.818	0.000	0.20
L11	68.42-63.42	A	1.366	0.000	0.000	5.808	0.000	0.05
		B		0.000	0.000	5.808	0.000	0.06
		C		0.000	0.000	5.808	0.000	0.20
L12	63.42-58.67	A	1.356	0.000	0.000	5.508	0.000	0.05
		B		0.000	0.000	5.508	0.000	0.06
		C		0.000	0.000	5.508	0.000	0.19
L13	58.67-58.42	A	1.350	0.000	0.000	0.290	0.000	0.00
		B		0.000	0.000	0.290	0.000	0.00
		C		0.000	0.000	0.290	0.000	0.01
L14	58.42-53.42	A	1.344	0.000	0.000	5.786	0.000	0.05
		B		0.000	0.000	5.786	0.000	0.06
		C		0.000	0.000	5.786	0.000	0.20
L15	53.42-47.12	A	1.330	0.000	0.000	7.272	0.000	0.06
		B		0.000	0.000	8.218	0.000	0.08
		C		0.000	0.000	7.272	0.000	0.25
L16	47.12-45.87	A	1.319	0.000	0.000	1.443	0.000	0.01
		B		0.000	0.000	1.853	0.000	0.02
		C		0.000	0.000	1.443	0.000	0.05
L17	45.87-40.87	A	1.310	0.000	0.000	5.752	0.000	0.05
		B		0.000	0.000	7.375	0.000	0.07
		C		0.000	0.000	5.752	0.000	0.20
L18	40.87-35.87	A	1.294	0.000	0.000	5.736	0.000	0.05
		B		0.000	0.000	7.343	0.000	0.07
		C		0.000	0.000	5.736	0.000	0.20
L19	35.87-30.87	A	1.276	0.000	0.000	5.718	0.000	0.05
		B		0.000	0.000	7.307	0.000	0.07
		C		0.000	0.000	5.718	0.000	0.20
L20	30.87-28.67	A	1.262	0.000	0.000	2.510	0.000	0.02
		B		0.000	0.000	3.202	0.000	0.03
		C		0.000	0.000	2.510	0.000	0.09
L21	28.67-28.42	A	1.257	0.000	0.000	0.285	0.000	0.00
		B		0.000	0.000	0.363	0.000	0.00
		C		0.000	0.000	0.285	0.000	0.01
L22	28.42-23.42	A	1.245	0.000	0.000	5.686	0.000	0.05
		B		0.000	0.000	7.243	0.000	0.07
		C		0.000	0.000	5.686	0.000	0.20
L23	23.42-18.42	A	1.218	0.000	0.000	5.660	0.000	0.05
		B		0.000	0.000	7.190	0.000	0.07
		C		0.000	0.000	5.660	0.000	0.20
L24	18.42-14.17	A	1.188	0.000	0.000	8.296	0.000	0.07
		B		0.000	0.000	6.061	0.000	0.06
		C		0.000	0.000	4.785	0.000	0.16
L25	14.17-13.92	A	1.171	0.000	0.000	0.718	0.000	0.01
		B		0.000	0.000	0.355	0.000	0.00
		C		0.000	0.000	0.281	0.000	0.01
L26	13.92-13.67	A	1.169	0.000	0.000	0.717	0.000	0.01
		B		0.000	0.000	0.355	0.000	0.00
		C		0.000	0.000	0.281	0.000	0.01
L27	13.67-13.42	A	1.166	0.000	0.000	0.717	0.000	0.01
		B		0.000	0.000	0.354	0.000	0.00
		C		0.000	0.000	0.280	0.000	0.01
L28	13.42-8.42	A	1.141	0.000	0.000	11.195	0.000	0.10
		B		0.000	0.000	7.037	0.000	0.06

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
		C		0.000	0.000	5.583	0.000	0.19
L29	8.42-5.75	A	1.093	0.000	0.000	6.821	0.000	0.06
		B		0.000	0.000	3.706	0.000	0.03
		C		0.000	0.000	2.956	0.000	0.10
L30	5.75-5.50	A	1.068	0.000	0.000	0.650	0.000	0.01
		B		0.000	0.000	0.345	0.000	0.00
		C		0.000	0.000	0.275	0.000	0.01
L31	5.50-3.57	A	1.045	0.000	0.000	4.994	0.000	0.04
		B		0.000	0.000	2.642	0.000	0.02
		C		0.000	0.000	2.118	0.000	0.07
L32	3.57-3.32	A	1.017	0.000	0.000	0.643	0.000	0.01
		B		0.000	0.000	0.339	0.000	0.00
		C		0.000	0.000	0.273	0.000	0.01
L33	3.32-3.17	A	1.011	0.000	0.000	0.386	0.000	0.00
		B		0.000	0.000	0.203	0.000	0.00
		C		0.000	0.000	0.164	0.000	0.01
L34	3.17-2.92	A	1.005	0.000	0.000	0.642	0.000	0.01
		B		0.000	0.000	0.338	0.000	0.00
		C		0.000	0.000	0.272	0.000	0.01
L35	2.92-2.75	A	0.998	0.000	0.000	0.436	0.000	0.00
		B		0.000	0.000	0.229	0.000	0.00
		C		0.000	0.000	0.185	0.000	0.01
L36	2.75-2.50	A	0.990	0.000	0.000	0.640	0.000	0.01
		B		0.000	0.000	0.337	0.000	0.00
		C		0.000	0.000	0.272	0.000	0.01
L37	2.50-0.00	A	0.919	0.000	0.000	6.308	0.000	0.05
		B		0.000	0.000	3.296	0.000	0.03
		C		0.000	0.000	2.680	0.000	0.09

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	110.00-105.00	0.0000	0.0000	0.0000	0.0000
L2	105.00-100.00	0.0000	0.0000	0.0000	0.0000
L3	100.00-98.50	0.0000	0.0000	0.0000	0.0000
L4	98.50-93.50	0.0000	0.0000	0.0000	0.0000
L5	93.50-88.50	0.0000	0.0000	0.0000	0.0000
L6	88.50-83.50	0.0000	0.0000	0.0000	0.0000
L7	83.50-78.67	0.0000	0.0000	0.0000	0.0000
L8	78.67-78.42	0.0000	0.0000	0.0000	0.0000
L9	78.42-73.42	0.0000	0.0000	0.0000	0.0000
L10	73.42-68.42	0.0000	0.0000	0.0000	0.0000
L11	68.42-63.42	0.0000	0.0000	0.0000	0.0000
L12	63.42-58.67	0.0000	0.0000	0.0000	0.0000
L13	58.67-58.42	0.0000	0.0000	0.0000	0.0000
L14	58.42-53.42	0.0000	0.0000	0.0000	0.0000
L15	53.42-47.12	0.0757	-0.0437	0.2628	-0.1517
L16	47.12-45.87	0.1635	-0.0944	0.5565	-0.3213
L17	45.87-40.87	0.1659	-0.0958	0.5591	-0.3228
L18	40.87-35.87	0.1696	-0.0979	0.5668	-0.3272
L19	35.87-30.87	0.1732	-0.1000	0.5734	-0.3310
L20	30.87-28.67	0.1757	-0.1015	0.5773	-0.3333
L21	28.67-28.42	0.1766	-0.1020	0.5785	-0.3340
L22	28.42-23.42	0.1784	-0.1030	0.5806	-0.3352
L23	23.42-18.42	0.1818	-0.1050	0.5833	-0.3367

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L24	18.42-14.17	-0.4684	-0.4594	-0.0539	-0.6342
L25	14.17-13.92	-1.0449	-0.7721	-0.6278	-0.9020
L26	13.92-13.67	-1.0456	-0.7727	-0.6285	-0.9023
L27	13.67-13.42	-1.0463	-0.7733	-0.6291	-0.9025
L28	13.42-8.42	0.1769	-0.0840	0.4263	-0.3314
L29	8.42-5.75	-0.6751	-0.5681	-0.1970	-0.6613
L30	5.75-5.50	-0.7977	-0.6384	-0.3019	-0.7135
L31	5.50-3.57	-0.8000	-0.6404	-0.3086	-0.7123
L32	3.57-3.32	-0.8022	-0.6424	-0.3169	-0.7102
L33	3.32-3.17	-0.8026	-0.6428	-0.3187	-0.7096
L34	3.17-2.92	-0.8028	-0.6430	-0.3205	-0.7089
L35	2.92-2.75	-0.8032	-0.6434	-0.3226	-0.7082
L36	2.75-2.50	-0.8037	-0.6438	-0.3249	-0.7075
L37	2.50-0.00	-0.8064	-0.6462	-0.3461	-0.6990

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L7	25	MP3-05 (1.25in)	78.67 - 81.17	1.0000	1.0000
L7	26	MP3-05 (1.25in)	78.67 - 81.17	1.0000	1.0000
L7	27	MP3-05 (1.25in)	78.67 - 81.17	1.0000	1.0000
L8	25	MP3-05 (1.25in)	78.42 - 78.67	1.0000	1.0000
L8	26	MP3-05 (1.25in)	78.42 - 78.67	1.0000	1.0000
L8	27	MP3-05 (1.25in)	78.42 - 78.67	1.0000	1.0000
L9	25	MP3-05 (1.25in)	73.42 - 78.42	1.0000	1.0000
L9	26	MP3-05 (1.25in)	73.42 - 78.42	1.0000	1.0000
L9	27	MP3-05 (1.25in)	73.42 - 78.42	1.0000	1.0000
L10	25	MP3-05 (1.25in)	68.42 - 73.42	1.0000	1.0000
L10	26	MP3-05 (1.25in)	68.42 - 73.42	1.0000	1.0000
L10	27	MP3-05 (1.25in)	68.42 - 73.42	1.0000	1.0000
L11	25	MP3-05 (1.25in)	63.42 - 68.42	1.0000	1.0000
L11	26	MP3-05 (1.25in)	63.42 - 68.42	1.0000	1.0000
L11	27	MP3-05 (1.25in)	63.42 - 68.42	1.0000	1.0000
L12	21	MP3-05 (1.25in)	58.67 - 61.17	1.0000	1.0000
L12	22	MP3-05 (1.25in)	58.67 - 61.17	1.0000	1.0000
L12	23	MP3-05 (1.25in)	58.67 - 61.17	1.0000	1.0000
L12	25	MP3-05 (1.25in)	61.17 - 63.42	1.0000	1.0000
L12	26	MP3-05 (1.25in)	61.17 - 63.42	1.0000	1.0000
L12	27	MP3-05 (1.25in)	61.17 - 63.42	1.0000	1.0000
L13	21	MP3-05 (1.25in)	58.42 - 58.67	1.0000	1.0000
L13	22	MP3-05 (1.25in)	58.42 - 58.67	1.0000	1.0000
L13	23	MP3-05 (1.25in)	58.42 - 58.67	1.0000	1.0000
L14	21	MP3-05 (1.25in)	53.42 - 58.42	1.0000	1.0000
L14	22	MP3-05 (1.25in)	53.42 - 58.42	1.0000	1.0000
L14	23	MP3-05 (1.25in)	53.42 - 58.42	1.0000	1.0000
L15	12	LDF4-50A(1/2)	47.12 - 50.00	1.0000	1.0000
L15	21	MP3-05 (1.25in)	47.12 - 53.42	1.0000	1.0000
L15	22	MP3-05 (1.25in)	47.12 - 53.42	1.0000	1.0000
L15	23	MP3-05 (1.25in)	47.12 - 53.42	1.0000	1.0000
L16	12	LDF4-50A(1/2)	45.87 - 47.12	1.0000	1.0000
L16	21	MP3-05 (1.25in)	45.87 - 47.12	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L16	22	MP3-05 (1.25in)	45.87 - 47.12	1.0000	1.0000
L16	23	MP3-05 (1.25in)	45.87 - 47.12	1.0000	1.0000
L17	12	LDF4-50A(1/2)	40.87 - 45.87	1.0000	1.0000
L17	21	MP3-05 (1.25in)	40.87 - 45.87	1.0000	1.0000
L17	22	MP3-05 (1.25in)	40.87 - 45.87	1.0000	1.0000
L17	23	MP3-05 (1.25in)	40.87 - 45.87	1.0000	1.0000
L18	12	LDF4-50A(1/2)	35.87 - 40.87	1.0000	1.0000
L18	21	MP3-05 (1.25in)	35.87 - 40.87	1.0000	1.0000
L18	22	MP3-05 (1.25in)	35.87 - 40.87	1.0000	1.0000
L18	23	MP3-05 (1.25in)	35.87 - 40.87	1.0000	1.0000
L19	12	LDF4-50A(1/2)	30.87 - 35.87	1.0000	1.0000
L19	18	MP3-05 (1.25in)	30.87 - 31.17	1.0000	1.0000
L19	19	MP3-05 (1.25in)	30.87 - 31.17	1.0000	1.0000
L19	21	MP3-05 (1.25in)	31.17 - 35.87	1.0000	1.0000
L19	22	MP3-05 (1.25in)	31.17 - 35.87	1.0000	1.0000
L19	23	MP3-05 (1.25in)	31.17 - 35.87	1.0000	1.0000
L19	32	MP3-05 (1.25in)	30.87 - 31.17	1.0000	1.0000
L20	12	LDF4-50A(1/2)	28.67 - 30.87	1.0000	1.0000
L20	18	MP3-05 (1.25in)	28.67 - 30.87	1.0000	1.0000
L20	19	MP3-05 (1.25in)	28.67 - 30.87	1.0000	1.0000
L20	32	MP3-05 (1.25in)	28.67 - 30.87	1.0000	1.0000
L21	12	LDF4-50A(1/2)	28.42 - 28.67	1.0000	1.0000
L21	18	MP3-05 (1.25in)	28.42 - 28.67	1.0000	1.0000
L21	19	MP3-05 (1.25in)	28.42 - 28.67	1.0000	1.0000
L21	32	MP3-05 (1.25in)	28.42 - 28.67	1.0000	1.0000
L22	12	LDF4-50A(1/2)	23.42 - 28.42	1.0000	1.0000
L22	18	MP3-05 (1.25in)	23.42 - 28.42	1.0000	1.0000
L22	19	MP3-05 (1.25in)	23.42 - 28.42	1.0000	1.0000
L22	32	MP3-05 (1.25in)	23.42 - 28.42	1.0000	1.0000
L23	12	LDF4-50A(1/2)	18.42 - 23.42	1.0000	1.0000
L23	18	MP3-05 (1.25in)	18.42 - 23.42	1.0000	1.0000
L23	19	MP3-05 (1.25in)	18.42 - 23.42	1.0000	1.0000
L23	32	MP3-05 (1.25in)	18.42 - 23.42	1.0000	1.0000
L24	12	LDF4-50A(1/2)	14.17 - 18.42	1.0000	1.0000
L24	18	MP3-05 (1.25in)	14.17 - 18.42	1.0000	1.0000
L24	19	MP3-05 (1.25in)	14.17 - 18.42	1.0000	1.0000
L24	29	MP3-08.5 (1.25")	14.17 - 16.17	1.0000	1.0000
L24	30	MP3-08.5 (1.25")	14.17 - 16.17	1.0000	1.0000
L24	32	MP3-05 (1.25in)	14.17 - 18.42	1.0000	1.0000
L25	12	LDF4-50A(1/2)	13.92 - 14.17	1.0000	1.0000
L25	18	MP3-05 (1.25in)	13.92 - 14.17	1.0000	1.0000
L25	19	MP3-05 (1.25in)	13.92 - 14.17	1.0000	1.0000
L25	29	MP3-08.5 (1.25")	13.92 - 14.17	1.0000	1.0000
L25	30	MP3-08.5 (1.25")	13.92 - 14.17	1.0000	1.0000
L25	32	MP3-05 (1.25in)	13.92 - 14.17	1.0000	1.0000
L26	12	LDF4-50A(1/2)	13.67 - 13.92	1.0000	1.0000
L26	18	MP3-05 (1.25in)	13.67 - 13.92	1.0000	1.0000
L26	19	MP3-05 (1.25in)	13.67 - 13.92	1.0000	1.0000
L26	29	MP3-08.5 (1.25")	13.67 - 13.92	1.0000	1.0000
L26	30	MP3-08.5 (1.25")	13.67 - 13.92	1.0000	1.0000
L26	32	MP3-05 (1.25in)	13.67 - 13.92	1.0000	1.0000
L27	12	LDF4-50A(1/2)	13.42 - 13.67	1.0000	1.0000
L27	18	MP3-05 (1.25in)	13.42 - 13.67	1.0000	1.0000
L27	19	MP3-05 (1.25in)	13.42 - 13.67	1.0000	1.0000
L27	29	MP3-08.5 (1.25")	13.42 - 13.67	1.0000	1.0000
L27	30	MP3-08.5 (1.25")	13.42 - 13.67	1.0000	1.0000
L27	32	MP3-05 (1.25in)	13.42 - 13.67	1.0000	1.0000
L28	12	LDF4-50A(1/2)	8.42 - 13.42	1.0000	1.0000
L28	18	MP3-05 (1.25in)	8.42 - 13.42	1.0000	1.0000
L28	19	MP3-05 (1.25in)	8.42 - 13.42	1.0000	1.0000
L28	29	MP3-08.5 (1.25")	8.42 - 13.42	1.0000	1.0000
L28	30	MP3-08.5 (1.25")	8.42 - 13.42	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L28	32	MP3-05 (1.25in)	11.17 - 13.42	1.0000	1.0000
L29	12	LDF4-50A(1/2)	5.75 - 8.42	1.0000	1.0000
L29	16	MP3-05 (1.25in)	5.75 - 8.25	1.0000	1.0000
L29	18	MP3-05 (1.25in)	5.75 - 8.42	1.0000	1.0000
L29	19	MP3-05 (1.25in)	5.75 - 8.42	1.0000	1.0000
L29	29	MP3-08.5 (1.25")	5.75 - 8.42	1.0000	1.0000
L29	30	MP3-08.5 (1.25")	5.75 - 8.42	1.0000	1.0000
L30	12	LDF4-50A(1/2)	5.50 - 5.75	1.0000	1.0000
L30	16	MP3-05 (1.25in)	5.50 - 5.75	1.0000	1.0000
L30	18	MP3-05 (1.25in)	5.50 - 5.75	1.0000	1.0000
L30	19	MP3-05 (1.25in)	5.50 - 5.75	1.0000	1.0000
L30	29	MP3-08.5 (1.25")	5.50 - 5.75	1.0000	1.0000
L30	30	MP3-08.5 (1.25")	5.50 - 5.75	1.0000	1.0000
L31	12	LDF4-50A(1/2)	3.57 - 5.50	1.0000	1.0000
L31	16	MP3-05 (1.25in)	3.57 - 5.50	1.0000	1.0000
L31	18	MP3-05 (1.25in)	3.57 - 5.50	1.0000	1.0000
L31	19	MP3-05 (1.25in)	3.57 - 5.50	1.0000	1.0000
L31	29	MP3-08.5 (1.25")	3.57 - 5.50	1.0000	1.0000
L31	30	MP3-08.5 (1.25")	3.57 - 5.50	1.0000	1.0000
L32	12	LDF4-50A(1/2)	3.32 - 3.57	1.0000	1.0000
L32	16	MP3-05 (1.25in)	3.32 - 3.57	1.0000	1.0000
L32	18	MP3-05 (1.25in)	3.32 - 3.57	1.0000	1.0000
L32	19	MP3-05 (1.25in)	3.32 - 3.57	1.0000	1.0000
L32	29	MP3-08.5 (1.25")	3.32 - 3.57	1.0000	1.0000
L32	30	MP3-08.5 (1.25")	3.32 - 3.57	1.0000	1.0000
L33	12	LDF4-50A(1/2)	3.17 - 3.32	1.0000	1.0000
L33	16	MP3-05 (1.25in)	3.17 - 3.32	1.0000	1.0000
L33	18	MP3-05 (1.25in)	3.17 - 3.32	1.0000	1.0000
L33	19	MP3-05 (1.25in)	3.17 - 3.32	1.0000	1.0000
L33	29	MP3-08.5 (1.25")	3.17 - 3.32	1.0000	1.0000
L33	30	MP3-08.5 (1.25")	3.17 - 3.32	1.0000	1.0000
L34	12	LDF4-50A(1/2)	2.92 - 3.17	1.0000	1.0000
L34	16	MP3-05 (1.25in)	2.92 - 3.17	1.0000	1.0000
L34	18	MP3-05 (1.25in)	2.92 - 3.17	1.0000	1.0000
L34	19	MP3-05 (1.25in)	2.92 - 3.17	1.0000	1.0000
L34	29	MP3-08.5 (1.25")	2.92 - 3.17	1.0000	1.0000
L34	30	MP3-08.5 (1.25")	2.92 - 3.17	1.0000	1.0000
L35	12	LDF4-50A(1/2)	2.75 - 2.92	1.0000	1.0000
L35	16	MP3-05 (1.25in)	2.75 - 2.92	1.0000	1.0000
L35	18	MP3-05 (1.25in)	2.75 - 2.92	1.0000	1.0000
L35	19	MP3-05 (1.25in)	2.75 - 2.92	1.0000	1.0000
L35	29	MP3-08.5 (1.25")	2.75 - 2.92	1.0000	1.0000
L35	30	MP3-08.5 (1.25")	2.75 - 2.92	1.0000	1.0000
L36	12	LDF4-50A(1/2)	2.50 - 2.75	1.0000	1.0000
L36	16	MP3-05 (1.25in)	2.50 - 2.75	1.0000	1.0000
L36	18	MP3-05 (1.25in)	2.50 - 2.75	1.0000	1.0000
L36	19	MP3-05 (1.25in)	2.50 - 2.75	1.0000	1.0000
L36	29	MP3-08.5 (1.25")	2.50 - 2.75	1.0000	1.0000
L36	30	MP3-08.5 (1.25")	2.50 - 2.75	1.0000	1.0000
L37	12	LDF4-50A(1/2)	0.00 - 2.50	1.0000	1.0000
L37	16	MP3-05 (1.25in)	0.00 - 2.50	1.0000	1.0000
L37	18	MP3-05 (1.25in)	0.00 - 2.50	1.0000	1.0000
L37	19	MP3-05 (1.25in)	0.00 - 2.50	1.0000	1.0000
L37	29	MP3-08.5 (1.25")	0.00 - 2.50	1.0000	1.0000
L37	30	MP3-08.5 (1.25")	0.00 - 2.50	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L7	25	MP3-05 (1.25in)	78.67 - 81.17	Auto	0.4411
L7	26	MP3-05 (1.25in)	78.67 - 81.17	Auto	0.4411
L7	27	MP3-05 (1.25in)	78.67 - 81.17	Auto	0.4411
L8	25	MP3-05 (1.25in)	78.42 - 78.67	Auto	0.5556
L8	26	MP3-05 (1.25in)	78.42 - 78.67	Auto	0.5556
L8	27	MP3-05 (1.25in)	78.42 - 78.67	Auto	0.5556
L9	25	MP3-05 (1.25in)	73.42 - 78.42	Auto	0.5295
L9	26	MP3-05 (1.25in)	73.42 - 78.42	Auto	0.5295
L9	27	MP3-05 (1.25in)	73.42 - 78.42	Auto	0.5295
L10	25	MP3-05 (1.25in)	68.42 - 73.42	Auto	0.4873
L10	26	MP3-05 (1.25in)	68.42 - 73.42	Auto	0.4873
L10	27	MP3-05 (1.25in)	68.42 - 73.42	Auto	0.4873
L11	25	MP3-05 (1.25in)	63.42 - 68.42	Auto	0.4452
L11	26	MP3-05 (1.25in)	63.42 - 68.42	Auto	0.4452
L11	27	MP3-05 (1.25in)	63.42 - 68.42	Auto	0.4452
L12	21	MP3-05 (1.25in)	58.67 - 61.17	Auto	0.4003
L12	22	MP3-05 (1.25in)	58.67 - 61.17	Auto	0.4003
L12	23	MP3-05 (1.25in)	58.67 - 61.17	Auto	0.4003
L12	25	MP3-05 (1.25in)	61.17 - 63.42	Auto	0.4164
L12	26	MP3-05 (1.25in)	61.17 - 63.42	Auto	0.4164
L12	27	MP3-05 (1.25in)	61.17 - 63.42	Auto	0.4164
L13	21	MP3-05 (1.25in)	58.42 - 58.67	Auto	0.3910
L13	22	MP3-05 (1.25in)	58.42 - 58.67	Auto	0.3910
L13	23	MP3-05 (1.25in)	58.42 - 58.67	Auto	0.3910
L14	21	MP3-05 (1.25in)	53.42 - 58.42	Auto	0.3691
L14	22	MP3-05 (1.25in)	53.42 - 58.42	Auto	0.3691
L14	23	MP3-05 (1.25in)	53.42 - 58.42	Auto	0.3691
L15	21	MP3-05 (1.25in)	47.12 - 53.42	Auto	0.3266
L15	22	MP3-05 (1.25in)	47.12 - 53.42	Auto	0.3266
L15	23	MP3-05 (1.25in)	47.12 - 53.42	Auto	0.3266
L16	21	MP3-05 (1.25in)	45.87 - 47.12	Auto	0.3357
L16	22	MP3-05 (1.25in)	45.87 - 47.12	Auto	0.3357
L16	23	MP3-05 (1.25in)	45.87 - 47.12	Auto	0.3357
L17	21	MP3-05 (1.25in)	40.87 - 45.87	Auto	0.3116
L17	22	MP3-05 (1.25in)	40.87 - 45.87	Auto	0.3116
L17	23	MP3-05 (1.25in)	40.87 - 45.87	Auto	0.3116
L18	21	MP3-05 (1.25in)	35.87 - 40.87	Auto	0.2755
L18	22	MP3-05 (1.25in)	35.87 - 40.87	Auto	0.2755
L18	23	MP3-05 (1.25in)	35.87 - 40.87	Auto	0.2755
L19	18	MP3-05 (1.25in)	30.87 - 31.17	Auto	0.2243
L19	19	MP3-05 (1.25in)	30.87 - 31.17	Auto	0.2243
L19	21	MP3-05 (1.25in)	31.17 - 35.87	Auto	0.2403
L19	22	MP3-05 (1.25in)	31.17 - 35.87	Auto	0.2403
L19	23	MP3-05 (1.25in)	31.17 - 35.87	Auto	0.2403
L19	32	MP3-05 (1.25in)	30.87 - 31.17	Auto	0.2243
L20	18	MP3-05 (1.25in)	28.67 - 30.87	Auto	0.2163
L20	19	MP3-05 (1.25in)	28.67 - 30.87	Auto	0.2163
L20	32	MP3-05 (1.25in)	28.67 - 30.87	Auto	0.2163
L21	18	MP3-05 (1.25in)	28.42 - 28.67	Auto	0.2085
L21	19	MP3-05 (1.25in)	28.42 - 28.67	Auto	0.2085
L21	32	MP3-05 (1.25in)	28.42 - 28.67	Auto	0.2085
L22	18	MP3-05 (1.25in)	23.42 - 28.42	Auto	0.1876
L22	19	MP3-05 (1.25in)	23.42 - 28.42	Auto	0.1876
L22	32	MP3-05 (1.25in)	23.42 - 28.42	Auto	0.1876
L23	18	MP3-05 (1.25in)	18.42 - 23.42	Auto	0.1535
L23	19	MP3-05 (1.25in)	18.42 - 23.42	Auto	0.1535

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L23	32	MP3-05 (1.25in)	18.42 - 23.42	Auto	0.1535
L24	18	MP3-05 (1.25in)	14.17 - 18.42	Auto	0.1219
L24	19	MP3-05 (1.25in)	14.17 - 18.42	Auto	0.1219
L24	29	MP3-08.5 (1.25")	14.17 - 16.17	Auto	0.0000
L24	30	MP3-08.5 (1.25")	14.17 - 16.17	Auto	0.0000
L24	32	MP3-05 (1.25in)	14.17 - 18.42	Auto	0.1219
L25	18	MP3-05 (1.25in)	13.92 - 14.17	Auto	0.1405
L25	19	MP3-05 (1.25in)	13.92 - 14.17	Auto	0.1405
L25	29	MP3-08.5 (1.25")	13.92 - 14.17	Auto	0.0000
L25	30	MP3-08.5 (1.25")	13.92 - 14.17	Auto	0.0000
L25	32	MP3-05 (1.25in)	13.92 - 14.17	Auto	0.1405
L26	18	MP3-05 (1.25in)	13.67 - 13.92	Auto	0.1389
L26	19	MP3-05 (1.25in)	13.67 - 13.92	Auto	0.1389
L26	29	MP3-08.5 (1.25")	13.67 - 13.92	Auto	0.0000
L26	30	MP3-08.5 (1.25")	13.67 - 13.92	Auto	0.0000
L26	32	MP3-05 (1.25in)	13.67 - 13.92	Auto	0.1389
L27	18	MP3-05 (1.25in)	13.42 - 13.67	Auto	0.1105
L27	19	MP3-05 (1.25in)	13.42 - 13.67	Auto	0.1105
L27	29	MP3-08.5 (1.25")	13.42 - 13.67	Auto	0.0000
L27	30	MP3-08.5 (1.25")	13.42 - 13.67	Auto	0.0000
L27	32	MP3-05 (1.25in)	13.42 - 13.67	Auto	0.1105
L28	18	MP3-05 (1.25in)	8.42 - 13.42	Auto	0.0916
L28	19	MP3-05 (1.25in)	8.42 - 13.42	Auto	0.0916
L28	29	MP3-08.5 (1.25")	8.42 - 13.42	Auto	0.0000
L28	30	MP3-08.5 (1.25")	8.42 - 13.42	Auto	0.0000
L28	32	MP3-05 (1.25in)	11.17 - 13.42	Auto	0.1004
L29	16	MP3-05 (1.25in)	5.75 - 8.25	Auto	0.0665
L29	18	MP3-05 (1.25in)	5.75 - 8.42	Auto	0.0671
L29	19	MP3-05 (1.25in)	5.75 - 8.42	Auto	0.0671
L29	29	MP3-08.5 (1.25")	5.75 - 8.42	Auto	0.0000
L29	30	MP3-08.5 (1.25")	5.75 - 8.42	Auto	0.0000
L30	16	MP3-05 (1.25in)	5.50 - 5.75	Auto	0.0784
L30	18	MP3-05 (1.25in)	5.50 - 5.75	Auto	0.0784
L30	19	MP3-05 (1.25in)	5.50 - 5.75	Auto	0.0784
L30	29	MP3-08.5 (1.25")	5.50 - 5.75	Auto	0.0000
L30	30	MP3-08.5 (1.25")	5.50 - 5.75	Auto	0.0000
L31	16	MP3-05 (1.25in)	3.57 - 5.50	Auto	0.0921
L31	18	MP3-05 (1.25in)	3.57 - 5.50	Auto	0.0921
L31	19	MP3-05 (1.25in)	3.57 - 5.50	Auto	0.0921
L31	29	MP3-08.5 (1.25")	3.57 - 5.50	Auto	0.0000
L31	30	MP3-08.5 (1.25")	3.57 - 5.50	Auto	0.0000
L32	16	MP3-05 (1.25in)	3.32 - 3.57	Auto	0.0851
L32	18	MP3-05 (1.25in)	3.32 - 3.57	Auto	0.0851
L32	19	MP3-05 (1.25in)	3.32 - 3.57	Auto	0.0851
L32	29	MP3-08.5 (1.25")	3.32 - 3.57	Auto	0.0000
L32	30	MP3-08.5 (1.25")	3.32 - 3.57	Auto	0.0000
L33	16	MP3-05 (1.25in)	3.17 - 3.32	Auto	0.0838
L33	18	MP3-05 (1.25in)	3.17 - 3.32	Auto	0.0838
L33	19	MP3-05 (1.25in)	3.17 - 3.32	Auto	0.0838
L33	29	MP3-08.5 (1.25")	3.17 - 3.32	Auto	0.0000
L33	30	MP3-08.5 (1.25")	3.17 - 3.32	Auto	0.0000
L34	16	MP3-05 (1.25in)	2.92 - 3.17	Auto	0.0516
L34	18	MP3-05 (1.25in)	2.92 - 3.17	Auto	0.0516
L34	19	MP3-05 (1.25in)	2.92 - 3.17	Auto	0.0516
L34	29	MP3-08.5 (1.25")	2.92 - 3.17	Auto	0.0000
L34	30	MP3-08.5 (1.25")	2.92 - 3.17	Auto	0.0000
L35	16	MP3-05 (1.25in)	2.75 - 2.92	Auto	0.0502
L35	18	MP3-05 (1.25in)	2.75 - 2.92	Auto	0.0502
L35	19	MP3-05 (1.25in)	2.75 - 2.92	Auto	0.0502
L35	29	MP3-08.5 (1.25")	2.75 - 2.92	Auto	0.0000
L35	30	MP3-08.5 (1.25")	2.75 - 2.92	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L36	16	MP3-05 (1.25in)	2.50 - 2.75	Auto	0.0468
L36	18	MP3-05 (1.25in)	2.50 - 2.75	Auto	0.0468
L36	19	MP3-05 (1.25in)	2.50 - 2.75	Auto	0.0468
L36	29	MP3-08.5 (1.25")	2.50 - 2.75	Auto	0.0000
L36	30	MP3-08.5 (1.25")	2.50 - 2.75	Auto	0.0000
L37	16	MP3-05 (1.25in)	0.00 - 2.50	Auto	0.0380
L37	18	MP3-05 (1.25in)	0.00 - 2.50	Auto	0.0380
L37	19	MP3-05 (1.25in)	0.00 - 2.50	Auto	0.0380
L37	29	MP3-08.5 (1.25")	0.00 - 2.50	Auto	0.0000
L37	30	MP3-08.5 (1.25")	0.00 - 2.50	Auto	0.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
108									
(2) JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.00 -6.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.50 5.97 6.45 7.44	4.38 4.84 5.30 6.26	0.10 0.17 0.25 0.46
(2) JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.00 -6.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.50 5.97 6.45 7.44	4.38 4.84 5.30 6.26	0.10 0.17 0.25 0.46
(2) JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.00 -6.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.50 5.97 6.45 7.44	4.38 4.84 5.30 6.26	0.10 0.17 0.25 0.46
Sub6 Antenna - VZS01 w/ Mount Pipe	A	From Leg	4.00 2.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.92 5.26 5.62 6.37	2.69 3.15 3.63 4.64	0.10 0.14 0.19 0.29
Sub6 Antenna - VZS01 w/ Mount Pipe	B	From Leg	4.00 2.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.92 5.26 5.62 6.37	2.69 3.15 3.63 4.64	0.10 0.14 0.19 0.29
Sub6 Antenna - VZS01 w/ Mount Pipe	C	From Leg	4.00 2.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.92 5.26 5.62 6.37	2.69 3.15 3.63 4.64	0.10 0.14 0.19 0.29
BXA-80080/4CF w/ Mount Pipe	A	From Leg	4.00 6.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.04 5.42 5.81 6.62	4.03 4.65 5.28 6.56	0.03 0.08 0.13 0.25
BXA-80080/4CF w/ Mount Pipe	B	From Leg	4.00 6.00 0.00	-10.00	108.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.04 5.42 5.81 6.62	4.03 4.65 5.28 6.56	0.03 0.08 0.13 0.25
BXA-80063/4CFx5 w/ Mount	C	From Leg	4.00	-10.00	108.00	No Ice	4.95	3.62	0.03

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
Pipe			6.00			1/2" Ice	5.32	4.22	0.07
			0.00			1" Ice	5.71	4.83	0.12
						2" Ice	6.51	6.11	0.23
CBC78T-DS-43-2X	A	From Leg	4.00	-10.00	108.00	No Ice	0.37	0.51	0.02
			-6.00			1/2" Ice	0.45	0.60	0.03
			0.00			1" Ice	0.53	0.70	0.04
						2" Ice	0.72	0.93	0.06
CBC78T-DS-43-2X	B	From Leg	4.00	-10.00	108.00	No Ice	0.37	0.51	0.02
			-6.00			1/2" Ice	0.45	0.60	0.03
			0.00			1" Ice	0.53	0.70	0.04
						2" Ice	0.72	0.93	0.06
CBC78T-DS-43-2X	C	From Leg	4.00	-10.00	108.00	No Ice	0.37	0.51	0.02
			-6.00			1/2" Ice	0.45	0.60	0.03
			0.00			1" Ice	0.53	0.70	0.04
						2" Ice	0.72	0.93	0.06
RFV01U-D1A	A	From Leg	4.00	-10.00	108.00	No Ice	1.88	1.25	0.08
			-6.00			1/2" Ice	2.05	1.39	0.10
			0.00			1" Ice	2.22	1.54	0.12
						2" Ice	2.60	1.86	0.18
RFV01U-D1A	B	From Leg	4.00	-10.00	108.00	No Ice	1.88	1.25	0.08
			6.00			1/2" Ice	2.05	1.39	0.10
			0.00			1" Ice	2.22	1.54	0.12
						2" Ice	2.60	1.86	0.18
RFV01U-D1A	C	From Leg	4.00	-10.00	108.00	No Ice	1.88	1.25	0.08
			6.00			1/2" Ice	2.05	1.39	0.10
			0.00			1" Ice	2.22	1.54	0.12
						2" Ice	2.60	1.86	0.18
RFV01U-D2A	A	From Leg	4.00	-10.00	108.00	No Ice	1.88	1.01	0.07
			2.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
						2" Ice	2.60	1.59	0.15
RFV01U-D2A	B	From Leg	4.00	-10.00	108.00	No Ice	1.88	1.01	0.07
			-6.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
						2" Ice	2.60	1.59	0.15
RFV01U-D2A	C	From Leg	4.00	-10.00	108.00	No Ice	1.88	1.01	0.07
			-6.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
						2" Ice	2.60	1.59	0.15
DB-C1-12C-24AB-0Z	A	From Leg	4.00	-10.00	108.00	No Ice	4.06	3.10	0.03
			6.00			1/2" Ice	4.32	3.34	0.07
			0.00			1" Ice	4.58	3.58	0.11
						2" Ice	5.14	4.09	0.20
(1) Dual Mount Bracket	A	From Leg	4.00	0.00	108.00	No Ice	0.13	0.21	0.01
			0.00			1/2" Ice	0.17	0.27	0.01
			0.00			1" Ice	0.23	0.33	0.01
						2" Ice	0.36	0.49	0.02
(1) Dual Mount Bracket	B	From Leg	4.00	0.00	108.00	No Ice	0.13	0.21	0.01
			0.00			1/2" Ice	0.17	0.27	0.01
			0.00			1" Ice	0.23	0.33	0.01
						2" Ice	0.36	0.49	0.02
(1) Dual Mount Bracket	C	From Leg	4.00	0.00	108.00	No Ice	0.13	0.21	0.01
			0.00			1/2" Ice	0.17	0.27	0.01
			0.00			1" Ice	0.23	0.33	0.01
						2" Ice	0.36	0.49	0.02
T-Arm Mount [TA 602-3]	C	None		0.00	108.00	No Ice	13.40	13.40	0.77
						1/2" Ice	16.44	16.44	1.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice	19.70	19.70	1.29
						2" Ice	25.86	25.86	2.05
102									
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	A	From Centroid-Leg	4.00 -7.00 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.29 6.86 7.45 8.68	2.76 3.27 3.79 4.90	0.06 0.11 0.16 0.29
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	B	From Centroid-Leg	4.00 -7.00 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.29 6.86 7.45 8.68	2.76 3.27 3.79 4.90	0.06 0.11 0.16 0.29
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	C	From Centroid-Leg	4.00 -7.00 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.29 6.86 7.45 8.68	2.76 3.27 3.79 4.90	0.06 0.11 0.16 0.29
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	A	From Centroid-Leg	4.00 -2.50 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.18 0.31 0.45 0.78
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	B	From Centroid-Leg	4.00 -2.50 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.18 0.31 0.45 0.78
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	C	From Centroid-Leg	4.00 -2.50 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.18 0.31 0.45 0.78
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Centroid-Leg	4.00 7.00 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.19 5.59 6.02 6.90	2.71 3.04 3.38 4.12	0.13 0.17 0.23 0.35
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Centroid-Leg	4.00 7.00 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.19 5.59 6.02 6.90	2.71 3.04 3.38 4.12	0.13 0.17 0.23 0.35
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Centroid-Leg	4.00 7.00 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.19 5.59 6.02 6.90	2.71 3.04 3.38 4.12	0.13 0.17 0.23 0.35
RADIO 4415 B66A_CCIV3	A	From Centroid-Leg	4.00 -7.00 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	0.68 0.79 0.91 1.18	0.05 0.06 0.07 0.11
RADIO 4415 B66A_CCIV3	B	From Centroid-Leg	4.00 -7.00 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	0.68 0.79 0.91 1.18	0.05 0.06 0.07 0.11
RADIO 4415 B66A_CCIV3	C	From Centroid-Leg	4.00 -7.00 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	0.68 0.79 0.91 1.18	0.05 0.06 0.07 0.11
RADIO 4424 B25_TMO	A	From Centroid-Leg	4.00 -2.50 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.05 2.23 2.42 2.81	1.61 1.77 1.94 2.30	0.09 0.11 0.13 0.19
RADIO 4424 B25_TMO	B	From Centroid-Le	4.00 -2.50	20.00	102.00	No Ice 1/2" Ice	2.05 2.23	1.61 1.77	0.09 0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		g	0.00			1" Ice	2.42	1.94	0.13
						2" Ice	2.81	2.30	0.19
RADIO 4424 B25_TMO	C	From Centroid-Le g	4.00 -2.50 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.05 2.23 2.42 2.81	1.61 1.77 1.94 2.30	0.09 0.11 0.13 0.19
RADIO 4449 B71 B85A_T-MOBILE	A	From Centroid-Le g	4.00 -2.50 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	B	From Centroid-Le g	4.00 -2.50 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	C	From Centroid-Le g	4.00 -2.50 0.00	20.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
2.4" x 8' Pipe	A	From Centroid-Le g	4.00 0.00 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.42 4.46	1.90 2.73 3.42 4.46	0.03 0.05 0.07 0.13
2.4" x 8' Pipe	B	From Centroid-Le g	4.00 0.00 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.42 4.46	1.90 2.73 3.42 4.46	0.03 0.05 0.07 0.13
2.4" x 8' Pipe	C	From Centroid-Le g	4.00 0.00 0.00	0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.42 4.46	1.90 2.73 3.42 4.46	0.03 0.05 0.07 0.13
SitePro1 RMQP-4096-HK	C	None		0.00	102.00	No Ice 1/2" Ice 1" Ice 2" Ice	23.14 28.17 33.23 43.26	21.40 26.44 31.60 41.56	1.95 2.34 2.85 3.50
97									
1900MHz RRH (65MHz)	A	From Leg	2.00 0.00 0.00	0.00	97.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.31 2.52 2.73 3.17	2.38 2.58 2.79 3.24	0.06 0.08 0.11 0.18
1900MHz RRH (65MHz)	B	From Leg	2.00 0.00 0.00	0.00	97.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.31 2.52 2.73 3.17	2.38 2.58 2.79 3.24	0.06 0.08 0.11 0.18
1900MHz RRH (65MHz)	C	From Leg	2.00 0.00 0.00	0.00	97.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.31 2.52 2.73 3.17	2.38 2.58 2.79 3.24	0.06 0.08 0.11 0.18
800MHZ RRH	A	From Leg	2.00 0.00 0.00	0.00	97.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	0.05 0.07 0.10 0.16
800MHZ RRH	B	From Leg	2.00 0.00 0.00	0.00	97.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92	1.77 1.95 2.13 2.51	0.05 0.07 0.10 0.16
800MHZ RRH	C	From Leg	2.00 0.00	0.00	97.00	No Ice 1/2" Ice	2.13 2.32	1.77 1.95	0.05 0.07

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" Ice	2.51	2.13	0.10
						2" Ice	2.92	2.51	0.16
2.4" Dia. x 4-ft	A	From Leg	2.00	0.00	97.00	No Ice	0.87	0.87	0.01
			0.00			1/2" Ice	1.12	1.12	0.02
			0.00			1" Ice	1.37	1.37	0.03
						2" Ice	1.91	1.91	0.06
2.4" Dia. x 4-ft	A	From Leg	2.00	0.00	97.00	No Ice	0.87	0.87	0.01
			0.00			1/2" Ice	1.12	1.12	0.02
			0.00			1" Ice	1.37	1.37	0.03
						2" Ice	1.91	1.91	0.06
2.4" Dia. x 4-ft	A	From Leg	2.00	0.00	97.00	No Ice	0.87	0.87	0.01
			0.00			1/2" Ice	1.12	1.12	0.02
			0.00			1" Ice	1.37	1.37	0.03
						2" Ice	1.91	1.91	0.06
Side Arm Mount [SO 701-3]	C	None		0.00	97.00	No Ice	3.02	3.02	0.20
						1/2" Ice	4.18	4.18	0.24
						1" Ice	5.33	5.33	0.28
						2" Ice	7.63	7.63	0.36
80									
7770.00 w/ Mount Pipe	A	From Leg	4.00	30.00	80.00	No Ice	5.75	4.25	0.06
			-6.00			1/2" Ice	6.18	5.01	0.10
			0.00			1" Ice	6.61	5.71	0.16
						2" Ice	7.49	7.16	0.29
7770.00 w/ Mount Pipe	B	From Leg	4.00	30.00	80.00	No Ice	5.75	4.25	0.06
			-6.00			1/2" Ice	6.18	5.01	0.10
			0.00			1" Ice	6.61	5.71	0.16
						2" Ice	7.49	7.16	0.29
7770.00 w/ Mount Pipe	C	From Leg	4.00	20.00	80.00	No Ice	5.75	4.25	0.06
			-6.00			1/2" Ice	6.18	5.01	0.10
			0.00			1" Ice	6.61	5.71	0.16
						2" Ice	7.49	7.16	0.29
(2) DMP65R-BU6D w/ Mount Pipe	A	From Leg	4.00	30.00	80.00	No Ice	11.96	5.97	0.11
			3.00			1/2" Ice	12.70	6.63	0.20
			0.00			1" Ice	13.46	7.30	0.30
						2" Ice	15.02	8.69	0.53
(2) DMP65R-BU4D w/ Mount Pipe	B	From Leg	4.00	30.00	80.00	No Ice	7.53	3.79	0.09
			3.00			1/2" Ice	8.04	4.23	0.16
			0.00			1" Ice	8.57	4.68	0.22
						2" Ice	9.68	5.63	0.39
(2) DMP65R-BU6D w/ Mount Pipe	C	From Leg	4.00	20.00	80.00	No Ice	11.96	5.97	0.11
			3.00			1/2" Ice	12.70	6.63	0.20
			0.00			1" Ice	13.46	7.30	0.30
						2" Ice	15.02	8.69	0.53
(2) LGP21401	A	From Leg	4.00	30.00	80.00	No Ice	1.10	0.21	0.01
			-6.00			1/2" Ice	1.24	0.27	0.02
			0.00			1" Ice	1.38	0.35	0.03
						2" Ice	1.69	0.52	0.05
(2) LGP21401	B	From Leg	4.00	30.00	80.00	No Ice	1.10	0.21	0.01
			-6.00			1/2" Ice	1.24	0.27	0.02
			0.00			1" Ice	1.38	0.35	0.03
						2" Ice	1.69	0.52	0.05
(2) LGP21401	C	From Leg	4.00	20.00	80.00	No Ice	1.10	0.21	0.01
			-6.00			1/2" Ice	1.24	0.27	0.02
			0.00			1" Ice	1.38	0.35	0.03
						2" Ice	1.69	0.52	0.05
RRUS 8843 B2/B66A	A	From Leg	4.00	30.00	80.00	No Ice	1.64	1.35	0.07
			6.00			1/2" Ice	1.80	1.50	0.09

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1" Ice	1.97	1.65	0.11
						2" Ice	2.32	1.99	0.16
RRUS 8843 B2/B66A	B	From Leg	4.00	30.00	80.00	No Ice	1.64	1.35	0.07
			6.00			1/2" Ice	1.80	1.50	0.09
			0.00			1" Ice	1.97	1.65	0.11
						2" Ice	2.32	1.99	0.16
RRUS 8843 B2/B66A	C	From Leg	4.00	20.00	80.00	No Ice	1.64	1.35	0.07
			6.00			1/2" Ice	1.80	1.50	0.09
			0.00			1" Ice	1.97	1.65	0.11
						2" Ice	2.32	1.99	0.16
RRUS 4478 B14	A	From Leg	4.00	30.00	80.00	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
						2" Ice	2.57	1.66	0.14
RRUS 4478 B14	B	From Leg	4.00	30.00	80.00	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
						2" Ice	2.57	1.66	0.14
RRUS 4478 B14	C	From Leg	4.00	20.00	80.00	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
						2" Ice	2.57	1.66	0.14
DC6-48-60-0-8C-EV	A	From Leg	4.00	30.00	80.00	No Ice	1.14	1.14	0.03
			0.00			1/2" Ice	1.79	1.79	0.05
			0.00			1" Ice	2.00	2.00	0.07
						2" Ice	2.45	2.45	0.13
DC6-48-60-18-8F	B	From Leg	4.00	30.00	80.00	No Ice	1.21	1.21	0.03
			0.00			1/2" Ice	1.89	1.89	0.05
			0.00			1" Ice	2.11	2.11	0.08
						2" Ice	2.57	2.57	0.14
T-Arm Mount [TA 602-3]	C	None		0.00	80.00	No Ice	13.40	13.40	0.77
						1/2" Ice	16.44	16.44	1.00
						1" Ice	19.70	19.70	1.29
						2" Ice	25.86	25.86	2.05
75									
RRUS 4449 B5/B12	A	From Leg	2.00	0.00	75.00	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
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	B	From Leg	2.00	0.00	75.00	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
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	C	From Leg	2.00	0.00	75.00	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
						2" Ice	2.72	2.07	0.16
2.4" Dia. x 4-ft	A	From Leg	2.00	0.00	75.00	No Ice	0.87	0.87	0.01
			0.00			1/2" Ice	1.12	1.12	0.02
			0.00			1" Ice	1.37	1.37	0.03
						2" Ice	1.91	1.91	0.06
2.4" Dia. x 4-ft	B	From Leg	2.00	0.00	75.00	No Ice	0.87	0.87	0.01
			0.00			1/2" Ice	1.12	1.12	0.02
			0.00			1" Ice	1.37	1.37	0.03
						2" Ice	1.91	1.91	0.06
2.4" Dia. x 4-ft	C	From Leg	2.00	0.00	75.00	No Ice	0.87	0.87	0.01
			0.00			1/2" Ice	1.12	1.12	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1" Ice	1.37	1.37	0.03
						2" Ice	1.91	1.91	0.06
Side Arm Mount [SO 901-3]	C	None		0.00	75.00	No Ice	1.14	1.14	0.32
						1/2" Ice	1.49	1.49	0.34
						1" Ice	1.91	1.91	0.37
						2" Ice	2.93	2.93	0.46
68									
MX08FRO665-21 w/ Mount Pipe	A	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.01 8.52 9.04 10.11	4.23 4.69 5.16 6.12	0.11 0.19 0.29 0.52
MX08FRO665-21 w/ Mount Pipe	B	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.01 8.52 9.04 10.11	4.23 4.69 5.16 6.12	0.11 0.19 0.29 0.52
MX08FRO665-21 w/ Mount Pipe	C	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.01 8.52 9.04 10.11	4.23 4.69 5.16 6.12	0.11 0.19 0.29 0.52
TA08025-B604	A	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	0.98 1.11 1.25 1.55	0.06 0.08 0.10 0.15
TA08025-B604	B	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	0.98 1.11 1.25 1.55	0.06 0.08 0.10 0.15
TA08025-B604	C	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	0.98 1.11 1.25 1.55	0.06 0.08 0.10 0.15
TA08025-B605	A	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
TA08025-B605	B	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
TA08025-B605	C	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
RDIDC-9181-PF-48	A	From Centroid-Leg	4.00 -4.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.01 2.19 2.37 2.76	1.17 1.31 1.46 1.78	0.02 0.04 0.06 0.11
(2) 2.4" Dia x 8-ft Mount Pipe	A	From Centroid-Leg	4.00 0.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 2.4" Dia x 8-ft Mount Pipe	B	From Centroid-Leg	4.00 0.00 0.00	0.00	68.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 2.4" Dia x 8-ft Mount Pipe	C	From Centroid-Le	4.00 0.00	0.00	68.00	No Ice 1/2" Ice	1.90 2.73	1.90 2.73	0.03 0.04

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		g	0.00			1" Ice	3.40	3.40	0.06
						2" Ice	4.40	4.40	0.12
Commscope MC-PK8-DSH	C	None		0.00	68.00	No Ice	34.24	34.24	1.75
						1/2" Ice	62.95	62.95	2.10
						1" Ice	91.66	91.66	2.45
						2" Ice	149.08	149.08	3.15
50									
KS24019-L112A	B	From Leg	3.00	0.00	50.00	No Ice	0.08	0.08	0.01
			0.00			1/2" Ice	0.13	0.13	0.01
			1.00			1" Ice	0.19	0.19	0.01
						2" Ice	0.35	0.35	0.02
Side Arm Mount [SO 701-1]	B	From Leg	1.50	0.00	50.00	No Ice	0.85	1.67	0.07
			0.00			1/2" Ice	1.14	2.34	0.08
			0.00			1" Ice	1.43	3.01	0.09
						2" Ice	2.01	4.35	0.12
**									

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp

Comb. No.	Description
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
L1	110 - 105	Pole	Max Tension	26	0.00	0.00	-0.00
			Max. Compression	26	-6.82	-0.19	0.69
			Max. Mx	20	-2.47	11.45	0.12
			Max. My	2	-2.45	0.38	11.45
			Max. Vy	20	-3.76	11.45	0.12
			Max. Vx	14	3.80	0.35	-11.13
			Max. Torque	13			0.93
L2	105 - 100	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.80	-0.20	0.73
			Max. Mx	20	-6.70	39.35	0.61
			Max. My	2	-6.67	0.84	39.80
			Max. Vy	20	-8.25	39.35	0.61
			Max. Vx	14	8.43	0.01	-39.50
			Max. Torque	3			-1.35
L3	100 - 98.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.92	-0.20	0.75
			Max. Mx	20	-6.79	51.77	0.90
			Max. My	2	-6.75	1.11	52.48
			Max. Vy	20	-8.32	51.77	0.90
			Max. Vx	14	8.49	-0.28	-52.19
			Max. Torque	3			-1.35
L4	98.5 - 93.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-17.70	-0.20	1.18
			Max. Mx	20	-7.68	96.46	1.93
			Max. My	2	-7.65	2.04	98.12
			Max. Vy	20	-9.26	96.46	1.93
			Max. Vx	14	9.44	-1.24	-97.67
			Max. Torque	3			-1.35
L5	93.5 - 88.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-18.16	-0.21	1.23
			Max. Mx	20	-8.04	143.21	2.89
			Max. My	2	-8.01	2.98	145.73
			Max. Vy	20	-9.45	143.21	2.89

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	9.63	-2.19	-145.31
			Max. Torque	3			-1.35
L6	88.5 - 83.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-18.64	-0.21	1.27
			Max. Mx	20	-8.43	190.86	3.84
			Max. My	2	-8.40	3.91	194.23
			Max. Vy	20	-9.63	190.86	3.84
			Max. Vx	14	9.81	-3.14	-193.86
			Max. Torque	15			1.34
L7	83.5 - 78.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25.16	-0.12	2.55
			Max. Mx	20	-11.07	242.23	4.75
			Max. My	2	-11.05	4.56	246.72
			Max. Vy	20	-13.21	242.23	4.75
			Max. Vx	14	13.35	-3.87	-245.74
			Max. Torque	10			1.79
L8	78.67 - 78.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25.21	-0.12	2.55
			Max. Mx	20	-11.13	245.53	4.76
			Max. My	2	-11.10	4.57	250.06
			Max. Vy	20	-13.20	245.53	4.76
			Max. Vx	14	13.35	-3.88	-249.08
			Max. Torque	10			1.79
L9	78.42 - 73.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-27.35	-0.12	2.60
			Max. Mx	20	-12.55	312.79	4.91
			Max. My	2	-12.52	4.70	317.95
			Max. Vy	20	-13.84	312.79	4.91
			Max. Vx	14	14.15	-4.02	-317.48
			Max. Torque	10			1.79
L10	73.42 - 68.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-28.46	-0.12	2.64
			Max. Mx	20	-13.36	382.58	5.06
			Max. My	14	-13.29	-4.16	-389.25
			Max. Vy	20	-14.09	382.58	5.06
			Max. Vx	14	14.58	-4.16	-389.25
			Max. Torque	10			1.79
L11	68.42 - 63.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.31	0.21	3.02
			Max. Mx	20	-17.22	467.18	5.30
			Max. My	14	-17.15	-4.24	-476.22
			Max. Vy	20	-17.28	467.18	5.30
			Max. Vx	14	17.79	-4.24	-476.22
			Max. Torque	10			1.79
L12	63.42 - 58.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.41	0.21	3.06
			Max. Mx	20	-18.06	549.71	5.45
			Max. My	14	-17.99	-4.37	-561.20
			Max. Vy	20	-17.50	549.71	5.45
			Max. Vx	14	18.01	-4.37	-561.20
			Max. Torque	10			1.79
L13	58.67 - 58.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.47	0.21	3.06
			Max. Mx	20	-18.11	554.09	5.46
			Max. My	14	-18.05	-4.38	-565.70
			Max. Vy	20	-17.50	554.09	5.46
			Max. Vx	14	18.01	-4.38	-565.70
			Max. Torque	10			1.78
L14	58.42 - 53.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.65	0.21	3.09
			Max. Mx	20	-19.01	642.11	5.60

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	14	-18.95	-4.52	-656.29
			Max. Vy	20	-17.73	642.11	5.60
			Max. Vx	14	18.24	-4.52	-656.29
			Max. Torque	10			1.78
L15	53.42 - 47.12	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.26	0.21	3.11
			Max. Mx	20	-19.47	687.42	5.67
			Max. My	14	-19.42	-4.59	-702.91
			Max. Vy	20	-17.84	687.42	5.67
			Max. Vx	14	18.35	-4.59	-702.91
			Max. Torque	10			1.78
L16	47.12 - 45.87	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-40.35	-0.10	2.98
			Max. Mx	20	-21.03	777.34	5.65
			Max. My	14	-20.97	-4.85	-795.77
			Max. Vy	20	-18.19	777.34	5.65
			Max. Vx	14	18.71	-4.85	-795.77
			Max. Torque	10			1.78
L17	45.87 - 40.87	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.68	-0.11	3.02
			Max. Mx	20	-22.07	868.71	5.72
			Max. My	14	-22.02	-4.92	-889.78
			Max. Vy	20	-18.39	868.71	5.72
			Max. Vx	14	18.92	-4.92	-889.78
			Max. Torque	10			1.78
L18	40.87 - 35.87	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.03	-0.13	3.05
			Max. Mx	20	-23.13	961.10	5.79
			Max. My	14	-23.09	-4.98	-984.79
			Max. Vy	20	-18.59	961.10	5.79
			Max. Vx	14	19.12	-4.98	-984.79
			Max. Torque	10			1.78
L19	35.87 - 30.87	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.39	-0.15	3.07
			Max. Mx	20	-24.21	1054.44	5.85
			Max. My	14	-24.18	-5.03	-1080.75
			Max. Vy	20	-18.78	1054.44	5.85
			Max. Vx	14	19.30	-5.03	-1080.75
			Max. Torque	10			1.78
L20	30.87 - 28.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-45.00	-0.15	3.07
			Max. Mx	20	-24.70	1095.80	5.87
			Max. My	14	-24.66	-5.06	-1123.26
			Max. Vy	20	-18.86	1095.80	5.87
			Max. Vx	14	19.38	-5.06	-1123.26
			Max. Torque	10			1.78
L21	28.67 - 28.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-45.07	-0.15	3.08
			Max. Mx	20	-24.76	1100.51	5.88
			Max. My	14	-24.73	-5.06	-1128.11
			Max. Vy	20	-18.85	1100.51	5.88
			Max. Vx	14	19.37	-5.06	-1128.11
			Max. Torque	10			1.78
L22	28.42 - 23.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.46	-0.17	3.08
			Max. Mx	20	-25.86	1195.17	5.93
			Max. My	14	-25.84	-5.11	-1225.37
			Max. Vy	20	-19.03	1195.17	5.93
			Max. Vx	14	19.55	-5.11	-1225.37
			Max. Torque	10			1.78
L23	23.42 - 18.42	Pole	Max Tension	1	0.00	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. Compression	26	-47.86	-0.19	3.09
			Max. Mx	20	-26.99	1290.62	5.98
			Max. My	14	-26.97	-5.16	-1323.40
			Max. Vy	20	-19.18	1290.62	5.98
			Max. Vx	14	19.70	-5.16	-1323.40
			Max. Torque	10			1.78
L24	18.42 - 14.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.10	-0.16	3.12
			Max. Mx	20	-27.97	1372.31	6.02
			Max. My	14	-27.95	-5.20	-1407.27
			Max. Vy	20	-19.30	1372.31	6.02
			Max. Vx	14	19.81	-5.20	-1407.27
			Max. Torque	10			1.78
L25	14.17 - 13.92	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.18	-0.16	3.13
			Max. Mx	20	-28.05	1377.14	6.02
			Max. My	14	-28.03	-5.20	-1412.22
			Max. Vy	20	-19.29	1377.14	6.02
			Max. Vx	14	19.80	-5.20	-1412.22
			Max. Torque	10			1.78
L26	13.92 - 13.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.27	-0.15	3.13
			Max. Mx	20	-28.11	1381.96	6.02
			Max. My	14	-28.10	-5.20	-1417.17
			Max. Vy	20	-19.30	1381.96	6.02
			Max. Vx	14	19.81	-5.20	-1417.17
			Max. Torque	10			1.78
L27	13.67 - 13.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.35	-0.15	3.14
			Max. Mx	20	-28.18	1386.78	6.03
			Max. My	14	-28.16	-5.20	-1422.12
			Max. Vy	20	-19.31	1386.78	6.03
			Max. Vx	14	19.82	-5.20	-1422.12
			Max. Torque	10			1.78
L28	13.42 - 8.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-50.91	-0.09	3.18
			Max. Mx	20	-29.41	1483.66	6.07
			Max. My	14	-29.40	-5.25	-1521.50
			Max. Vy	20	-19.47	1483.66	6.07
			Max. Vx	14	19.96	-5.25	-1521.50
			Max. Torque	10			1.78
L29	8.42 - 5.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.75	-0.05	3.22
			Max. Mx	20	-30.08	1535.69	6.09
			Max. My	14	-30.08	-5.27	-1574.83
			Max. Vy	20	-19.55	1535.69	6.09
			Max. Vx	14	20.03	-5.27	-1574.83
			Max. Torque	10			1.78
L30	5.75 - 5.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.84	-0.05	3.22
			Max. Mx	20	-30.16	1540.57	6.09
			Max. My	14	-30.16	-5.27	-1579.83
			Max. Vy	20	-19.54	1540.57	6.09
			Max. Vx	14	20.02	-5.27	-1579.83
			Max. Torque	10			1.78
L31	5.5 - 3.57	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.56	-0.02	3.24
			Max. Mx	20	-30.75	1578.33	6.10
			Max. My	14	-30.74	-5.28	-1618.52
			Max. Vy	20	-19.63	1578.33	6.10
			Max. Vx	14	20.11	-5.28	-1618.52

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	10			1.78
L32	3.57 - 3.32	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.66	-0.01	3.25
			Max. Mx	20	-30.84	1583.24	6.10
			Max. My	14	-30.84	-5.28	-1623.54
			Max. Vy	20	-19.61	1583.24	6.10
			Max. Vx	14	20.09	-5.28	-1623.54
			Max. Torque	10			1.78
L33	3.32 - 3.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.71	-0.01	3.25
			Max. Mx	20	-30.89	1586.18	6.11
			Max. My	14	-30.88	-5.29	-1626.56
			Max. Vy	20	-19.62	1586.18	6.11
			Max. Vx	14	20.10	-5.29	-1626.56
			Max. Torque	10			1.78
L34	3.17 - 2.92	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.79	-0.01	3.25
			Max. Mx	20	-30.95	1591.08	6.11
			Max. My	14	-30.95	-5.29	-1631.58
			Max. Vy	20	-19.63	1591.08	6.11
			Max. Vx	14	20.10	-5.29	-1631.58
			Max. Torque	10			1.78
L35	2.92 - 2.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.84	-0.01	3.25
			Max. Mx	20	-30.99	1594.42	6.11
			Max. My	14	-30.99	-5.29	-1635.00
			Max. Vy	20	-19.63	1594.42	6.11
			Max. Vx	14	20.11	-5.29	-1635.00
			Max. Torque	10			1.78
L36	2.75 - 2.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.92	-0.00	3.26
			Max. Mx	20	-31.06	1599.33	6.11
			Max. My	14	-31.05	-5.29	-1640.03
			Max. Vy	20	-19.64	1599.33	6.11
			Max. Vx	14	20.12	-5.29	-1640.03
			Max. Torque	10			1.78
L37	2.5 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-53.68	0.03	3.28
			Max. Mx	20	-31.68	1648.51	6.13
			Max. My	14	-31.68	-5.31	-1690.39
			Max. Vy	20	-19.73	1648.51	6.13
			Max. Vx	14	20.20	-5.31	-1690.39
			Max. Torque	10			1.78

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	53.68	-0.00	5.91
	Max. H_x	20	31.69	19.71	0.01
	Max. H_z	3	23.77	0.01	19.84
	Max. M_x	2	1665.20	0.01	19.84
	Max. M_z	8	1648.18	-19.71	-0.01
	Max. Torsion	10	1.78	-17.04	-9.92
	Min. Vert	11	23.77	-17.04	-9.92
	Min. H_x	9	23.77	-19.71	-0.01

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Min. H_z	15	23.77	-0.01	-20.18
	Min. M_x	14	-1690.39	-0.01	-20.18
	Min. M_z	20	-1648.51	19.71	0.01
	Min. Torsion	22	-1.78	17.34	10.10

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	26.41	0.00	0.00	-0.49	0.12	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	31.69	-0.01	-19.84	-1665.20	5.70	1.08
0.9 Dead+1.0 Wind 0 deg - No Ice	23.77	-0.01	-19.84	-1638.48	5.48	1.09
1.2 Dead+1.0 Wind 30 deg - No Ice	31.69	9.83	-17.18	-1439.81	-819.09	0.22
0.9 Dead+1.0 Wind 30 deg - No Ice	23.77	9.83	-17.18	-1416.72	-806.16	0.24
1.2 Dead+1.0 Wind 60 deg - No Ice	31.69	17.33	-10.08	-841.45	-1447.03	-0.69
0.9 Dead+1.0 Wind 60 deg - No Ice	23.77	17.33	-10.08	-827.96	-1424.13	-0.68
1.2 Dead+1.0 Wind 90 deg - No Ice	31.69	19.71	0.01	4.88	-1648.18	-1.43
0.9 Dead+1.0 Wind 90 deg - No Ice	23.77	19.71	0.01	4.89	-1621.98	-1.42
1.2 Dead+1.0 Wind 120 deg - No Ice	31.69	17.04	9.92	836.44	-1429.51	-1.78
0.9 Dead+1.0 Wind 120 deg - No Ice	23.77	17.04	9.92	823.20	-1406.76	-1.78
1.2 Dead+1.0 Wind 150 deg - No Ice	31.69	9.89	17.26	1444.76	-829.03	-1.65
0.9 Dead+1.0 Wind 150 deg - No Ice	23.77	9.89	17.26	1421.86	-815.83	-1.66
1.2 Dead+1.0 Wind 180 deg - No Ice	31.69	0.01	20.18	1690.39	-5.31	-1.08
0.9 Dead+1.0 Wind 180 deg - No Ice	23.77	0.01	20.18	1663.68	-5.21	-1.09
1.2 Dead+1.0 Wind 210 deg - No Ice	31.69	-9.83	17.18	1438.51	819.45	-0.22
0.9 Dead+1.0 Wind 210 deg - No Ice	23.77	-9.83	17.18	1415.77	806.42	-0.24
1.2 Dead+1.0 Wind 240 deg - No Ice	31.69	-17.04	9.91	826.93	1424.43	0.69
0.9 Dead+1.0 Wind 240 deg - No Ice	23.77	-17.04	9.91	813.97	1401.73	0.68
1.2 Dead+1.0 Wind 270 deg - No Ice	31.69	-19.71	-0.01	-6.13	1648.51	1.43
0.9 Dead+1.0 Wind 270 deg - No Ice	23.77	-19.71	-0.01	-5.80	1622.22	1.42
1.2 Dead+1.0 Wind 300 deg - No Ice	31.69	-17.34	-10.10	-850.90	1452.79	1.78
0.9 Dead+1.0 Wind 300 deg - No Ice	23.77	-17.34	-10.10	-837.16	1429.64	1.77
1.2 Dead+1.0 Wind 330 deg - No Ice	31.69	-9.89	-17.26	-1446.00	829.42	1.65

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
0.9 Dead+1.0 Wind 330 deg - No Ice	23.77	-9.89	-17.26	-1422.77	816.11	1.65
1.2 Dead+1.0 Ice+1.0 Temp	53.68	0.00	-0.00	-3.28	0.03	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	53.68	0.00	-5.91	-511.84	1.14	0.27
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	53.68	2.94	-5.12	-443.17	-251.42	0.04
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	53.68	5.09	-2.95	-256.70	-436.70	-0.20
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	53.68	5.87	-0.00	-2.25	-504.79	-0.38
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	53.68	5.08	2.95	251.84	-437.70	-0.47
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	53.68	2.94	5.11	437.56	-253.33	-0.42
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	53.68	-0.00	5.91	505.24	-1.07	-0.27
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	53.68	-2.94	5.12	436.45	251.48	-0.04
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	53.68	-5.09	2.95	249.93	436.66	0.20
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	53.68	-5.87	0.00	-4.46	504.84	0.38
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	53.68	-5.09	-2.95	-258.61	437.86	0.47
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	53.68	-2.94	-5.11	-444.27	253.39	0.42
Dead+Wind 0 deg - Service	26.41	-0.00	-4.83	-402.74	1.46	0.28
Dead+Wind 30 deg - Service	26.41	2.40	-4.19	-348.27	-197.83	0.06
Dead+Wind 60 deg - Service	26.41	4.22	-2.46	-203.70	-349.56	-0.17
Dead+Wind 90 deg - Service	26.41	4.80	0.00	0.79	-398.15	-0.36
Dead+Wind 120 deg - Service	26.41	4.15	2.42	201.72	-345.32	-0.45
Dead+Wind 150 deg - Service	26.41	2.41	4.21	348.72	-200.23	-0.42
Dead+Wind 180 deg - Service	26.41	0.00	4.92	408.10	-1.19	-0.28
Dead+Wind 210 deg - Service	26.41	-2.40	4.19	347.21	198.10	-0.06
Dead+Wind 240 deg - Service	26.41	-4.15	2.42	199.43	344.27	0.17
Dead+Wind 270 deg - Service	26.41	-4.80	-0.00	-1.85	398.41	0.36
Dead+Wind 300 deg - Service	26.41	-4.23	-2.46	-205.99	351.15	0.45
Dead+Wind 330 deg - Service	26.41	-2.41	-4.21	-349.78	200.50	0.42

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	-26.41	0.00	0.00	26.41	0.00	0.000%
2	-0.01	-31.69	-19.84	0.01	31.69	19.84	0.000%
3	-0.01	-23.77	-19.84	0.01	23.77	19.84	0.000%
4	9.83	-31.69	-17.18	-9.83	31.69	17.18	0.000%
5	9.83	-23.77	-17.18	-9.83	23.77	17.18	0.000%
6	17.33	-31.69	-10.08	-17.33	31.69	10.08	0.000%
7	17.33	-23.77	-10.08	-17.33	23.77	10.08	0.000%
8	19.71	-31.69	0.01	-19.71	31.69	-0.01	0.000%
9	19.71	-23.77	0.01	-19.71	23.77	-0.01	0.000%
10	17.04	-31.69	9.92	-17.04	31.69	-9.92	0.000%
11	17.04	-23.77	9.92	-17.04	23.77	-9.92	0.000%
12	9.89	-31.69	17.26	-9.89	31.69	-17.26	0.000%
13	9.89	-23.77	17.26	-9.89	23.77	-17.26	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
14	0.01	-31.69	20.18	-0.01	31.69	-20.18	0.000%
15	0.01	-23.77	20.18	-0.01	23.77	-20.18	0.000%
16	-9.83	-31.69	17.18	9.83	31.69	-17.18	0.000%
17	-9.83	-23.77	17.18	9.83	23.77	-17.18	0.000%
18	-17.04	-31.69	9.91	17.04	31.69	-9.91	0.000%
19	-17.04	-23.77	9.91	17.04	23.77	-9.91	0.000%
20	-19.71	-31.69	-0.01	19.71	31.69	0.01	0.000%
21	-19.71	-23.77	-0.01	19.71	23.77	0.01	0.000%
22	-17.34	-31.69	-10.10	17.34	31.69	10.10	0.000%
23	-17.34	-23.77	-10.10	17.34	23.77	10.10	0.000%
24	-9.89	-31.69	-17.26	9.89	31.69	17.26	0.000%
25	-9.89	-23.77	-17.26	9.89	23.77	17.26	0.000%
26	0.00	-53.68	0.00	-0.00	53.68	0.00	0.000%
27	0.00	-53.68	-5.91	-0.00	53.68	5.91	0.000%
28	2.94	-53.68	-5.12	-2.94	53.68	5.12	0.000%
29	5.09	-53.68	-2.95	-5.09	53.68	2.95	0.000%
30	5.87	-53.68	-0.00	-5.87	53.68	0.00	0.000%
31	5.08	-53.68	2.95	-5.08	53.68	-2.95	0.000%
32	2.94	-53.68	5.11	-2.94	53.68	-5.11	0.000%
33	-0.00	-53.68	5.91	0.00	53.68	-5.91	0.000%
34	-2.94	-53.68	5.12	2.94	53.68	-5.12	0.000%
35	-5.09	-53.68	2.95	5.09	53.68	-2.95	0.000%
36	-5.87	-53.68	0.00	5.87	53.68	-0.00	0.000%
37	-5.09	-53.68	-2.95	5.09	53.68	2.95	0.000%
38	-2.94	-53.68	-5.11	2.94	53.68	5.11	0.000%
39	-0.00	-26.41	-4.83	0.00	26.41	4.83	0.000%
40	2.40	-26.41	-4.19	-2.40	26.41	4.19	0.000%
41	4.22	-26.41	-2.46	-4.22	26.41	2.46	0.000%
42	4.80	-26.41	0.00	-4.80	26.41	-0.00	0.000%
43	4.15	-26.41	2.42	-4.15	26.41	-2.42	0.000%
44	2.41	-26.41	4.21	-2.41	26.41	-4.21	0.000%
45	0.00	-26.41	4.92	-0.00	26.41	-4.92	0.000%
46	-2.40	-26.41	4.19	2.40	26.41	-4.19	0.000%
47	-4.15	-26.41	2.42	4.15	26.41	-2.42	0.000%
48	-4.80	-26.41	-0.00	4.80	26.41	0.00	0.000%
49	-4.23	-26.41	-2.46	4.23	26.41	2.46	0.000%
50	-2.41	-26.41	-4.21	2.41	26.41	4.21	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	6	0.00000001	0.00009767
3	Yes	5	0.00000001	0.00063079
4	Yes	7	0.00000001	0.00017019
5	Yes	6	0.00000001	0.00075108
6	Yes	7	0.00000001	0.00017563
7	Yes	6	0.00000001	0.00077383
8	Yes	6	0.00000001	0.00014321
9	Yes	5	0.00000001	0.00090193
10	Yes	7	0.00000001	0.00016248
11	Yes	6	0.00000001	0.00071538
12	Yes	7	0.00000001	0.00018052
13	Yes	6	0.00000001	0.00079838
14	Yes	6	0.00000001	0.00015495

15	Yes	5	0.00000001	0.00097665
16	Yes	7	0.00000001	0.00016735
17	Yes	6	0.00000001	0.00073776
18	Yes	7	0.00000001	0.00016472
19	Yes	6	0.00000001	0.00072658
20	Yes	6	0.00000001	0.00020007
21	Yes	6	0.00000001	0.00006876
22	Yes	7	0.00000001	0.00018456
23	Yes	6	0.00000001	0.00081426
24	Yes	7	0.00000001	0.00016362
25	Yes	6	0.00000001	0.00071922
26	Yes	4	0.00000001	0.00075202
27	Yes	7	0.00000001	0.00024815
28	Yes	7	0.00000001	0.00035039
29	Yes	7	0.00000001	0.00035268
30	Yes	7	0.00000001	0.00024414
31	Yes	7	0.00000001	0.00033894
32	Yes	7	0.00000001	0.00035111
33	Yes	7	0.00000001	0.00024186
34	Yes	7	0.00000001	0.00033920
35	Yes	7	0.00000001	0.00033555
36	Yes	7	0.00000001	0.00024420
37	Yes	7	0.00000001	0.00036171
38	Yes	7	0.00000001	0.00035052
39	Yes	5	0.00000001	0.00011660
40	Yes	5	0.00000001	0.00053593
41	Yes	5	0.00000001	0.00057329
42	Yes	5	0.00000001	0.00014494
43	Yes	5	0.00000001	0.00048190
44	Yes	5	0.00000001	0.00062929
45	Yes	5	0.00000001	0.00012690
46	Yes	5	0.00000001	0.00051065
47	Yes	5	0.00000001	0.00049030
48	Yes	5	0.00000001	0.00015533
49	Yes	5	0.00000001	0.00065955
50	Yes	5	0.00000001	0.00049287

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	110 - 105	22.03	49	1.89	0.01
L2	105 - 100	20.05	49	1.88	0.01
L3	100 - 98.5	18.10	49	1.84	0.01
L4	98.5 - 93.5	17.52	49	1.82	0.01
L5	93.5 - 88.5	15.66	49	1.73	0.01
L6	88.5 - 83.5	13.91	49	1.60	0.01
L7	83.5 - 78.67	12.32	49	1.45	0.01
L8	78.67 - 78.42	10.93	45	1.29	0.00
L9	78.42 - 73.42	10.86	45	1.29	0.00
L10	73.42 - 68.42	9.54	45	1.23	0.00
L11	68.42 - 63.42	8.30	45	1.15	0.00
L12	63.42 - 58.67	7.13	45	1.07	0.00
L13	58.67 - 58.42	6.10	45	0.99	0.00
L14	58.42 - 53.42	6.05	45	0.99	0.00
L15	53.42 - 47.12	5.06	45	0.90	0.00
L16	50.87 - 45.87	4.60	45	0.85	0.00
L17	45.87 - 40.87	3.73	45	0.80	0.00
L18	40.87 - 35.87	2.94	45	0.71	0.00

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L19	35.87 - 30.87	2.24	45	0.62	0.00
L20	30.87 - 28.67	1.64	45	0.53	0.00
L21	28.67 - 28.42	1.41	45	0.49	0.00
L22	28.42 - 23.42	1.38	45	0.48	0.00
L23	23.42 - 18.42	0.92	45	0.39	0.00
L24	18.42 - 14.17	0.56	45	0.30	0.00
L25	14.17 - 13.92	0.32	45	0.23	0.00
L26	13.92 - 13.67	0.31	45	0.22	0.00
L27	13.67 - 13.42	0.30	45	0.22	0.00
L28	13.42 - 8.42	0.29	45	0.21	0.00
L29	8.42 - 5.75	0.11	45	0.13	0.00
L30	5.75 - 5.5	0.05	45	0.08	0.00
L31	5.5 - 3.57	0.05	45	0.08	0.00
L32	3.57 - 3.32	0.02	45	0.05	0.00
L33	3.32 - 3.17	0.02	45	0.05	0.00
L34	3.17 - 2.92	0.02	45	0.05	0.00
L35	2.92 - 2.75	0.01	45	0.05	0.00
L36	2.75 - 2.5	0.01	45	0.04	0.00
L37	2.5 - 0	0.01	45	0.04	0.00

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
108.00	(2) JAHH-65B-R3B w/ Mount Pipe	49	21.23	1.89	0.01	12806
102.00	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	49	18.87	1.86	0.01	6653
97.00	1900MHz RRH (65MHz)	49	16.95	1.80	0.01	3299
80.00	7770.00 w/ Mount Pipe	49	11.29	1.32	0.00	2109
75.00	RRUS 4449 B5/B12	45	9.95	1.25	0.00	4041
68.00	MX08FRO665-21 w/ Mount Pipe	45	8.20	1.15	0.00	3731
50.00	KS24019-L112A	45	4.44	0.84	0.00	4299

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	110 - 105	91.15	14	7.81	0.06
L2	105 - 100	83.01	14	7.78	0.05
L3	100 - 98.5	74.97	14	7.63	0.04
L4	98.5 - 93.5	72.59	14	7.54	0.04
L5	93.5 - 88.5	64.91	14	7.15	0.03
L6	88.5 - 83.5	57.71	14	6.62	0.03
L7	83.5 - 78.67	51.10	14	6.01	0.02
L8	78.67 - 78.42	45.35	14	5.37	0.02
L9	78.42 - 73.42	45.07	14	5.36	0.02
L10	73.42 - 68.42	39.60	14	5.09	0.01
L11	68.42 - 63.42	34.43	14	4.79	0.01
L12	63.42 - 58.67	29.59	14	4.46	0.01
L13	58.67 - 58.42	25.32	14	4.13	0.01

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L14	58.42 - 53.42	25.11	14	4.11	0.01
L15	53.42 - 47.12	21.00	14	3.74	0.01
L16	50.87 - 45.87	19.06	14	3.54	0.01
L17	45.87 - 40.87	15.46	14	3.31	0.01
L18	40.87 - 35.87	12.19	14	2.94	0.01
L19	35.87 - 30.87	9.30	14	2.57	0.00
L20	30.87 - 28.67	6.81	14	2.19	0.00
L21	28.67 - 28.42	5.84	14	2.03	0.00
L22	28.42 - 23.42	5.73	14	2.01	0.00
L23	23.42 - 18.42	3.83	14	1.63	0.00
L24	18.42 - 14.17	2.32	14	1.25	0.00
L25	14.17 - 13.92	1.35	14	0.93	0.00
L26	13.92 - 13.67	1.30	14	0.92	0.00
L27	13.67 - 13.42	1.25	14	0.90	0.00
L28	13.42 - 8.42	1.20	14	0.89	0.00
L29	8.42 - 5.75	0.46	14	0.53	0.00
L30	5.75 - 5.5	0.22	14	0.34	0.00
L31	5.5 - 3.57	0.20	14	0.33	0.00
L32	3.57 - 3.32	0.09	14	0.23	0.00
L33	3.32 - 3.17	0.07	14	0.21	0.00
L34	3.17 - 2.92	0.07	14	0.20	0.00
L35	2.92 - 2.75	0.06	14	0.19	0.00
L36	2.75 - 2.5	0.05	14	0.18	0.00
L37	2.5 - 0	0.04	14	0.16	0.00

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
108.00	(2) JAHH-65B-R3B w/ Mount Pipe	14	87.89	7.81	0.06	3410
102.00	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	14	78.16	7.71	0.05	1714
97.00	1900MHz RRH (65MHz)	14	70.25	7.45	0.04	834
80.00	7770.00 w/ Mount Pipe	14	46.87	5.49	0.02	521
75.00	RRUS 4449 B5/B12	14	41.30	5.18	0.02	995
68.00	MX08FRO665-21 w/ Mount Pipe	14	34.01	4.76	0.01	916
50.00	KS24019-L112A	14	18.42	3.49	0.01	1044

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	110 - 105 (1)	TP13.6932x12.7x0.1875	5.00	0.00	0.0	8.0376	-2.45	470.20	0.005
L2	105 - 100 (2)	TP14.6863x13.6932x0.1875	5.00	0.00	0.0	8.6286	-6.64	504.77	0.013
L3	100 - 98.5 (3)	TP14.9843x14.6863x0.1875	1.50	0.00	0.0	8.8060	-6.73	515.15	0.013
L4	98.5 - 93.5 (4)	TP16.0115x14.9843x0.1875	5.00	0.00	0.0	9.4173	-7.63	550.91	0.014

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L5	93.5 - 88.5 (5)	TP17.0387x16.0115x0.1875	5.00	0.00	0.0	10.0286	-7.99	586.67	0.014
L6	88.5 - 83.5 (6)	TP18.066x17.0387x0.1875	5.00	0.00	0.0	10.6399	-8.38	622.43	0.013
L7	83.5 - 78.67 (7)	TP19.0583x18.066x0.1875	4.83	0.00	0.0	11.2305	-11.04	656.98	0.017
L8	78.67 - 78.42 (8)	TP19.1096x19.0583x0.5625	0.25	0.00	0.0	33.1135	-11.10	1937.14	0.006
L9	78.42 - 73.42 (9)	TP20.1368x19.1096x0.5375	5.00	0.00	0.0	33.4369	-12.52	1956.06	0.006
L10	73.42 - 68.42 (10)	TP21.164x20.1368x0.5125	5.00	0.00	0.0	33.5934	-13.34	1965.21	0.007
L11	68.42 - 63.42 (11)	TP22.1913x21.164x0.4875	5.00	0.00	0.0	33.5828	-17.16	1964.59	0.009
L12	63.42 - 58.67 (12)	TP23.1671x22.1913x0.475	4.75	0.00	0.0	34.2118	-18.00	2001.39	0.009
L13	58.67 - 58.42 (13)	TP23.2185x23.1671x0.475	0.25	0.00	0.0	34.2892	-18.06	2005.92	0.009
L14	58.42 - 53.42 (14)	TP24.2457x23.2185x0.4625	5.00	0.00	0.0	34.9132	-18.95	2042.42	0.009
L15	53.42 - 47.12 (15)	TP25.54x24.2457x0.45	6.30	0.00	0.0	34.7357	-19.42	2032.04	0.010
L16	47.12 - 45.87 (16)	TP25.3633x24.3946x0.5125	5.00	0.00	0.0	40.4241	-20.97	2364.81	0.009
L17	45.87 - 40.87 (17)	TP26.332x25.3633x0.5	5.00	0.00	0.0	40.9953	-22.02	2398.23	0.009
L18	40.87 - 35.87 (18)	TP27.3006x26.332x0.4875	5.00	0.00	0.0	41.4887	-23.09	2427.09	0.010
L19	35.87 - 30.87 (19)	TP28.2693x27.3006x0.475	5.00	0.00	0.0	41.9041	-24.18	2451.39	0.010
L20	30.87 - 28.67 (20)	TP28.6956x28.2693x0.475	2.20	0.00	0.0	42.5467	-24.66	2488.98	0.010
L21	28.67 - 28.42 (21)	TP28.744x28.6956x0.475	0.25	0.00	0.0	42.6197	-24.73	2493.25	0.010
L22	28.42 - 23.42 (22)	TP29.7127x28.744x0.4625	5.00	0.00	0.0	42.9385	-25.84	2511.90	0.010
L23	23.42 - 18.42 (23)	TP30.6814x29.7127x0.4563	5.00	0.00	0.0	43.7701	-26.97	2560.55	0.011
L24	18.42 - 14.17 (24)	TP31.5047x30.6814x0.45	4.25	0.00	0.0	44.3555	-27.95	2594.80	0.011
L25	14.17 - 13.92 (25)	TP31.5532x31.5047x0.55	0.25	0.00	0.0	54.1222	-28.03	3166.15	0.009
L26	13.92 - 13.67 (26)	TP31.6016x31.5532x0.55	0.25	0.00	0.0	54.2068	-28.10	3171.10	0.009
L27	13.67 - 13.42 (27)	TP31.65x31.6016x0.4688	0.25	0.00	0.0	46.3919	-28.16	2713.93	0.010
L28	13.42 - 8.42 (28)	TP32.6187x31.65x0.4625	5.00	0.00	0.0	47.2045	-29.40	2761.47	0.011
L29	8.42 - 5.75 (29)	TP33.136x32.6187x0.4625	2.67	0.00	0.0	47.9639	-30.08	2805.89	0.011
L30	5.75 - 5.5 (30)	TP33.1844x33.136x0.525	0.25	0.00	0.0	54.4221	-30.16	3183.69	0.009
L31	5.5 - 3.57 (31)	TP33.5584x33.1844x0.5875	1.93	0.00	0.0	61.4816	-30.74	3596.67	0.009
L32	3.57 - 3.32 (32)	TP33.6068x33.5584x0.5875	0.25	0.00	0.0	61.5719	-30.84	3601.96	0.009
L33	3.32 - 3.17 (33)	TP33.6359x33.6068x0.5875	0.15	0.00	0.0	61.6261	-30.88	3605.13	0.009
L34	3.17 - 2.92 (34)	TP33.6843x33.6359x0.4938	0.25	0.00	0.0	52.0150	-30.95	3042.88	0.010
L35	2.92 - 2.75 (35)	TP33.7172x33.6843x0.4938	0.17	0.00	0.0	52.0666	-30.99	3045.90	0.010
L36	2.75 - 2.5 (36)	TP33.7657x33.7172x0.4875	0.25	0.00	0.0	51.4921	-31.05	3012.29	0.010
L37	2.5 - 0 (37)	TP34.25x33.7657x0.4875	2.50	0.00	0.0	52.2416	-31.68	3056.13	0.010

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	110 - 105 (1)	TP13.6932x12.7x0.1875	11.56	164.86	0.070	0.00	164.86	0.000
L2	105 - 100 (2)	TP14.6863x13.6932x0.1875	40.13	190.17	0.211	0.00	190.17	0.000
L3	100 - 98.5 (3)	TP14.9843x14.6863x0.1875	52.99	198.12	0.267	0.00	198.12	0.000
L4	98.5 - 93.5 (4)	TP16.0115x14.9843x0.1875	99.21	226.77	0.438	0.00	226.77	0.000
L5	93.5 - 88.5 (5)	TP17.0387x16.0115x0.1875	147.42	257.35	0.573	0.00	257.35	0.000
L6	88.5 - 83.5 (6)	TP18.066x17.0387x0.1875	196.52	289.65	0.678	0.00	289.65	0.000
L7	83.5 - 78.67 (7)	TP19.0583x18.066x0.1875	249.36	318.58	0.783	0.00	318.58	0.000
L8	78.67 - 78.42 (8)	TP19.1096x19.0583x0.5625	252.69	917.83	0.275	0.00	917.83	0.000
L9	78.42 - 73.42 (9)	TP20.1368x19.1096x0.5375	320.55	982.13	0.326	0.00	982.13	0.000
L10	73.42 - 68.42 (10)	TP21.164x20.1368x0.5125	390.95	1042.35	0.375	0.00	1042.35	0.000
L11	68.42 - 63.42 (11)	TP22.1913x21.164x0.4875	476.92	1097.63	0.435	0.00	1097.63	0.000
L12	63.42 - 58.67 (12)	TP23.1671x22.1913x0.475	561.45	1170.87	0.480	0.00	1170.87	0.000
L13	58.67 - 58.42 (13)	TP23.2185x23.1671x0.475	565.93	1176.22	0.481	0.00	1176.22	0.000
L14	58.42 - 53.42 (14)	TP24.2457x23.2185x0.4625	656.31	1254.14	0.523	0.00	1254.14	0.000
L15	53.42 - 47.12 (15)	TP25.54x24.2457x0.45	702.93	1277.09	0.550	0.00	1277.09	0.000
L16	47.12 - 45.87 (16)	TP25.3633x24.3946x0.5125	795.78	1515.54	0.525	0.00	1515.54	0.000
L17	45.87 - 40.87 (17)	TP26.332x25.3633x0.5	889.79	1599.63	0.556	0.00	1599.63	0.000
L18	40.87 - 35.87 (18)	TP27.3006x26.332x0.4875	984.80	1682.30	0.585	0.00	1682.30	0.000
L19	35.87 - 30.87 (19)	TP28.2693x27.3006x0.475	1080.77	1763.22	0.613	0.00	1763.22	0.000
L20	30.87 - 28.67 (20)	TP28.6956x28.2693x0.475	1123.28	1818.17	0.618	0.00	1818.17	0.000
L21	28.67 - 28.42 (21)	TP28.744x28.6956x0.475	1128.12	1824.47	0.618	0.00	1824.47	0.000
L22	28.42 - 23.42 (22)	TP29.7127x28.744x0.4625	1225.38	1903.77	0.644	0.00	1903.77	0.000
L23	23.42 - 18.42 (23)	TP30.6814x29.7127x0.4563	1323.41	2006.74	0.659	0.00	2006.74	0.000
L24	18.42 - 14.17 (24)	TP31.5047x30.6814x0.45	1407.28	2090.64	0.673	0.00	2090.64	0.000
L25	14.17 - 13.92 (25)	TP31.5532x31.5047x0.55	1412.22	2538.62	0.556	0.00	2538.62	0.000
L26	13.92 - 13.67 (26)	TP31.6016x31.5532x0.55	1417.18	2546.63	0.556	0.00	2546.63	0.000
L27	13.67 - 13.42 (27)	TP31.65x31.6016x0.4688	1422.13	2194.37	0.648	0.00	2194.37	0.000
L28	13.42 - 8.42 (28)	TP32.6187x31.65x0.4625	1521.51	2304.09	0.660	0.00	2304.09	0.000
L29	8.42 - 5.75 (29)	TP33.136x32.6187x0.4625	1574.83	2379.35	0.662	0.00	2379.35	0.000
L30	5.75 - 5.5 (30)	TP33.1844x33.136x0.525	1579.84	2693.46	0.587	0.00	2693.46	0.000
L31	5.5 - 3.57 (31)	TP33.5584x33.1844x0.5875	1618.53	3066.60	0.528	0.00	3066.60	0.000
L32	3.57 - 3.32 (32)	TP33.6068x33.5584x0.5875	1623.55	3075.69	0.528	0.00	3075.69	0.000
L33	3.32 - 3.17 (33)	TP33.6359x33.6068x0.5875	1626.57	3081.16	0.528	0.00	3081.16	0.000
L34	3.17 - 2.92 (34)	TP33.6843x33.6359x0.4938	1631.59	2619.28	0.623	0.00	2619.28	0.000
L35	2.92 - 2.75 (35)	TP33.7172x33.6843x0.4938	1635.01	2624.52	0.623	0.00	2624.52	0.000
L36	2.75 - 2.5 (36)	TP33.7657x33.7172x0.4875	1640.03	2600.38	0.631	0.00	2600.38	0.000
L37	2.5 - 0 (37)	TP34.25x33.7657x0.4875	1690.40	2677.18	0.631	0.00	2677.18	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	110 - 105 (1)	TP13.6932x12.7x0.1875	3.80	141.06	0.027	0.92	166.84	0.006
L2	105 - 100 (2)	TP14.6863x13.6932x0.1875	8.54	151.43	0.056	1.08	192.28	0.006
L3	100 - 98.5 (3)	TP14.9843x14.6863x0.1875	8.61	154.54	0.056	1.08	200.26	0.005
L4	98.5 - 93.5 (4)	TP16.0115x14.9843x0.1875	9.56	165.27	0.058	1.19	229.03	0.005
L5	93.5 - 88.5 (5)	TP17.0387x16.0115x0.1875	9.74	176.00	0.055	1.19	259.73	0.005
L6	88.5 - 83.5 (6)	TP18.066x17.0387x0.1875	9.92	186.73	0.053	1.19	292.37	0.004
L7	83.5 - 78.67 (7)	TP19.0583x18.066x0.1875	13.33	197.09	0.068	1.73	325.72	0.005
L8	78.67 - 78.42 (8)	TP19.1096x19.0583x0.5625	13.33	581.14	0.023	1.72	943.92	0.002
L9	78.42 - 73.42 (9)	TP20.1368x19.1096x0.5375	13.96	586.82	0.024	1.72	1007.23	0.002
L10	73.42 - 68.42 (10)	TP21.164x20.1368x0.5125	14.22	589.56	0.024	1.72	1066.26	0.002
L11	68.42 - 63.42 (11)	TP22.1913x21.164x0.4875	17.70	589.38	0.030	1.79	1120.23	0.002
L12	63.42 - 58.67 (12)	TP23.1671x22.1913x0.475	17.92	600.42	0.030	1.78	1193.18	0.001
L13	58.67 - 58.42 (13)	TP23.2185x23.1671x0.475	17.92	601.78	0.030	1.78	1198.59	0.001
L14	58.42 - 53.42 (14)	TP24.2457x23.2185x0.4625	18.24	612.73	0.030	0.94	1276.19	0.001
L15	53.42 - 47.12 (15)	TP25.54x24.2457x0.45	18.35	609.61	0.030	0.94	1298.34	0.001
L16	47.12 - 45.87 (16)	TP25.3633x24.3946x0.5125	18.71	709.44	0.026	1.09	1543.97	0.001
L17	45.87 - 40.87 (17)	TP26.332x25.3633x0.5	18.92	719.47	0.026	1.08	1627.60	0.001
L18	40.87 - 35.87 (18)	TP27.3006x26.332x0.4875	19.12	728.13	0.026	1.08	1709.76	0.001
L19	35.87 - 30.87 (19)	TP28.2693x27.3006x0.475	19.30	735.42	0.026	1.08	1790.07	0.001
L20	30.87 - 28.67 (20)	TP28.6956x28.2693x0.475	19.38	746.70	0.026	1.08	1845.39	0.001
L21	28.67 - 28.42 (21)	TP28.744x28.6956x0.475	19.37	747.98	0.026	1.08	1851.73	0.001
L22	28.42 - 23.42 (22)	TP29.7127x28.744x0.4625	19.55	753.57	0.026	1.08	1930.33	0.001
L23	23.42 - 18.42 (23)	TP30.6814x29.7127x0.4563	19.70	768.17	0.026	1.08	2033.31	0.001
L24	18.42 - 14.17 (24)	TP31.5047x30.6814x0.45	19.81	778.44	0.025	1.08	2117.06	0.001
L25	14.17 - 13.92 (25)	TP31.5532x31.5047x0.55	19.80	949.85	0.021	1.08	2578.93	0.000
L26	13.92 - 13.67 (26)	TP31.6016x31.5532x0.55	19.81	951.33	0.021	1.08	2586.99	0.000
L27	13.67 - 13.42 (27)	TP31.65x31.6016x0.4688	19.82	814.18	0.024	1.08	2223.28	0.000
L28	13.42 - 8.42 (28)	TP32.6187x31.65x0.4625	19.96	828.44	0.024	1.08	2332.95	0.000
L29	8.42 - 5.75 (29)	TP33.136x32.6187x0.4625	20.03	841.77	0.024	1.08	2408.62	0.000
L30	5.75 - 5.5 (30)	TP33.1844x33.136x0.525	20.02	955.11	0.021	1.08	2731.75	0.000
L31	5.5 - 3.57 (31)	TP33.5584x33.1844x0.5875	20.11	1079.00	0.019	1.08	3115.53	0.000
L32	3.57 - 3.32 (32)	TP33.6068x33.5584x0.5875	20.09	1080.59	0.019	1.08	3124.69	0.000
L33	3.32 - 3.17 (33)	TP33.6359x33.6068x0.5875	20.10	1081.54	0.019	1.08	3130.20	0.000
L34	3.17 - 2.92 (34)	TP33.6843x33.6359x0.4938	20.10	912.86	0.022	1.08	2653.38	0.000
L35	2.92 - 2.75 (35)	TP33.7172x33.6843x0.4938	20.11	913.77	0.022	1.08	2658.65	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L36	2.75 - 2.5 (36)	TP33.7657x33.7172x0.4875	20.12	903.69	0.022	1.08	2633.64	0.000
L37	2.5 - 0 (37)	TP34.25x33.7657x0.4875	20.20	916.84	0.022	1.08	2710.87	0.000

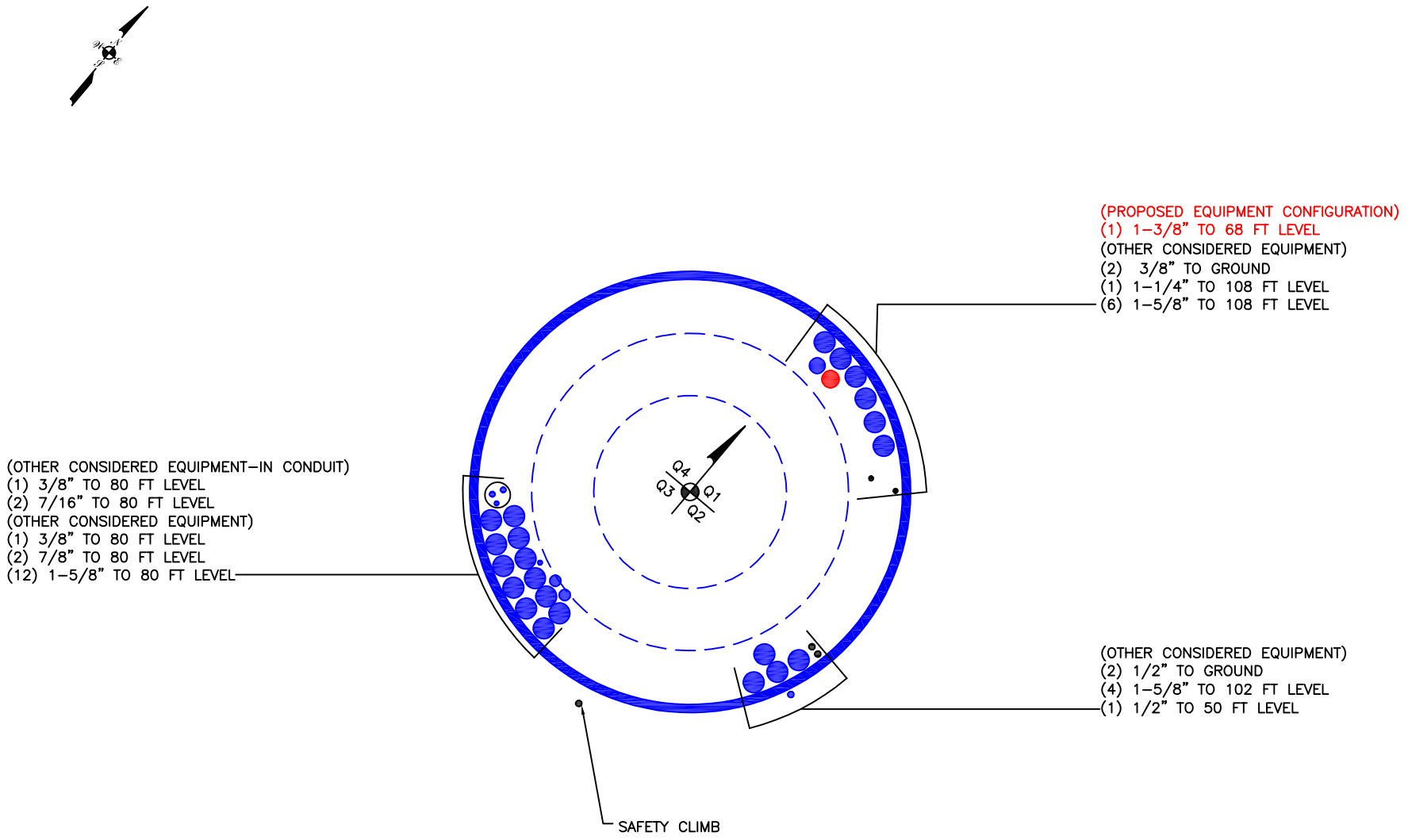
Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	110 - 105 (1)	0.005	0.070	0.000	0.027	0.006	0.076	1.050	4.8.2
L2	105 - 100 (2)	0.013	0.211	0.000	0.056	0.006	0.228	1.050	4.8.2
L3	100 - 98.5 (3)	0.013	0.267	0.000	0.056	0.005	0.284	1.050	4.8.2
L4	98.5 - 93.5 (4)	0.014	0.438	0.000	0.058	0.005	0.455	1.050	4.8.2
L5	93.5 - 88.5 (5)	0.014	0.573	0.000	0.055	0.005	0.590	1.050	4.8.2
L6	88.5 - 83.5 (6)	0.013	0.678	0.000	0.053	0.004	0.695	1.050	4.8.2
L7	83.5 - 78.67 (7)	0.017	0.783	0.000	0.068	0.005	0.805	1.050	4.8.2
L8	78.67 - 78.42 (8)	0.006	0.275	0.000	0.023	0.002	0.282	1.050	4.8.2
L9	78.42 - 73.42 (9)	0.006	0.326	0.000	0.024	0.002	0.333	1.050	4.8.2
L10	73.42 - 68.42 (10)	0.007	0.375	0.000	0.024	0.002	0.383	1.050	4.8.2
L11	68.42 - 63.42 (11)	0.009	0.435	0.000	0.030	0.002	0.444	1.050	4.8.2
L12	63.42 - 58.67 (12)	0.009	0.480	0.000	0.030	0.001	0.489	1.050	4.8.2
L13	58.67 - 58.42 (13)	0.009	0.481	0.000	0.030	0.001	0.491	1.050	4.8.2
L14	58.42 - 53.42 (14)	0.009	0.523	0.000	0.030	0.001	0.534	1.050	4.8.2
L15	53.42 - 47.12 (15)	0.010	0.550	0.000	0.030	0.001	0.561	1.050	4.8.2
L16	47.12 - 45.87 (16)	0.009	0.525	0.000	0.026	0.001	0.535	1.050	4.8.2
L17	45.87 - 40.87 (17)	0.009	0.556	0.000	0.026	0.001	0.566	1.050	4.8.2
L18	40.87 - 35.87 (18)	0.010	0.585	0.000	0.026	0.001	0.596	1.050	4.8.2
L19	35.87 - 30.87 (19)	0.010	0.613	0.000	0.026	0.001	0.624	1.050	4.8.2
L20	30.87 - 28.67 (20)	0.010	0.618	0.000	0.026	0.001	0.628	1.050	4.8.2
L21	28.67 - 28.42 (21)	0.010	0.618	0.000	0.026	0.001	0.629	1.050	4.8.2
L22	28.42 - 23.42 (22)	0.010	0.644	0.000	0.026	0.001	0.655	1.050	4.8.2
L23	23.42 - 18.42 (23)	0.011	0.659	0.000	0.026	0.001	0.671	1.050	4.8.2
L24	18.42 - 14.17 (24)	0.011	0.673	0.000	0.025	0.001	0.685	1.050	4.8.2
L25	14.17 - 13.92 (25)	0.009	0.556	0.000	0.021	0.000	0.566	1.050	4.8.2
L26	13.92 - 13.67 (26)	0.009	0.556	0.000	0.021	0.000	0.566	1.050	4.8.2
L27	13.67 - 13.42 (27)	0.010	0.648	0.000	0.024	0.000	0.659	1.050	4.8.2

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L28	13.42 - 8.42 (28)	0.011	0.660	0.000	0.024	0.000	0.672	1.050	4.8.2
L29	8.42 - 5.75 (29)	0.011	0.662	0.000	0.024	0.000	0.673	1.050	4.8.2
L30	5.75 - 5.5 (30)	0.009	0.587	0.000	0.021	0.000	0.596	1.050	4.8.2
L31	5.5 - 3.57 (31)	0.009	0.528	0.000	0.019	0.000	0.537	1.050	4.8.2
L32	3.57 - 3.32 (32)	0.009	0.528	0.000	0.019	0.000	0.537	1.050	4.8.2
L33	3.32 - 3.17 (33)	0.009	0.528	0.000	0.019	0.000	0.537	1.050	4.8.2
L34	3.17 - 2.92 (34)	0.010	0.623	0.000	0.022	0.000	0.634	1.050	4.8.2
L35	2.92 - 2.75 (35)	0.010	0.623	0.000	0.022	0.000	0.634	1.050	4.8.2
L36	2.75 - 2.5 (36)	0.010	0.631	0.000	0.022	0.000	0.642	1.050	4.8.2
L37	2.5 - 0 (37)	0.010	0.631	0.000	0.022	0.000	0.642	1.050	4.8.2

APPENDIX B

BASE LEVEL DRAWING


(PROPOSED EQUIPMENT CONFIGURATION)
(1) 1–3/8" TO 68 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 3/8" TO GROUND
(1) 1–1/4" TO 108 FT LEVEL
(6) 1–5/8" TO 108 FT LEVEL
(OTHER CONSIDERED EQUIPMENT–IN CONDUIT)
(1) 3/8" TO 80 FT LEVEL
(2) 7/16" TO 80 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 3/8" TO 80 FT LEVEL
(2) 7/8" TO 80 FT LEVEL
(12) 1–5/8" TO 80 FT LEVEL
Q4
Q1
Q3
Q2
(OTHER CONSIDERED EQUIPMENT)
(2) 1/2" TO GROUND
(4) 1–5/8" TO 102 FT LEVEL
(1) 1/2" TO 50 FT LEVEL
SAFETY CLIMB

APPENDIX C

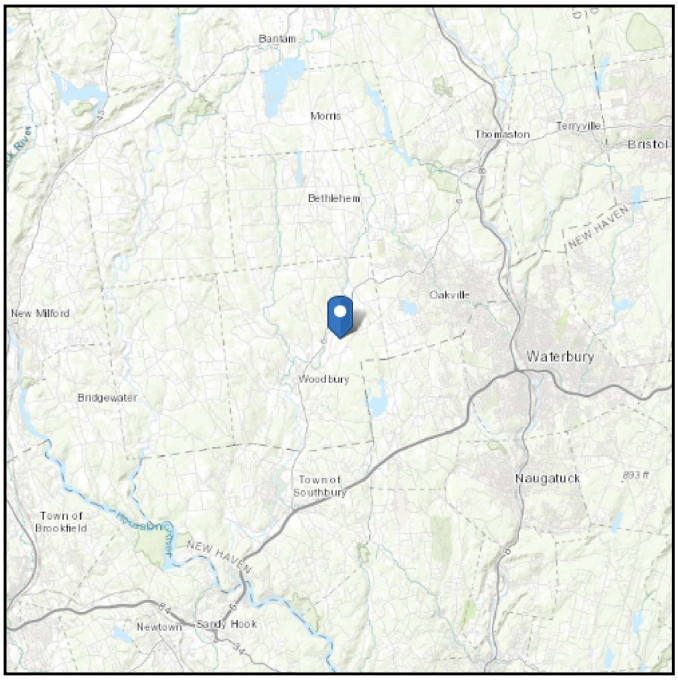
ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 0 ft (NAVD 88)
Latitude: 41.567997
Longitude: -73.179681



Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	76 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Accessed: Tue Sep 21 2021

Date Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

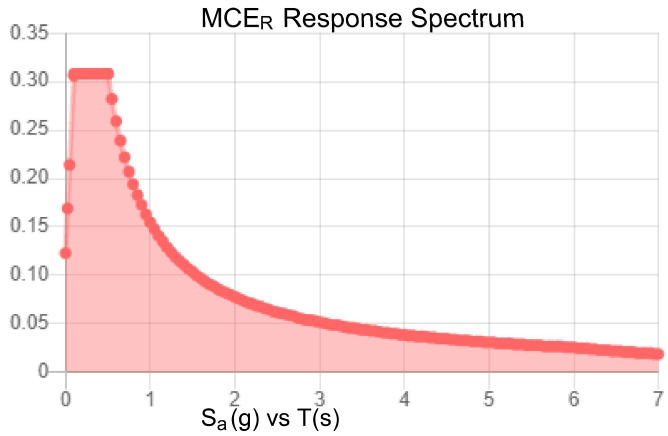
Seismic

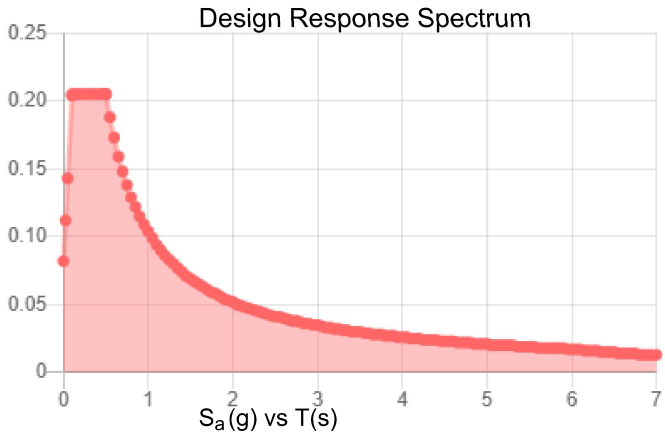
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.192	S_{DS} :	0.205
S_1 :	0.065	S_{D1} :	0.104
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.1
S_{MS} :	0.308	PGA_M :	0.16
S_{M1} :	0.155	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Tue Sep 21 2021

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Tue Sep 21 2021

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

CCIpole

per TIA-222- H

Site BU: 876405

Work Order: 1964072

CROWN CASTLE

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	110	11.5	0	18	12.7	14.9843	0.1875	Auto	A572-65
2	98.5	51.38	3.75	18	14.98	25.54	0.1875	Auto	A572-65
3	50.87	50.87	0	18	24.39	34.25	0.25	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	0	3.58	plate	1.25x6.00 (65 ksi) (M	6		-2.5				2.5		x				1		-1				-1
2	2.75	5.75	channel	MP3-05 (1.25in)	1													x					
3	3.67	28.67	channel	MP3-05 (1.25in)	2	x						x											
4	28.67	58.67	channel	MP3-05 (1.25in)	3	x						x						x					
5	58.67	78.67	channel	MP3-05 (1.25in)	3	x						x						x					
6	3.17	14.17	channel	MP3-08.5 (1.25")	2											x				x			
7	13.67	28.67	channel	MP3-05 (1.25in)	1													x					
8																							
9																							
10																							

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in2)	Bolt Hole Size (in)	Reinforcement Material
1	1.25	2.75	3.4375	2.125	Welded	n/a	Welded	n/a	0.750	3.438	0.0000	A572-65
2	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	4.994	1.2500	A572-65
3	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	4.994	1.2500	A572-65
4	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	4.994	1.2500	A572-65
5	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	4.994	1.2500	A572-65
6	3.84	2.8	4.96	0.48	Capacity Input	n/a	PC 8.8 - M20 (100)	23.000	18.000	3.986	1.2190	A572-65
7	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	4.994	1.2500	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
MP3-08.5 (1.25")	Top	8	N	3	2	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	0	0	0	0	0	0	-	-	1000
(TS) 1.25x6.00 (65 ksi) (MOD)	Top	-	-	-	-	70	None	-	-	-	-	36	0.250	-
	Bottom	-	-	-	-	70	PJP Groove	11.5	0.5	45	0.5	-	-	-

TNX Geometry Input

Increment (ft): 5 Export to TNX

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	110 - 105	5		18	12.700	13.693	0.1875	A572-65	1.000
2	105 - 100	5		18	13.693	14.686	0.1875	A572-65	1.000
3	100 - 98.5	1.5	0	18	14.686	14.984	0.1875	A572-65	1.000
4	98.5 - 93.5	5		18	14.984	16.012	0.1875	A572-65	1.000
5	93.5 - 88.5	5		18	16.012	17.039	0.1875	A572-65	1.000
6	88.5 - 83.5	5		18	17.039	18.066	0.1875	A572-65	1.000
7	83.5 - 78.67	4.83		18	18.066	19.058	0.1875	A572-65	1.000
8	78.67 - 78.42	0.25		18	19.058	19.110	0.5625	A572-65	0.852
9	78.42 - 73.42	5		18	19.110	20.137	0.5375	A572-65	0.862
10	73.42 - 68.42	5		18	20.137	21.164	0.5125	A572-65	0.876
11	68.42 - 63.42	5		18	21.164	22.191	0.4875	A572-65	0.895
12	63.42 - 58.67	4.75		18	22.191	23.167	0.475	A572-65	0.895
13	58.67 - 58.42	0.25		18	23.167	23.218	0.475	A572-65	0.894
14	58.42 - 53.42	5		18	23.218	24.246	0.4625	A572-65	0.896
15	53.42 - 50.87	6.3	3.75	18	24.246	25.540	0.45	A572-65	0.909
16	50.87 - 45.87	5		18	24.395	25.363	0.5125	A572-65	0.912
17	45.87 - 40.87	5		18	25.363	26.332	0.5	A572-65	0.918
18	40.87 - 35.87	5		18	26.332	27.301	0.4875	A572-65	0.926
19	35.87 - 30.87	5		18	27.301	28.269	0.475	A572-65	0.935
20	30.87 - 28.67	2.2		18	28.269	28.696	0.475	A572-65	0.929
21	28.67 - 28.42	0.25		18	28.696	28.744	0.475	A572-65	0.928
22	28.42 - 23.42	5		18	28.744	29.713	0.4625	A572-65	0.939
23	23.42 - 18.42	5		18	29.713	30.681	0.45625	A572-65	0.939
24	18.42 - 14.17	4.25		18	30.681	31.505	0.45	A572-65	0.941
25	14.17 - 13.92	0.25		18	31.505	31.553	0.55	A572-65	0.955
26	13.92 - 13.67	0.25		18	31.553	31.602	0.55	A572-65	0.955
27	13.67 - 13.42	0.25		18	31.602	31.650	0.46875	A572-65	0.994
28	13.42 - 8.42	5		18	31.650	32.619	0.4625	A572-65	0.994
29	8.42 - 5.75	2.67		18	32.619	33.136	0.4625	A572-65	0.986
30	5.75 - 5.5	0.25		18	33.136	33.184	0.525	A572-65	0.974
31	5.5 - 3.57	1.93		18	33.184	33.558	0.5875	A572-65	1.019
32	3.57 - 3.32	0.25		18	33.558	33.607	0.5875	A572-65	1.018
33	3.32 - 3.17	0.15		18	33.607	33.636	0.5875	A572-65	1.017
34	3.17 - 2.92	0.25		18	33.636	33.684	0.49375	A572-65	0.907
35	2.92 - 2.75	0.17		18	33.684	33.717	0.49375	A572-65	0.906
36	2.75 - 2.5	0.25		18	33.717	33.766	0.4875	A572-65	0.917
37	2.5 - 0	2.5		18	33.766	34.250	0.4875	A572-65	0.911

TNX Section Forces

Increment (ft):	5	TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	110 - 105	2.45	11.56	3.80
2	105 - 100	6.64	40.13	8.54
3	100 - 98.5	6.73	52.99	8.61
4	98.5 - 93.5	7.63	99.21	9.56
5	93.5 - 88.5	7.99	147.42	9.74
6	88.5 - 83.5	8.38	196.52	9.92
7	83.5 - 78.67	11.04	249.36	13.33
8	78.67 - 78.42	11.10	252.69	13.33
9	78.42 - 73.42	12.52	320.55	13.96
10	73.42 - 68.42	13.33	390.95	14.22
11	68.42 - 63.42	17.16	476.92	17.70
12	63.42 - 58.67	18.00	561.45	17.92
13	58.67 - 58.42	18.06	565.93	17.92
14	58.42 - 53.42	18.95	656.31	18.24
15	53.42 - 50.87	19.42	702.93	18.35
16	50.87 - 45.87	20.97	795.78	18.71
17	45.87 - 40.87	22.02	889.79	18.92
18	40.87 - 35.87	23.09	984.80	19.12
19	35.87 - 30.87	24.18	1080.77	19.30
20	30.87 - 28.67	24.66	1123.28	19.38
21	28.67 - 28.42	24.73	1128.12	19.37
22	28.42 - 23.42	25.84	1225.38	19.55
23	23.42 - 18.42	26.97	1323.41	19.70
24	18.42 - 14.17	27.95	1407.28	19.81
25	14.17 - 13.92	28.03	1412.23	19.80
26	13.92 - 13.67	28.10	1417.18	19.81
27	13.67 - 13.42	28.16	1422.13	19.82
28	13.42 - 8.42	29.40	1521.51	19.96
29	8.42 - 5.75	30.08	1574.84	20.03
30	5.75 - 5.5	30.16	1579.84	20.02
31	5.5 - 3.57	30.74	1618.53	20.11
32	3.57 - 3.32	30.84	1623.55	20.09
33	3.32 - 3.17	30.88	1626.57	20.10
34	3.17 - 2.92	30.95	1631.59	20.10
35	2.92 - 2.75	30.99	1635.01	20.11
36	2.75 - 2.5	31.05	1640.03	20.12
37	2.5 - 0	31.68	1690.40	20.20

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
110 - 105	Pole	TP13.693x12.7x0.1875	Pole	7.2%	Pass
105 - 100	Pole	TP14.686x13.693x0.1875	Pole	21.6%	Pass
100 - 98.5	Pole	TP14.984x14.686x0.1875	Pole	27.0%	Pass
98.5 - 93.5	Pole	TP16.012x14.984x0.1875	Pole	43.3%	Pass
93.5 - 88.5	Pole	TP17.039x16.012x0.1875	Pole	56.1%	Pass
88.5 - 83.5	Pole	TP18.066x17.039x0.1875	Pole	66.2%	Pass
83.5 - 78.67	Pole	TP19.058x18.066x0.1875	Pole	76.6%	Pass
78.67 - 78.42	Pole + Reinf.	TP19.11x19.058x0.5625	Reinf. 5 Bolt-Shaft Bearing	41.7%	Pass
78.42 - 73.42	Pole + Reinf.	TP20.137x19.11x0.5375	Reinf. 5 Tension Rupture	48.9%	Pass
73.42 - 68.42	Pole + Reinf.	TP21.164x20.137x0.5125	Reinf. 5 Tension Rupture	55.6%	Pass
68.42 - 63.42	Pole + Reinf.	TP22.191x21.164x0.4875	Reinf. 5 Tension Rupture	63.7%	Pass
63.42 - 58.67	Pole + Reinf.	TP23.167x22.191x0.475	Reinf. 5 Bolt-Shaft Bearing	71.1%	Pass
58.67 - 58.42	Pole + Reinf.	TP23.218x23.167x0.475	Reinf. 4 Bolt-Shaft Bearing	71.4%	Pass
58.42 - 53.42	Pole + Reinf.	TP24.246x23.218x0.4625	Reinf. 4 Tension Rupture	77.2%	Pass
53.42 - 50.87	Pole + Reinf.	TP25.54x24.246x0.45	Reinf. 4 Tension Rupture	80.2%	Pass
50.87 - 45.87	Pole + Reinf.	TP25.363x24.395x0.5125	Reinf. 4 Tension Rupture	76.9%	Pass
45.87 - 40.87	Pole + Reinf.	TP26.332x25.363x0.5	Reinf. 4 Tension Rupture	81.2%	Pass
40.87 - 35.87	Pole + Reinf.	TP27.301x26.332x0.4875	Reinf. 4 Tension Rupture	85.0%	Pass
35.87 - 30.87	Pole + Reinf.	TP28.269x27.301x0.475	Reinf. 4 Tension Rupture	88.4%	Pass
30.87 - 28.67	Pole + Reinf.	TP28.696x28.269x0.475	Reinf. 4 Tension Rupture	89.7%	Pass
28.67 - 28.42	Pole + Reinf.	TP28.744x28.696x0.475	Reinf. 7 Tension Rupture	89.9%	Pass
28.42 - 23.42	Pole + Reinf.	TP29.713x28.744x0.4625	Reinf. 7 Tension Rupture	92.7%	Pass
23.42 - 18.42	Pole + Reinf.	TP30.681x29.713x0.4563	Reinf. 7 Tension Rupture	95.2%	Pass
18.42 - 14.17	Pole + Reinf.	TP31.505x30.681x0.45	Reinf. 7 Tension Rupture	97.1%	Pass
14.17 - 13.92	Pole + Reinf.	TP31.553x31.505x0.55	Reinf. 3 Tension Rupture	86.4%	Pass
13.92 - 13.67	Pole + Reinf.	TP31.602x31.553x0.55	Reinf. 3 Tension Rupture	86.5%	Pass
13.67 - 13.42	Pole + Reinf.	TP31.65x31.602x0.4688	Reinf. 6 Tension Rupture	96.3%	Pass
13.42 - 8.42	Pole + Reinf.	TP32.619x31.65x0.4625	Reinf. 6 Tension Rupture	98.4%	Pass
8.42 - 5.75	Pole + Reinf.	TP33.136x32.619x0.4625	Reinf. 6 Tension Rupture	99.4%	Pass
5.75 - 5.5	Pole + Reinf.	TP33.184x33.136x0.525	Reinf. 3 Tension Rupture	89.5%	Pass
5.5 - 3.57	Pole + Reinf.	TP33.558x33.184x0.5875	Reinf. 1 Compression	74.0%	Pass
3.57 - 3.32	Pole + Reinf.	TP33.607x33.558x0.5875	Reinf. 1 Compression	74.1%	Pass
3.32 - 3.17	Pole + Reinf.	TP33.636x33.607x0.5875	Reinf. 1 Compression	74.1%	Pass
3.17 - 2.92	Pole + Reinf.	TP33.684x33.636x0.4938	Reinf. 1 Compression	84.4%	Pass
2.92 - 2.75	Pole + Reinf.	TP33.717x33.684x0.4938	Reinf. 1 Compression	84.5%	Pass
2.75 - 2.5	Pole + Reinf.	TP33.766x33.717x0.4875	Reinf. 1 Compression	84.6%	Pass
2.5 - 0	Pole + Reinf.	TP34.25x33.766x0.4875	Reinf. 1 Compression	85.2%	Pass
				Summary	
			Pole	76.6%	Pass
			Reinforcement	99.4%	Pass
			Overall	99.4%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in^4)			Area (in^2)			% Capacity*							
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7
110 - 105	185	n/a	185	8.04	n/a	8.04	7.2%							
105 - 100	229	n/a	229	8.63	n/a	8.63	21.6%							
100 - 98.5	244	n/a	244	8.81	n/a	8.81	27.0%							
98.5 - 93.5	298	n/a	298	9.42	n/a	9.42	43.3%							
93.5 - 88.5	360	n/a	360	10.03	n/a	10.03	56.1%							
88.5 - 83.5	430	n/a	430	10.64	n/a	10.64	66.2%							
83.5 - 78.67	505	n/a	505	11.23	n/a	11.23	76.6%							
78.67 - 78.42	509	918	1427	11.26	16.95	28.21	27.1%					41.7%		
78.42 - 73.42	597	1010	1607	11.87	16.95	28.82	32.6%					48.9%		
73.42 - 68.42	694	1107	1801	12.48	16.95	29.43	37.7%					55.6%		
68.42 - 63.42	801	1208	2009	13.09	16.95	30.04	44.0%					63.7%		
63.42 - 58.67	912	1308	2220	13.68	16.95	30.63	49.5%					71.1%		
58.67 - 58.42	918	1314	2232	13.71	16.95	30.66	49.8%				71.4%			
58.42 - 53.42	1047	1424	2471	14.32	16.95	31.27	55.2%				77.2%			
53.42 - 50.87	1116	1482	2598	14.63	16.95	31.58	57.8%				80.2%			
50.87 - 45.87	1587	1549	3136	19.93	16.95	36.88	51.2%				76.9%			
45.87 - 40.87	1778	1661	3440	20.70	16.95	37.65	54.7%				81.2%			
40.87 - 35.87	1984	1778	3762	21.46	16.95	38.41	57.9%				85.0%			
35.87 - 30.87	2204	1899	4103	22.23	16.95	39.18	60.9%				88.4%			
30.87 - 28.67	2307	1953	4259	22.57	16.95	39.52	62.2%				89.7%			
28.67 - 28.42	2318	1959	4277	22.61	16.95	39.56	62.3%			89.9%				89.9%
28.42 - 23.42	2563	2086	4649	23.38	16.95	40.33	65.1%			92.7%				92.7%
23.42 - 18.42	2824	2216	5040	24.15	16.95	41.10	67.6%			95.2%				95.2%
18.42 - 14.17	3060	2330	5390	24.80	16.95	41.75	69.6%			97.1%				97.1%
14.17 - 13.92	3121	3438	6559	24.84	26.87	51.71	63.1%			86.4%			77.7%	67.6%
13.92 - 13.67	3135	3448	6583	24.88	26.87	51.75	63.2%			86.5%			77.8%	67.7%
13.67 - 13.42	3110	2599	5710	24.92	21.22	46.14	70.1%			88.1%			96.3%	
13.42 - 8.42	3407	2754	6161	25.68	21.22	46.90	72.3%			90.0%			98.4%	
8.42 - 5.75	3573	2838	6411	26.09	21.22	47.31	73.5%			90.9%			99.4%	
5.75 - 5.5	3631	3787	7419	26.13	26.87	53.00	66.6%		70.5%	89.5%			81.0%	
5.5 - 3.57	3723	4793	8516	26.43	36.20	62.62	58.6%	74.0%	49.6%				66.3%	
3.57 - 3.32	3740	4805	8545	26.47	36.20	62.66	58.7%	74.1%	49.6%				66.4%	
3.32 - 3.17	3749	4813	8562	26.49	36.20	62.69	58.7%	74.1%	49.7%				66.4%	
3.17 - 2.92	3746	3484	7229	26.53	20.63	47.15	66.2%	84.4%						
2.92 - 2.75	3757	3490	7247	26.56	20.63	47.18	66.2%	84.5%						
2.75 - 2.5	3773	3499	7272	26.59	20.63	47.22	66.4%	84.6%						
2.5 - 0	3939	3591	7530	26.98	20.63	47.60	67.3%	85.2%						

Note: Section capacity checked using 5 degree increments.
Rating per TIA-222-H Section 15.5.

Monopole Flange Plate Connection

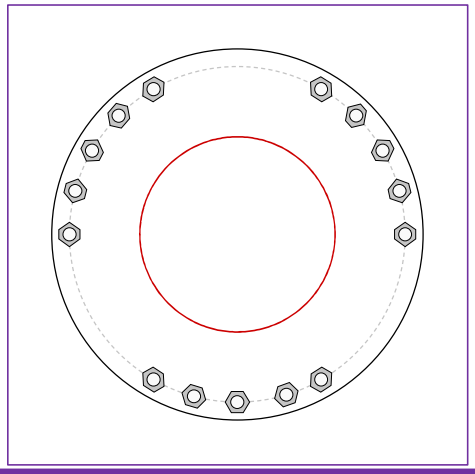
Elevation = 98.5 ft.

BU #	876405
Site Name	Woodbury North
Order #	553389 Rev. 0
TIA-222 Revision	H

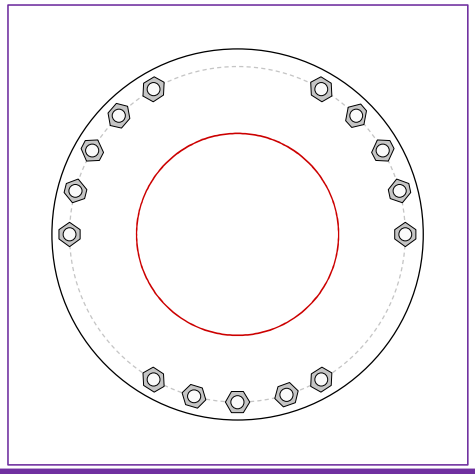
Applied Loads	
Moment (kip-ft)	52.99
Axial Force (kips)	6.73
Shear Force (kips)	8.61

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(15) 1" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 25.75" BC

Top Plate Data

28.5" OD x 1" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Bottom Plate Data

28.5" OD x 1" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

14.9843" x 0.1875" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Bottom Pole Data

15.5" x 0.1875" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	6.78	
Allowable (kips)	54.53	
Stress Rating:	**11.8%**	Pass

Top Plate Capacity

Max Stress (ksi):	28.67	(Flexural)
Allowable Stress (ksi):	54.00	
Stress Rating:	**50.6%**	Pass
Tension Side Stress Rating:	**72.2%**	Pass

Bottom Plate Capacity

Max Stress (ksi):	27.54	(Flexural)
Allowable Stress (ksi):	54.00	
Stress Rating:	**48.6%**	Pass
Tension Side Stress Rating:	**65.1%**	Pass

CCIplate

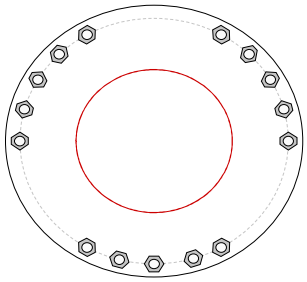
Elevation (ft)	98.5	*(Flange)*

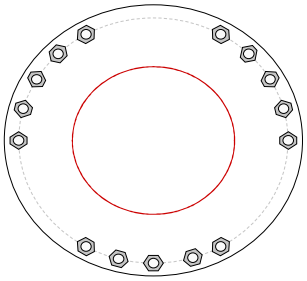
Bolt Group	Resist Axial	Resist Shear	Induce Plate Bending
1	Yes	Yes	Yes

Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η:	l_{ar} (in):	Thread Type	Area Override, in^2	Tension Only
1	1	0	1	A325	25.75	0.5	0	N-Included		No
2	1	15	1	A325	25.75	0.5	0	N-Included		No
3	1	30	1	A325	25.75	0.5	0	N-Included		No
4	1	45	1	A325	25.75	0.5	0	N-Included		No
5	1	60	1	A325	25.75	0.5	0	N-Included		No
6	1	120	1	A325	25.75	0.5	0	N-Included		No
7	1	135	1	A325	25.75	0.5	0	N-Included		No
8	1	150	1	A325	25.75	0.5	0	N-Included		No
9	1	165	1	A325	25.75	0.5	0	N-Included		No
10	1	180	1	A325	25.75	0.5	0	N-Included		No
11	1	240	1	A325	25.75	0.5	0	N-Included		No
12	1	255	1	A325	25.75	0.5	0	N-Included		No
13	1	270	1	A325	25.75	0.5	0	N-Included		No
14	1	287	1	A325	25.75	0.5	0	N-Included		No
15	1	300	1	A325	25.75	0.5	0	N-Included		No

Plot Graphic





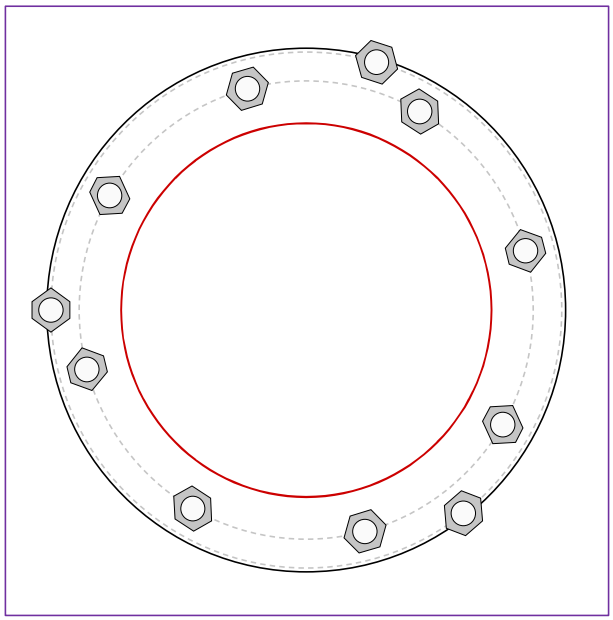
Monopole Base Plate Connection

Site Info	
BU #	876405
Site Name	Woodbury North
Order #	553389 Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	See Custom Sheet
l_{ar} (in)	See Custom Sheet

Applied Loads	
Moment (kip-ft)	1690.40
Axial Force (kips)	31.68
Shear Force (kips)	20.20

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

GROUP 1: (8) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 42" BC

GROUP 2: (3) 2-1/4" ø bolts (A193 Gr. B7 Derated N; Fy=99.19 ksi, Fu=125 ksi) on 47.25

pos. (deg): 74, 180, 308

Base Plate Data

48" OD x 1.5" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

34.25" x 0.25" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

GROUP 1:			
	Pu_t = 167.43	ϕPn_t = 243.75	**Stress Rating**
	Vu = 2.53	ϕVn = 149.1	**65.4%**
	Mu = n/a	ϕMn = n/a	**Pass**
GROUP 2:			
	Pu_t = 185.8	ϕPn_t = 304.69	**Stress Rating**
	Vu = 0	ϕVn = 186.38	**58.1%**
	Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	54.01	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**95.3%**	**Pass**

CCIplate

Elevation (ft)	0	*(Base)*

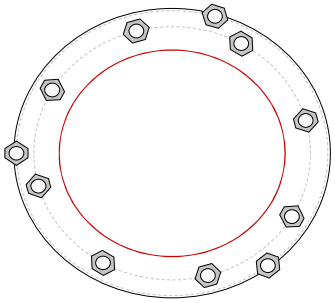
note: Bending interaction not considered when Grout Considered = "Yes"

Bolt Group	Resist Axial	Resist Shear	Induce Plate Bending	Grout Considered	Apply at BARB Elevation	BARB CL Elevation (ft)
1	Yes	Yes	Yes	Yes	No	
2	No	No	No	Yes	No	

Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η:	l_{ar} (in):	Thread Type	Area Override, in^2	Tension Only
1	1	15	2.25	A615-75	42	0.5	0.75	N-Included		No
2	1	60	2.25	A615-75	42	0.5	0.75	N-Included		No
3	1	105	2.25	A615-75	42	0.5	0.75	N-Included		No
4	1	150	2.25	A615-75	42	0.5	0.75	N-Included		No
5	1	195	2.25	A615-75	42	0.5	0.75	N-Included		No
6	1	240	2.25	A615-75	42	0.5	0.75	N-Included		No
7	1	285	2.25	A615-75	42	0.5	0.75	N-Included		No
8	1	330	2.25	A615-75	42	0.5	0.75	N-Included		No
9	2	74	2.25	193 Gr. B7 Derate	47.25	0.5	1	N-Included		No
10	2	180	2.25	193 Gr. B7 Derate	47.25	0.5	1	N-Included		No
11	2	308	2.25	193 Gr. B7 Derate	47.25	0.5	1	N-Included		No

Plot Graphic



Pier and Pad Foundation

BU # :	876405
Site Name:	Woodbury North
App. Number:	553389 Rev. 0

TIA-222 Revision:	H
Tower Type:	Monopole

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐
Rectangular Pad?:	☐

Superstructure Analysis Reactions		
Compression, P_{comp}:	32	kips
Base Shear, Vu_comp:	20	kips
Moment, M_u:	1690	ft-kips
Tower Height, **H**:	110	ft
BP Dist. Above Fdn, bp_{dist}:	3	in

Pier Properties		
Pier Shape:	Square	
Pier Diameter, **dpier**:	5.5	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	8	
Pier Rebar Quantity, **mc**:	30	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	5	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties		
Depth, **D**:	6.5	ft
Pad Width, W_1:	16.5	ft
Pad Thickness, **T**:	3	ft
Pad Rebar Size (Bottom dir. 2), Sp_2:	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	17	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	4	ksi
Dry Concrete Density, δc:	150	pcf

Soil Properties		
Total Soil Unit Weight, γ:	125	pcf
Ultimate Gross Bearing, Qult:	12.000	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	34	degrees
SPT Blow Count, N_{blows}:	60	
Base Friction, μ:		
Neglected Depth, **N**:	3.50	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral (Sliding) (kips)	159.73	20.00	**11.9%**	**Pass**
Bearing Pressure (ksf)	9.00	5.12	**56.9%**	**Pass**
*Overturning (kip*ft)*	2060.52	1845.00	**89.5%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	2966.82	1780.00	**57.1%**	**Pass**
Pier Compression (kip)	19253.52	56.50	**0.3%**	**Pass**
*Pad Flexure (kip*ft)*	1867.53	963.87	**49.2%**	**Pass**
Pad Shear - 1-way (kips)	591.69	210.03	**33.8%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.190	0.000	**0.0%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	3203.98	1068.00	**31.7%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Structural Rating*:	**57.1%**
Soil Rating*:	**89.5%**

Exhibit E

Mount Analysis

Date: **November 8, 2021**

Rob Kulbacki
Crown Castle
2000 Corporate Drive,
Canonsburg, PA 15317
724-416-2116

POD Group
1033 E Turkeyfoot Lake Rd. Suite 206
Akron, OH 44312
(330) 961.7432
mhoudeshell@podgrp.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**DISH Network**	
	Carrier Site Number:	**BOHVN00172A**
	Carrier Site Name:	**CT-CCI-T-876405**
Crown Castle Designation:	**Crown Castle BU Number:**	**876405**
	Crown Castle Site Name:	**WOODBURY NORTH**
	Crown Castle JDE Job Number:	**645206**
	Crown Castle Order Number:	**553389 Rev. 1**
Engineering Firm Designation:	**POD Report Designation:**	**21-114359**
Site Data:	**186 MinorTown, Woodbury, Litchfield County, CT 06798** **Latitude 41°34'4.79" Longitude -73°10'46.85"**	
Structure Information:	**Tower Height & Type:**	**110 ft Monopole**
	Mount Elevation:	**68 ft**
	Mount Type:	**8' Platform with Support Rail**

Dear Rob Kulbacki,

POD Group is pleased to submit this "Mount Analysis Report" to determine the structural integrity of DISH Network's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

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

8' Platform with Support Rail (Multiple Sector) **Sufficient**

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2015 International Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Bradley Linerode

Respectfully submitted by:

Jason Cheronis

Digitally signed by Jason Cheronis
Date: 2021.11.08 14:27:39 -05'00'

STATE OF CONNECTICUT
JASON CHERONIS
PEN.0032793
LICENSED PROFESSIONAL ENGINEER

Jason Cheronis, PE
Connecticut PE#: 0032793

TABLE OF CONTENTS

1) INTRODUCTION

This mount is a proposed 8' Platform with Support Rail designed by Commscope (P/N: MC-PK8). This mount is to be installed at the 68 ft elevation on the 110 ft Monopole.

2) ANALYSIS CRITERIA

Building Code: 2015 IBC
TIA-222 Revision: TIA-222-H
Risk Category: II
Ultimate Wind Speed: 118 mph
Exposure Category: C
Topographic Factor at Base: 1.000
Topographic Factor at Mount: 1.000
Ice Thickness: 1 in
Wind Speed with Ice: 50 mph
Seismic S_s: 0.192
Seismic S_1: 0.065
Live Loading Wind Speed: 30 mph
Man Live Load at Mid/End-Points: 250 lb
Man Live Load at Mount Pipes: 500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details	Note
68	68	3	JMA WIRELESS	MX08FRO665-21	8' Platform with Support Rail	-
		3	FUJITSU	TA08025-B604		
		3	FUJITSU	TA08025-B605		
		1	RAYCAP	RDIDC-9181-PF-48		

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	-	Crown Castle App #: 553389 Rev. 1 Dated: 8/18/2021	Crown Castle
Structural Analysis	-	Tower Engineering Professionals Report #: 25640.543262 Dated: 5/18/2021	Crown Castle
Proposed Base Levels Drawings	-	Crown Castle Sheet #: A1-68 Dated: 5/20/2021	Crown Castle
Mount Specification Sheets	-	Commscope Part #: MC-PK8-DSH Dated: 3/17/2021	Commscope

3.1) Analysis Method

RISA-3D (Version 17.0.2), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases. Selected output from the analysis are included in the Appendices.

A tool internally developed, using Microsoft Excel, by POD Group, was used to calculate wind loading on all appurtenances, dishes, and mount members for various load cases. Selected output from the calculations is included in Appendix B.

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

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed, and maintained in good condition in accordance with its original design, TIA Standards, and/or manufacturer's specifications. This is not a condition assessment of the mount, structure, or foundation.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
4) The weight of the mount was increased 10% in the analysis to account for connections, coax, and jumpers.
5) The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure. POD Group does not analyze the fabrication of the mount or structure (including welding).
6) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
7) Steel grades have been assumed as follows, unless noted otherwise:
    a. Channel — ASTM A1011 (GR 36)
    b. Angle, Plate — ASTM A36 (GR 36)
    c. Square Flange Plate — ASTM A572 (GR 50)
    d. HSS (Rectangular) — ASTM 500 (GR B-46)
    e. Pipe — ASTM A500 (GR C-60)
    f. Connection Bolts — ASTM A325

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and POD Group should be allowed to review any new information to determine its effect on the structural integrity of the mount.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (8' Platform with Support Rail)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1	Face	FACE	68	4.8	Pass
	Rail	RAIL		6.9	Pass
	Standoff	SO		24.4	Pass
	Corner	CR		21.6	Pass
	Plate	PLATE		29.3	Pass
	Mount Pipe	MP		6.7	Pass
	Rail Connection	RAIL CON		7.7	Pass
	Grating Support	GRAT SUP		19.8	Pass
	Standoff Flange Plate Bolts	-	-	2.7	Pass
	Standoff Flange Plate	-	-	25.1	Pass

Structure Rating (max from all components) =	**29.3%**

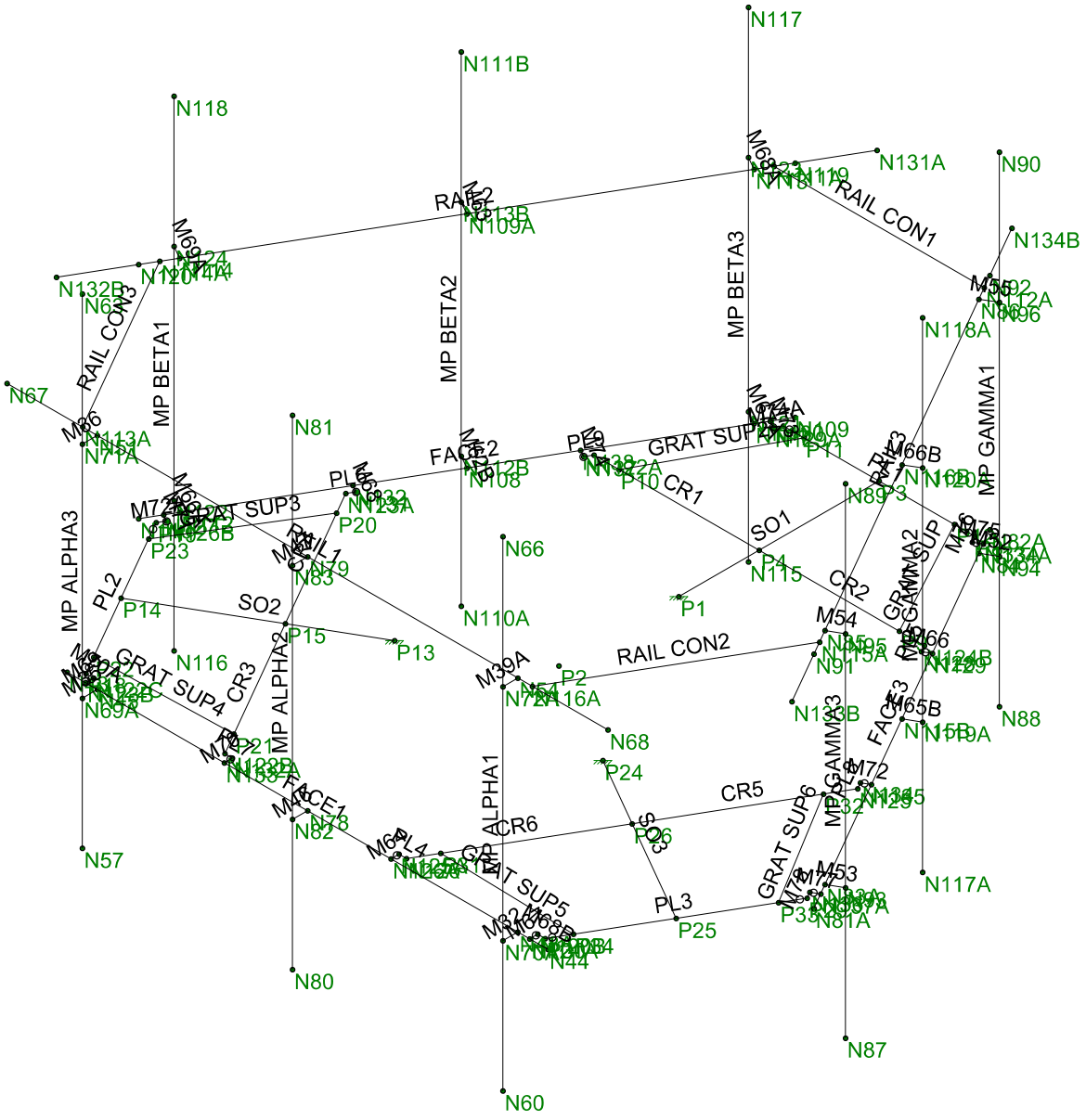
Notes:
1) See additional documentation in "Appendix C – Software Analysis Output" and "Appendix D – Additional Calculations" for calculations supporting the % capacity

4.1) Recommendations

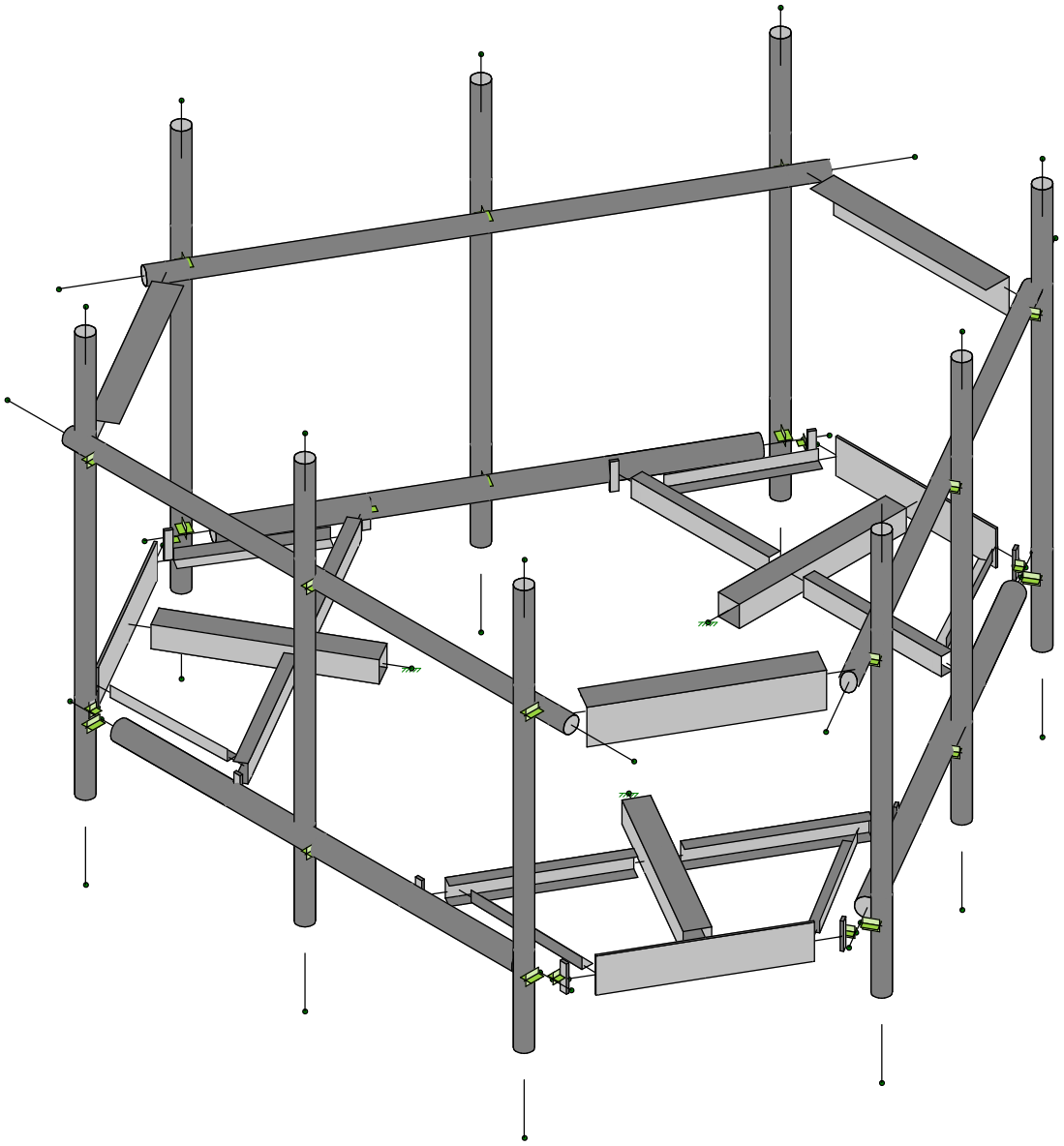
The proposed mount Commscope MC-PK8-DSH installed at 68' elevation per manufacturer specifications has sufficient capacity to carry the proposed loading configuration.

APPENDIX A

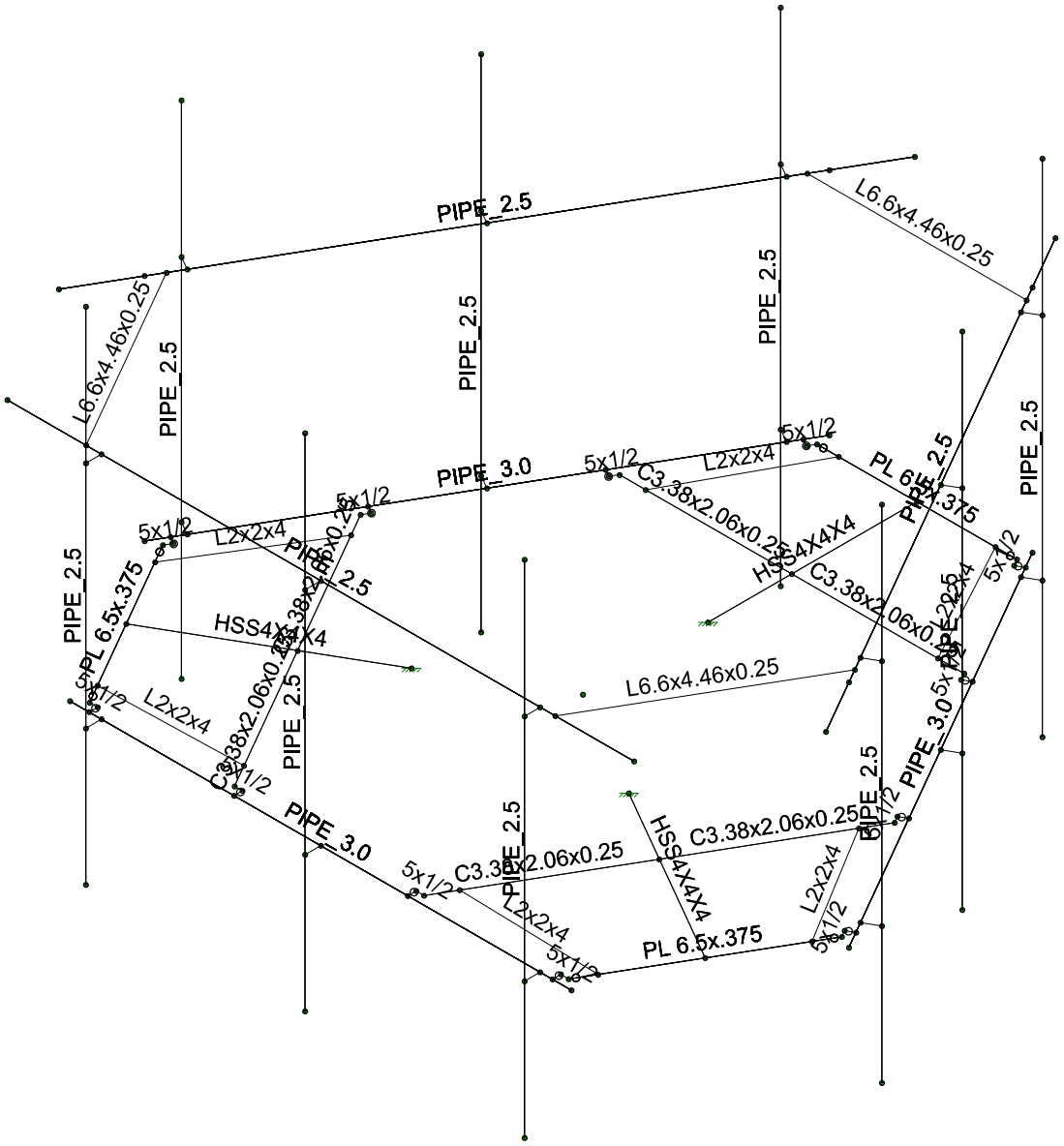
Wire Frame and Rendered Models



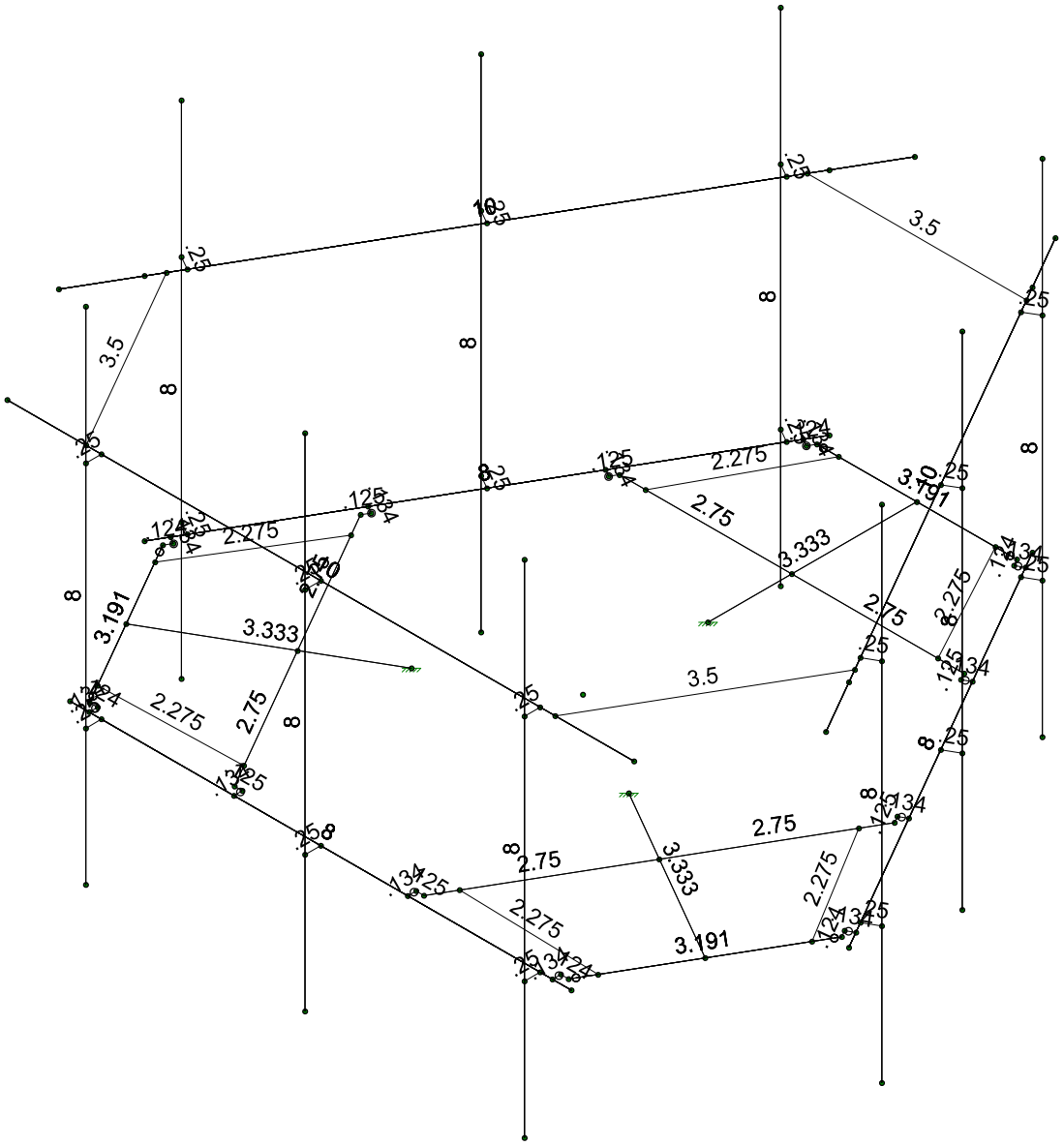
POD	876405	SK - 1
BL		Nov 8, 2021 at 11:40 AM
21-114359		(PL86) 876405.r3d



POD	876405	SK - 2
BL		Nov 8, 2021 at 11:40 AM
21-114359		(PL86) 876405.r3d

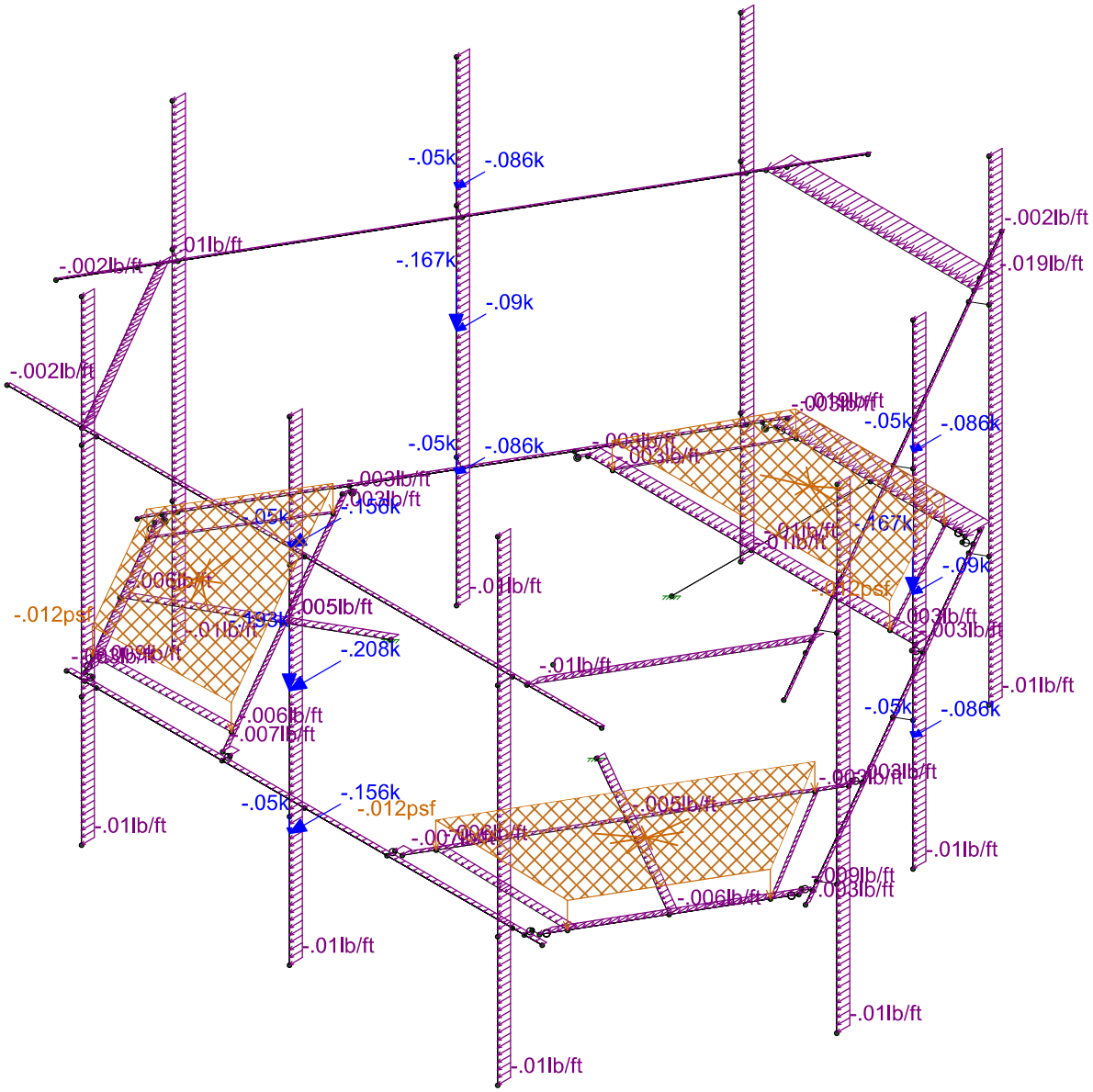


POD	876405	SK - 3
BL		Nov 8, 2021 at 11:41 AM
21-114359		(PL86) 876405.r3d



Member Length (ft) Displayed

POD	876405	SK - 4
BL		Nov 8, 2021 at 11:41 AM
21-114359		(PL86) 876405.r3d



Loads: LC 2, 1.2D + 1.0W(0)

POD	876405	SK - 5
BL		Nov 8, 2021 at 11:41 AM
21-114359		(PL86) 876405.r3d

APPENDIX B

Software Input Calculations

POD Job #	**21-114359**
Site Number	**876405**
Site Name	**WOODBURY NORTH**

General Site Information

Mount Type	SFP	Risk Category	II	I (seismic)	1			Use CFD	Yes
V (Wind Speed)	118	I(ice)	1	Sms	0.307				
Zs	460			Sm1	0.156				width (ft) height (ft)
ti	1	Ss	0.192	Sds	0.205			Front Outer Dimensions	8 3.667
Vi	50	S1	0.065	Sd1	0.104				
Kzt	1	Soil Site Class	D	Seismic Design Category					
Exposure	C	Fa	1.600	B					
zg	900	Fv	2.400	Seismic Analysis Not Required					
α	9.5			R	2	TIA-222-H 16.7			
Kmin	0.85	Tower Type	Monopole	As	1	TIA-222-H 16.7			
G_H	1	Tower Height	110	Cs, Min	0.03	TIA-222-H 2.7.7.1.1			
Ke	0.98			Cs	0.1024	TIA-222-H 2.7.7.1.1			
K_D	0.95								
K_d	0.9								

Appurtenance Information

Model	Shielded	% Shielded	Centerline	Centerline on MP	Spacing (in)	Azimuth	Sector	Quantity		MP #
MX08FRO665-21			68	4	50		A/B/C	1	2	
TA08025-B604			68	4			A/B/C	1	2	
TA08025-B605			68	4			A/B/C	1	2	
RDIDC-9181-PF-48			68	4			A	1	2	

Mount Information

Elevation (ft)	68	Grating Thickness (in)	1
K_z	1.17	Grating Ice Weight (k/ft^3)	0.014
Kiz	1.07		
tiz	1.07		

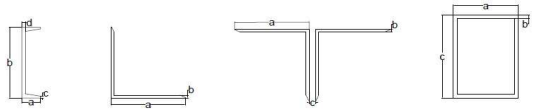
	Length (ft)	Width (in)	Centerline
Mount Pipes	8	2.375	155

Round Members

Member	Length (ft)	Width (in)	Frame Member	# of Members
face on	8	3.4	Yes	2
face off	8	3.4	No	1
rail on	8	2.375	Yes	2
rail off	8	2.375	No	1

Flat Members

Member	Length (ft)	Width (in)	Shape	A	B	C	D	Frame Member	# of Members
SO	3.33	4	Square HSS	4	0.25	4		No	3
Grat	2.275	2	Angle	2	0.25			No	6
PI1	3.5	6.5	Channel		6.5		0.375	No	3
CR	2.75	3.38	Channel	2.06	3.38	0.25	0.25	No	6
Rail Con	3.5	6.6	Angle	4.46	0.25			No	3
PI2	0.125	2.375	Channel		2.375		0.5	No	6



Version 3.54

Appurtenance Wind Calculations

										Wind Force (Kips)				
Model	Height	Width	Depth	Weight (lbs)	Kz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Front	Side	Alpha	Beta	Gamma
MX08FRO665-21	72.0	20.0	8.0	82.5	1.17	38.86	8.01	3.21	0.311	0.125	0.265	0.265	0.125
TA08025-B604	15.0	15.8	7.9	63.9	1.17	38.86	1.77	0.88	0.069	0.034	0.060	0.060	0.034
TA08025-B605	15.0	15.8	9.1	75.0	1.17	38.86	1.77	1.02	0.069	0.040	0.061	0.061	0.040
RDIDC-9181-PF-48	16.6	14.6	8.5	21.9	1.17	38.86	1.81	1.05	0.070	0.041	0.063	0.063	0.041

Appurtenance Ice Calculations

											Wind Force (Kips)				
Model	tiz (in)	Height	Width	Depth	Weight (lbs)	Kiz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Front	Side	Alpha	Beta	Gamma
MX08FRO665-21	1.07	74.15	22.15	10.15	166.91	1.07	6.98	8.22	3.77	0.057	0.026	0.050	0.050	0.026
TA08025-B604	1.07	17.11	17.90	10.02	39.36	1.07	6.98	1.34	0.75	0.009	0.005	0.008	0.008	0.005
TA08025-B605	1.07	17.11	17.90	11.21	42.08	1.07	6.98	1.34	0.84	0.009	0.006	0.008	0.008	0.006
RDIDC-9181-PF-48	1.07	18.72	16.72	10.61	41.43	1.07	6.98	1.37	0.87	0.010	0.006	0.009	0.009	0.006

Round Members

		Wind Calculations						Ice Calculations							
Member	q_z (lb/ft^2)	Ar	C	Rr	Cf	EPA (ft^2)	Load (k/ft)	Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Arice	Rrice	Cf	EPA (ft^2)	Load (k/ft)
face on	38.86	4.53	35.20	0.59	1.20	1.44	0.007	5.55	0.01	6.98	7.40	0.65	1.20	2.59	0.002
face off	38.86	2.27	35.20	0.59	1.20	1.44	0.003	5.55	0.01	6.98	3.70	0.65	1.20	2.59	0.001
rail on	38.86	3.17	24.59	0.59	1.20	1.01	0.005	4.52	0.00	6.98	6.03	0.65	1.20	2.11	0.002
rail off	38.86	1.58	24.59	0.59	1.20	1.01	0.002	4.52	0.00	6.98	3.02	0.65	1.20	2.11	0.001

Flat Members

		Wind Calculations				Ice Calculations							
Member	q_z (lb/ft^2)	Af	Cf	EPA	Load (k/ft)	Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Arice	Rrice	Cf	EPA	Load (k/ft)
SO	38.86	3.33	1.25	1.25	0.007	6.15	0.01	6.98	5.12	0.65	1.25	1.24	0.001
Grat	38.86	2.28	2.00	0.68	0.006	4.15	0.01	6.98	4.72	0.65	2.00	0.92	0.001
PI1	38.86	5.69	2.00	3.41	0.019	8.65	0.01	6.98	7.57	0.65	2.00	2.94	0.003
CR	38.86	4.65	2.00	1.39	0.010	5.53	0.01	6.98	7.60	0.65	2.00	1.48	0.002
Rail Con	38.86	5.78	2.00	3.47	0.019	8.75	0.01	6.98	7.66	0.65	2.00	2.98	0.003
PI2	38.86	0.15	2.00	0.04	0.007	4.52	0.00	6.98	0.28	0.65	2.00	0.06	0.002

Appurtenance Seismic Calculations

Model	Weight	Sds	p	Cs	As	Ev	Eh
MX08FRO665-21	82.5	0.205	1.000	0.102	1.000	0.003	0.008
TA08025-B604	63.9	0.205	1.000	0.102	1.000	0.003	0.007
TA08025-B605	75.0	0.205	1.000	0.102	1.000	0.003	0.008
RDIDC-9181-PF-48	21.9	0.205	1.000	0.102	1.000	0.001	0.002

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APPENDIX C

Software Analysis Output

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp b...	L-tor...	Kyy	Kzz	Cb	Func...
1	SO1	HSS4X4X4	3.333			Lbyy						Lateral
2	GRAT SUP	L2x2x4	2.275			Lbyy						Lateral
3	GRAT SUP2	L2x2x4	2.275			Lbyy						Lateral
4	PL1	PL 6.5x.375	3.191			Lbyy						Lateral
5	SO2	HSS4X4X4	3.333			Lbyy						Lateral
6	GRAT SUP3	L2x2x4	2.275			Lbyy						Lateral
7	GRAT SUP4	L2x2x4	2.275			Lbyy						Lateral
8	PL2	PL 6.5x.375	3.191			Lbyy						Lateral
9	SO3	HSS4X4X4	3.333			Lbyy						Lateral
10	GRAT SUP5	L2x2x4	2.275			Lbyy						Lateral
11	GRAT SUP6	L2x2x4	2.275			Lbyy						Lateral
12	PL3	PL 6.5x.375	3.191			Lbyy						Lateral
13	FACE1	PIPE_3.0	8			Lbyy						Lateral
14	MP ALPHA1	PIPE_2.5	8			Lbyy						Lateral
15	MP ALPHA3	PIPE_2.5	8			Lbyy						Lateral
16	RAIL1	PIPE_2.5	10			Lbyy						Lateral
17	RAIL CON3	L6.6x4.46x0.25	3.5			Lbyy						Lateral
18	RAIL CON1	L6.6x4.46x0.25	3.5			Lbyy						Lateral
19	RAIL CON2	L6.6x4.46x0.25	3.5			Lbyy						Lateral
20	CR1	C3.38x2.06x0.25	2.75			Lbyy						Lateral
21	CR2	C3.38x2.06x0.25	2.75			Lbyy						Lateral
22	CR3	C3.38x2.06x0.25	2.75			Lbyy						Lateral
23	CR4	C3.38x2.06x0.25	2.75			Lbyy						Lateral
24	CR5	C3.38x2.06x0.25	2.75			Lbyy						Lateral
25	CR6	C3.38x2.06x0.25	2.75			Lbyy						Lateral
26	PL4	5x1/2	.125									Lateral
27	PL5	5x1/2	.125									Lateral
28	PL6	5x1/2	.125									Lateral
29	PL7	5x1/2	.125									Lateral
30	PL8	5x1/2	.125									Lateral
31	PL9	5x1/2	.125									Lateral
32	MP ALPHA2	PIPE_2.5	8			Lbyy						Lateral
33	FACE3	PIPE_3.0	8			Lbyy						Lateral
34	MP GAMMA1	PIPE_2.5	8			Lbyy						Lateral
35	MP GAMMA3	PIPE_2.5	8			Lbyy						Lateral
36	RAIL3	PIPE_2.5	10			Lbyy						Lateral
37	FACE2	PIPE_3.0	8			Lbyy						Lateral
38	MP BETA1	PIPE_2.5	8			Lbyy						Lateral
39	MP BETA3	PIPE_2.5	8			Lbyy						Lateral
40	RAIL2	PIPE_2.5	10			Lbyy						Lateral
41	MP BETA2	PIPE_2.5	8			Lbyy						Lateral
42	MP GAMMA2	PIPE_2.5	8			Lbyy						Lateral
43	M68B	5x1/2	.124									Lateral
44	M70A	5x1/2	.124									Lateral
45	M72A	5x1/2	.124									Lateral
46	M74A	5x1/2	.124									Lateral
47	M76	5x1/2	.124									Lateral
48	M78	5x1/2	.124									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	SO1						Yes				None
2	GRAT SUP						Yes				None
3	GRAT SUP2						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...
4	PL1	BenPIN	BenPIN				Yes	Default			None
5	SO2						Yes				None
6	GRAT SUP3						Yes				None
7	GRAT SUP4						Yes				None
8	PL2	BenPIN	BenPIN				Yes	Default			None
9	SO3						Yes	Default			None
10	GRAT SUP5						Yes				None
11	GRAT SUP6						Yes				None
12	PL3	BenPIN	BenPIN				Yes	Default			None
13	FACE1						Yes				None
14	MP ALPHA1						Yes		+y+3		None
15	MP ALPHA3						Yes		+y+3		None
16	RAIL1						Yes				None
17	RAIL CON3						Yes				None
18	RAIL CON1						Yes				None
19	RAIL CON2						Yes	Default			None
20	M32						Yes	** NA **			None
21	M35						Yes	** NA **			None
22	M36						Yes	** NA **			None
23	M39A						Yes	** NA **			None
24	CR1						Yes	Default			None
25	CR2						Yes	Default			None
26	CR3						Yes	Default			None
27	CR4						Yes	Default			None
28	CR5						Yes	Default			None
29	CR6						Yes	Default			None
30	M64	BenPIN					Yes	** NA **			None
31	PL4						Yes				None
32	M66	BenPIN					Yes	** NA **			None
33	PL5						Yes				None
34	M68	BenPIN					Yes	** NA **			None
35	PL6						Yes				None
36	M70	BenPIN					Yes	** NA **			None
37	PL7						Yes				None
38	M72	BenPIN					Yes	** NA **			None
39	PL8						Yes				None
40	M74	BenPIN					Yes	** NA **			None
41	PL9						Yes				None
42	MP ALPHA2						Yes		+y+3		None
43	M46						Yes	** NA **			None
44	M47						Yes	** NA **			None
45	FACE3						Yes				None
46	MP GAMM...						Yes		+y+3		None
47	MP GAMM...						Yes		+y+3		None
48	RAIL3						Yes				None
49	M52						Yes	** NA **			None
50	M53						Yes	** NA **			None
51	M54						Yes	** NA **			None
52	M55						Yes	** NA **			None
53	FACE2						Yes				None
54	MP BETA1						Yes		+y+3		None
55	MP BETA3						Yes		+y+3		None
56	RAIL2						Yes				None
57	M66A						Yes	** NA **			None
58	M67A						Yes	** NA **			None
59	M68A						Yes	** NA **			None
60	M69A						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
61	MP BETA2						Yes		+y+3		None
62	M62B						Yes	** NA **			None
63	M63						Yes	** NA **			None
64	MP GAMM...						Yes		+y+3		None
65	M65B						Yes	** NA **			None
66	M66B						Yes	** NA **			None
67	M67	BenPIN					Yes	** NA **			None
68	M68B						Yes				None
69	M69	BenPIN					Yes	** NA **			None
70	M70A						Yes				None
71	M71	BenPIN					Yes	** NA **			None
72	M72A						Yes				None
73	M73	BenPIN					Yes	** NA **			None
74	M74A						Yes				None
75	M75	BenPIN					Yes	** NA **			None
76	M76						Yes				None
77	M77	BenPIN					Yes	** NA **			None
78	M78						Yes				None

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(...	Section/Sh...	Type	Design List	Material	Design R...
1	SO1	P3	P1		270	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical
2	GRAT SUP	P9	P12		180	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical
3	GRAT SUP2	P10	P11		90	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical
4	PL1	P7	P8		90	PL 6.5x.375	Beam	RECT	A36 Gr.36	Typical
5	SO2	P14	P13		90	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical
6	GRAT SUP3	P20	P23		180	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical
7	GRAT SUP4	P21	P22		270	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical
8	PL2	P18	P19		270	PL 6.5x.375	Beam	RECT	A36 Gr.36	Typical
9	SO3	P25	P24		270	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical
10	GRAT SUP5	P31	P34		360	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical
11	GRAT SUP6	P32	P33		90	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical
12	PL3	P29	P30		270	PL 6.5x.375	Beam	RECT	A36 Gr.36	Typical
13	FACE1	N43	N44		90	PIPE_3.0	Beam	Pipe	A500 GR.C	Typical
14	MP ALPHA1	N60	N66		180	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
15	MP ALPHA3	N57	N63		180	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
16	RAIL1	N67	N68		90	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
17	RAIL CON3	N114A	N113A		270	L6.6x4.46x...	Beam	Single Angle	A36 Gr.36	Typical
18	RAIL CON1	N112A	N111A		90	L6.6x4.46x...	Beam	Single Angle	A36 Gr.36	Typical
19	RAIL CON2	N116A	N115A		270	L6.6x4.46x...	Beam	Single Angle	A36 Gr.36	Typical
20	M32	N48A	N70A		270	RIGID	None	None	RIGID	Typical
21	M35	N45	N69A		270	RIGID	None	None	RIGID	Typical
22	M36	N51	N71A		270	RIGID	None	None	RIGID	Typical
23	M39A	N54	N72A		270	RIGID	None	None	RIGID	Typical
24	CR1	P4	N122A		270	C3.38x2.06..	Beam	Channel	A1011 36 Ksi	Typical
25	CR2	P4	N124B		270	C3.38x2.06..	Beam	Channel	A1011 36 Ksi	Typical
26	CR3	P15	N122B		90	C3.38x2.06..	Beam	Channel	A1011 36 Ksi	Typical
27	CR4	P15	N123A		90	C3.38x2.06..	Beam	Channel	A1011 36 Ksi	Typical
28	CR5	P26	N125		90	C3.38x2.06..	Beam	Channel	A1011 36 Ksi	Typical
29	CR6	P26	N126		90	C3.38x2.06..	Beam	Channel	A1011 36 Ksi	Typical
30	M64	N126A	N125A		90	RIGID	None	None	RIGID	Typical
31	PL4	N126	N125A		270	5x1/2	Beam	RECT	A36 Gr.36	Typical
32	M66	N129	N128		270	RIGID	None	None	RIGID	Typical
33	PL5	N124B	N128		90	5x1/2	Beam	RECT	A36 Gr.36	Typical
34	M68	N132	N131		90	RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(...	Section/Sh...	Type	Design List	Material	Design R...
35	PL6	N123A	N131		90	5x1/2	Beam	RECT	A36 Gr.36	Typical
36	M70	N133	N132A		90	RIGID	None	None	RIGID	Typical
37	PL7	N122B	N132A		90	5x1/2	Beam	RECT	A36 Gr.36	Typical
38	M72	N135	N134		270	RIGID	None	None	RIGID	Typical
39	PL8	N125	N134		270	5x1/2	Beam	RECT	A36 Gr.36	Typical
40	M74	N138	N137		90	RIGID	None	None	RIGID	Typical
41	PL9	N122A	N137		270	5x1/2	Beam	RECT	A36 Gr.36	Typical
42	MP ALPHA2	N80	N81		180	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
43	M46	N78	N82		270	RIGID	None	None	RIGID	Typical
44	M47	N79	N83		270	RIGID	None	None	RIGID	Typical
45	FACE3	N81A	N82A		270	PIPE_3.0	Beam	Pipe	A500 GR.C	Typical
46	MP GAMMA1	N88	N90		180	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
47	MP GAMMA3	N87	N89		180	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
48	RAIL3	N134B	N133B		270	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
49	M52	N84	N94		90	RIGID	None	None	RIGID	Typical
50	M53	N83A	N93		90	RIGID	None	None	RIGID	Typical
51	M54	N85	N95		90	RIGID	None	None	RIGID	Typical
52	M55	N86	N96		90	RIGID	None	None	RIGID	Typical
53	FACE2	N109	N110		270	PIPE_3.0	Beam	Pipe	A500 GR.C	Typical
54	MP BETA1	N116	N118		180	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
55	MP BETA3	N115	N117		180	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
56	RAIL2	N132B	N131A		270	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
57	M66A	N112	N122		270	RIGID	None	None	RIGID	Typical
58	M67A	N111	N121		270	RIGID	None	None	RIGID	Typical
59	M68A	N113	N123		270	RIGID	None	None	RIGID	Typical
60	M69A	N114	N124		270	RIGID	None	None	RIGID	Typical
61	MP BETA2	N110A	N111B		60	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
62	M62B	N108	N112B		270	RIGID	None	None	RIGID	Typical
63	M63	N109A	N113B		270	RIGID	None	None	RIGID	Typical
64	MP GAMMA2	N117A	N118A		300	PIPE_2.5	Beam	Pipe	A500 GR.C	Typical
65	M65B	N115B	N119A		90	RIGID	None	None	RIGID	Typical
66	M66B	N116B	N120A		90	RIGID	None	None	RIGID	Typical
67	M67	N121A	N120B		90	RIGID	None	None	RIGID	Typical
68	M68B	P30	N120B		270	5x1/2	Beam	RECT	A36 Gr.36	Typical
69	M69	N123B	N122C		90	RIGID	None	None	RIGID	Typical
70	M70A	P18	N122C		270	5x1/2	Beam	RECT	A36 Gr.36	Typical
71	M71	N127	N126B		90	RIGID	None	None	RIGID	Typical
72	M72A	P19	N126B		90	5x1/2	Beam	RECT	A36 Gr.36	Typical
73	M73	N130	N129A		90	RIGID	None	None	RIGID	Typical
74	M74A	P7	N129A		90	5x1/2	Beam	RECT	A36 Gr.36	Typical
75	M75	N134A	N133A		270	RIGID	None	None	RIGID	Typical
76	M76	P8	N133A		90	5x1/2	Beam	RECT	A36 Gr.36	Typical
77	M77	N137A	N136		270	RIGID	None	None	RIGID	Typical
78	M78	P29	N136		90	5x1/2	Beam	RECT	A36 Gr.36	Typical

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
8	A913 Gr.65	29000	11154	.3	.65	.49	65	1.1	80	1.1

Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
9	A500 GR.C	29000	11154	.3	.65	.49	46	1.6	60	1.2
10	A529 Gr. 50	29000	11154	.3	.65	.49	50	1.1	65	1.1
11	A1011-33Ksi	29000	11154	.3	.65	.49	33	1.5	58	1.2
12	A1011 36 Ksi	29000	11154	.3	.65	.49	36	1.5	58	1.2
13	A1018 50 Ksi	29000	11154	.3	.65	.49	50	1.5	65	1.2

Member Point Loads (BLC 1 : Live Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	FACE1	Z	-.5	0

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.156	6.083
2	MP ALPHA2	Y	-.156	1.917
3	MP BETA2	Y	-.086	6.083
4	MP BETA2	Y	-.086	1.917
5	MP GAMMA2	Y	-.086	6.083
6	MP GAMMA2	Y	-.086	1.917
7	MP ALPHA2	Y	-.069	4
8	MP BETA2	Y	-.043	4
9	MP GAMMA2	Y	-.043	4
10	MP ALPHA2	Y	-.069	4
11	MP BETA2	Y	-.047	4
12	MP GAMMA2	Y	-.047	4
13	MP ALPHA2	Y	-.07	4

Member Point Loads (BLC 3 : Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Z	-.041	6.083
2	MP ALPHA2	Z	-.041	1.917
3	MP BETA2	Z	-.041	6.083
4	MP BETA2	Z	-.041	1.917
5	MP GAMMA2	Z	-.041	6.083
6	MP GAMMA2	Z	-.041	1.917
7	MP ALPHA2	Z	-.064	4
8	MP BETA2	Z	-.064	4
9	MP GAMMA2	Z	-.064	4
10	MP ALPHA2	Z	-.075	4
11	MP BETA2	Z	-.075	4
12	MP GAMMA2	Z	-.075	4
13	MP ALPHA2	Z	-.022	4

Member Point Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.115	6.083
2	MP ALPHA2	Y	-.115	1.917
3	MP ALPHA2	X	-.066	6.083
4	MP ALPHA2	X	-.066	1.917
5	MP BETA2	Y	-.054	6.083
6	MP BETA2	Y	-.054	1.917
7	MP BETA2	X	-.031	6.083
8	MP BETA2	X	-.031	1.917
9	MP GAMMA2	Y	-.115	6.083
10	MP GAMMA2	Y	-.115	1.917

Member Point Loads (BLC 4 : Wind Load (30)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
11	MP GAMMA2	X	-.066	6.083
12	MP GAMMA2	X	-.066	1.917
13	MP ALPHA2	Y	-.052	4
14	MP ALPHA2	X	-.03	4
15	MP BETA2	Y	-.03	4
16	MP BETA2	X	-.017	4
17	MP GAMMA2	Y	-.052	4
18	MP GAMMA2	X	-.03	4
19	MP ALPHA2	Y	-.053	4
20	MP ALPHA2	X	-.031	4
21	MP BETA2	Y	-.034	4
22	MP BETA2	X	-.02	4
23	MP GAMMA2	Y	-.053	4
24	MP GAMMA2	X	-.031	4
25	MP ALPHA2	Y	-.055	4
26	MP ALPHA2	X	-.031	4

Member Point Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.043	6.083
2	MP ALPHA2	Y	-.043	1.917
3	MP ALPHA2	X	-.074	6.083
4	MP ALPHA2	X	-.074	1.917
5	MP BETA2	Y	-.043	6.083
6	MP BETA2	Y	-.043	1.917
7	MP BETA2	X	-.074	6.083
8	MP BETA2	X	-.074	1.917
9	MP GAMMA2	Y	-.078	6.083
10	MP GAMMA2	Y	-.078	1.917
11	MP GAMMA2	X	-.135	6.083
12	MP GAMMA2	X	-.135	1.917
13	MP ALPHA2	Y	-.021	4
14	MP ALPHA2	X	-.037	4
15	MP BETA2	Y	-.021	4
16	MP BETA2	X	-.037	4
17	MP GAMMA2	Y	-.034	4
18	MP GAMMA2	X	-.059	4
19	MP ALPHA2	Y	-.023	4
20	MP ALPHA2	X	-.041	4
21	MP BETA2	Y	-.023	4
22	MP BETA2	X	-.041	4
23	MP GAMMA2	Y	-.034	4
24	MP GAMMA2	X	-.059	4
25	MP ALPHA2	Y	-.024	4
26	MP ALPHA2	X	-.042	4

Member Point Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	X	-.062	6.083
2	MP ALPHA2	X	-.062	1.917
3	MP BETA2	X	-.132	6.083
4	MP BETA2	X	-.132	1.917
5	MP GAMMA2	X	-.132	6.083
6	MP GAMMA2	X	-.132	1.917
7	MP ALPHA2	X	-.034	4
8	MP BETA2	X	-.06	4

Member Point Loads (BLC 6 : Wind Load (90)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
9	MP GAMMA2	X	-.06	4
10	MP ALPHA2	X	-.04	4
11	MP BETA2	X	-.061	4
12	MP GAMMA2	X	-.061	4
13	MP ALPHA2	X	-.041	4

Member Point Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.043	6.083
2	MP ALPHA2	Y	.043	1.917
3	MP ALPHA2	X	-.074	6.083
4	MP ALPHA2	X	-.074	1.917
5	MP BETA2	Y	.078	6.083
6	MP BETA2	Y	.078	1.917
7	MP BETA2	X	-.135	6.083
8	MP BETA2	X	-.135	1.917
9	MP GAMMA2	Y	.043	6.083
10	MP GAMMA2	Y	.043	1.917
11	MP GAMMA2	X	-.074	6.083
12	MP GAMMA2	X	-.074	1.917
13	MP ALPHA2	Y	.021	4
14	MP ALPHA2	X	-.037	4
15	MP BETA2	Y	.034	4
16	MP BETA2	X	-.059	4
17	MP GAMMA2	Y	.021	4
18	MP GAMMA2	X	-.037	4
19	MP ALPHA2	Y	.023	4
20	MP ALPHA2	X	-.041	4
21	MP BETA2	Y	.034	4
22	MP BETA2	X	-.059	4
23	MP GAMMA2	Y	.023	4
24	MP GAMMA2	X	-.041	4
25	MP ALPHA2	Y	.024	4
26	MP ALPHA2	X	-.042	4

Member Point Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.115	6.083
2	MP ALPHA2	Y	.115	1.917
3	MP ALPHA2	X	-.066	6.083
4	MP ALPHA2	X	-.066	1.917
5	MP BETA2	Y	.115	6.083
6	MP BETA2	Y	.115	1.917
7	MP BETA2	X	-.066	6.083
8	MP BETA2	X	-.066	1.917
9	MP GAMMA2	Y	.054	6.083
10	MP GAMMA2	Y	.054	1.917
11	MP GAMMA2	X	-.031	6.083
12	MP GAMMA2	X	-.031	1.917
13	MP ALPHA2	Y	.052	4
14	MP ALPHA2	X	-.03	4
15	MP BETA2	Y	.052	4
16	MP BETA2	X	-.03	4
17	MP GAMMA2	Y	.03	4
18	MP GAMMA2	X	-.017	4
19	MP ALPHA2	Y	.053	4

Member Point Loads (BLC 8 : Wind Load (150)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
20	MP ALPHA2	X	-.031	4
21	MP BETA2	Y	.053	4
22	MP BETA2	X	-.031	4
23	MP GAMMA2	Y	.034	4
24	MP GAMMA2	X	-.02	4
25	MP ALPHA2	Y	.055	4
26	MP ALPHA2	X	-.031	4

Member Point Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.156	6.083
2	MP ALPHA2	Y	.156	1.917
3	MP BETA2	Y	.086	6.083
4	MP BETA2	Y	.086	1.917
5	MP GAMMA2	Y	.086	6.083
6	MP GAMMA2	Y	.086	1.917
7	MP ALPHA2	Y	.069	4
8	MP BETA2	Y	.043	4
9	MP GAMMA2	Y	.043	4
10	MP ALPHA2	Y	.069	4
11	MP BETA2	Y	.047	4
12	MP GAMMA2	Y	.047	4
13	MP ALPHA2	Y	.07	4

Member Point Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.115	6.083
2	MP ALPHA2	Y	.115	1.917
3	MP ALPHA2	X	.066	6.083
4	MP ALPHA2	X	.066	1.917
5	MP BETA2	Y	.054	6.083
6	MP BETA2	Y	.054	1.917
7	MP BETA2	X	.031	6.083
8	MP BETA2	X	.031	1.917
9	MP GAMMA2	Y	.115	6.083
10	MP GAMMA2	Y	.115	1.917
11	MP GAMMA2	X	.066	6.083
12	MP GAMMA2	X	.066	1.917
13	MP ALPHA2	Y	.052	4
14	MP ALPHA2	X	.03	4
15	MP BETA2	Y	.03	4
16	MP BETA2	X	.017	4
17	MP GAMMA2	Y	.052	4
18	MP GAMMA2	X	.03	4
19	MP ALPHA2	Y	.053	4
20	MP ALPHA2	X	.031	4
21	MP BETA2	Y	.034	4
22	MP BETA2	X	.02	4
23	MP GAMMA2	Y	.053	4
24	MP GAMMA2	X	.031	4
25	MP ALPHA2	Y	.055	4
26	MP ALPHA2	X	.031	4

Member Point Loads (BLC 11 : Wind Load (240))

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

Member Point Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.043	6.083
2	MP ALPHA2	Y	.043	1.917
3	MP ALPHA2	X	.074	6.083
4	MP ALPHA2	X	.074	1.917
5	MP BETA2	Y	.043	6.083
6	MP BETA2	Y	.043	1.917
7	MP BETA2	X	.074	6.083
8	MP BETA2	X	.074	1.917
9	MP GAMMA2	Y	.078	6.083
10	MP GAMMA2	Y	.078	1.917
11	MP GAMMA2	X	.135	6.083
12	MP GAMMA2	X	.135	1.917
13	MP ALPHA2	Y	.021	4
14	MP ALPHA2	X	.037	4
15	MP BETA2	Y	.021	4
16	MP BETA2	X	.037	4
17	MP GAMMA2	Y	.034	4
18	MP GAMMA2	X	.059	4
19	MP ALPHA2	Y	.023	4
20	MP ALPHA2	X	.041	4
21	MP BETA2	Y	.023	4
22	MP BETA2	X	.041	4
23	MP GAMMA2	Y	.034	4
24	MP GAMMA2	X	.059	4
25	MP ALPHA2	Y	.024	4
26	MP ALPHA2	X	.042	4

Member Point Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	X	.062	6.083
2	MP ALPHA2	X	.062	1.917
3	MP BETA2	X	.132	6.083
4	MP BETA2	X	.132	1.917
5	MP GAMMA2	X	.132	6.083
6	MP GAMMA2	X	.132	1.917
7	MP ALPHA2	X	.034	4
8	MP BETA2	X	.06	4
9	MP GAMMA2	X	.06	4
10	MP ALPHA2	X	.04	4
11	MP BETA2	X	.061	4
12	MP GAMMA2	X	.061	4
13	MP ALPHA2	X	.041	4

Member Point Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.043	6.083
2	MP ALPHA2	Y	-.043	1.917
3	MP ALPHA2	X	.074	6.083
4	MP ALPHA2	X	.074	1.917
5	MP BETA2	Y	-.078	6.083
6	MP BETA2	Y	-.078	1.917
7	MP BETA2	X	.135	6.083
8	MP BETA2	X	.135	1.917
9	MP GAMMA2	Y	-.043	6.083
10	MP GAMMA2	Y	-.043	1.917
11	MP GAMMA2	X	.074	6.083

Member Point Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
12	MP GAMMA2	X	.074	1.917
13	MP ALPHA2	Y	-.021	4
14	MP ALPHA2	X	.037	4
15	MP BETA2	Y	-.034	4
16	MP BETA2	X	.059	4
17	MP GAMMA2	Y	-.021	4
18	MP GAMMA2	X	.037	4
19	MP ALPHA2	Y	-.023	4
20	MP ALPHA2	X	.041	4
21	MP BETA2	Y	-.034	4
22	MP BETA2	X	.059	4
23	MP GAMMA2	Y	-.023	4
24	MP GAMMA2	X	.041	4
25	MP ALPHA2	Y	-.024	4
26	MP ALPHA2	X	.042	4

Member Point Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.115	6.083
2	MP ALPHA2	Y	-.115	1.917
3	MP ALPHA2	X	.066	6.083
4	MP ALPHA2	X	.066	1.917
5	MP BETA2	Y	-.115	6.083
6	MP BETA2	Y	-.115	1.917
7	MP BETA2	X	.066	6.083
8	MP BETA2	X	.066	1.917
9	MP GAMMA2	Y	-.054	6.083
10	MP GAMMA2	Y	-.054	1.917
11	MP GAMMA2	X	.031	6.083
12	MP GAMMA2	X	.031	1.917
13	MP ALPHA2	Y	-.052	4
14	MP ALPHA2	X	.03	4
15	MP BETA2	Y	-.052	4
16	MP BETA2	X	.03	4
17	MP GAMMA2	Y	-.03	4
18	MP GAMMA2	X	.017	4
19	MP ALPHA2	Y	-.053	4
20	MP ALPHA2	X	.031	4
21	MP BETA2	Y	-.053	4
22	MP BETA2	X	.031	4
23	MP GAMMA2	Y	-.034	4
24	MP GAMMA2	X	.02	4
25	MP ALPHA2	Y	-.055	4
26	MP ALPHA2	X	.031	4

Member Point Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.01	6.083
2	MP ALPHA2	Y	-.01	1.917
3	MP BETA2	Y	-.006	6.083
4	MP BETA2	Y	-.006	1.917
5	MP GAMMA2	Y	-.006	6.083
6	MP GAMMA2	Y	-.006	1.917
7	MP ALPHA2	Y	-.004	4
8	MP BETA2	Y	-.003	4
9	MP GAMMA2	Y	-.003	4

Member Point Loads (BLC 15 : Maintanence (0)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
10	MP ALPHA2	Y	-.004	4
11	MP BETA2	Y	-.003	4
12	MP GAMMA2	Y	-.003	4
13	MP ALPHA2	Y	-.005	4

Member Point Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.007	6.083
2	MP ALPHA2	Y	-.007	1.917
3	MP ALPHA2	X	-.004	6.083
4	MP ALPHA2	X	-.004	1.917
5	MP BETA2	Y	-.003	6.083
6	MP BETA2	Y	-.003	1.917
7	MP BETA2	X	-.002	6.083
8	MP BETA2	X	-.002	1.917
9	MP GAMMA2	Y	-.007	6.083
10	MP GAMMA2	Y	-.007	1.917
11	MP GAMMA2	X	-.004	6.083
12	MP GAMMA2	X	-.004	1.917
13	MP ALPHA2	Y	-.003	4
14	MP ALPHA2	X	-.002	4
15	MP BETA2	Y	-.002	4
16	MP BETA2	X	-.001	4
17	MP GAMMA2	Y	-.003	4
18	MP GAMMA2	X	-.002	4
19	MP ALPHA2	Y	-.003	4
20	MP ALPHA2	X	-.002	4
21	MP BETA2	Y	-.002	4
22	MP BETA2	X	-.001	4
23	MP GAMMA2	Y	-.003	4
24	MP GAMMA2	X	-.002	4
25	MP ALPHA2	Y	-.004	4
26	MP ALPHA2	X	-.002	4

Member Point Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.003	6.083
2	MP ALPHA2	Y	-.003	1.917
3	MP ALPHA2	X	-.005	6.083
4	MP ALPHA2	X	-.005	1.917
5	MP BETA2	Y	-.003	6.083
6	MP BETA2	Y	-.003	1.917
7	MP BETA2	X	-.005	6.083
8	MP BETA2	X	-.005	1.917
9	MP GAMMA2	Y	-.005	6.083
10	MP GAMMA2	Y	-.005	1.917
11	MP GAMMA2	X	-.009	6.083
12	MP GAMMA2	X	-.009	1.917
13	MP ALPHA2	Y	-.001	4
14	MP ALPHA2	X	-.002	4
15	MP BETA2	Y	-.001	4
16	MP BETA2	X	-.002	4
17	MP GAMMA2	Y	-.002	4
18	MP GAMMA2	X	-.004	4
19	MP ALPHA2	Y	-.002	4
20	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 17 : Maintanence (60)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
21	MP BETA2	Y	-.002	4
22	MP BETA2	X	-.003	4
23	MP GAMMA2	Y	-.002	4
24	MP GAMMA2	X	-.004	4
25	MP ALPHA2	Y	-.002	4
26	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	X	-.004	6.083
2	MP ALPHA2	X	-.004	1.917
3	MP BETA2	X	-.009	6.083
4	MP BETA2	X	-.009	1.917
5	MP GAMMA2	X	-.009	6.083
6	MP GAMMA2	X	-.009	1.917
7	MP ALPHA2	X	-.002	4
8	MP BETA2	X	-.004	4
9	MP GAMMA2	X	-.004	4
10	MP ALPHA2	X	-.003	4
11	MP BETA2	X	-.004	4
12	MP GAMMA2	X	-.004	4
13	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.003	6.083
2	MP ALPHA2	Y	.003	1.917
3	MP ALPHA2	X	-.005	6.083
4	MP ALPHA2	X	-.005	1.917
5	MP BETA2	Y	.005	6.083
6	MP BETA2	Y	.005	1.917
7	MP BETA2	X	-.009	6.083
8	MP BETA2	X	-.009	1.917
9	MP GAMMA2	Y	.003	6.083
10	MP GAMMA2	Y	.003	1.917
11	MP GAMMA2	X	-.005	6.083
12	MP GAMMA2	X	-.005	1.917
13	MP ALPHA2	Y	.001	4
14	MP ALPHA2	X	-.002	4
15	MP BETA2	Y	.002	4
16	MP BETA2	X	-.004	4
17	MP GAMMA2	Y	.001	4
18	MP GAMMA2	X	-.002	4
19	MP ALPHA2	Y	.002	4
20	MP ALPHA2	X	-.003	4
21	MP BETA2	Y	.002	4
22	MP BETA2	X	-.004	4
23	MP GAMMA2	Y	.002	4
24	MP GAMMA2	X	-.003	4
25	MP ALPHA2	Y	.002	4
26	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.007	6.083

Member Point Loads (BLC 20 : Maintanence (150)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
2	MP ALPHA2	Y	.007	1.917
3	MP ALPHA2	X	-.004	6.083
4	MP ALPHA2	X	-.004	1.917
5	MP BETA2	Y	.007	6.083
6	MP BETA2	Y	.007	1.917
7	MP BETA2	X	-.004	6.083
8	MP BETA2	X	-.004	1.917
9	MP GAMMA2	Y	.003	6.083
10	MP GAMMA2	Y	.003	1.917
11	MP GAMMA2	X	-.002	6.083
12	MP GAMMA2	X	-.002	1.917
13	MP ALPHA2	Y	.003	4
14	MP ALPHA2	X	-.002	4
15	MP BETA2	Y	.003	4
16	MP BETA2	X	-.002	4
17	MP GAMMA2	Y	.002	4
18	MP GAMMA2	X	-.001	4
19	MP ALPHA2	Y	.003	4
20	MP ALPHA2	X	-.002	4
21	MP BETA2	Y	.003	4
22	MP BETA2	X	-.002	4
23	MP GAMMA2	Y	.002	4
24	MP GAMMA2	X	-.001	4
25	MP ALPHA2	Y	.004	4
26	MP ALPHA2	X	-.002	4

Member Point Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.01	6.083
2	MP ALPHA2	Y	.01	1.917
3	MP BETA2	Y	.006	6.083
4	MP BETA2	Y	.006	1.917
5	MP GAMMA2	Y	.006	6.083
6	MP GAMMA2	Y	.006	1.917
7	MP ALPHA2	Y	.004	4
8	MP BETA2	Y	.003	4
9	MP GAMMA2	Y	.003	4
10	MP ALPHA2	Y	.004	4
11	MP BETA2	Y	.003	4
12	MP GAMMA2	Y	.003	4
13	MP ALPHA2	Y	.005	4

Member Point Loads (BLC 22 : Maintanence (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.007	6.083
2	MP ALPHA2	Y	.007	1.917
3	MP ALPHA2	X	.004	6.083
4	MP ALPHA2	X	.004	1.917
5	MP BETA2	Y	.003	6.083
6	MP BETA2	Y	.003	1.917
7	MP BETA2	X	.002	6.083
8	MP BETA2	X	.002	1.917
9	MP GAMMA2	Y	.007	6.083
10	MP GAMMA2	Y	.007	1.917
11	MP GAMMA2	X	.004	6.083
12	MP GAMMA2	X	.004	1.917

Member Point Loads (BLC 22 : Maintanence (210)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
13	MP ALPHA2	Y	.003	4
14	MP ALPHA2	X	.002	4
15	MP BETA2	Y	.002	4
16	MP BETA2	X	.001	4
17	MP GAMMA2	Y	.003	4
18	MP GAMMA2	X	.002	4
19	MP ALPHA2	Y	.003	4
20	MP ALPHA2	X	.002	4
21	MP BETA2	Y	.002	4
22	MP BETA2	X	.001	4
23	MP GAMMA2	Y	.003	4
24	MP GAMMA2	X	.002	4
25	MP ALPHA2	Y	.004	4
26	MP ALPHA2	X	.002	4

Member Point Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.003	6.083
2	MP ALPHA2	Y	.003	1.917
3	MP ALPHA2	X	.005	6.083
4	MP ALPHA2	X	.005	1.917
5	MP BETA2	Y	.003	6.083
6	MP BETA2	Y	.003	1.917
7	MP BETA2	X	.005	6.083
8	MP BETA2	X	.005	1.917
9	MP GAMMA2	Y	.005	6.083
10	MP GAMMA2	Y	.005	1.917
11	MP GAMMA2	X	.009	6.083
12	MP GAMMA2	X	.009	1.917
13	MP ALPHA2	Y	.001	4
14	MP ALPHA2	X	.002	4
15	MP BETA2	Y	.001	4
16	MP BETA2	X	.002	4
17	MP GAMMA2	Y	.002	4
18	MP GAMMA2	X	.004	4
19	MP ALPHA2	Y	.002	4
20	MP ALPHA2	X	.003	4
21	MP BETA2	Y	.002	4
22	MP BETA2	X	.003	4
23	MP GAMMA2	Y	.002	4
24	MP GAMMA2	X	.004	4
25	MP ALPHA2	Y	.002	4
26	MP ALPHA2	X	.003	4

Member Point Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	X	.004	6.083
2	MP ALPHA2	X	.004	1.917
3	MP BETA2	X	.009	6.083
4	MP BETA2	X	.009	1.917
5	MP GAMMA2	X	.009	6.083
6	MP GAMMA2	X	.009	1.917
7	MP ALPHA2	X	.002	4
8	MP BETA2	X	.004	4
9	MP GAMMA2	X	.004	4
10	MP ALPHA2	X	.003	4

Member Point Loads (BLC 24 : Maintanence (270)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
11	MP BETA2	X	.004	4
12	MP GAMMA2	X	.004	4
13	MP ALPHA2	X	.003	4

Member Point Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.003	6.083
2	MP ALPHA2	Y	-.003	1.917
3	MP ALPHA2	X	.005	6.083
4	MP ALPHA2	X	.005	1.917
5	MP BETA2	Y	-.005	6.083
6	MP BETA2	Y	-.005	1.917
7	MP BETA2	X	.009	6.083
8	MP BETA2	X	.009	1.917
9	MP GAMMA2	Y	-.003	6.083
10	MP GAMMA2	Y	-.003	1.917
11	MP GAMMA2	X	.005	6.083
12	MP GAMMA2	X	.005	1.917
13	MP ALPHA2	Y	-.001	4
14	MP ALPHA2	X	.002	4
15	MP BETA2	Y	-.002	4
16	MP BETA2	X	.004	4
17	MP GAMMA2	Y	-.001	4
18	MP GAMMA2	X	.002	4
19	MP ALPHA2	Y	-.002	4
20	MP ALPHA2	X	.003	4
21	MP BETA2	Y	-.002	4
22	MP BETA2	X	.004	4
23	MP GAMMA2	Y	-.002	4
24	MP GAMMA2	X	.003	4
25	MP ALPHA2	Y	-.002	4
26	MP ALPHA2	X	.003	4

Member Point Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.007	6.083
2	MP ALPHA2	Y	-.007	1.917
3	MP ALPHA2	X	.004	6.083
4	MP ALPHA2	X	.004	1.917
5	MP BETA2	Y	-.007	6.083
6	MP BETA2	Y	-.007	1.917
7	MP BETA2	X	.004	6.083
8	MP BETA2	X	.004	1.917
9	MP GAMMA2	Y	-.003	6.083
10	MP GAMMA2	Y	-.003	1.917
11	MP GAMMA2	X	.002	6.083
12	MP GAMMA2	X	.002	1.917
13	MP ALPHA2	Y	-.003	4
14	MP ALPHA2	X	.002	4
15	MP BETA2	Y	-.003	4
16	MP BETA2	X	.002	4
17	MP GAMMA2	Y	-.002	4
18	MP GAMMA2	X	.001	4
19	MP ALPHA2	Y	-.003	4
20	MP ALPHA2	X	.002	4
21	MP BETA2	Y	-.003	4

Member Point Loads (BLC 26 : Maintanence (330)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
22	MP BETA2	X	.002	4
23	MP GAMMA2	Y	-.002	4
24	MP GAMMA2	X	.001	4
25	MP ALPHA2	Y	-.004	4
26	MP ALPHA2	X	.002	4

Member Point Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Z	-.083	6.083
2	MP ALPHA2	Z	-.083	1.917
3	MP BETA2	Z	-.083	6.083
4	MP BETA2	Z	-.083	1.917
5	MP GAMMA2	Z	-.083	6.083
6	MP GAMMA2	Z	-.083	1.917
7	MP ALPHA2	Z	-.039	4
8	MP BETA2	Z	-.039	4
9	MP GAMMA2	Z	-.039	4
10	MP ALPHA2	Z	-.042	4
11	MP BETA2	Z	-.042	4
12	MP GAMMA2	Z	-.042	4
13	MP ALPHA2	Z	-.041	4

Member Point Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.029	6.083
2	MP ALPHA2	Y	-.029	1.917
3	MP BETA2	Y	-.017	6.083
4	MP BETA2	Y	-.017	1.917
5	MP GAMMA2	Y	-.017	6.083
6	MP GAMMA2	Y	-.017	1.917
7	MP ALPHA2	Y	-.009	4
8	MP BETA2	Y	-.006	4
9	MP GAMMA2	Y	-.006	4
10	MP ALPHA2	Y	-.009	4
11	MP BETA2	Y	-.007	4
12	MP GAMMA2	Y	-.007	4
13	MP ALPHA2	Y	-.01	4

Member Point Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.021	6.083
2	MP ALPHA2	Y	-.021	1.917
3	MP ALPHA2	X	-.012	6.083
4	MP ALPHA2	X	-.012	1.917
5	MP BETA2	Y	-.011	6.083
6	MP BETA2	Y	-.011	1.917
7	MP BETA2	X	-.007	6.083
8	MP BETA2	X	-.007	1.917
9	MP GAMMA2	Y	-.021	6.083
10	MP GAMMA2	Y	-.021	1.917
11	MP GAMMA2	X	-.012	6.083
12	MP GAMMA2	X	-.012	1.917
13	MP ALPHA2	Y	-.007	4
14	MP ALPHA2	X	-.004	4
15	MP BETA2	Y	-.005	4

Member Point Loads (BLC 29 : Ice Wind Load (30)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP BETA2	X	-.003	4
17	MP GAMMA2	Y	-.007	4
18	MP GAMMA2	X	-.004	4
19	MP ALPHA2	Y	-.007	4
20	MP ALPHA2	X	-.004	4
21	MP BETA2	Y	-.005	4
22	MP BETA2	X	-.003	4
23	MP GAMMA2	Y	-.007	4
24	MP GAMMA2	X	-.004	4
25	MP ALPHA2	Y	-.008	4
26	MP ALPHA2	X	-.004	4

Member Point Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.009	6.083
2	MP ALPHA2	Y	-.009	1.917
3	MP ALPHA2	X	-.015	6.083
4	MP ALPHA2	X	-.015	1.917
5	MP BETA2	Y	-.009	6.083
6	MP BETA2	Y	-.009	1.917
7	MP BETA2	X	-.015	6.083
8	MP BETA2	X	-.015	1.917
9	MP GAMMA2	Y	-.014	6.083
10	MP GAMMA2	Y	-.014	1.917
11	MP GAMMA2	X	-.025	6.083
12	MP GAMMA2	X	-.025	1.917
13	MP ALPHA2	Y	-.003	4
14	MP ALPHA2	X	-.005	4
15	MP BETA2	Y	-.003	4
16	MP BETA2	X	-.005	4
17	MP GAMMA2	Y	-.005	4
18	MP GAMMA2	X	-.008	4
19	MP ALPHA2	Y	-.003	4
20	MP ALPHA2	X	-.006	4
21	MP BETA2	Y	-.003	4
22	MP BETA2	X	-.006	4
23	MP GAMMA2	Y	-.005	4
24	MP GAMMA2	X	-.008	4
25	MP ALPHA2	Y	-.003	4
26	MP ALPHA2	X	-.006	4

Member Point Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	X	-.013	6.083
2	MP ALPHA2	X	-.013	1.917
3	MP BETA2	X	-.025	6.083
4	MP BETA2	X	-.025	1.917
5	MP GAMMA2	X	-.025	6.083
6	MP GAMMA2	X	-.025	1.917
7	MP ALPHA2	X	-.005	4
8	MP BETA2	X	-.008	4
9	MP GAMMA2	X	-.008	4
10	MP ALPHA2	X	-.006	4
11	MP BETA2	X	-.008	4
12	MP GAMMA2	X	-.008	4
13	MP ALPHA2	X	-.006	4

Member Point Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.009	6.083
2	MP ALPHA2	Y	.009	1.917
3	MP ALPHA2	X	-.015	6.083
4	MP ALPHA2	X	-.015	1.917
5	MP BETA2	Y	.014	6.083
6	MP BETA2	Y	.014	1.917
7	MP BETA2	X	-.025	6.083
8	MP BETA2	X	-.025	1.917
9	MP GAMMA2	Y	.009	6.083
10	MP GAMMA2	Y	.009	1.917
11	MP GAMMA2	X	-.015	6.083
12	MP GAMMA2	X	-.015	1.917
13	MP ALPHA2	Y	.003	4
14	MP ALPHA2	X	-.005	4
15	MP BETA2	Y	.005	4
16	MP BETA2	X	-.008	4
17	MP GAMMA2	Y	.003	4
18	MP GAMMA2	X	-.005	4
19	MP ALPHA2	Y	.003	4
20	MP ALPHA2	X	-.006	4
21	MP BETA2	Y	.005	4
22	MP BETA2	X	-.008	4
23	MP GAMMA2	Y	.003	4
24	MP GAMMA2	X	-.006	4
25	MP ALPHA2	Y	.003	4
26	MP ALPHA2	X	-.006	4

Member Point Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.021	6.083
2	MP ALPHA2	Y	.021	1.917
3	MP ALPHA2	X	-.012	6.083
4	MP ALPHA2	X	-.012	1.917
5	MP BETA2	Y	.021	6.083
6	MP BETA2	Y	.021	1.917
7	MP BETA2	X	-.012	6.083
8	MP BETA2	X	-.012	1.917
9	MP GAMMA2	Y	.011	6.083
10	MP GAMMA2	Y	.011	1.917
11	MP GAMMA2	X	-.007	6.083
12	MP GAMMA2	X	-.007	1.917
13	MP ALPHA2	Y	.007	4
14	MP ALPHA2	X	-.004	4
15	MP BETA2	Y	.007	4
16	MP BETA2	X	-.004	4
17	MP GAMMA2	Y	.005	4
18	MP GAMMA2	X	-.003	4
19	MP ALPHA2	Y	.007	4
20	MP ALPHA2	X	-.004	4
21	MP BETA2	Y	.007	4
22	MP BETA2	X	-.004	4
23	MP GAMMA2	Y	.005	4
24	MP GAMMA2	X	-.003	4
25	MP ALPHA2	Y	.008	4
26	MP ALPHA2	X	-.004	4

Member Point Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.029	6.083
2	MP ALPHA2	Y	.029	1.917
3	MP BETA2	Y	.017	6.083
4	MP BETA2	Y	.017	1.917
5	MP GAMMA2	Y	.017	6.083
6	MP GAMMA2	Y	.017	1.917
7	MP ALPHA2	Y	.009	4
8	MP BETA2	Y	.006	4
9	MP GAMMA2	Y	.006	4
10	MP ALPHA2	Y	.009	4
11	MP BETA2	Y	.007	4
12	MP GAMMA2	Y	.007	4
13	MP ALPHA2	Y	.01	4

Member Point Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.021	6.083
2	MP ALPHA2	Y	.021	1.917
3	MP ALPHA2	X	.012	6.083
4	MP ALPHA2	X	.012	1.917
5	MP BETA2	Y	.011	6.083
6	MP BETA2	Y	.011	1.917
7	MP BETA2	X	.007	6.083
8	MP BETA2	X	.007	1.917
9	MP GAMMA2	Y	.021	6.083
10	MP GAMMA2	Y	.021	1.917
11	MP GAMMA2	X	.012	6.083
12	MP GAMMA2	X	.012	1.917
13	MP ALPHA2	Y	.007	4
14	MP ALPHA2	X	.004	4
15	MP BETA2	Y	.005	4
16	MP BETA2	X	.003	4
17	MP GAMMA2	Y	.007	4
18	MP GAMMA2	X	.004	4
19	MP ALPHA2	Y	.007	4
20	MP ALPHA2	X	.004	4
21	MP BETA2	Y	.005	4
22	MP BETA2	X	.003	4
23	MP GAMMA2	Y	.007	4
24	MP GAMMA2	X	.004	4
25	MP ALPHA2	Y	.008	4
26	MP ALPHA2	X	.004	4

Member Point Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	.009	6.083
2	MP ALPHA2	Y	.009	1.917
3	MP ALPHA2	X	.015	6.083
4	MP ALPHA2	X	.015	1.917
5	MP BETA2	Y	.009	6.083
6	MP BETA2	Y	.009	1.917
7	MP BETA2	X	.015	6.083
8	MP BETA2	X	.015	1.917
9	MP GAMMA2	Y	.014	6.083
10	MP GAMMA2	Y	.014	1.917
11	MP GAMMA2	X	.025	6.083

Member Point Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
12	MP GAMMA2	X	.025	1.917
13	MP ALPHA2	Y	.003	4
14	MP ALPHA2	X	.005	4
15	MP BETA2	Y	.003	4
16	MP BETA2	X	.005	4
17	MP GAMMA2	Y	.005	4
18	MP GAMMA2	X	.008	4
19	MP ALPHA2	Y	.003	4
20	MP ALPHA2	X	.006	4
21	MP BETA2	Y	.003	4
22	MP BETA2	X	.006	4
23	MP GAMMA2	Y	.005	4
24	MP GAMMA2	X	.008	4
25	MP ALPHA2	Y	.003	4
26	MP ALPHA2	X	.006	4

Member Point Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	X	.013	6.083
2	MP ALPHA2	X	.013	1.917
3	MP BETA2	X	.025	6.083
4	MP BETA2	X	.025	1.917
5	MP GAMMA2	X	.025	6.083
6	MP GAMMA2	X	.025	1.917
7	MP ALPHA2	X	.005	4
8	MP BETA2	X	.008	4
9	MP GAMMA2	X	.008	4
10	MP ALPHA2	X	.006	4
11	MP BETA2	X	.008	4
12	MP GAMMA2	X	.008	4
13	MP ALPHA2	X	.006	4

Member Point Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.009	6.083
2	MP ALPHA2	Y	-.009	1.917
3	MP ALPHA2	X	.015	6.083
4	MP ALPHA2	X	.015	1.917
5	MP BETA2	Y	-.014	6.083
6	MP BETA2	Y	-.014	1.917
7	MP BETA2	X	.025	6.083
8	MP BETA2	X	.025	1.917
9	MP GAMMA2	Y	-.009	6.083
10	MP GAMMA2	Y	-.009	1.917
11	MP GAMMA2	X	.015	6.083
12	MP GAMMA2	X	.015	1.917
13	MP ALPHA2	Y	-.003	4
14	MP ALPHA2	X	.005	4
15	MP BETA2	Y	-.005	4
16	MP BETA2	X	.008	4
17	MP GAMMA2	Y	-.003	4
18	MP GAMMA2	X	.005	4
19	MP ALPHA2	Y	-.003	4
20	MP ALPHA2	X	.006	4
21	MP BETA2	Y	-.005	4
22	MP BETA2	X	.008	4

Member Point Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
23	MP GAMMA2	Y	-.003	4
24	MP GAMMA2	X	.006	4
25	MP ALPHA2	Y	-.003	4
26	MP ALPHA2	X	.006	4

Member Point Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.021	6.083
2	MP ALPHA2	Y	-.021	1.917
3	MP ALPHA2	X	.012	6.083
4	MP ALPHA2	X	.012	1.917
5	MP BETA2	Y	-.021	6.083
6	MP BETA2	Y	-.021	1.917
7	MP BETA2	X	.012	6.083
8	MP BETA2	X	.012	1.917
9	MP GAMMA2	Y	-.011	6.083
10	MP GAMMA2	Y	-.011	1.917
11	MP GAMMA2	X	.007	6.083
12	MP GAMMA2	X	.007	1.917
13	MP ALPHA2	Y	-.007	4
14	MP ALPHA2	X	.004	4
15	MP BETA2	Y	-.007	4
16	MP BETA2	X	.004	4
17	MP GAMMA2	Y	-.005	4
18	MP GAMMA2	X	.003	4
19	MP ALPHA2	Y	-.007	4
20	MP ALPHA2	X	.004	4
21	MP BETA2	Y	-.007	4
22	MP BETA2	X	.004	4
23	MP GAMMA2	Y	-.005	4
24	MP GAMMA2	X	.003	4
25	MP ALPHA2	Y	-.008	4
26	MP ALPHA2	X	.004	4

Member Point Loads (BLC 40 : Earthquake (x-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	X	-.004	6.083
2	MP ALPHA2	X	-.004	1.917
3	MP BETA2	X	-.004	6.083
4	MP BETA2	X	-.004	1.917
5	MP GAMMA2	X	-.004	6.083
6	MP GAMMA2	X	-.004	1.917
7	MP ALPHA2	X	-.007	4
8	MP BETA2	X	-.007	4
9	MP GAMMA2	X	-.007	4
10	MP ALPHA2	X	-.008	4
11	MP BETA2	X	-.008	4
12	MP GAMMA2	X	-.008	4
13	MP ALPHA2	X	-.002	4

Member Point Loads (BLC 41 : Earthquake (y-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Y	-.004	6.083
2	MP ALPHA2	Y	-.004	1.917
3	MP BETA2	Y	-.004	6.083

Member Point Loads (BLC 41 : Earthquake (y-direction)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
4	MP BETA2	Y	-.004	1.917
5	MP GAMMA2	Y	-.004	6.083
6	MP GAMMA2	Y	-.004	1.917
7	MP ALPHA2	Y	-.007	4
8	MP BETA2	Y	-.007	4
9	MP GAMMA2	Y	-.007	4
10	MP ALPHA2	Y	-.008	4
11	MP BETA2	Y	-.008	4
12	MP GAMMA2	Y	-.008	4
13	MP ALPHA2	Y	-.002	4

Member Point Loads (BLC 42 : Earthquake (z-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA2	Z	-.002	6.083
2	MP ALPHA2	Z	-.002	1.917
3	MP BETA2	Z	-.002	6.083
4	MP BETA2	Z	-.002	1.917
5	MP GAMMA2	Z	-.002	6.083
6	MP GAMMA2	Z	-.002	1.917
7	MP ALPHA2	Z	-.003	4
8	MP BETA2	Z	-.003	4
9	MP GAMMA2	Z	-.003	4
10	MP ALPHA2	Z	-.003	4
11	MP BETA2	Z	-.003	4
12	MP GAMMA2	Z	-.003	4
13	MP ALPHA2	Z	-.000895	4

Member Distributed Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.007	-.007	0	0
2	GRAT SUP	PY	-.006	-.006	0	0
3	GRAT SUP2	PY	-.006	-.006	0	0
4	PL1	PY	-.019	-.019	0	0
5	SO2	PY	-.007	-.007	0	0
6	GRAT SUP3	PY	-.006	-.006	0	0
7	GRAT SUP4	PY	-.006	-.006	0	0
8	PL2	PY	-.019	-.019	0	0
9	SO3	PY	-.007	-.007	0	0
10	GRAT SUP5	PY	-.006	-.006	0	0
11	GRAT SUP6	PY	-.006	-.006	0	0
12	PL3	PY	-.019	-.019	0	0
13	FACE1	PY	-.003	-.003	0	0
14	MP ALPHA1	PY	-.01	-.01	0	0
15	MP ALPHA3	PY	-.01	-.01	0	0
16	RAIL1	PY	-.002	-.002	0	0
17	RAIL CON3	PY	-.019	-.019	0	0
18	RAIL CON1	PY	-.019	-.019	0	0
19	RAIL CON2	PY	-.019	-.019	0	0
20	CR1	PY	-.01	-.01	0	0
21	CR2	PY	-.01	-.01	0	0
22	CR3	PY	-.01	-.01	0	0
23	CR4	PY	-.01	-.01	0	0
24	CR5	PY	-.01	-.01	0	0
25	CR6	PY	-.01	-.01	0	0
26	PL4	PY	-.007	-.007	0	0

Member Distributed Loads (BLC 2 : Wind Load (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
27	PL5	PY	-.007	-.007	0	0
28	PL6	PY	-.007	-.007	0	0
29	PL7	PY	-.007	-.007	0	0
30	PL8	PY	-.007	-.007	0	0
31	PL9	PY	-.007	-.007	0	0
32	MP ALPHA2	PY	-.01	-.01	0	0
33	FACE3	PY	-.007	-.007	0	0
34	MP GAMMA1	PY	-.01	-.01	0	0
35	MP GAMMA3	PY	-.01	-.01	0	0
36	RAIL3	PY	-.005	-.005	0	0
37	FACE2	PY	-.007	-.007	0	0
38	MP BETA1	PY	-.01	-.01	0	0
39	MP BETA3	PY	-.01	-.01	0	0
40	RAIL2	PY	-.005	-.005	0	0
41	MP BETA2	PY	-.01	-.01	0	0
42	MP GAMMA2	PY	-.01	-.01	0	0

Member Distributed Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.006	-.006	0	0
2	GRAT SUP	PY	-.005	-.005	0	0
3	GRAT SUP2	PY	-.005	-.005	0	0
4	PL1	PY	-.016	-.016	0	0
5	SO2	PY	-.006	-.006	0	0
6	GRAT SUP3	PY	-.005	-.005	0	0
7	GRAT SUP4	PY	-.005	-.005	0	0
8	PL2	PY	-.016	-.016	0	0
9	SO3	PY	-.006	-.006	0	0
10	GRAT SUP5	PY	-.005	-.005	0	0
11	GRAT SUP6	PY	-.005	-.005	0	0
12	PL3	PY	-.016	-.016	0	0
13	FACE1	PY	-.003	-.003	0	0
14	MP ALPHA1	PY	-.009	-.009	0	0
15	MP ALPHA3	PY	-.009	-.009	0	0
16	RAIL1	PY	-.002	-.002	0	0
17	RAIL CON3	PY	-.017	-.017	0	0
18	RAIL CON1	PY	-.017	-.017	0	0
19	RAIL CON2	PY	-.017	-.017	0	0
20	CR1	PY	-.009	-.009	0	0
21	CR2	PY	-.009	-.009	0	0
22	CR3	PY	-.009	-.009	0	0
23	CR4	PY	-.009	-.009	0	0
24	CR5	PY	-.009	-.009	0	0
25	CR6	PY	-.009	-.009	0	0
26	PL4	PY	-.006	-.006	0	0
27	PL5	PY	-.006	-.006	0	0
28	PL6	PY	-.006	-.006	0	0
29	PL7	PY	-.006	-.006	0	0
30	PL8	PY	-.006	-.006	0	0
31	PL9	PY	-.006	-.006	0	0
32	MP ALPHA2	PY	-.009	-.009	0	0
33	FACE3	PY	-.006	-.006	0	0
34	MP GAMMA1	PY	-.009	-.009	0	0
35	MP GAMMA3	PY	-.009	-.009	0	0
36	RAIL3	PY	-.004	-.004	0	0
37	FACE2	PY	-.006	-.006	0	0

Member Distributed Loads (BLC 4 : Wind Load (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
38	MP BETA1	PY	-.009	-.009	0	0
39	MP BETA3	PY	-.009	-.009	0	0
40	RAIL2	PY	-.004	-.004	0	0
41	MP BETA2	PY	-.009	-.009	0	0
42	MP GAMMA2	PY	-.009	-.009	0	0
43	SO1	PX	-.004	-.004	0	0
44	GRAT SUP	PX	-.003	-.003	0	0
45	GRAT SUP2	PX	-.003	-.003	0	0
46	PL1	PX	-.009	-.009	0	0
47	SO2	PX	-.004	-.004	0	0
48	GRAT SUP3	PX	-.003	-.003	0	0
49	GRAT SUP4	PX	-.003	-.003	0	0
50	PL2	PX	-.009	-.009	0	0
51	SO3	PX	-.004	-.004	0	0
52	GRAT SUP5	PX	-.003	-.003	0	0
53	GRAT SUP6	PX	-.003	-.003	0	0
54	PL3	PX	-.009	-.009	0	0
55	FACE1	PX	-.002	-.002	0	0
56	MP ALPHA1	PX	-.005	-.005	0	0
57	MP ALPHA3	PX	-.005	-.005	0	0
58	RAIL1	PX	-.001	-.001	0	0
59	RAIL CON3	PX	-.01	-.01	0	0
60	RAIL CON1	PX	-.01	-.01	0	0
61	RAIL CON2	PX	-.01	-.01	0	0
62	CR1	PX	-.005	-.005	0	0
63	CR2	PX	-.005	-.005	0	0
64	CR3	PX	-.005	-.005	0	0
65	CR4	PX	-.005	-.005	0	0
66	CR5	PX	-.005	-.005	0	0
67	CR6	PX	-.005	-.005	0	0
68	PL4	PX	-.003	-.003	0	0
69	PL5	PX	-.003	-.003	0	0
70	PL6	PX	-.003	-.003	0	0
71	PL7	PX	-.003	-.003	0	0
72	PL8	PX	-.003	-.003	0	0
73	PL9	PX	-.003	-.003	0	0
74	MP ALPHA2	PX	-.005	-.005	0	0
75	FACE3	PX	-.003	-.003	0	0
76	MP GAMMA1	PX	-.005	-.005	0	0
77	MP GAMMA3	PX	-.005	-.005	0	0
78	RAIL3	PX	-.002	-.002	0	0
79	FACE2	PX	-.003	-.003	0	0
80	MP BETA1	PX	-.005	-.005	0	0
81	MP BETA3	PX	-.005	-.005	0	0
82	RAIL2	PX	-.002	-.002	0	0
83	MP BETA2	PX	-.005	-.005	0	0
84	MP GAMMA2	PX	-.005	-.005	0	0

Member Distributed Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.004	-.004	0	0
2	GRAT SUP	PY	-.003	-.003	0	0
3	GRAT SUP2	PY	-.003	-.003	0	0
4	PL1	PY	-.009	-.009	0	0
5	SO2	PY	-.004	-.004	0	0
6	GRAT SUP3	PY	-.003	-.003	0	0

Member Distributed Loads (BLC 5 : Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	GRAT SUP4	PY	-.003	-.003	0	0
8	PL2	PY	-.009	-.009	0	0
9	SO3	PY	-.004	-.004	0	0
10	GRAT SUP5	PY	-.003	-.003	0	0
11	GRAT SUP6	PY	-.003	-.003	0	0
12	PL3	PY	-.009	-.009	0	0
13	FACE1	PY	-.002	-.002	0	0
14	MP ALPHA1	PY	-.005	-.005	0	0
15	MP ALPHA3	PY	-.005	-.005	0	0
16	RAIL1	PY	-.001	-.001	0	0
17	RAIL CON3	PY	-.01	-.01	0	0
18	RAIL CON1	PY	-.01	-.01	0	0
19	RAIL CON2	PY	-.01	-.01	0	0
20	CR1	PY	-.005	-.005	0	0
21	CR2	PY	-.005	-.005	0	0
22	CR3	PY	-.005	-.005	0	0
23	CR4	PY	-.005	-.005	0	0
24	CR5	PY	-.005	-.005	0	0
25	CR6	PY	-.005	-.005	0	0
26	PL4	PY	-.003	-.003	0	0
27	PL5	PY	-.003	-.003	0	0
28	PL6	PY	-.003	-.003	0	0
29	PL7	PY	-.003	-.003	0	0
30	PL8	PY	-.003	-.003	0	0
31	PL9	PY	-.003	-.003	0	0
32	MP ALPHA2	PY	-.005	-.005	0	0
33	FACE3	PY	-.003	-.003	0	0
34	MP GAMMA1	PY	-.005	-.005	0	0
35	MP GAMMA3	PY	-.005	-.005	0	0
36	RAIL3	PY	-.002	-.002	0	0
37	FACE2	PY	-.003	-.003	0	0
38	MP BETA1	PY	-.005	-.005	0	0
39	MP BETA3	PY	-.005	-.005	0	0
40	RAIL2	PY	-.002	-.002	0	0
41	MP BETA2	PY	-.005	-.005	0	0
42	MP GAMMA2	PY	-.005	-.005	0	0
43	SO1	PX	-.006	-.006	0	0
44	GRAT SUP	PX	-.005	-.005	0	0
45	GRAT SUP2	PX	-.005	-.005	0	0
46	PL1	PX	-.016	-.016	0	0
47	SO2	PX	-.006	-.006	0	0
48	GRAT SUP3	PX	-.005	-.005	0	0
49	GRAT SUP4	PX	-.005	-.005	0	0
50	PL2	PX	-.016	-.016	0	0
51	SO3	PX	-.006	-.006	0	0
52	GRAT SUP5	PX	-.005	-.005	0	0
53	GRAT SUP6	PX	-.005	-.005	0	0
54	PL3	PX	-.016	-.016	0	0
55	FACE1	PX	-.003	-.003	0	0
56	MP ALPHA1	PX	-.009	-.009	0	0
57	MP ALPHA3	PX	-.009	-.009	0	0
58	RAIL1	PX	-.002	-.002	0	0
59	RAIL CON3	PX	-.017	-.017	0	0
60	RAIL CON1	PX	-.017	-.017	0	0
61	RAIL CON2	PX	-.017	-.017	0	0
62	CR1	PX	-.009	-.009	0	0
63	CR2	PX	-.009	-.009	0	0

Member Distributed Loads (BLC 5 : Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
64	CR3	PX	-.009	-.009	0	0
65	CR4	PX	-.009	-.009	0	0
66	CR5	PX	-.009	-.009	0	0
67	CR6	PX	-.009	-.009	0	0
68	PL4	PX	-.006	-.006	0	0
69	PL5	PX	-.006	-.006	0	0
70	PL6	PX	-.006	-.006	0	0
71	PL7	PX	-.006	-.006	0	0
72	PL8	PX	-.006	-.006	0	0
73	PL9	PX	-.006	-.006	0	0
74	MP ALPHA2	PX	-.009	-.009	0	0
75	FACE3	PX	-.006	-.006	0	0
76	MP GAMMA1	PX	-.009	-.009	0	0
77	MP GAMMA3	PX	-.009	-.009	0	0
78	RAIL3	PX	-.004	-.004	0	0
79	FACE2	PX	-.006	-.006	0	0
80	MP BETA1	PX	-.009	-.009	0	0
81	MP BETA3	PX	-.009	-.009	0	0
82	RAIL2	PX	-.004	-.004	0	0
83	MP BETA2	PX	-.009	-.009	0	0
84	MP GAMMA2	PX	-.009	-.009	0	0

Member Distributed Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PX	-.007	-.007	0	0
2	GRAT SUP	PX	-.006	-.006	0	0
3	GRAT SUP2	PX	-.006	-.006	0	0
4	PL1	PX	-.019	-.019	0	0
5	SO2	PX	-.007	-.007	0	0
6	GRAT SUP3	PX	-.006	-.006	0	0
7	GRAT SUP4	PX	-.006	-.006	0	0
8	PL2	PX	-.019	-.019	0	0
9	SO3	PX	-.007	-.007	0	0
10	GRAT SUP5	PX	-.006	-.006	0	0
11	GRAT SUP6	PX	-.006	-.006	0	0
12	PL3	PX	-.019	-.019	0	0
13	FACE2	PX	-.003	-.003	0	0
14	MP ALPHA1	PX	-.01	-.01	0	0
15	MP ALPHA3	PX	-.01	-.01	0	0
16	RAIL2	PX	-.002	-.002	0	0
17	RAIL CON3	PX	-.019	-.019	0	0
18	RAIL CON1	PX	-.019	-.019	0	0
19	RAIL CON2	PX	-.019	-.019	0	0
20	CR1	PX	-.01	-.01	0	0
21	CR2	PX	-.01	-.01	0	0
22	CR3	PX	-.01	-.01	0	0
23	CR4	PX	-.01	-.01	0	0
24	CR5	PX	-.01	-.01	0	0
25	CR6	PX	-.01	-.01	0	0
26	PL4	PX	-.007	-.007	0	0
27	PL5	PX	-.007	-.007	0	0
28	PL6	PX	-.007	-.007	0	0
29	PL7	PX	-.007	-.007	0	0
30	PL8	PX	-.007	-.007	0	0
31	PL9	PX	-.007	-.007	0	0
32	MP ALPHA2	PX	-.01	-.01	0	0

Member Distributed Loads (BLC 6 : Wind Load (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
33	FACE3	PX	-.007	-.007	0	0
34	MP GAMMA1	PX	-.01	-.01	0	0
35	MP GAMMA3	PX	-.01	-.01	0	0
36	RAIL3	PX	-.005	-.005	0	0
37	FACE1	PX	-.007	-.007	0	0
38	MP BETA1	PX	-.01	-.01	0	0
39	MP BETA3	PX	-.01	-.01	0	0
40	RAIL1	PX	-.005	-.005	0	0
41	MP BETA2	PX	-.01	-.01	0	0
42	MP GAMMA2	PX	-.01	-.01	0	0

Member Distributed Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.004	.004	0	0
2	GRAT SUP	PY	.003	.003	0	0
3	GRAT SUP2	PY	.003	.003	0	0
4	PL1	PY	.009	.009	0	0
5	SO2	PY	.004	.004	0	0
6	GRAT SUP3	PY	.003	.003	0	0
7	GRAT SUP4	PY	.003	.003	0	0
8	PL2	PY	.009	.009	0	0
9	SO3	PY	.004	.004	0	0
10	GRAT SUP5	PY	.003	.003	0	0
11	GRAT SUP6	PY	.003	.003	0	0
12	PL3	PY	.009	.009	0	0
13	FACE2	PY	.002	.002	0	0
14	MP ALPHA1	PY	.005	.005	0	0
15	MP ALPHA3	PY	.005	.005	0	0
16	RAIL2	PY	.001	.001	0	0
17	RAIL CON3	PY	.01	.01	0	0
18	RAIL CON1	PY	.01	.01	0	0
19	RAIL CON2	PY	.01	.01	0	0
20	CR1	PY	.005	.005	0	0
21	CR2	PY	.005	.005	0	0
22	CR3	PY	.005	.005	0	0
23	CR4	PY	.005	.005	0	0
24	CR5	PY	.005	.005	0	0
25	CR6	PY	.005	.005	0	0
26	PL4	PY	.003	.003	0	0
27	PL5	PY	.003	.003	0	0
28	PL6	PY	.003	.003	0	0
29	PL7	PY	.003	.003	0	0
30	PL8	PY	.003	.003	0	0
31	PL9	PY	.003	.003	0	0
32	MP ALPHA2	PY	.005	.005	0	0
33	FACE3	PY	.003	.003	0	0
34	MP GAMMA1	PY	.005	.005	0	0
35	MP GAMMA3	PY	.005	.005	0	0
36	RAIL3	PY	.002	.002	0	0
37	FACE1	PY	.003	.003	0	0
38	MP BETA1	PY	.005	.005	0	0
39	MP BETA3	PY	.005	.005	0	0
40	RAIL1	PY	.002	.002	0	0
41	MP BETA2	PY	.005	.005	0	0
42	MP GAMMA2	PY	.005	.005	0	0
43	SO1	PX	-.006	-.006	0	0

Member Distributed Loads (BLC 7 : Wind Load (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
44	GRAT SUP	PX	-.005	-.005	0	0
45	GRAT SUP2	PX	-.005	-.005	0	0
46	PL1	PX	-.016	-.016	0	0
47	SO2	PX	-.006	-.006	0	0
48	GRAT SUP3	PX	-.005	-.005	0	0
49	GRAT SUP4	PX	-.005	-.005	0	0
50	PL2	PX	-.016	-.016	0	0
51	SO3	PX	-.006	-.006	0	0
52	GRAT SUP5	PX	-.005	-.005	0	0
53	GRAT SUP6	PX	-.005	-.005	0	0
54	PL3	PX	-.016	-.016	0	0
55	FACE2	PX	-.003	-.003	0	0
56	MP ALPHA1	PX	-.009	-.009	0	0
57	MP ALPHA3	PX	-.009	-.009	0	0
58	RAIL2	PX	-.002	-.002	0	0
59	RAIL CON3	PX	-.017	-.017	0	0
60	RAIL CON1	PX	-.017	-.017	0	0
61	RAIL CON2	PX	-.017	-.017	0	0
62	CR1	PX	-.009	-.009	0	0
63	CR2	PX	-.009	-.009	0	0
64	CR3	PX	-.009	-.009	0	0
65	CR4	PX	-.009	-.009	0	0
66	CR5	PX	-.009	-.009	0	0
67	CR6	PX	-.009	-.009	0	0
68	PL4	PX	-.006	-.006	0	0
69	PL5	PX	-.006	-.006	0	0
70	PL6	PX	-.006	-.006	0	0
71	PL7	PX	-.006	-.006	0	0
72	PL8	PX	-.006	-.006	0	0
73	PL9	PX	-.006	-.006	0	0
74	MP ALPHA2	PX	-.009	-.009	0	0
75	FACE3	PX	-.006	-.006	0	0
76	MP GAMMA1	PX	-.009	-.009	0	0
77	MP GAMMA3	PX	-.009	-.009	0	0
78	RAIL3	PX	-.004	-.004	0	0
79	FACE1	PX	-.006	-.006	0	0
80	MP BETA1	PX	-.009	-.009	0	0
81	MP BETA3	PX	-.009	-.009	0	0
82	RAIL1	PX	-.004	-.004	0	0
83	MP BETA2	PX	-.009	-.009	0	0
84	MP GAMMA2	PX	-.009	-.009	0	0

Member Distributed Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.006	.006	0	0
2	GRAT SUP	PY	.005	.005	0	0
3	GRAT SUP2	PY	.005	.005	0	0
4	PL1	PY	.016	.016	0	0
5	SO2	PY	.006	.006	0	0
6	GRAT SUP3	PY	.005	.005	0	0
7	GRAT SUP4	PY	.005	.005	0	0
8	PL2	PY	.016	.016	0	0
9	SO3	PY	.006	.006	0	0
10	GRAT SUP5	PY	.005	.005	0	0
11	GRAT SUP6	PY	.005	.005	0	0
12	PL3	PY	.016	.016	0	0

Member Distributed Loads (BLC 8 : Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	FACE2	PY	.003	.003	0	0
14	MP ALPHA1	PY	.009	.009	0	0
15	MP ALPHA3	PY	.009	.009	0	0
16	RAIL2	PY	.002	.002	0	0
17	RAIL CON3	PY	.017	.017	0	0
18	RAIL CON1	PY	.017	.017	0	0
19	RAIL CON2	PY	.017	.017	0	0
20	CR1	PY	.009	.009	0	0
21	CR2	PY	.009	.009	0	0
22	CR3	PY	.009	.009	0	0
23	CR4	PY	.009	.009	0	0
24	CR5	PY	.009	.009	0	0
25	CR6	PY	.009	.009	0	0
26	PL4	PY	.006	.006	0	0
27	PL5	PY	.006	.006	0	0
28	PL6	PY	.006	.006	0	0
29	PL7	PY	.006	.006	0	0
30	PL8	PY	.006	.006	0	0
31	PL9	PY	.006	.006	0	0
32	MP ALPHA2	PY	.009	.009	0	0
33	FACE3	PY	.006	.006	0	0
34	MP GAMMA1	PY	.009	.009	0	0
35	MP GAMMA3	PY	.009	.009	0	0
36	RAIL3	PY	.004	.004	0	0
37	FACE1	PY	.006	.006	0	0
38	MP BETA1	PY	.009	.009	0	0
39	MP BETA3	PY	.009	.009	0	0
40	RAIL1	PY	.004	.004	0	0
41	MP BETA2	PY	.009	.009	0	0
42	MP GAMMA2	PY	.009	.009	0	0
43	SO1	PX	-.004	-.004	0	0
44	GRAT SUP	PX	-.003	-.003	0	0
45	GRAT SUP2	PX	-.003	-.003	0	0
46	PL1	PX	-.009	-.009	0	0
47	SO2	PX	-.004	-.004	0	0
48	GRAT SUP3	PX	-.003	-.003	0	0
49	GRAT SUP4	PX	-.003	-.003	0	0
50	PL2	PX	-.009	-.009	0	0
51	SO3	PX	-.004	-.004	0	0
52	GRAT SUP5	PX	-.003	-.003	0	0
53	GRAT SUP6	PX	-.003	-.003	0	0
54	PL3	PX	-.009	-.009	0	0
55	FACE2	PX	-.002	-.002	0	0
56	MP ALPHA1	PX	-.005	-.005	0	0
57	MP ALPHA3	PX	-.005	-.005	0	0
58	RAIL2	PX	-.001	-.001	0	0
59	RAIL CON3	PX	-.01	-.01	0	0
60	RAIL CON1	PX	-.01	-.01	0	0
61	RAIL CON2	PX	-.01	-.01	0	0
62	CR1	PX	-.005	-.005	0	0
63	CR2	PX	-.005	-.005	0	0
64	CR3	PX	-.005	-.005	0	0
65	CR4	PX	-.005	-.005	0	0
66	CR5	PX	-.005	-.005	0	0
67	CR6	PX	-.005	-.005	0	0
68	PL4	PX	-.003	-.003	0	0
69	PL5	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 8 : Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
70	PL6	PX	-.003	-.003	0	0
71	PL7	PX	-.003	-.003	0	0
72	PL8	PX	-.003	-.003	0	0
73	PL9	PX	-.003	-.003	0	0
74	MP ALPHA2	PX	-.005	-.005	0	0
75	FACE3	PX	-.003	-.003	0	0
76	MP GAMMA1	PX	-.005	-.005	0	0
77	MP GAMMA3	PX	-.005	-.005	0	0
78	RAIL3	PX	-.002	-.002	0	0
79	FACE1	PX	-.003	-.003	0	0
80	MP BETA1	PX	-.005	-.005	0	0
81	MP BETA3	PX	-.005	-.005	0	0
82	RAIL1	PX	-.002	-.002	0	0
83	MP BETA2	PX	-.005	-.005	0	0
84	MP GAMMA2	PX	-.005	-.005	0	0

Member Distributed Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.007	.007	0	0
2	GRAT SUP	PY	.006	.006	0	0
3	GRAT SUP2	PY	.006	.006	0	0
4	PL1	PY	.019	.019	0	0
5	SO2	PY	.007	.007	0	0
6	GRAT SUP3	PY	.006	.006	0	0
7	GRAT SUP4	PY	.006	.006	0	0
8	PL2	PY	.019	.019	0	0
9	SO3	PY	.007	.007	0	0
10	GRAT SUP5	PY	.006	.006	0	0
11	GRAT SUP6	PY	.006	.006	0	0
12	PL3	PY	.019	.019	0	0
13	FACE2	PY	.003	.003	0	0
14	MP ALPHA1	PY	.01	.01	0	0
15	MP ALPHA3	PY	.01	.01	0	0
16	RAIL2	PY	.002	.002	0	0
17	RAIL CON3	PY	.019	.019	0	0
18	RAIL CON1	PY	.019	.019	0	0
19	RAIL CON2	PY	.019	.019	0	0
20	CR1	PY	.01	.01	0	0
21	CR2	PY	.01	.01	0	0
22	CR3	PY	.01	.01	0	0
23	CR4	PY	.01	.01	0	0
24	CR5	PY	.01	.01	0	0
25	CR6	PY	.01	.01	0	0
26	PL4	PY	.007	.007	0	0
27	PL5	PY	.007	.007	0	0
28	PL6	PY	.007	.007	0	0
29	PL7	PY	.007	.007	0	0
30	PL8	PY	.007	.007	0	0
31	PL9	PY	.007	.007	0	0
32	MP ALPHA2	PY	.01	.01	0	0
33	FACE3	PY	.007	.007	0	0
34	MP GAMMA1	PY	.01	.01	0	0
35	MP GAMMA3	PY	.01	.01	0	0
36	RAIL3	PY	.005	.005	0	0
37	FACE1	PY	.007	.007	0	0
38	MP BETA1	PY	.01	.01	0	0

Member Distributed Loads (BLC 9 : Wind Load (180)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
39	MP BETA3	PY	.01	.01	0	0
40	RAIL1	PY	.005	.005	0	0
41	MP BETA2	PY	.01	.01	0	0
42	MP GAMMA2	PY	.01	.01	0	0

Member Distributed Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.006	.006	0	0
2	GRAT SUP	PY	.005	.005	0	0
3	GRAT SUP2	PY	.005	.005	0	0
4	PL1	PY	.016	.016	0	0
5	SO2	PY	.006	.006	0	0
6	GRAT SUP3	PY	.005	.005	0	0
7	GRAT SUP4	PY	.005	.005	0	0
8	PL2	PY	.016	.016	0	0
9	SO3	PY	.006	.006	0	0
10	GRAT SUP5	PY	.005	.005	0	0
11	GRAT SUP6	PY	.005	.005	0	0
12	PL3	PY	.016	.016	0	0
13	FACE3	PY	.003	.003	0	0
14	MP ALPHA1	PY	.009	.009	0	0
15	MP ALPHA3	PY	.009	.009	0	0
16	RAIL3	PY	.002	.002	0	0
17	RAIL CON3	PY	.017	.017	0	0
18	RAIL CON1	PY	.017	.017	0	0
19	RAIL CON2	PY	.017	.017	0	0
20	CR1	PY	.009	.009	0	0
21	CR2	PY	.009	.009	0	0
22	CR3	PY	.009	.009	0	0
23	CR4	PY	.009	.009	0	0
24	CR5	PY	.009	.009	0	0
25	CR6	PY	.009	.009	0	0
26	PL4	PY	.006	.006	0	0
27	PL5	PY	.006	.006	0	0
28	PL6	PY	.006	.006	0	0
29	PL7	PY	.006	.006	0	0
30	PL8	PY	.006	.006	0	0
31	PL9	PY	.006	.006	0	0
32	MP ALPHA2	PY	.009	.009	0	0
33	FACE1	PY	.006	.006	0	0
34	MP GAMMA1	PY	.009	.009	0	0
35	MP GAMMA3	PY	.009	.009	0	0
36	RAIL1	PY	.004	.004	0	0
37	FACE2	PY	.006	.006	0	0
38	MP BETA1	PY	.009	.009	0	0
39	MP BETA3	PY	.009	.009	0	0
40	RAIL2	PY	.004	.004	0	0
41	MP BETA2	PY	.009	.009	0	0
42	MP GAMMA2	PY	.009	.009	0	0
43	SO1	PX	.004	.004	0	0
44	GRAT SUP	PX	.003	.003	0	0
45	GRAT SUP2	PX	.003	.003	0	0
46	PL1	PX	.009	.009	0	0
47	SO2	PX	.004	.004	0	0
48	GRAT SUP3	PX	.003	.003	0	0
49	GRAT SUP4	PX	.003	.003	0	0

Member Distributed Loads (BLC 10 : Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
50	PL2	PX	.009	.009	0	0
51	SO3	PX	.004	.004	0	0
52	GRAT SUP5	PX	.003	.003	0	0
53	GRAT SUP6	PX	.003	.003	0	0
54	PL3	PX	.009	.009	0	0
55	FACE3	PX	.002	.002	0	0
56	MP ALPHA1	PX	.005	.005	0	0
57	MP ALPHA3	PX	.005	.005	0	0
58	RAIL3	PX	.001	.001	0	0
59	RAIL CON3	PX	.01	.01	0	0
60	RAIL CON1	PX	.01	.01	0	0
61	RAIL CON2	PX	.01	.01	0	0
62	CR1	PX	.005	.005	0	0
63	CR2	PX	.005	.005	0	0
64	CR3	PX	.005	.005	0	0
65	CR4	PX	.005	.005	0	0
66	CR5	PX	.005	.005	0	0
67	CR6	PX	.005	.005	0	0
68	PL4	PX	.003	.003	0	0
69	PL5	PX	.003	.003	0	0
70	PL6	PX	.003	.003	0	0
71	PL7	PX	.003	.003	0	0
72	PL8	PX	.003	.003	0	0
73	PL9	PX	.003	.003	0	0
74	MP ALPHA2	PX	.005	.005	0	0
75	FACE1	PX	.003	.003	0	0
76	MP GAMMA1	PX	.005	.005	0	0
77	MP GAMMA3	PX	.005	.005	0	0
78	RAIL1	PX	.002	.002	0	0
79	FACE2	PX	.003	.003	0	0
80	MP BETA1	PX	.005	.005	0	0
81	MP BETA3	PX	.005	.005	0	0
82	RAIL2	PX	.002	.002	0	0
83	MP BETA2	PX	.005	.005	0	0
84	MP GAMMA2	PX	.005	.005	0	0

Member Distributed Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.004	.004	0	0
2	GRAT SUP	PY	.003	.003	0	0
3	GRAT SUP2	PY	.003	.003	0	0
4	PL1	PY	.009	.009	0	0
5	SO2	PY	.004	.004	0	0
6	GRAT SUP3	PY	.003	.003	0	0
7	GRAT SUP4	PY	.003	.003	0	0
8	PL2	PY	.009	.009	0	0
9	SO3	PY	.004	.004	0	0
10	GRAT SUP5	PY	.003	.003	0	0
11	GRAT SUP6	PY	.003	.003	0	0
12	PL3	PY	.009	.009	0	0
13	FACE3	PY	.002	.002	0	0
14	MP ALPHA1	PY	.005	.005	0	0
15	MP ALPHA3	PY	.005	.005	0	0
16	RAIL3	PY	.001	.001	0	0
17	RAIL CON3	PY	.01	.01	0	0
18	RAIL CON1	PY	.01	.01	0	0

Member Distributed Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	RAIL CON2	PY	.01	.01	0	0
20	CR1	PY	.005	.005	0	0
21	CR2	PY	.005	.005	0	0
22	CR3	PY	.005	.005	0	0
23	CR4	PY	.005	.005	0	0
24	CR5	PY	.005	.005	0	0
25	CR6	PY	.005	.005	0	0
26	PL4	PY	.003	.003	0	0
27	PL5	PY	.003	.003	0	0
28	PL6	PY	.003	.003	0	0
29	PL7	PY	.003	.003	0	0
30	PL8	PY	.003	.003	0	0
31	PL9	PY	.003	.003	0	0
32	MP ALPHA2	PY	.005	.005	0	0
33	FACE1	PY	.003	.003	0	0
34	MP GAMMA1	PY	.005	.005	0	0
35	MP GAMMA3	PY	.005	.005	0	0
36	RAIL1	PY	.002	.002	0	0
37	FACE2	PY	.003	.003	0	0
38	MP BETA1	PY	.005	.005	0	0
39	MP BETA3	PY	.005	.005	0	0
40	RAIL2	PY	.002	.002	0	0
41	MP BETA2	PY	.005	.005	0	0
42	MP GAMMA2	PY	.005	.005	0	0
43	SO1	PX	.006	.006	0	0
44	GRAT SUP	PX	.005	.005	0	0
45	GRAT SUP2	PX	.005	.005	0	0
46	PL1	PX	.016	.016	0	0
47	SO2	PX	.006	.006	0	0
48	GRAT SUP3	PX	.005	.005	0	0
49	GRAT SUP4	PX	.005	.005	0	0
50	PL2	PX	.016	.016	0	0
51	SO3	PX	.006	.006	0	0
52	GRAT SUP5	PX	.005	.005	0	0
53	GRAT SUP6	PX	.005	.005	0	0
54	PL3	PX	.016	.016	0	0
55	FACE3	PX	.003	.003	0	0
56	MP ALPHA1	PX	.009	.009	0	0
57	MP ALPHA3	PX	.009	.009	0	0
58	RAIL3	PX	.002	.002	0	0
59	RAIL CON3	PX	.017	.017	0	0
60	RAIL CON1	PX	.017	.017	0	0
61	RAIL CON2	PX	.017	.017	0	0
62	CR1	PX	.009	.009	0	0
63	CR2	PX	.009	.009	0	0
64	CR3	PX	.009	.009	0	0
65	CR4	PX	.009	.009	0	0
66	CR5	PX	.009	.009	0	0
67	CR6	PX	.009	.009	0	0
68	PL4	PX	.006	.006	0	0
69	PL5	PX	.006	.006	0	0
70	PL6	PX	.006	.006	0	0
71	PL7	PX	.006	.006	0	0
72	PL8	PX	.006	.006	0	0
73	PL9	PX	.006	.006	0	0
74	MP ALPHA2	PX	.009	.009	0	0
75	FACE1	PX	.006	.006	0	0

Member Distributed Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
76	MP GAMMA1	PX	.009	.009	0	0
77	MP GAMMA3	PX	.009	.009	0	0
78	RAIL1	PX	.004	.004	0	0
79	FACE2	PX	.006	.006	0	0
80	MP BETA1	PX	.009	.009	0	0
81	MP BETA3	PX	.009	.009	0	0
82	RAIL2	PX	.004	.004	0	0
83	MP BETA2	PX	.009	.009	0	0
84	MP GAMMA2	PX	.009	.009	0	0

Member Distributed Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PX	.007	.007	0	0
2	GRAT SUP	PX	.006	.006	0	0
3	GRAT SUP2	PX	.006	.006	0	0
4	PL1	PX	.019	.019	0	0
5	SO2	PX	.007	.007	0	0
6	GRAT SUP3	PX	.006	.006	0	0
7	GRAT SUP4	PX	.006	.006	0	0
8	PL2	PX	.019	.019	0	0
9	SO3	PX	.007	.007	0	0
10	GRAT SUP5	PX	.006	.006	0	0
11	GRAT SUP6	PX	.006	.006	0	0
12	PL3	PX	.019	.019	0	0
13	FACE3	PX	.003	.003	0	0
14	MP ALPHA1	PX	.01	.01	0	0
15	MP ALPHA3	PX	.01	.01	0	0
16	RAIL3	PX	.002	.002	0	0
17	RAIL CON3	PX	.019	.019	0	0
18	RAIL CON1	PX	.019	.019	0	0
19	RAIL CON2	PX	.019	.019	0	0
20	CR1	PX	.01	.01	0	0
21	CR2	PX	.01	.01	0	0
22	CR3	PX	.01	.01	0	0
23	CR4	PX	.01	.01	0	0
24	CR5	PX	.01	.01	0	0
25	CR6	PX	.01	.01	0	0
26	PL4	PX	.007	.007	0	0
27	PL5	PX	.007	.007	0	0
28	PL6	PX	.007	.007	0	0
29	PL7	PX	.007	.007	0	0
30	PL8	PX	.007	.007	0	0
31	PL9	PX	.007	.007	0	0
32	MP ALPHA2	PX	.01	.01	0	0
33	FACE1	PX	.007	.007	0	0
34	MP GAMMA1	PX	.01	.01	0	0
35	MP GAMMA3	PX	.01	.01	0	0
36	RAIL1	PX	.005	.005	0	0
37	FACE2	PX	.007	.007	0	0
38	MP BETA1	PX	.01	.01	0	0
39	MP BETA3	PX	.01	.01	0	0
40	RAIL2	PX	.005	.005	0	0
41	MP BETA2	PX	.01	.01	0	0
42	MP GAMMA2	PX	.01	.01	0	0

Member Distributed Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.004	-.004	0	0
2	GRAT SUP	PY	-.003	-.003	0	0
3	GRAT SUP2	PY	-.003	-.003	0	0
4	PL1	PY	-.009	-.009	0	0
5	SO2	PY	-.004	-.004	0	0
6	GRAT SUP3	PY	-.003	-.003	0	0
7	GRAT SUP4	PY	-.003	-.003	0	0
8	PL2	PY	-.009	-.009	0	0
9	SO3	PY	-.004	-.004	0	0
10	GRAT SUP5	PY	-.003	-.003	0	0
11	GRAT SUP6	PY	-.003	-.003	0	0
12	PL3	PY	-.009	-.009	0	0
13	FACE3	PY	-.002	-.002	0	0
14	MP ALPHA1	PY	-.005	-.005	0	0
15	MP ALPHA3	PY	-.005	-.005	0	0
16	RAIL3	PY	-.001	-.001	0	0
17	RAIL CON3	PY	-.01	-.01	0	0
18	RAIL CON1	PY	-.01	-.01	0	0
19	RAIL CON2	PY	-.01	-.01	0	0
20	CR1	PY	-.005	-.005	0	0
21	CR2	PY	-.005	-.005	0	0
22	CR3	PY	-.005	-.005	0	0
23	CR4	PY	-.005	-.005	0	0
24	CR5	PY	-.005	-.005	0	0
25	CR6	PY	-.005	-.005	0	0
26	PL4	PY	-.003	-.003	0	0
27	PL5	PY	-.003	-.003	0	0
28	PL6	PY	-.003	-.003	0	0
29	PL7	PY	-.003	-.003	0	0
30	PL8	PY	-.003	-.003	0	0
31	PL9	PY	-.003	-.003	0	0
32	MP ALPHA2	PY	-.005	-.005	0	0
33	FACE1	PY	-.003	-.003	0	0
34	MP GAMMA1	PY	-.005	-.005	0	0
35	MP GAMMA3	PY	-.005	-.005	0	0
36	RAIL1	PY	-.002	-.002	0	0
37	FACE2	PY	-.003	-.003	0	0
38	MP BETA1	PY	-.005	-.005	0	0
39	MP BETA3	PY	-.005	-.005	0	0
40	RAIL2	PY	-.002	-.002	0	0
41	MP BETA2	PY	-.005	-.005	0	0
42	MP GAMMA2	PY	-.005	-.005	0	0
43	SO1	PX	.006	.006	0	0
44	GRAT SUP	PX	.005	.005	0	0
45	GRAT SUP2	PX	.005	.005	0	0
46	PL1	PX	.016	.016	0	0
47	SO2	PX	.006	.006	0	0
48	GRAT SUP3	PX	.005	.005	0	0
49	GRAT SUP4	PX	.005	.005	0	0
50	PL2	PX	.016	.016	0	0
51	SO3	PX	.006	.006	0	0
52	GRAT SUP5	PX	.005	.005	0	0
53	GRAT SUP6	PX	.005	.005	0	0
54	PL3	PX	.016	.016	0	0
55	FACE3	PX	.003	.003	0	0
56	MP ALPHA1	PX	.009	.009	0	0
57	MP ALPHA3	PX	.009	.009	0	0

Member Distributed Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
58	RAIL3	PX	.002	.002	0	0
59	RAIL CON3	PX	.017	.017	0	0
60	RAIL CON1	PX	.017	.017	0	0
61	RAIL CON2	PX	.017	.017	0	0
62	CR1	PX	.009	.009	0	0
63	CR2	PX	.009	.009	0	0
64	CR3	PX	.009	.009	0	0
65	CR4	PX	.009	.009	0	0
66	CR5	PX	.009	.009	0	0
67	CR6	PX	.009	.009	0	0
68	PL4	PX	.006	.006	0	0
69	PL5	PX	.006	.006	0	0
70	PL6	PX	.006	.006	0	0
71	PL7	PX	.006	.006	0	0
72	PL8	PX	.006	.006	0	0
73	PL9	PX	.006	.006	0	0
74	MP ALPHA2	PX	.009	.009	0	0
75	FACE1	PX	.006	.006	0	0
76	MP GAMMA1	PX	.009	.009	0	0
77	MP GAMMA3	PX	.009	.009	0	0
78	RAIL1	PX	.004	.004	0	0
79	FACE2	PX	.006	.006	0	0
80	MP BETA1	PX	.009	.009	0	0
81	MP BETA3	PX	.009	.009	0	0
82	RAIL2	PX	.004	.004	0	0
83	MP BETA2	PX	.009	.009	0	0
84	MP GAMMA2	PX	.009	.009	0	0

Member Distributed Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.006	-.006	0	0
2	GRAT SUP	PY	-.005	-.005	0	0
3	GRAT SUP2	PY	-.005	-.005	0	0
4	PL1	PY	-.016	-.016	0	0
5	SO2	PY	-.006	-.006	0	0
6	GRAT SUP3	PY	-.005	-.005	0	0
7	GRAT SUP4	PY	-.005	-.005	0	0
8	PL2	PY	-.016	-.016	0	0
9	SO3	PY	-.006	-.006	0	0
10	GRAT SUP5	PY	-.005	-.005	0	0
11	GRAT SUP6	PY	-.005	-.005	0	0
12	PL3	PY	-.016	-.016	0	0
13	FACE1	PY	-.003	-.003	0	0
14	MP ALPHA1	PY	-.009	-.009	0	0
15	MP ALPHA3	PY	-.009	-.009	0	0
16	RAIL1	PY	-.002	-.002	0	0
17	RAIL CON3	PY	-.017	-.017	0	0
18	RAIL CON1	PY	-.017	-.017	0	0
19	RAIL CON2	PY	-.017	-.017	0	0
20	CR1	PY	-.009	-.009	0	0
21	CR2	PY	-.009	-.009	0	0
22	CR3	PY	-.009	-.009	0	0
23	CR4	PY	-.009	-.009	0	0
24	CR5	PY	-.009	-.009	0	0
25	CR6	PY	-.009	-.009	0	0
26	PL4	PY	-.006	-.006	0	0

Member Distributed Loads (BLC 14 : Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
27	PL5	PY	-.006	-.006	0	0
28	PL6	PY	-.006	-.006	0	0
29	PL7	PY	-.006	-.006	0	0
30	PL8	PY	-.006	-.006	0	0
31	PL9	PY	-.006	-.006	0	0
32	MP ALPHA2	PY	-.009	-.009	0	0
33	FACE3	PY	-.006	-.006	0	0
34	MP GAMMA1	PY	-.009	-.009	0	0
35	MP GAMMA3	PY	-.009	-.009	0	0
36	RAIL3	PY	-.004	-.004	0	0
37	FACE2	PY	-.006	-.006	0	0
38	MP BETA1	PY	-.009	-.009	0	0
39	MP BETA3	PY	-.009	-.009	0	0
40	RAIL2	PY	-.004	-.004	0	0
41	MP BETA2	PY	-.009	-.009	0	0
42	MP GAMMA2	PY	-.009	-.009	0	0
43	SO1	PX	.004	.004	0	0
44	GRAT SUP	PX	.003	.003	0	0
45	GRAT SUP2	PX	.003	.003	0	0
46	PL1	PX	.009	.009	0	0
47	SO2	PX	.004	.004	0	0
48	GRAT SUP3	PX	.003	.003	0	0
49	GRAT SUP4	PX	.003	.003	0	0
50	PL2	PX	.009	.009	0	0
51	SO3	PX	.004	.004	0	0
52	GRAT SUP5	PX	.003	.003	0	0
53	GRAT SUP6	PX	.003	.003	0	0
54	PL3	PX	.009	.009	0	0
55	FACE1	PX	.002	.002	0	0
56	MP ALPHA1	PX	.005	.005	0	0
57	MP ALPHA3	PX	.005	.005	0	0
58	RAIL1	PX	.001	.001	0	0
59	RAIL CON3	PX	.01	.01	0	0
60	RAIL CON1	PX	.01	.01	0	0
61	RAIL CON2	PX	.01	.01	0	0
62	CR1	PX	.005	.005	0	0
63	CR2	PX	.005	.005	0	0
64	CR3	PX	.005	.005	0	0
65	CR4	PX	.005	.005	0	0
66	CR5	PX	.005	.005	0	0
67	CR6	PX	.005	.005	0	0
68	PL4	PX	.003	.003	0	0
69	PL5	PX	.003	.003	0	0
70	PL6	PX	.003	.003	0	0
71	PL7	PX	.003	.003	0	0
72	PL8	PX	.003	.003	0	0
73	PL9	PX	.003	.003	0	0
74	MP ALPHA2	PX	.005	.005	0	0
75	FACE3	PX	.003	.003	0	0
76	MP GAMMA1	PX	.005	.005	0	0
77	MP GAMMA3	PX	.005	.005	0	0
78	RAIL3	PX	.002	.002	0	0
79	FACE2	PX	.003	.003	0	0
80	MP BETA1	PX	.005	.005	0	0
81	MP BETA3	PX	.005	.005	0	0
82	RAIL2	PX	.002	.002	0	0
83	MP BETA2	PX	.005	.005	0	0

Member Distributed Loads (BLC 14 : Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
84	MP GAMMA2	PX	.005	.005	0	0

Member Distributed Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.000471	-.000471	0	0
2	GRAT SUP	PY	-.000377	-.000377	0	0
3	GRAT SUP2	PY	-.000377	-.000377	0	0
4	PL1	PY	-.001	-.001	0	0
5	SO2	PY	-.000471	-.000471	0	0
6	GRAT SUP3	PY	-.000377	-.000377	0	0
7	GRAT SUP4	PY	-.000377	-.000377	0	0
8	PL2	PY	-.001	-.001	0	0
9	SO3	PY	-.000471	-.000471	0	0
10	GRAT SUP5	PY	-.000377	-.000377	0	0
11	GRAT SUP6	PY	-.000377	-.000377	0	0
12	PL3	PY	-.001	-.001	0	0
13	FACE1	PY	-.000226	-.000226	0	0
14	MP ALPHA1	PY	-.000639	-.000639	0	0
15	MP ALPHA3	PY	-.000639	-.000639	0	0
16	RAIL1	PY	-.000158	-.000158	0	0
17	RAIL CON3	PY	-.001	-.001	0	0
18	RAIL CON1	PY	-.001	-.001	0	0
19	RAIL CON2	PY	-.001	-.001	0	0
20	CR1	PY	-.000637	-.000637	0	0
21	CR2	PY	-.000637	-.000637	0	0
22	CR3	PY	-.000637	-.000637	0	0
23	CR4	PY	-.000637	-.000637	0	0
24	CR5	PY	-.000637	-.000637	0	0
25	CR6	PY	-.000637	-.000637	0	0
26	PL4	PY	-.000447	-.000447	0	0
27	PL5	PY	-.000447	-.000447	0	0
28	PL6	PY	-.000447	-.000447	0	0
29	PL7	PY	-.000447	-.000447	0	0
30	PL8	PY	-.000447	-.000447	0	0
31	PL9	PY	-.000447	-.000447	0	0
32	MP ALPHA2	PY	-.000639	-.000639	0	0
33	FACE3	PY	-.000452	-.000452	0	0
34	MP GAMMA1	PY	-.000639	-.000639	0	0
35	MP GAMMA3	PY	-.000639	-.000639	0	0
36	RAIL3	PY	-.000316	-.000316	0	0
37	FACE2	PY	-.000452	-.000452	0	0
38	MP BETA1	PY	-.000639	-.000639	0	0
39	MP BETA3	PY	-.000639	-.000639	0	0
40	RAIL2	PY	-.000316	-.000316	0	0
41	MP BETA2	PY	-.000639	-.000639	0	0
42	MP GAMMA2	PY	-.000639	-.000639	0	0

Member Distributed Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.000408	-.000408	0	0
2	GRAT SUP	PY	-.000326	-.000326	0	0
3	GRAT SUP2	PY	-.000326	-.000326	0	0
4	PL1	PY	-.001	-.001	0	0
5	SO2	PY	-.000408	-.000408	0	0
6	GRAT SUP3	PY	-.000326	-.000326	0	0
7	GRAT SUP4	PY	-.000326	-.000326	0	0

Member Distributed Loads (BLC 16 : Maintanence (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
8	PL2	PY	-.001	-.001	0	0
9	SO3	PY	-.000408	-.000408	0	0
10	GRAT SUP5	PY	-.000326	-.000326	0	0
11	GRAT SUP6	PY	-.000326	-.000326	0	0
12	PL3	PY	-.001	-.001	0	0
13	FACE1	PY	-.000196	-.000196	0	0
14	MP ALPHA1	PY	-.000553	-.000553	0	0
15	MP ALPHA3	PY	-.000553	-.000553	0	0
16	RAIL1	PY	-.000137	-.000137	0	0
17	RAIL CON3	PY	-.001	-.001	0	0
18	RAIL CON1	PY	-.001	-.001	0	0
19	RAIL CON2	PY	-.001	-.001	0	0
20	CR1	PY	-.000551	-.000551	0	0
21	CR2	PY	-.000551	-.000551	0	0
22	CR3	PY	-.000551	-.000551	0	0
23	CR4	PY	-.000551	-.000551	0	0
24	CR5	PY	-.000551	-.000551	0	0
25	CR6	PY	-.000551	-.000551	0	0
26	PL4	PY	-.000387	-.000387	0	0
27	PL5	PY	-.000387	-.000387	0	0
28	PL6	PY	-.000387	-.000387	0	0
29	PL7	PY	-.000387	-.000387	0	0
30	PL8	PY	-.000387	-.000387	0	0
31	PL9	PY	-.000387	-.000387	0	0
32	MP ALPHA2	PY	-.000553	-.000553	0	0
33	FACE3	PY	-.000392	-.000392	0	0
34	MP GAMMA1	PY	-.000553	-.000553	0	0
35	MP GAMMA3	PY	-.000553	-.000553	0	0
36	RAIL3	PY	-.000273	-.000273	0	0
37	FACE2	PY	-.000392	-.000392	0	0
38	MP BETA1	PY	-.000553	-.000553	0	0
39	MP BETA3	PY	-.000553	-.000553	0	0
40	RAIL2	PY	-.000273	-.000273	0	0
41	MP BETA2	PY	-.000553	-.000553	0	0
42	MP GAMMA2	PY	-.000553	-.000553	0	0
43	SO1	PX	-.000235	-.000235	0	0
44	GRAT SUP	PX	-.000188	-.000188	0	0
45	GRAT SUP2	PX	-.000188	-.000188	0	0
46	PL1	PX	-.000612	-.000612	0	0
47	SO2	PX	-.000235	-.000235	0	0
48	GRAT SUP3	PX	-.000188	-.000188	0	0
49	GRAT SUP4	PX	-.000188	-.000188	0	0
50	PL2	PX	-.000612	-.000612	0	0
51	SO3	PX	-.000235	-.000235	0	0
52	GRAT SUP5	PX	-.000188	-.000188	0	0
53	GRAT SUP6	PX	-.000188	-.000188	0	0
54	PL3	PX	-.000612	-.000612	0	0
55	FACE1	PX	-.000113	-.000113	0	0
56	MP ALPHA1	PX	-.000319	-.000319	0	0
57	MP ALPHA3	PX	-.000319	-.000319	0	0
58	RAIL1	PX	-7.9e-5	-7.9e-5	0	0
59	RAIL CON3	PX	-.000622	-.000622	0	0
60	RAIL CON1	PX	-.000622	-.000622	0	0
61	RAIL CON2	PX	-.000622	-.000622	0	0
62	CR1	PX	-.000318	-.000318	0	0
63	CR2	PX	-.000318	-.000318	0	0
64	CR3	PX	-.000318	-.000318	0	0

Member Distributed Loads (BLC 16 : Maintanence (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
65	CR4	PX	-.000318	-.000318	0	0
66	CR5	PX	-.000318	-.000318	0	0
67	CR6	PX	-.000318	-.000318	0	0
68	PL4	PX	-.000224	-.000224	0	0
69	PL5	PX	-.000224	-.000224	0	0
70	PL6	PX	-.000224	-.000224	0	0
71	PL7	PX	-.000224	-.000224	0	0
72	PL8	PX	-.000224	-.000224	0	0
73	PL9	PX	-.000224	-.000224	0	0
74	MP ALPHA2	PX	-.000319	-.000319	0	0
75	FACE3	PX	-.000226	-.000226	0	0
76	MP GAMMA1	PX	-.000319	-.000319	0	0
77	MP GAMMA3	PX	-.000319	-.000319	0	0
78	RAIL3	PX	-.000158	-.000158	0	0
79	FACE2	PX	-.000226	-.000226	0	0
80	MP BETA1	PX	-.000319	-.000319	0	0
81	MP BETA3	PX	-.000319	-.000319	0	0
82	RAIL2	PX	-.000158	-.000158	0	0
83	MP BETA2	PX	-.000319	-.000319	0	0
84	MP GAMMA2	PX	-.000319	-.000319	0	0

Member Distributed Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.000235	-.000235	0	0
2	GRAT SUP	PY	-.000188	-.000188	0	0
3	GRAT SUP2	PY	-.000188	-.000188	0	0
4	PL1	PY	-.000612	-.000612	0	0
5	SO2	PY	-.000235	-.000235	0	0
6	GRAT SUP3	PY	-.000188	-.000188	0	0
7	GRAT SUP4	PY	-.000188	-.000188	0	0
8	PL2	PY	-.000612	-.000612	0	0
9	SO3	PY	-.000235	-.000235	0	0
10	GRAT SUP5	PY	-.000188	-.000188	0	0
11	GRAT SUP6	PY	-.000188	-.000188	0	0
12	PL3	PY	-.000612	-.000612	0	0
13	FACE1	PY	-.000113	-.000113	0	0
14	MP ALPHA1	PY	-.000319	-.000319	0	0
15	MP ALPHA3	PY	-.000319	-.000319	0	0
16	RAIL1	PY	-7.9e-5	-7.9e-5	0	0
17	RAIL CON3	PY	-.000622	-.000622	0	0
18	RAIL CON1	PY	-.000622	-.000622	0	0
19	RAIL CON2	PY	-.000622	-.000622	0	0
20	CR1	PY	-.000318	-.000318	0	0
21	CR2	PY	-.000318	-.000318	0	0
22	CR3	PY	-.000318	-.000318	0	0
23	CR4	PY	-.000318	-.000318	0	0
24	CR5	PY	-.000318	-.000318	0	0
25	CR6	PY	-.000318	-.000318	0	0
26	PL4	PY	-.000224	-.000224	0	0
27	PL5	PY	-.000224	-.000224	0	0
28	PL6	PY	-.000224	-.000224	0	0
29	PL7	PY	-.000224	-.000224	0	0
30	PL8	PY	-.000224	-.000224	0	0
31	PL9	PY	-.000224	-.000224	0	0
32	MP ALPHA2	PY	-.000319	-.000319	0	0
33	FACE3	PY	-.000226	-.000226	0	0

Member Distributed Loads (BLC 17 : Maintanence (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
34	MP GAMMA1	PY	-.000319	-.000319	0	0
35	MP GAMMA3	PY	-.000319	-.000319	0	0
36	RAIL3	PY	-.000158	-.000158	0	0
37	FACE2	PY	-.000226	-.000226	0	0
38	MP BETA1	PY	-.000319	-.000319	0	0
39	MP BETA3	PY	-.000319	-.000319	0	0
40	RAIL2	PY	-.000158	-.000158	0	0
41	MP BETA2	PY	-.000319	-.000319	0	0
42	MP GAMMA2	PY	-.000319	-.000319	0	0
43	SO1	PX	-.000408	-.000408	0	0
44	GRAT SUP	PX	-.000326	-.000326	0	0
45	GRAT SUP2	PX	-.000326	-.000326	0	0
46	PL1	PX	-.001	-.001	0	0
47	SO2	PX	-.000408	-.000408	0	0
48	GRAT SUP3	PX	-.000326	-.000326	0	0
49	GRAT SUP4	PX	-.000326	-.000326	0	0
50	PL2	PX	-.001	-.001	0	0
51	SO3	PX	-.000408	-.000408	0	0
52	GRAT SUP5	PX	-.000326	-.000326	0	0
53	GRAT SUP6	PX	-.000326	-.000326	0	0
54	PL3	PX	-.001	-.001	0	0
55	FACE1	PX	-.000196	-.000196	0	0
56	MP ALPHA1	PX	-.000553	-.000553	0	0
57	MP ALPHA3	PX	-.000553	-.000553	0	0
58	RAIL1	PX	-.000137	-.000137	0	0
59	RAIL CON3	PX	-.001	-.001	0	0
60	RAIL CON1	PX	-.001	-.001	0	0
61	RAIL CON2	PX	-.001	-.001	0	0
62	CR1	PX	-.000551	-.000551	0	0
63	CR2	PX	-.000551	-.000551	0	0
64	CR3	PX	-.000551	-.000551	0	0
65	CR4	PX	-.000551	-.000551	0	0
66	CR5	PX	-.000551	-.000551	0	0
67	CR6	PX	-.000551	-.000551	0	0
68	PL4	PX	-.000387	-.000387	0	0
69	PL5	PX	-.000387	-.000387	0	0
70	PL6	PX	-.000387	-.000387	0	0
71	PL7	PX	-.000387	-.000387	0	0
72	PL8	PX	-.000387	-.000387	0	0
73	PL9	PX	-.000387	-.000387	0	0
74	MP ALPHA2	PX	-.000553	-.000553	0	0
75	FACE3	PX	-.000392	-.000392	0	0
76	MP GAMMA1	PX	-.000553	-.000553	0	0
77	MP GAMMA3	PX	-.000553	-.000553	0	0
78	RAIL3	PX	-.000273	-.000273	0	0
79	FACE2	PX	-.000392	-.000392	0	0
80	MP BETA1	PX	-.000553	-.000553	0	0
81	MP BETA3	PX	-.000553	-.000553	0	0
82	RAIL2	PX	-.000273	-.000273	0	0
83	MP BETA2	PX	-.000553	-.000553	0	0
84	MP GAMMA2	PX	-.000553	-.000553	0	0

Member Distributed Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PX	-.000471	-.000471	0	0
2	GRAT SUP	PX	-.000377	-.000377	0	0

Member Distributed Loads (BLC 18 : Maintanence (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
3	GRAT SUP2	PX	-.000377	-.000377	0	0
4	PL1	PX	-.001	-.001	0	0
5	SO2	PX	-.000471	-.000471	0	0
6	GRAT SUP3	PX	-.000377	-.000377	0	0
7	GRAT SUP4	PX	-.000377	-.000377	0	0
8	PL2	PX	-.001	-.001	0	0
9	SO3	PX	-.000471	-.000471	0	0
10	GRAT SUP5	PX	-.000377	-.000377	0	0
11	GRAT SUP6	PX	-.000377	-.000377	0	0
12	PL3	PX	-.001	-.001	0	0
13	FACE2	PX	-.000226	-.000226	0	0
14	MP ALPHA1	PX	-.000639	-.000639	0	0
15	MP ALPHA3	PX	-.000639	-.000639	0	0
16	RAIL2	PX	-.000158	-.000158	0	0
17	RAIL CON3	PX	-.001	-.001	0	0
18	RAIL CON1	PX	-.001	-.001	0	0
19	RAIL CON2	PX	-.001	-.001	0	0
20	CR1	PX	-.000637	-.000637	0	0
21	CR2	PX	-.000637	-.000637	0	0
22	CR3	PX	-.000637	-.000637	0	0
23	CR4	PX	-.000637	-.000637	0	0
24	CR5	PX	-.000637	-.000637	0	0
25	CR6	PX	-.000637	-.000637	0	0
26	PL4	PX	-.000447	-.000447	0	0
27	PL5	PX	-.000447	-.000447	0	0
28	PL6	PX	-.000447	-.000447	0	0
29	PL7	PX	-.000447	-.000447	0	0
30	PL8	PX	-.000447	-.000447	0	0
31	PL9	PX	-.000447	-.000447	0	0
32	MP ALPHA2	PX	-.000639	-.000639	0	0
33	FACE3	PX	-.000452	-.000452	0	0
34	MP GAMMA1	PX	-.000639	-.000639	0	0
35	MP GAMMA3	PX	-.000639	-.000639	0	0
36	RAIL3	PX	-.000316	-.000316	0	0
37	FACE1	PX	-.000452	-.000452	0	0
38	MP BETA1	PX	-.000639	-.000639	0	0
39	MP BETA3	PX	-.000639	-.000639	0	0
40	RAIL1	PX	-.000316	-.000316	0	0
41	MP BETA2	PX	-.000639	-.000639	0	0
42	MP GAMMA2	PX	-.000639	-.000639	0	0

Member Distributed Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.000235	.000235	0	0
2	GRAT SUP	PY	.000188	.000188	0	0
3	GRAT SUP2	PY	.000188	.000188	0	0
4	PL1	PY	.000612	.000612	0	0
5	SO2	PY	.000235	.000235	0	0
6	GRAT SUP3	PY	.000188	.000188	0	0
7	GRAT SUP4	PY	.000188	.000188	0	0
8	PL2	PY	.000612	.000612	0	0
9	SO3	PY	.000235	.000235	0	0
10	GRAT SUP5	PY	.000188	.000188	0	0
11	GRAT SUP6	PY	.000188	.000188	0	0
12	PL3	PY	.000612	.000612	0	0
13	FACE2	PY	.000113	.000113	0	0

Member Distributed Loads (BLC 19 : Maintanence (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	MP ALPHA1	PY	.000319	.000319	0	0
15	MP ALPHA3	PY	.000319	.000319	0	0
16	RAIL2	PY	7.9e-5	7.9e-5	0	0
17	RAIL CON3	PY	.000622	.000622	0	0
18	RAIL CON1	PY	.000622	.000622	0	0
19	RAIL CON2	PY	.000622	.000622	0	0
20	CR1	PY	.000318	.000318	0	0
21	CR2	PY	.000318	.000318	0	0
22	CR3	PY	.000318	.000318	0	0
23	CR4	PY	.000318	.000318	0	0
24	CR5	PY	.000318	.000318	0	0
25	CR6	PY	.000318	.000318	0	0
26	PL4	PY	.000224	.000224	0	0
27	PL5	PY	.000224	.000224	0	0
28	PL6	PY	.000224	.000224	0	0
29	PL7	PY	.000224	.000224	0	0
30	PL8	PY	.000224	.000224	0	0
31	PL9	PY	.000224	.000224	0	0
32	MP ALPHA2	PY	.000319	.000319	0	0
33	FACE3	PY	.000226	.000226	0	0
34	MP GAMMA1	PY	.000319	.000319	0	0
35	MP GAMMA3	PY	.000319	.000319	0	0
36	RAIL3	PY	.000158	.000158	0	0
37	FACE1	PY	.000226	.000226	0	0
38	MP BETA1	PY	.000319	.000319	0	0
39	MP BETA3	PY	.000319	.000319	0	0
40	RAIL1	PY	.000158	.000158	0	0
41	MP BETA2	PY	.000319	.000319	0	0
42	MP GAMMA2	PY	.000319	.000319	0	0
43	SO1	PX	-.000408	-.000408	0	0
44	GRAT SUP	PX	-.000326	-.000326	0	0
45	GRAT SUP2	PX	-.000326	-.000326	0	0
46	PL1	PX	-.001	-.001	0	0
47	SO2	PX	-.000408	-.000408	0	0
48	GRAT SUP3	PX	-.000326	-.000326	0	0
49	GRAT SUP4	PX	-.000326	-.000326	0	0
50	PL2	PX	-.001	-.001	0	0
51	SO3	PX	-.000408	-.000408	0	0
52	GRAT SUP5	PX	-.000326	-.000326	0	0
53	GRAT SUP6	PX	-.000326	-.000326	0	0
54	PL3	PX	-.001	-.001	0	0
55	FACE2	PX	-.000196	-.000196	0	0
56	MP ALPHA1	PX	-.000553	-.000553	0	0
57	MP ALPHA3	PX	-.000553	-.000553	0	0
58	RAIL2	PX	-.000137	-.000137	0	0
59	RAIL CON3	PX	-.001	-.001	0	0
60	RAIL CON1	PX	-.001	-.001	0	0
61	RAIL CON2	PX	-.001	-.001	0	0
62	CR1	PX	-.000551	-.000551	0	0
63	CR2	PX	-.000551	-.000551	0	0
64	CR3	PX	-.000551	-.000551	0	0
65	CR4	PX	-.000551	-.000551	0	0
66	CR5	PX	-.000551	-.000551	0	0
67	CR6	PX	-.000551	-.000551	0	0
68	PL4	PX	-.000387	-.000387	0	0
69	PL5	PX	-.000387	-.000387	0	0
70	PL6	PX	-.000387	-.000387	0	0

Member Distributed Loads (BLC 19 : Maintanence (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
71	PL7	PX	-.000387	-.000387	0	0
72	PL8	PX	-.000387	-.000387	0	0
73	PL9	PX	-.000387	-.000387	0	0
74	MP ALPHA2	PX	-.000553	-.000553	0	0
75	FACE3	PX	-.000392	-.000392	0	0
76	MP GAMMA1	PX	-.000553	-.000553	0	0
77	MP GAMMA3	PX	-.000553	-.000553	0	0
78	RAIL3	PX	-.000273	-.000273	0	0
79	FACE1	PX	-.000392	-.000392	0	0
80	MP BETA1	PX	-.000553	-.000553	0	0
81	MP BETA3	PX	-.000553	-.000553	0	0
82	RAIL1	PX	-.000273	-.000273	0	0
83	MP BETA2	PX	-.000553	-.000553	0	0
84	MP GAMMA2	PX	-.000553	-.000553	0	0

Member Distributed Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.000408	.000408	0	0
2	GRAT SUP	PY	.000326	.000326	0	0
3	GRAT SUP2	PY	.000326	.000326	0	0
4	PL1	PY	.001	.001	0	0
5	SO2	PY	.000408	.000408	0	0
6	GRAT SUP3	PY	.000326	.000326	0	0
7	GRAT SUP4	PY	.000326	.000326	0	0
8	PL2	PY	.001	.001	0	0
9	SO3	PY	.000408	.000408	0	0
10	GRAT SUP5	PY	.000326	.000326	0	0
11	GRAT SUP6	PY	.000326	.000326	0	0
12	PL3	PY	.001	.001	0	0
13	FACE2	PY	.000196	.000196	0	0
14	MP ALPHA1	PY	.000553	.000553	0	0
15	MP ALPHA3	PY	.000553	.000553	0	0
16	RAIL2	PY	.000137	.000137	0	0
17	RAIL CON3	PY	.001	.001	0	0
18	RAIL CON1	PY	.001	.001	0	0
19	RAIL CON2	PY	.001	.001	0	0
20	CR1	PY	.000551	.000551	0	0
21	CR2	PY	.000551	.000551	0	0
22	CR3	PY	.000551	.000551	0	0
23	CR4	PY	.000551	.000551	0	0
24	CR5	PY	.000551	.000551	0	0
25	CR6	PY	.000551	.000551	0	0
26	PL4	PY	.000387	.000387	0	0
27	PL5	PY	.000387	.000387	0	0
28	PL6	PY	.000387	.000387	0	0
29	PL7	PY	.000387	.000387	0	0
30	PL8	PY	.000387	.000387	0	0
31	PL9	PY	.000387	.000387	0	0
32	MP ALPHA2	PY	.000553	.000553	0	0
33	FACE3	PY	.000392	.000392	0	0
34	MP GAMMA1	PY	.000553	.000553	0	0
35	MP GAMMA3	PY	.000553	.000553	0	0
36	RAIL3	PY	.000273	.000273	0	0
37	FACE1	PY	.000392	.000392	0	0
38	MP BETA1	PY	.000553	.000553	0	0
39	MP BETA3	PY	.000553	.000553	0	0

Member Distributed Loads (BLC 20 : Maintanence (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
40	RAIL1	PY	.000273	.000273	0	0
41	MP BETA2	PY	.000553	.000553	0	0
42	MP GAMMA2	PY	.000553	.000553	0	0
43	SO1	PX	-.000235	-.000235	0	0
44	GRAT SUP	PX	-.000188	-.000188	0	0
45	GRAT SUP2	PX	-.000188	-.000188	0	0
46	PL1	PX	-.000612	-.000612	0	0
47	SO2	PX	-.000235	-.000235	0	0
48	GRAT SUP3	PX	-.000188	-.000188	0	0
49	GRAT SUP4	PX	-.000188	-.000188	0	0
50	PL2	PX	-.000612	-.000612	0	0
51	SO3	PX	-.000235	-.000235	0	0
52	GRAT SUP5	PX	-.000188	-.000188	0	0
53	GRAT SUP6	PX	-.000188	-.000188	0	0
54	PL3	PX	-.000612	-.000612	0	0
55	FACE2	PX	-.000113	-.000113	0	0
56	MP ALPHA1	PX	-.000319	-.000319	0	0
57	MP ALPHA3	PX	-.000319	-.000319	0	0
58	RAIL2	PX	-7.9e-5	-7.9e-5	0	0
59	RAIL CON3	PX	-.000622	-.000622	0	0
60	RAIL CON1	PX	-.000622	-.000622	0	0
61	RAIL CON2	PX	-.000622	-.000622	0	0
62	CR1	PX	-.000318	-.000318	0	0
63	CR2	PX	-.000318	-.000318	0	0
64	CR3	PX	-.000318	-.000318	0	0
65	CR4	PX	-.000318	-.000318	0	0
66	CR5	PX	-.000318	-.000318	0	0
67	CR6	PX	-.000318	-.000318	0	0
68	PL4	PX	-.000224	-.000224	0	0
69	PL5	PX	-.000224	-.000224	0	0
70	PL6	PX	-.000224	-.000224	0	0
71	PL7	PX	-.000224	-.000224	0	0
72	PL8	PX	-.000224	-.000224	0	0
73	PL9	PX	-.000224	-.000224	0	0
74	MP ALPHA2	PX	-.000319	-.000319	0	0
75	FACE3	PX	-.000226	-.000226	0	0
76	MP GAMMA1	PX	-.000319	-.000319	0	0
77	MP GAMMA3	PX	-.000319	-.000319	0	0
78	RAIL3	PX	-.000158	-.000158	0	0
79	FACE1	PX	-.000226	-.000226	0	0
80	MP BETA1	PX	-.000319	-.000319	0	0
81	MP BETA3	PX	-.000319	-.000319	0	0
82	RAIL1	PX	-.000158	-.000158	0	0
83	MP BETA2	PX	-.000319	-.000319	0	0
84	MP GAMMA2	PX	-.000319	-.000319	0	0

Member Distributed Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.000471	.000471	0	0
2	GRAT SUP	PY	.000377	.000377	0	0
3	GRAT SUP2	PY	.000377	.000377	0	0
4	PL1	PY	.001	.001	0	0
5	SO2	PY	.000471	.000471	0	0
6	GRAT SUP3	PY	.000377	.000377	0	0
7	GRAT SUP4	PY	.000377	.000377	0	0
8	PL2	PY	.001	.001	0	0

Member Distributed Loads (BLC 21 : Maintanence (180)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
9	SO3	PY	.000471	.000471	0	0
10	GRAT SUP5	PY	.000377	.000377	0	0
11	GRAT SUP6	PY	.000377	.000377	0	0
12	PL3	PY	.001	.001	0	0
13	FACE2	PY	.000226	.000226	0	0
14	MP ALPHA1	PY	.000639	.000639	0	0
15	MP ALPHA3	PY	.000639	.000639	0	0
16	RAIL2	PY	.000158	.000158	0	0
17	RAIL CON3	PY	.001	.001	0	0
18	RAIL CON1	PY	.001	.001	0	0
19	RAIL CON2	PY	.001	.001	0	0
20	CR1	PY	.000637	.000637	0	0
21	CR2	PY	.000637	.000637	0	0
22	CR3	PY	.000637	.000637	0	0
23	CR4	PY	.000637	.000637	0	0
24	CR5	PY	.000637	.000637	0	0
25	CR6	PY	.000637	.000637	0	0
26	PL4	PY	.000447	.000447	0	0
27	PL5	PY	.000447	.000447	0	0
28	PL6	PY	.000447	.000447	0	0
29	PL7	PY	.000447	.000447	0	0
30	PL8	PY	.000447	.000447	0	0
31	PL9	PY	.000447	.000447	0	0
32	MP ALPHA2	PY	.000639	.000639	0	0
33	FACE3	PY	.000452	.000452	0	0
34	MP GAMMA1	PY	.000639	.000639	0	0
35	MP GAMMA3	PY	.000639	.000639	0	0
36	RAIL3	PY	.000316	.000316	0	0
37	FACE1	PY	.000452	.000452	0	0
38	MP BETA1	PY	.000639	.000639	0	0
39	MP BETA3	PY	.000639	.000639	0	0
40	RAIL1	PY	.000316	.000316	0	0
41	MP BETA2	PY	.000639	.000639	0	0
42	MP GAMMA2	PY	.000639	.000639	0	0

Member Distributed Loads (BLC 22 : Maintanence (210))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.000408	.000408	0	0
2	GRAT SUP	PY	.000326	.000326	0	0
3	GRAT SUP2	PY	.000326	.000326	0	0
4	PL1	PY	.001	.001	0	0
5	SO2	PY	.000408	.000408	0	0
6	GRAT SUP3	PY	.000326	.000326	0	0
7	GRAT SUP4	PY	.000326	.000326	0	0
8	PL2	PY	.001	.001	0	0
9	SO3	PY	.000408	.000408	0	0
10	GRAT SUP5	PY	.000326	.000326	0	0
11	GRAT SUP6	PY	.000326	.000326	0	0
12	PL3	PY	.001	.001	0	0
13	FACE3	PY	.000196	.000196	0	0
14	MP ALPHA1	PY	.000553	.000553	0	0
15	MP ALPHA3	PY	.000553	.000553	0	0
16	RAIL3	PY	.000137	.000137	0	0
17	RAIL CON3	PY	.001	.001	0	0
18	RAIL CON1	PY	.001	.001	0	0
19	RAIL CON2	PY	.001	.001	0	0

Member Distributed Loads (BLC 22 : Maintanence (210)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
20	CR1	PY	.000551	.000551	0	0
21	CR2	PY	.000551	.000551	0	0
22	CR3	PY	.000551	.000551	0	0
23	CR4	PY	.000551	.000551	0	0
24	CR5	PY	.000551	.000551	0	0
25	CR6	PY	.000551	.000551	0	0
26	PL4	PY	.000387	.000387	0	0
27	PL5	PY	.000387	.000387	0	0
28	PL6	PY	.000387	.000387	0	0
29	PL7	PY	.000387	.000387	0	0
30	PL8	PY	.000387	.000387	0	0
31	PL9	PY	.000387	.000387	0	0
32	MP ALPHA2	PY	.000553	.000553	0	0
33	FACE1	PY	.000392	.000392	0	0
34	MP GAMMA1	PY	.000553	.000553	0	0
35	MP GAMMA3	PY	.000553	.000553	0	0
36	RAIL1	PY	.000273	.000273	0	0
37	FACE2	PY	.000392	.000392	0	0
38	MP BETA1	PY	.000553	.000553	0	0
39	MP BETA3	PY	.000553	.000553	0	0
40	RAIL2	PY	.000273	.000273	0	0
41	MP BETA2	PY	.000553	.000553	0	0
42	MP GAMMA2	PY	.000553	.000553	0	0
43	SO1	PX	.000235	.000235	0	0
44	GRAT SUP	PX	.000188	.000188	0	0
45	GRAT SUP2	PX	.000188	.000188	0	0
46	PL1	PX	.000612	.000612	0	0
47	SO2	PX	.000235	.000235	0	0
48	GRAT SUP3	PX	.000188	.000188	0	0
49	GRAT SUP4	PX	.000188	.000188	0	0
50	PL2	PX	.000612	.000612	0	0
51	SO3	PX	.000235	.000235	0	0
52	GRAT SUP5	PX	.000188	.000188	0	0
53	GRAT SUP6	PX	.000188	.000188	0	0
54	PL3	PX	.000612	.000612	0	0
55	FACE3	PX	.000113	.000113	0	0
56	MP ALPHA1	PX	.000319	.000319	0	0
57	MP ALPHA3	PX	.000319	.000319	0	0
58	RAIL3	PX	7.9e-5	7.9e-5	0	0
59	RAIL CON3	PX	.000622	.000622	0	0
60	RAIL CON1	PX	.000622	.000622	0	0
61	RAIL CON2	PX	.000622	.000622	0	0
62	CR1	PX	.000318	.000318	0	0
63	CR2	PX	.000318	.000318	0	0
64	CR3	PX	.000318	.000318	0	0
65	CR4	PX	.000318	.000318	0	0
66	CR5	PX	.000318	.000318	0	0
67	CR6	PX	.000318	.000318	0	0
68	PL4	PX	.000224	.000224	0	0
69	PL5	PX	.000224	.000224	0	0
70	PL6	PX	.000224	.000224	0	0
71	PL7	PX	.000224	.000224	0	0
72	PL8	PX	.000224	.000224	0	0
73	PL9	PX	.000224	.000224	0	0
74	MP ALPHA2	PX	.000319	.000319	0	0
75	FACE1	PX	.000226	.000226	0	0
76	MP GAMMA1	PX	.000319	.000319	0	0

Member Distributed Loads (BLC 22 : Maintanence (210)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
77	MP GAMMA3	PX	.000319	.000319	0	0
78	RAIL1	PX	.000158	.000158	0	0
79	FACE2	PX	.000226	.000226	0	0
80	MP BETA1	PX	.000319	.000319	0	0
81	MP BETA3	PX	.000319	.000319	0	0
82	RAIL2	PX	.000158	.000158	0	0
83	MP BETA2	PX	.000319	.000319	0	0
84	MP GAMMA2	PX	.000319	.000319	0	0

Member Distributed Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.000235	.000235	0	0
2	GRAT SUP	PY	.000188	.000188	0	0
3	GRAT SUP2	PY	.000188	.000188	0	0
4	PL1	PY	.000612	.000612	0	0
5	SO2	PY	.000235	.000235	0	0
6	GRAT SUP3	PY	.000188	.000188	0	0
7	GRAT SUP4	PY	.000188	.000188	0	0
8	PL2	PY	.000612	.000612	0	0
9	SO3	PY	.000235	.000235	0	0
10	GRAT SUP5	PY	.000188	.000188	0	0
11	GRAT SUP6	PY	.000188	.000188	0	0
12	PL3	PY	.000612	.000612	0	0
13	FACE3	PY	.000113	.000113	0	0
14	MP ALPHA1	PY	.000319	.000319	0	0
15	MP ALPHA3	PY	.000319	.000319	0	0
16	RAIL3	PY	7.9e-5	7.9e-5	0	0
17	RAIL CON3	PY	.000622	.000622	0	0
18	RAIL CON1	PY	.000622	.000622	0	0
19	RAIL CON2	PY	.000622	.000622	0	0
20	CR1	PY	.000318	.000318	0	0
21	CR2	PY	.000318	.000318	0	0
22	CR3	PY	.000318	.000318	0	0
23	CR4	PY	.000318	.000318	0	0
24	CR5	PY	.000318	.000318	0	0
25	CR6	PY	.000318	.000318	0	0
26	PL4	PY	.000224	.000224	0	0
27	PL5	PY	.000224	.000224	0	0
28	PL6	PY	.000224	.000224	0	0
29	PL7	PY	.000224	.000224	0	0
30	PL8	PY	.000224	.000224	0	0
31	PL9	PY	.000224	.000224	0	0
32	MP ALPHA2	PY	.000319	.000319	0	0
33	FACE1	PY	.000226	.000226	0	0
34	MP GAMMA1	PY	.000319	.000319	0	0
35	MP GAMMA3	PY	.000319	.000319	0	0
36	RAIL1	PY	.000158	.000158	0	0
37	FACE2	PY	.000226	.000226	0	0
38	MP BETA1	PY	.000319	.000319	0	0
39	MP BETA3	PY	.000319	.000319	0	0
40	RAIL2	PY	.000158	.000158	0	0
41	MP BETA2	PY	.000319	.000319	0	0
42	MP GAMMA2	PY	.000319	.000319	0	0
43	SO1	PX	.000408	.000408	0	0
44	GRAT SUP	PX	.000326	.000326	0	0
45	GRAT SUP2	PX	.000326	.000326	0	0

Member Distributed Loads (BLC 23 : Maintanence (240)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	PL1	PX	.001	.001	0	0
47	SO2	PX	.000408	.000408	0	0
48	GRAT SUP3	PX	.000326	.000326	0	0
49	GRAT SUP4	PX	.000326	.000326	0	0
50	PL2	PX	.001	.001	0	0
51	SO3	PX	.000408	.000408	0	0
52	GRAT SUP5	PX	.000326	.000326	0	0
53	GRAT SUP6	PX	.000326	.000326	0	0
54	PL3	PX	.001	.001	0	0
55	FACE3	PX	.000196	.000196	0	0
56	MP ALPHA1	PX	.000553	.000553	0	0
57	MP ALPHA3	PX	.000553	.000553	0	0
58	RAIL3	PX	.000137	.000137	0	0
59	RAIL CON3	PX	.001	.001	0	0
60	RAIL CON1	PX	.001	.001	0	0
61	RAIL CON2	PX	.001	.001	0	0
62	CR1	PX	.000551	.000551	0	0
63	CR2	PX	.000551	.000551	0	0
64	CR3	PX	.000551	.000551	0	0
65	CR4	PX	.000551	.000551	0	0
66	CR5	PX	.000551	.000551	0	0
67	CR6	PX	.000551	.000551	0	0
68	PL4	PX	.000387	.000387	0	0
69	PL5	PX	.000387	.000387	0	0
70	PL6	PX	.000387	.000387	0	0
71	PL7	PX	.000387	.000387	0	0
72	PL8	PX	.000387	.000387	0	0
73	PL9	PX	.000387	.000387	0	0
74	MP ALPHA2	PX	.000553	.000553	0	0
75	FACE1	PX	.000392	.000392	0	0
76	MP GAMMA1	PX	.000553	.000553	0	0
77	MP GAMMA3	PX	.000553	.000553	0	0
78	RAIL1	PX	.000273	.000273	0	0
79	FACE2	PX	.000392	.000392	0	0
80	MP BETA1	PX	.000553	.000553	0	0
81	MP BETA3	PX	.000553	.000553	0	0
82	RAIL2	PX	.000273	.000273	0	0
83	MP BETA2	PX	.000553	.000553	0	0
84	MP GAMMA2	PX	.000553	.000553	0	0

Member Distributed Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PX	.000471	.000471	0	0
2	GRAT SUP	PX	.000377	.000377	0	0
3	GRAT SUP2	PX	.000377	.000377	0	0
4	PL1	PX	.001	.001	0	0
5	SO2	PX	.000471	.000471	0	0
6	GRAT SUP3	PX	.000377	.000377	0	0
7	GRAT SUP4	PX	.000377	.000377	0	0
8	PL2	PX	.001	.001	0	0
9	SO3	PX	.000471	.000471	0	0
10	GRAT SUP5	PX	.000377	.000377	0	0
11	GRAT SUP6	PX	.000377	.000377	0	0
12	PL3	PX	.001	.001	0	0
13	FACE3	PX	.000226	.000226	0	0
14	MP ALPHA1	PX	.000639	.000639	0	0

Member Distributed Loads (BLC 24 : Maintanence (270)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
15	MP ALPHA3	PX	.000639	.000639	0	0
16	RAIL3	PX	.000158	.000158	0	0
17	RAIL CON3	PX	.001	.001	0	0
18	RAIL CON1	PX	.001	.001	0	0
19	RAIL CON2	PX	.001	.001	0	0
20	CR1	PX	.000637	.000637	0	0
21	CR2	PX	.000637	.000637	0	0
22	CR3	PX	.000637	.000637	0	0
23	CR4	PX	.000637	.000637	0	0
24	CR5	PX	.000637	.000637	0	0
25	CR6	PX	.000637	.000637	0	0
26	PL4	PX	.000447	.000447	0	0
27	PL5	PX	.000447	.000447	0	0
28	PL6	PX	.000447	.000447	0	0
29	PL7	PX	.000447	.000447	0	0
30	PL8	PX	.000447	.000447	0	0
31	PL9	PX	.000447	.000447	0	0
32	MP ALPHA2	PX	.000639	.000639	0	0
33	FACE1	PX	.000452	.000452	0	0
34	MP GAMMA1	PX	.000639	.000639	0	0
35	MP GAMMA3	PX	.000639	.000639	0	0
36	RAIL1	PX	.000316	.000316	0	0
37	FACE2	PX	.000452	.000452	0	0
38	MP BETA1	PX	.000639	.000639	0	0
39	MP BETA3	PX	.000639	.000639	0	0
40	RAIL2	PX	.000316	.000316	0	0
41	MP BETA2	PX	.000639	.000639	0	0
42	MP GAMMA2	PX	.000639	.000639	0	0

Member Distributed Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.000235	-.000235	0	0
2	GRAT SUP	PY	-.000188	-.000188	0	0
3	GRAT SUP2	PY	-.000188	-.000188	0	0
4	PL1	PY	-.000612	-.000612	0	0
5	SO2	PY	-.000235	-.000235	0	0
6	GRAT SUP3	PY	-.000188	-.000188	0	0
7	GRAT SUP4	PY	-.000188	-.000188	0	0
8	PL2	PY	-.000612	-.000612	0	0
9	SO3	PY	-.000235	-.000235	0	0
10	GRAT SUP5	PY	-.000188	-.000188	0	0
11	GRAT SUP6	PY	-.000188	-.000188	0	0
12	PL3	PY	-.000612	-.000612	0	0
13	FACE3	PY	-.000113	-.000113	0	0
14	MP ALPHA1	PY	-.000319	-.000319	0	0
15	MP ALPHA3	PY	-.000319	-.000319	0	0
16	RAIL3	PY	-7.9e-5	-7.9e-5	0	0
17	RAIL CON3	PY	-.000622	-.000622	0	0
18	RAIL CON1	PY	-.000622	-.000622	0	0
19	RAIL CON2	PY	-.000622	-.000622	0	0
20	CR1	PY	-.000318	-.000318	0	0
21	CR2	PY	-.000318	-.000318	0	0
22	CR3	PY	-.000318	-.000318	0	0
23	CR4	PY	-.000318	-.000318	0	0
24	CR5	PY	-.000318	-.000318	0	0
25	CR6	PY	-.000318	-.000318	0	0

Member Distributed Loads (BLC 25 : Maintanence (300)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
26	PL4	PY	-.000224	-.000224	0	0
27	PL5	PY	-.000224	-.000224	0	0
28	PL6	PY	-.000224	-.000224	0	0
29	PL7	PY	-.000224	-.000224	0	0
30	PL8	PY	-.000224	-.000224	0	0
31	PL9	PY	-.000224	-.000224	0	0
32	MP ALPHA2	PY	-.000319	-.000319	0	0
33	FACE1	PY	-.000226	-.000226	0	0
34	MP GAMMA1	PY	-.000319	-.000319	0	0
35	MP GAMMA3	PY	-.000319	-.000319	0	0
36	RAIL1	PY	-.000158	-.000158	0	0
37	FACE2	PY	-.000226	-.000226	0	0
38	MP BETA1	PY	-.000319	-.000319	0	0
39	MP BETA3	PY	-.000319	-.000319	0	0
40	RAIL2	PY	-.000158	-.000158	0	0
41	MP BETA2	PY	-.000319	-.000319	0	0
42	MP GAMMA2	PY	-.000319	-.000319	0	0
43	SO1	PX	.000408	.000408	0	0
44	GRAT SUP	PX	.000326	.000326	0	0
45	GRAT SUP2	PX	.000326	.000326	0	0
46	PL1	PX	.001	.001	0	0
47	SO2	PX	.000408	.000408	0	0
48	GRAT SUP3	PX	.000326	.000326	0	0
49	GRAT SUP4	PX	.000326	.000326	0	0
50	PL2	PX	.001	.001	0	0
51	SO3	PX	.000408	.000408	0	0
52	GRAT SUP5	PX	.000326	.000326	0	0
53	GRAT SUP6	PX	.000326	.000326	0	0
54	PL3	PX	.001	.001	0	0
55	FACE3	PX	.000196	.000196	0	0
56	MP ALPHA1	PX	.000553	.000553	0	0
57	MP ALPHA3	PX	.000553	.000553	0	0
58	RAIL3	PX	.000137	.000137	0	0
59	RAIL CON3	PX	.001	.001	0	0
60	RAIL CON1	PX	.001	.001	0	0
61	RAIL CON2	PX	.001	.001	0	0
62	CR1	PX	.000551	.000551	0	0
63	CR2	PX	.000551	.000551	0	0
64	CR3	PX	.000551	.000551	0	0
65	CR4	PX	.000551	.000551	0	0
66	CR5	PX	.000551	.000551	0	0
67	CR6	PX	.000551	.000551	0	0
68	PL4	PX	.000387	.000387	0	0
69	PL5	PX	.000387	.000387	0	0
70	PL6	PX	.000387	.000387	0	0
71	PL7	PX	.000387	.000387	0	0
72	PL8	PX	.000387	.000387	0	0
73	PL9	PX	.000387	.000387	0	0
74	MP ALPHA2	PX	.000553	.000553	0	0
75	FACE1	PX	.000392	.000392	0	0
76	MP GAMMA1	PX	.000553	.000553	0	0
77	MP GAMMA3	PX	.000553	.000553	0	0
78	RAIL1	PX	.000273	.000273	0	0
79	FACE2	PX	.000392	.000392	0	0
80	MP BETA1	PX	.000553	.000553	0	0
81	MP BETA3	PX	.000553	.000553	0	0
82	RAIL2	PX	.000273	.000273	0	0

Member Distributed Loads (BLC 25 : Maintanence (300)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
83	MP BETA2	PX	.000553	.000553	0	0
84	MP GAMMA2	PX	.000553	.000553	0	0

Member Distributed Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.000408	-.000408	0	0
2	GRAT SUP	PY	-.000326	-.000326	0	0
3	GRAT SUP2	PY	-.000326	-.000326	0	0
4	PL1	PY	-.001	-.001	0	0
5	SO2	PY	-.000408	-.000408	0	0
6	GRAT SUP3	PY	-.000326	-.000326	0	0
7	GRAT SUP4	PY	-.000326	-.000326	0	0
8	PL2	PY	-.001	-.001	0	0
9	SO3	PY	-.000408	-.000408	0	0
10	GRAT SUP5	PY	-.000326	-.000326	0	0
11	GRAT SUP6	PY	-.000326	-.000326	0	0
12	PL3	PY	-.001	-.001	0	0
13	FACE1	PY	-.000196	-.000196	0	0
14	MP ALPHA1	PY	-.000553	-.000553	0	0
15	MP ALPHA3	PY	-.000553	-.000553	0	0
16	RAIL1	PY	-.000137	-.000137	0	0
17	RAIL CON3	PY	-.001	-.001	0	0
18	RAIL CON1	PY	-.001	-.001	0	0
19	RAIL CON2	PY	-.001	-.001	0	0
20	CR1	PY	-.000551	-.000551	0	0
21	CR2	PY	-.000551	-.000551	0	0
22	CR3	PY	-.000551	-.000551	0	0
23	CR4	PY	-.000551	-.000551	0	0
24	CR5	PY	-.000551	-.000551	0	0
25	CR6	PY	-.000551	-.000551	0	0
26	PL4	PY	-.000387	-.000387	0	0
27	PL5	PY	-.000387	-.000387	0	0
28	PL6	PY	-.000387	-.000387	0	0
29	PL7	PY	-.000387	-.000387	0	0
30	PL8	PY	-.000387	-.000387	0	0
31	PL9	PY	-.000387	-.000387	0	0
32	MP ALPHA2	PY	-.000553	-.000553	0	0
33	FACE3	PY	-.000392	-.000392	0	0
34	MP GAMMA1	PY	-.000553	-.000553	0	0
35	MP GAMMA3	PY	-.000553	-.000553	0	0
36	RAIL3	PY	-.000273	-.000273	0	0
37	FACE2	PY	-.000392	-.000392	0	0
38	MP BETA1	PY	-.000553	-.000553	0	0
39	MP BETA3	PY	-.000553	-.000553	0	0
40	RAIL2	PY	-.000273	-.000273	0	0
41	MP BETA2	PY	-.000553	-.000553	0	0
42	MP GAMMA2	PY	-.000553	-.000553	0	0
43	SO1	PX	.000235	.000235	0	0
44	GRAT SUP	PX	.000188	.000188	0	0
45	GRAT SUP2	PX	.000188	.000188	0	0
46	PL1	PX	.000612	.000612	0	0
47	SO2	PX	.000235	.000235	0	0
48	GRAT SUP3	PX	.000188	.000188	0	0
49	GRAT SUP4	PX	.000188	.000188	0	0
50	PL2	PX	.000612	.000612	0	0
51	SO3	PX	.000235	.000235	0	0

Member Distributed Loads (BLC 26 : Maintanence (330)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
52	GRAT SUP5	PX	.000188	.000188	0	0
53	GRAT SUP6	PX	.000188	.000188	0	0
54	PL3	PX	.000612	.000612	0	0
55	FACE1	PX	.000113	.000113	0	0
56	MP ALPHA1	PX	.000319	.000319	0	0
57	MP ALPHA3	PX	.000319	.000319	0	0
58	RAIL1	PX	7.9e-5	7.9e-5	0	0
59	RAIL CON3	PX	.000622	.000622	0	0
60	RAIL CON1	PX	.000622	.000622	0	0
61	RAIL CON2	PX	.000622	.000622	0	0
62	CR1	PX	.000318	.000318	0	0
63	CR2	PX	.000318	.000318	0	0
64	CR3	PX	.000318	.000318	0	0
65	CR4	PX	.000318	.000318	0	0
66	CR5	PX	.000318	.000318	0	0
67	CR6	PX	.000318	.000318	0	0
68	PL4	PX	.000224	.000224	0	0
69	PL5	PX	.000224	.000224	0	0
70	PL6	PX	.000224	.000224	0	0
71	PL7	PX	.000224	.000224	0	0
72	PL8	PX	.000224	.000224	0	0
73	PL9	PX	.000224	.000224	0	0
74	MP ALPHA2	PX	.000319	.000319	0	0
75	FACE3	PX	.000226	.000226	0	0
76	MP GAMMA1	PX	.000319	.000319	0	0
77	MP GAMMA3	PX	.000319	.000319	0	0
78	RAIL3	PX	.000158	.000158	0	0
79	FACE2	PX	.000226	.000226	0	0
80	MP BETA1	PX	.000319	.000319	0	0
81	MP BETA3	PX	.000319	.000319	0	0
82	RAIL2	PX	.000158	.000158	0	0
83	MP BETA2	PX	.000319	.000319	0	0
84	MP GAMMA2	PX	.000319	.000319	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	Z	-.008	-.008	0	0
2	GRAT SUP	Z	-.005	-.005	0	0
3	GRAT SUP2	Z	-.005	-.005	0	0
4	PL1	Z	-.008	-.008	0	0
5	SO2	Z	-.008	-.008	0	0
6	GRAT SUP3	Z	-.005	-.005	0	0
7	GRAT SUP4	Z	-.005	-.005	0	0
8	PL2	Z	-.008	-.008	0	0
9	SO3	Z	-.008	-.008	0	0
10	GRAT SUP5	Z	-.005	-.005	0	0
11	GRAT SUP6	Z	-.005	-.005	0	0
12	PL3	Z	-.008	-.008	0	0
13	FACE1	Z	-.006	-.006	0	0
14	MP ALPHA1	Z	-.005	-.005	0	0
15	MP ALPHA3	Z	-.005	-.005	0	0
16	RAIL1	Z	-.005	-.005	0	0
17	RAIL CON3	Z	-.009	-.009	0	0
18	RAIL CON1	Z	-.009	-.009	0	0
19	RAIL CON2	Z	-.009	-.009	0	0
20	CR1	Z	-.008	-.008	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
21	CR2	Z	-.008	-.008	0	0
22	CR3	Z	-.008	-.008	0	0
23	CR4	Z	-.008	-.008	0	0
24	CR5	Z	-.008	-.008	0	0
25	CR6	Z	-.008	-.008	0	0
26	PL4	Z	-.004	-.004	0	0
27	PL5	Z	-.004	-.004	0	0
28	PL6	Z	-.004	-.004	0	0
29	PL7	Z	-.004	-.004	0	0
30	PL8	Z	-.004	-.004	0	0
31	PL9	Z	-.004	-.004	0	0
32	MP ALPHA2	Z	-.005	-.005	0	0
33	FACE3	Z	-.006	-.006	0	0
34	MP GAMMA1	Z	-.005	-.005	0	0
35	MP GAMMA3	Z	-.005	-.005	0	0
36	RAIL3	Z	-.005	-.005	0	0
37	FACE2	Z	-.006	-.006	0	0
38	MP BETA1	Z	-.005	-.005	0	0
39	MP BETA3	Z	-.005	-.005	0	0
40	RAIL2	Z	-.005	-.005	0	0
41	MP BETA2	Z	-.005	-.005	0	0
42	MP GAMMA2	Z	-.005	-.005	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.001	-.001	0	0
2	GRAT SUP	PY	-.001	-.001	0	0
3	GRAT SUP2	PY	-.001	-.001	0	0
4	PL1	PY	-.003	-.003	0	0
5	SO2	PY	-.001	-.001	0	0
6	GRAT SUP3	PY	-.001	-.001	0	0
7	GRAT SUP4	PY	-.001	-.001	0	0
8	PL2	PY	-.003	-.003	0	0
9	SO3	PY	-.001	-.001	0	0
10	GRAT SUP5	PY	-.001	-.001	0	0
11	GRAT SUP6	PY	-.001	-.001	0	0
12	PL3	PY	-.003	-.003	0	0
13	FACE1	PY	-.001	-.001	0	0
14	MP ALPHA1	PY	-.004	-.004	0	0
15	MP ALPHA3	PY	-.004	-.004	0	0
16	RAIL1	PY	-.000921	-.000921	0	0
17	RAIL CON3	PY	-.003	-.003	0	0
18	RAIL CON1	PY	-.003	-.003	0	0
19	RAIL CON2	PY	-.003	-.003	0	0
20	CR1	PY	-.002	-.002	0	0
21	CR2	PY	-.002	-.002	0	0
22	CR3	PY	-.002	-.002	0	0
23	CR4	PY	-.002	-.002	0	0
24	CR5	PY	-.002	-.002	0	0
25	CR6	PY	-.002	-.002	0	0
26	PL4	PY	-.002	-.002	0	0
27	PL5	PY	-.002	-.002	0	0
28	PL6	PY	-.002	-.002	0	0
29	PL7	PY	-.002	-.002	0	0
30	PL8	PY	-.002	-.002	0	0
31	PL9	PY	-.002	-.002	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
32	MP ALPHA2	PY	-.004	-.004	0	0
33	FACE3	PY	-.002	-.002	0	0
34	MP GAMMA1	PY	-.004	-.004	0	0
35	MP GAMMA3	PY	-.004	-.004	0	0
36	RAIL3	PY	-.002	-.002	0	0
37	FACE2	PY	-.002	-.002	0	0
38	MP BETA1	PY	-.004	-.004	0	0
39	MP BETA3	PY	-.004	-.004	0	0
40	RAIL2	PY	-.002	-.002	0	0
41	MP BETA2	PY	-.004	-.004	0	0
42	MP GAMMA2	PY	-.004	-.004	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.001	-.001	0	0
2	GRAT SUP	PY	-.001	-.001	0	0
3	GRAT SUP2	PY	-.001	-.001	0	0
4	PL1	PY	-.003	-.003	0	0
5	SO2	PY	-.001	-.001	0	0
6	GRAT SUP3	PY	-.001	-.001	0	0
7	GRAT SUP4	PY	-.001	-.001	0	0
8	PL2	PY	-.003	-.003	0	0
9	SO3	PY	-.001	-.001	0	0
10	GRAT SUP5	PY	-.001	-.001	0	0
11	GRAT SUP6	PY	-.001	-.001	0	0
12	PL3	PY	-.003	-.003	0	0
13	FACE1	PY	-.000978	-.000978	0	0
14	MP ALPHA1	PY	-.003	-.003	0	0
15	MP ALPHA3	PY	-.003	-.003	0	0
16	RAIL1	PY	-.000798	-.000798	0	0
17	RAIL CON3	PY	-.003	-.003	0	0
18	RAIL CON1	PY	-.003	-.003	0	0
19	RAIL CON2	PY	-.003	-.003	0	0
20	CR1	PY	-.002	-.002	0	0
21	CR2	PY	-.002	-.002	0	0
22	CR3	PY	-.002	-.002	0	0
23	CR4	PY	-.002	-.002	0	0
24	CR5	PY	-.002	-.002	0	0
25	CR6	PY	-.002	-.002	0	0
26	PL4	PY	-.001	-.001	0	0
27	PL5	PY	-.001	-.001	0	0
28	PL6	PY	-.001	-.001	0	0
29	PL7	PY	-.001	-.001	0	0
30	PL8	PY	-.001	-.001	0	0
31	PL9	PY	-.001	-.001	0	0
32	MP ALPHA2	PY	-.003	-.003	0	0
33	FACE3	PY	-.002	-.002	0	0
34	MP GAMMA1	PY	-.003	-.003	0	0
35	MP GAMMA3	PY	-.003	-.003	0	0
36	RAIL3	PY	-.002	-.002	0	0
37	FACE2	PY	-.002	-.002	0	0
38	MP BETA1	PY	-.003	-.003	0	0
39	MP BETA3	PY	-.003	-.003	0	0
40	RAIL2	PY	-.002	-.002	0	0
41	MP BETA2	PY	-.003	-.003	0	0
42	MP GAMMA2	PY	-.003	-.003	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
43	SO1	PX	-.000652	-.000652	0	0
44	GRAT SUP	PX	-.000704	-.000704	0	0
45	GRAT SUP2	PX	-.000704	-.000704	0	0
46	PL1	PX	-.001	-.001	0	0
47	SO2	PX	-.000652	-.000652	0	0
48	GRAT SUP3	PX	-.000704	-.000704	0	0
49	GRAT SUP4	PX	-.000704	-.000704	0	0
50	PL2	PX	-.001	-.001	0	0
51	SO3	PX	-.000652	-.000652	0	0
52	GRAT SUP5	PX	-.000704	-.000704	0	0
53	GRAT SUP6	PX	-.000704	-.000704	0	0
54	PL3	PX	-.001	-.001	0	0
55	FACE1	PX	-.000565	-.000565	0	0
56	MP ALPHA1	PX	-.002	-.002	0	0
57	MP ALPHA3	PX	-.002	-.002	0	0
58	RAIL1	PX	-.000461	-.000461	0	0
59	RAIL CON3	PX	-.001	-.001	0	0
60	RAIL CON1	PX	-.001	-.001	0	0
61	RAIL CON2	PX	-.001	-.001	0	0
62	CR1	PX	-.000938	-.000938	0	0
63	CR2	PX	-.000938	-.000938	0	0
64	CR3	PX	-.000938	-.000938	0	0
65	CR4	PX	-.000938	-.000938	0	0
66	CR5	PX	-.000938	-.000938	0	0
67	CR6	PX	-.000938	-.000938	0	0
68	PL4	PX	-.000768	-.000768	0	0
69	PL5	PX	-.000768	-.000768	0	0
70	PL6	PX	-.000768	-.000768	0	0
71	PL7	PX	-.000768	-.000768	0	0
72	PL8	PX	-.000768	-.000768	0	0
73	PL9	PX	-.000768	-.000768	0	0
74	MP ALPHA2	PX	-.002	-.002	0	0
75	FACE3	PX	-.001	-.001	0	0
76	MP GAMMA1	PX	-.002	-.002	0	0
77	MP GAMMA3	PX	-.002	-.002	0	0
78	RAIL3	PX	-.000921	-.000921	0	0
79	FACE2	PX	-.001	-.001	0	0
80	MP BETA1	PX	-.002	-.002	0	0
81	MP BETA3	PX	-.002	-.002	0	0
82	RAIL2	PX	-.000921	-.000921	0	0
83	MP BETA2	PX	-.002	-.002	0	0
84	MP GAMMA2	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.000652	-.000652	0	0
2	GRAT SUP	PY	-.000704	-.000704	0	0
3	GRAT SUP2	PY	-.000704	-.000704	0	0
4	PL1	PY	-.001	-.001	0	0
5	SO2	PY	-.000652	-.000652	0	0
6	GRAT SUP3	PY	-.000704	-.000704	0	0
7	GRAT SUP4	PY	-.000704	-.000704	0	0
8	PL2	PY	-.001	-.001	0	0
9	SO3	PY	-.000652	-.000652	0	0
10	GRAT SUP5	PY	-.000704	-.000704	0	0
11	GRAT SUP6	PY	-.000704	-.000704	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
12	PL3	PY	-.001	-.001	0	0
13	FACE1	PY	-.000565	-.000565	0	0
14	MP ALPHA1	PY	-.002	-.002	0	0
15	MP ALPHA3	PY	-.002	-.002	0	0
16	RAIL1	PY	-.000461	-.000461	0	0
17	RAIL CON3	PY	-.001	-.001	0	0
18	RAIL CON1	PY	-.001	-.001	0	0
19	RAIL CON2	PY	-.001	-.001	0	0
20	CR1	PY	-.000938	-.000938	0	0
21	CR2	PY	-.000938	-.000938	0	0
22	CR3	PY	-.000938	-.000938	0	0
23	CR4	PY	-.000938	-.000938	0	0
24	CR5	PY	-.000938	-.000938	0	0
25	CR6	PY	-.000938	-.000938	0	0
26	PL4	PY	-.000768	-.000768	0	0
27	PL5	PY	-.000768	-.000768	0	0
28	PL6	PY	-.000768	-.000768	0	0
29	PL7	PY	-.000768	-.000768	0	0
30	PL8	PY	-.000768	-.000768	0	0
31	PL9	PY	-.000768	-.000768	0	0
32	MP ALPHA2	PY	-.002	-.002	0	0
33	FACE3	PY	-.001	-.001	0	0
34	MP GAMMA1	PY	-.002	-.002	0	0
35	MP GAMMA3	PY	-.002	-.002	0	0
36	RAIL3	PY	-.000921	-.000921	0	0
37	FACE2	PY	-.001	-.001	0	0
38	MP BETA1	PY	-.002	-.002	0	0
39	MP BETA3	PY	-.002	-.002	0	0
40	RAIL2	PY	-.000921	-.000921	0	0
41	MP BETA2	PY	-.002	-.002	0	0
42	MP GAMMA2	PY	-.002	-.002	0	0
43	SO1	PX	-.001	-.001	0	0
44	GRAT SUP	PX	-.001	-.001	0	0
45	GRAT SUP2	PX	-.001	-.001	0	0
46	PL1	PX	-.003	-.003	0	0
47	SO2	PX	-.001	-.001	0	0
48	GRAT SUP3	PX	-.001	-.001	0	0
49	GRAT SUP4	PX	-.001	-.001	0	0
50	PL2	PX	-.003	-.003	0	0
51	SO3	PX	-.001	-.001	0	0
52	GRAT SUP5	PX	-.001	-.001	0	0
53	GRAT SUP6	PX	-.001	-.001	0	0
54	PL3	PX	-.003	-.003	0	0
55	FACE1	PX	-.000978	-.000978	0	0
56	MP ALPHA1	PX	-.003	-.003	0	0
57	MP ALPHA3	PX	-.003	-.003	0	0
58	RAIL1	PX	-.000798	-.000798	0	0
59	RAIL CON3	PX	-.003	-.003	0	0
60	RAIL CON1	PX	-.003	-.003	0	0
61	RAIL CON2	PX	-.003	-.003	0	0
62	CR1	PX	-.002	-.002	0	0
63	CR2	PX	-.002	-.002	0	0
64	CR3	PX	-.002	-.002	0	0
65	CR4	PX	-.002	-.002	0	0
66	CR5	PX	-.002	-.002	0	0
67	CR6	PX	-.002	-.002	0	0
68	PL4	PX	-.001	-.001	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
69	PL5	PX	-.001	-.001	0	0
70	PL6	PX	-.001	-.001	0	0
71	PL7	PX	-.001	-.001	0	0
72	PL8	PX	-.001	-.001	0	0
73	PL9	PX	-.001	-.001	0	0
74	MP ALPHA2	PX	-.003	-.003	0	0
75	FACE3	PX	-.002	-.002	0	0
76	MP GAMMA1	PX	-.003	-.003	0	0
77	MP GAMMA3	PX	-.003	-.003	0	0
78	RAIL3	PX	-.002	-.002	0	0
79	FACE2	PX	-.002	-.002	0	0
80	MP BETA1	PX	-.003	-.003	0	0
81	MP BETA3	PX	-.003	-.003	0	0
82	RAIL2	PX	-.002	-.002	0	0
83	MP BETA2	PX	-.003	-.003	0	0
84	MP GAMMA2	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PX	-.001	-.001	0	0
2	GRAT SUP	PX	-.001	-.001	0	0
3	GRAT SUP2	PX	-.001	-.001	0	0
4	PL1	PX	-.003	-.003	0	0
5	SO2	PX	-.001	-.001	0	0
6	GRAT SUP3	PX	-.001	-.001	0	0
7	GRAT SUP4	PX	-.001	-.001	0	0
8	PL2	PX	-.003	-.003	0	0
9	SO3	PX	-.001	-.001	0	0
10	GRAT SUP5	PX	-.001	-.001	0	0
11	GRAT SUP6	PX	-.001	-.001	0	0
12	PL3	PX	-.003	-.003	0	0
13	FACE2	PX	-.001	-.001	0	0
14	MP ALPHA1	PX	-.004	-.004	0	0
15	MP ALPHA3	PX	-.004	-.004	0	0
16	RAIL2	PX	-.000921	-.000921	0	0
17	RAIL CON3	PX	-.003	-.003	0	0
18	RAIL CON1	PX	-.003	-.003	0	0
19	RAIL CON2	PX	-.003	-.003	0	0
20	CR1	PX	-.002	-.002	0	0
21	CR2	PX	-.002	-.002	0	0
22	CR3	PX	-.002	-.002	0	0
23	CR4	PX	-.002	-.002	0	0
24	CR5	PX	-.002	-.002	0	0
25	CR6	PX	-.002	-.002	0	0
26	PL4	PX	-.002	-.002	0	0
27	PL5	PX	-.002	-.002	0	0
28	PL6	PX	-.002	-.002	0	0
29	PL7	PX	-.002	-.002	0	0
30	PL8	PX	-.002	-.002	0	0
31	PL9	PX	-.002	-.002	0	0
32	MP ALPHA2	PX	-.004	-.004	0	0
33	FACE3	PX	-.002	-.002	0	0
34	MP GAMMA1	PX	-.004	-.004	0	0
35	MP GAMMA3	PX	-.004	-.004	0	0
36	RAIL3	PX	-.002	-.002	0	0
37	FACE1	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 31 : Ice Wind Load (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
38	MP BETA1	PX	-.004	-.004	0	0
39	MP BETA3	PX	-.004	-.004	0	0
40	RAIL1	PX	-.002	-.002	0	0
41	MP BETA2	PX	-.004	-.004	0	0
42	MP GAMMA2	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.000652	.000652	0	0
2	GRAT SUP	PY	.000704	.000704	0	0
3	GRAT SUP2	PY	.000704	.000704	0	0
4	PL1	PY	.001	.001	0	0
5	SO2	PY	.000652	.000652	0	0
6	GRAT SUP3	PY	.000704	.000704	0	0
7	GRAT SUP4	PY	.000704	.000704	0	0
8	PL2	PY	.001	.001	0	0
9	SO3	PY	.000652	.000652	0	0
10	GRAT SUP5	PY	.000704	.000704	0	0
11	GRAT SUP6	PY	.000704	.000704	0	0
12	PL3	PY	.001	.001	0	0
13	FACE2	PY	.000565	.000565	0	0
14	MP ALPHA1	PY	.002	.002	0	0
15	MP ALPHA3	PY	.002	.002	0	0
16	RAIL2	PY	.000461	.000461	0	0
17	RAIL CON3	PY	.001	.001	0	0
18	RAIL CON1	PY	.001	.001	0	0
19	RAIL CON2	PY	.001	.001	0	0
20	CR1	PY	.000938	.000938	0	0
21	CR2	PY	.000938	.000938	0	0
22	CR3	PY	.000938	.000938	0	0
23	CR4	PY	.000938	.000938	0	0
24	CR5	PY	.000938	.000938	0	0
25	CR6	PY	.000938	.000938	0	0
26	PL4	PY	.000768	.000768	0	0
27	PL5	PY	.000768	.000768	0	0
28	PL6	PY	.000768	.000768	0	0
29	PL7	PY	.000768	.000768	0	0
30	PL8	PY	.000768	.000768	0	0
31	PL9	PY	.000768	.000768	0	0
32	MP ALPHA2	PY	.002	.002	0	0
33	FACE3	PY	.001	.001	0	0
34	MP GAMMA1	PY	.002	.002	0	0
35	MP GAMMA3	PY	.002	.002	0	0
36	RAIL3	PY	.000921	.000921	0	0
37	FACE1	PY	.001	.001	0	0
38	MP BETA1	PY	.002	.002	0	0
39	MP BETA3	PY	.002	.002	0	0
40	RAIL1	PY	.000921	.000921	0	0
41	MP BETA2	PY	.002	.002	0	0
42	MP GAMMA2	PY	.002	.002	0	0
43	SO1	PX	-.001	-.001	0	0
44	GRAT SUP	PX	-.001	-.001	0	0
45	GRAT SUP2	PX	-.001	-.001	0	0
46	PL1	PX	-.003	-.003	0	0
47	SO2	PX	-.001	-.001	0	0
48	GRAT SUP3	PX	-.001	-.001	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
49	GRAT SUP4	PX	-.001	-.001	0	0
50	PL2	PX	-.003	-.003	0	0
51	SO3	PX	-.001	-.001	0	0
52	GRAT SUP5	PX	-.001	-.001	0	0
53	GRAT SUP6	PX	-.001	-.001	0	0
54	PL3	PX	-.003	-.003	0	0
55	FACE2	PX	-.000978	-.000978	0	0
56	MP ALPHA1	PX	-.003	-.003	0	0
57	MP ALPHA3	PX	-.003	-.003	0	0
58	RAIL2	PX	-.000798	-.000798	0	0
59	RAIL CON3	PX	-.003	-.003	0	0
60	RAIL CON1	PX	-.003	-.003	0	0
61	RAIL CON2	PX	-.003	-.003	0	0
62	CR1	PX	-.002	-.002	0	0
63	CR2	PX	-.002	-.002	0	0
64	CR3	PX	-.002	-.002	0	0
65	CR4	PX	-.002	-.002	0	0
66	CR5	PX	-.002	-.002	0	0
67	CR6	PX	-.002	-.002	0	0
68	PL4	PX	-.001	-.001	0	0
69	PL5	PX	-.001	-.001	0	0
70	PL6	PX	-.001	-.001	0	0
71	PL7	PX	-.001	-.001	0	0
72	PL8	PX	-.001	-.001	0	0
73	PL9	PX	-.001	-.001	0	0
74	MP ALPHA2	PX	-.003	-.003	0	0
75	FACE3	PX	-.002	-.002	0	0
76	MP GAMMA1	PX	-.003	-.003	0	0
77	MP GAMMA3	PX	-.003	-.003	0	0
78	RAIL3	PX	-.002	-.002	0	0
79	FACE1	PX	-.002	-.002	0	0
80	MP BETA1	PX	-.003	-.003	0	0
81	MP BETA3	PX	-.003	-.003	0	0
82	RAIL1	PX	-.002	-.002	0	0
83	MP BETA2	PX	-.003	-.003	0	0
84	MP GAMMA2	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.001	.001	0	0
2	GRAT SUP	PY	.001	.001	0	0
3	GRAT SUP2	PY	.001	.001	0	0
4	PL1	PY	.003	.003	0	0
5	SO2	PY	.001	.001	0	0
6	GRAT SUP3	PY	.001	.001	0	0
7	GRAT SUP4	PY	.001	.001	0	0
8	PL2	PY	.003	.003	0	0
9	SO3	PY	.001	.001	0	0
10	GRAT SUP5	PY	.001	.001	0	0
11	GRAT SUP6	PY	.001	.001	0	0
12	PL3	PY	.003	.003	0	0
13	FACE2	PY	.000978	.000978	0	0
14	MP ALPHA1	PY	.003	.003	0	0
15	MP ALPHA3	PY	.003	.003	0	0
16	RAIL2	PY	.000798	.000798	0	0
17	RAIL CON3	PY	.003	.003	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
18	RAIL CON1	PY	.003	.003	0	0
19	RAIL CON2	PY	.003	.003	0	0
20	CR1	PY	.002	.002	0	0
21	CR2	PY	.002	.002	0	0
22	CR3	PY	.002	.002	0	0
23	CR4	PY	.002	.002	0	0
24	CR5	PY	.002	.002	0	0
25	CR6	PY	.002	.002	0	0
26	PL4	PY	.001	.001	0	0
27	PL5	PY	.001	.001	0	0
28	PL6	PY	.001	.001	0	0
29	PL7	PY	.001	.001	0	0
30	PL8	PY	.001	.001	0	0
31	PL9	PY	.001	.001	0	0
32	MP ALPHA2	PY	.003	.003	0	0
33	FACE3	PY	.002	.002	0	0
34	MP GAMMA1	PY	.003	.003	0	0
35	MP GAMMA3	PY	.003	.003	0	0
36	RAIL3	PY	.002	.002	0	0
37	FACE1	PY	.002	.002	0	0
38	MP BETA1	PY	.003	.003	0	0
39	MP BETA3	PY	.003	.003	0	0
40	RAIL1	PY	.002	.002	0	0
41	MP BETA2	PY	.003	.003	0	0
42	MP GAMMA2	PY	.003	.003	0	0
43	SO1	PX	-.000652	-.000652	0	0
44	GRAT SUP	PX	-.000704	-.000704	0	0
45	GRAT SUP2	PX	-.000704	-.000704	0	0
46	PL1	PX	-.001	-.001	0	0
47	SO2	PX	-.000652	-.000652	0	0
48	GRAT SUP3	PX	-.000704	-.000704	0	0
49	GRAT SUP4	PX	-.000704	-.000704	0	0
50	PL2	PX	-.001	-.001	0	0
51	SO3	PX	-.000652	-.000652	0	0
52	GRAT SUP5	PX	-.000704	-.000704	0	0
53	GRAT SUP6	PX	-.000704	-.000704	0	0
54	PL3	PX	-.001	-.001	0	0
55	FACE2	PX	-.000565	-.000565	0	0
56	MP ALPHA1	PX	-.002	-.002	0	0
57	MP ALPHA3	PX	-.002	-.002	0	0
58	RAIL2	PX	-.000461	-.000461	0	0
59	RAIL CON3	PX	-.001	-.001	0	0
60	RAIL CON1	PX	-.001	-.001	0	0
61	RAIL CON2	PX	-.001	-.001	0	0
62	CR1	PX	-.000938	-.000938	0	0
63	CR2	PX	-.000938	-.000938	0	0
64	CR3	PX	-.000938	-.000938	0	0
65	CR4	PX	-.000938	-.000938	0	0
66	CR5	PX	-.000938	-.000938	0	0
67	CR6	PX	-.000938	-.000938	0	0
68	PL4	PX	-.000768	-.000768	0	0
69	PL5	PX	-.000768	-.000768	0	0
70	PL6	PX	-.000768	-.000768	0	0
71	PL7	PX	-.000768	-.000768	0	0
72	PL8	PX	-.000768	-.000768	0	0
73	PL9	PX	-.000768	-.000768	0	0
74	MP ALPHA2	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
75	FACE3	PX	-.001	-.001	0	0
76	MP GAMMA1	PX	-.002	-.002	0	0
77	MP GAMMA3	PX	-.002	-.002	0	0
78	RAIL3	PX	-.000921	-.000921	0	0
79	FACE1	PX	-.001	-.001	0	0
80	MP BETA1	PX	-.002	-.002	0	0
81	MP BETA3	PX	-.002	-.002	0	0
82	RAIL1	PX	-.000921	-.000921	0	0
83	MP BETA2	PX	-.002	-.002	0	0
84	MP GAMMA2	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.001	.001	0	0
2	GRAT SUP	PY	.001	.001	0	0
3	GRAT SUP2	PY	.001	.001	0	0
4	PL1	PY	.003	.003	0	0
5	SO2	PY	.001	.001	0	0
6	GRAT SUP3	PY	.001	.001	0	0
7	GRAT SUP4	PY	.001	.001	0	0
8	PL2	PY	.003	.003	0	0
9	SO3	PY	.001	.001	0	0
10	GRAT SUP5	PY	.001	.001	0	0
11	GRAT SUP6	PY	.001	.001	0	0
12	PL3	PY	.003	.003	0	0
13	FACE2	PY	.001	.001	0	0
14	MP ALPHA1	PY	.004	.004	0	0
15	MP ALPHA3	PY	.004	.004	0	0
16	RAIL2	PY	.000921	.000921	0	0
17	RAIL CON3	PY	.003	.003	0	0
18	RAIL CON1	PY	.003	.003	0	0
19	RAIL CON2	PY	.003	.003	0	0
20	CR1	PY	.002	.002	0	0
21	CR2	PY	.002	.002	0	0
22	CR3	PY	.002	.002	0	0
23	CR4	PY	.002	.002	0	0
24	CR5	PY	.002	.002	0	0
25	CR6	PY	.002	.002	0	0
26	PL4	PY	.002	.002	0	0
27	PL5	PY	.002	.002	0	0
28	PL6	PY	.002	.002	0	0
29	PL7	PY	.002	.002	0	0
30	PL8	PY	.002	.002	0	0
31	PL9	PY	.002	.002	0	0
32	MP ALPHA2	PY	.004	.004	0	0
33	FACE3	PY	.002	.002	0	0
34	MP GAMMA1	PY	.004	.004	0	0
35	MP GAMMA3	PY	.004	.004	0	0
36	RAIL3	PY	.002	.002	0	0
37	FACE1	PY	.002	.002	0	0
38	MP BETA1	PY	.004	.004	0	0
39	MP BETA3	PY	.004	.004	0	0
40	RAIL1	PY	.002	.002	0	0
41	MP BETA2	PY	.004	.004	0	0
42	MP GAMMA2	PY	.004	.004	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.001	.001	0	0
2	GRAT SUP	PY	.001	.001	0	0
3	GRAT SUP2	PY	.001	.001	0	0
4	PL1	PY	.003	.003	0	0
5	SO2	PY	.001	.001	0	0
6	GRAT SUP3	PY	.001	.001	0	0
7	GRAT SUP4	PY	.001	.001	0	0
8	PL2	PY	.003	.003	0	0
9	SO3	PY	.001	.001	0	0
10	GRAT SUP5	PY	.001	.001	0	0
11	GRAT SUP6	PY	.001	.001	0	0
12	PL3	PY	.003	.003	0	0
13	FACE3	PY	.000978	.000978	0	0
14	MP ALPHA1	PY	.003	.003	0	0
15	MP ALPHA3	PY	.003	.003	0	0
16	RAIL3	PY	.000798	.000798	0	0
17	RAIL CON3	PY	.003	.003	0	0
18	RAIL CON1	PY	.003	.003	0	0
19	RAIL CON2	PY	.003	.003	0	0
20	CR1	PY	.002	.002	0	0
21	CR2	PY	.002	.002	0	0
22	CR3	PY	.002	.002	0	0
23	CR4	PY	.002	.002	0	0
24	CR5	PY	.002	.002	0	0
25	CR6	PY	.002	.002	0	0
26	PL4	PY	.001	.001	0	0
27	PL5	PY	.001	.001	0	0
28	PL6	PY	.001	.001	0	0
29	PL7	PY	.001	.001	0	0
30	PL8	PY	.001	.001	0	0
31	PL9	PY	.001	.001	0	0
32	MP ALPHA2	PY	.003	.003	0	0
33	FACE1	PY	.002	.002	0	0
34	MP GAMMA1	PY	.003	.003	0	0
35	MP GAMMA3	PY	.003	.003	0	0
36	RAIL1	PY	.002	.002	0	0
37	FACE2	PY	.002	.002	0	0
38	MP BETA1	PY	.003	.003	0	0
39	MP BETA3	PY	.003	.003	0	0
40	RAIL2	PY	.002	.002	0	0
41	MP BETA2	PY	.003	.003	0	0
42	MP GAMMA2	PY	.003	.003	0	0
43	SO1	PX	.000652	.000652	0	0
44	GRAT SUP	PX	.000704	.000704	0	0
45	GRAT SUP2	PX	.000704	.000704	0	0
46	PL1	PX	.001	.001	0	0
47	SO2	PX	.000652	.000652	0	0
48	GRAT SUP3	PX	.000704	.000704	0	0
49	GRAT SUP4	PX	.000704	.000704	0	0
50	PL2	PX	.001	.001	0	0
51	SO3	PX	.000652	.000652	0	0
52	GRAT SUP5	PX	.000704	.000704	0	0
53	GRAT SUP6	PX	.000704	.000704	0	0
54	PL3	PX	.001	.001	0	0
55	FACE3	PX	.000565	.000565	0	0
56	MP ALPHA1	PX	.002	.002	0	0
57	MP ALPHA3	PX	.002	.002	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
58	RAIL3	PX	.000461	.000461	0	0
59	RAIL CON3	PX	.001	.001	0	0
60	RAIL CON1	PX	.001	.001	0	0
61	RAIL CON2	PX	.001	.001	0	0
62	CR1	PX	.000938	.000938	0	0
63	CR2	PX	.000938	.000938	0	0
64	CR3	PX	.000938	.000938	0	0
65	CR4	PX	.000938	.000938	0	0
66	CR5	PX	.000938	.000938	0	0
67	CR6	PX	.000938	.000938	0	0
68	PL4	PX	.000768	.000768	0	0
69	PL5	PX	.000768	.000768	0	0
70	PL6	PX	.000768	.000768	0	0
71	PL7	PX	.000768	.000768	0	0
72	PL8	PX	.000768	.000768	0	0
73	PL9	PX	.000768	.000768	0	0
74	MP ALPHA2	PX	.002	.002	0	0
75	FACE1	PX	.001	.001	0	0
76	MP GAMMA1	PX	.002	.002	0	0
77	MP GAMMA3	PX	.002	.002	0	0
78	RAIL1	PX	.000921	.000921	0	0
79	FACE2	PX	.001	.001	0	0
80	MP BETA1	PX	.002	.002	0	0
81	MP BETA3	PX	.002	.002	0	0
82	RAIL2	PX	.000921	.000921	0	0
83	MP BETA2	PX	.002	.002	0	0
84	MP GAMMA2	PX	.002	.002	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	.000652	.000652	0	0
2	GRAT SUP	PY	.000704	.000704	0	0
3	GRAT SUP2	PY	.000704	.000704	0	0
4	PL1	PY	.001	.001	0	0
5	SO2	PY	.000652	.000652	0	0
6	GRAT SUP3	PY	.000704	.000704	0	0
7	GRAT SUP4	PY	.000704	.000704	0	0
8	PL2	PY	.001	.001	0	0
9	SO3	PY	.000652	.000652	0	0
10	GRAT SUP5	PY	.000704	.000704	0	0
11	GRAT SUP6	PY	.000704	.000704	0	0
12	PL3	PY	.001	.001	0	0
13	FACE3	PY	.000565	.000565	0	0
14	MP ALPHA1	PY	.002	.002	0	0
15	MP ALPHA3	PY	.002	.002	0	0
16	RAIL3	PY	.000461	.000461	0	0
17	RAIL CON3	PY	.001	.001	0	0
18	RAIL CON1	PY	.001	.001	0	0
19	RAIL CON2	PY	.001	.001	0	0
20	CR1	PY	.000938	.000938	0	0
21	CR2	PY	.000938	.000938	0	0
22	CR3	PY	.000938	.000938	0	0
23	CR4	PY	.000938	.000938	0	0
24	CR5	PY	.000938	.000938	0	0
25	CR6	PY	.000938	.000938	0	0
26	PL4	PY	.000768	.000768	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
27	PL5	PY	.000768	.000768	0	0
28	PL6	PY	.000768	.000768	0	0
29	PL7	PY	.000768	.000768	0	0
30	PL8	PY	.000768	.000768	0	0
31	PL9	PY	.000768	.000768	0	0
32	MP ALPHA2	PY	.002	.002	0	0
33	FACE1	PY	.001	.001	0	0
34	MP GAMMA1	PY	.002	.002	0	0
35	MP GAMMA3	PY	.002	.002	0	0
36	RAIL1	PY	.000921	.000921	0	0
37	FACE2	PY	.001	.001	0	0
38	MP BETA1	PY	.002	.002	0	0
39	MP BETA3	PY	.002	.002	0	0
40	RAIL2	PY	.000921	.000921	0	0
41	MP BETA2	PY	.002	.002	0	0
42	MP GAMMA2	PY	.002	.002	0	0
43	SO1	PX	.001	.001	0	0
44	GRAT SUP	PX	.001	.001	0	0
45	GRAT SUP2	PX	.001	.001	0	0
46	PL1	PX	.003	.003	0	0
47	SO2	PX	.001	.001	0	0
48	GRAT SUP3	PX	.001	.001	0	0
49	GRAT SUP4	PX	.001	.001	0	0
50	PL2	PX	.003	.003	0	0
51	SO3	PX	.001	.001	0	0
52	GRAT SUP5	PX	.001	.001	0	0
53	GRAT SUP6	PX	.001	.001	0	0
54	PL3	PX	.003	.003	0	0
55	FACE3	PX	.000978	.000978	0	0
56	MP ALPHA1	PX	.003	.003	0	0
57	MP ALPHA3	PX	.003	.003	0	0
58	RAIL3	PX	.000798	.000798	0	0
59	RAIL CON3	PX	.003	.003	0	0
60	RAIL CON1	PX	.003	.003	0	0
61	RAIL CON2	PX	.003	.003	0	0
62	CR1	PX	.002	.002	0	0
63	CR2	PX	.002	.002	0	0
64	CR3	PX	.002	.002	0	0
65	CR4	PX	.002	.002	0	0
66	CR5	PX	.002	.002	0	0
67	CR6	PX	.002	.002	0	0
68	PL4	PX	.001	.001	0	0
69	PL5	PX	.001	.001	0	0
70	PL6	PX	.001	.001	0	0
71	PL7	PX	.001	.001	0	0
72	PL8	PX	.001	.001	0	0
73	PL9	PX	.001	.001	0	0
74	MP ALPHA2	PX	.003	.003	0	0
75	FACE1	PX	.002	.002	0	0
76	MP GAMMA1	PX	.003	.003	0	0
77	MP GAMMA3	PX	.003	.003	0	0
78	RAIL1	PX	.002	.002	0	0
79	FACE2	PX	.002	.002	0	0
80	MP BETA1	PX	.003	.003	0	0
81	MP BETA3	PX	.003	.003	0	0
82	RAIL2	PX	.002	.002	0	0
83	MP BETA2	PX	.003	.003	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
84	MP GAMMA2	PX	.003	.003	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PX	.001	.001	0	0
2	GRAT SUP	PX	.001	.001	0	0
3	GRAT SUP2	PX	.001	.001	0	0
4	PL1	PX	.003	.003	0	0
5	SO2	PX	.001	.001	0	0
6	GRAT SUP3	PX	.001	.001	0	0
7	GRAT SUP4	PX	.001	.001	0	0
8	PL2	PX	.003	.003	0	0
9	SO3	PX	.001	.001	0	0
10	GRAT SUP5	PX	.001	.001	0	0
11	GRAT SUP6	PX	.001	.001	0	0
12	PL3	PX	.003	.003	0	0
13	FACE3	PX	.001	.001	0	0
14	MP ALPHA1	PX	.004	.004	0	0
15	MP ALPHA3	PX	.004	.004	0	0
16	RAIL3	PX	.000921	.000921	0	0
17	RAIL CON3	PX	.003	.003	0	0
18	RAIL CON1	PX	.003	.003	0	0
19	RAIL CON2	PX	.003	.003	0	0
20	CR1	PX	.002	.002	0	0
21	CR2	PX	.002	.002	0	0
22	CR3	PX	.002	.002	0	0
23	CR4	PX	.002	.002	0	0
24	CR5	PX	.002	.002	0	0
25	CR6	PX	.002	.002	0	0
26	PL4	PX	.002	.002	0	0
27	PL5	PX	.002	.002	0	0
28	PL6	PX	.002	.002	0	0
29	PL7	PX	.002	.002	0	0
30	PL8	PX	.002	.002	0	0
31	PL9	PX	.002	.002	0	0
32	MP ALPHA2	PX	.004	.004	0	0
33	FACE1	PX	.002	.002	0	0
34	MP GAMMA1	PX	.004	.004	0	0
35	MP GAMMA3	PX	.004	.004	0	0
36	RAIL1	PX	.002	.002	0	0
37	FACE2	PX	.002	.002	0	0
38	MP BETA1	PX	.004	.004	0	0
39	MP BETA3	PX	.004	.004	0	0
40	RAIL2	PX	.002	.002	0	0
41	MP BETA2	PX	.004	.004	0	0
42	MP GAMMA2	PX	.004	.004	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.000652	-.000652	0	0
2	GRAT SUP	PY	-.000704	-.000704	0	0
3	GRAT SUP2	PY	-.000704	-.000704	0	0
4	PL1	PY	-.001	-.001	0	0
5	SO2	PY	-.000652	-.000652	0	0
6	GRAT SUP3	PY	-.000704	-.000704	0	0
7	GRAT SUP4	PY	-.000704	-.000704	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
8	PL2	PY	-.001	-.001	0	0
9	SO3	PY	-.000652	-.000652	0	0
10	GRAT SUP5	PY	-.000704	-.000704	0	0
11	GRAT SUP6	PY	-.000704	-.000704	0	0
12	PL3	PY	-.001	-.001	0	0
13	FACE3	PY	-.000565	-.000565	0	0
14	MP ALPHA1	PY	-.002	-.002	0	0
15	MP ALPHA3	PY	-.002	-.002	0	0
16	RAIL3	PY	-.000461	-.000461	0	0
17	RAIL CON3	PY	-.001	-.001	0	0
18	RAIL CON1	PY	-.001	-.001	0	0
19	RAIL CON2	PY	-.001	-.001	0	0
20	CR1	PY	-.000938	-.000938	0	0
21	CR2	PY	-.000938	-.000938	0	0
22	CR3	PY	-.000938	-.000938	0	0
23	CR4	PY	-.000938	-.000938	0	0
24	CR5	PY	-.000938	-.000938	0	0
25	CR6	PY	-.000938	-.000938	0	0
26	PL4	PY	-.000768	-.000768	0	0
27	PL5	PY	-.000768	-.000768	0	0
28	PL6	PY	-.000768	-.000768	0	0
29	PL7	PY	-.000768	-.000768	0	0
30	PL8	PY	-.000768	-.000768	0	0
31	PL9	PY	-.000768	-.000768	0	0
32	MP ALPHA2	PY	-.002	-.002	0	0
33	FACE1	PY	-.001	-.001	0	0
34	MP GAMMA1	PY	-.002	-.002	0	0
35	MP GAMMA3	PY	-.002	-.002	0	0
36	RAIL1	PY	-.000921	-.000921	0	0
37	FACE2	PY	-.001	-.001	0	0
38	MP BETA1	PY	-.002	-.002	0	0
39	MP BETA3	PY	-.002	-.002	0	0
40	RAIL2	PY	-.000921	-.000921	0	0
41	MP BETA2	PY	-.002	-.002	0	0
42	MP GAMMA2	PY	-.002	-.002	0	0
43	SO1	PX	.001	.001	0	0
44	GRAT SUP	PX	.001	.001	0	0
45	GRAT SUP2	PX	.001	.001	0	0
46	PL1	PX	.003	.003	0	0
47	SO2	PX	.001	.001	0	0
48	GRAT SUP3	PX	.001	.001	0	0
49	GRAT SUP4	PX	.001	.001	0	0
50	PL2	PX	.003	.003	0	0
51	SO3	PX	.001	.001	0	0
52	GRAT SUP5	PX	.001	.001	0	0
53	GRAT SUP6	PX	.001	.001	0	0
54	PL3	PX	.003	.003	0	0
55	FACE3	PX	.000978	.000978	0	0
56	MP ALPHA1	PX	.003	.003	0	0
57	MP ALPHA3	PX	.003	.003	0	0
58	RAIL3	PX	.000798	.000798	0	0
59	RAIL CON3	PX	.003	.003	0	0
60	RAIL CON1	PX	.003	.003	0	0
61	RAIL CON2	PX	.003	.003	0	0
62	CR1	PX	.002	.002	0	0
63	CR2	PX	.002	.002	0	0
64	CR3	PX	.002	.002	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
65	CR4	PX	.002	.002	0	0
66	CR5	PX	.002	.002	0	0
67	CR6	PX	.002	.002	0	0
68	PL4	PX	.001	.001	0	0
69	PL5	PX	.001	.001	0	0
70	PL6	PX	.001	.001	0	0
71	PL7	PX	.001	.001	0	0
72	PL8	PX	.001	.001	0	0
73	PL9	PX	.001	.001	0	0
74	MP ALPHA2	PX	.003	.003	0	0
75	FACE1	PX	.002	.002	0	0
76	MP GAMMA1	PX	.003	.003	0	0
77	MP GAMMA3	PX	.003	.003	0	0
78	RAIL1	PX	.002	.002	0	0
79	FACE2	PX	.002	.002	0	0
80	MP BETA1	PX	.003	.003	0	0
81	MP BETA3	PX	.003	.003	0	0
82	RAIL2	PX	.002	.002	0	0
83	MP BETA2	PX	.003	.003	0	0
84	MP GAMMA2	PX	.003	.003	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO1	PY	-.001	-.001	0	0
2	GRAT SUP	PY	-.001	-.001	0	0
3	GRAT SUP2	PY	-.001	-.001	0	0
4	PL1	PY	-.003	-.003	0	0
5	SO2	PY	-.001	-.001	0	0
6	GRAT SUP3	PY	-.001	-.001	0	0
7	GRAT SUP4	PY	-.001	-.001	0	0
8	PL2	PY	-.003	-.003	0	0
9	SO3	PY	-.001	-.001	0	0
10	GRAT SUP5	PY	-.001	-.001	0	0
11	GRAT SUP6	PY	-.001	-.001	0	0
12	PL3	PY	-.003	-.003	0	0
13	FACE1	PY	-.000978	-.000978	0	0
14	MP ALPHA1	PY	-.003	-.003	0	0
15	MP ALPHA3	PY	-.003	-.003	0	0
16	RAIL1	PY	-.000798	-.000798	0	0
17	RAIL CON3	PY	-.003	-.003	0	0
18	RAIL CON1	PY	-.003	-.003	0	0
19	RAIL CON2	PY	-.003	-.003	0	0
20	CR1	PY	-.002	-.002	0	0
21	CR2	PY	-.002	-.002	0	0
22	CR3	PY	-.002	-.002	0	0
23	CR4	PY	-.002	-.002	0	0
24	CR5	PY	-.002	-.002	0	0
25	CR6	PY	-.002	-.002	0	0
26	PL4	PY	-.001	-.001	0	0
27	PL5	PY	-.001	-.001	0	0
28	PL6	PY	-.001	-.001	0	0
29	PL7	PY	-.001	-.001	0	0
30	PL8	PY	-.001	-.001	0	0
31	PL9	PY	-.001	-.001	0	0
32	MP ALPHA2	PY	-.003	-.003	0	0
33	FACE3	PY	-.002	-.002	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
34	MP GAMMA1	PY	-.003	-.003	0	0
35	MP GAMMA3	PY	-.003	-.003	0	0
36	RAIL3	PY	-.002	-.002	0	0
37	FACE2	PY	-.002	-.002	0	0
38	MP BETA1	PY	-.003	-.003	0	0
39	MP BETA3	PY	-.003	-.003	0	0
40	RAIL2	PY	-.002	-.002	0	0
41	MP BETA2	PY	-.003	-.003	0	0
42	MP GAMMA2	PY	-.003	-.003	0	0
43	SO1	PX	.000652	.000652	0	0
44	GRAT SUP	PX	.000704	.000704	0	0
45	GRAT SUP2	PX	.000704	.000704	0	0
46	PL1	PX	.001	.001	0	0
47	SO2	PX	.000652	.000652	0	0
48	GRAT SUP3	PX	.000704	.000704	0	0
49	GRAT SUP4	PX	.000704	.000704	0	0
50	PL2	PX	.001	.001	0	0
51	SO3	PX	.000652	.000652	0	0
52	GRAT SUP5	PX	.000704	.000704	0	0
53	GRAT SUP6	PX	.000704	.000704	0	0
54	PL3	PX	.001	.001	0	0
55	FACE1	PX	.000565	.000565	0	0
56	MP ALPHA1	PX	.002	.002	0	0
57	MP ALPHA3	PX	.002	.002	0	0
58	RAIL1	PX	.000461	.000461	0	0
59	RAIL CON3	PX	.001	.001	0	0
60	RAIL CON1	PX	.001	.001	0	0
61	RAIL CON2	PX	.001	.001	0	0
62	CR1	PX	.000938	.000938	0	0
63	CR2	PX	.000938	.000938	0	0
64	CR3	PX	.000938	.000938	0	0
65	CR4	PX	.000938	.000938	0	0
66	CR5	PX	.000938	.000938	0	0
67	CR6	PX	.000938	.000938	0	0
68	PL4	PX	.000768	.000768	0	0
69	PL5	PX	.000768	.000768	0	0
70	PL6	PX	.000768	.000768	0	0
71	PL7	PX	.000768	.000768	0	0
72	PL8	PX	.000768	.000768	0	0
73	PL9	PX	.000768	.000768	0	0
74	MP ALPHA2	PX	.002	.002	0	0
75	FACE3	PX	.001	.001	0	0
76	MP GAMMA1	PX	.002	.002	0	0
77	MP GAMMA3	PX	.002	.002	0	0
78	RAIL3	PX	.000921	.000921	0	0
79	FACE2	PX	.001	.001	0	0
80	MP BETA1	PX	.002	.002	0	0
81	MP BETA3	PX	.002	.002	0	0
82	RAIL2	PX	.000921	.000921	0	0
83	MP BETA2	PX	.002	.002	0	0
84	MP GAMMA2	PX	.002	.002	0	0

Member Distributed Loads (BLC 43 : BLC 3 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO2	Z	-.018	-.018	0	1.966
2	GRAT SUP3	Z	-.009	-.009	.319	2.275

Member Distributed Loads (BLC 43 : BLC 3 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
3	GRAT SUP4	Z	-.009	-.009	.319	2.275
4	SO3	Z	-.018	-.018	0	1.966
5	GRAT SUP5	Z	-.009	-.009	.319	2.275
6	GRAT SUP6	Z	-.009	-.009	.319	2.275
7	SO1	Z	-.018	-.018	0	1.966
8	GRAT SUP	Z	-.009	-.009	.319	2.275
9	GRAT SUP2	Z	-.009	-.009	.319	2.275

Member Distributed Loads (BLC 44 : BLC 27 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SO2	Z	-.025	-.025	0	1.966
2	GRAT SUP3	Z	-.013	-.013	.319	2.275
3	GRAT SUP4	Z	-.013	-.013	.319	2.275
4	SO3	Z	-.025	-.025	0	1.966
5	GRAT SUP5	Z	-.013	-.013	.319	2.275
6	GRAT SUP6	Z	-.013	-.013	.319	2.275
7	SO1	Z	-.025	-.025	0	1.966
8	GRAT SUP	Z	-.013	-.013	.319	2.275
9	GRAT SUP2	Z	-.013	-.013	.319	2.275

Member Area Loads (BLC 3 : Dead Load)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	P22	P21	P20	P23	Z	Two Way	-.01
2	P31	P34	P33	P32	Z	Two Way	-.01
3	P9	P12	P11	P10	Z	Two Way	-.01

Member Area Loads (BLC 27 : Ice Dead Load)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	P22	P21	P20	P23	Z	Two Way	-.014
2	P31	P34	P33	P32	Z	Two Way	-.014
3	P9	P12	P11	P10	Z	Two Way	-.014

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	P24	max	.336	5	.593	5	1.127	33	-.499	17	-.917	14	.688	5
2		min	-.353	23	-.593	23	.583	14	-1.183	36	-2.005	33	-.716	23
3	P13	max	.353	17	.593	35	1.625	10	-.499	23	2.994	10	.716	17
4		min	-.336	35	-.593	17	.583	26	-2.469	7	.917	26	-.688	35
5	P1	max	.638	11	.111	2	1.039	21	2.152	20	.195	11	.642	29
6		min	-.638	29	-.11	20	.52	2	.881	2	-.195	29	-.642	11
7	Totals:	max	1.013	11	1.043	2	3.172	27						
8		min	-1.013	29	-1.043	20	2.384	5						

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Live Load	DL					1			
2	Wind Load (0)	DL					13	42		
3	Dead Load	DL			-1.1		13		3	
4	Wind Load (30)	DL					26	84		
5	Wind Load (60)	DL					26	84		
6	Wind Load (90)	DL					13	42		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
7	Wind Load (120)	DL					26	84		
8	Wind Load (150)	DL					26	84		
9	Wind Load (180)	DL					13	42		
10	Wind Load (210)	DL					26	84		
11	Wind Load (240)	DL					26	84		
12	Wind Load (270)	DL					13	42		
13	Wind Load (300)	DL					26	84		
14	Wind Load (330)	DL					26	84		
15	Maintanence (0)	DL					13	42		
16	Maintanence (30)	DL					26	84		
17	Maintanence (60)	DL					26	84		
18	Maintanence (90)	DL					13	42		
19	Maintanence (120)	DL					26	84		
20	Maintanence (150)	DL					26	84		
21	Maintanence (180)	DL					13	42		
22	Maintanence (210)	DL					26	84		
23	Maintanence (240)	DL					26	84		
24	Maintanence (270)	DL					13	42		
25	Maintanence (300)	DL					26	84		
26	Maintanence (330)	DL					26	84		
27	Ice Dead Load	DL					13	42	3	
28	Ice Wind Load (0)	DL					13	42		
29	Ice Wind Load (30)	DL					26	84		
30	Ice Wind Load (60)	DL					26	84		
31	Ice Wind Load (90)	DL					13	42		
32	Ice Wind Load (120)	DL					26	84		
33	Ice Wind Load (150)	DL					26	84		
34	Ice Wind Load (180)	DL					13	42		
35	Ice Wind Load (210)	DL					26	84		
36	Ice Wind Load (240)	DL					26	84		
37	Ice Wind Load (270)	DL					13	42		
38	Ice Wind Load (300)	DL					26	84		
39	Ice Wind Load (330)	DL					26	84		
40	Earthquake (x-directio...	DL	-.113				13			
41	Earthquake (y-directio...	DL		-.113			13			
42	Earthquake (z-directio...	DL			-.045		13			
43	BLC 3 Transient Area...	None						9		
44	BLC 27 Transient Are...	None						9		

Load Combinations

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y		3	1.4																				
2	1.2D + 1.0W(0)	Yes	Y		3	1.2	2	1																		
3	1.2D + 1.0Di + 1.0Wi(0)	Yes	Y		3	1.2	27	1	28	1																
4	1.2D + 1.5L + 1.0Wl(0)	Yes	Y		3	1.2	1	1.5	15	1																
5	1.2D + 1.0W(30)	Yes	Y		3	1.2	4	1																		
6	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	29	1																
7	1.2D + 1.5L + 1.0Wl(3...	Yes	Y		3	1.2	1	1.5	16	1																
8	1.2D + 1.0W(60)	Yes	Y		3	1.2	5	1																		
9	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	30	1																
10	1.2D + 1.5L + 1.0Wl(6...	Yes	Y		3	1.2	1	1.5	17	1																
11	1.2D + 1.0W(90)	Yes	Y		3	1.2	6	1																		
12	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	31	1																
13	1.2D + 1.5L + 1.0Wl(9...	Yes	Y		3	1.2	1	1.5	18	1																
14	1.2D + 1.0W(120)	Yes	Y		3	1.2	7	1																		

Load Combinations (Continued)

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
15	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	32	1														
16	1.2D + 1.5L + 1.0Wl(1...	Yes	Y		3	1.2	1	1.5	19	1														
17	1.2D + 1.0W(150)	Yes	Y		3	1.2	8	1																
18	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	33	1														
19	1.2D + 1.5L + 1.0Wl(1...	Yes	Y		3	1.2	1	1.5	20	1														
20	1.2D + 1.0W(180)	Yes	Y		3	1.2	9	1																
21	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	34	1														
22	1.2D + 1.5L + 1.0Wl(1...	Yes	Y		3	1.2	1	1.5	21	1														
23	1.2D + 1.0W(210)	Yes	Y		3	1.2	10	1																
24	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	35	1														
25	1.2D + 1.5L + 1.0Wl(2...	Yes	Y		3	1.2	1	1.5	22	1														
26	1.2D + 1.0W(240)	Yes	Y		3	1.2	11	1																
27	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	36	1														
28	1.2D + 1.5L + 1.0Wl(2...	Yes	Y		3	1.2	1	1.5	23	1														
29	1.2D + 1.0W(270)	Yes	Y		3	1.2	12	1																
30	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	37	1														
31	1.2D + 1.5L + 1.0Wl(2...	Yes	Y		3	1.2	1	1.5	24	1														
32	1.2D + 1.0W(300)	Yes	Y		3	1.2	13	1																
33	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	38	1														
34	1.2D + 1.5L + 1.0Wl(3...	Yes	Y		3	1.2	1	1.5	25	1														
35	1.2D + 1.0W(330)	Yes	Y		3	1.2	14	1																
36	1.2D + 1.0Di + 1.0Wi(...	Yes	Y		3	1.2	27	1	39	1														
37	1.2D + 1.5L + 1.0Wl(3...	Yes	Y		3	1.2	1	1.5	26	1														
38	1.2D + 1.0E(x) + 1.0E...	Yes	Y		3	1.2	40	1	42	1	1	1												
39	1.2D + 1.0E(y) + 1.0E...	Yes	Y		3	1.2	41	1	42	1	1	1												
40	1.2D - 1.0E(x) + 1.0E(...	Yes	Y		3	1.2	40	-1	42	1	1	1												
41	1.2D - 1.0E(y) + 1.0E(...	Yes	Y		3	1.2	41	-1	42	1	1	1												

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	...	LC	phi*P...	phi*P...	phi*M...	phi*M.....	Eqn
1	SO2	HSS4X...	.244	3.333	16	.090	3.333	y	4	133.1...	139.5...	16.181	16.181	H1-1b
2	CR3	C3.38x2...	.216	0	37	.039	2.349	y	7	47.76	56.7	2.203	5.752	H1-1b
3	GRAT SUP4	L2x2x4	.198	2.275	7	.013	2.275	y	9	23.539	30.586	.691	1.577	H2-1
4	CR4	C3.38x2...	.190	0	10	.029	0	y	10	47.76	56.7	2.203	5.752	H1-1b
5	CR6	C3.38x2...	.178	0	34	.025	0	y	34	47.76	56.7	2.203	5.752	H1-1b
6	CR5	C3.38x2...	.167	0	33	.024	2.349	y	32	47.76	56.7	2.203	5.752	H1-1b
7	CR2	C3.38x2...	.159	0	21	.024	2.349	y	23	47.76	56.7	2.203	5.752	H1-1b
8	CR1	C3.38x2...	.159	0	21	.024	2.349	y	17	47.76	56.7	2.203	5.752	H1-1b
9	SO3	HSS4X...	.154	3.333	26	.042	3.333	y	4	133.1...	139.5...	16.181	16.181	H1-1b
10	PL2	PL 6.5x...	.141	1.595	7	.293	.332	y	7	4.402	78.975	.617	8.849	H1-1b
11	SO1	HSS4X...	.141	3.333	26	.035	3.333	y	26	133.1...	139.5...	16.181	16.181	H1-1b
12	GRAT SUP3	L2x2x4	.103	2.275	10	.018	2.275	z	7	23.539	30.586	.691	1.577	H2-1
13	PL3	PL 6.5x...	.088	1.595	32	.108	.332	y	29	4.402	78.975	.617	8.179	H1-1b
14	RAIL CON3	L6.6x4....	.077	0	20	.010	0	y	7	50.616	87.561	2.465	7.125	H2-1
15	RAIL CON2	L6.6x4....	.077	3.5	20	.008	0	y	5	50.616	87.561	2.465	7.125	H2-1
16	GRAT SUP6	L2x2x4	.076	2.275	33	.012	2.275	y	36	23.539	30.586	.691	1.577	H2-1
17	PL1	PL 6.5x...	.075	1.595	23	.094	2.858	y	23	4.402	78.975	.617	8.246	H1-1b
18	GRAT SUP5	L2x2x4	.074	2.275	36	.013	2.275	z	33	23.539	30.586	.691	1.577	H2-1
19	RAIL CON1	L6.6x4....	.070	3.5	8	.008	0	y	29	50.616	87.561	2.465	7.125	H2-1
20	GRAT SUP	L2x2x4	.067	2.275	23	.012	2.275	z	21	23.539	30.586	.691	1.577	H2-1
21	GRAT SUP2	L2x2x4	.067	2.275	17	.012	2.275	y	21	23.539	30.586	.691	1.577	H2-1
22	MP ALPHA2	PIPE_2.5	.067	2.167	26	.022	2.167		26	33.487	66.654	4.727	4.727	H1-1b
23	MP BETA2	PIPE_2.5	.064	2.167	2	.023	2.167		2	33.487	66.654	4.727	4.727	H1-1b
24	MP GAMMA2	PIPE_2.5	.064	2.167	2	.023	2.167		2	33.487	66.654	4.727	4.727	H1-1b
25	RAIL1	PIPE_2.5	.064	5	2	.057	1.354		19	22.748	66.654	4.727	4.727	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	...	LC	phi*P...	phi*P...	phi*M...	phi*M.....	Eqn
26	MP ALPHA3	PIPE_2.5	.057	2.167	5	.022	5.75		2	33.487	66.654	4.727	4.727	... H1-1b
27	MP ALPHA1	PIPE_2.5	.057	2.167	35	.022	5.75		2	33.487	66.654	4.727	4.727	... H1-1b
28	MP GAMMA3	PIPE_2.5	.053	5.75	5	.018	2.167		5	33.487	66.654	4.727	4.727	... H1-1b
29	MP BETA1	PIPE_2.5	.053	5.75	35	.018	2.167		35	33.487	66.654	4.727	4.727	... H1-1b
30	RAIL3	PIPE_2.5	.053	5	26	.056	8.646		5	22.748	66.654	4.727	4.727	... H1-1b
31	RAIL2	PIPE_2.5	.053	5	14	.069	1.458		19	22.748	66.654	4.727	4.727	... H1-1b
32	FACE1	PIPE_3.0	.048	4	27	.029	.25		37	54.629	85.698	7.555	7.555	... H1-1b
33	MP BETA3	PIPE_2.5	.048	5.75	29	.017	2.167		14	33.487	66.654	4.727	4.727	... H1-1b
34	MP GAMMA1	PIPE_2.5	.048	5.75	11	.017	2.167		26	33.487	66.654	4.727	4.727	... H1-1b
35	FACE2	PIPE_3.0	.045	4	35	.028	5.333		8	54.629	85.698	7.555	7.555	... H1-1b
36	PL4	5x1/2	.043	.125	5	.082	0	y	36	80.541	81	.844	8.438	... H1-1b
37	PL7	5x1/2	.043	.125	35	.102	0	y	7	80.541	81	.844	8.438	... H1-1b
38	FACE3	PIPE_3.0	.042	3.917	5	.028	2.667		32	54.629	85.698	7.555	7.555	... H1-1b
39	PL8	5x1/2	.040	.125	5	.078	0	y	30	80.541	81	.844	8.438	... H1-1b
40	PL6	5x1/2	.040	.125	35	.089	0	y	13	80.541	81	.844	8.438	... H1-1b
41	PL9	5x1/2	.039	.125	11	.076	0	y	18	80.541	81	.844	8.438	... H1-1b
42	PL5	5x1/2	.039	.125	29	.076	0	y	24	80.541	81	.844	8.438	... H1-1b
43	M70A	5x1/2	.032	.124	4	.120	0	y	7	80.545	81	.844	8.438	... H1-1b
44	M68B	5x1/2	.021	.124	2	.040	0	y	35	80.545	81	.844	8.438	... H1-1b
45	M78	5x1/2	.017	.124	26	.044	0	y	29	80.545	81	.844	8.438	... H1-1b
46	M72A	5x1/2	.017	.124	14	.045	0	y	13	80.545	81	.844	8.438	... H1-1b
47	M76	5x1/2	.016	.124	29	.038	0	y	23	80.545	81	.844	8.438	... H1-1b
48	M74A	5x1/2	.016	.124	11	.038	0	y	17	80.545	81	.844	8.438	... H1-1b

APPENDIX D

Additional Calculations

POD
POWER OF DESIGN

POD Job #	**21-114359**
Site Number	**876405**
Site Name	**Woodbury**

Calculations Based on *TIA-222-H*

Reactions from RISA-3D

Moment	3.826	ft-kip
Axial	0.121	kips
Shear	1.625	kips

Capacities

Bolts	*2.7%*
Flange Plate	*25.1%*

Bolt Information

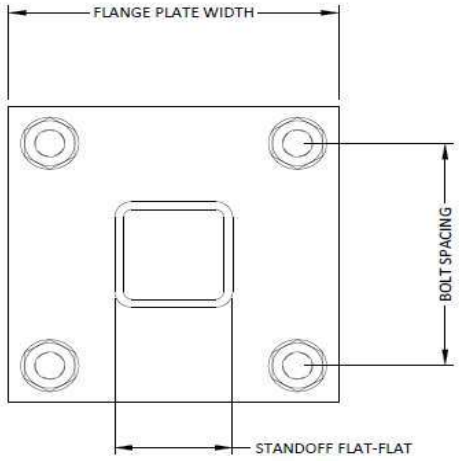
Grade	A325	
Threads in Shear Plane	Included	
Diameter	0.625	in.
Bolt Spacing	7	in.
Number of Rods	4	

Flange Plate Inforation

Width	9	in.
Thickness	0.625	in.
Grade	A572-50	

Standoff Information

Standoff Member	HSS	
Flat-Flat	4	in.
Thickness	0.233	in.



Bolt Calculations

ϕ	0.75	
A_{nt}	0.226	in^2
A_b	0.307	in^2
Fu	120	ksi
ϕR_{nV}	13.81	kips
ϕR_{nt}	20.34	kips
V	0.41	kips
F	3.30	kips
Capacity	2.7%	

Flange Plate Calculations

ϕ	0.9	
Fy	50	ksi
t_{min}	0.20	in
Z	0.9	in^3
ϕM_n	39.6	in-kip
M_u	9.9	in-kip
Capacity	25.1%	

APPENDIX E

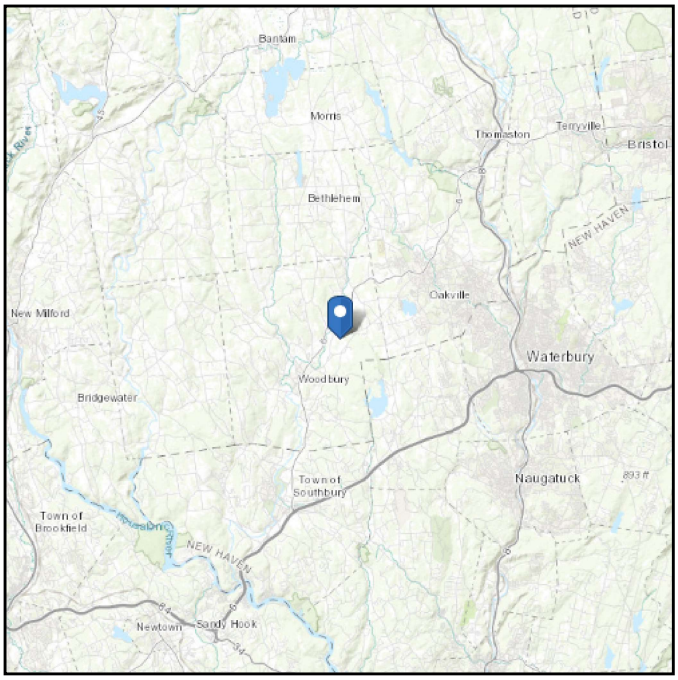
Design Criteria

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 460.09 ft (NAVD 88)
Latitude: 41.567997
Longitude: -73.179681



Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	76 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Accessed: Mon Nov 08 2021

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

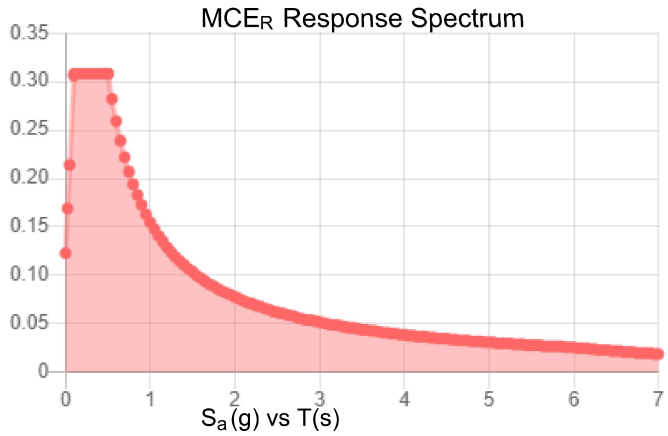
Seismic

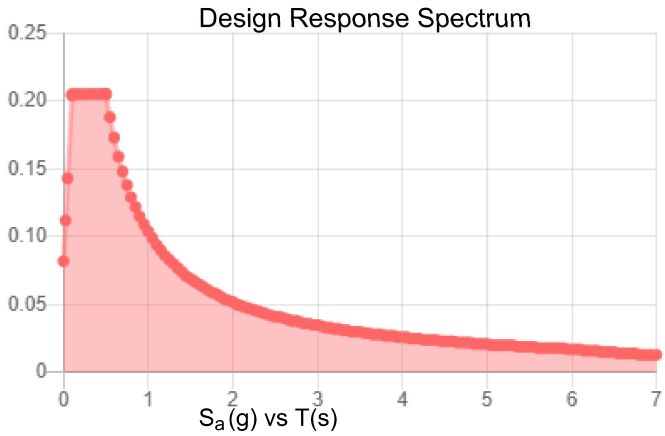
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.192	S_{DS} :	0.205
S_1 :	0.065	S_{D1} :	0.104
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.1
S_{MS} :	0.308	PGA_M :	0.16
S_{M1} :	0.155	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Mon Nov 08 2021

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Mon Nov 08 2021

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

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

APPENDIX F

Mount Specification Sheets

NOTES:

1.0 GENERAL
- 1.1 ALL METRIC DIMENSIONS ARE IN BRACKETS
- 1.2 FOR PATENTS, SEE WWW.CS-PAT.COM

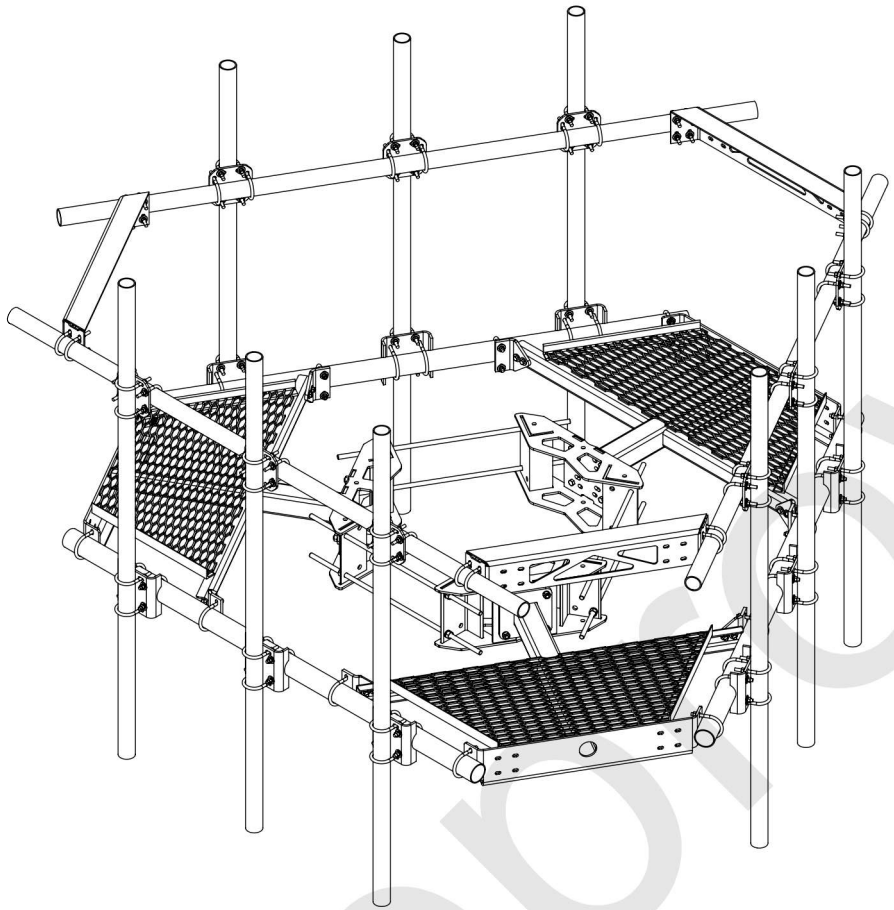
2.0 DESIGN NOTES
- 2.1 TORQUE U-BOLTS TO 44 FT-LBS

3.0 MANUFACTURING/SPECIAL REQUIREMENTS

4.0 TEST

5.0 PACKAGING

REVISIONS				
REV.	ECN	DESCRIPTION	BY	DATE
A	10272PC	INITIAL RELEASE	HDAI	03/08/2021



PATENT PENDING

COMMSCOPE, INC. OF NORTH CAROLINA

TOLERANCES			
1 PLACE .X ±	.25	3 PLACE .XXX ±	0.06
2 PLACE .XX ±	0.12	ANGLES ±	2°

SAP MATERIAL MASTER: MC-PK8-DSH

FINISH: GALV A123

MATERIAL: A500, A1011/A1018

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES INTERPRET PER ANSI Y 14.5M-1994

	NAME	DATE
CE	MRC	02/17/20
RW	ROGHANSON	03/16/2021
AD	BCROSS	03/17/2021
RE	FA1024	02/27/2020
ECN	10272PC	

TITLE: **LOW PROFILE PLATFORM FACE**

SCALE: 1:32

DOCUMENT NO.: MC-PK8-DSH

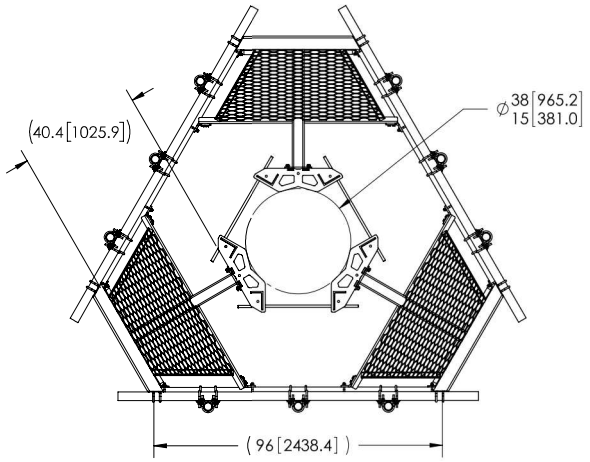
DENSITY	lbs/in³
MASS	lbs
VOLUME	in³
SURFACE AREA	in²
HEIGHT	96"
LENGTH	46"
WIDTH	29'

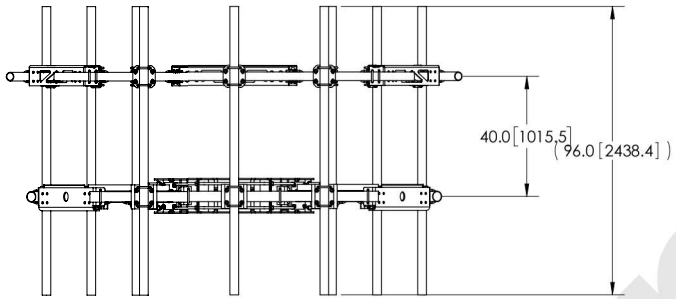
SIZE: C

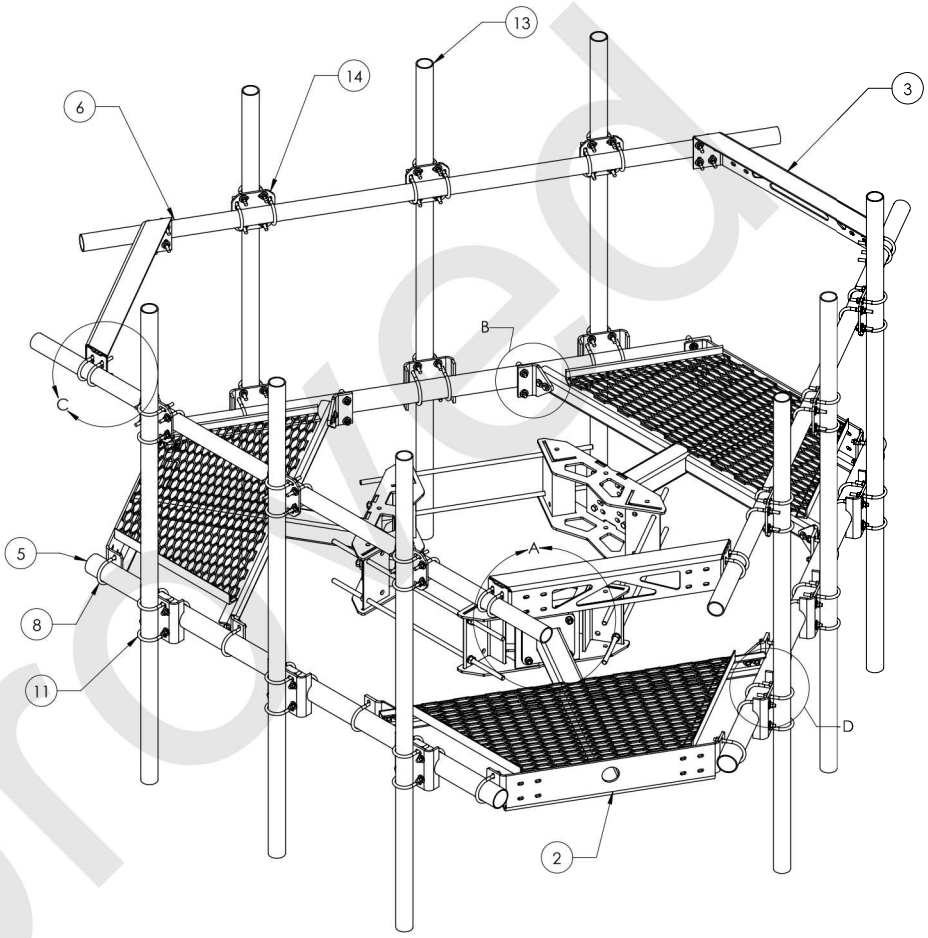
Auth Group: INSL

MODEL			DRAWING			SHEET
VERSION	STATUS	REVISION	VERSION	STATUS	REVISION	
01	AD		00	AD	A	1 OF 3

NOTES:







ITEM	PART NO.	DESCRIPTION	QTY.
1	MC-RM1550-3	12" - 50" OD RINGMOUNT	1
2	MTC300602	SECTOR WELDMENT FOR SNUB NOSE PLATFORM	3
3	MT195801	Corner Weldment Snub Nose Handrail	3
4	GB-0520A	5/8" X 2" GALV BOLT KIT (A325)	12
5	MT54796	3.50" OD X 96" GALV PIPE	3
6	MT546120	2.875" O.D. X 120" PIPE	3
7	GWF-04	1/2" GALV FLAT WASHER	12
8	GUB-4355	1/2" X 3-5/8" X 5" GALV U-BOLT	12
9	MTC300618	MOUNTING PLATE FOR MT-196	6
10	GB-04205	1/2" X 2" GALV BOLT KIT	12
11	MT-219M-H	3.5" OD X 2-7/8" OD Clamp Bracket Assembly	9
12	GUB-4352	1/2" X 3" X 5-1/4" GALV U-BOLT	12
13	MT54696	Ø2.875" O.D. X 96 PIPE	9
14	XP-2525	CROSSOVER PLATE KIT, 2-7/8 OD X 2-7/8 OD	9

COMMSCOPE, INC. OF NORTH CAROLINA

TITLE

LOW PROFILE PLATFORM FACE

SIZE	SCALE	DOCUMENT NO.
C	1:32	MC-PK8-DSH

DRAWING			SHEET
VERSION	STATUS	REVISION	
00	AD	A	

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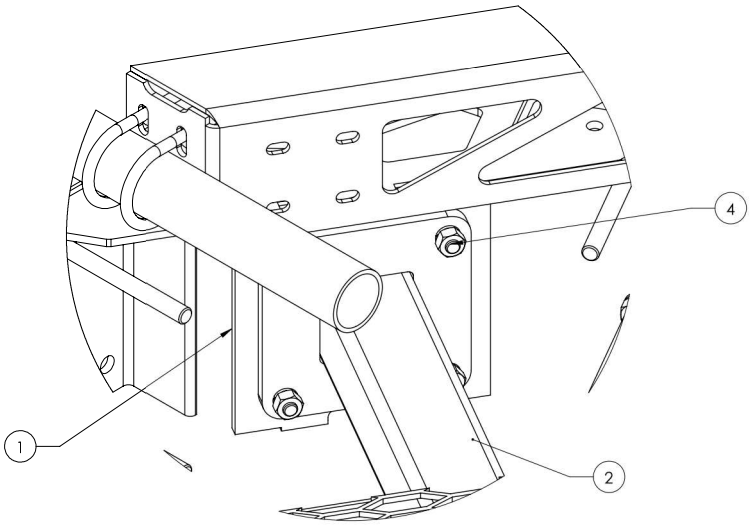
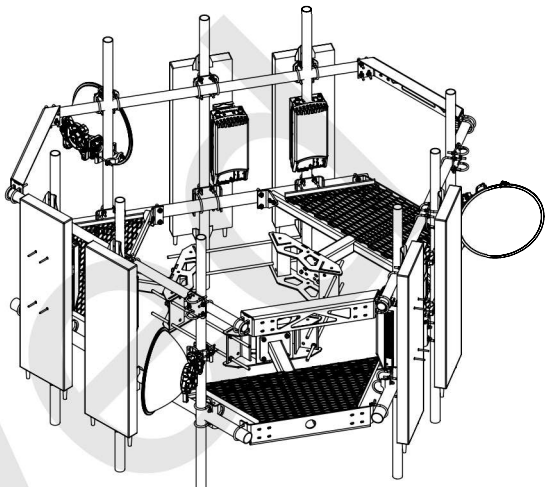
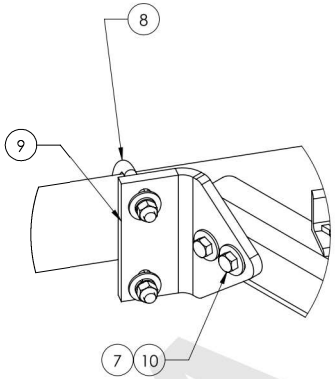


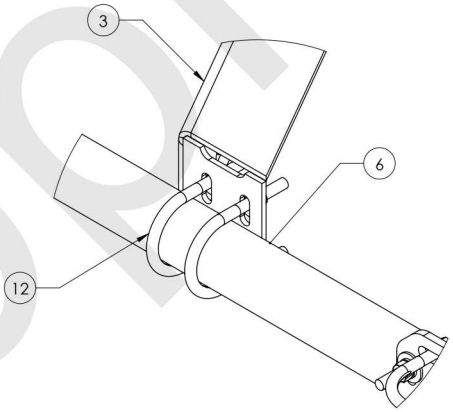
DETAIL A
SCALE 1 : 4



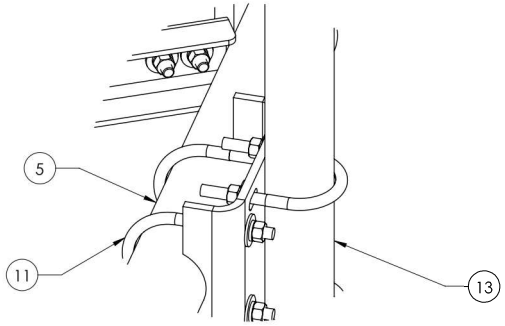
WITH ANTENNAS



DETAIL B
SCALE 1 : 4



DETAIL C
SCALE 1 : 4



DETAIL D
SCALE 1 : 4

COMMSCOPE, INC. OF NORTH CAROLINA			
TITLE: LOW PROFILE PLATFORM FACE			
SIZE: C	SCALE: 1:24	DOCUMENT NO.: MC-PK8-DSH	
		DRAWING: VERSION 00 / STATUS AD / REVISION A	SHEET: 3 OF 3

Exhibit F

Power Density/RF Emissions Report

EBI Consulting

environmental | engineering | due diligence

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

Dish Wireless Existing Facility

Site ID: BOHVN00172A

876405
186 Minortown
Woodbury, Connecticut 06798

November 19, 2021

EBI Project Number: 6221007205

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**38.38%**

21 B Street, Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

November 19, 2021

Dish Wireless

Emissions Analysis for Site: BOHVN00172A - 876405

EBI Consulting was directed to analyze the proposed Dish Wireless facility located at **186 Minortown** in **Woodbury, Connecticut** for the purpose of determining whether the emissions from the Proposed Dish Wireless Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed Dish Wireless Wireless antenna facility located at 186 Minortown in Woodbury, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since Dish Wireless is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

1) 4 n71 channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 4 n70 channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

3) 4 n66 channels (AWS Band - 2190 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

5) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative

estimate as gain reductions for these particular antennas are typically much higher in this direction.

6) The antennas used in this modeling are the JMA MX08FRO665-20 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector A, the JMA MX08FRO665-20 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector B, the JMA MX08FRO665-20 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

7) The antenna mounting height centerline of the proposed antennas is 68 feet above ground level (AGL).

8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

Dish Wireless Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	JMA MX08FRO665-20	Make / Model:	JMA MX08FRO665-20	Make / Model:	JMA MX08FRO665-20
Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz
Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd
Height (AGL):	68 feet	Height (AGL):	68 feet	Height (AGL):	68 feet
Channel Count:	12	Channel Count:	12	Channel Count:	12
Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts
ERP (W):	5,236.31	ERP (W):	5,236.31	ERP (W):	5,236.31
Antenna A1 MPE %:	**6.15%**	Antenna B1 MPE %:	**6.15%**	Antenna C1 MPE %:	**6.15%**

Site Composite MPE %	
Carrier	**MPE %**
Dish Wireless (Max at Sector A):	6.15%
T-Mobile	13.99%
Verizon	3.35%
AT&T	14.89%
Site Total MPE % :	38.38%

Dish Wireless MPE % Per Sector	
Dish Wireless Sector A Total:	6.15%
Dish Wireless Sector B Total:	6.15%
Dish Wireless Sector C Total:	6.15%
Site Total MPE % :	38.38%

Dish Wireless Maximum MPE Power Values (Sector A)

Dish Wireless Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
Dish Wireless 600 MHz n71	4	223.68	68.0	8.37	600 MHz n71	400	2.09%
Dish Wireless 1900 MHz n70	4	542.70	68.0	20.30	1900 MHz n70	1000	2.03%
Dish Wireless 2190 MHz n66	4	542.70	68.0	20.30	2190 MHz n66	1000	2.03%
						Total:	**6.15%**

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

Summary

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

The anticipated maximum composite contributions from the Dish Wireless facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Dish Wireless Sector	Power Density Value (%)
Sector A:	6.15%
Sector B:	6.15%
Sector C:	6.15%
Dish Wireless Maximum MPE % (Sector A):	6.15%
Site Total:	38.38%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **38.38%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Exhibit G

Letter of Authorization

4545 E River Rd, Suite 320
West Henrietta, NY 14586

Phone: (585) 445-5896
Fax: (724) 416-4461
www.crowncastle.com

Crown Castle Letter of Authorization

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

Re: Tower Share Application
Crown Castle telecommunications site at:
186 MINORTOWN, WOODBURY, CT 06798

GLOBAL SIGNAL ACQUISITIONS II LLC ("Crown Castle") hereby authorizes DISH Wireless LLC, including their Agent, to act as our Agent in the processing of all zoning applications, building permits and approvals through the CT - CONNECTICUT SITING COUNCIL for the existing wireless communications site described below:

Crown Site ID/Name: **876405/WOODBURY NORTH**
Customer Site ID: **BOHVN00172A/CT-CCI-T-876405**
Site Address: **186 MinorTown, WOODBURY, CT 06798**

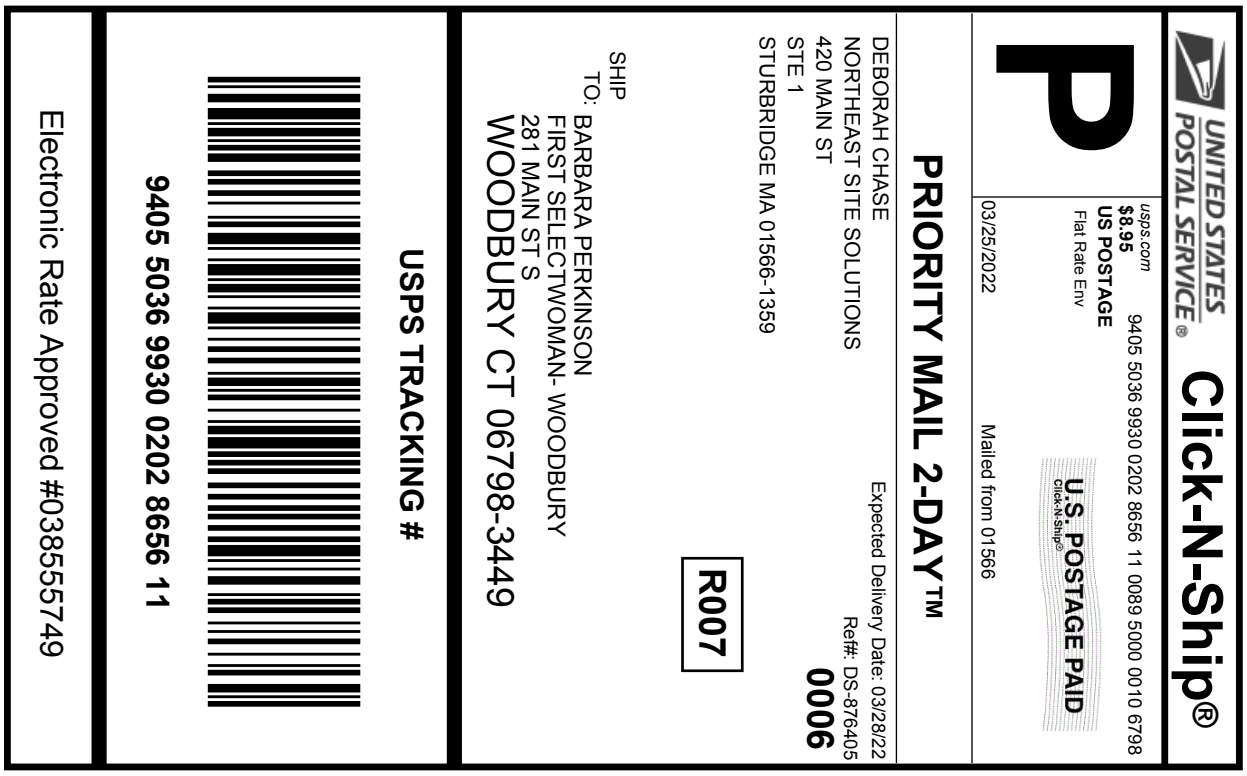
Crown Castle

By: _____ Date: 3/21/2022

Richard Zajac
Site Acquisition Specialist

Exhibit H

Recipient Mailings



Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0202 8656 11

Trans. #:	559658690
Print Date:	03/25/2022
Ship Date:	03/25/2022
Expected Delivery Date:	03/28/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

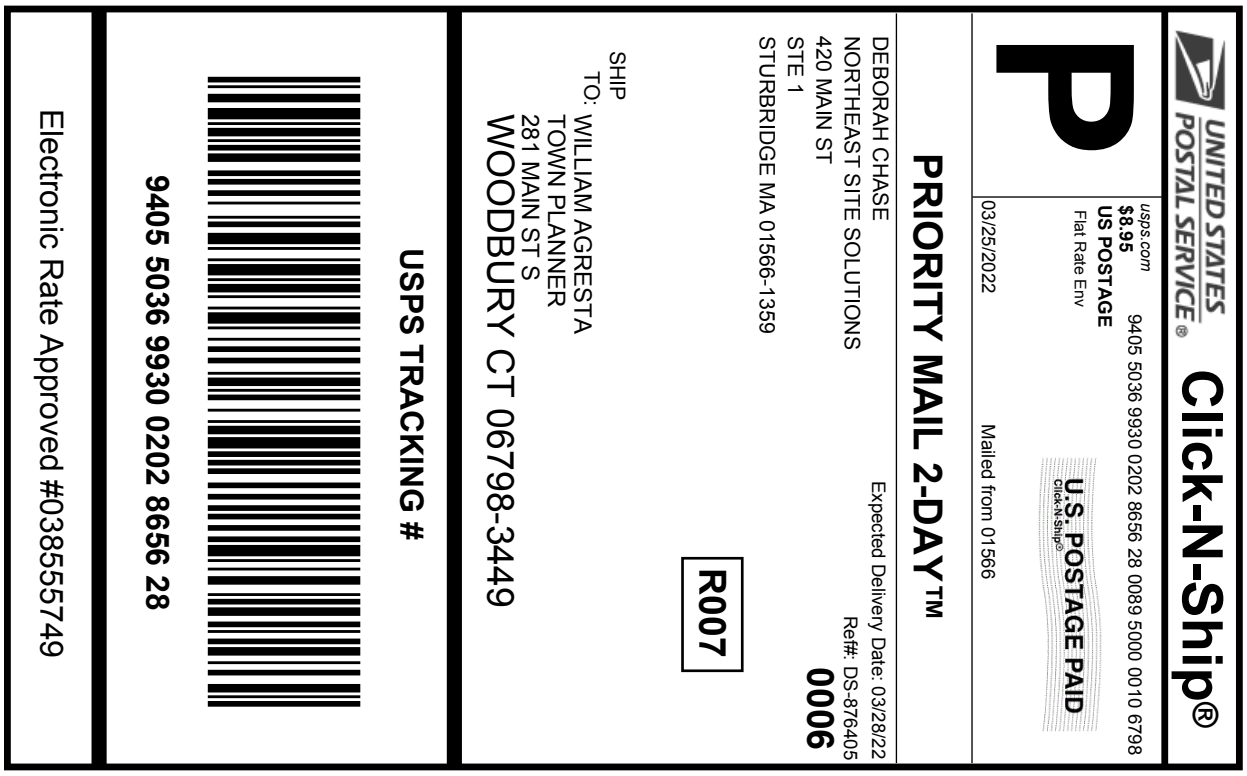
From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: DS-876405

To: BARBARA PERKINSON
FIRST SELECTWOMAN- WOODBURY
281 MAIN ST S
WOODBURY CT 06798-3449

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



Cut on dotted line.

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USPS TRACKING # :
9405 5036 9930 0202 8656 28

Trans. #:	559658690
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From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: DS-876405

To: WILLIAM AGRESTA
TOWN PLANNER
281 MAIN ST S
WOODBURY CT 06798-3449

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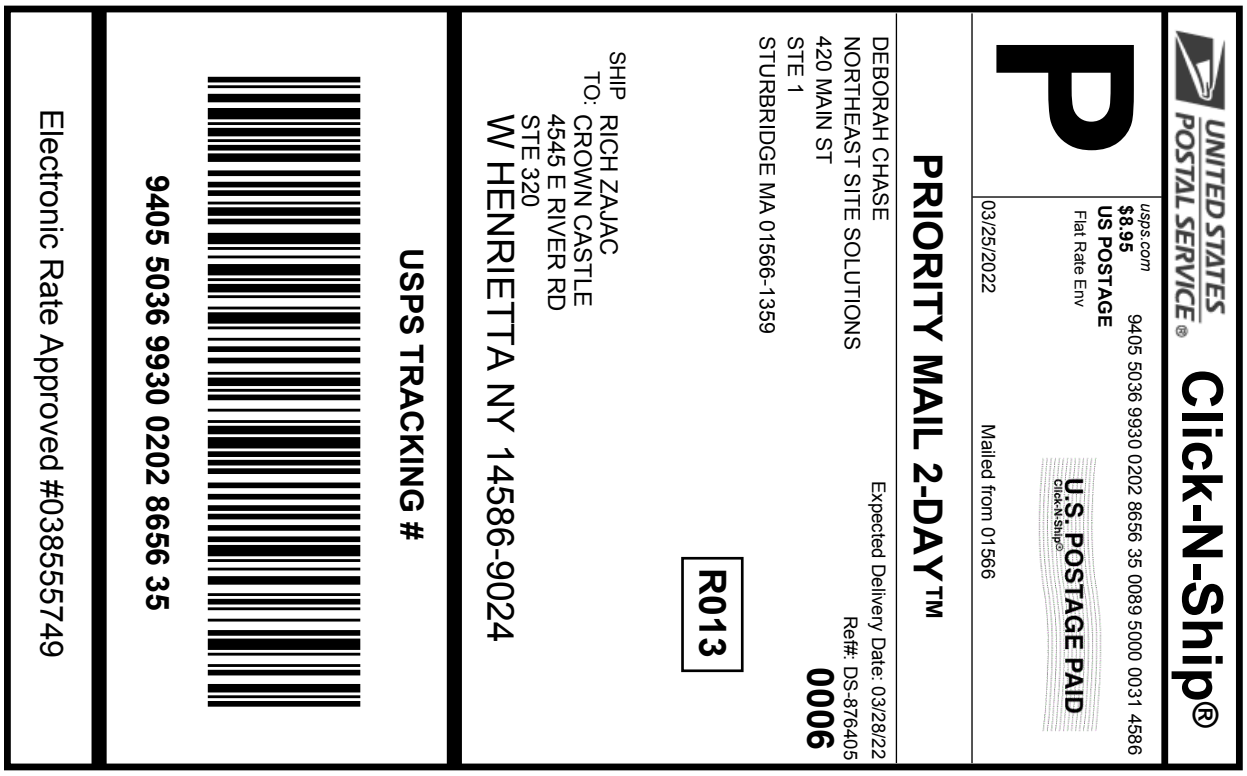

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9405 5036 9930 0202 8656 35

Trans. #:	559658690
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From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: DS-876405

To: RICH ZAJAC
CROWN CASTLE
4545 E RIVER RD
STE 320
W HENRIETTA NY 14586-9024

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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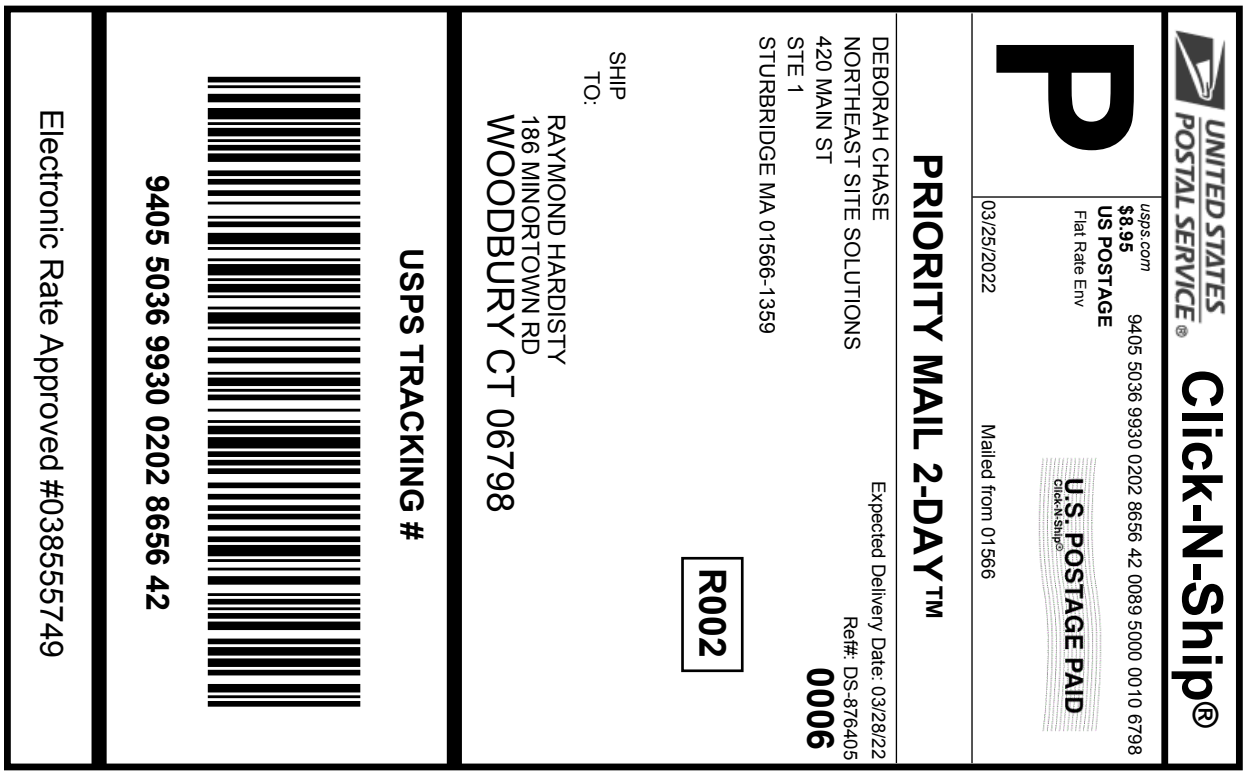

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USPS TRACKING # :
9405 5036 9930 0202 8656 42

Trans. #:	559658690
Print Date:	03/25/2022
Ship Date:	03/25/2022
Expected Delivery Date:	03/28/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: DS-876405

To: RAYMOND HARDISTY
186 MINORTOWN RD
WOODBURY CT 06798

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com

876405 Crown 0258

UNITED STATES POSTAL SERVICE.

FARMINGTON
210 MAIN ST
FARMINGTON, CT 06032-9998
(800)275-8777

03/25/2022 01:57 PM

Product	Qty	Unit Price	Price
Prepaid Mail West Henrietta, NY 14586 Weight: 0 lb 2.00 oz Acceptance Date: Fri 03/25/2022 Tracking #: 9405 5036 9930 0202 8656 35	1		$0.00
Prepaid Mail Woodbury, CT 06798 Weight: 0 lb 8.70 oz Acceptance Date: Fri 03/25/2022 Tracking #: 9405 5036 9930 0202 8656 42	1		$0.00
Prepaid Mail Woodbury, CT 06798 Weight: 0 lb 8.60 oz Acceptance Date: Fri 03/25/2022 Tracking #: 9405 5036 9930 0202 8656 11	1		$0.00
Prepaid Mail Woodbury, CT 06798 Weight: 0 lb 8.60 oz Acceptance Date: Fri 03/25/2022 Tracking #: 9405 5036 9930 0202 8656 28	1		$0.00
Grand Total:			$0.00